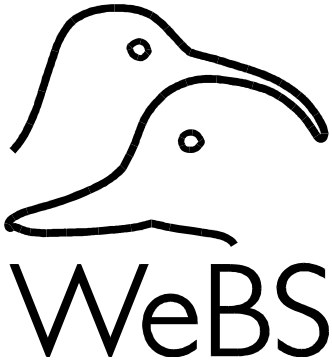
Waterbirds in the UK 2009/10
The Wetland Bird Survey

Chas Holt, Graham Austin, Neil Calbrade, Heidi Mellan, Carl Mitchell, David Stroud, Simon Wotton & Andy Musgrove



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Cover: Goosanders on ice at the Nunnery Lakes - by Richard Thewlis.
Birds have been a life-long interest for Richard, who has worked for the past eleven years at the BTO. He is an accomplished wildlife artist whose work has been published in a wide range of books, journals and on-line. His work is derived from direct field observations of live subjects, both in the UK and abroad. To see more of Richard's work, visit his website: www.richardthewlis.co.uk

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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. Further feedback is provided to counters through the annual WeBS Newsletter. For further information please contact the WeBS Office at the BTO.

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.

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

The WETLAND BIRD SURVEY

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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 web sites of the four WeBS partner organisations.

ERRATA TO PREVIOUS REPORTS

Please note the following corrections to data previously presented:

Dunlin: The peak counts of Dunlin at Mersey Estuary and Dee Estuary in 2006/07 were wrongly listed in the annual reports for 2006/07, 2007/08 and 2008/09. The figures for those sites should have read 34,600 and 15,584, respectively (as now shown).

Appendix 1: recent reports have incorrectly listed *brittanica* as the subspecies/ population of Redshank used for threshold-based site selection. This should have read *robusta*.

CONTENTS

* Details of WeBS Core Count survey methods, analysis, presentation of data, and interpretation of waterbird counts, are now available via the WeBS website at 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), to monitor non-breeding waterbirds in the UK.

The principal aims of the scheme are to identify population sizes, determine trends in numbers and distribution, and identify important sites for waterbirds.

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 grey geese, are included in this report 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.

2009/10 WeBS COVERAGE

This report summarises counts during 2009/10 and previous years (since 1960 for wildfowl, 1969 for waders and the early 1980s or 1990s for other species). During 2009/10, WeBS counters covered 4,214 count sectors at 2,296 count sites. A total of 4,166 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, once again, represents a fantastic effort by everyone involved, and a huge thank-you goes to all.

2009/10 WeBS HEADLINES

Effects of a cold winter
Cold weather in late December and through parts of January and February affected waterbirds to varying degrees. Dabbling ducks responded most profoundly, with influxes of Wigeon, Teal and Mallard, but an exodus of Shoveler. There were also notably fewer Golden Plover and Lapwing compared to recent winters, both probably due to redistribution in the cold conditions.

Other species in the headlines
Pintail and Turnstone both dropped sharply in Britain, with notably fewer of both species present throughout the year. The rapid rise in Little Egrets at WeBS sites appears to have ended (but an increase in the wider countryside probably continues).

New WeBS trends published
Annual WeBS indices and associated trends for Moorhen and six gull species are included in *Waterbirds in the UK* for the first time. The gull trends should be used in conjunction with results from the decadal WinGS (Wintering Gulls Survey).

National 1% thresholds revised
Following a revision of estimates of British overwinter waterbird populations, new 1% thresholds are used for listing sites of national importance in this report.

Long-term trends
Responses to cold weather are best evaluated within the context of longer-term species' trends and events at the flyway level. In 2009/10, the following reached all-time maxima or minima in terms of WeBS index values. **Great Britain *'Highs':*** Pink-footed Goose, Svalbard Barnacle Goose, Naturalised Barnacle Goose, Canadian Light-bellied Brent Goose, Svalbard Light-bellied Brent Goose, Egyptian Goose, Gadwall, Tufted Duck, Black-tailed Godwit. ***'Lows':*** Moorhen, Turnstone, Common Gull. **Northern Ireland *'Highs':*** Whooper Swan, Grey Heron. ***'Lows':*** Wigeon, Goldeneye, Golden Plover, Lapwing, Dunlin, Black-headed Gull.

2009/10 WATERBIRD SUMMARY

Swans & Geese: Numbers of **Bewick's Swan** were higher than the last three years, while **Whooper Swan** continued its upward trend. The number of **Pink-footed Geese** increased to yet another high in 2009/10, to an estimated 361,000 birds. All-time peaks in terms of national index values were also attained by both the **Svalbard** and **Canadian** populations of **Light-bellied Brent Goose**, **Svalbard Barnacle Goose**, and, perhaps more predictably, **Egyptian Goose** and **naturalised Barnacle Goose**. In contrast, despite the cold winter, **European White-fronted Geese** numbers were typically low, and for the first time peak numbers on the British coast exceeded those in the west in the Slimbridge area. More encouragingly, the drop in numbers of **Greenland White-fronted Geese** appears to have bottomed out. **Canada** and **Greylag Goose** (of both **Icelandic** and **British/Irish** populations) were present in typically high numbers. The latter is a combination of the 're-established' and 'Northwest Scotland' populations of Greylag Geese previously listed in *Waterbirds in the UK*.

Ducks: Dabbling ducks showed the most profound response to the cold weather in mid winter. Influxes of **Wigeon**, **Teal** and **Mallard** contrasted with an exodus of **Shoveler** and a marked drop in **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 recent milder winters. **Gadwall** and **Tufted Duck** both reached all-time highs in Britain in 2009/10 and **Smew** numbers were somewhat higher than recent years. **Eider** continue to decline slowly, but 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. **Little Grebes** in Britain continue to show evidence of a gradual increase, while **Great Crested Grebe** remained relatively stable. Although **Little Egret** continued to expand both north and westward, the overall trend at WeBS sites is now stable. Also stable in Britain is **Coot**, but a recent marked decline in Northern Ireland may be attributable to "short stopping". **Moorhen**, for which a WeBS trend is published for the first time, shows signs of a slight decline in Britain.

Waders: **Golden Plover** and **Lapwing**, which typically fluctuate more than for other wader species, both exhibited sharp drops in 2009/10 presumably in response to freezing conditions in mid winter. The long-term declines of **Ringed Plover** and **Dunlin** may have stabilised, but **Curlew** and **Redshank** continue to fall and **Turnstone** dropped sharply to an all-time low. There were further improved fortunes for **Grey Plover** and **Sanderling**. **Bar-tailed Godwits** continue to struggle to recover from an apparent slump six years ago, whereas numbers of wintering **Black-tailed Godwits** rose again and reached an all-time high. **Avocets** fared well again, and **Oystercatcher**, **Knot** and **Purple Sandpiper** were all reasonably consistent in terms of their respective recent trends of relative stability.

Gulls & Terns: Numbers of gull and terns recorded by WeBS reflect coverage as much as abundance of birds *per se*. This year, WeBS trends for six gull species are published in this report for the first time. In contrast to the anticipated upward trend evident for **Mediterranean Gull**, numbers of **Common Gull** and **Lesser Black-backed Gull** at WeBS sites in Britain appear to be undergoing a steady decline.

Results from waterbird monitoring schemes such as WeBS are best considered at the flyway population level. Hence, wherever possible in this report, interpretation of results from WeBS is placed in the context of trends from other countries within the East Atlantic flyway.

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.

AIMS AND OBJECTIVES OF WeBS

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 2009 and June 2010 (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 until Holt *et al.* (2009), are available via the WeBS website at www.bto.org/webs.

Gulls: WeBS indices and trends

In this report, WeBS annual indices and associated trends for six gull species feature in *Waterbirds in the UK* for the first time. As counting of gulls remains optional within WeBS, the data reflect abundance of gulls only at regularly monitored sites where gulls are counted. For a broader scale appraisal of gull numbers wintering in the UK, it is recommended that the WeBS trends are used in conjunction with results from WinGS (Wintering Gulls Survey), most recently carried out in 2003/04. In order to increase the number of sites on which WeBS trends can be based, regular counting of gulls at new WeBS sites and submission of data from traditional roosts is encouraged.

WEATHER IN 2009/10

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 (12) saw mean temperatures and sunshine levels close to average. However rainfall was above normal across much of the UK, with for example south-west England, parts of Wales, and north-east receiving three times expected amounts.

August (23) temperatures were close to or slightly above the historical average across most of the UK. Rainfall levels were highly variable; it was very wet in western Scotland, Cumbria and Northern Ireland, but East Anglia received less than half usual amounts.

September (20) proved to be dry and generally warmer than normal across most regions of the UK. Much of East Anglia and the Midlands received less than a third of expected rainfall. Overall, it proved to be the driest September since 1997 and the ninth driest since 1914.

October (11) temperatures were above the historical average across the UK, largely due to a very mild final third to the month. Rainfall was well above normal across Scotland, but below average throughout most of England and Wales.

November (22) temperatures were well above average, typically by 1.5 to 2.5°C across England and Wales and by 0.5 to

1.5°C in Scotland and Northern Ireland. Almost all areas recorded above average rainfall; overall, it was the wettest November in the series since 1914.

It was the coldest **December** (20) across the UK since 1995. Despite a mild start to the month, mean temperatures were 1.5 to 2.5°C lower than normal across England, Wales and Northern Ireland. In Scotland it was up to 3.5°C colder than normal, with a low of -18.5°C noted in Aberdeenshire. There was significant snowfall after mid-month.

In **January** (17), the cold conditions from December continued with widespread snowfalls occurring until mid-month. Across the UK, mean temperatures were up to 3°C lower than normal. Following a brief period of milder weather after mid-month, there was a return to colder conditions at month's end. Overall, it was the coldest January in the UK since 1987 and equal eighth-coldest in a series from 1910.

February (21) proved to be another cold month, the coldest February across the UK since 1991. Particularly heavy snow fell in Scotland at the month's end; 70 cm being reported in Aberdeenshire. A few milder interludes during the month were mainly confined to the south and west of the UK.

March (14) proved to be largely dry and settled thorough the first half of the month, and became more changeable from mid-month with snowfalls and strong winds at the month's end. Overall, mean temperatures were close to average.

Most of the UK experienced a relatively warm and dry **April** (18). Most parts recorded less than 50 % of expected rainfall and over England and Wales as a whole it was the fifth sunniest April since 1914.

It was the driest **May** (16) across the UK since 1991. Below average rainfall was noted throughout most of the UK, with less than 50% of normal across much of both Scotland and England. Some new temperature records for May were set in Scotland, and across the UK as a whole sunshine levels were slightly above normal.

June (20) was warmer and sunnier than normal, with high pressure prevailing. Temperatures were up to 2.5°C higher tham normal in western and central areas. Less than 50% of normal rainfall was recorded across most regions, and a maximum of 31°C was recorded in Kent.

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 2009/10 (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	8	2	6	0
	>74%	0	0	0	0	0	<1	0
Scotland	>0%	0	0	<1	51	72	71	18
	>74%	0	0	0	36	57	50	7
N England	>0%	0	0	<1	49	73	60	4
	>74%	0	0	0	29	54	34	2
S England	>0%	0	0	<1	51	61	36	<1
	>74%	0	0	0	28	43	14	<1
Wales	>0%	0	0	0	41	37	28	2
	>74%	0	0	0	19	20	10	<1

Arctic Breeding Conditions 2009

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 (2010).

Summer temperatures differed quite markedly across the Arctic region in 2009. In the early summer period, temperatures were close to or slightly above average throughout most of arctic Russia and eastern Siberia but slightly lower than average in much of arctic Canada and Greenland. In mid summer, it was somewhat warmer than average throughout the region, notably in Greenland and eastern arctic Canada where it was up to 5.5°C higher than usual. An exception was the most distant parts of Siberia where it was up to 5°C cooler than normal.

Rodent abundance was generally low across most arctic regions in 2009, although high densities were recorded at a scattering of regularly monitored sites.

Indications from sites across the Arctic were of mixed breeding success in 2009. Results were suggestive of a reasonably successful season for birds in Scandinavia and more western regions of arctic Russia, but were less clear for more distant regions of Siberia and arctic Canada. Results from a small number of monitoring stations in Greenland were generally poor.

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 2,296 sites for July 2009 to June 2010 (an increase of 1.3% compared to 2008/09), comprising 4,214 count sectors (sub-divisions of large sites for which separate counts are provided).

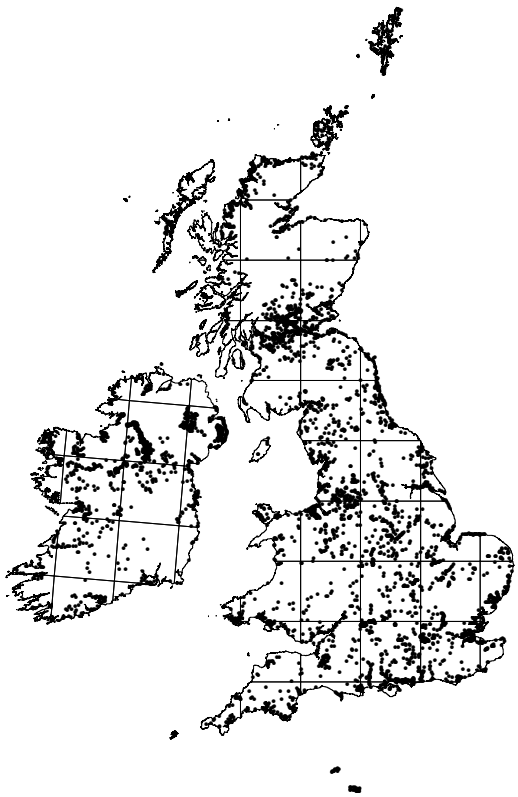


Figure 1. Position of all locations counted for standard WeBS and I-WeBS counts between July 2009 and June 2010.

WeBS and I-WeBS coverage in 2009/10 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 2009/10

12 July	17 January
23 August	21 February
20 September	14 March
11 October	18 April
22 November	16 May
20 December	20 June

As ever, areas with few wetlands (*e.g.* inland Essex/Suffolk) or small human populations (*e.g.* much of Scotland) are apparent on the map as areas with little coverage. Northwest Scotland is usually poorly covered compared to most areas, although in 2009/10 this was again covered by surveys by the RAF Ornithological Society. These data are presented in this report. 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 2009/10, counts of 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 2009 as part of the Icelandic-breeding Goose Census. A census of Greylag Geese at key sites in Northwest Scotland was carried out in August 2009 and February 2010 by the Uist Greylag Goose Management Committee and others. 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 (WWT Consulting 2010).

TOTAL NUMBERS

Total numbers of waterbirds recorded by WeBS in 2009/10 are given in Tables 3 and 4, for Great Britain (including Isle of Man but excluding Channel Islands) and Northern Ireland, respectively. Site coverage for gulls and terns is given separately since recording of these species was optional. **I-WeBS counts of waterbirds in the Republic of Ireland are available from a link on the WeBS website at www.bto.org/webs**.

Redshanks *(Tommy Holden)*

Introduced and escaped waterbirds

Many species of waterbird occur in the UK as a result of introductions, particularly through escapes from collections. Several species have become established, *e.g.* Canada Goose. The British Ornithologists' Union Records Committee categorises each species occurring in Britain according to its likely origin. The categories are explained via www.bou.org.uk. Species that have been recorded as 'introductions, human-assisted transportees or escapes from captivity, and whose breeding populations (if any) are not thought to be self-sustaining' are included in the BOURC's category E. WeBS records of these species are included in this report both for the sake of completeness and in order to assess their status and monitor any changes in numbers, a key requirement given the need, under the African-Eurasian Waterbird Agreement of the Bonn Convention '...to prevent the unintentional release of such species...' and once introduced, the need '...to prevent these species from becoming a threat to indigenous species' (Holmes *et al.* 1998).

Numbers of established populations (*e.g.* Canada Goose and Ruddy Duck, which are placed in category C) are excluded from Figure 2. Additionally, species that occur both naturally (category A) and as introductions or escapes (category E), *e.g.* Pink-footed Goose, are also excluded since separation of introduced and escaped birds from wild ones is not readily possible. However, Ruddy Shelduck (categories B/E) is included; the BOURC does not consider any recent records to have been of wild origin. Additionally, a small number of species not yet assigned to category by BOURC (e.g. Coscoroba Swan) are included.

A total of 18 category E species were recorded in 2009/10 at 178 sites. This represents a 10% decrease in terms of sites compared to 2008/09, but the same number as in 2007/08. However, the summed site maximum of 417 birds was the lowest in recent years and 2% down on 2008/09.

Typically, the majority of this total (62%) was made up of Black Swans and Muscovy Ducks. These were followed in abundance by Bar-headed Goose, Ruddy Shelduck, Chinese Goose, Emperor Goose, Lesser Canada Goose, Wood Duck and Chiloe Wigeon; all of which were recorded in at least double-figures. Others recorded were Fulvous Whistling Duck, Lesser Whistling Duck, Paradise Shelduck, Ringed Teal, Ross's Goose, Silver Teal, White-cheeked Pintail, and Yellow-billed Pintail.

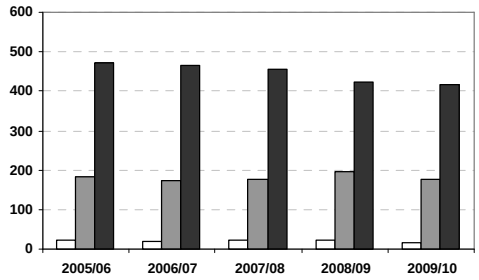


Figure 2. Number of species (white bars), number of sites at which birds were recorded (grey bars) and summed site maxima (black bars) for waterbirds in the BOURC's category E.

Table 3. Total numbers of waterbirds recorded by WeBS Core Counts in Great Britain in 2009/10. Census totals are indicated by '*'.

	Species	Jul	Aug	Sep	Oct	Nov
Number of sites visited		*897*	*913*	*1,532*	*1,710*	*1,751*
YV	Fulvous Whistling Duck	0	1	0	0	0
YU	Lesser Whistling Duck	0	0	0	0	0
MS	Mute Swan	12,900	14,322	18,922	22,713	22,052
AS	Black Swan	25	44	49	65	35
BS	Bewick's Swan	0	0	0	1	87
WS	Whooper Swan	28	34	114	1,153	5,111
HN	Chinese Goose	2	4	2	7	7
XF	Taiga Bean Goose	0	0	0	260*	20*
XR	Tundra Bean Goose	1	0	0	0	4
PG	Pink-footed Goose	34	33	36,465	355,177*	284,108*
EW	European White-fronted Goose	2	2	4	9	104
NW	Greenland White-fronted Goose	0	0	0	143	307
LC	Lesser White-fronted Goose	2	1	2	2	2
JI	Icelandic Greylag Goose	2,759	4,501	4,284	22,615	94,432*
JE/JH	British/Irish Greylag Goose	17,469	27,059	38,742	40,055	34,432
ZL	Greylag Goose (domestic)	992	1,447	1,324	967	719
HD	Bar-headed Goose	11	5	12	12	7
SJ	Snow Goose	1	2	2	5	31
RJ	Ross's Goose	2	2	0	3	2
EM	Emperor Goose	15	7	8	14	10
CG	Canada Goose	35,369	46,899	53,519	60,207	54,751
LQ	Lesser Canada Goose	1	0	7	1	3
YN	Greenland Barnacle Goose	3	3	4	8,942	299
YS	Svalbard Barnacle Goose	1	4	167	31,685*	10,538
YE	Naturalised Barnacle Goose	574	274	805	685	1,210
DB	Dark-bellied Brent Goose	22	51	855	34,922	57,825
QN	Canadian Light-bellied Brent Goose	1	0	55	338	716
QS	Svalbard Light-bellied Brent Goose	1	0	2,715	1,797	4,979
BB	Black Brant	0	0	0	3	2
EB	Red-breasted Goose	0	2	2	0	4
EG	Egyptian Goose	372	578	710	778	395
UB	Paradise Shelduck	0	1	1	1	1
UD	Ruddy Shelduck	4	19	7	5	5
SU	Shelduck	14,376	24,494	44,425	50,444	44,118
MY	Muscovy Duck	17	15	51	28	43
DC	Wood Duck	2	0	5	7	6
MN	Mandarin	221	184	458	624	588
WN	Wigeon	277	1,201	62,943	162,417	262,540
AW	American Wigeon	0	0	1	2	1
HL	Chiloe Wigeon	0	0	1	4	3
GA	Gadwall	2,935	7,393	13,548	14,770	18,944
T.	Teal	1,053	14,066	58,638	104,303	118,829
TA	Green-winged Teal	0	0	0	3	4
AG	Silver Teal	0	0	1	0	1
MA	Mallard	49,944	69,664	103,232	119,146	116,063
ZF	Feral/hybrid mallard type	342	326	441	497	507
PT	Pintail	11	96	4,463	10,610	14,524
YL	Yellow-billed Pintail	0	0	0	0	3
PN	White-cheeked Pintail	0	0	0	1	0
GY	Garganey	6	39	14	6	4
TB	Blue-winged Teal	0	0	0	0	0
SV	Shoveler	444	3,436	10,039	12,296	11,095
IE	Ringed Teal	0	0	0	0	0

Table 3. continued

	Dec	Jan	Feb	Mar	Apr	May	Jun
sites	*1,573*	*1,796*	*1,869*	*1,710*	*1,062*	*974*	*918*
YV	0	0	0	0	0	0	1
YU	1	0	0	0	0	0	0
MS	19,746	20,733	16,489	16,483	10,105	9,933	12,077
AS	35	34	35	46	21	23	27
BS	1,225	6,568	1,410	117	0	0	0
WS	4,645	9,732	4,089	5,045	190	40	25
HN	8	2	8	1	1	0	0
XF	80*	72*	85*	0	0	0	1
XR	4	7	16	7	5	0	0
PG	277,652*	94,586	82,682	58,628	34,961	609	21
EW	665	965	1,457	699	6	6	2
NW	13,269*	203	292	11,841*	27	0	0
LC	0	0	1	0	1	1	1
JI	108,507*	22,790	23,383	15,901	1,362	910	4,026
JE/JH	29,955	28,586	21,900	15,583	8,359	9,307	20,824
ZL	589	420	511	801	292	272	314
HD	8	9	2	7	3	11	10
SJ	28	14	8	3	1	1	0
RJ	2	2	0	0	0	1	0
EM	8	12	7	0	9	3	6
CG	54,496	50,990	36,949	28,846	14,425	14,062	33,352
LQ	3	2	1	1	3	2	2
YN	40,727*	645	313	38,621*	25	47	32
YS	34,070*	24,792	21,434	26,164	6,534	18,595	10,651
YE	602	1,189	1,116	1,134	542	337	544
DB	59,608	74,878	81,120	48,773	9,309	8,185	52
QN	1,070	848	856	637	4	5	0
QS	1,153	1,459	662	455	17	2	0
BB	5	6	4	3	0	0	0
EB	3	3	3	0	0	1	1
EG	408	364	246	311	330	328	379
UB	1	3	0	1	0	0	0
UD	2	0	0	1	1	2	1
SU	39,844	49,499	42,348	38,233	18,629	15,284	17,582
MY	42	48	48	47	21	26	15
DC	4	4	4	1	1	2	1
MN	284	304	276	298	102	138	140
WN	256,889	372,331	299,208	159,377	5,612	657	293
AW	0	1	1	2	1	0	0
HL	1	0	1	1	0	0	0
GA	22,418	20,206	16,343	11,065	4,511	2,945	3,643
T.	134,197	164,288	106,997	68,958	12,040	650	980
TA	2	5	1	0	2	0	0
AG	0	0	0	1	0	0	0
MA	124,748	121,717	92,957	60,002	29,665	27,447	39,288
ZF	535	643	451	410	277	242	392
PT	13,056	20,374	13,383	4,985	408	27	6
YL	2	0	0	0	0	0	0
PN	1	0	0	0	1	1	0
GY	0	0	4	4	29	14	4
TB	0	0	0	0	0	0	1
SV	11,474	8,313	9,296	9,045	2,930	589	545
IE	0	2	0	0	0	0	0

Table 3. continued

	Species	Jul	Aug	Sep	Oct	Nov
Number of sites visited		*897*	*913*	*1,532*	*1,710*	*1,751*
RQ	Red-crested Pochard	32	41	349	369	386
PO	Pochard	2,507	6,081	6,995	11,615	16,861
NG	Ring-necked Duck	0	3	3	3	1
FD	Ferruginous Duck	1	2	3	2	5
TU	Tufted Duck	17,244	34,018	47,914	56,000	53,332
SP	Scaup	11	11	133	3,119	1,690
AY	Lesser Scaup	0	0	0	0	0
ZD	Aythya hybrid	0	0	1	6	4
EE	Eider (Except Shetland)	13,727	13,323	20,257	15,515	16,914
EF	Eider (Shetland)	45	30	20	6	2
KE	King Eider	0	0	0	0	0
LN	Long-tailed Duck	0	0	610	161	708
CX	Common Scoter	668	568	3,483	2,074	5,213
FS	Surf Scoter	0	0	0	1	2
VS	Velvet Scoter	162	123	353	517	499
UX	Unidentified scoter	0	0	0	0	0
VH	Bufflehead	0	0	0	0	0
GN	Goldeneye	136	110	303	1,302	5,751
HO	Hooded Merganser	0	0	0	0	1
SY	Smew	0	0	1	1	12
RM	Red-breasted Merganser	732	857	1,250	2,424	2,207
GD	Goosander	1,279	1,080	1,017	1,450	1,475
RY	Ruddy Duck	135	189	268	251	223
UM	Unidentified duck	17	66	7	20	21
RH	Red-throated Diver	71	30	269	289	279
BV	Black-throated Diver	1	4	14	26	26
ND	Great Northern Diver	2	4	7	66	63
UL	Unidentified diver	0	0	0	0	1
LG	Little Grebe	1,644	3,443	5,522	5,996	4,645
GG	Great Crested Grebe	4,293	6,497	8,848	8,749	7,376
RX	Red-necked Grebe	0	0	2	6	2
SZ	Slavonian Grebe	1	1	25	217	105
BN	Black-necked Grebe	16	11	11	49	22
UV	Unidentified grebe	0	0	0	0	0
CA	Cormorant	6,581	10,207	16,699	17,234	17,021
SA	Shag	311	625	1,305	1,729	1,579
XU	Unidentified Cormorant/Shag	3	0	1	2	0
BI	Bittern	6	1	3	6	16
NT	Night Heron	0	0	0	0	0
EC	Cattle Egret	0	0	3	3	3
ET	Little Egret	2,080	3,588	4,719	4,193	2,483
HW	Great White Egret	0	4	7	8	10
H.	Grey Heron	2,252	2,641	4,176	4,390	3,221
OR	White Stork	0	0	0	0	0
IB	Glossy Ibis	1	0	10	12	5
NB	Spoonbill	15	9	11	32	33
WA	Water Rail	50	69	209	359	387
AK	Spotted Crake	0	3	4	0	0
MH	Moorhen	5,012	7,782	12,842	14,063	12,861
CO	Coot	39,332	66,999	105,995	111,572	115,887
AN	Crane	0	0	2	3	2
KF	Kingfisher	132	247	493	482	342
	TOTAL WILDFOWL	**237,804**	**373,897**	**699,642**	**1,320,315**	**1,429,375**

Table 3. continued

	Dec	Jan	Feb	Mar	Apr	May	Jun
sites	*1,573*	*1,796*	*1,869*	*1,710*	*1,062*	*974*	*918*
RQ	366	358	292	302	52	37	49
PO	19,990	19,954	20,157	10,780	1,320	932	1,257
NG	2	2	3	1	0	1	2
FD	3	2	0	0	0	1	0
TU	48,697	52,068	50,758	46,496	23,677	10,815	11,333
SP	1,762	1,106	1,243	1,247	136	8	3
AY	0	1	5	3	0	0	0
ZD	6	4	7	3	1	0	0
EE	11,305	13,802	19,056	15,621	16,036	13,330	14,720
EF	0	0	1	2	10	10	3
KE	0	2	1	0	0	1	1
LN	435	1,153	2,100	452	147	34	4
CX	9,771	9,910	8,352	9,038	6,906	4,207	2,884
FS	2	1	1	0	0	0	0
VS	446	404	378	391	300	458	3
UX	18	0	0	0	0	0	0
VH	0	0	0	1	0	0	0
GN	7,052	9,987	10,965	9,879	1,578	170	126
HO	0	0	2	1	1	0	0
SY	58	162	199	81	0	0	0
RM	2,510	2,771	3,113	2,927	1,348	562	816
GD	2,396	2,741	2,665	2,243	542	299	598
RY	239	322	129	97	42	39	44
UM	19	34	146	13	103	13	10
RH	254	623	460	262	247	65	38
BV	103	52	199	135	57	28	6
ND	130	174	385	104	37	31	10
UL	0	37	2	0	0	1	0
LG	4,469	3,923	3,218	2,755	1,296	1,085	1,083
GG	7,942	7,175	5,253	6,330	3,938	3,553	3,575
RX	4	16	15	12	1	1	1
SZ	134	151	339	139	17	0	1
BN	32	57	49	57	31	32	16
UV	0	0	0	2	1	0	0
CA	13,672	11,252	11,417	10,279	4,979	5,031	5,612
SA	1,021	1,277	2,137	598	454	321	422
XU	0	1	0	0	0	0	0
BI	28	82	63	41	9	9	6
NT	1	0	0	0	0	0	0
EC	6	0	3	2	0	0	0
ET	1,918	982	1,115	1,341	1,016	832	895
HW	7	6	6	8	0	0	0
H.	2,984	2,799	2,922	2,687	2,054	1,747	2,208
OR	0	0	1	0	0	0	0
IB	0	3	0	3	0	0	0
NB	28	26	25	12	7	16	21
WA	456	441	303	251	91	53	42
AK	0	0	0	0	0	0	0
MH	11,401	10,837	10,193	10,199	5,213	3,750	3,735
CO	99,916	99,588	70,637	51,259	18,793	15,871	25,606
AN	0	4	7	8	7	2	1
KF	296	195	136	179	78	68	105
	1,514,958	**1,346,613**	**1,107,777**	**786,933**	**262,204**	**165,172**	**208,876**

Table 3. continued

	Species	Jul	Aug	Sep	Oct	Nov
Number of sites visited		*897*	*913*	*1,532*	*1,710*	*1,751*
OC	Oystercatcher	71,255	154,339	237,920	264,459	211,577
AV	Avocet	1,376	3,148	5,981	7,387	5,851
TN	Stone Curlew	5	0	0	0	0
GM	Oriental Pratincole	0	0	0	0	0
LP	Little Ringed Plover	237	60	14	0	0
RP	Ringed Plover	1,653	27,232	10,650	8,871	7,024
ID	American Golden Plover	0	0	0	1	0
GP	Golden Plover	12,063	15,039	31,123	67,209	150,337
GV	Grey Plover	708	20,348	29,722	30,376	35,803
L.	Lapwing	27,986	43,955	55,736	93,993	239,514
KN	Knot	77,713	144,636	232,337	246,375	251,035
SS	Sanderling	6,378	10,971	6,900	11,340	8,069
LX	Little Stint	2	11	46	14	0
TK	Temminck's Stint	0	1	0	0	0
WU	White-rumped Sandpiper	0	0	0	1	0
BP	Baird's Sandpiper	0	0	0	0	0
PP	Pectoral Sandpiper	0	0	6	4	0
CV	Curlew Sandpiper	30	40	72	10	1
PS	Purple Sandpiper	77	79	107	169	1,056
DN	Dunlin	42,669	88,351	55,670	113,120	194,755
OA	Broad-billed Sandpiper	0	0	0	0	0
RU	Ruff	91	270	264	277	229
JS	Jack Snipe	0	0	4	74	106
SN	Snipe	159	1,122	2,720	4,985	6,820
LD	Long-billed Dowitcher	0	0	0	2	0
WK	Woodcock	0	2	1	6	42
BW	Black-tailed Godwit	12,594	29,938	34,977	31,745	34,215
BA	Bar-tailed Godwit	9,994	21,156	25,795	27,516	26,444
WM	Whimbrel	800	798	259	66	23
CU	Curlew	43,601	64,172	84,531	70,092	60,545
CS	Common Sandpiper	872	829	204	63	42
PQ	Spotted Sandpiper	0	0	0	1	2
GE	Green Sandpiper	309	599	350	325	206
DR	Spotted Redshank	74	119	111	135	37
GK	Greenshank	619	1,594	1,309	634	360
LY	Lesser Yellowlegs	0	1	1	1	1
OD	Wood Sandpiper	7	19	4	0	0
RK	Redshank	29,008	56,260	80,865	84,151	62,916
TT	Turnstone	2,428	5,209	8,151	9,845	10,119
WF	Wilson's Phalarope	0	0	0	0	1
NK	Red-necked Phalarope	0	0	1	0	1
PL	Grey Phalarope	0	0	0	1	3
	TOTAL WADERS	**344,179**	**690,298**	**905,831**	**1,073,288**	**1,307,138**

Table 3. continued

	Dec	Jan	Feb	Mar	Apr	May	Jun
sites	*1,573*	*1,796*	*1,869*	*1,710*	*1,062*	*974*	*918*
OC	211,459	214,573	218,207	137,965	52,768	34,374	26,185
AV	5,050	7,004	5,951	5,001	2,443	2,128	1,762
TN	0	0	0	0	2	2	1
GM	0	0	0	0	0	1	0
LP	0	0	0	12	257	250	258
RP	5,291	6,702	5,152	3,053	3,213	12,175	1,334
ID	0	0	0	0	0	0	0
GP	82,332	39,673	45,734	29,109	3,088	188	15
GV	19,223	36,209	26,673	25,153	29,868	13,738	469
L.	152,780	125,337	160,089	28,632	6,766	4,634	7,846
KN	182,312	189,928	160,785	121,514	52,026	20,147	6,905
SS	6,271	10,449	6,373	5,838	7,677	8,451	570
LX	6	0	2	0	0	2	3
TK	0	0	0	0	0	0	0
WU	0	0	0	0	0	0	0
BP	1	0	0	0	0	0	0
PP	0	0	0	0	0	0	0
CV	1	0	0	5	4	8	4
PS	827	1,060	964	699	265	35	0
DN	221,252	364,628	255,188	108,449	45,345	68,733	842
OA	0	0	0	0	0	0	1
RU	207	190	336	330	142	8	5
JS	114	72	74	70	15	2	0
SN	8,260	5,657	5,317	3,994	1,050	105	80
LD	0	0	0	0	0	0	0
WK	122	204	76	35	3	2	1
BW	19,840	21,266	18,638	20,993	11,942	1,744	2,276
BA	23,588	39,945	42,984	24,455	7,619	2,893	2,710
WM	20	9	11	13	1,182	936	127
CU	53,493	52,801	61,153	52,481	20,415	3,289	5,457
CS	55	40	24	31	404	324	248
PQ	1	0	1	0	0	1	0
GE	99	116	78	99	106	5	66
DR	41	46	44	39	47	5	29
GK	222	271	245	247	181	71	30
LY	1	0	0	0	0	0	0
OD	0	0	0	0	1	11	3
RK	52,792	61,092	60,044	53,133	23,854	3,292	2,987
TT	7,758	10,236	8,407	8,281	4,466	1,490	229
WF	0	0	0	0	0	0	0
NK	0	0	0	0	0	0	1
PL	0	0	0	0	0	0	0
	1,053,426	**1,187,509**	**1,082,600**	**629,631**	**275,149**	**179,044**	**60,444**

Table 3. continued

	Species	Jul	Aug	Sep	Oct	Nov
Number of sites visited		*764*	*781*	*1,279*	*1,401*	*1,443*
KI	Kittiwake	1,006	2,501	2,478	839	349
ON	Bonaparte's Gull	0	0	0	0	0
BH	Black-headed Gull	82,721	164,590	176,502	178,705	157,324
LU	Little Gull	44	132	50	6	29
MU	Mediterranean Gull	184	324	338	276	267
CM	Common Gull	4,761	23,653	22,704	28,035	42,175
IN	Ring-billed Gull	0	0	1	0	2
LB	Lesser Black-backed Gull	15,541	14,613	19,595	13,058	11,472
HG	Herring Gull	35,277	50,080	57,007	58,934	47,678
YG	Yellow-legged Gull	106	37	138	49	38
YC	Caspian Gull	0	0	0	2	0
IG	Iceland Gull	0	0	0	0	1
GZ	Glaucous Gull	1	0	0	0	0
GB	Great Black-backed Gull	3,023	5,068	7,795	10,513	9,460
ZU	Hybrid gull	0	1	0	0	0
UU	Unidentified gull	24	15	31	14	4
OU	Unidentified small gull	0	0	0	0	0
VU	Unidentified large gull	0	42	57	19	82
	TOTAL GULLS	**142,688**	**261,056**	**286,696**	**290,450**	**268,881**

	Species	Jul	Aug	Sep	Oct	Nov
Number of sites visited		*762*	*767*	*1,183*	*1,281*	*1,296*
AF	Little Tern	1,254	221	0	0	0
TG	Gull-billed Tern	1	0	0	0	0
BJ	Black Tern	0	273	5	0	0
WJ	White-winged Black Tern	1	3	0	0	0
TE	Sandwich Tern	4,193	5,358	1,621	69	11
CN	Common Tern	4,586	5,308	307	54	0
RS	Roseate Tern	10	8	0	0	0
AE	Arctic Tern	917	438	9	11	0
UI	Common/Arctic Tern	186	192	2	1	0
UT	Unidentified tern	3	0	0	0	0
	TOTAL TERNS	**11,151**	**11,801**	**1,944**	**135**	**11**

Table 3. continued

	Dec	Jan	Feb	Mar	Apr	May	Jun
sites	*1,279*	*1,501*	*1,561*	*1,387*	*909*	*851*	*796*
KI	75	293	82	1,596	293	558	212
ON	0	0	0	0	1	0	0
BH	159,342	167,968	187,110	149,701	52,349	36,956	33,540
LU	6	7	0	6	118	6	17
MU	190	352	181	309	343	59	75
CM	37,729	36,454	66,256	34,795	5,100	3,467	2,911
IN	2	5	2	2	0	0	0
LB	13,943	9,225	6,431	18,496	16,457	20,755	26,358
HG	54,512	86,058	57,417	54,960	37,212	35,821	33,087
YG	26	19	17	12	5	3	19
YC	6	2	5	0	0	0	1
IG	4	2	3	2	2	1	0
GZ	1	4	2	0	1	0	0
GB	8,644	9,270	4,550	4,893	1,793	2,037	2,616
ZU	0	0	0	0	0	0	0
UU	205	2,400	6,000	100	206	15	7
OU	0	0	8	24	0	0	0
VU	54	14	53	6	8	4	0
	274,739	**312,073**	**328,117**	**264,902**	**113,888**	**99,682**	**98,843**

	Dec	Jan	Feb	Mar	Apr	May	Jun
sites	*1,145*	*1,324*	*1,382*	*1,248*	*832*	*798*	*765*
AF	0	0	0	0	0	649	844
TG	0	0	0	0	0	0	0
BJ	0	0	0	0	0	2	0
WJ	0	0	0	0	0	0	0
TE	8	1	0	19	653	4,362	4624
CN	0	0	0	9	131	3,391	4711
RS	0	0	0	0	0	6	2
AE	0	0	0	0	21	444	682
UI	0	0	0	0	0	0	0
UT	0	0	0	0	0	0	0
	8	**1**	**0**	**28**	**805**	**8,854**	**10,683**

Table 4. Total numbers of waterbirds recorded by WeBS Core Counts in Northern Ireland in 2009/10. Census totals are indicated by '*'. (I-WeBS totals in the Republic of Ireland available via www.bto.org/webs).

	Species	Jul	Aug	Sep	Oct	Nov
Number of sites visited		*2*	*2*	*11*	*14*	*15*
MS	Mute Swan	9	10	1,167	1,206	703
WS	Whooper Swan	0	0	19	945	3,270
PG	Pink-footed Goose	0	0	0	8	0
WG	White-fronted Goose	0	0	0	0	0
NW	Greenland White-fronted Goose	0	0	0	0	0
JE	British/Irish Greylag Goose	0	0	280	234	348
SJ	Snow Goose	0	0	0	0	1
CG	Canada Goose	0	0	120	78	19
YE	Naturalised Barnacle Goose	0	0	360	365	361
DB	Dark-bellied Brent Goose	0	0	0	0	2
QN	Canadian Light-bellied Brent Goose	0	0	22,341	25,870	5,961
SU	Shelduck	50	13	480	1,720	1,657
WN	Wigeon	0	4	1,678	3,642	3,749
GA	Gadwall	0	1	115	91	27
T.	Teal	0	0	2,476	1,852	4,516
TA	Green-winged Teal	0	0	0	0	1
MA	Mallard	79	150	7,495	7,037	4,634
ZF	Feral/hybrid mallard type	0	0	0	0	0
PT	Pintail	0	0	128	84	567
SV	Shoveler	0	0	16	52	101
PO	Pochard	0	0	99	491	4,264
TU	Tufted Duck	0	0	1,298	3,452	4,919
SP	Scaup	0	0	48	1,159	2,162
E.	Eider	0	0	839	2,469	1,270
LN	Long-tailed Duck	0	0	0	0	8
CX	Common Scoter	0	0	0	11	27
GN	Goldeneye	0	0	12	112	1,756
SY	Smew	0	0	0	0	0
RM	Red-breasted Merganser	0	0	251	614	400
GD	Goosander	0	0	0	0	0
RY	Ruddy Duck	0	0	9	11	0
RH	Red-throated Diver	0	0	5	132	105
BV	Black-throated Diver	0	0	0	0	2
ND	Great Northern Diver	0	0	0	56	25
LG	Little Grebe	0	0	278	580	333
GG	Great Crested Grebe	0	0	1,628	2,489	1,477
SZ	Slavonian Grebe	0	0	0	60	8
CA	Cormorant	25	70	2,256	2,036	1,411
SA	Shag	2	0	221	223	712
EC	Cattle Egret	0	0	0	0	1
ET	Little Egret	12	27	76	78	56
H.	Grey Heron	29	34	429	453	239
WA	Water Rail	0	0	0	2	0
MH	Moorhen	0	0	153	226	136
CO	Coot	0	0	1,880	1,624	1,186
KF	Kingfisher	0	2	9	14	5
	TOTAL WILDFOWL	**216**	**311**	**46,666**	**59,476**	**46,419**

Table 4. continued

	Dec	Jan	Feb	Mar	Apr	May	Jun
sites	*14*	*15*	*16*	*15*	*4*	*3*	*2*
MS	553	584	1,045	696	31	18	5
WS	2,563	1,234	2,850	1,368	0	1	1
PG	0	0	2	0	0	0	0
WG	0	0	0	1	0	0	0
NW	0	0	26	1	0	0	0
JE	631	904	1,706	1,490	2	0	0
SJ	1	0	0	0	0	0	0
CG	65	96	349	114	0	0	0
YE	290	0	340	350	0	0	0
DB	1	0	0	0	0	0	0
QN	4,018	4,630	4,244	4,084	758	0	1
SU	4,338	4,154	3,138	2,287	251	159	98
WN	2,803	1,948	3,291	2,501	53	0	0
GA	169	122	156	162	0	0	0
T.	5,164	3,046	4,533	2,206	51	0	0
TA	0	0	0	0	0	0	0
MA	5,759	3,746	4,604	2,157	112	59	70
ZF	0	1	0	0	0	0	0
PT	368	489	289	97	0	0	0
SV	141	135	131	8	0	0	0
PO	3,777	9,292	5,417	1,044	0	0	0
TU	3,594	9,261	7,456	2,357	0	0	0
SP	3,362	3,722	3,443	2,126	0	0	0
E.	1,660	1,333	3,521	1,405	90	0	0
LN	4	8	9	13	0	0	0
CX	0	5	719	6	0	0	0
GN	2,426	3,803	2,920	1,705	32	0	0
SY	0	1	0	2	0	0	0
RM	457	359	374	282	41	0	0
GD	0	2	0	0	0	0	0
RY	2	0	8	6	0	0	0
RH	7	8	45	34	0	0	0
BV	0	0	0	1	0	0	0
ND	7	5	15	5	0	0	0
LG	354	310	427	171	0	2	0
GG	978	1,646	1,050	528	0	0	0
SZ	0	0	1	3	0	0	0
CA	1,109	1,266	1,834	843	31	27	15
SA	143	400	114	327	2	1	0
EC	0	0	0	0	0	0	0
ET	43	9	17	26	6	6	2
H.	303	253	236	175	3	13	22
WA	3	0	1	1	0	0	0
MH	124	130	185	138	0	3	1
CO	1,534	1,436	2,322	887	0	0	0
KF	2	6	0	2	0	2	0
	46,753	**54,344**	**56,818**	**29,609**	**1,463**	**291**	**215**

Table 4. continued

	Species	Jul	Aug	Sep	Oct	Nov
Number of sites visited		2	2	11	14	15
OC	Oystercatcher	367	520	15,690	17,064	15,920
RP	Ringed Plover	2	19	230	344	564
GP	Golden Plover	0	0	1,495	6,059	10,272
GV	Grey Plover	0	0	1	67	168
L.	Lapwing	128	24	1,390	5,057	9,424
KN	Knot	7	8	238	44	860
SS	Sanderling	0	10	492	381	379
LX	Little Stint	0	0	1	0	0
PS	Purple Sandpiper	0	0	1	6	57
DN	Dunlin	29	404	894	967	3,379
BQ	Buff-breasted Sandpiper	0	0	3	0	0
RU	Ruff	0	0	15	9	2
JS	Jack Snipe	0	0	0	0	2
SN	Snipe	0	3	239	97	130
LD	Long-billed Dowitcher	0	0	0	0	1
WK	Woodcock	0	0	0	0	0
BW	Black-tailed Godwit	6	27	1,748	1,015	47
BA	Bar-tailed Godwit	0	13	861	1,009	1,697
WM	Whimbrel	3	4	1	1	0
CU	Curlew	415	272	4,378	4,118	4,640
CS	Common Sandpiper	16	1	1	1	0
GK	Greenshank	23	26	96	155	144
RK	Redshank	424	932	6,604	8,858	6,432
TT	Turnstone	12	7	538	970	1,472
	TOTAL WADERS	**1,432**	**2,270**	**34,916**	**46,222**	**55,590**

	Species	Jul	Aug	Sep	Oct	Nov
Number of sites visited		*2*	*2*	*11*	*13*	*14*
KI	Kittiwake	0	0	28	35	2
BH	Black-headed Gull	175	540	6,764	7,148	10,043
MU	Mediterranean Gull	0	0	1	5	2
CM	Common Gull	909	580	3,160	1,905	4,201
LB	Lesser Black-backed Gull	11	10	1,303	938	125
HG	Herring Gull	115	115	1,464	2,437	4,466
GB	Great Black-backed Gull	93	51	289	268	385
	TOTAL GULLS	**1,303**	**1,296**	**13,009**	**12,736**	**19,224**

	Species	Jul	Aug	Sep	Oct	Nov
Number of sites visited		*2*	*2*	*10*	*12*	*12*
TE	Sandwich Tern	166	147	193	9	3
CN	Common Tern	0	0	1	0	0
AE	Arctic Tern	0	0	0	3	1
	TOTAL TERNS	**166**	**147**	**194**	**12**	**4**

Table 4. continued

	Dec	Jan	Feb	Mar	Apr	May	Jun
sites	*14*	*15*	*16*	*15*	*4*	*3*	*2*
OC	14,342	12,154	13,313	10,121	656	193	206
RP	351	277	296	253	109	10	2
GP	8,908	2,112	2,454	4,146	1,360	0	0
GV	117	262	128	59	0	0	0
L.	9,323	7,052	6,664	1,050	0	0	81
KN	7,457	8,549	1,446	932	0	0	0
SS	157	277	211	449	148	0	0
LX	0	0	0	0	0	0	0
PS	10	52	15	59	5	0	0
DN	6,231	5,746	6,508	3,132	806	165	0
BQ	0	0	0	0	0	0	0
RU	0	0	0	3	0	0	0
JS	0	2	1	4	0	0	0
SN	222	176	49	72	0	0	0
LD	0	0	0	0	0	0	0
WK	0	0	1	0	0	0	0
BW	650	470	1,138	1,607	69	6	0
BA	1,491	1,216	1,706	1,879	10	2	0
WM	0	0	0	1	51	7	0
CU	4,100	3,206	4,411	3,130	270	43	130
CS	0	1	0	0	0	0	4
GK	84	66	84	69	2	2	2
RK	4,812	4,665	5,409	6,235	360	102	31
TT	859	1,575	732	1,724	160	0	1
	59,114	**47,858**	**44,566**	**34,925**	**4,006**	**530**	**457**

	Dec	Jan	Feb	Mar	Apr	May	Jun
sites	*13*	*14*	*15*	*14*	*4*	*3*	*2*
KI	55	0	0	2	0	0	0
BH	6,145	7,216	8,722	14,045	802	104	169
MU	0	0	1	0	0	0	0
CM	3,230	1,480	3,821	3,095	85	20	190
LB	89	93	216	173	5	6	18
HG	881	2,463	1,394	1,733	198	51	135
GB	133	328	114	361	58	56	132
	10,533	**11,580**	**14,268**	**19,409**	**1,148**	**237**	**644**

	Dec	Jan	Feb	Mar	Apr	May	Jun
sites	*11*	*10*	*10*	*11*	*4*	*3*	*2*
TE	0	0	0	0	17	41	58
CN	0	0	0	0	5	8	1
AE	0	0	0	0	0	0	0
	0	**0**	**0**	**0**	**22**	**49**	**59**

SPECIES ACCOUNTS

Key to symbols commonly used in the species accounts.

In headers and footnotes:

? population size not accurately known

\+ population too small for meaningful threshold

* where 1% of the national population is fewer than 50 birds, 50 is normally used as a minimum threshold for national importance

** a site regularly holding more than 20,000 waterbirds (excluding non-native species) qualifies as internationally important by virtue of absolute numbers

† denotes that a qualifying level different to the national threshold has been used for the purposes of presenting sites in this report

In tables of important sites:

\- no data available

( ) incomplete count

† same meaning as used for thresholds

▲ site was of a higher importance status in the previous five-year period

▼ site was of a lower importance status in the previous five-year period

[1,2] count obtained using different survey methodology from WeBS Core Counts (see table below)

Sources of additional information used in compiling tables of important sites are listed below. Non-WeBS counts are identified in the tables by the relevant number below given in superscript following the count.

1 WWT data
2 Uist Greylag Goose Management Committee
3 SNH data
4 Bean Goose Working Group
5 WWT studies
6 Supplementary daytime counts
7 Greenland White-fronted Goose Study Group
8 WWT publications
9 SOTEAG reports
10 WeBS Low Tide Counts
11 Roost counts
12 Supplementary daytime counts
13 Icelandic Goose Census
14 Firth of Clyde Eider counts (Chris Waltho)
15 R Godfrey (in litt)
16 International Swan Census (WWT)
17 All-Ireland Light-bellied Brent Goose Census
18 WWT unpublished data
19 Judith Smith, Gr. Manchester County recorder
20 SNH data
21 Paul Daw, County recorder for Argyll
23 Roost counts
24 Supplementary counts
26 B McMillan (in litt.)
28 BTO/CCW Carmarthen Bay surveys
29 WWTC/CCW Carmarthen Bay surveys
30 Supplementary data
31 Supplementary counts
32 RSPB data
33 A Stevenson (in litt.)
34 WWT UK-breeding Greylag Goose Survey
37 W Aspin (in litt.)
39 D Tate (in litt.)
43 Norman Elkins (Fife Bird Club)
46 S.J.Turner, West Midland Bird Club
47 Birdguides (www.birdguides.com)
49 Norfolk bird report; White-fronted Goose counts
50 RSPB Bean Goose counts

Fulvous Whistling Duck

Dendrocygna bicolor

Escape
Native Range: S America, Africa

Singles were at Ditchford Gravel Pits in August and The Wash in June.

Lesser Whistling Duck

Dendrocygna javanica

Escape
Native Range: S America, Africa

A Lesser Whistling Duck was at Poole Harbour in December. This is presumably the same bird that was reported there in 2006/07 and 2008/09.

Mute Swan

Cygnus olor

International threshold (British population):	**320**
International threshold (Irish population):	**100**
Great Britain threshold:	**740**
All-Ireland threshold:	**110**

GB max: **22,713** **Oct**
NI max: **1,206** **Oct**

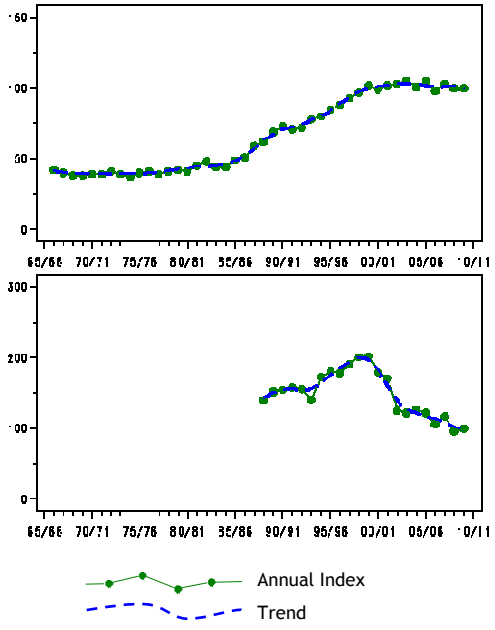


Figure 3.a, Annual indices & trend for Mute Swan for GB (above) & NI (below).

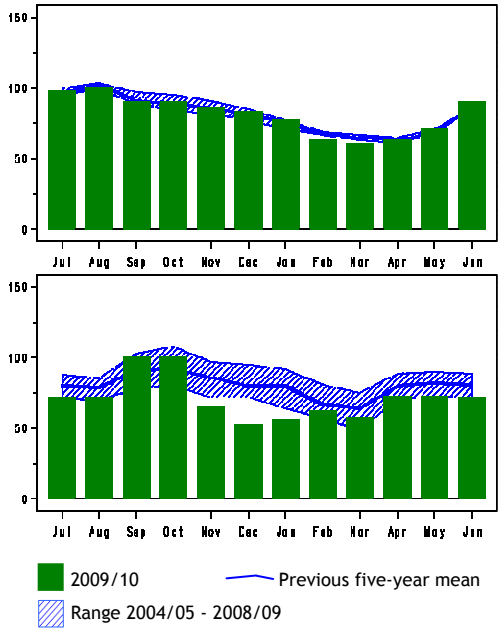


Figure 3.b, Monthly indices for Mute Swan for GB (above) & NI (below).

The population of Mute Swans in Britain is now estimated to be approximately 74,000 birds (Musgrove *et al*. 2011). This is more than the total implied by a breeding census in 2002 which found 31,700 birds at the start of the spring (Ward *et al*. 2007). 10,000 birds are estimated to winter across Ireland (Crowe *et al*. 2008).

Mute Swans in Britain and Ireland are largely sedentary, and hence the populations are considered separate from both one another and from birds on the Continent. All sites of national importance in Britain and All-Ireland importance in Northern Ireland are technically also classed as being of importance internationally, due to the fact that the seemingly low international threshold value of 320 is somewhat out of date.

During the last ten years, annual indices for Mute Swan in Britain have shown very little in the way of variation. In 2009/10, the peak WeBS count of Mute Swans was 1,174 at Somerset Levels, just short of the

site maximum recorded there in the previous year. For the third year in a row, the peak at Fleet & Wey failed to reach 1,000 birds. Considering that the site has shown relatively little variation in annual peaks over the course of the WeBS reporting period, it remains to be seen how soon that particular threshold will be surpassed again.

Maxima at the majority of other principal sites were close to recent average. Notable exceptions were those at three east coast estuaries: an all-time high at Humber Estuary, the most since 1996 at Tweed Estuary, and the highest total since the early 1960s at Stour Estuary. Increasing populations of Mute Swans have the potential to generate conflicts, either through damage to crops or dirtying of areas by concentrated gatherings of birds regularly fed by the public. The latter has become an increasingly pertinent issue at Stour Estuary (R. Vonk, pers. comm.).

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of international importance in the UK							
Somerset Levels	1,024	1,164	1,098	1,252	1,174	Dec	1,142
Fleet and Wey	1,147	1,013	867	990	897	Dec	983
Loughs Neagh and Beg	1,024	770	1,012	702	898	Oct	881
Ouse Washes	427 [6]	508 [6]	1,151	(1,010)	625 [6]	Nov	744
Rutland Water	510	588	499	562	555	Nov	543
Tweed Estuary	460	583	364	410	632	Jul	503
Loch Leven	319	542	520	544	434	Aug	472
Stour Estuary	288	347	544	512	632	Jan	465
Dungeness and Rye Bay	315	410	476	489	417	Jan	421
Loch Bee (South Uist)	267	401	399	605			418
Severn Estuary	390	421	477	383	381	Feb	410
Upper Lough Erne	300	457	354	351	396	Feb	372
Humber Estuary	178	350	266	377	453	Aug	362 ▲
Abberton Reservoir	373	(399)	311	348	326	Aug	351
Hornsea Mere	462	375	290	155	318 [6]	Jul	320
Lower Lough Erne	309	266	311	(149)	(133)	Oct	295
Strangford Lough	133	(59)	252	111	221	Sep	179
Upper Quoile River	134	121	144				133
Sites no longer meeting table qualifying levels in WeBS-Year 2009/10							
Morecambe Bay	320	(328)	(164)	265	(264)	Dec	304

Black Swan

Cygnus atratus

Escape
Native Range: Australia

Black Swans were noted at 75 WeBS sites in 2009/10, representing a slight drop for the second year in a row. These included three sites in Wales, four in Scotland and one on the Channel Islands. A monthly peak of 65 birds was in October. The majority of records were of singles or pairs, but maxima of ten were noted at Abberton Reservoir in October and Stour Estuary in August. Given the proximity of these two sites, these counts may potentially have involved some of the same birds.

Black Swans *(Toni Cross)*

Sites with 4 or more birds during 2009/10

Abberton Reservoir	10	Oct	Ramsbury Lake	6	Mar
Stour Estuary	10	Aug	Roath Park Lake	6	Mar
Fleet and Wey	7	Jun	Grouville Marsh	6	Nov

Bewick's Swan

Cygnus columbianus

GB max:	**6,568**	**Jan**	
NI max:	**0**		
% young:	9.1	Brood size:	1.5

International threshold (*bewickii*):	**200**
Great Britain threshold:	**70**
All-Ireland threshold:	**20***

**50 is normally used as a minimum threshold*

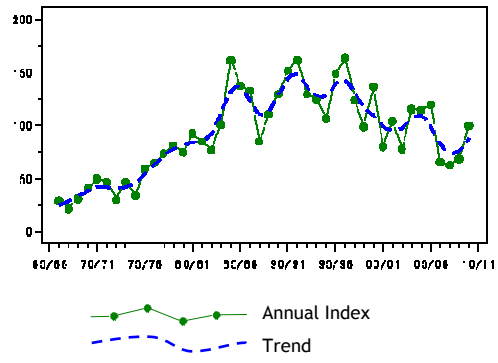


Figure 4.a, Annual indices & trend for Bewick's Swan for GB.

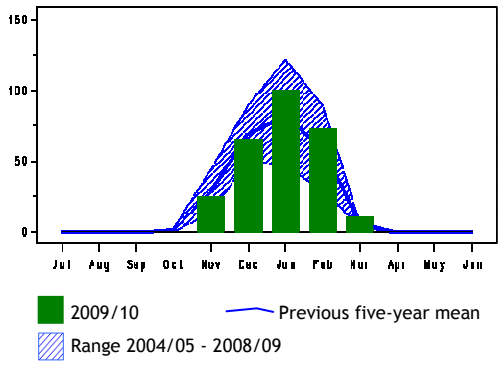


Figure 4.b, Monthly indices for Bewick's Swan for GB.

Bewick's Swans breed in the northern Russian tundra and winter primarily in Britain and The Netherlands. The global population has decreased, and international declines have led to this red-listed species being the focus of dedicated conservation initiatives (Rees & Beekman 2010).

A census of the wintering population, co-ordinated in the UK by WWT, was carried out in January 2010. The number present in the UK was estimated to be 7,000 birds, representing a decrease of 0.07% since the last survey in January 2005 (C. Hall, pers. comm.). The winter of 2009/10 featured a spell of much colder weather than has characterised recent years, which may have resulted in a greater proportion of birds using sites in the UK than has been typical of recent years. The WeBS annual index rose in comparison to the previous three years, thereby maintaining a cyclical pattern in the associated trend that has been evident over the course of the last 25 years. Moreover, the WeBS counted monthly maximum, 6,568 birds in January, was over 50% greater than the maximum recorded during the three previous winters.

The longer-term downward trend is likely to be a reflection of milder winters, with Bewick's Swans stopping further east on continental Europe. Additionally, in recent winters, an increased proportion of Bewick's Swans in the UK have tended to be concentrated in the fenlands in eastern England. Whereas peak WeBS counts at most sites across the UK have declined in recent years, those at the two principal sites of Ouse Washes and Nene Washes have remained relatively stable. At both of these locations, the birds use wetlands for roosting whereas agricultural fields are used diurnally foraging. In January, the estimated totals from the Intemational Swan Census for Ouse Washes and Nene Washes were 5,109 and 962, respectively.

Elsewhere in 2009/10, although the January count at the Severn Estuary represented the highest recorded there since January 2003 (345 individuals), whilst the peak at Dungeness & Rye Bay failed to reach three-figures for the second year in succession. Other traditionally favoured sites in the southern counties of England, such as Somerset Levels, Arun Valley and Henfield Brooks, appear to have hosted maxima slightly in excess of recent average, which is perhaps indicative of a cold weather effect.

Breeding productivity was assessed at three wintering sites in the UK during 2009/10; WWT Slimbridge, WWT Martin Mere/Ribble Estuary, and the Ouse Washes. Across these three sites the proportion of young birds was 9.1%, an indication of relatively poor breeding success in 2009, following an even lower value the previous year. Mean brood size was also low, at 1.5 juveniles per pair.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of international importance in the UK							
Ouse Washes	5,449 [11]	3,407 [11]	5,341 [11]	3,468 [11]	5,109 [11]	Jan	4,555
Nene Washes	1,649 [11]	703 [11]	642 [11]	305 [11]	962 [11]	Jan	750
Horning Marshes					238 [16]	Jan	238
Severn Estuary	225	196	180	238	303	Jan	228
Sites of national importance in Great Britain							
Breydon Water and Berney Marshes	231	147 [11]	87 [12]	5	131 [12]	Mar	120
Dungeness and Rye Bay	135	130	127	83	99	Feb	115
Sites no longer meeting table qualifying levels in WeBS-Year 2009/2010							
Dee Estuary (England and Wales)	63	48	82	56	55	Feb	61
Martin Mere and Ribble Estuary	(132)	24	12	21	98 [16]	Jan	57

No data for years 2005/06 to 2009/10: Hickling Broad

Whooper Swan

Cygnus cygnus

International threshold: 210
Great Britain threshold: 110
All-Ireland threshold: 130

GB max: 9,732 Jan
NI max: 3,270 Nov
% young: 15.4 Brood size: 2.0

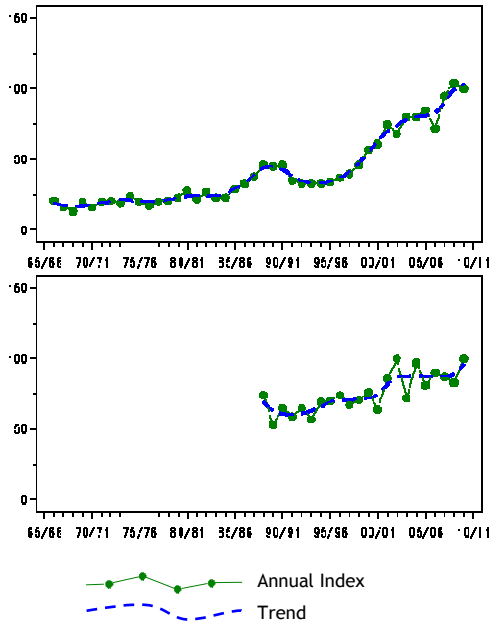


Figure 5.a, Annual indices & trend for Whooper Swan for GB (above) & NI (below).

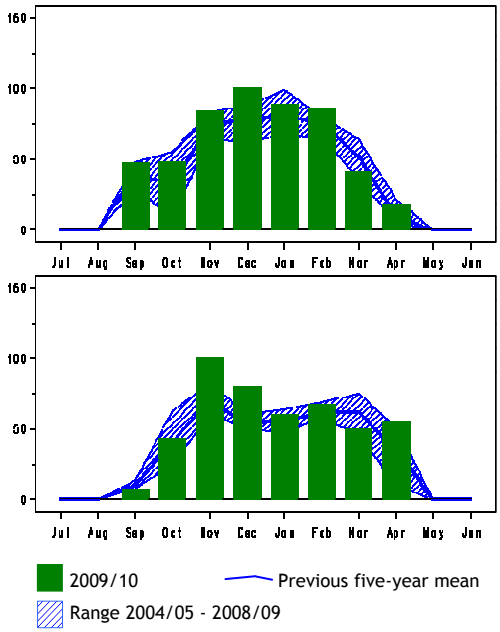


Figure 5.b, Monthly indices for Whooper Swan for GB (above) & NI (below).

Whooper Swan has increased as a wintering species in Britain and Ireland over the course of the last 25 years, the majority originating from the increasing breeding population in Iceland.

A census of the wintering population in the UK, co-ordinated by WWT, was carried out in January 2010 when the number present in the UK was estimated to be 16,502 birds (J. Reed, pers. comm.). This represents an increase of 9.6% compared to results from the previous survey undertaken in January 2005, and indicates that a sizeable proportion of the winter population are not counted by WeBS. In Ireland, a total of 14,981 Whooper Swans represented a 6% increase compared to results from the previous census in 2005 (Boland *et al.* 2010).

In both Britain and Northern Ireland, the WeBS indices were relatively high continuing the positive longer term trends. It is unclear whether this species was particularly affected by the relatively cold

period of weather during winter 2009/10, but the monthly indices indicate that above average numbers were present in November and December in both Northern Ireland and Britain.

The maximum noted at Ouse Washes, 5,632 in January, was lower than the maximum recorded during 2008/09, but still high in a historical context. However, the peak at Nene Washes in February was the most ever there. Maxima at the other thirteen sites of international importance were largely similar to recent years. In response to the increase in the winter population that has occurred in recent years, the national population estimate has now been revised accordingly (Musgrove *et al*. 2011). Consequently, a smaller selection of WeBS sites surpassed the new threshold for national importance.

Breeding success was marginally above average for all regions surveyed, with the exception of flocks using eastern England. Across all sites, flocks contained 15.4% cygnets, and the mean brood size of pairs with young was 2.0. The mean percentage young at WWT Martin Mere/Ribble Estuary, Ouse Washes and WWT Caerlaverock were similar to the five-year means recorded over the five winters up to 2009/10, and productivity similar to that estimated during the 2008/09 winter.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean	
Sites of international importance in the UK								
Ouse Washes	3,547 [11]	3,756 [11]	5,470 [11]	5,979 [11]	5,632 [16]	Jan	4,873	
Martin Mere and Ribble Estuary	1,666	1,451	1,819	1,703	2,296	Jan	1,787	
Loughs Neagh and Beg	1,268	1,731	1,734	(1,592)	1,803 [16]	Feb	1,634	
Lough Foyle	1,030	1,042	1,167	1,240	2,033	Nov	1,302	
Upper Lough Erne	822	956	680	636	799 [16]	Feb	779	
Loch Eye and Cromarty Firth	518	61	399 [13]	797 [13]			444	
Nene Washes	215 [11]	216 [11]	110 [11]	462 [11]	767 [11]	Mar	354	
Loch of Strathbeg	680	285	92	252	182	Oct	298	
Strangford Lough	242	199	432	251 [10]	183	Nov	261	
Solway Estuary	150	194	(97)	(231)	424 [16]	Dec	256	
Loch Heilen	360	(197)	84	(59)	300	Nov	248	▲
Loch Leven	17	220	242	350 [12]	357	Nov	237	▲
Wigtown Bay	(165)	(164)	267	(195)	177	Jan	222	
East Fenton Farm Reservoir	156	143	340 [12]	182	240	Feb	212	▲
Locharwoods					210 [16]	Jan	210	▲
Sites of national importance in Great Britain								
Norham West Mains	194 [12]	196					195	
River Tweed - Kelso to Coldstream	132	162	230	252	134	Mar	182	
Dalreoch		264		216 [13]	67 [13]	Dec	182	▼
R Clyde: Carstairs to Thankerton	220	188	173	109	(86)	Nov	173	
Dornoch Firth	213	241	(86)	190	37	Feb	170	▼
Montrose Basin	181	147	(182)	103	151	Feb	153	
Black Cart Water (Gryfe-White Cart)	112	106 [12]	98 [12]	207 [12]	221 [12]	Nov	149	
Loch a` Phuill (Tiree)	259 [12]	152 [12]	103	94	115	Jan	145	
Lower Teviot Valley	13	36	98	(129)	433 [12]	Nov	145	▲
Wedholme Flow		0	0	19	557 [11]	Nov	144	▲
Ballone					142 [16]	Jan	142	▲
Rossie Bog			99	(78)	(162) [12]	Nov	131	▲
Morecambe Bay	(100)	(84)	158	82	(118)	Feb	120	▲
River Eden: Grinsdale to Sandsfield	98	59	186	108	108	Nov	112	
Quendale Links					110 [12]	Jan	110	▲
Sites of all-Ireland importance in Northern Ireland								
River Lagan					204 [16]	Jan	204	▲
Sites no longer meeting table qualifying levels in WeBS-Year 2009/2010								
Lindisfarne	119 [10]	(170)	(15)	90	27	Mar	102	
No data for years 2005/06 to 2009/10: Leven Cut, River Earn: Lawhill Oxbows, Strathearn South Kinkell, Loans of Tullich								
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain								
Killimster Loch		51	90	9	181	Mar	83	
Lower Derwent Ings	74	104	88	93	174	Mar	107	
North Loch (Sanday)		1	48	(80)	130	Nov	65	
White Cart Water (Netherton Farm)	0	8	0	92	120	Nov	44	

Chinese Goose

Anser cygnoides

Escape
Native Range: E Asia

Chinese Geese (the domestic strain of Swan Goose) were recorded at eleven sites in Britain. All records involved one or two birds, with the exception of three at Stour Estuary in August.

Taiga Bean Goose

Anser fabalis fabalis

International threshold: 800
Great Britain threshold: 4
All-Ireland threshold: +

GB max: 260 Oct
NI max: 0
% young: 14.8 Brood size: 1.4

There are two regular sites for wintering Taiga Bean Geese *Anser f. fabalis* in the UK; Slamannan Plateau in central Scotland and Yare Valley in Norfolk. Birds are highly faithful to these areas, where their numbers are monitored by the Bean Goose Working Group and RSPB, respectively; hence all 'bean geese' reported from the Slamannan and Yare Valley areas are assumed to relate to Taiga Bean Geese. Similarly, unless specifically reported as being of the *fabalis* race, all other records of 'bean geese' in the UK are assumed to be of the race *rossicus* (known as Tundra Bean Goose). Although scarce in the UK, Tundra Bean Geese are more prone to cold weather influxes and consequently are more likely to be recorded at other sites.

In 2009/10, a peak of 260 Taiga Bean Geese recorded at Slamannan Plateau in October represented a decrease of five birds compared to the maximum seen during the previous year. At Yare Valley, a peak of 81 in February represented a significant fall compared to recent years, thereby further accentuating the downward trend at the site. The extent to which this drop in numbers, the lowest at the site since 1973/74, is a reflection of the cold winter and associated difficult feeding conditions is not known.

Continued monitoring of the wintering population at Slamannan Plateau by the Bean Goose Working Group indicated that approximately 15% of the population were first-year birds in 2009/10, the second lowest breeding success yet recorded.

Away from these two key areas, Taiga Bean Geese were identified at two other sites during Core counts in February; Loch of Spiggie and Nene Washes (3).

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of national importance in Great Britain							
Slamannan Area	300 [4]	255 [4]	300 [4]	265 [4]	260 [4]	Oct	276
Middle Yare Marshes	169 [50]	111 [50]	136 [50]	133 [50]	81 [50]	Feb	126

Tundra Bean Goose

Anser fabalis rossicus

International threshold: 6,000
Great Britain threshold: 3
All-Ireland threshold: +

All records of bean geese away from the two key wintering areas of Taiga Bean Goose *Anser f. fabalis* are assumed to relate to Tundra Bean Goose *Anser f. rossicus*, unless submitted as otherwise. Since 2008/09, the two forms have been listed separately in the WeBS annual report.

Very small, but regular, numbers of Tundra Bean Geese are noted during the course of most winters in the UK, primarily at sites in eastern Britain. Most records tend to relate to birds in with flocks of other geese, however during periods of cold weather on the continent influxes of discrete, larger, groups can occur. The most recent influx was in the winter of 2004/05, when flocks of 80+ were noted at both Ouse Washes and Dungeness & Rye Bay.

In 2009/10, Tundra Bean Geese were recorded at 12 sites, three of which were on Shetland, between November and April.

The monthly maximum was 16 birds in February. All records related to ones or twos, with the exception of four at Lower Derwent Ings (Feb) and three at North Norfolk Coast (Feb) and Nene Washes (Mar).

Sites with 3 or more birds in 2009/10

Breydon Water /Berney Marshes	10	Feb	Nene Washes	3	Mar
Lower Derwent Ings	4	Feb	North Norfolk Coast	3	Feb

Pink-footed Goose

Anser brachyrhynchus

International threshold: 2,700
Great Britain threshold: 3,600
All-Ireland threshold: +

GB max:	**355,177**	**Oct**	
NI max:	**8**	**Oct**	
% young:	17.3	Brood size:	1.9

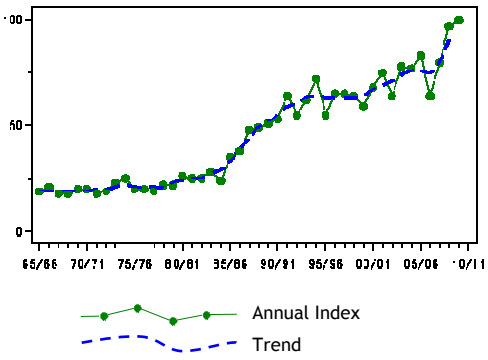


Figure 6.a, Annual indices & trend for Pink-footed Goose for GB.

There are two populations of Pink-footed Geese: one which breeds primarily in Greenland/Iceland and winters almost exclusively in Britain, and a smaller Svalbard-breeding population which winters primarily in the Low Countries (The Netherlands, Belgium and Luxembourg).

The annual census of Pink-footed Geese is carried out through the Goose & Swan Monitoring Programme co-ordinated by WWT. The autumn of 2009 saw three counts take place (in October, November and December) representing the 50th consecutive Icelandic-breeding goose census (IGC).

Despite recent fluctuations in numbers, partly due to variation in coverage, the long term population trend for the species has been one of continued increase, and there are no indications of this changing in the near future. Note the revised 1% threshold for national importance (following Musgrove *et al*. 2011) now exceeds that for international importance, which is somewhat out of date.

The wintering population arrived relatively early in the autumn of 2009, with the total flyway population estimated to be 364,212 birds (Mitchell 2010), an increase of 3.7% compared to the previous year which itself had seen a sharp rise in the index. In September, 60,626 were recorded at Loch of Strathbeg, while the following month an exceptional 69,970 had gathered on the South Lancashire Mosses. Although the distribution of birds within the UK changed during the course of the winter, the shifts were not as marked as recent years. The main movement involved an overall transition of birds from Scotland and northeast England in October, to sites in eastern England, primarily those in Norfolk, by December. The maximum counts on the North Norfolk Coast during the month included 30,820 at Wells-next-the-Sea and 28,700 at Snettisham.

Breeding success was assessed at several locations throughout Scotland and England. The proportion of first-years within flocks was 17.3% and the mean brood size for pairs with young was 1.9, both figures just slightly lower than the previous year. Consistent annual productivity, combined with targeted nature reserve management and changes in availability of agricultural foraging resources (Gill *et al*. 1996, Fox *et al*. 2005) have all combined to contribute to the rise of the Pink-footed Goose population since the mid 1980s. However, the unavailability of meaningful hunting bag statistics from Britain and Ireland, means any interpretation of possible changes in population dynamics is a very complicated task (Mitchell 2010).

	05/06	06/07	07/08	08/09	09/10	Mon	Mean	
Sites of international importance in the UK								
Loch of Strathbeg	68,000 [13]	37,396	39,370 [13]	53,454 [13]	60,626 [13]	Sep	51,769	
Southwest Lancashire	31,860 [13]	39,030 [13]	17,877	90,455 [13]	69,790 [13]	Oct	49,802	
Holkham Marshes	70,000 [13]	69,100 [13]	56,000 [13]	22,145 [13]	30,820 [13]	Dec	49,613	
Snettisham	49,610 [13]	33,485 [13]	47,530 [13]	51,950 [13]	28,700 [13]	Dec	42,255	
West Water Reservoir	28,240 [13]	43,252 [13]	27,960 [13]	47,361 [13]	26,400 [13]	Oct	34,643	
Montrose Basin	30,181 [13]	25,000 [13]	23,945 [13]	38,911 [13]	6,500	Oct	24,907	
Scolt Head	55,000 [13]	17,200 [13]	7,870 [13]	23,000 [13]	10,750 [13]	Nov	22,764	
Aberlady Bay	14,250 [13]		23,415 [13]	32,244 [13]	15,721 [13]	Oct	21,408	
Loch of Skene	17,730 [13]	(22,930) [13]	19,000 [13]	18,560 [13]	16,780 [13]	Dec	19,000	
Breydon Water and Berney Marshes	11,213	17,800 [11]	22,785 [12]	21,400 [11]	14,230 [11]	Dec	17,486	
Morecambe Bay	20,980 [13]	10,200 [13]	21,200 [13]	(7,255)	(2,757)	Apr	17,460	
West Freugh					(16,000) [12]	Dec	(16,000)	▲
Carsebreck and Rhynd Lochs	11,130 [13]	12,600 [13]	11,200 [13]	15,200 [13]	18,250 [13]	Oct	13,676	
Loch Leven	22,175 [13]	14,600 [13]	1,000	17,618 [13]	4,539	Dec	11,986	
Solway Estuary	(6,862)	23,313 [13]	(5,004)	5,751	6,633	Jan	11,899	
Findhorn Bay	9,400 [13]	(3,800) [13]	7,800 [13]	9,850 [13]	14,500 [13]	Nov	10,388	
Easterton - Fort George	10,000 [13]						10,000	
Martham Broad				8,500 [13]			8,500	
Loch of Lintrathen	9,790 [13]	7,040 [13]	8,410 [13]	10,745 [13]	3,550 [13]	Oct	7,907	
Dupplin Lochs		1,450 [13]	2,100 [13]		18,500 [13]	Nov	7,350	▲
Beauly Firth	700 [13]				12,800 [13]	Oct	6,750	▲
Loch Spynie	23,000 [13]	9,000 [13]	150 [13]	1,000 [13]	3 [13]	Nov	6,631	
Winter Loch, St Fergus Gas Terminal		6,620 [13]					6,620	
Kilconquhar Loch	1,250 [13]	90	7,010 [13]	14,000 [13]	9,540 [13]	Oct	6,378	
Wigtown Bay	802	(6,695)	11,720 [13]	(4,943)	5,941	Jan	6,290	
Hule Moss	6,000	2,250 [13]	6,850 [13]	6,250 [13]	9,350 [13]	Oct	6,140	
Horsey Mere	6,240 [13]	5,430 [13]					5,835	
Heigham Holmes	5,670 [13]						5,670	
Lindisfarne	5,800 [13]	(6,132)	6,900 [13]	3,500 [13]	3,500 [13]	Oct	5,166	
Holme and Thornham	5,000 [13]	4,000 [13]	3,865 [13]	4,170 [13]	8,000 [13]	Dec	5,007	
Fala Flow	3,750 [13]	2,170 [13]	3,650 [13]	1,510 [13]	13,084 [13]	Oct	4,833	▲
Lochhill	3,525 [12]	760	5,000 [12]	7,100 [12]	7,000 [12]	Oct	4,677	
Humber Estuary	3,909	4,151	3,703	7,108	3,944	Jan	4,563	
Eden Estuary	100	9	430 [13]	20,520 [11]	650 [13]	Oct	4,342	
Wedholme Flow		0	1,300	6,000 [12]	10,000	Mar	4,325	▲
Norton Marsh	4,500 [13]	6,650 [13]	4,850 [13]	2,720 [13]	2,831 [13]	Dec	4,310	
Middlemuir (New Pitsligo Moss)			4,500 [13]	3,500 [13]			4,000	
Simonswood Peat Moss		3,000 [13]	4,500 [13]				3,750	
R Clyde: Carstairs to Thankerton	4,500	1,540	(4,720)	4,530	3,100	Oct	3,678	
Biggar Moss	50	0	6,500	7,000			3,388	
Ravenstruther	850	1,300	1,800	9,500	(460)	Oct	3,363	
Braco		3,290 [13]					3,290	
River Tay - Haughs of Kercock	3,500 [13]	3,702 [13]	3,165 [13]	2,704 [13]	2,500 [13]	Oct	3,114	
Forth (Skinflats)	3,980 [13]	2,950 [13]	2,176 [13]	4,463 [13]	775 [13]	Oct	2,869	
Loch Eye and Cromarty Firth	3,226	1,116	575	4,305	4,500 [13]	Nov	2,744	▲
Rossie Bog	2,250 [13]		655 [13]	6,000 [11]	2,070 [13]	Nov	2,744	
Sites no longer meeting table qualifying levels in WeBS-Year 2009/2010								
Loch Tullybelton		2,700 [13]	2,800 [13]	4,000 [13]	150 [13]	Nov	2,413	
Ythan Estuary and Slains Lochs	(1,800)	1,600	2,000		(0)		1,800	
No data for years 2005/06 to 2009/10: Tay and Isla Valley								
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain								
Dingwall Bay	350 [13]	170 [13]	521 [13]		8,200 [13]	Dec	2,310	
Whitrig Moss		700			4,500 [11]	Nov	2,600	
Lower Teviot Valley	(110)	0	2,000	50	4,000	Nov	1,513	
Loch Watten	0	0	400	71	4,000	Feb	894	

European White-fronted Goose

Anser albifrons albifrons

GB max:	**1,457**	**Feb**	
NI max:	**0**		
% young:	26.2	Brood size:	-

International threshold:	**10,000**
Great Britain threshold:	**24***
All-Ireland threshold:	**+**

**50 is normally used as a minimum threshold*

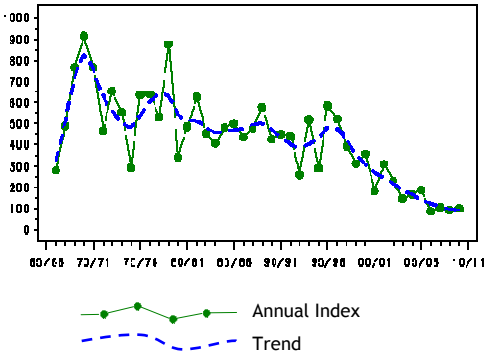


Figure 7.a, Annual indices & trend for European White-fronted Goose for GB.

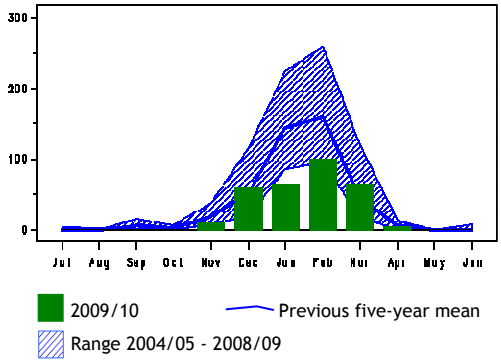


Figure 7.b, Monthly indices for European White-fronted Goose for GB.

Predictably, 2009/10 saw European White-fronts remain at the low level that has increasingly characterised the last decade. However, in the last four years the species may have reached a trough as the index values have changed relatively little. It is now well-established that the downward trend is associated with a distributional shift in core wintering range – referred to as "short stopping". In stark contrast to the UK, numbers continue to increase in The Netherlands where 892,000 were present in January 2009. This represents a relatively high total even by recent standards, considered to be due to an especially marked influx from eastern wintering areas that winter (Hornman *et al.* 2011).

In contrast, in 2009/10 an easterly range shift was again evident even within Britain. For the first time, the peak WeBS count from Severn Estuary was surpassed by maxima from both Swale Estuary and Dungeness & Rye Bay. However, somewhat in contrast to that trend, was a noticeably low peak at North Norfolk Coast.

This species is one often associated with cold weather movements, but the only record of a sizeable flock away from typical sites, which may relate to such a movement, was 136 at Lower Derwent Ings in February.

Breeding success of tundra-nesting geese generally decreases in years of low lemming abundance as a consequence of predators switching from lemmings to birds. European White-fronted Geese were aged at two localities during winter 2009/10 (WWT Slimbridge and North Warren, Suffolk). Although no brood size data were collected, 26.2% of birds were aged as first-winters; indicative of a reasonably productive breeding season for this species.

European White-fronted Geese (Andy McKay)

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of national importance in Great Britain							
Severn Estuary	750	542 [8]	520	507 [5]	300 [5]	Dec	524
Heigham Holmes	512 [49]	570 [49]	800 [49]	200 [49]	(150) [49]	Dec	520
Swale Estuary	430	355	315	160	523	Mar	357
Dungeness and Rye Bay	550	151	194	239	388	Feb	304
North Warren and Thorpeness Mere	330 [6]	180	452 [6]	245	293	Feb	300
North Norfolk Coast	404	200	275	226	96	Jan	240
Middle Yare Marshes	76	66	193	72	90	Dec	99
Breydon Water and Berney Marshes	290	0	61 [6]	0	28 [6]	Jan	76
Pegwell Bay	(0)	0	118	0	120 [6]	Jan	60
Alde Complex	12	0	58	206	7	Feb	57
Stodmarsh	122	0	32	0	0		31
Thames Estuary	86	0	24	17	28	Feb	31
Lower Derwent Ings	0	0	1	0	136	Feb	27
Ouse Washes	79 [6]	7	0	41 [6]	0		25
Sites no longer meeting table qualifying levels in WeBS-Year 2009/2010							
Dengie Flats							
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain							
Buckden and Stirtloe Pits				0	35 [6]	Jan	18

Greenland White-fronted Goose

Anser albifrons flavirostris

International threshold: 270
Great Britain threshold: 130
All-Ireland threshold: 110

GB max: 13,269 Dec
NI max: 26 Feb
% young: 12.9 Brood size: 3.1

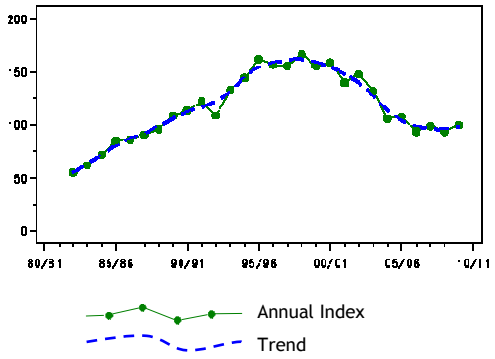


Figure 8.a, Annual indices & trend for Greenland White-fronted Goose for GB.

Greenland White-fronted Geese breed in the low Arctic coastal fringe of west Greenland, and migrate southwards through south and west Iceland during September and October. They then winter exclusively in Britain and Ireland, the favoured locations being Islay on the west coast of Scotland and Wexford Slobs in Ireland.

Having recovered from a population crash in the late 1970s, numbers fell again reaching their lowest point for over twenty years in 2008/09. As well as red-listed, Greenland White-fronted Goose qualifies as 'Endangered' under IUCN criteria.

In 2009/10, there was a very slight improvement in the index, and it appears that the steep decline that characterised the period of 1998/99 to 2006/07 has been halted.

The annual census organised by the Greenland White-fronted Goose Study was carried out in two months (December 2009 and March 2010). In terms of numbers at sites in the UK, the peak of 13,269 geese in December represents an increase of 6.1% compared to the maximum recorded during the previous year. Over half of the Scottish population was on Islay, the remainder mostly elsewhere in western Scotland. The peak count from the most southerly wintering site in Britain, the Dyfi Estuary, was slightly lower than recent years.

It would appear that a ban on hunting in Iceland has helped to allow numbers to stabilise. Previously, hunting pressure had been an additional source of mortality during a long period of low breeding productivity (Fox *et al.* 2009), and was considered responsible for the decline of the Greenland White-fronted Goose population. During 2009/10, both the percentage of young in flocks at sites in Britain (12.9%) and mean brood size (3.05) were indicative of a relatively successful breeding season.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of international importance in the UK							
Island of Islay	7,456 [7]	7,902 [7]	7,980 [7]	8,590 [7]	7,262 [7]	Dec	7,838
Machrihanish	1,433 [7]	1,716 [7]	1,285 [11]	1,477 [7]	2,180 [7]	Mar	1,618
Rhunahaorine	955 [7]	940 [7]	1,451 [7]	879 [7]	1,017 [7]	Feb	1,048
Tiree	1,112 [7]	974 [7]	803 [7]	979 [7]	787 [7]	Jan	931
Isle of Coll	778	687 [7]	445 [7]	336 [7]	284 [7]	Feb	506
West Freugh/Stranraer Lochs	282 [7]	360 [7]	247 [7]	273 [7]	350 [10]	Mar	302
Isle of Lismore	320 [7]	273 [7]	240 [7]	280 [7]	300 [7]	Nov	283
Sites of national importance in Great Britain							
Keills Peninsula and Isle of Danna	344 [7]	300 [7]	202 [7]	239 [7]	214 [7]	Feb	260
Sound of Gigha	149 [7]	105 [7]	194 [7]	330	337 [7]	Jan	223
Loch Lomond	210 [7]	210 [7]	223 [11]	220 [7]	200 [7]	Mar	213
Bute	190 [7]	209 [7]	240 [7]	210 [7]	215 [7]	Feb	213
Loch Ken	220 [7]	206 [7]	177 [7]	194 [7]	186 [7]	Mar	197
Loch of Mey	184 [7]	176 [7]	146 [7]	240 [7]	170 [7]	Dec	183
Westfield Marshes	200 [7]	155 [7]	173 [7]	176 [7]			176
Clachan and Whitehouse	193 [7]	186 [7]	120 [7]	170 [7]	182 [7]	Feb	170
South Uist: Loch Bee/Kilaulay	144 [7]	160 [7]	184 [7]	150 [7]	123 [7]	Jan	152
Loch Bee (South Uist)	144	141	184	135			151
Sites no longer meeting table qualifying levels in WeBS-Year 2009/2010							
Eriska/Benderloch	239 [7]	43 [7]	92 [7]		35 [7]	Jan	102
Isle of Colonsay	111 [31]	76 [18]	109 [8]				99

Lesser White-fronted Goose

Anser erythropus

Vagrant and escape
Native Range: SE Europe, Asia

Escapes were seen at five sites during 2009/10, including long-stayers throughout much of the year at Llyn Traffwll and Testbourne Estate.

Icelandic Greylag Goose

Anser anser

International threshold: 870
Great Britain threshold: 850
All-Ireland threshold: 50

GB max: 108,507 Dec
NI max: 0**
% young: 21.9 Brood size: 2.3

*** small numbers in Northern Ireland remain difficult to distinguish from re-established birds*

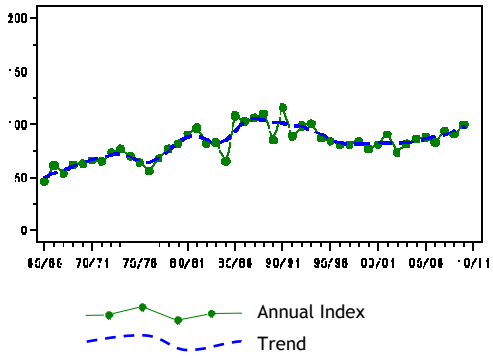


Figure 9.a, Annual indices & trend for Icelandic Greylag Goose for GB.

Counts of Icelandic Greylag Goose were undertaken in late 2009 as part of the 50th consecutive Icelandic-breeding Goose Census (IGC). This census incorporates monitoring of sites in Britain, Ireland, the Faeroes, Norway and Iceland.

Across all these countries, totals of 120,971 and 111,677 were counted in November and December, respectively. The latter included 108,507 birds in Britain. Following adjustments for the presence of birds from other populations and the addition of estimated counts, a population estimate of 109,496 was derived from the flyway November total (Mitchell 2010), representing an increase of 11.4% compared to 2008/09 when a population size of 98,291 individuals was estimated.

The distribution was typical, with 71% of the population in northern Scotland by November. In recent years, there has been an increasing concentration of the population onto Orkney, where a peak count of 80,538 was noted in December (although this total includes an estimated 10,000 summering birds) (Mitchell 2010). This shift in winter distribution has probably

meant that fewer Greylag Geese are being shot in Britain (as there are fewer wildfowlers on Orkney compared to east and central Scotland). Despite the continuing annual harvest of geese in Iceland, a presumed reduction in the number shot in other parts of the winter range and good breeding success in recent years is considered sufficient to have reversed the shallow decline noted in this population during the 1990s (Trinder *et al.* 2010). During early November, Greylag Geese were aged at various localities throughout northern Scotland. Breeding success was deemed higher than average, with flocks containing 21.9% young, but the mean brood size of 2.3 goslings per successful pair was the same as last year and hence slightly lower than the longer term average.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean	
Sites of international importance in the UK								
Orkney	40,403 [13]	55,521 [13]	67,540 [13]	68,349 [13]	60,519 [13]	Nov	63,099	
Caithness Lochs	8,727 [13]	2,734	6,802 [13]		11,510 [13]	Nov	9,105	
Loch Eye and Cromarty Firth	13,269	2,463 [13]	7,112 [13]	818 [13]	4,508 [13]	Dec	5,634	
Easterton - Fort George	3,500 [13]						3,500	
Dornoch Firth	1,632 [13]	2,858	3,310 [13]	6,379	1,825	Jan	3,201	
Bute	2,110 [13]	1,670 [13]	1,960 [13]	3,800 [13]	2,550 [13]	Mar	2,418	
Strathearn (West)		3,170 [13]	1,400 [13]				2,285	
Loch Fleet Complex	3,000	1,762	2,100 [13]	1,110 [13]	2,143	Jan	2,023	
Loch of Skene	4,700 [13]	(500) [13]	520 [13]	790 [13]	760 [13]	Feb	1,693	
Loch of Skaill	1,720	320	1,170	1,049	3,093	Oct	1,470	
Beauly Firth	1,380 [13]						1,380	
Loch Ussie	3,280 [13]	133	1,250	(0)	620 [13]	Nov	1,321	
Inner Firth of Tay	850 [13]	157 [13]	636 [13]	2,640 [13]	1,943 [13]	Dec	1,245	
Forth Estuary	2,107	(471)	875	936 [13]	783	Sep	1,175	
Gadloch	1,020 [13]	1,100 [13]	600	1,990	780 [13]	Oct	1,098	
West Freugh					1,000 [6]	Nov	1,000	▲
Mill Dam and Balfour Mains Pools	1,720	676	1,095	850	374	Jan	943	
Loch Garten	1,700 [13]	1,150 [13]	102	580 [13]			883	
Sites of national importance in Great Britain								
Island of Westray	811 [13]	1,030 [13]	735 [13]				859	▲

British/Irish Greylag Goose

Anser anser

GB max: 40,055 Oct
NI max: 1,706 Feb

Pooled 're-established' and 'Northwest Scotland' populations (previously listed separately)
Great Britain threshold: 1,400†
All-Ireland threshold: ?†

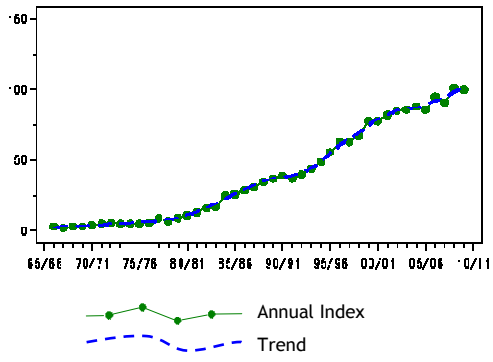


Figure 10.a, Annual indices & trend for British/Irish Greylag Goose for GB.

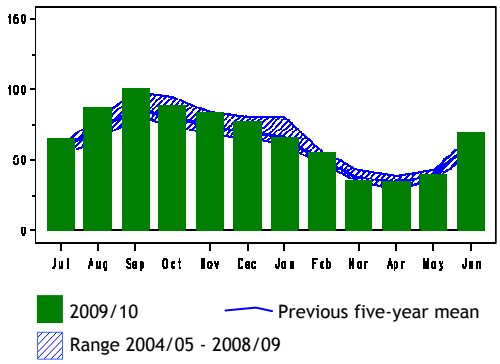


Figure 10.b, Monthly indices for British/Irish Greylag Goose for GB.

British/Irish Greylag Goose, listed as such in the annual WeBS report for the first time, refers to a combination of the previously listed 're-established' and 'North West Scotland' populations of Greylag Goose. As these two populations have

spread towards each other in Scotland, it is no longer possible to make a clear distinction between them (Mitchell *et al*. 2010).

The annual index continues to illustrate a population of birds in the ascendancy, in keeping with the rise in the breeding population in the wider countryside (Baillie *et al*. 2010). Numbers were typically high during the late-summer period when birds form moulting flocks.

Following the change in the classification of resident Greylag Geese in Britain, six sites surpass a 1% population threshold of 1,400 birds (Musgrove *et al*. 2011). These include Nosterfield Gravel Pits, Lower Derwent Ings and North Norfolk Coast in England, and Tiree and the Uists in Scotland. 2008/09 and 2009/10 WeBS Core count data exist for Nosterfield Gravel Pits, but unfortunately were unavailable in time for the publication of this report.

It should be noted that as a consequence of the reclassification of Greylag Goose populations, all nationally important sites are also of international importance. However, until such time that the British/Irish populations of Greylag Goose are recognised internationally, sites will be listed in the WeBS annual report as surpassing the threshold for national importance only.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of national importance in Great Britain[†]							
Tiree	3,892 [32]	4,005 [32]	3,694 [32]	3,370 [32]	2,848 [32]	Aug	3,562
North Uist	2,671 [34]	2,318 [34]	2,294 [34]	2,783 [34]	2,488 [34]	Aug	2,511
Nosterfield Gravel Pits	1,663	1,898	2,819				2,127
South Uist	2,119 [34]	1,719 [34]	1,141 [34]	1,971 [34]	2,482 [34]	Aug	1,886
Lower Derwent Ings	1,401	1,780	1,056	1,472	2,468	Nov	1,635
North Norfolk Coast	1,435	1,725	1,270	2,203	1,159	Dec	1,558
Other sites with mean peak counts of 800+ birds in Great Britain[†]							
Tophill Low Reservoirs	1,400	1,190	1,230	1,000 [6]	(890)	Nov	1,205
The Wash	1,005	1,337	1,159	1,200	1,291	Aug	1,198
Point of Ayre Gravel Pit	530	900	1,165	1,630	1,250	Sep	1,095
Humber Estuary	(525)	(785)	(906)	945	1,192	Aug	1,069
Ouse Washes	671	810	687 [6]	1,496	1,061	Oct	945
Dungeness and Rye Bay	702	773	1,409	964	740	Oct	918
Livermere and Ampton Water	879		1,285	784	642	Jan	898
Bolton-on-Swale Gravel Pits	774	615	1,585	716	732	Aug	884
Morecambe Bay	881	(617)	(585)	1,139	538	Feb	853
Windermere	488 [8]	985	767	843	1,184	Jun	853
King`s Dyke Pits, Whittlesey	366	1,338	(0)	(90)	(46)	Jan	852
Alton Water	612	1,056	1,068	613	807	Sep	831
Broom Gravel Pits				397	(1,232) [6]	Aug	815
Hay-a-Park Gravel Pits	132	825	1,503	606	1,007	Sep	815
Swale Estuary	(1,062)	632	885	(681)	671	Feb	813
Sites with mean peak counts of 50+ birds in Northern Ireland[†]							
Loughs Neagh and Beg	(630)	662	1,284	(917)	1,294	Feb	1,080
Lough Foyle	1,129	974	716	750	194	Feb	753
Strangford Lough	355	277 [6]	431	513	462	Dec	408
Belfast Lough	147 [6]	196 [6]	134	86	87	Sep	130
Lower Lough Erne	140	140	38	(14)	(30)	Feb	106
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain							
Abberton Reservoir	665	103	239	212	870	Aug	418

[†] *as few sites surpass the revised British threshold (1,400) and no All-Ireland threshold has been set, qualifying levels of 800 & 50 have been chosen to select sites in Great Britain and Northern Ireland for presentation in this report.*

Bar-headed Goose

Anser indicus

Escape
Native Range: S Asia

Bar-headed Geese were recorded at 44 WeBS sites throughout Britain, with a monthly peak of 19 birds in October. Maxima of six were present at both Grouville Marsh (Oct-Dec) and Duddon Estuary (May).

Snow Goose

Anser caerulescens

Vagrant and escape
Native Range: N America

Snow Geese were reported from 16 WeBS sites during 2009/10, with a monthly peak of 31 birds in November. Most records involved counts of 1-2, a notable exception being a flock of up to 25 at Harewood Lake. A regular group residing on Coll peaked at 27 birds in August (J. Bowler, pers. comm.).

Most Snow Geese seen in the UK are escapes from captivity, although singles with Pink-footed Geese at Loch of Strathbeg and North Norfolk Coast during the course of the winter may have been of more genuine provenance.

Ross's Goose

Anser rossii

Escape and possible vagrant
Native Range: N America

Nine sites, five of which are in Cambridgeshire, hosted Ross's Geese (all presumed escapes) during the course of 2009/10.

Emperor Goose

Anser canagicus

Escape
Native Range: Alaska, NE Siberia

The resident flock of Emperor Geese were present at South Walney Island in Morecambe Bay, peaking at 15 in July. There were no records from other sites.

Canada Goose

Branta canadensis

Naturalised introduction†
Native Range: N America

GB max: 60,207 Oct
NI max: 349 Feb

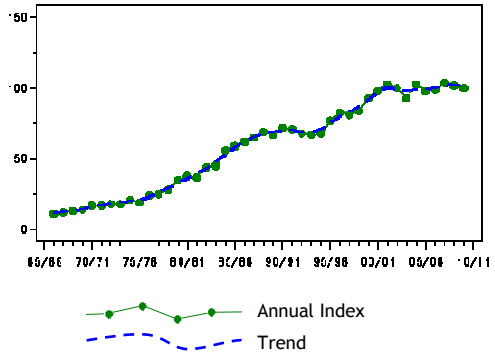


Figure 11.a, Annual indices & trend for Canada Goose for GB.

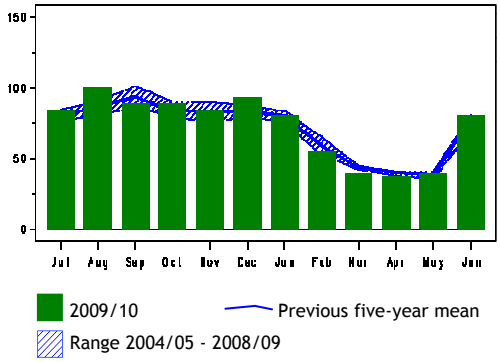


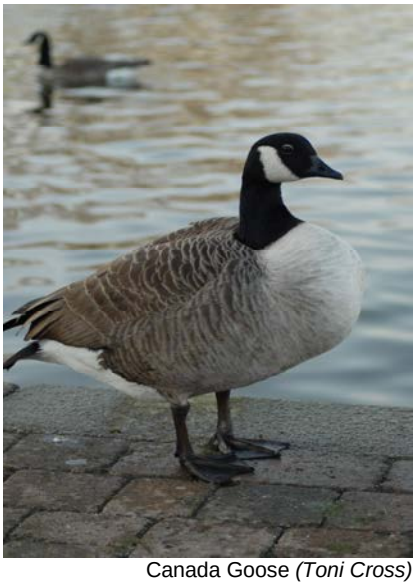
Figure 11.b, Monthly indices for Canada Goose for GB.

The last decade has witnessed relative stability in the overall British trend for Canada Goose, following the well-publicised increase during the 1980s and 1990s. However, population increases appear to be continuing towards the edge of the range of this naturalised population – exemplified by a marked rise in the trend at WeBS sites in Scotland, notable annual maxima at sites in north-west England, as well as a further increase in the adjacent population in The Netherlands (Hornman *et al.* 2011).

In 2009/10, the highest ever count of Canada Geese at a single WeBS site was noted; 4,519 at Mersey Estuary in June, which helped to place the site at the top of the table below. Numbers there in mid-winter were also at the same high level as reached in 2008/09; a January count of 3,318 birds representing the most ever noted by WeBS during the month. Staying in

north-west England, the peak of 1,828 at Ribble Estuary in December represents the most ever reported from that site. Aside from these, counts of 1,000+ were received from a number of other locations, the most notable of which were from Arun Valley, Lower Derwent Ings, and Southampton Water where the peak was the most ever recorded. Conversely, lower than normal numbers were again reported from Abberton Reservoir.

In Northern Ireland, the national monthly maximum remained at a similarly relatively low level to the previous year, with Upper Lough Erne and Strangford Lough both yielding significantly lower maxima than their respective five-year means.



Canada Goose *(Toni Cross)*

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites with mean peak counts of 700 or more birds in Great Britain†							
Mersey Estuary	2,188	2,160	2,706	3,500	4,519	Jun	3,015
Dyfi Estuary	2,947	2,420	2,799	3,319	2,478	Jul	2,793
Dee Estuary (England and Wales)	1,987	1,810	2,536	3,204 [10]	2,303	Aug	2,368
Ribble Estuary	626	(1,245)	1,494	1,625	1,828	Dec	1,393
Colliford Reservoir	841	2,439	1,637	632	1,409	Jun	1,392
Medway Estuary	935 [10]	824	1,413	(1,123)	1,103	Oct	1,080
Rutland Water	1,070	1,118	1,009	1,063	1,084	Aug	1,069
Arun Valley	742	1,076	570	(939)	(1,535)	Nov	972
Alde Complex	780	684	1,131	1,248	851	Jan	939
Fairburn Ings	2,509	609	436	421	687	Aug	932
Taw-Torridge Estuary	(1,109)	986	(565)	647	944	Dec	922
Harewood Lake	888		1,080	630	999	Dec	899
Bewl Water	900	548	1,039	(669)	1,072 [12]	Dec	890
Lower Derwent Ings	712	688	573	703	1,697	Nov	875
Doxey Marshes SSSI	(601)	802	726	987	884	Sep	850
R.Severn: Atcham Bridge - Wroxeter		600	650	1,200	800	Dec	813
Dolydd Hafren	(800)	(500)					(800)
Ouse Washes	445	575	558	1,463 [12]	823 [12]	Nov	773
Osberton	427	1,212	790	850	542	Aug	764
Pitsford Reservoir	682	832	587	877	807	Oct	757
Windermere	505 [12]	747 [12]	796	967	693	Jun	742
Lee Valley Gravel Pits	564	(488)	516	1,130	(549)	Jul	737
Southampton Water	(674)	384	(526)	(795)	(1,248)	Oct	725
Sites with mean peak counts of 50 or more birds in Northern Ireland†							
Upper Lough Erne	484	665	390	301	202	Feb	408
Lower Lough Erne	532	365	286	(71)	(78)	Oct	394
Strangford Lough	260 [10]	247	161	166	120	Sep	191
Lough McNean Lower	147	44	148	27	60	Feb	85
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain†							
Severn Hams	(498)	378	260	221	926	Dec	457
Eccup Reservoir	969	905	20	147	899	Oct	588
Fisherwick and Elford Gravel Pits	349	119	250	701	793	Sep	442
Tees Estuary	302	504	447	443	761	Dec	491
Bar Mere	600	625	550	359	750	Dec	577
Eversley Cross and Yateley GPs Pits	393	330	631	234	739	Aug	465
Acre Nook Sand Quarry	223	151	48	42	726	Aug	238

† *as no British or All-Ireland thresholds has been set, qualifying levels of 700 and 50 have been chosen to select sites in Great Britain and Northern Ireland respectively, for presentation in this report*

Lesser Canada Goose

Branta hutchinsii

Vagrant and escape
Native Range: N America

Eight WeBS sites hosted Lesser Canada Geese. All were probably escapes.

Greenland Barnacle Goose

Branta leucopsis

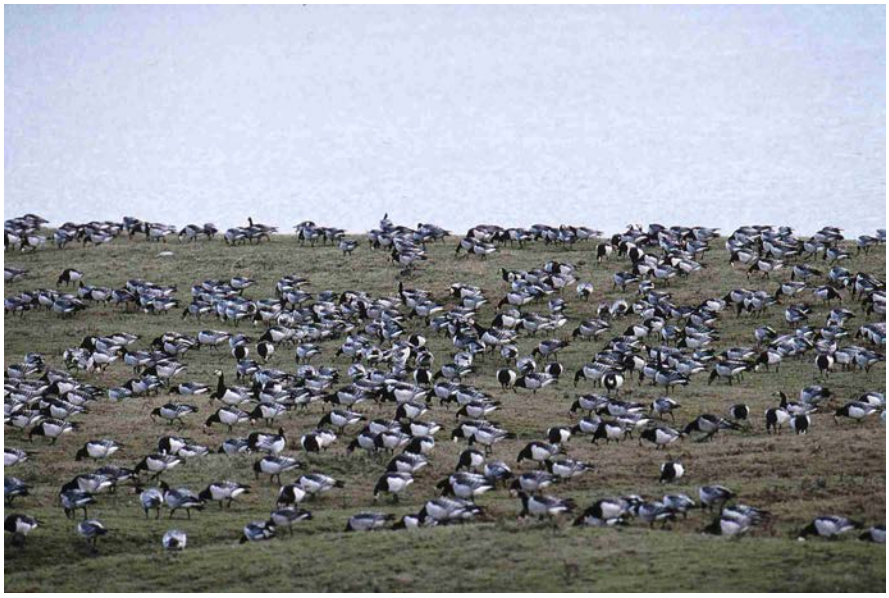
International threshold:	**560**
Great Britain threshold:	**580**
All-Ireland threshold:	**90**

GB max:	**40,727**	**Dec**	
NI max:	**0**		
% young:	4.0	Brood size:	1.8

'Greenland' Barnacle Geese winter exclusively at sites in northwest Scotland and Ireland. Ringing studies have shown that they tend to be faithful to specific wintering sites, with 70% of birds returning to the same site during the following winter. Key sites are surveyed by SNH, the Uists Greylag Goose Management Committee and Highland Council; although a full survey of all sites has not been carried out since spring 2008. The key site is Islay, where the total of 40,727 birds in December was 9.3% lower than the peak count of the previous winter and 25.4% lower than the highest count ever recorded; 54,610 in 2006/07.

Results from age counts undertaken on Islay in 2009/10 show that breeding success in 2009 was average; the proportion of young (4.0%) and mean brood size (1.8) were both lower than the respective recent averages.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of international importance in the UK							
Islay	47,303 [20]	52,709 [3]	44,961 [3]	44,896 [3]	40,727 [3]	Dec	46,119
Tiree	3,474 [11]	4,323 [3]	3,393 [21]	3,725 [21]	3,729 [21]	Mar	3,729
North Uist		2,119 [2]	3,630 [2]		2,392 [2]	Feb	2,714
South Walls (Hoy)	2,000 [12]	1,710 [12]	1,874 [21]	1,800 [21]	1,600 [21]	Jan	1,797
Isle of Coll	2,240 [20]	2,456 [3]	800 [21]	968 [21]	880 [21]	Mar	1,469
Colonsay/Oronsay	716 [21]	1,332 [3]	1,200 [21]	1,874 [21]			1,281
Balnakiel Farm	970	130	1,037 [3]	755 [3]			723
Keills Peninsula and Isle of Danna	468 [20]	627 [3]	711 [3]	550 [3]			589



Greenland Barnacle Geese *(Mike Weston)*
In 2009/10, a drop in numbers was noted at the key site, Islay.

Svalbard Barnacle Goose

Branta leucopsis

International threshold: **270**
Great Britain threshold: **330**

GB max: **29,537** **Oct**
NI max: **0**
% young 5.1 Brood size 2.0

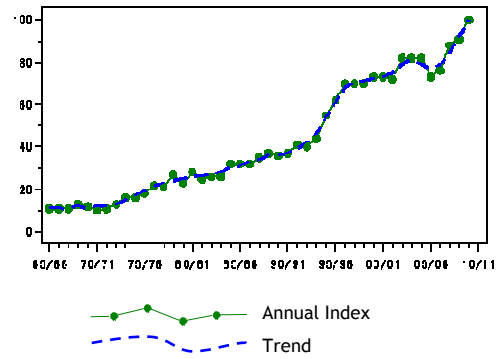


Figure 12.a, Annual indices & trend for Svalbard Barnacle Goose for GB.

The population of Svalbard-breeding Barnacle Geese continues to increase. The annual index reached its highest ever value in 2009/10. Despite a revised British population estimate, the equivalent international threshold has not yet been revised – hence the apparent discrepancy in terms of threshold values listed in the above header information. Co-ordinated counts carried out between September 2009 and June 2010 across the Inner Solway Estuary were used to derive an adopted population total of 32,800 birds. This represents the largest ever estimate, and represents a rise of 10% on the total from the previous winter of 29,900 birds.

The first Svalbard Barnacle Geese arrived on the Solway Firth in mid September, with total counts rising from 1,787 on the final day of the month to 29,170 just one week later. The overall percentage of young present in flocks around the Solway was 5.1% (ranging from 1.8% to 11.8% within individual flocks), slightly lower than both the previous year and the current ten-year mean. Based on assessment of 99 goose families, mean brood size was 2.0 goslings which is just above the average for the current ten-year period (1.9).

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of international importance in the UK							
Solway Firth	28,450 [1]	29,370 [1]	29,815 [1]	31,111 [1]	29,170 [1]	Oct	29,583
Lindisfarne	300	1,202	(190)	70	(300)	Oct	524
Loch of Strathbeg	2,168	181	121 [8]	62	67	Oct	520

Naturalised Barnacle Goose

Branta leucopsis

Naturalised establishment†

GB max: **1,210** **Nov**
NI max: **365** **Oct**

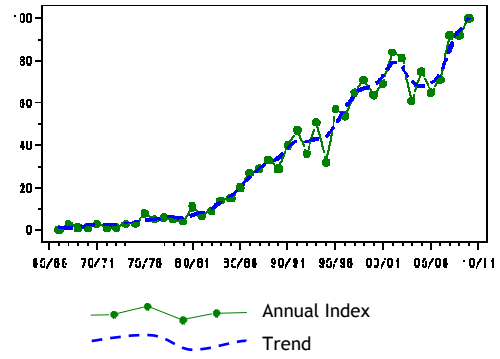


Figure 13.a, Annual indices & trend for Naturalised Barnacle Goose for GB.

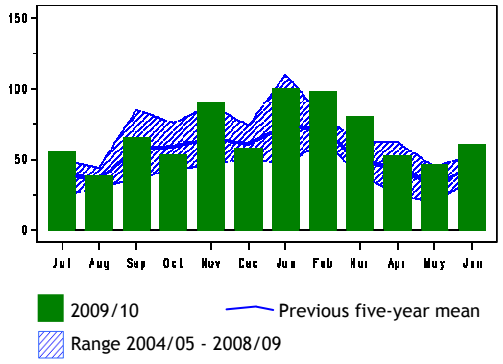


Figure 13.b, Monthly indices for Naturalised Barnacle Goose for GB.

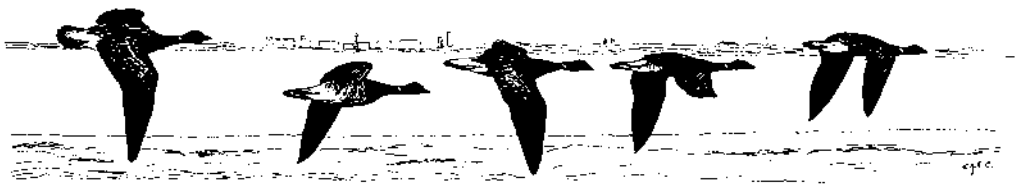
It is standard procedure for Barnacle Geese to be assigned as being of naturalised origin purely on the basis of geographical location. As a result, it should be borne in mind that is possible that some extra-limital birds from the Svalbard and Greenland populations are incorrectly assigned.

The national index for naturalised Barnacle Geese rose again in 2009/10, to its highest ever level. A similarly steep increase has been witnessed across the North Sea in The Netherlands (Hornman *et al*. 2011); however any potential exchange between the two populations remains conjecture. The peak count of the year in Britain was 349 at Humber Estuary (Nov) and 260 at Minsmere (Sep), both in keeping with recent averages at those sites. Maxima in excess of 100 birds at a further nine sites include recent steep rises at Hamford Water and Alde Complex.

In Northern Ireland, the number recorded at Strangford Lough was the highest ever; indeed, the count of 365 in October represents the most reported from anywhere in the UK during 2009/10.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites with mean peak counts of 50 or more birds in Great Britain†							
Humber Estuary	88	318	631	200	(349)	Nov	317
Minsmere	249	17	240	650	260	Sep	283
Roxton Lake	195	128	170	246	172	Jul	182
Willington			5	287	(227)	Feb	173
Ullswater	143	186	230	82	170	Feb	162
Derwent Water	105	137	184	160	137	Jun	145
North Warren and Thorpeness Mere	48 [6]	90	147	230	195	Nov	142
Severn Estuary	111	126	126	150	192	Feb	141
Lound Waterworks	393	104	50	37	45	Oct	126
Frampton Pools	113	114	118	108	146	Mar	120
Benacre Broad	52	359	52	0	70	Dec	107
Dungeness and Rye Bay	136	44	92	79	83	Jan	87
Hamford Water	0	19	0	146	221	Mar	77
Duddon Estuary	(88)	(10)	65	(0)	(38)	Dec	77
Hornsea Mere	71	72	73	67	67	Feb	70
The Hen Reedbeds	(68)	(0)	(1)	(0)	(2)	Mar	(68)
Morecambe Bay	12	18 [8]	23	196	53	Feb	60
Middle Yare Marshes	74	70	57	35	41	Oct	55
Osberton	4	68	71	51	74	Sep	54
Barcombe Mills Reservoir	47	53	56	53	56	Jan	53
Sites with mean peak counts of 50 or more birds in Northern Ireland†							
Strangford Lough	251	279	275	325	365	Oct	299
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain							
Alde Complex	2	19	(0)	(1)	108	Dec	43
Lower Derwent Ings	1	6	1	0	56	Feb	13
Bassenthwaite Lake	13	1	12	140	52	Mar	44
WWT Martin Mere	10	40	3	19	52	Nov	25
Blake Mere, Whitchurch			0	0	52	Jan	17
Crouch-Roach Estuary	(2)	2	14	36	50	Nov	26

† as no British or All-Ireland thresholds have been set a qualifying level of 50 has been chosen to select sites for presentation in this report



Dark-bellied Brent Geese *(C.J.F.Coombs)*

Dark-bellied Brent Goose

Branta bernicla bernicla

International threshold:	**2,000**	
Great Britain threshold:	**910**	
All-Ireland threshold:	**+**	

GB max:	**81,120**	**Feb**	
NI max:	**2**	**Nov**	
% young	5.3	Brood size	1.8

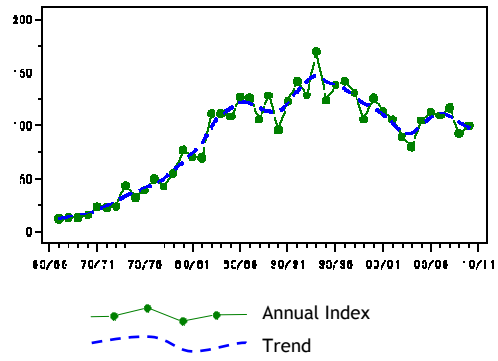


Figure 14.a, Annual indices & trend for Dark-bellied Brent Goose for GB.

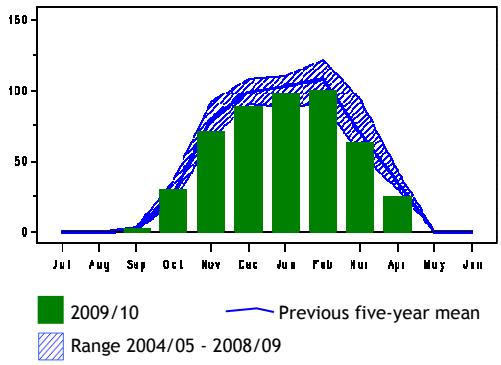


Figure 14.b, Monthly indices for Dark-bellied Brent Goose for GB.

Dark-bellied Brent Geese winter along the coasts of western Europe, the majority at sites on the Atlantic west coast of France, the south and east coasts of England, southwest Netherlands and the Wadden Sea. Since reaching a peak in Britain in 1993/94, in the fifteen years since there has been a downward trend follwed by a slight recovery.

The species is now at the same status as during the early 1980s, when it was in the ascendancy ahead of reaching the notable high in the national index in 1993/94. Since then numbers have fallen, yet the last decade has seen relative stability. A very similar pattern in the trend for this species has been recorded at the Wadden Sea in The Netherlands (Hornman *et al.* 2011).

Fifteen sites qualified as being of international importance in 2009/10, all typically located between Humber Estuary on the east coast and the Hampshire estuaries on the south coast. In keeping with the previous year, the monthly indices imply that numbers of geese were again lower than recent average during the mid winter period. It is unclear whether this involved a shift, perhaps to France, in response to the cold weather at the time, but it is worth noting that the January index at the Wadden Sea in The Netherlands was markedly lower than expected (Hornman *et al.* 2011). Cold weather movements by Light-bellied Brent Geese south-westwards from Denmark have now been established (Clausen *et al.* in prep.), so a similar response by their dark-bellied cousins might also be expected.

In 2009/10, peak numbers at every site of international importance were broadly similar to those noted during 2008/09. The peak from The Wash was again significantly lower than the average for the past decade; up until 2008/09, peaks of 20,000+ were regular. Elsewhere, notable drops occurred at North Norfolk Coast and Langstone Harbour, whereas Pagham Harbour supported its second highest number since the 1980s and early 1990s when 3,000+ were regular. A total of 15 WeBS sites surpassed the qualifying threshold for national importance.

Results from age assessments at wintering sites in the UK indicate that 2009 was a poor breeding season for Dark-bellied Brent Geese, albeit a notable improvement on the previous year. The overall proportion of young birds was 5.3% and mean brood size was 1.8 young per successful pair.

As with a suite of waterbird species that nest in the Arctic, breeding success tends to vary greatly from year to year and is greatly influenced by interactions between lemming abundance, predator pressure and other factors such as weather. In 2009, reports from monitoring stations along the breeding grounds in arctic Russia indicate that lemmings were rare whilst Arctic foxes

were present in variable numbers; common on the Taimyr and Gydan Peninsulas but rare on the Yamal Peninsula (Soloviev & Tomkovich 2010). Therefore, it is possible that the low numbers of rodents may have contributed to the below average breeding success of Dark-bellied Brent Geese in 2009.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of international importance in the UK							
The Wash	24,490	20,870	21,101	13,993	15,438	Dec	19,178
Thames Estuary	12,567	8,100	22,047	11,684	12,541	Oct	13,388
Chichester Harbour	9,018	9,605	12,171	8,757	8,569	Feb	9,624
North Norfolk Coast	8,831	7,091	7,614	6,614	5,830	Dec	7,196
Blackwater Estuary	5,946	7,293	8,278	6,692	(7,564)	Jan	7,155
Hamford Water	5,952	4,089	4,157	5,698 [10]	(5,572)	Feb	5,094
Langstone Harbour	5,496	4,906	5,263	4,165	4,969 [10]	Nov	4,960
Humber Estuary	(2,636)	(4,586)	(2,430)	(2,801)	(2,856)	Jan	(4,586)
Crouch-Roach Estuary	(3,520)	(4,471)	4,534	4,241	(2,984)	Feb	4,415
Dengie Flats	2,445	2,901	(3,560)	2,364	3,871	Jan	3,028
Portsmouth Harbour	2,925	3,162	(2,500)	2,538 [10]	(2,030)	Jan	2,875
Pagham Harbour	2,819	2,744	2,341	2,522	3,015	Feb	2,688
Colne Estuary	2,123	(1,296)	(2,536)	(2,076)	(2,839)	Feb	2,499
North West Solent	2,377	1,808	2,101	1,885	2,050	Dec	2,044
Swale Estuary	1,861	2,310	1,857	2,115	(1,782)	Dec	2,036
Sites of national importance in Great Britain							
Stour Estuary	1,617	2,063	2,038	1,726	1,763 [10]	Nov	1,841
Fleet and Wey	1,436	1,554	1,810	2,200	2,190 [10]	Nov	1,838
Newtown Estuary	2,033	1,662	2,115	1,469	1,382	Jan	1,732
Beaulieu Estuary	2,173	3,439	774	689	798	Jan	1,575
Exe Estuary	1,531	1,374	1,820	1,614	1,317	Feb	1,531
Medway Estuary	(1,515)	(1,076)	(1,367)	(959)	(1,509)	Feb	(1,515)
Orwell Estuary	(1,477)	1,500 [10]	(1,405)	1,266	1,503 [10]	Feb	1,437
Deben Estuary	(1,449)	1,759	(1,409)	1,038	1,173	Feb	1,366
Poole Harbour	1,160	1,146	(721)	(812)	(938)	Jan	1,153
Southampton Water	949	1,151	1,674	869	1,055 [12]	Feb	1,140
Jersey Shore		733	1,317				1,025
Burry Inlet	1,121	937	764	860	927	Feb	922
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain							
Pegwell Bay	121	220	300	47	1,145 [12]	Oct	367

Canadian Light-bellied Brent Goose

Branta bernicla hrota

International threshold: **260**
Great Britain threshold: **7***
All-Ireland threshold: **220**

GB max: **1,070** **Dec**
NI max: **30,524** **Oct**
% young 0.4 Brood size -

**50 is normally used as a minimum threshold*

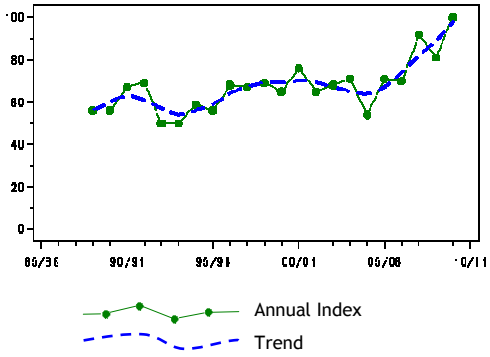


Figure 15.a, Annual indices & trend for Canadian Light-bellied Brent Goose for NI.

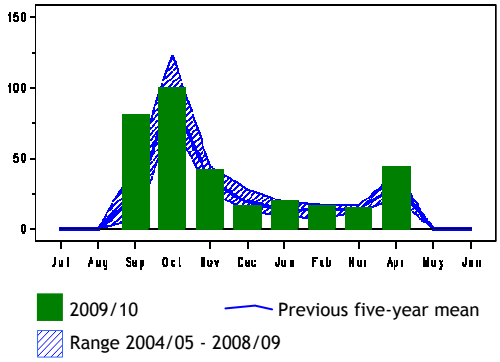


Figure 15.b, Monthly indices for Canadian Light-bellied Brent Goose for NI.

Light-bellied Brent Geese which breed on the Arctic islands of north-east Canada migrate across Greenland and Iceland to winter mostly in Ireland. As the winter progresses, some tend to move southwards and use sites in western Britain, the Channel Islands, and on the Atlantic coasts of France and Spain.

An international census took place for a eighth consecutive year, the 14th time in total, and involved coverage of sites in Iceland, Ireland and the UK. Overall, a total population of 38,000 was estimated, slightly higher than that in 2008/09. Typically, the majority were in Northern Ireland, principally at Strangford Lough (26,041) and Lough Foyle (3,875). On the other side of the Irish Sea, site maxima were noted in Wales at Foryd Bay, Inland Sea, Lavan Sands and Cleddau Estuary, while 276 at Morecambe Bay marks an all-time high there for the second year in succession. This report represents the first time that the British monthly maximum has exceeded 1,000 birds, and that any British sites have surpassed the threshold for international importance. However, it should be borne in mind that once the thresholds are next reviewed they may no longer qualify.

Typically annually breeding success tends to be either good or poor. In 2009, just 0.4% birds were considered to be young, indicative of a very poor breeding season and the lowest productivity since the mid 1970s.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean	
Sites of international importance in the UK								
Strangford Lough	21,885 [17]	24,658	30,457	25,605	26,041	Oct	25,729	
Lough Foyle	3,968	2,177	3,251	2,550	3,875	Oct	3,164	
Dundrum Inner Bay	640	575	1,108	1,232	982	Jan	907	
Outer Ards Shoreline	618	577	946	781	580	Mar	700	
Carlingford Lough	508	542	483	626	(53)	Feb	540	
Killough Harbour	516	282					399	
Larne Lough	218	256	369	655	219	Nov	343	
Morecambe Bay	(22)	(65)	(129)	(236)	276	Nov	276	▲
Traeth Melynog	262			351	187	Dec	267	▲
Sites of national importance in Great Britain								
Inland Sea and Alaw Estuary		79 [6]		174	209	Dec	154	
Dee Estuary (England and Wales)	138	104	199	174	130	Feb	149	
Foryd Bay	54	47	181	295 [6]	170	Nov	149	
Loch Ryan	89	(37)	52	0	110	Dec	63	
Cymyran Strait	0		0	0	204	Jan	51	▲
Inner Loch Indaal					45	Dec	45	▲
Broadford Bay	18	0	(0)	122	0		35	
Jersey Shore		23	(36)				30	
Lavan Sands	11	15	24	28	54	Feb	26	
Cleddau Estuary	7	7	12	51	36	Mar	23	
Dinas Dinlle to Afon Llifon					18 [6]	Feb	18	▲
Tamar Complex	14	10	16	23	20	Nov	17	
Ayr to North Troon	16						16	
Sound of Gigha					16	Sep	16	▲
Loch Gruinart	76	1	1	1	0		16	
Fleet and Wey	3	8	4	42	17	Nov	15	
Kilnaughton Bay Port Ellen			14	16			15	
Par Sands Pools & St Andrews Road	0	0	50	0	0		10	
Swansea Bay	23	0	0	11	(3)	Oct	9	
Fal Complex	0	0	0	40	0		8	
Ribble Estuary	(1)	(0)	(1)	8	(2)	Jan	8	▲
Gerrans Bay	0	0	0	37	0		7	
Garlieston Bay					7 [6]	Jan	7	▲
Sites no longer meeting table qualifying levels in WeBS-Year 2009/2010								
Poole Harbour	(0)	(3)	(0)	(3)	(2)	Jan	(3)	
No data for years 2005/06 to 2009/10: Derbyhaven Bay								
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain								
Severn Estuary	(5)	2	11	0	10	Mar	6	
Duddon Estuary	0	0	0	0	8	Feb	2	
Wigtown Bay	0	0	0	0	8	Nov	2	

Svalbard Light-bellied Brent Goose

Branta bernicla hrota

International threshold: 70
Great Britain threshold: 34*

GB max:	**4,979**	**Nov**	
NI max:	**0**		
% young	2.2	Brood size	1.8

**50 is normally used as a minimum threshold*

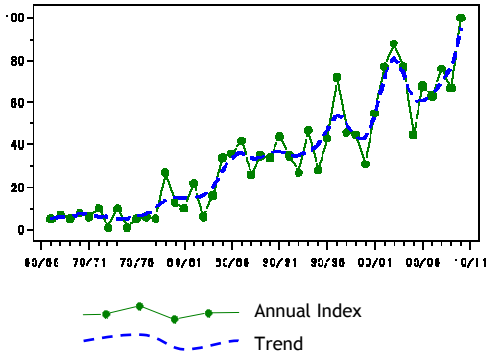


Figure 16.a, Annual indices & trend for Svalbard Light-bellied Brent Goose for GB.

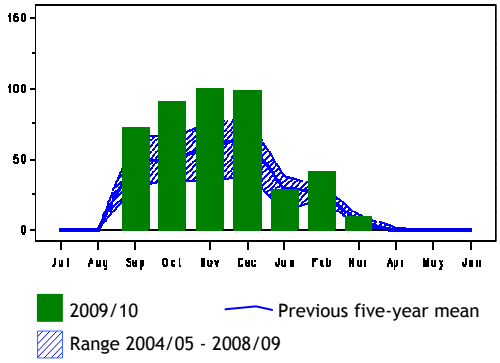


Figure 16.b, Monthly indices for Svalbard Light-bellied Brent Goose for GB.

The population of Light-bellied Brent Geese which breeds in Svalbard, north-east Greenland and Franz Josef Land has shown a trend of fluctuating increase over the last twenty or so years. The main wintering sites were formerly in Denmark, but Lindisfarne has become more and more important with numbers there increasing from around 200 birds in the 1950s to typically over 3,000 during the 2000s.

In 2009/10, the annual index value rose to its highest ever value and the peak count at Lindisfarne of 4,935 in November was the most ever. The monthly indices show that numbers present from September through to the end of the calendar year were well above average, followed then by a marked drop-off in January. Away from Lindisfarne, nationally important numbers were present at Eden Estuary and Inner Moray & Inverness Firth, both sites which regularly support small flocks each winter. The record total at Lindisfarne, as well as the presence of several flocks of various sizes on the east coast, provide an indication of an exodus of birds from Denmark and other sites across the North Sea during the colder than average winter (Clausen *et al.* in prep.). The most notable of these flocks relates to a supplementary count of 114 at Breydon Water & Berney Marshes in February. Pertinently, other noteworthy records of 30 at Humber Estuary and 21 at Ythan Estuary, both in January, were the highest counts at those sites since a similarly cold spell of weather in January 1987.

Breeding success was assessed through monitoring of the Lindisfarne birds, and at 2.2% proved to be one of the lowest ever recorded. The percentage of young in wintering flocks has remained generally low over the past ten years, only exceeding 10% on four occasions since 1992/93. Mean brood size of fifteen families of geese was 1.8.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean	
Sites of international importance in the UK								
Lindisfarne	3,688	(3,350)	(3,798)	3,879	(4,935)	Nov	4,075	
Breydon Water & Berney Marshes					114 [6]	Feb	114	▲
Sites of national importance in Great Britain								
Inner Moray & Inverness Firth	81	43	14	99	52	Feb	58	
Eden Estuary	27	18	69	29 [6]	41	Jan	37	▲

Black Brant

Branta bernicla nigricans

Vagrant
Native Range: N America and E Asia

Black Brants were recorded in flocks of Dark-bellied Brent Geese at 13 sites along the English coast between Humberside and Dorset, with a maximum of six birds noted in January. All records related to singles apart from three at Fleet & Wey in January and two at Orwell Estuary in February.

Red-breasted Goose

Branta ruficollis

Vagrant and escape
Native Range: SE Europe, Asia

Recorded at seven sites in England. Typically, the provenance of most if not all is doubtful, most obviously the two that roamed Essex throughout the year. Other records included singles at WWT Martin Mere (Nov) and Exe Estuary (Dec-Feb).

Egyptian Goose

Alopochen aegyptiaca

Naturalised introduction
Native Range: Africa

GB max: 778 Oct
NI max: 0

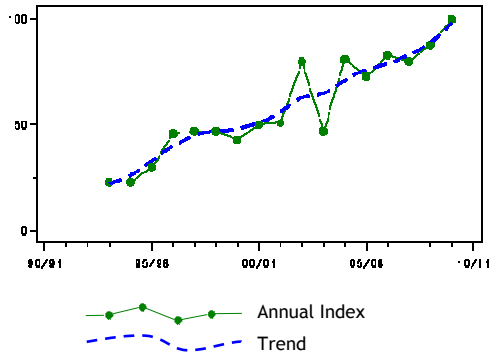


Figure 17.a, Annual indices & trend for Egyptian Goose for GB.

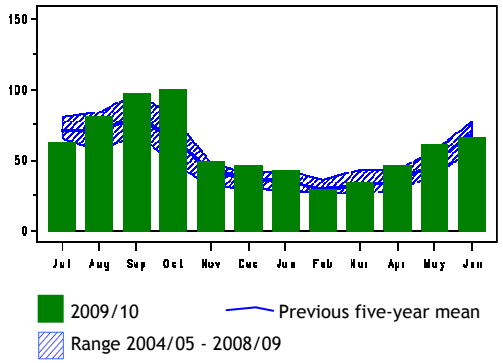


Figure 17.b, Monthly indices for Egyptian Goose for GB.

The rise of the Egyptian Goose continued in 2009/10, with a counted maximum of 778 birds in October. However, it should be noted that the number of Egyptian Geese monitored by WeBS represents a relatively small proportion of the total number present in Britain as a whole, now estimated to be in the order of 3,400 birds (Musgrove *et al*. 2011). This represents the first published estimate of the population in Britain since a figure of 400 birds produced twenty years earlier by Sutherland & Allport (1991), at a time when the species' range was just beginning to spread.

The species was recorded at 165 WeBS sites in 2009/10, representing an increase of 25% in just a single year. These sites included single locations in both Wales and Scotland. The annual index reached a record high in 2009/10; one that will presumably be short-lived.

Egyptian Geese *(Andy Musgrove)*

Typically, many of the highest counts emanated from Norfolk, although the listing

of Eversley & Yateley Gravel Pits, Rutland Water and Summerleaze Gravel Pits in the table below is evidence of the steady expansion that has taken place away from the East Anglian core. The above average monthly indices for August to October are good evidence of an increasing breeding population (e.g. Holling *et al*. 2011). It is a reasonable assumption that outputs from *Bird Atlas 2007-11* (www.bto.org/birdatlas) will reveal dramatic changes have occurred in this species' distribution over the course of the last two decades.

The potential of this species to reach new areas was evidenced by a first record for Shetland in February 2010 (*per* www.birdguides.com); that particular bird presumably having originated from either Britain, The Netherlands or Denmark.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites with mean peak counts of 10 or more birds in Great Britain[†]							
North Norfolk Coast	(126)	211	125	(162)	133	Sep	158
Breydon Water and Berney Marshes	85	55	134 [12]	83 [12]	256 [11]	Sep	123
Eversley Cross and Yateley GPs	24	69	96	156	117	Sep	92
Cranwich Gravel Pits				59	93	Aug	76
Rutland Water	53	64	56	96	63	Aug	66
Yare Valley - Marlingford to Bawburgh		52 [12]	(61)	68 [12]	52	Jun	58
Middle Yare Marshes	26	65	(81)	(30)	(50)	Sep	56
The Wash	10	39	(32)	32	78	Oct	40
Summerleaze Gravel Pits	8	2	60	62	35	Dec	33
Nunnery Lakes	31	36	36	26	37	Jun	33
Nar Valley Fisheries Lakes					30	Dec	30
Whitlingham Country Park	27	24	24	21	35	Oct	26
Trinity Broads	(7)	(8)	26	33	19	Jul	26
Spade Oak Gravel Pit (Little Marlow)	49	11	19	22	19	Oct	24
Hickling Broad	42	5		26	11	Oct	21
Pentney GP					21	Dec	21
Busbridge Lakes		17	17	25	22	Mar	20
Clapham Common	(2)			12	19	Sep	16
Lound Waterworks	16	14	5	25	19	Sep	16
Earith Gravel Pits			21 [12]	8 [12]	16	May	15
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain							
Osterley Park Lakes	5	4	7	10	19	Apr	9
Queen Elizabeth II Reservoir	2	2	6	4	18	Oct	6
Kirkby-on-Bain Gravel Pits	5	4	1	11	15	Sep	7
Abberton Reservoir	2	2	5	7	15	Sep	6

[†] *as no British or All-Ireland thresholds have been set a qualifying level of 15 has been chosen to select sites for presentation in this report*

Paradise Shelduck

Tadorna variegata

Escape
Native Range: New Zealand

One continued to reside at Shakerley Mere, being last seen in March. Two others were reported from the Dee Estuary in January.

Ruddy Shelduck

Tadorna ferruginea

Escape and possible vagrant
Native Range: Asia, N Africa, S Europe

Ruddy Shelducks were noted at 18 WeBS sites during the year. An August peak of 19 birds included seven at Acre Nook Sand Quarry and six at Lower Windrush Valley Gravel Pits. All other records were of one or two birds, including the sole record from Scotland; at Montrose Basin in July and August. This species has never been recorded by WeBS in Northern Ireland.

Shelduck

Tadorna tadorna

GB max:	50,444	Oct
NI max:	4,338	Dec

International threshold:	3,000
Great Britain threshold:	610
All-Ireland threshold:	150

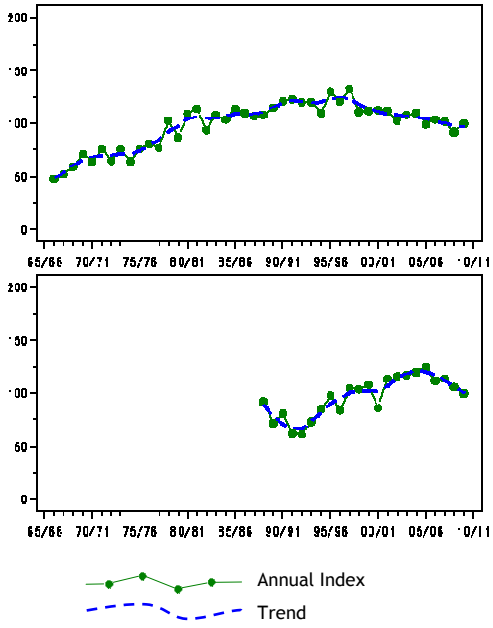


Figure 18.a, Annual indices & trend for Shelduck for GB (above) & NI (below).

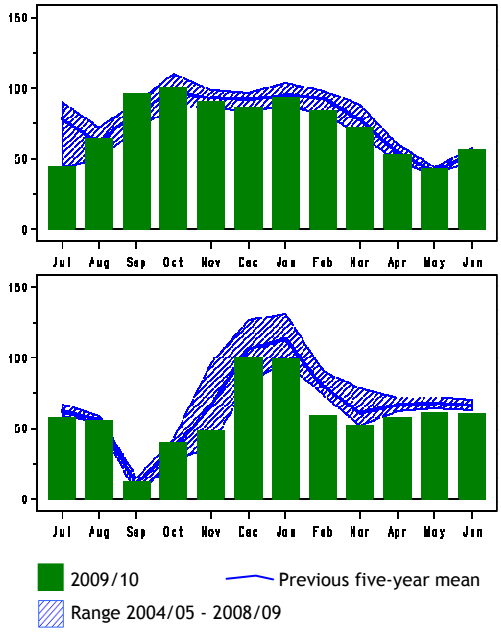
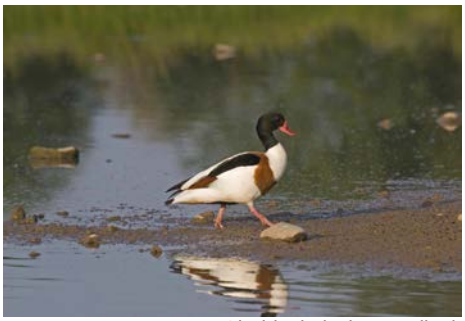


Figure 18.b, Monthly indices for Shelduck for GB (above) & NI (below).

The trend for Shelduck in Britain has exhibited a steady decline since the mid 1990s. At the same time as this decrease, numbers in The Netherlands have increased (Hornman *et al.* 2011) implying a shift in distribution across the North Sea. The monthly indices indicate that above average numbers were present during September and October but fewer than expected during the winter period. Although the index value rose slightly in comparison to 2008/09, the overall trend remains one of shallow decline.



Shelduck *(John Harding)*

Eight sites in Britain continue to surpass the threshold for international importance. Of sites with good coverage, the most notable peak was 11,688 at Dee Estuary in October, the highest count there since an all-time high of 13,334 birds in October 2004. In a similar vein, the maximum noted at Forth Estuary was the most there for twelve years. However, the peak at The Wash remained at the same relatively low level as in 2008/09; a decline linked to over-exploitation of the cockle and mussel fishery at that site (Atkinson *et al.* 2010). During the 1980s, mid winter maxima of 15,000+ Shelducks regularly occurred at The Wash, peaking at an exceptional 21,304 birds in December 1985; the highest total noted anywhere by WeBS.

Traditionally, the majority of British and Irish breeding birds were considered to have migrated to the Helgoland Bight of the Wadden Sea to moult, joined by birds of Scandinavian and Baltic origin. However, in more recent times at least, sites in Britain, particularly the Mersey and Humber

Estuaries have also become recognised as being of importance for moulting birds. Therefore, the reduced coverage at both of these sites which has resulted in incomplete counts at them in recent years is of concern with respect to the effective monitoring of these moulting sub-populations. Hence, in order to assist in collection of important data during the late-summer period, any potential counters in these areas are asked to make contact with the WeBS office at the BTO.

In Northern Ireland, the exodus of birds in the autumn to moult sites is particularly well illustrated by the monthly indices. One can only assume that these birds move across the Irish Sea to the Mersey Estuary. The peak at the most important site in Northern Ireland, Larne Lough, was close to recent average, while that at Belfast Lough was the highest since February 1996.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of international importance in the UK							
Mersey Estuary	15,605	(16,721)	(10,644)	(4,237)	(3,613)	Aug	16,163
Dee Estuary (England and Wales)	(8,872)	10,869	9,425	9,457	11,688	Oct	10,360
Morecambe Bay	(6,609)	(8,880)	5,804	8,409	(8,367)	Nov	7,865
The Wash	6,904	6,855	6,656	6,046	6,155	Jan	6,523
Humber Estuary	5,223	4,823	5,804	(2,892)	(4,664)	Aug	5,283
Severn Estuary	4,182	3,711	(5,414)	3,943	5,148	Oct	4,480
Strangford Lough	4,451 [10]	3,413 [10]	6,084 [10]	5,583 [10]	2,825	Dec	4,471
Forth Estuary	3,063	(3,546)	3,283	2,774	4,047	Aug	3,343
Sites of national importance in Great Britain							
Ribble Estuary	2,935	2,577	2,216	2,878	(2,327)	Feb	2,652
Blackwater Estuary	(1,828)	2,623	(2,369)	2,642	(2,342)	Feb	2,633
Stour Estuary	(1,421)	1,641	2,402	3,499 [10]	1,814	Jan	2,339
Medway Estuary	1,949	(1,290)	(1,631)	(1,604)	(1,673)	Jan	1,949
Thames Estuary	1,968	1,870	2,498	1,941	1,362	Jan	1,928
Poole Harbour	(1,857)	(1,043)	(788)	(899)	(715)	Nov	(1,857)
Solway Estuary	1,863	2,888	1,902	(708)	763	Nov	1,854
Swale Estuary	2,140	1,406	2,003	1,926	1,636	Jan	1,822
Hamford Water	1,493	(1,496)	2,450	1,838	1,401	Jan	1,796
Lindisfarne	1,180 [10]	1,868	(1,406)	(2,302)	(1,451)	Dec	1,783
Colne Estuary	(471)	(326)	1,600 [10]	(406)	(813)	Feb	1,600
North Norfolk Coast	1,283	1,361	1,222 [10]	981	1,027	Mar	1,175
Montrose Basin	1,239 [10]	(1,106)	(1,098)	806	1,191	Nov	1,088
Alde Complex	925	1,181	1,120	(1,041)	1,020	Feb	1,062
WWT Martin Mere	965	1,075	780	1,290	1,050	Nov	1,032
Wigtown Bay	750	751	880	1,017	1,338	Nov	947
Crouch-Roach Estuary	(397)	577	823	1,029	651	Dec	770
Burry Inlet	637	690	780	962	757	Dec	765
Orwell Estuary	674	727 [10]	(419)	807 [10]	797	Jan	751
Chichester Harbour	793	643	449	560	926	Jan	674
Deben Estuary	707	837	754	554	467	Mar	664
Duddon Estuary	737	363	498	790	911	Dec	660
Cleddau Estuary	721 [10]	497	607	763	580	Jan	634
Tees Estuary	581	816	588	599	517	Jan	620
Sites of all-Ireland importance in Northern Ireland							
Larne Lough	880	832	486	931	819	Jan	790
Belfast Lough	347 [10]	(378)	265	691	846	Dec	537
Carlingford Lough	560	(349)	477	434	278	Dec	437
Lough Foyle	392	264	322	364	122	Mar	293
Sites no longer meeting table qualifying levels in WeBS-Year 2009/2010							
Blyth Estuary	514	677	794	(493)	413	Feb	600
Tamar Complex	650	630	631	529	459	Feb	580
Loughs Neagh and Beg	98	124	95	193	188	Mar	140
Dundrum Inner Bay	96	70	188	109	116	Jan	116
Other sites surpassing table qualifying levels in Winter 2009/2010 in Northern Ireland							
Loughs Neagh and Beg	98	124	95	193	188	Mar	140

Muscovy Duck

Cairina moschata

Escape
Native Range: S America

Muscovy Ducks were recorded at 43 sites in 2009/10, with peak counts of 15 at Hesketh Park Lake and 11 at Brayford Pool, Lincoln. Following the rapid decline at Fort Henry Ponds & Exton Park Lakes, the species is now apparently absent there.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites with mean peak counts of 5 or more birds in Great Britain							
Fort Henry Ponds and Exton Park Lakes	25	43	5	1	0		15
Brayford Pool Lincoln	0	26	17	14	11	Sep	14
Hesketh Park Lake			11	14	15	Nov	13
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain							
Poole Harbour	0	2	2	4	7	Nov	3
Dart Estuary	0	1	0	1	5	Mar	1
Duddon Estuary	0	0	0	0	5	Sep	1

Wood Duck

Aix sponsa

Escape
Native Range: N America

Wood Ducks were seen at eight sites in 2009/10, including the regular site of Stanton Lake where up to two were present throughout. Up to three were at Connaught Water and two at Bucklands Pond, and all other records related to singles.

Mandarin

Aix galericulata

Naturalised introduction
Native Range: E Asia

GB max: 624 Oct
NI max: 0

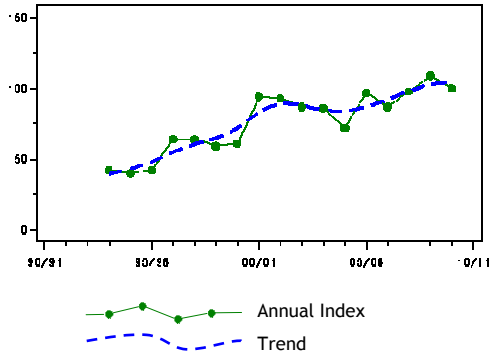


Figure 19.a, Annual indices & trend for Mandarin for GB.

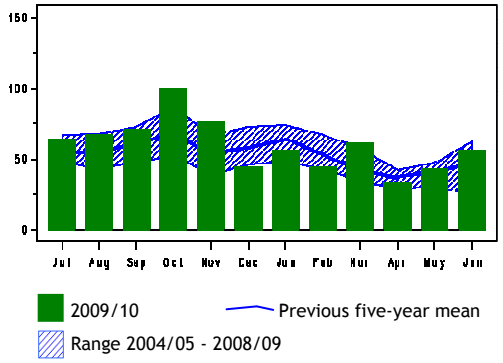


Figure 19.b, Monthly indices for Mandarin for GB.

Records of Mandarin Ducks were received from 155 WeBS sites in 2009/10, a similar showing to the previous year. Although this total is further evidence of the range expansion which has occurred in recent decades, it could at least partly reflect increased WeBS coverage of small wooded lakes and ponds. These tend to be the types of wetland adopted by counters new to the WeBS volunteer network, and hence the sites new to the WeBS site gazetteer. All sites with Mandarin Ducks were in England with the exception of two in Scotland and three in Wales.

The UK's total population of Mandarin Ducks appears to be slowly increasing. This mirrors the situation in the Far East where the species is, of course, native; in Japan for example, the population has risen significantly in recent years, particularly on artificial waterbodies (Kasahama & Koyama 2010). The monthly WeBS maximum of 624 birds represents the highest ever total, and national index was just slightly lower than

the record high reached in 2008/09. However, with numbers of this unobtrusive species often difficult to assess, and considerable annual variation in distribution and numbers resulting from changes in coverage of favoured habitats, the latest British population estimate remains at 7,000 birds (Musgrove *et al*. 2011).

In 2009/10, counts of 50+ were received from seven sites. Unfortunately these did not include Forest of Dean Ponds, the UK's traditional stronghold for the species. The highest numbers now routinely counted through WeBS are at Brookleys Lake in Staffordshire. Elsewhere, counts of 80 at Golding Hill & Baldwin Ponds and 64 at Trimpley Reservoir provide an indication of the numbers present at sites traditionally not counted through WeBS.

Considering the proximity of the Forest of Dean, the apparent rarity of the species at WeBS sites in Wales seems surprising, and implies the potential benefits that could be generated from improved coverage of wooded lakes and rivers in central and eastern parts of Wales.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites with mean peak counts of 20 or more birds in Great Britain[†]							
Forest of Dean Ponds	66 [15]	236 [12]		232 [12]			178
Bradley Pools	144						144
Brookleys Lake	4 [46]	11 [46]	98 [46]	51 [46]	160 [46]	Dec	65
Trimpley Reservoir					64	Sep	64
Headley Mill Pond	132	15	64	28	22 [12]	Feb	52
Darwell Reservoir	58	74	33	41			52
Wraysbury Pond		51 [12]					51
Dee Flood Meadows	36	83	48	35	47	Sep	50
Bough Beech Reservoir	45 [30]	60 [12]	42	48	50 [12]	Oct	49
Arun Valley	47	25	53	71	28	Jan	45
Busbridge Lakes		41	31	52	36	Oct	40
Connaught Water (Epping Forest)	35	44	40	38	27	Jan	37
Harewood Lake	15		25	44	62	Oct	37
Stockgrove Country Park			3	67	39	Nov	36
Cuttmill Ponds	66	27	22	8	43	Oct	33
Strawberry Hill Ponds	32	44	33	17	41	Oct	33
Linacre Reservoirs	23	25	35	23	45	Nov	30
Allestree Park Lakes	37	16					27
Osterley Park Lakes	18	14	21	37	32	Jul	24
Golding Hill & Baldwins Hill Ponds	7	20	6	6	80	Nov	24
Blackbrook Reservoir	17	16	13	8	64 [12]	Oct	24
Kedleston Park Lake	24						24
Blatherwyke Lake	0	3	21	48	32	Nov	21
Passfield Pond	15	30	18	18	17	Sep	20
Hampstead and Highgate Ponds	13	13	19	16	38	Nov	20
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain[†]							
Swithland Reservoir	5	0	0	7	30 [12]	Aug	8
River Dart - Dartington	0	1	1	1	23	Nov	5

[†] *as no British or All-Ireland thresholds have been set a qualifying level of 20 has been chosen to select sites for presentation in this report*

A Welsh river valley *(Dawn Balmer)*

How many Mandarin Ducks go undetected at wooded lakes and riversides?

Wigeon

Anas penelope

International threshold:	15,000
Great Britain threshold:	4,400
All-Ireland threshold:	820

GB max: 372,331 Jan
NI max: 3,749 Nov

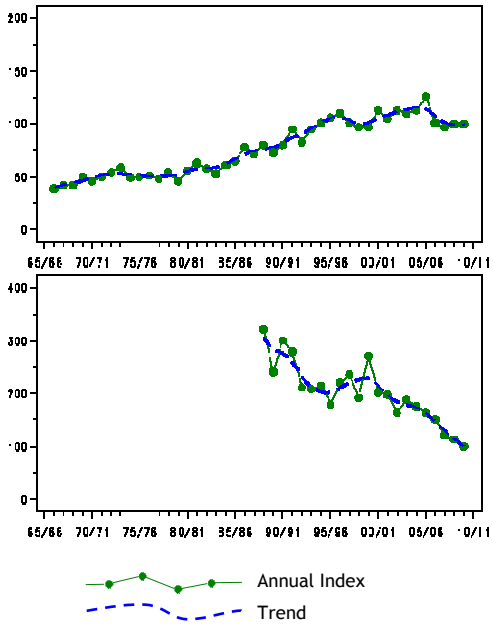


Figure 20.a, Annual indices & trend for Wigeon for GB (above) & NI (below).

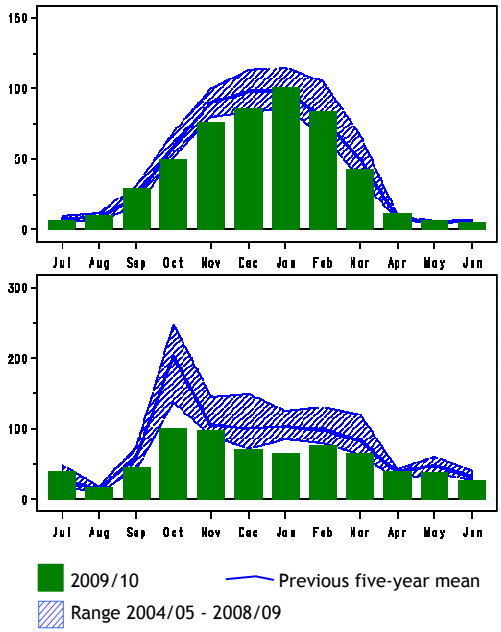


Figure 20.b, Monthly indices for Wigeon for GB (above) & NI (below).

Following the record high that was reached in 2005/06 the annual index for Wigeon has been relatively stable in the four years since, during which period the species has effectively been at the same status as during the mid 1990s when on an upward trend. Wigeon wintering in Britain largely comprise breeding birds from Scandinavia, northern Europe and eastern Russia.

Indications from The Netherlands are that wintering numbers may have also declined there in the last three to four years (Hornman *et al.* 2011), therefore any "short-stopping", similar to the response shown by Maclean *et al.* (2008) for waders, is presumably leaving birds further north and east than there too. Perhaps linked, record numbers of Wigeon have been noted in Switzerland in recent years (Keller & Burkhardt 2011).

At the site level, an increase in the 1% threshold for national importance saw an associated decrease in the number of sites meeting the criterion. The UK's premier site for Wigeon is Ribble Estuary. In 2009/10, the peak of 64,633 birds in November represents the lowest WeBS monthly maximum of Wigeon there since 2000/01, and represents a particularly noticeable drop considering the peak noted during the previous year was only the second winter when more than 100,000 have been logged. However, the site remains of outstanding international importance for this species, and only time will tell if the drop in peak numbers in 2009/10 marks the beginning of a genuine longer-term decline. Elsewhere, peaks at the three other sites of international importance (Ouse Washes, Somerset Levels, and Breydon Water & Berney Marshes) were closer to recent averages.

There were mixed fortunes at some other sites currently under the threshold for international importance, with, for example, very high peaks noted at both Swale Estuary and Nene Washes. The total at the latter site represents a site maximum by a considerable margin, and is testament

to effective reserve management in the area. Meanwhile the total at Swale Estuary would also have set a local record but for an exceptional historical count of over 40,000 birds there in January 1997. In East Anglia, the drop in numbers of Wigeon on North Norfolk Coast continued with another marked fall to the lowest peak total of recent times, but the monthly maximum at The Wash represents the second highest ever there, falling just short of 13,434 in December 1976. Among other sites, Alde Complex and Middle Yare Marshes both held notably above-average numbers.

In Northern Ireland, the Wigeon population continues to be in freefall, possibly an artefact of a shift in distribution in response to climate change. The annual index fell to its lowest ever value, and below average numbers were present throughout the winter period at all sites.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of international importance in the UK							
Ribble Estuary	79,659	(57,385)	85,964	101,594	64,633	Nov	82,963
Ouse Washes	55,816	26,984	19,800	(29,658)	24,175 [12]	Feb	31,694
Somerset Levels	18,142	27,391	28,882	21,186	26,073	Jan	24,335
Breydon Water & Berney Marshes	22,134	18,184 [12]	21,400 [12]	21,074 [12]	22,770 [12]	Jan	21,112
Sites of national importance in Great Britain							
Swale Estuary	16,651	7,041	11,560	12,134	25,848	Jan	14,647
North Norfolk Coast	18,426	16,750	11,998	10,304	7,557	Feb	13,007
Lower Derwent Ings	14,320	14,200	11,600	9,614	14,803	Mar	12,907
Lindisfarne	13,614	10,840	(12,000)	10,194	(7,990)	Nov	11,662
Nene Washes	5,380	8,180	10,497	9,096	22,571	Feb	11,145
Dornoch Firth	13,811	9,763	11,115	(12,303)	8,221	Oct	11,043
Cromarty Firth	12,652	8,510	10,510	(9,109)	4,626	Oct	9,081
The Wash	5,887	6,612	8,961	(5,124)	13,224	Jan	8,671
Morecambe Bay	8,929	(6,201)	(6,260)	9,110	7,179	Jan	8,406
Severn Estuary	6,249	9,343	10,008	8,672 [10]	7,676	Jan	8,390
Cleddau Estuary	9,441	7,643	7,130	7,429	8,227	Nov	7,974
Alde Complex	7,182	8,280	6,337	5,345	9,128	Jan	7,254
Abberton Reservoir	13,954	654	6,572	5,815	4,906	Oct	6,380
Thames Estuary	6,449	3,566	9,293	4,428	6,641	Feb	6,075
Middle Yare Marshes	6,291	3,890	6,507	5,511	7,904	Jan	6,021
Inner Moray and Inverness Firth	6,078	5,863	7,666	6,555	3,546	Jan	5,942
Blackwater Estuary	6,708	6,580	5,667	5,836	4,722	Jan	5,903
Dungeness and Rye Bay	6,285	5,193	4,010	2,711	5,574	Jan	4,755
Dee Estuary (England and Wales)	6,695	5,797	(2,461)	1,776	3,512	Jan	4,445 ▲
Sites of all-Ireland importance in Northern Ireland							
Lough Foyle	6,559	5,406	2,835	3,118	1,273	Oct	3,838
Strangford Lough	2,636	3,476	1,582	1,540	1,559	Oct	2,159
Loughs Neagh and Beg	2,701	1,878	1,614	1,427	1,528	Nov	1,830
Sites no longer meeting table qualifying levels in WeBS-Year 2009/2010							
Upper Lough Erne	631	1,229	981	369	303	Feb	703
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain							
Fleet and Wey	6,122	3,087	2,285	3,089	5,131	Dec	3,943
Rutland Water	3,678	2,278	2,773	3,414	4,883	Nov	3,405

American Wigeon

Anas americana

Vagrant
Native Range: N & C America

American Wigeons were noted at seven sites: Sonning Eye & Henley GPs (Sep), Castle Loch Lochmaben and Loch Loy (Oct), Loch of Hillwell (Nov), WWT Caerlaverock (Jan-Mar), WWT Martin Mere (Mar) and North Norfolk Coast (Apr).

Chiloe Wigeon

Anas sibilatrix

Escape
Native Range: S America

Chiloe Wigeons were noted at seven sites; all singles with the exception of pairs at Ramsbury Lake (Oct) and Kirkby-on-Bain Gravel Pits (Nov).

Gadwall

Anas strepera

International threshold:	600
Great Britain threshold:	250
All-Ireland threshold:	20*

GB max:	22,418	Dec
NI max:	169	Dec

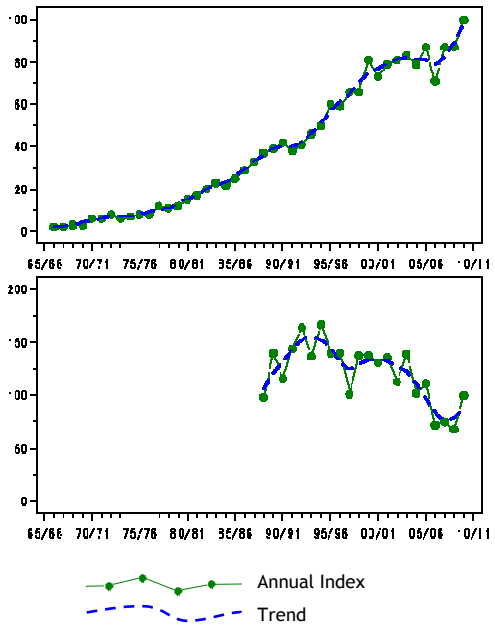


Figure 21.a, Annual indices & trend for Gadwall for GB (above) & NI (below).

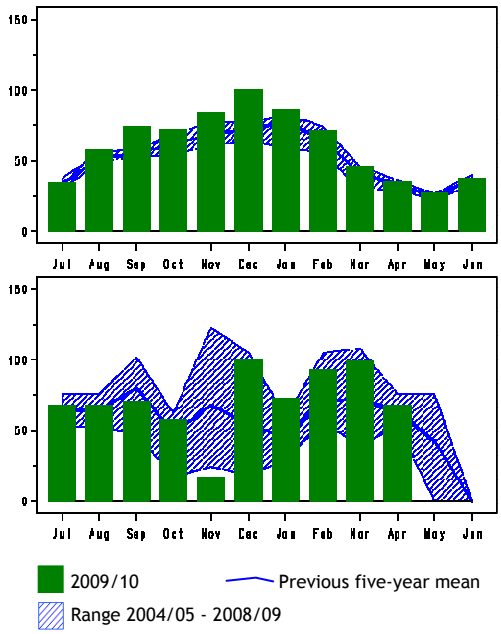


Figure 21.b, Monthly indices for Gadwall for GB (above) & NI (below).

Following a short period of relative stability, the British index for Gadwall rose sharply in 2009/10. As a consequence, the rapid increase shown by species in the UK over the longer term is maintained, a trend evidenced by monitoring schemes across other parts of Europe, e.g. The Netherlands (Hornman *et al*. 2011), Switzerland (Keller & Burkhardt 2011) and Slovakia (Slabeyova *et al*. 2009).

The WeBS monthly maximum of 22,418 was the highest on record, an increase evidenced in the latest wintering population estimate for Britain which has been revised to 25,000 birds (Musgrove *et al*. 2011). The associated rise in the 1% threshold for national importance has led to a reduction in the number of sites that now reach that particular criterion. This has resulted in a somewhat more concise (yet still impressive) table of sites compared to those which had inevitably developed in WeBS reports of recent years.

Following 2009/10, five-year means at six sites in the UK continued to be of international importance for Gadwalls. The selection of sites involved promotion of Thames Estuary, but relegation of Somerset Levels. Rutland Water regained its position at the top of the table, following an exceptional 2,119 birds in November, the second highest total ever recorded by WeBS during a standard Core count (surpassed only by 2,181 there in November 1997). In contrast, the peak at Ouse Washes in 2009/10 was down compared to the previous year, but still largely in keeping with the recent five-year average. Maxima were also typical of recent years at three other sites of most importance; River Avon (Fordingbridge to Ringwood), Lee Valley Gravel Pits and Abberton Reservoir, while the promotion of Thames Estuary was attributable to the highest ever peak there.

Sixteen WeBS sites surpassed the revised threshold of national importance. Among these, Dungeness & Rye Bay (1,014, Dec), Pitsford Reservoir (916, Nov) and Blackwater Estuary (488, Dec) all held maxima well in excess of numbers typically

present at the sites. Notably high counts emanated from a number of other sites too, both during the winter (e.g. Whitlingham Country Park; 547, Dec) and outside the winter period (e.g. North Norfolk Coast Country Park; 418, Jun). The latter is a good indication of the increased breeding population (Holling *et al*. 2010).

In eastern France, breeding densities of Gadwall are higher on wetlands with colonies of Black-headed gulls, but nesting success does not differ between sites with and without gulls (Broyer 2009). Breeding waterbirds have been shown to benefit from the anti-predator influence generated by gull colonies, although contemporary studies at sites in the UK are lacking.

The relatively small population of Gadwalls in Northern Ireland, most of which are to be found at Loughs Neagh & Beg and Strangford Lough, was similar to recent years.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean	
Sites of international importance in the UK								
Rutland Water	670	904	992	1,520	2,119	Nov	1,241	
Ouse Washes	2,289 [12]	220	970	1,508	998	Mar	1,197	
R.Avon: Ford'bridge-Ringwood	678	755	725	653	854	Jan	733	
Abberton Reservoir	1,024	(535)	483	493	797	Sep	699	
Lee Valley Gravel Pits	878	518	703	700	669	Nov	694	
Thames Estuary	377	451	(431)	687	909	Jan	606	▲
Sites of national importance in Great Britain								
Somerset Levels	704	424	706	614	485	Nov	587	▼
Dungeness and Rye Bay	268	362	485	417	1,014	Dec	509	
Pitsford Reservoir	482	444	264	352	916	Nov	492	
Tees Estuary	(332)	433	464	342	480	Oct	430	
Fen Drayton Gravel Pits	378	553	387	442	361	Sep	424	
Minsmere	398	410	468	388	434	Aug	420	
Orwell Estuary	347 [10]	340 [10]	268	722 [10]	414	Dec	418	
Cotswold Water Park (West)	427	330	(217)	(395)	420	Jan	393	
Sutton and Lound Gravel Pits	(304)	425	437	282			381	
Loch Leven	392	309	284	345 [12]	417	Oct	349	
North Norfolk Coast	262	186	314	388	418	Jun	314	
Woolston Eyes	196	(84)	397	192	439	Sep	306	
Little Paxton Gravel Pits	315	215	324	280	307	Dec	288	
Middle Tame Valley Gravel Pits	(74)	(131)	(108)	275	(36)	Oct	275	
Meadow Lane Gravel Pits	354	165		(2) [12]	306	Jan	275	
Blackwater Estuary	66	231	395	154	488	Dec	267	▲
Alton Water	495	166	109	226	330	Dec	265	▲
Sites of all-Ireland importance in Northern Ireland								
Loughs Neagh and Beg	172	143	132	164	144	Dec	151	
Strangford Lough	113 [10]	68 [10]	86 [10]	60 [10]	69	Sep	79	
Sites no longer meeting table qualifying levels in WeBS-Year 2009/2010								
Eversley Cross &Yateley GPs	315	226	216	243	170	Jan	234	
Wraysbury Gravel Pits	(9)	(2)	(0)				(9)	
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain								
Whitlingham Country Park	149	111	114	230 [12]	547	Dec	230	
Nene Washes	64	151	277	170	494	Mar	231	
Bewl Water	61	89	158	183	345 [12]	Dec	167	
Brent Reservoir	102	107	114	109	329	Dec	152	
Redgrave Lake		253	75	214	301	Dec	211	
Chew Valley Lake	200	150	245	210	295	Aug	220	
Ouse Fen & Pits	152	(49)	203	317	293	Dec	241	
Theale Gravel Pits	(169)	(207)	205	181	281	Nov	222	
Ditchford Gravel Pits	178	184	176	253	263	Feb	211	
Old Moor	168	165	239	208	260	Oct	208	
Burghfield Gravel Pits	156	261	206	290	257	Dec	234	
Whisby Nature Park	76	104	109	87 [12]	256	Nov	126	
Alde Complex	172	171	221	157	255	Jan	195	

Teal

Anas crecca

International threshold:	5,000
Great Britain threshold:	2,100
All-Ireland threshold:	450

GB max: 164,288 Jan
NI max: 5164 Dec

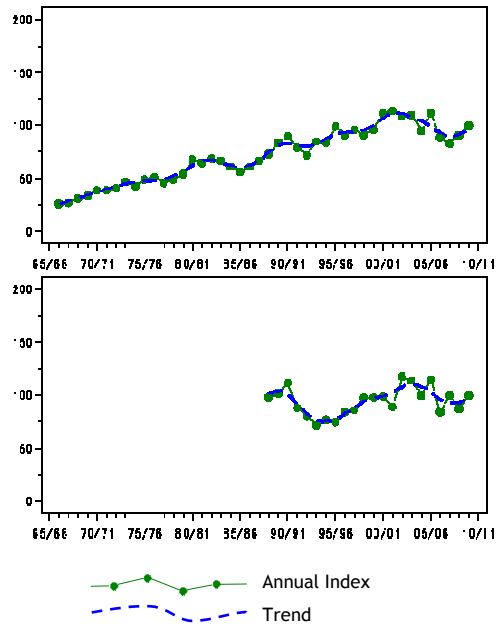


Figure 22.a, Annual indices & trend for Teal for GB (above) & NI (below).

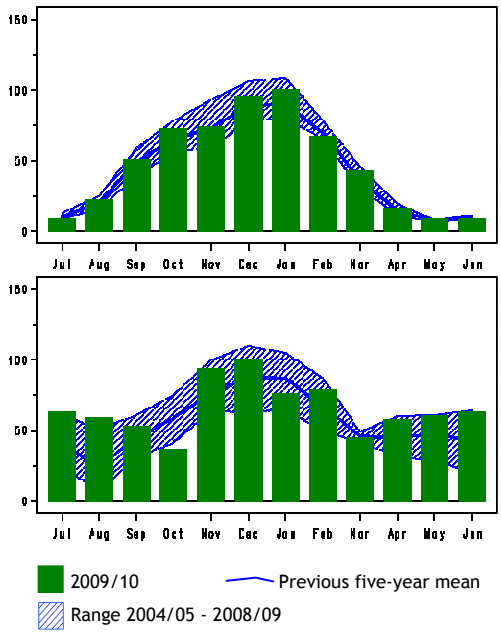


Figure 22.b, Monthly indices for Teal for GB (above) & NI (below).

Most Teal that spend the winter in Great Britain breed either on the near continent, in Iceland, or in Scandinavia. However, Guillemain *et al.* (2005) suggested that any splitting into distinct 'north-western European' and 'Mediterranean' sub-populations was inappropriate, and that all birds wintering in west Europe should be considered to belong to a single larger population. However, this view is not yet reflected in the international threshold used here.

Following the drop in the national index two years ago, Teal in Britain showed a slight improvement in 2009/10. Only time will tell if the species again exhibits the upward trend which had characterised the bulk of the previous forty years. Seven sites in the UK held internationally important numbers of Teal in 2009/10 and 20 surpassed the revised threshold for national importance. The principal site continues to be Somerset Levels, despite a relatively poor showing there compared to the previous three years in terms of the peak number recorded. Another favoured inland wetland managed for conservation, the Ouse Washes, also yielded a relatively low peak this year. However, it is possible that this decline may be linked with a steep rise noted at the nearby Nene Washes, where the 9,012 in February is more than twice as many as have been counted there before.

At the other major sites where complete coverage was attained, peak numbers during Core counts were generally close to or slightly above average. Maxima at Thames Estuary and Lower Derwent Ings were the highest since 2003/04 and 1994/95, respectively. As in 2008/09, notably high numbers were again reported from Morecambe Bay.

The current trend in Northern Ireland is relatively stable, although the species tends to show a high degree variation from year to year. At the three principal sites, peak numbers were typical at both Strangford Lough and Loughs Neagh & Beg (see Mallard), but somewhat higher at Lough Foyle for the second year in succession.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean	
Sites of international importance in the UK								
Somerset Levels	8,719	21,581	17,663	24,029	13,680	Jan	17,134	
Ribble Estuary	9,571	(6,959)	8,045	6,072	8,064	Nov	7,938	
Mersey Estuary	9,200 [10]	3,593	(2,072)	(2,000)	(3,230)	Jan	6,397	
Swale Estuary	(5,783)	(3,728)	4,470	5,485	7,030	Jan	5,692	▲
Hamford Water	3,276	(1,969)	3,255	10,684 [10]	3,952	Dec	5,292	▲
Loch Leven	4,840	2,527	4,920	7,580 [12]	5,591	Oct	5,092	
Ouse Washes	9,772	4,333 [12]	3,135	5,351	2,492 [12]	Dec	5,017	
Sites of national importance in Great Britain								
Thames Estuary	5,361	3,940	(3,373)	4,393	5,917	Jan	4,903	
Severn Estuary	5,293	4,233	5,428	4,710	3,882	Jan	4,709	
Lower Derwent Ings	4,479	4,221	3,714	3,393	6,411	Mar	4,444	
Morecambe Bay	2,538	(2,338)	2,934	7,327	(4,009)	Jan	4,266	
North Norfolk Coast	4,994	3,638	3,278 [10]	3,524	5,708	Dec	4,228	
Alde Complex	3,913	3,560	3,334	3,961	4,986	Jan	3,951	
Abberton Reservoir	7,741	2,662	3,410	872	4,975	Oct	3,932	
The Wash	4,107	2,138	2,537	(2,308)	5,811	Jan	3,648	
Dee Estuary (England and Wales)	2,854	3,719	2,144	3,129 [10]	4,413	Jan	3,252	
Breydon Water and Berney Marshes	2,372	3,620 [12]	5,612 [12]	3,216 [12]	1,337 [12]	Feb	3,231	
Humber Estuary	(3,739)	(2,009)	2,137	(3,385)	(3,418)	Jan	3,170	
Nene Washes	584	1,677	2,078	1,851	9,012	Feb	3,040	▲
Hickling Broad	4,550	2,000		3,150	2,401	Oct	3,025	
Blackwater Estuary	2,751	(2,786)	2,207	(4,002)	(2,730)	Dec	2,895	
Mersehead RSPB Reserve		3,900	1,045		3,560	Nov	2,835	
Solway Estuary	3,152	(2,265)	(839)	(1,648)	1,342	Nov	2,253	
Forth Estuary	2,130	2,531	1,877	2,370	2,293	Nov	2,240	
WWT Martin Mere	3,800	1,430	1,200	2,005	2,640	Jan	2,215	
Arun Valley	2,390	2,129	(2,343)	1,985	(2,026)	Jan	2,212	▲
Inner Moray and Inverness Firth	2,995	(1,890)	(2,208)	1,944	1,338	Jan	2,121	
Sites of all-Ireland importance in Northern Ireland								
Strangford Lough	2,573	1,724	1,752	1,347	1,790	Nov	1,837	
Lough Foyle	1,405	915	1,562	2,000	2,020	Dec	1,580	
Loughs Neagh and Beg	1,427	1,049	1,297	889	1,345	Sep	1,201	
Belfast Lough	573 [10]	488	640	479	618	Dec	560	
Carlingford Lough	710	440	565	571	309	Feb	519	
Sites no longer meeting table qualifying levels in WeBS-Year 2009/2010								
Stodmarsh	3,633	831	2,508	1,100	2,150	Dec	2,044	
No data for years 2005/06 to 2009/10: Holburn Moss								
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain								
Crouch-Roach Estuary	(1,926)	1,455	(1,900)	1,754	3,010	Nov	2,073	
Stodmarsh	3,633	831	2,508	1,100	2,150	Dec	2,044	

Green-winged Teal

Anas carolinensis

Vagrant
Native Range: N America

Green-winged Teals were recorded at 15 WeBS sites in Britain and one in Northern Ireland, an identical distribution to the previous year. A monthly peak of five was logged in both November and January. All records related to singles with the exception of two birds at Wigan Flashes in December. None at any of the sites were seen in more than one month.

Silver Teal

Anas versicolor

Escape
Native Range: S America

What was presumably the same individual was seen at Hollowell Reservoir in September and November, and then at Ravensthorpe Reservoir in March.

Mallard

Anas platyrhynchos

International threshold:	20,000**	
Great Britain threshold:	6,800†	
All-Ireland threshold:	380	

GB max:	124,748	Dec
NI max:	7,495	Sep

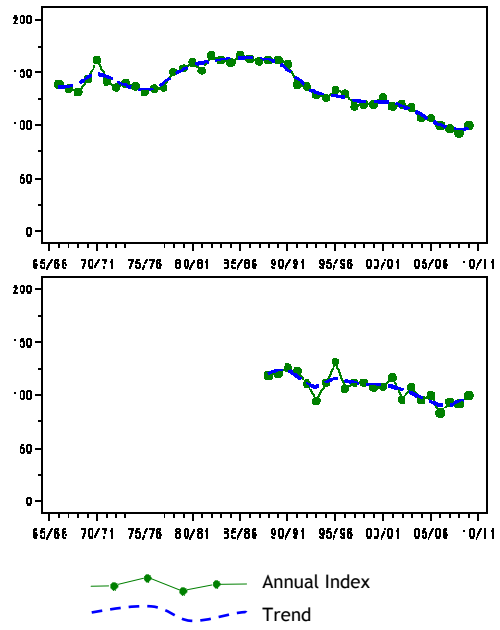


Figure 23.a, Annual indices & trend for Mallard for GB (above) & NI (below).

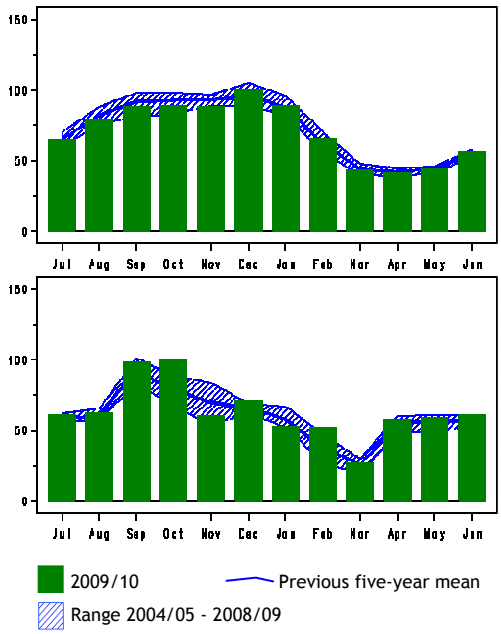


Figure 23.b, Monthly indices for Mallard for GB (above) & NI (below).

The trend for Mallard has steadily declined since the early 1990s, although the index for 2009/10 did show a slight rise compared to the low reached in the previous year. As documented in previous WeBS reports, this trend contrasts with that of the breeding population which increased by 20% during the ten-year period 1998 to 2008 (Baillie *et al*. 2010).

Ring-recovery data (at least up to the end of 1997) suggested that 75% of the birds in Britain and Ireland during the winter months were continental immigrants (Wernham *et al*. 2002). The monthly indices for 2009/10 indicate that above average numbers were present on WeBS sites in Britain in December. This is suggestive of an arrival of birds from the continent in winter in response to the cold weather experienced during that period – thereby concurring with the assumption that the recent downward trend is linked with a decrease in continental immigration (Sauter *et al*. 2010). It should be noted however that the trend for Mallards in The Netherlands (Hornman *et al*. 2011) is very similar to the trend in Britain; hence any longer term range shift of the wintering population is more profound than a minimal 'short stop' across the North Sea. Further east in Europe, wintering populations currently appear to be stable, for example in Slovakia (Slabeyova *et al*. 2009).

Milder winters, with associated decline in frozen conditions, could also have the effect of Mallards not being forced to concentrate at the larger UK wetlands traditionally covered through WeBS. Hence, the trends below should be considered as those occurring specifically at WeBS sites; improved stratification of monitored wetlands would improve understanding of changes taking place in the population within the wider countryside.

The largest count in the UK was from Loughs Neagh & Beg, where 4,287 Mallards were counted in October. This represents a welcome improvement after a poor year in 2008/09, helping to contribute to a slight rise in the national index (comparable to

that shown in Britain). The historical peak count of Mallards at Loughs Neagh & Beg is 8,791 in August 1995. Maxima in 2009/10 at the four other sites of All-Ireland importance were close to average.

In Britain, no WeBS sites exceeded the 1% threshold for national importance, but for the first time since 2004/05, three sites held maxima in excess of 3,000 birds; Severn Estuary, Ouse Washes and The Wash. Also notable were the highest peaks for several years from North Norfolk Coast (highest since 1989/90), Nene Washes (1993/94) and Morecambe Bay (1993/94).

Considering the 'short stopping' findings of Sauter *et al*. (2010), the slight rise in the UK indices noted during the relatively cold winter of 2009/10 may be pertinent. Suffice to say, results from monitoring schemes such as WeBS will be fundamental in any research aimed at better understanding the processes underpinning the apparent decline in wintering numbers of the UK's most familiar duck.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of all-Ireland importance in Northern Ireland							
Loughs Neagh and Beg	4,612	4,351	3,767	1,911	4,287	Oct	3,786
Strangford Lough	1,586	(1,010)	1,950	2,177	2,125	Dec	1,960
Lough Foyle	1,133	1,036	830	965	995	Nov	992
Lower Lough Erne	556	551	702	(295)	(226)	Oct	603
Belfast Lough	346	(344)	457	447	419	Dec	417
Sites with mean peak counts of 2,000 or more birds in Great Britain							
Severn Estuary	(3,884)	3,661	2,954	3,091	3,086	Oct	3,335
Ouse Washes	2,454	2,606 [12]	2,918 [12]	(3,024)	3,336 [12]	Nov	2,868
The Wash	2,534	2,417	2,316	(2,586)	3,030	Dec	2,577
WWT Martin Mere	3,150	2,211	2,000	1,665	2,250	Nov	2,255
Swale Estuary	2,247	(1,301)	2,972	(1,981)	1,432	Oct	2,217
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain							
Clifford Hill Gravel Pits Consolidated	1,686	2,027	1,733	2,048	2,199	Sep	1,939
Morecambe Bay	(1,740)	1,837	(1,240)	(1,926)	2,145	Jan	1,991

† *as no sites exceed the British threshold a qualifying level of 2,000 has been chosen to select sites for presentation in this report*

Mallards *(Thelma Sykes)*
A relatively cold midwinter period in 2009/10 may have forced birds to the UK from the continent.

Pintail

Anas acuta

International threshold:	600
Great Britain threshold:	290
All-Ireland threshold:	20*

GB max:	20,374	Jan
NI max:	567	Nov

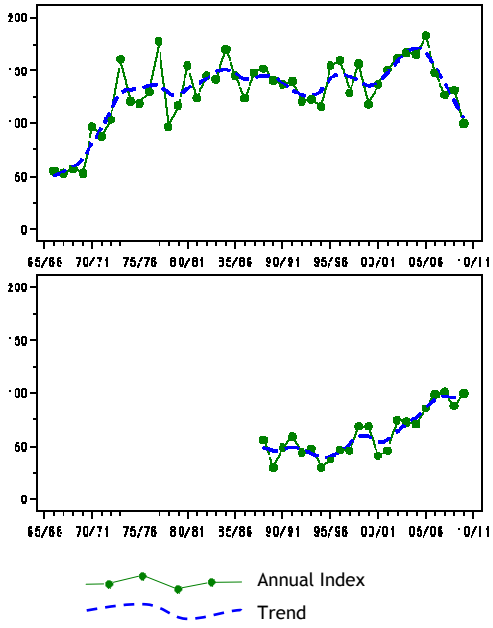


Figure 24.a, Annual indices & trend for Pintail for GB (above) & NI (below).

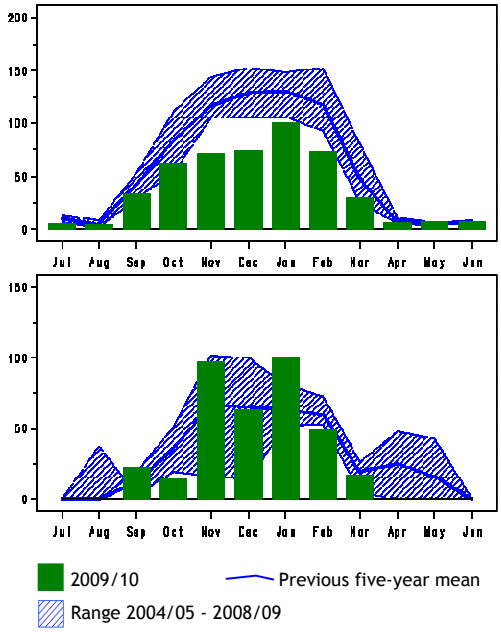


Figure 24.b, Monthly indices for Pintail for GB (above) & NI (below).

WeBS-year 2009/10 represented one of the poorest years on record for Pintails, with the annual index falling to its lowest value for over thirty years. Just four years previously the species had reached a historic peak in terms of index, this fall therefore represents a marked change in fortune over a very short period of time.

The monthly indices indicate that numbers were well below average throughout the winter period of November to February. The relatively cold conditions experienced during winter 2009/10 may have been at least partly responsible for this showing, with all else being equal a greater proportion of the population expected to winter at more southern latitudes when conditions are relatively harsh further north. Compared to other dabbling waterfowl, Pintails tend to aggregate at a relatively small number of sites. This behaviour, in combination with high mobility and an ability to exploit temporary wetland habitats, would perhaps indicate that it has the potential to respond particularly profoundly to severe weather events.

In recent years, a shift in core wintering range had been implied by an increase in The Netherlands (Hornman *et al.* 2011). Hence, any assertions regarding the possible effects of cold winter on the UK index are best made when it is clear how birds in areas such as The Netherlands responded.

It appears that species more dependent on shallow freshwater sites, such as grazing marshes and river flood plains, e.g. Pintail, Shoveler, Lapwing and Golden Plover, responded to the cold winter more noticeably than other species. Although large declines at such sites in Britain are not immediately apparent based on the peak numbers featured in the table below, effects may have been more marked in neighbouring countries, such as The Netherlands.

Fourteen sites surpassed the threshold for international importance. At the two most important sites in Britain, the maxima

in 2009/10 were much lower than those which have typified recent years. At the Dee Estuary, where numbers have shown a gradual decline in recent years, the count of 2,960 in January compares poorly with both the recent five-year average and especially the historic peak of 11,945 in October 1989. Similarly, at Burry Inlet, the peak was much lower than expected for the second year in a row. In contrast, the peaks at Morecambe Bay and Nene Washes were the highest at those sites since 2004/05 and 2002/03, respectively.

Fifteen WeBS sites surpassed the threshold for national importance, following the slight change in 1% threshold (Musgrove *et al*. 2011). These included Pagham Harbour, North Norfolk Coast and Swale Estuary, all of which yielded maxima markedly lower than recent years.

The species continued its recent strong showing in Northern Ireland. Both sites of All-Ireland importance, Strangford Lough and Lough Foyle, held peaks close to recent average. The contrast in the fortunes of this species and that of Wigeon in Northern Ireland (see page 55) is particularly striking.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean	
Sites of international importance in the UK								
Dee Estuary (England & Wales)	6,330	6,172	(4,334)	3,932	2,960	Jan	4,849	
Burry Inlet	4,837	4,692	6,244	2,209	1,382	Jan	3,873	
Ribble Estuary	3,579	(1,094)	3,639	2,178	(2,124)	Nov	3,132	
Morecambe Bay	3,045	2,609	(2,543)	2,593	3,186	Dec	2,858	
Solway Estuary	(1,575)	(2,429)	(1,047)	(888)	(977)	Jan	(2,429)	
Duddon Estuary	2,210 [10]	(2,317)	(1,153)	2,481	(629)	Feb	2,346	
Ouse Washes	3,343 [12]	1,823 [12]	1,713 [12]	(1,697)	743 [12]	Feb	1,906	
Nene Washes	281	1,931	1,267	1,951	2,400	Feb	1,566	
Mersehead RSPB Reserve		1,010	1,445		1,690	Nov	1,382	
Severn Estuary	905	(1,161)	668	655 [10]	(494)	Dec	847	
Medway Estuary	(809)	(582)	663	(351)	(353)	Feb	736	
The Wash	(567)	1,215	652	(560)	294	Nov	720	
Loch Leven	130	217	213	1,554 [12]	1,396	Oct	702	▲
Somerset Levels	333	530	985	682	534	Jan	613	▲
Sites of national importance in Great Britain								
Pagham Harbour	893	566	(464)	(447)	337	Dec	599	▼
North Norfolk Coast	657	753	697 [10]	421	437	Jan	593	▼
Swale Estuary	579	731	597	630	381	Oct	584	▼
Wigtown Bay	349	166	834	642	689	Oct	536	
Dee Flood Meadows	(329)	916	750	196	227	Nov	522	
WWT Martin Mere	(535)	580	380	380	550	Jan	485	
Lindisfarne	536	445	327	(272)	(200)	Jan	436	
North West Solent	670	484	407	320	279	Jan	432	
Blackwater Estuary	387	(401)	(201)	(488)	(203)	Jan	425	
Lower Derwent Ings	167	656	674	298	278	Feb	415	
Stour Estuary	473	467	303	486 [10]	228	Jan	391	
Arun Valley	290	574	(322)	227	(142)	Nov	364	
Alde Complex	307	441	447	276	281	Feb	350	
R.Avon: Ringwood - Chr'church	1	(456)	507	245	(274)	Jan	297	▲
Foryd Bay	449	330	152	360 [12]	160	Dec	290	▲
Sites of all-Ireland importance in Northern Ireland								
Strangford Lough	643 [10]	496	395	449	487	Jan	494	
Lough Foyle	94	123	157	185	112	Feb	134	
Sites no longer meeting table qualifying levels in WeBS-Year 2009/2010								
Orwell Estuary	308 [10]	753 [10]	158	125 [10]	95	Jan	288	
Malltraeth Cob and Pools	397	287	146	266	252	Dec	270	
Inner Moray and Inverness Firth	281	314	232	236	211	Feb	255	
Blyth Estuary	(209)	394	185	(264)	74	Feb	229	
Poole Harbour	(208)	(140)	(155)	(110)	(41)	Jan	(208)	

Yellow-billed Pintail

Anas georgica

Escape
Native Range: S America

Up to three were recorded at Westwood Park in November and December.

White-cheeked Pintail

Anas bahamensis

Escape
Native Range: S America

One was present for most of the year at the regular site of Stanton Lake.

Garganey

Anas querquedula

International threshold: 20,000
Great Britain threshold: +†
All-Ireland threshold: +†

GB max: 39 Aug
NI max: 0

Being summer visitors, Garganey are reported for the calendar year, here 2009. Records were received from 63 sites, a similar number to the previous two years. With the exception of two singles in Scotland, all birds were in England.

A small number were seen during spring passage, when typically records of pairs predominated; dabbling duck pairs are known to form in winter and the two birds then migrate together to their breeding grounds (e.g. Paulus 1983). As in 2008, one was noted at Cotswold Water Park in February, followed by records from seven other sites during March. Spring peaks up to May comprised four at both Arun Valley and The Wash. During June-August, maxima were seven at Dungeness & Rye Bay, and five at both Stodmarsh and Rutland Water. Towards the year's end, birds were noted at five sites in October and three in November.

	2005	2006	2007	2008	2009	Mon	Mean
Sites with mean peak counts of 4 or more birds in Great Britain							
Dungeness and Rye Bay	8	9	9	8	7	Aug	8
Other sites surpassing table qualifying levels in Summer 2009 in Great Britain							
Stodmarsh		1	2	0	5	Jun	2
Rutland Water	1	0	2	2	5	Aug	2
Chew Valley Lake	4	6	1	1	4	Aug	3
The Wash	2	2	1	(0)	4	May	2
Arun Valley	1	0	0	1	4	Apr	1
Ossmere			0	0	4	Jun	1

† *as no British or All-Ireland thresholds have been set a qualifying level of four has been chosen to select sites for presentation in this report*

Blue-winged Teal

Anas discors

Vagrant
Native Range: N America

A drake was at Ouse Fen & Pits in June, and seen to be bearing a metal ring (*per* www.birdguides.com). The first ever WeBS record of this species was also in Cambridgeshire, at Fen Drayton Gravel Pits in 1988.

Ringed Teal

Callonetta leucophrys

Escape
Native Range: S America

One was present at Thorpe Water Park in January.

Shoveler

Anas clypeata

GB max:	**12,296**	**Oct**
NI max:	**141**	**Dec**

International threshold:	**400**
Great Britain threshold:	**180**
All-Ireland threshold:	**20***

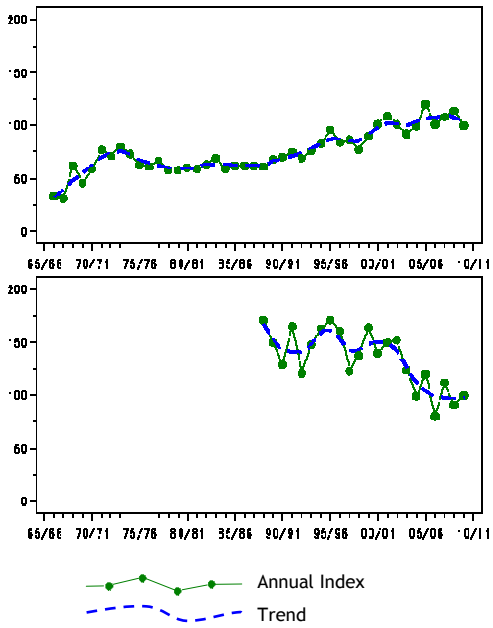


Figure 25.a, Annual indices & trend for Shoveler for GB (above) & NI (below).

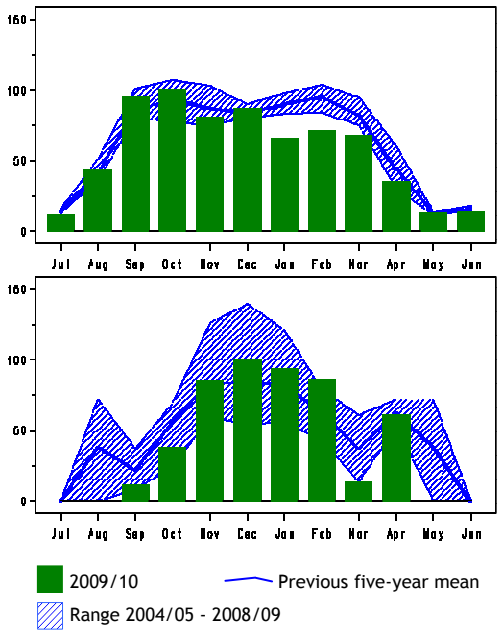


Figure 25.b, Monthly indices for Shoveler for GB (above) & NI (below).

2009/10 was a somewhat atypical year for Shovelers in Britain, with the top two sites supporting relatively low peak counts. The national index value fell in comparison to the previous year, to a level consistent with that of the previous eight or so years. Over the longer term, the species has increased slowly, exhibiting a trend similar to that shown in The Netherlands (Hornman *et al*. 2011).

The peaks at Ouse Washes and Somerset Levels were the lowest at the respective sites for nine and ten years. Reasons for this are assumed to be associated with the frozen conditions prevalent during winter 2009/10, which may have affected the habitat suitability of sites such as grazing marshes and others with shallow, fresh water. In contrast, the site maxima during the year, both in October at Rutland Water and Dungeness & Rye Bay, represented the most at those sites for several years. The Rutland count had only been surpassed once before, by a total of 1,154 birds ten years previously, while that at Dungeness & Rye Bay was the most since a peak of 860 was recorded in February 2002.

The monthly indices illustrate the sensitivity of this species to a relatively cold winter. Shovelers have generally always peaked in the UK during late autumn, when en route to wintering areas in France and Spain, where very large numbers occur. However, as described in last year's report, there had been some recent evidence of a greater proportion of birds wintering at sites in more northern latitudes in response to milder winters. Therefore, the marked drop-off in the number of Shovelers in Britain during the cold weather period in January 2010 is especially pertinent; one assumes an influx of Shovelers into France and Spain may have taken place at this time. Furthermore, one can only speculate that a similar pattern will prove to be evident for winter 2010/11 (which was the coldest winter in the UK for over thirty years).

A further four sites surpassed the threshold for international importance,

while 29 surpassed the threshold for national importance. Among those listed, particularly notable counts included 612 at Lower Derwent Ings (Apr), 453 at Fairburn Ings (Oct) and 351 at Theale Gravel Pits (Jan), the latter propelling the site to one of national importance for the first time despite the revised threshold having increased by over 20%, from 148 to 180 birds (Musgrove *et al*. 2011).

The trend for Northern Ireland shows a continued fall in numbers, with peaks at the more important sites close to recent average.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of international importance in the UK							
Somerset Levels	845	1,520	1,806	971	713	Feb	1,171
Ouse Washes	1,548 [13]	696 [13]	1,071	2,039	503	Mar	1,171
Rutland Water	680	495	620	525	773	Oct	619
Dungeness and Rye Bay	626	553	581	588	735	Oct	617
Abberton Reservoir	(674)	(152)	604	606	566	Oct	613
Severn Estuary	603	600	796	526	497	Dec	607
Breydon Water & Berney Marshes	333	540 [13]	754	570 [13]	546 [13]	Dec	594
Thames Estuary	357	524	(227)	486	355	Feb	431
Sites of national importance in Great Britain							
Chew Valley Lake	660	300	180	270 [13]	435	Oct	369
Medway Estuary	248	(509)	(156)	298	(51)	Feb	352
Ribble Estuary	286	532	188	478	271	Nov	351
Lower Derwent Ings	107	301	341	333	612	Apr	339
Swale Estuary	199	(144)	331	(216)	459	Mar	330
Nene Washes	213	448	384	272	330	Mar	329
North Norfolk Coast	278	380	258	297	309	Dec	304
Stodmarsh	384	400	147	284	220	Nov	287
Alde Complex	253	441	295	260	156	Jan	281
Crouch-Roach Estuary	(32)	(78)	(259)	330	227	Dec	279
Fairburn Ings	288	226	54	304	453	Oct	265
Pitsford Reservoir	347	329	148	148	349	Oct	264
Burry Inlet	437	101	309	(283)	54	Sep	237
Middle Yare Marshes	(170)	(84)	(174)	(352)	174	Oct	233
R.Avon: Fordingbridge-Ringwood	195	153	312	245	245	Mar	230
Tees Estuary	145	309	170	225	300	Oct	230
Tring Reservoirs	225	130	256	250	219	Oct	216
Staines Reservoirs	469	149	65	232	147	Oct	212
Llynnau Y Fali	210	135	59	419	213	Feb	207
Blagdon Lake	(220)	542	137	76	41	Oct	203
Arun Valley	98	278	217	215	197	Mar	201
Grafham Water	357	170	157	121	200	Jan	201
Cotswold Water Park (West)	163	222	176 [13]	251	184	Nov	199
Lee Valley Gravel Pits	282	164	184	145	222	Dec	199
London Wetland Centre	176	185	327	158	139	Oct	197
Loch Leven	204	279	205	192	80	Sep	192
Middle Tame Valley Gravel Pits	(39)	(68)	111	270	(10)	Feb	191
Theale Gravel Pits	(128)	157 [13]	73	140	351	Jan	180 ▲
Sites of all-Ireland importance in Northern Ireland							
Strangford Lough	147	139 [10]	73	69 [11]	123	Jan	110
Loughs Neagh and Beg	55	34	90	57	32	Oct	54
Belfast Lough	17 [11]	15	28	49	31	Feb	28
Sites no longer meeting table qualifying levels in WeBS-Year 2009/2010							
Minsmere	183	218	138	157	171	Nov	173
Trinity Broads	(0)	(27)	338	162	(63)	Feb	167
Morecambe Bay	159	174	22	326	38	Dec	160
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain							
Blithfield Reservoir			7	6	(239)	Sep	84
Colne Valley Gravel Pits	173	93	59	121	205	Mar	130
Dee Estuary (England and Wales)	109	73	60	140	197	Oct	116
Edderthorpe Flash		210	68	170	195	Oct	161
Malltraeth RSPB	147	250	156	148	193	Dec	179
Llyn Maelog	2	9	126	4	193	Sep	67

Red-crested Pochard

Netta rufina

International threshold:	**500**
Great Britain threshold:	**?†**
All-Ireland threshold:	**?†**

GB max: **386 Nov**
NI max: **0**

A patchily distributed species throughout central and southern Europe, the majority of UK records, including those pertaining to the ancestors of the core of the Cotswold Water Park population, are considered to relate to birds descended from escapes. Twenty pairs bred at Cotswold Water Park in 2008 (Holling *et al*. 2011).

The species has shown a change in international winter distribution in recent decades, involving a shift in core range from the western Mediterranean to the region north of the Alps and the use of a greater number of sites (Keller 2000), perhaps increasing the likelihood of wild birds reaching Britain. An exceptional total of 35,000 were present in Switzerland in November 2009 (Keller & Burkhardt 2011).

In 2009/10, the species was recorded at 89 WeBS sites in Britain and the counted maximum was within one bird of the all-time high noted during the previous year. In England, it appears that the species continues to slowly expand, exemplified by notable mid-winter peaks of 90+ and 84 at Lower Windrush Valley Gravel Pits and Rutland Water, respectively. Counts of 16-25 at sites such as Cheddar Reservoir, Chimney Corner Gravel Pit, Pitsford Reservoir, and Grafham Water, also provide an indication of the range expansion away from the traditional Cotswold stronghold.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites with mean peak counts of 10 or more birds in Great Britain†							
Cotswold Water Park (West)	119	207	170 [12]	327	252	Nov	215
Cotswold Water Park (East)	70	106	72	104	91	Feb	89
Lower Windrush Valley Gravel Pits	41	26	(26)	(36)	(90)	Dec	48
St James`s Park				22	32	Sep	27
Rutland Water	1	10	8	13	84	Jan	23
Chimney Corner GP South					17	Jan	17
Hanningfield Reservoir	21	17	10	11	21	Jun	16
Sutton and Lound Gravel Pits	12	22	13	10			14
Arnot Park Lake	18	16	14	9	9	Aug	13
Colne Valley Gravel Pits	8	23	10	4	8	Dec	11
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain†							
Pitsford Reservoir	3	6	7	3	25	Jan	9
Cheddar Reservoir	0	0	1	0	21	Jan	4
Grafham Water	2	2	1	9	16	Jan	6
Carsington Water	4	2	5	0	12	Oct	5

† *as no British or All-Ireland thresholds have been set a qualifying level of 10 has been chosen to select sites for presentation in this report*

Red-crested Pochards *(Sue Clayton)*
Numbers have risen at Cotswold WP since breeding first occurred in 1975.

Pochard

Aythya ferina

International threshold:	3,500
Great Britain threshold:	380
All-Ireland threshold:	380

GB max:	20,157	Feb
NI max:	9,292	Jan

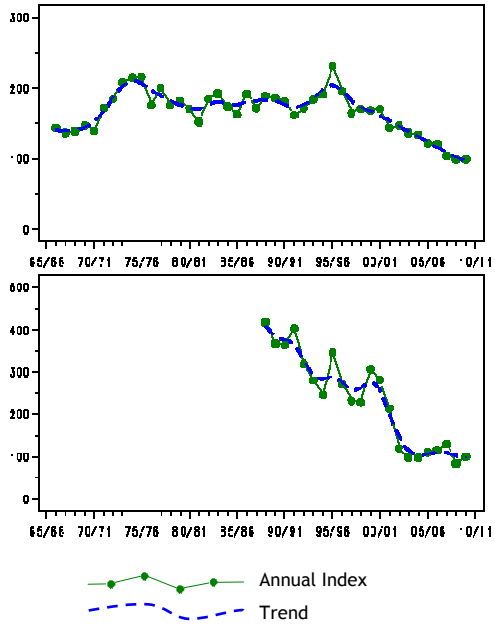


Figure 26.a, Annual indices & trend for Pochard for GB (above) & NI (below).

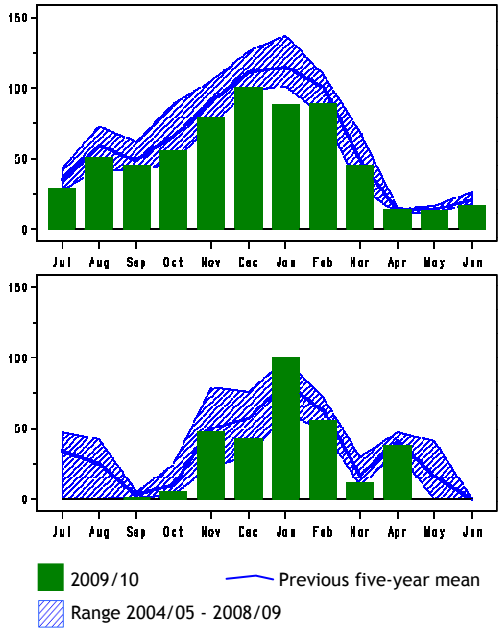


Figure 26.b, Monthly indices for Pochard for GB (above) & NI (below).

The trends for Pochards in both Britain and Northern Ireland show alarming declines since the 1990s. A similar decline is being experienced in The Netherlands (Hornman *et al.* 2011), although numbers are more stable in Switzerland having increased steadily there during the 1970s, 1980s and 1990s (Keller & Burkhardt 2011).

In 2009/10, the annual index for Britain remained at the all-time low point reached during the previous year, with numbers approaching 20% lower during the mid winter period compared to the recent five-year average. Interestingly, the lowest monthly index in Britain occurred in January, coinciding with an apparent influx of birds into Northern Ireland. It is possible that this was a cold weather movement in response to the frozen conditions prevalent at the time, as indicated by studies of within-winter movements by Keller *et al.* (2009). In Northern Ireland, January saw the highest total of Pochards at Loughs Neagh & Beg since 2001/02. As recently as 1990/91 over 40,000 birds were counted at this site, a decline considered primarily attributable to effects of eutrophication which may have impacted invertebrates fed upon by Pochard and other diving species (Maclean *et al.* 2007).

Pochard *(Jill Pakenham)*

For the first year since 2005/06, six sites in Britain yielded maxima in excess of 1,000 birds. These comprised the five sites at the top of the table below, as well as Loch of Harray (Orkney) where a count of 1,184 in October represents the most since 1995/96. Loch of Harray was a traditional stronghold for the species, with 2,000+ regularly

recorded during the 1970s and early 1980s, including a peak of 4,500 in February 1983. Results from the other sites of national importance were mixed; at many, maxima were typically slightly below recent averages. These included Fleet & Wey where the lowest peak count since 1986/87 was noted, and Abberton Reservoir where a very low total was recorded for the second year in a row. Other sites fared better, such as Dungeness & Rye Bay where an all-time peak was recorded.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of international importance in the UK							
Loughs Neagh and Beg	8,256	8,884	9,023	5,799	9,288	Jan	8,250
Sites of national importance in Great Britain							
Ouse Washes	1,227	4,197	2,987	2,367 [12]	3,151 [12]	Feb	2,786
Loch Leven	1,715	3,666	1,650	4,326	1,281	Oct	2,528
Abberton Reservoir	2,852	3,167	2,355	850	1,134	Sep	2,072
Dungeness and Rye Bay	1,053	1,049	728	1,019	1,356	Aug	1,041
Chew Valley Lake	1,580	1,220	600	530	1,065	Nov	999
Fleet and Wey	682	879	980	718	674	Jan	787
Hornsea Mere	1,150	710	650	560	550	Mar	724
Middle Tame Valley Gravel Pits	(12)	296	783	1,042	(10)	Feb	707
Cotswold Water Park (East)	524	993	884	685	421	Nov	701
Severn Estuary	760	786	583	617	593	Feb	668
Thames Estuary	590	484	854	588	714	Feb	646
Brogborough Clay Pit					645	Jan	645 ▲
Loch of Harray	341	532	468	454	1,184	Oct	596
Cotswold Water Park (West)	573	(641)	553	568	639	Feb	595
Loch of Boardhouse	709	623	441	665	312	Nov	550
Lower Windrush Valley Gravel Pits	(410)	467	(409)	(316)	(312)	Dec	467
Pitsford Reservoir	363	365	505	328	407	Aug	394
Sites no longer meeting table qualifying levels in WeBS-Year 2009/2010							
Upper Lough Erne	329	503	422	459	177	Feb	378
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain							
Grafham Water	78	48	84	78	526	Jan	163
Kenfig Pool	245	252	143	78	451	Dec	234
Pugneys Country Park Lakes	107	169	267	48	451	Dec	208
Cheddar Reservoir	285	443	80	230	435	Dec	295
Eglwys Nunydd Reservoir	260	160	4	132	420	Dec	195
Staines Reservoirs	338	164	12	150	417	Jan	216

Ring-necked Duck

Aythya collaris

Vagrant
Native Range: N America

Ring-necked Ducks were recorded at 14 sites during Core counts; split evenly between England and Scotland. These included long-staying birds at Westport Lake (Aug-Sep), Foxcote Reservoir (Oct-Dec), Pugneys Country Park Lakes (Jan-Feb) and Gaddon Loch (May-Jun). Others were noted at Blagdon Lake (Oct), Cheddar Reservoir (Dec), Porth Reservoir (Jan) and Frampton Pools (Mar), Kilconquhar Loch (Aug), Loch Gelly (Aug), Loch a' Phuill, Tiree (Sep), Loch Borralie (Feb), Dornoch Firth (Feb) and Loch Leven (Sep, Jun).

Ferruginous Duck

Aythya nyroca

Vagrant and escape
Native Range: N America, Asia

Ferruginous Ducks were reported from eleven WeBS sites in 2009/10. Chew Valley Lake, where the species may have bred in recent years (Davis & Vinicombe 2011) again featured, and there were further records from Loch Gelly, Pitsford Reservoir, Belvide Reservoir, Calvert Brick Works, Blackwater Estuary, Fen Drayton Gravel Pits, The Wash, Cheddar Reservoir, Durkar Sand Quarry and Gatton Park. As ever, some are likely to refer to escapes from captivity.

Tufted Duck

Aythya fuligula

International threshold:	12,000
Great Britain threshold:	1,100
All-Ireland threshold:	370

GB max:	56,000	Oct
NI max:	9,261	Jan

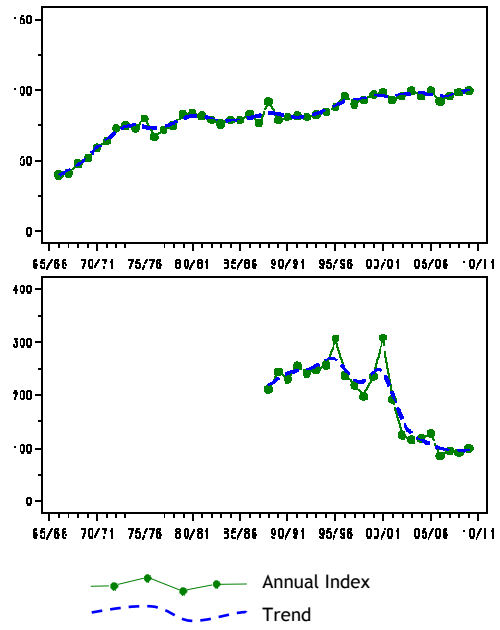


Figure 27.a, Annual indices & trend for Tufted Duck for GB (above) & NI (below).

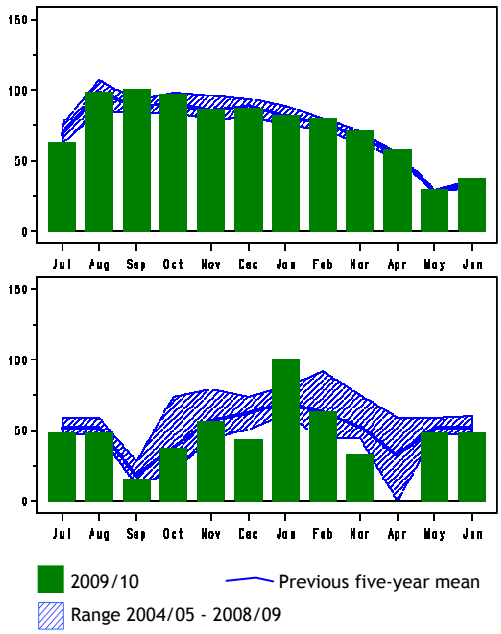


Figure 27.b, Monthly indices for Tufted Duck for GB (above) & NI (below).

Annual maxima and indices for Tufted Duck in Britain have exhibited a gradual increase over the course of the WeBS indexing period, and the index in 2009/10 was consistent with that trend.

The two sites at the top of the table below both fared relatively well in 2009/10. The peak at Rutland Water was the highest for three years and that at Abberton Reservoir was the most since October 2004. A notable maximum was also reported from Grafham Water; the January count of 2,242 has only been surpassed by historical peaks at the site dating back to the 1970s. Compared to the previous two years, a relatively low peak was reported from Ouse Washes, where diving waterfowl may be susceptible to variation in water levels. More strikingly, the maximum at Staines Reservoirs was the lowest for at least twenty years.

In Northern Ireland, the highest total since 2004/05 was reported from Loughs Neagh & Beg, where in common with other species of diving duck a sharp decline in peak numbers of Tufted Ducks took place from 2001/02 onwards. A record WeBS count of 29,393 dates back to December 1989. Perhaps even more impressive, relatively, was the peak count at Upper Lough Erne, 2,240 in February, which represents the most ever there.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of national importance in Great Britain							
Rutland Water	8,487	9,758	5,134	3,678	7,216	Sep	6,855
Abberton Reservoir	(4,857)	1,187	3,796	3,928	5,078	Oct	3,769
Loch Leven	3,802	3,553	4,140	3,610	3,601	Aug	3,741
Ouse Washes	1,140 [12]	2,057	3,328	(2,978)	1,647	Mar	2,230
Middle Tame Valley Gravel Pits	(64)	1,243	1,766	3,372	(70)	Oct	2,127
Hanningfield Reservoir	1,573	2,194	486	3,269	2,275	Aug	1,959
Walthamstow Reservoirs	1,828	1,516	900	2,103			1,587
Chew Valley Lake	2,115	1,325	1,480	1,350	1,480	Oct	1,550

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Pitsford Reservoir	2,066	1,374	774	1,654	1,749	Sep	1,523
Staines Reservoirs	2,844	1,865	1,074	1,097	730	Jul	1,522
Grafham Water	1,337	521	1,464	1,591	2,242	Jan	1,431
Cotswold Water Park (West)	1,199	1,372	1,343	1,354	1,541	Nov	1,362
Lee Valley Gravel Pits	985	1,215	1,231	1,519	1,673	Nov	1,325
Sites of all-Ireland importance in Northern Ireland							
Loughs Neagh and Beg	7,871	6,441	6,076	5,126	8,968	Jan	6,896
Upper Lough Erne	1,457	1,478	1,772	1,895	2,240	Feb	1,768
Lower Lough Erne	575	705	638	(183)	(201)	Dec	639
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain							
Little Paxton Gravel Pits	768	502	831	614	1,746 [12]	Oct	892
Rostherne Mere	168	97	156	221	1,465	Jan	421
Loch Watten	545	784	779	610	1,128	Oct	769

Scaup

Aythya marila

International threshold: 3,100
Great Britain threshold: 52
All-Ireland threshold: 45

GB max: 3,119 Oct
NI max: 3,722 Jan

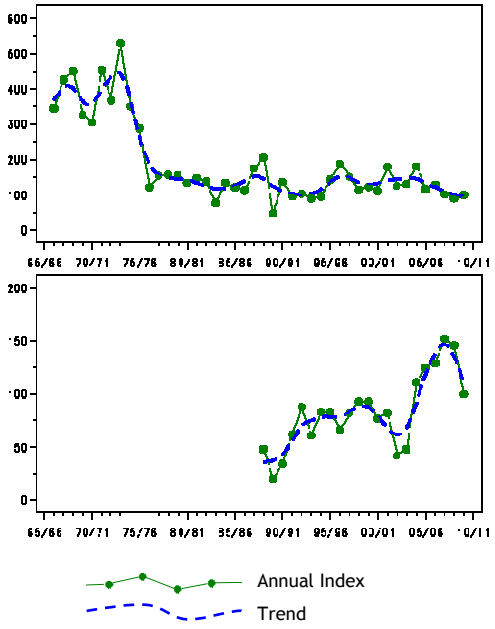


Figure 28.a, Annual indices & trend for Scaup for GB (above) & NI (below).

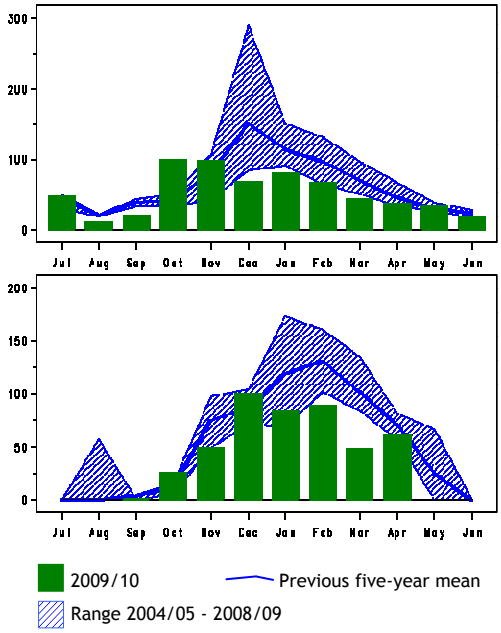


Figure 28.b, Monthly indices for Scaup for GB (above) & NI (below).

Since the mid 1970s, the indices for Scaup in Britain have changed little from year to year, with just small periodic fluctuations. The contemporary situation is in stark contrast to that prior to the mid 1970s when up to 25,000 birds were regular on the Forth Estuary. The disappearance of that aggregation was largely responsible for the plunge in the value of the national index at the time, occurring in isolation from the stable trend elsewhere in the country.

The recent revision of numbers of wintering waterbirds in Britain estimates a population of 5,200 birds (Musgrove *et al.* 2011). However, a supplementary count of 4,000 birds at Solway Estuary in January 2010 provides an indication of the potential numbers not routinely monitored through WeBS (from which the estimate was largely derived). The peak Core count there during the winter was 2,354 in October, the most counted there for five years, while the historical maximum at the site relates to

5,092 birds in December 1988. As with all seaducks, there is an inherent susceptibility to effects of bad weather and associated viewing conditions, and totals of Scaup from several sites in Britain (e.g. Cromarty Firth, Loch of Stenness and Loch of Harray) were down compared to recent averages.

In Northern Ireland, recent years had seen the wintering population of Scaup at Loughs Neagh & Beg on an upward trend, considered to be associated with the recovery of the Icelandic breeding population. However, in 2009/10, the winter maximum at the site dropped to 2,997 in February, the lowest peak there for six years. It is unknown whether this decrease at UK's only site of international importance is in any way linked to the apparent increase in size of the regular aggregation at Solway Estuary during 2009/10, and hence representative of a shift in site use. Only further years of monitoring will determine whether Scaup at Loughs Neagh & Beg return to the level that saw the species become the most abundant *Aythya* duck wintering there in 2008/09.

Scaup *(Nigel Clark)*

Away from the traditionally listed sites, notable maxima included 95 at Wigtown Bay (Nov) and 39 at Dee Estuary (Jan), while the peak count inland was 11 at Rutland Water (Feb) which is in keeping with peak counts there in recent years.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of international importance in the UK							
Loughs Neagh and Beg	5,826	4,349	5,587	6,335	2,997	Feb	5,019
Sites of national importance in Great Britain							
Solway Estuary	(575)	1,060	(499)	(257)	(4,000) [12]	Oct	2,530
Loch Ryan	1,020	1,047	1,654	705	800 [12]	Oct	1,045
Inner Loch Indaal	960 [21]	810 [21]	870 [21]		485	Dec	781
Inner Moray and Inverness Firth	576	690	148	493	386	Feb	459
Cromarty Firth	400	401	(516)	363	262	Jan	388
Loch of Stenness	306	429	259	276	197	Nov	293
Loch of Harray	360	306	67	(67)	149	Oct	221
Dornoch Firth	77	222	280	108	174	Feb	172
Firth of Clyde & Loch Ryan	161 [21]						161
Auchenharvie Golf Course	97	98	120	105	73	Feb	99
Montrose Basin	44 [10]	28	35	120	62	Nov	58
Sites of all-Ireland importance in Northern Ireland							
Belfast Lough	833	849 [10]	1,895	1,334 [10]	1,950	Dec	1,372
Carlingford Lough	222	225	177	85	62	Jan	154
Strangford Lough	0	70	90	103 [10]	2	Nov	53
Sites no longer meeting table qualifying levels in WeBS-Year 2009/2010							
Rough Firth			3	7	(1)	Nov	5
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain							
Wigtown Bay	0	0	20	0	95	Nov	23

Lesser Scaup

Aythya affinis

Vagrant
Native Range: N America

First recorded by WeBS in 1992/93, Lesser Scaup has featured in the annual report in almost every year since. In 2009/10, the species was seen at six sites. Long-stayers were present at Cardiff Bay (Jan-Feb) and Eglwys Nunydd Reservoir Loch (Feb-Mar), with other records from Colliford Reservoir and Loch Fitty (Feb) and Hayle Kimbro Pool and Hogganfield Loch (Mar).

Common Eider (outside Shetland)

Somateria mollissima mollissima

International threshold:	12,850
Great Britain threshold:	550
All-Ireland threshold:	30

GB max: 20,257 Sep
NI max: 3,521 Feb

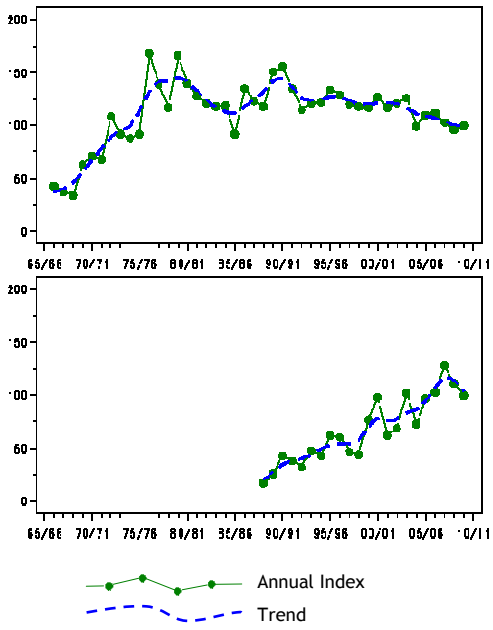


Figure 29.a, Annual indices & trend for Eider (outside Shetland) for GB (above) & NI (below).

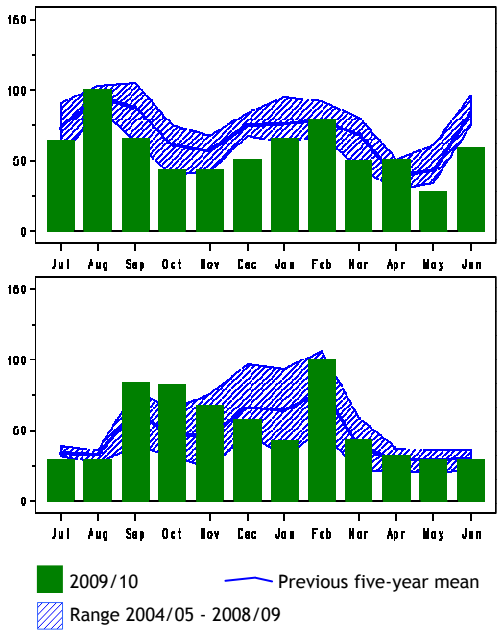


Figure 29.b, Monthly indices for Eider (Except Shetland) for GB (above) & NI (below).

The British trend over the course of the last twenty years has shown a slow, yet consistent, decline in numbers of Eiders. It has been suggested that this could be in response to diminishing food supplies which have extended over much of northern Europe (Coulson 2010). It should also be borne in mind that winter climate change can affect Eiders in the subsequent breeding season (Lehikoinen *et al.* 2006), for example, climatic amelioration is considered to have benefited Eiders in Iceland owing to advancement in laying dates (D'Alba *et al.* 2010).

In 2009/10, a further decline was apparent on the Firth of Clyde where numbers have fallen steadily in recent years. The Firth of Clyde held a peak of over 17,500 birds just ten years ago, but the census in September 2009 yielded a total of 7,573 birds. The reason appears to be increased mortality within that area; there is no evidence of movement of birds between there and Northern Ireland where numbers have increased in recent years (C. Waltho, pers. comm.). The maximum from Tay Estuary, the second most important site in the table, was also relatively low for the second year in succession.

In contrast, a total of 2,970 Eiders at The Wash in April represents the most ever there, surpassed the previous maximum at the site of 2,546 in January 2003, and elevated the site over the threshold for national importance. Seawatching from the Norfolk coast strongly suggests that these birds originate from continental breeding colonies (F. Cooke, pers. comm.).

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of national importance in Great Britain							
Firth of Clyde	8,055 [14]	9,590 [14]	9,521 [14]	9,271 [14]	7,573 [14]	Sep	8,802
Tay Estuary	11,500	(9,164)	(7,500)	4,000	5,100	Nov	7,453
Aberdeen Bay offshore	5,302 [39]	6,269 [39]					5,786
Forth Estuary	5,047	5,646	4,571	(5,925)	(4,210)	Aug	5,297

	05/06	06/07	07/08	08/09	09/10	Mon	Mean	
Morecambe Bay	3,815	3,374	(2,138)	5,534	4,248	Mar	4,243	
Inner Firth of Clyde	3,837	4,881	3,960	3,262	2,932	Aug	3,774	
Ythan Estuary	3,580	(3,607)	(3,140)	3,351	3,079	Jun	3,404	
Gare Loch	2,582 [14]	2,782 [14]					2,682	
Montrose Basin	4,322	2,584	2,321	1,099	1,555	Sep	2,376	
Moray Firth	1,390 [1]						1,390	
Dee Estuary (Scotland)	1,673	1,229	1,411	539	(1,417)	Dec	1,254	
Loch Long and Loch Goil	1,458 [14]	796 [14]					1,127	
The Wash	557	491	125	1,438	2,970	Apr	1,116	▲
Scarp to Vatersay offshore	948 [21]						948	
Lindisfarne	1,097 [10]	(469)	619	(501)	1,074	Jun	930	
Inner Loch Fyne	759 [14]	817 [14]					788	
Scapa, Shapinsay & Deer Sounds	720 [21]						720	
Holy Loch to Toward Point	766 [14]	634 [14]					700	
Loch Ryan	539	(385)	772	429	1,025	Mar	691	
Don Mouth to Ythan Mouth	(270)	538	(111)	(132)	(794)	Nov	666	
Moray Coast (Consolidated)	(274)	603	683	939	303	Jan	632	
Firth of Clyde & Loch Ryan	589 [21]						589	
Gourock to Largs	370 [14]	755 [14]					563	
Duddon Estuary	(263)	(715)	513	525	480	Apr	558	▲
Sites of all-Ireland importance in Northern Ireland								
Belfast Lough	1,839 [10]	1,482	2,675	2,062 [10]	1,529	Dec	1,917	
Outer Ards Shoreline	335	976	1,255	491	252	Mar	662	
Strangford Lough	480	728	551 [10]	784	613	Oct	631	
Lough Foyle	164	528	37	407	452	Oct	318	
Larne Lough	67	76	48	106	86	Apr	77	
Sites no longer meeting table qualifying levels in WeBS-Year 2009/2010								
Ayr Bay					(23)	Feb	(23)	
Killantringan Bay					8	Apr	8	
No data for years 2005/06 to 2009/10: Irvine Bay, Lower Loch Long, Otter Ferry, Outer Tay & St Andrews Bay offshore, Sound of Barra (Barra), Scapa Flow								
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain								
Alnmouth to Boulmer	74	143	91	52	647	Sep	201	

Common Eider (Shetland)

Somateria mollisima

International threshold: 150
Great Britain threshold: 55
All-Ireland threshold: -

GB max: 45 Jul
NI max: 0

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of national importance in Great Britain							
Bluemull & Colgrave Sounds	992 [9]	558 [9]	1,232 [9]		1,074 [9]	Jan	964
Burra, Trondra & Scalloway Islands	780 [9]		1,014 [9]		830 [9]	Jan	875
South Unst		601 [9]	450 [9]				526
Bressay Sound	265 [9]						265
Rova Head to Kirkabister	312 [9]	158 [9]	136 [9]	163 [9]	204 [9]	Jan	195
Whiteness to Skelda Ness	142 [9]	179 [9]	178 [9]		201 [9]	Jan	175
North Bressay	144 [9]						144
Kirkabister to Wadbister Ness	216 [9]		53 [9]				135
Gulberwick area	119 [9]						119
South Yell Sound	46 [9]	54 [9]	35 [9]	68 [9]	70 [9]	Jan	55

Following the recommendations of Scott & Rose (1996) and Furness *et al*. (2010), Common Eiders *Somateria mollissima* on Shetland are treated as a separate population from those elsewhere in Britain, and have been listed as such in the WeBS report since 2008/09 (Calbrade *et al*. 2010). However, the taxonomic recommendation of Furness *et al*. (2010) has not been followed, since BOU has yet to recognise this population as belonging to the subspecies *faeroeensis*.

A full survey of the moulting population undertaken by SOTEAG in July-August 2009 generated a total of 6,040 birds in Shetland (Heubeck & Mellor 2011), thereby yielding a

five year-mean of 5,500 and an associated 1% threshold of 55 birds (Musgrove *et al.* 2011).

Relatively few Eiders are counted at the small number of sites on Shetland which are monitored routinely through WeBS (hence a counted monthly maximum of just 45 birds in July). There is therefore no long-term WeBS trend for Eiders on Shetland. However, numbers are believed to have declined markedly over the last thirty or so years (Pennington *et al.* 2004), although, over a similar time period, climate change is considered to have benefited Eiders in Iceland (of the subspecies *faroeensis*) as a consequence of an advancement in laying dates (D'Alba *et al.* 2010).

King Eider

Somateria spectabilis

Vagrant
Native range: Arctic

Drakes graced two WeBS sites in the north of Scotland; Burghead on the Moray Coast (Jan-Feb) and Ythan Estuary (May-June).

Long-tailed Duck

Clangula hyemalis

International threshold: 20,000
Great Britain threshold: 110
All-Ireland threshold: +†

GB max: 2,100 Feb
NI max: 13 Mar

Long-tailed Ducks were recorded at 87 WeBS sites around the UK in 2009/10, some 10% fewer sites than in the previous two years. This species usually remains some distance from the coast, making ground-based counts difficult and accurate monitoring problematic. Typically, drawing meaningful conclusions from the totals listed below is fraught with difficulties and probably best avoided. The British maximum was similar to that of the previous year, and hence considerably lower than the longer-term average. This is largely as a result of the relatively low number, albeit typically the highest count of the year, again reported from Moray Firth. It is unclear the extent to which the recent drop in recorded numbers at Moray Firth may have arisen as a result of reduced coverage, the influence of sea conditions affecting visibility and location of birds on the Core count dates, or a genuine decline in the population of birds using the site. The latter is probably at least partly responsible, as concurrent declines have been noted elsewhere (Musgrove *et al.* 2011). Some degree of shift in range in response to climatic amelioration would be expected, as effects of climatic conditions on seaduck distributions can be profound (Zipkin *et al.* 2010).

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of national importance in Great Britain†							
Moray Firth	11,565	10,878	1,904	(690)	(759)		8,116
Scapa Flow, Shapinsay & Deer Sounds	300 [21]						300
Forth Estuary	237	220	163	146	(195)	Jan	192
Melbost Sands (Lewis)	11	121	144	1	610	Sep	177
Bluemull & Colgrave Sounds	160 [9]	83 [9]	118 [9]		299 [9]		165
Don Mouth to Ythan Mouth	25	0	(8)	(25)	(574)	Feb	156
Rova Head to Kirkabister	165 [9]	79 [9]	119 [9]	125 [9]	164 [9]	Jan	130
Quendale to Virkie	57 [9]		201 [9]				129
Burra, Trondra & Scalloway Islands	120 [9]		139 [9]		118 [9]		126
South Yell Sound	169 [9]	138 [9]	100 [9]	164 [9]	47 [9]	Jan	124
Loch of Stenness	96	107	130	89	50	Jan	94
Scarp to Vatersay offshore	75 [21]						75
Thurso Bay	30	200	30	26	20	Feb	61
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain†							
Burghead Bay: Burghead - Findhorn			15	70	62	Feb	49
Lunan Bay	24	19	8	(140)	50	Jan	48

† *as few sites surpass the British threshold, sites with mean peak counts of 50+ are also listed.*

Given on-going pressure from coastal and offshore developments and the potential effects of climate change on marine ecosystems, the need for regular and comprehensive surveys of wintering seaducks, divers and grebes around the UK has arguably never been greater. Such surveys would assist in estimating populations and identifying the spatial and temporal distribution around the coastline.

Away from Moray Firth, the highest count of Long-tailed Ducks in 2009/10 was 610 at Melbost Sands (Lewis), an indication of the numbers potentially present along the extensive stretches of the west coast of Scotland not regularly covered through WeBS. Outside Scotland, the highest counts were 43 between Seahouses and Budle Bay in December and 15 on North Norfolk Coast in January. Typically a small number of singles were seen at scattered inland sites.

Common Scoter

Melanitta nigra

International threshold:	**16,000**
Great Britain threshold:	**1,000†**
All-Ireland threshold:	**230**

GB max: 9,910 Jan
NI max: 719 Feb

Flocks of Common Scoter offshore are relatively poorly monitored by WeBS. In addition to aggregations recorded through the survey, this annual report attempts to collate as much supplementary data as possible; in recent years, this has tended to be collected during aerial surveys aimed specifically at monitoring this species.

It was a remarkable winter for Common Scoters in Carmarthen Bay, classified as a marine SPA, with a record-breaking 43,000 birds present. The cold weather during the midwinter period probably contributed to the size of the flock, with birds from Scandinavia likely to have been displaced to then settle in warmer waters off Wales.

Numbers recorded specifically during WeBS Core counts tend to be highly dependent on weather and the associated viewing conditions at the key sites. For the fourth year running the highest Core count was from North Norfolk Coast, 6,679 birds in March. Meanwhile, away from the six sites surpassing the revised threshold for national importance (1,000 birds), notably higher maxima than usual were noted at Duddon Estuary, Ribble Estuary and offshore between Seahouses and Budle Bay. It is not known the extent to which the apparent increases at these sites may be attributable to changes in counting effort.

A small number of birds were seen at scattered inland sites, including six at Ranworth & Cockshoot Broads in July.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites with mean peak counts of 500 or more birds in Great Britain†							
Carmarthen Bay	20,287 [28]	14,412 [28]	6,189 [28]	22,930 [29]	43,000 [29]	Jan	21,364
Moray Firth	6,842	1,908	2,494	683	(215)	Jan	2,982
North Norfolk Coast	6,830	4,960	3,530	2,040	6,679	Mar	4,808
Alt Estuary	4,300	3,288	850	310	2,920	Jan	2,334
Towyn to Llanddulas	(1,680)	1,800	1,600	(23)	2,076	Feb	1,825
Forth Estuary	1,495	623	936	1,103	2,808	Jun	1,393
The Wash	100	1,810	207	641	711	Apr	694
St Andrews Bay	447	380 [43]	700 [43]	1,000 [43]			632
Dee Estuary (England and Wales)	40	2,009	297	141	168	Nov	531
Sites of all-Ireland importance in Northern Ireland							
Dundrum Bay				1,637	(719)	Feb	1,637
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain†							
Duddon Estuary	0	5	9	3	2,000	Dec	403
Ribble Estuary	(40)	1	20	(514)	1,071	Sep	402
Seahouses to Budle Point	48	(26)	28	140	1,000	Dec	304
Glyne Gap	117	(533)	544	(480)	610 [6]	Dec	457
Don Mouth to Ythan Mouth	603	(36)	500	300	590	Sep	498
Spittal to Cocklawburn	34	1	86	390	560	Nov	214
Lindisfarne	13 [10]	(6)	(15)	(1)	500	Jan	257

† *as few sites surpass the British threshold (1,000), sites with mean peak counts of 500+ are also listed.*

Surf Scoter

Melanitta perspicillata

Vagrant
Native Range: N America

Typically, the Forth Estuary hosted two Surf Scoters during the winter. A further bird was present at the Exe Estuary in December and January, only the third ever WeBS record in England.

Velvet Scoter

Melanitta fusca

International threshold:	**10,000**
Great Britain threshold:	**25**
All-Ireland threshold:	**+†**

GB max: **517** **Oct**
NI max: **0**

WeBS counts in recent years indicate that the wintering population of Velvet Scoters in the UK is in decline. However, as is the case with most seaducks, grebes and divers, one should be aware it can be a difficult species to monitor and numbers recorded are often highly dependent on sea conditions. Furthermore, monitoring of this species undoubtedly suffers from the relatively poor coverage along parts of the Scottish coastline, particularly Orkney.

During 2009/10, Velvet Scoters were noted at 24 sites. The monthly peak of 517 birds in October is a somewhat poor reflection of the total number likely to be present in Britain during the winter (Musgrove *et al*. 2011). This discrepancy is partly due to the low total reported from Moray Firth, where as recently as 2002/03 over 4,000 were counted. As with other offshore species, it is unclear whether the apparent drop in numbers of Velvet Scoters at Moray Firth, as well as at other principal sites listed below, relates to a genuine decline in numbers or is an artefact of sea conditions and/or surveying practice. A response to climate change may be at least partly responsible, as demonstrated in North America by Zipkin *et al*. (2010).

Velvet Scoter *(Andy Musgrove)*

The maximum number recorded during the year was 457 at Forth Estuary in May, typifying the decline noted there since successive peak counts of 1,000+ during the early 2000s. The only other three-figure count received was 150 at Burghead Bay in October. Typically, few were seen away from the Scottish coast; the peak count elsewhere being 27 at North Norfolk Coast in March. There were just two inland records; two birds at Grafham Water in January and a single at William Girling Reservoir in March.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean	
Sites of national importance in Great Britain								
Moray Firth	1,261	743	(74)	17	(62)	Nov	674	
Forth Estuary	775	(928)	372	728	457	May	652	
Lunan Bay	120	2	100	(240)	(40)	Oct	116	
St Andrews Bay	8	(0)	176 [43]	70 [43]			85	
Burghead Bay: Burghead to Findhorn			7	(0)	150	Oct	79	▲
Aberdeen Bay offshore	89 [39]	28 [39]					59	
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain								
North Norfolk Coast	25	3	4	7	27	Mar	13	

Bufflehead

Bucephala albeola

Vagrant
Native Range: N America

The fourth WeBS record of a Bufflehead was noted at Fleet & Wey in March.

Goldeneye

Bucephala clangula

International threshold:	11,500
Great Britain threshold:	200
All-Ireland threshold:	95

GB max:	10,965	Feb
NI max:	3,803	Jan

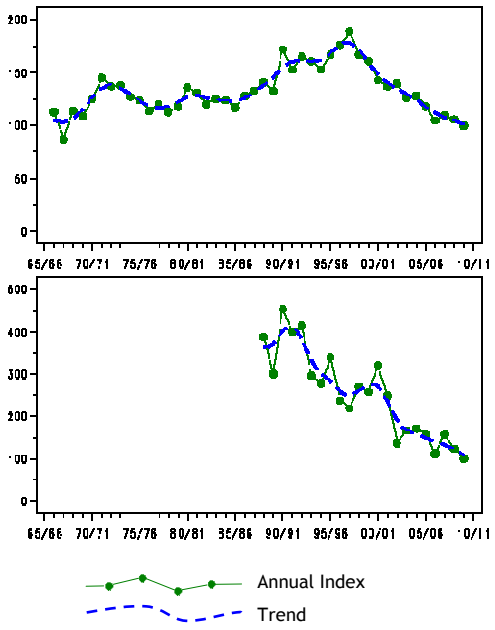


Figure 30.a, Annual indices & trend for Goldeneye for GB (above) & NI (below).

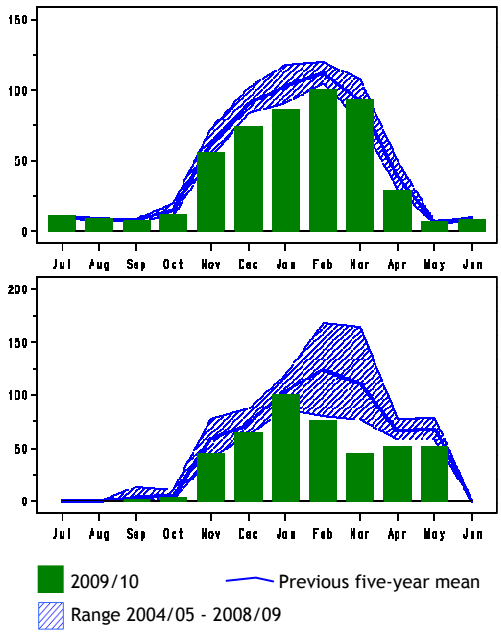


Figure 30.b, Monthly indices for Goldeneye for GB (above) & NI (below).

Since reaching a peak index value in 1997/98, the wintering population of Goldeneyes in Britain has fallen by approximately 40% and is now at almost its lowest ever point. This represents a profound case of 'boom to bust', with the decline having followed a period of consistent increase from the 1970s through to the mid 1990s. In view of this decline, Musgrove *et al.* (2011) revised the British winter population downwards by some 20%, to an estimated 20,000 birds.

The winter arrival of Goldeneyes, which are mostly of Scandinavian origin, is generally later than for most of the regular wintering duck species, with relatively few seen before November. The monthly indices for Britain depict something of an initial slow arrival, with numbers well below average during the period of December to January, before numbers approached more typical levels by March. It is tempting to speculate that this apparent shift during the second part of the winter may have been initiated by the cold conditions across Europe at the time.

In contrast to the national trend, the maximum count of 1,340 at Forth Estuary in January represents the most recorded there through WeBS since February 2001. The historical maximum at the site is 5,063 in January 1973, however it should be noted that a total of 4,864 were logged there as relatively recently as December 1997. At other sites of national importance, peaks were close to or below recent averages, with the most marked declines being those at Inner Firth of Clyde and Humber Estuary.

The steep decline in Northern Ireland has taken place since the initiation of routine monitoring through WeBS. Numbers at the key site, Loughs Neagh & Beg, were below average once again, with the monthly maximum of 3,004 in January being the second lowest annual peak of the last ten years. The site was formerly recognised as being of international importance for this species, but a long term decline is evidenced by annual peaks of more than

13,500 in the early 1990s compared to the recent five-year mean of under 4,000 birds. The decline of this and other diving species at the site has been considered attributable to the effects of eutrophication (Maclean *et al*. 2007). In addition, as with other Scandinavian breeding species, it is likely that recent milder winters have led to a north-east directional shift in terms of core wintering range. For example, in Sweden the estimated population of Goldeneyes in winter rose from 18,800 birds in 1971 to 75,000 in 2004 (Nilsson 2008).

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of national importance in Great Britain							
Forth Estuary	(379)	331	533	(431)	1,340	Jan	735
Inner Firth of Clyde	636	688	452 [12]	(215)	270	Feb	512
Loch Leven	289	517	302	683	415	Nov	441
Abberton Reservoir	588	478	332	299	413	Mar	422
Rutland Water	521	356	349	442	390	Feb	412
Humber Estuary	449	401	577	302	127	Nov	371
Morecambe Bay	249	191	(133)	290	242	Feb	243
Windermere	256 [12]	271 [12]	242	223 [12]	103	Feb	219
Loch of Skene	334	128	204	223	188	Feb	215
Loch of Strathbeg	202	334	146	159	217	Feb	212 ▲
Sites of all-Ireland importance in Northern Ireland							
Loughs Neagh and Beg	5,688	2,780	4,648	3,684	3,004	Jan	3,961
Belfast Lough	103	(108)	226	233	(383)	Jan	236
Lower Lough Erne	254	169	267	(134)	(110)	Jan	230
Strangford Lough	187	83 [10]	237	181	139	Dec	165
Larne Lough	155	97	89	84	(116)	Feb	108
Sites no longer meeting table qualifying levels in WeBS-Year 2009/2010							
Tweed Estuary	140	174	246	245	182	Feb	197
Hornsea Mere	280	91	260	98	230	Mar	192
Inner Moray and Inverness Firth	186	221	137	92	130	Feb	153
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain							
Hornsea Mere	280	91	260	98	230	Mar	192

Hooded Merganser

Lophodytes cucullatus

Vagrant or escape
Native Range: N America

Two long-staying Hooded Mergansers featured in 2009/10. The drake remained at Radipole (Fleet & Wey) and a first-winter drake was present at Saltholme Pools (Tees Estuary) from February to April.

Smew

Mergellus albellus

GB max:	**199**	**Feb**
NI max:	**2**	**Mar**

International threshold:	**400**
Great Britain threshold:	**2**
All-Ireland threshold:	**+†**

The relatively cold spell of weather in January and February, at least in comparison to winters of the previous decade or so, resulted in a small increase in numbers of Smew at favoured sites during 2009/10. More marked however was an increase in the overall number of WeBS sites where the species was recorded; the total of 94 sites comparing well with an average of 58 sites over the previous three years. In general, lower numbers of Smew in recent winters have been associated with a shift in distribution towards the north-east of the wintering range; for example, in Sweden wintering numbers increased from 400 in 1971 to 3,800 in 2004 (Nilsson 2008).

Smew *(Jill Pakenham)*

The counted maximum in the UK in 2009/10 was 199 birds in February; approximately double that of the three previous years; hence the long list of WeBS sites below that surpassed the revised 1% threshold during the course of the winter. Although Musgrove *et al*. (2011) estimate the typical British wintering population of approximately 180 birds to largely occur at well-covered WeBS sites, unfortunately, for the second year in a row, no Core counts were undertaken at Wraysbury Gravel Pits. The network of gravel-pit sites in Cambridgeshire fared particularly well in 2009/10, with Ouse Fen & Pits (max. 27), Little Paxton (17) and Fen Drayton (19) all hosting more birds than normal. The majority of records away from sites listed below related to 1-3 birds, including the only record from Northern Ireland where up to two were at Loughs Neagh & Beg in January to March.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean	
Sites of national importance in Great Britain								
Wraysbury Gravel Pits	38	19	16	(10) [12]	(8) [12]	Jan	24	
Cotswold Water Park (West)	33	13	19	16 [12]	18	Feb	20	
Dungeness and Rye Bay	20	18	21	11	(14)	Jan	18	
Ouse Fen and Pits	10	0	12	14	27	Feb	13	
Rutland Water	14	5	2	12	18	Feb	10	
Thorpe Water Park	20	3	3		8	Jan	9	
Lee Valley Gravel Pits	9	7	7	4	12	Feb	8	
Little Paxton Gravel Pits	5	4	12	2	17	Feb	8	
Pitsford Reservoir	11	4	(2)	5	7	Dec	7	
Fen Drayton Gravel Pits	5	3	2	1	19 [12]	Jan	6	
Eyebrook Reservoir	7	4	6	7	5	Dec	6	
Tophill Low Reservoirs	9 [12]	5 [12]	6 [12]	3 [12]	(2)	Nov	6	
Seaton Gravel Pits & River	11	1	6	3	(3)	Dec	5	
Abberton Reservoir	2	2	5	8	8	Feb	5	
Grange Waters Complex	5						5	
Deeping St James	8	2					5	
Bedfont and Ashford GPs		1	6	1	(8)	Jan	4	
Colne Valley Gravel Pits	6	8	4	1	1	Dec	4	
Walthamstow Reservoirs	0	10	0	0			3	
Blackwater Estuary	1	3	2	(1)	6	Jan	3	
Minsmere	5	1	1	3	6	Feb	3	
Nar Valley Fisheries Lakes					3	Feb	3	▲
Sonning Eye & Henley Road GP		2		4	1	Dec	2	
Earls Barton Gravel Pits	6	0	0	1	1	Feb	2	▲
Stanwick Gravel Pits					(2)	Jan	(2)	▲
Grafham Water	1	0	3	3	2	Jan	2	▲
Marsh Lane Gravel Pits	5	2	2	0	1	Jan	2	
River Lane Gravel Pit				2 [12]	1	Jan	2	
Holme Pierrepont GPs	5	1	0	1			2	▲
Brandesburton Ponds West	6	0	0	(0)			2	
Humber Estuary	(3)	(2)	(2)	(1)	1	Dec	2	
Coombe Country Park				2 [12]			2	▲
Aston On Trent Gravel Pits	2						2	
Longtown Ponds and River	0	1	0	3	5	Feb	2	▲
Castle Loch, Lochmaben		1	2 [12]	3	(0)		2	
Loch Leven	0	6	0	1 [12]	2	Nov	2	▲
Sites no longer meeting table qualifying levels in WeBS-Year 2009/2010								
Whitemoor Haye	0	2	4	0	0		1	
Belhus Woods Country Park	0				0		0	

Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain

Talley Lakes (5, Feb), Somerset Levels (4, Feb), Chew Valley Lake (3, Jan), Cotswold Water Park (East) (3, Feb), Ravenshorpe Reservoir (3, Feb), Colne Fen Gravel Pits (3, Jan), Martham Broad (3, Jan), Barton Broad (3, Jan), Whitlingham Country Park (3, Jan), Hornsea Mere (3, Mar), East Chevington Pools (3, Feb), Severn Estuary (2, Jan), Stodmarsh (2, Mar), Twyford Gravel Pits (2, Jan), Thrapston Gravel Pits (2, Feb), Clifford Hill Gravel Pits (2, Jan), Watermead CP North (2, Feb), Middle Tame Valley GPs (2, Mar), Croxall Pits (2, Mar), Crookfoot Reservoir (2, Nov), Talkin Tarn (2, Jan), Tindale Tarn (2, Feb), Kilmardinny Loch (2, Dec), Loch Shiel (2, Jan), Ranworth & Cockshoot Broads (2, Jan), Sywell Country Park (2, Jan), Hurworth Burn Reservoir (2, Mar)

Red-breasted Merganser

Mergus serrator

GB max:	**3,113**	**Feb**
NI max:	**614**	**Oct**

International threshold:	**1,700**
Great Britain threshold:	**84**
All-Ireland threshold:	**35***

**50 is normally used as a minimum threshold*

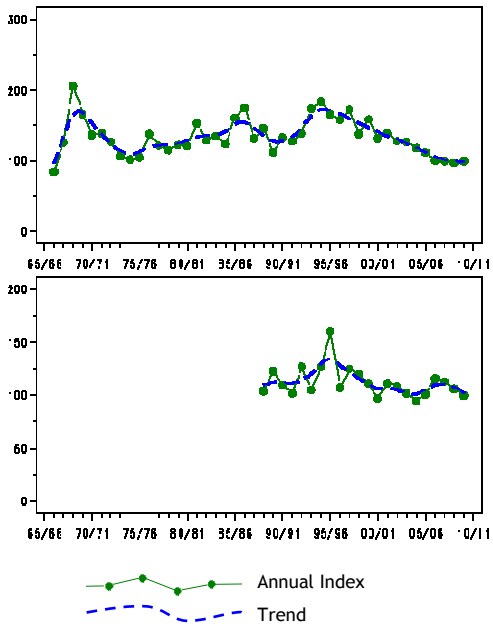


Figure 31.a, Annual indices & trend for Red-breasted Merganser for GB (above) & NI (below).

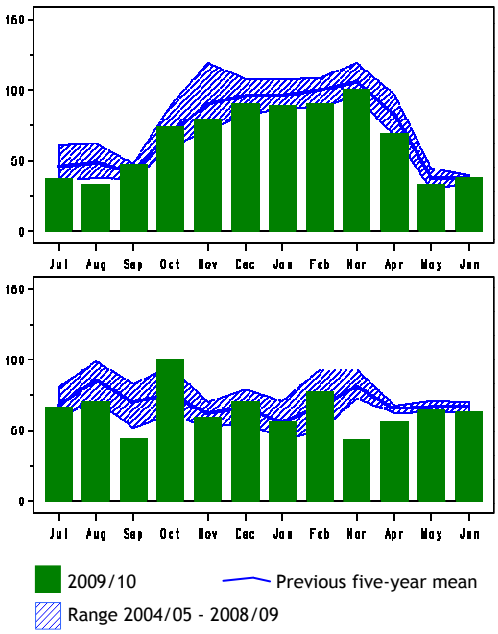


Figure 31.b, Monthly indices for Red-breasted Merganser for GB (above) & NI (below).

There are some signs that the steady decline in Red-breasted Mergansers around the British coastline may have slowed, with the index appearing to have stabilised at approximately the same level for the last four years. In contrast, over the course of the last thirty to forty years, numbers present wintering to the east of the UK have increased steadily (e.g. Nilsson 2008, Hornman *et al*. 2011), suggestive of a shift in range, perhaps induced by climate change.

After the all-time low reached at Forth Estuary in 2008/09 this year's peak count of 316 there in September represents a slight recovery, but is still below the recent five-year average and pales into relative insignificance when compared to counts from the past. The historic maximum relates to an exceptional 4,290 in January 1969, while 750+ were noted as recently as October 2002 and March 2004.

Peak counts at most other sites of national importance were close to or below average, notable exceptions being Chichester Harbour where 253 in December represents the most ever logged, and 192 at Montrose Basin in June which is the highest count there since 1978.

Numbers at sites in Northern Ireland were variable. For example, whereas Belfast Lough held an above average peak, the maximum at Carlingford Lough was the lowest for nine years.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of national importance in Great Britain							
Forth Estuary	489	347	(261)	267	316	Sep	355
Fleet and Wey	438	284	307	341	233	Dec	321
Moray Firth	254	211	366	(195)	(246)	Oct	277
Poole Harbour	(250)	213	(117)	(241)	(120)	Dec	235
Morecambe Bay	263	(118)	(239)	188	176	Feb	217
Chichester Harbour	212	217	211	157	253	Dec	210
Inner Firth of Clyde	252	195	168	202	158	Jul	195

	05/06	06/07	07/08	08/09	09/10	Mon	Mean	
Whiteness to Skelda Ness	145 [9]	134 [9]	192 [9]		156 [9]	Jan	157	
Langstone Harbour	187	159	169	114	128	Nov	151	
Rova Head to Kirkabister	169 [9]	169 [9]	92 [9]	197 [9]	117 [9]	Jan	149	
Montrose Basin	163	135	99	113	192	Jun	140	
Loch Ryan	180	106	100	101	136	Oct	125	
Duddon Estuary	(121)	106	123	92	141	Feb	117	
Lavan Sands	196	81	110	68	131	Mar	117	
North Norfolk Coast	132	92	131	94	107	Mar	111	
Jersey Shore		126	90				108	
Exe Estuary	78	139	79	140	86	Jan	104	
Piltanton and Luce Estuaries					104	Aug	104	▲
Tay Estuary	172	57 [10]	103	(47)	75	Apr	102	
Loch Lomond	129	8	54	240	68	May	100	
Sound of Gigha	34 [21]			57 [12]	(178)	Aug	90	▲
Portsmouth Harbour	88	97	78	(89)	90	Dec	88	
Blackwater Estuary	74	72	84	97	108	Feb	87	▲
Sites of all-Ireland importance in Northern Ireland								
Strangford Lough	263	390 [10]	(282)	(198)	257	Dec	303	
Larne Lough	151	196	142	252	145	Oct	177	
Belfast Lough	104	110	183	160	191	Oct	150	
Lough Foyle	169	(35)	99	125	101	Oct	124	
Carlingford Lough	118	171	106	29	24	Jan	90	
Outer Ards Shoreline	31	108	38	45	14	Mar	47	
Sites no longer meeting table qualifying levels in WeBS-Year 2009/2010								
Inland Sea and Alaw Estuary		80 [10]		90	78	Sep	83	
Arran	113	(129)	59	43	57	Feb	80	
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain								
Sullom Voe	28 [9]	39 [9]	72 [9]	65 [9]	130 [9]	Jan	67	

Goosander

Mergus merganser

International threshold: **2,700**
Great Britain threshold: **120**†
All-Ireland threshold: **+**†

GB max: **2,741** **Jan**
NI max: **2** **Jan**

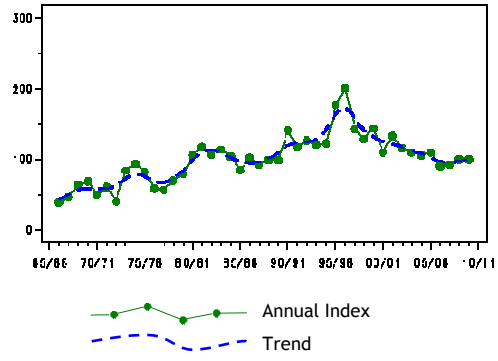


Figure 32.a, Annual indices & trend for Goosander for GB.

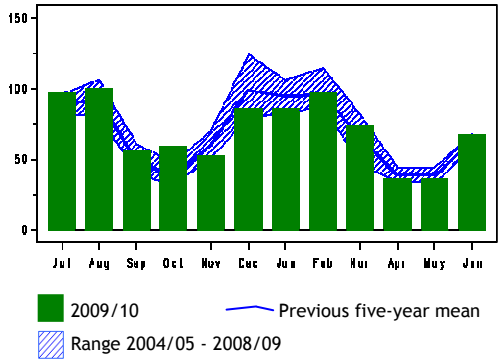


Figure 32.b, Monthly indices for Goosander for GB.

Goosanders that winter in Britain are considered to be largely derived from the breeding population, although many in the southeast are likely to originate from overseas populations, especially during cold weather on the continent. Numbers wintering in Britain have declined since a peak in the index in the mid 1990s, although the last four years have seen relative stability. Typically, the monthly indices show that slightly below average numbers were present during the core winter period, presumably relating to a decreasing proportion of the wintering population originating from the continent. A more positive showing is apparent in summer; evidence of the increasing breeding population (Baillie *et al*. 2010).

Peak WeBS counts in 2009/10 were 205 at Tay Estuary and 205 at Tweed Estuary during late summer. The latter is the most ever noted at the site, the previous highest being 123 in August 2006. Further south, in lowland England where winter counts are more likely to part relate to continental immigrants, numbers were close to recent average. The highest counts were 101 at River Avon (Fordingbridge to Ringwood) in January, 64 at Chasewater, and 53 at Cotswold Water Park (West).

Goosanders are remarkably scarce in Northern Ireland; singles at Bann Estuary and Lower Lough Erne in January were the only records in 2009/10.

WeBS counters should be aware that numbers of Goosanders seen at favoured sites can vary according to the time day when the site is visited. During the winter, they tend to return to communal roosts late in the afternoon. Submission of roost counts from key sites, in order to supplement Core counts, is therefore welcomed.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of national importance in Great Britain							
Tay Estuary	153	313	(155)	232	(205)	Aug	233
Forth Estuary	119	119	(108)	(68)	(184)	Aug	141
Loch Lomond	19	261	36	217	161	Jul	139
Additional sites with mean peak counts of 70+ birds in Great Britain†							
Tyninghame Estuary	69	157	107	68	171	Jun	114
Tweed Estuary	64	123	42	85	205	Jul	104
Castle Loch Lochmaben	0	85	120	116	118 [12]	Feb	88
River Tweed - Kelso to Coldstream	113	74	90	49	111	Oct	87
Montrose Basin	60	57	59	116	131	Aug	85
Windermere	127	76 [12]	57	68 [12]	65	Jul	79
Acre Nook Sand Quarry	52 [11]	47 [11]	77 [11]	85 [11]	122 [11]	Feb	77
Loch Leven	20	39	151	68 [12]	97	Mar	75
Blithfield Reservoir			51	96 [11]	76 [11]	Dec	74
Ashworth Moor Reservoir	90 [11]	97 [11]	59 [11]	48 [11]			74
Eccup Reservoir	115	82	70	60	41	Jan	74
R.Severn & R.Vyrnwy Confluence	175	4	(24)	35	(15)	Nov	71
Other sites surpassing national importance qualifying levels in Winter 2009/2010 in Great Britain							
Inchgarth Reservoir	23	0	48	47	149	Oct	53
Auchenreoch Loch	11	32	59	0	140	Oct	48

† *as few sites surpass the British threshold (120) and no All-Ireland threshold has been set, sites with mean peak counts of 70+ are also listed.*

Ruddy Duck

Oxyura jamaicensis

Naturalised introduction†
Native Range: America

GB max: 322 Jan
NI max: 11 Oct

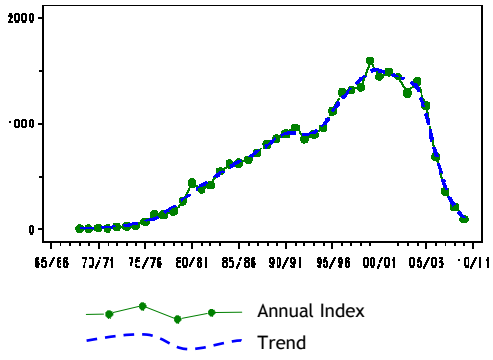


Figure 33.a, Annual indices & trend for Ruddy Duck for GB.

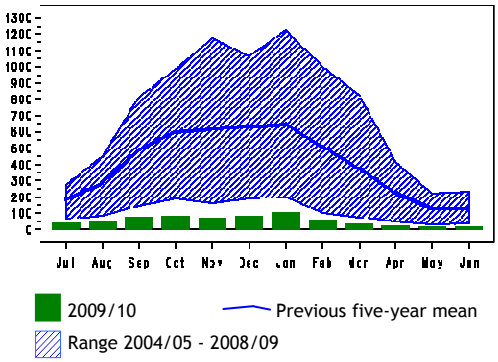
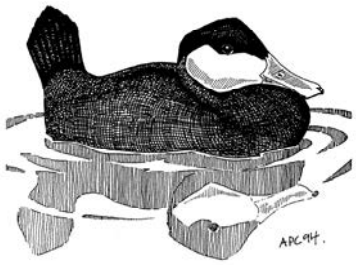


Figure 33.b, Monthly indices for Ruddy Duck for GB.

The Ruddy Duck has been the focus of a co-ordinated international programme to contain and eradicate this North American species in Europe, as part of the conservation of the White-headed Duck *Oxyura leucocephala* in Spain and other parts of Europe. Despite managing to maintain a reasonably widespread distribution, the British index has inevitably dropped, particularly so since 2005/06.

A WeBS Core count of 31 Ruddy Ducks at Attenborough Gravel Pits in January proved to be the highest of the year across the UK. In contrast, 17 sites had held 30+ in 2008/09, compared with 27 sites during 2007/08, and 34 during 2006/07. In Northern Ireland, Loughs Neagh & Beg held a peak of just 11 birds, the lowest total there since routine monitoring began.



Ruddy Duck *(Andrew Chick)*

In January 2011, there were estimated to be approximately 90 Ruddy Ducks remaining in Britain (I. Henderson pers. comm., in Musgrove *et al.* (2011)), although presumably small numbers at some under-watched sites remain undetected.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites with mean peak counts of 30 or more birds in Great Britain[†]							
Staines Reservoirs	521 [30]	277	72	69	10	Nov	190
Abberton Reservoir	455	261 [30]	49	96	24	Nov	177
Hanningfield Reservoir	330	276	45	36	9	Jul	139
Hilfield Park Reservoir	176	263	83	31	12	Oct	113
Dungeness and Rye Bay	257	193	73	31	6	Oct	112
Pitsford Reservoir	311 [30]	102	41	40	24	Oct	104
Chew Valley Lake	257 [30]	(130)	17	65	19	Dec	98
Carsington Water	182	101	132	17	25	Jan	91
Holme Pierrepont Gravel Pits	202	106	38	8			89
Blagdon Lake	172	85	103	36	4	Aug	80
Middle Tame Valley Gravel Pits	126 [30]	(16)	(38)	17	(0)		72
Anglers Country Park Lake	185	34	37	24			70
Tophill Low Reservoirs	131	85 [30]	63	38	15	Aug	66
Colne Valley Gravel Pits	215 [30]	99 [30]	4	4	4	Dec	65
Thames Estuary	85	79	73	40	22	Nov	60
Llyn Alaw	95	92	18	10			54
Walthamstow Reservoirs	86 [30]	74	38	7			51
Brent Reservoir	77	85	46	30	12	Nov	50
Thoresby Lake	42 [30]	52 [30]					47
Attenborough Gravel Pits	43	40	44	(56)	(31)	Jan	46
Mersey Estuary			85	6			46
Tees Estuary	63	111	13	36	8	Aug	46
Clumber Park Lake	41	66	82	22	8	Sep	44
King George V Reservoirs	83	45	15	42	30	Jan	43
Wigan Flashes		73 [30]	55	22	6	Jul	39
Colwick Country Park	51	37 [30]	27	38			38
Blithfield Reservoir	59 [30]	23 [30]	51	(38)	14	Oct	37
Knight and Bessborough Reservoirs	45	58	46	22	3	Sep	35
Hampton and Kempton Reservoirs	76	33	8	21	(1)	Oct	35
Sutton and Lound Gravel Pits	13	64	39	18			34
Cotswold Water Park (West)	59	34	23	11	(8)	Oct	32
Blackwater Estuary	39	56	15	17	(0)		32
Gailey Pools	49	31	(8)		15	Dec	32
Humber Estuary	(27)	59 [30]	(31)	(14)	3	Dec	31

[†] *as no British or All-Ireland thresholds have been set a qualifying level of 30 has been chosen to select sites for presentation in this report*

Red-throated Diver

Gavia stellata

International threshold:	**3,000**
Great Britain threshold:	**170**†
All-Ireland threshold:	**20***

GB max:	**623**	**Jan**
NI max:	**132**	**Oct**

**50 is normally used as a minimum threshold*

Although only a localised breeder in northern Scotland with strongholds on Shetland and Outer Hebrides (Dillon *et al*. 2009), Red-throated Divers are widespread at coastal sites throughout the UK during the winter. A wintering population of 17,000 in British waters has been estimated (O'Brien *et al*. 2008).

In 2009/10, the species was noted at 140 sites in Britain and a further six in Northern Ireland; a slight reduction compared to the last two years. No regularly counted WeBS sites currently qualify as being of international importance, although large numbers can be recorded during offshore surveys of favoured areas. However, no such data relating to 2009/10 were available for inclusion in this report, and for the third successive year no counts of Aberdeen Bay were undertaken by JNCC.

Significant concentrations can be seen from the coastline of southern Britain, depending on the prevailing weather and foraging conditions. The aggregation of Red-throated Divers present in the Outer Thames Estuary is largely missed through WeBS, although depending on conditions, significant numbers sometimes occur within sight of land off Suffolk, Essex and Kent. The peak WeBS count in 2009/10 was 223 at Glyne Gap in January, which judging from WeBS data has proved to be an increasingly important stretch of the English Channel coast for this species in recent years.

Further north, numbers at traditional sites in Scotland appear to be largely as expected, whereas in Northern Ireland the maximum of 138 at Lough Foyle in October represents the second highest ever total for the site (*c.f*. Slavonian Grebe, page 92).

Relative to overall abundance, Red-throated Divers tend to be noted less at inland sites in southern Britain than their Great Northern, and even Black-throated, cousins. In that respect, two Red-throated Divers together at Rutland Water in November was notable.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean	
Sites of national importance in Great Britain								
Aberdeen Bay offshore	352 [39]	175 [39]					264	
Glyne Gap	103	126	(109)	(343)	223	Jan	199	▲
Inner Firth of Clyde	202	182	199	139	177 [12]	Apr	180	▲
Sites of all-Ireland importance in Northern Ireland								
Lough Foyle	98	13	53	81	128	Oct	75	
Belfast Lough	30	22	67	20 [10]	(34)	Nov	35	
Outer Ards Shoreline	8	64	22	12	27	Nov	27	
Sites with mean peak counts of 100 or more birds in Great Britain†								
Pegwell Bay	5	12	11	517	83 [12]	Jan	126	
Don Mouth to Ythan Mouth	163	(77)	70	(32)	131	Sep	121	

† *as few sites surpass the revised GB threshold (170), sites with mean peak counts of 70+ are also listed.*

Black-throated Diver

Gavia arctica

International threshold:	**3,750**
Great Britain threshold:	**6***
All-Ireland threshold:	**?**†

GB max:	**199**	**Feb**
NI max:	**2**	**Nov**

**50 is normally used as a minimum threshold*

Black-throated Divers were recorded at 58 sites in the UK during WeBS Core counts. Sixteen sites surpassed the threshold for national importance, based on reaching the updated 1% threshold of six birds (Musgrove *et al*. 2011).

The premier WeBS site for wintering Black-throated Divers in the UK is Gerrans Bay in Cornwall. Following a series of years with peak numbers averaging 57 with relatively little inter-annual variation in maxima, the 2009/10 winter proved to be a record one for the species at the site. A

high count of 76 in December was surpassed by an unprecedented 124 in March; to put this into context, this is higher than the highest ever WeBS monthly maximum for the entire UK.

Further east on the English south coast, Glyne Gap again fared well for the region's scarcest diver, with a peak of five noted in January. The remaining small number of English records all related to observations of one or two birds at regular sites on the south and east coasts, with the exception of singles that strayed inland to Chasewater (Oct) and William Girling Reservoir (Jan).

There were just two records from both Wales and Northern Ireland, and typically most sightings were in Scotland. Improved coverage of the coastline of northwest Scotland, such as that undertaken each February by the RAF Ornithological Society, would undoubtedly derive a truer picture of this species' winter status in northern parts of Britain. For example, it is likely that significant numbers winter off the remote west coast of Scotland; a targeted effort at determining the true status of this species (and Great Northern Diver) would generate invaluable data. The peak WeBS Core counts in Scotland this year were 25 at Girvan to Turnberry (Feb), 24 at Loch Ewe (Jan) and 17 at Loch Slapin (Feb).

	05/06	06/07	07/08	08/09	09/10	Mon	Mean	
Sites of national importance in Great Britain								
Gerrans Bay	70	60	53	55	124	Mar	72	
Loch Ewe	(3)	40	(11)	(11)	(33)	Feb	40	
Sound of Barra (Barra)	35 [33]						35	
Sound of Gigha				19 [12]	15	Apr	17	
Bay of Sandoyne to Holme Sound					15	Oct	15	▲
Moray Firth	19	9	(4)	(1)	(2)	Jan	14	
Loch Gairloch	6	14	(14)	(10)	12	Jan	12	
Loch Slapin	0	28 [26]	13 [26]	1	18 [11]	Feb	12	
Girvan to Turnberry	5	1	7	16	25	Feb	11	
Little Loch Broom	(10)	13	(16)	5	0		9	
Applecross Bay	14	2	13	9	7	Feb	9	
Red Point to Port Henderson	13 [12]	8	(1)	6	(0)		9	
Glyne Gap	8	(9)	(9)	(10)	5	Jan	8	
Gruinard Bay	9	6	8	4	13	Feb	8	
Arran	4	1	(3)	(4)	13	Sep	6	▲
Kilfinan Bay			11	5	3	Feb	6	
Sand Bay	6	4	6	6			6	▲
Sites with mean peak counts of 2 or more birds in Northern Ireland†								
Strangford Lough	0	3 [12]	0	4 [12]	5 [10]	Jan	2	
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain								
Loch Eriboll	0	2	5	2	12	Feb	4	
Callakille	6	0	6	0	9	Feb	4	

† *as no All-Ireland threshold has been set a threshold of 2 has been chosen to select sites for presentation in this report*

A Scottish shoreline *(Graeme Garner)*

Increased WeBS coverage of remoter parts of the Scottish coast would help to improve monitoring of divers, sea grebes and seaducks, as well as waders like Purple Sandpiper.

Great Northern Diver

Gavia immer

International threshold:	**50**
Great Britain threshold:	**25***
All-Ireland threshold:	**?†**

GB max: **385 Feb**
NI max: **56 Oct**

**50 is normally used as a minimum threshold*

Great Northern Divers were recorded at 159 WeBS sites in 2009/10. Following WeBS year 2009/10, just five areas of the Scottish west coast monitored through WeBS now surpass the threshold of international importance for Great Northern Divers, however this is largely based on data greater than four years old.

Hence further count data from sites along this stronghold of the Scottish coast are needed in to be able to continue to illustrate the true status of this species within UK waters. Dedicated surveys of this coastline with the aim of providing data on the abundance and distribution of divers and other marine waterbirds are therefore especially welcomed. In that respect, the dedicated survey efforts of the RAF Ornithological Society during expeditions to the coastline of northwest Scotland each February are particularly laudable. The submission of counts made during other birdwatching trips to stretches of the Scottish coast would undoubtedly derive a truer picture of this species' winter status in Britain.

The peak counts received in 2009/10 were 55 at Loch Na Keal (Feb), 47 at Loch Ewe (Feb), 40 at Afon Llifon to Pontllyfni (Apr) and 39 at Loch Slapin (Feb). Elsewhere, the maximum in England was 24 at Gerrans Bay in March, thereby surpassing the previous site peak registered just the previous winter.

As in the previous year, 2009/10 was another good winter for inland records of Great Northern Diver, and included notable aggregations of six birds at King George VI Reservoir (Dec) and five at Grafham Water (Nov).

	05/06	06/07	07/08	08/09	09/10	Mon	Mean	
Sites of international importance in the UK								
Scarp to Vatersay offshore	188 [21]						188	
Sound of Gigha	203 [21]			217 [6]	19 [6]	Jan	146	
Outer Loch Indaal	108 [21]						108	
Scapa Flow, Shapinsay and Deer Sounds	85 [21]						85	
Rova Head to Kirkabister	54 [9]	64 [9]	69 [9]	79 [9]	114 [9]	Jan	76	
Coll and Tiree and west Mull offshore	51 [21]						51	
Sites of national importance in Great Britain								
Loch Ewe	33	53	58	28	47	Feb	44	
Gruinard Bay	40	37	68	29	35	Feb	42	
Loch Na Keal		(0)	27	29	55	Feb	37	
Burra, Trondra & Scalloway Islands	34 [9]		38 [9]		26 [9]	Jan	33	▲
Fort Belan to Aberdesach	25 [6]		34 [6]		40 [6]	Jan	33	▲
Traigh Luskentyre		58	6				32	
Loch Eriboll	3	36	66	16	36	Feb	31	▲
Luce Bay offshore	29						29	
Quendale to Virkie	27 [9]		27 [9]				27	
Loch Slapin	0	39	24	27	39	Feb	26	
Broadford Bay	(20)	15	19	16	48	Feb	25	▲
Sites with mean peak counts of 5 or more birds in Northern Ireland†								
Lough Foyle	60	17	29	7	55	Oct	34	
Carlingford Lough	17	(4)	1	15	(2)	Dec	11	
Belfast Lough	19	7	1	(3)	(5)	Nov	9	
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain								
Lochs Beg and Scridain (East End)		8	17	25	37	Mar	22	
Red Point to Port Henderson	22 [6]	4	(13)	6	(35)	Jan	16	
Loch Buie		11	7	13	25	Mar	14	
Other sites surpassing table qualifying levels in Winter 2009/2010 in Northern Ireland†								
Strangford Lough	2	4	0	3	7	Nov	3	

† *as no All-Ireland threshold has been set a threshold of 5 has been chosen to select sites for presentation in this report*

Little Grebe

Tachybaptus ruficollis

International threshold:	4,000
Great Britain threshold:	160†
All-Ireland threshold:	25

GB max: 5,996 Oct
NI max: 580 Oct

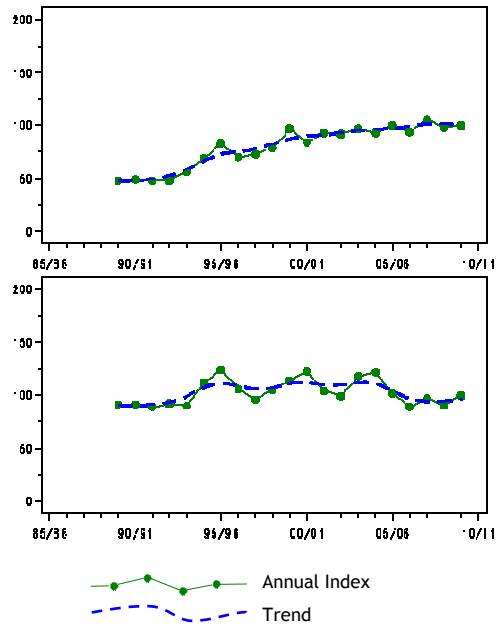


Figure 34.a, Annual indices & trend for Little Grebe for GB (above) & NI (below).

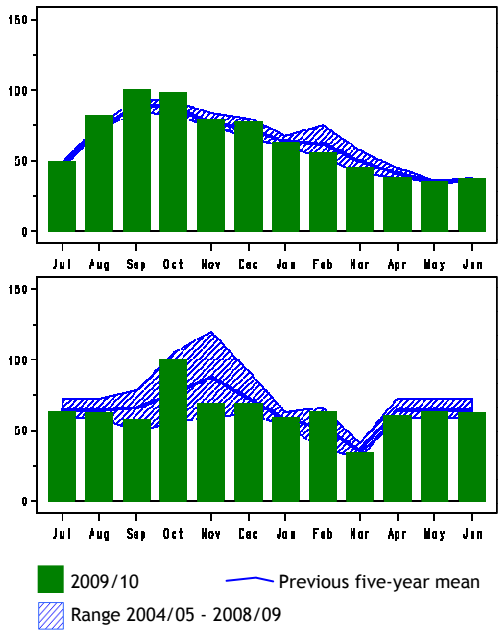


Figure 34.b, Monthly indices for Little Grebe for GB (above) & NI (below).

Little Grebes are widely dispersed on small water bodies, canals and riverine habitats throughout much of the UK. Thus, WeBS monitors a relatively small proportion of the total population and care should be taken if attempting to interpret national trends based on WeBS data alone. WeBS monitoring WeBS would benefit from long-term, improved coverage of smaller, dispersed wetlands within the wider countryside. Indeed, a long-term objective of WeBS is to integrate such an element of stratification into the monitoring protocol.

As evidenced by the annual indices, the slow but steady increase in Little Grebes in Britain began in the early 1990s soon after the species was first routinely monitored. This has continued in recent years, a period during which numbers have risen concurrently in The Netherlands (Hornman *et al.* 2011).

Based on the latest waterbird population estimates (Musgrove et al. 2011), Thames Estuary is the only site to surpass the threshold of national importance for Little Grebe in Britain. The monthly peak there (369, September) was slightly lower than the longer-term average, but numbers at twelve further sites with a five-year mean of 80+ birds were generally slightly higher than recent years. This was particularly the case at Rutland Water, Chew Valley Lake and Crouch-Roach Estuary, where all-time maxima were registered. In Northern Ireland, the highest number since 2004/05 was noted at Loughs Neagh & Beg, where the all-time WeBS peak count of 626 birds was recorded in September 1995.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of national importance in Great Britain							
Thames Estuary	377	499	315	474	369	Sep	407
Sites of all-Ireland importance in Northern Ireland							
Loughs Neagh and Beg	330	278	396	318	410	Oct	346
Strangford Lough	75	80	79	76 [10]	94	Nov	81

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Upper Lough Erne	78	106	53	78	46	Feb	72
Lower Lough Erne	54	78	50	(23)	(50)	Feb	61
Lough Money	48	40	51				46
Lough Foyle	32	28	28	26	35	Nov	30
Larne Lough	52	20	27	16	23	Dec	28
Sites with mean peak counts of 80 or more birds in Great Britain[†]							
Dungeness and Rye Bay	125	97	90	124	152	Oct	118
Rutland Water	96	67	93	116	164	Oct	107
Hamford Water	114	87	84	119	120	Dec	105
Portsmouth Harbour	(65)	(69)	(69)	104	(68)	Dec	104
Chew Valley Lake	95	80	80	70	180	Sep	101
Humber Estuary	64	94	(150)	(91)	99	Aug	100
Cameron Reservoir	60	133	122	56	68	Sep	88
Pitsford Reservoir	86	96	72	78	104	Oct	87
Severn Estuary	87	86	91	87	80	Aug	86
Crouch-Roach Estuary	33	44	81	115	146	Sep	84
Lee Valley Gravel Pits	77	126	82	80	53	Dec	84
Carsington Water	89	73	96	80	83	Oct	84
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain[†]							
Old Moor	55	45	(60)	91	122	Aug	78
Colne Fen Gravel Pits	19	24	42	64	91 [12]	Sep	48
Other sites surpassing table qualifying levels in Winter 2009/2010 in Northern Ireland							
Hillsborough Main Lake	21	28	17	24	25	Oct	23
Sites no longer meeting table qualifying levels in WeBS-Year 2009/2010 in Northern Ireland							
Upper Quoile River	33	20	15				23

[†] *as few sites surpass the thresholdfor national importance in Great Britain, a threshold of 80 has been chosen to select sites for presentation in this report*

Great Crested Grebe

Podiceps cristatus

International threshold: 3,600
Great Britain threshold: 190
All-Ireland threshold: 55

GB max: 8,848 Sep
NI max: 2,489 Oct

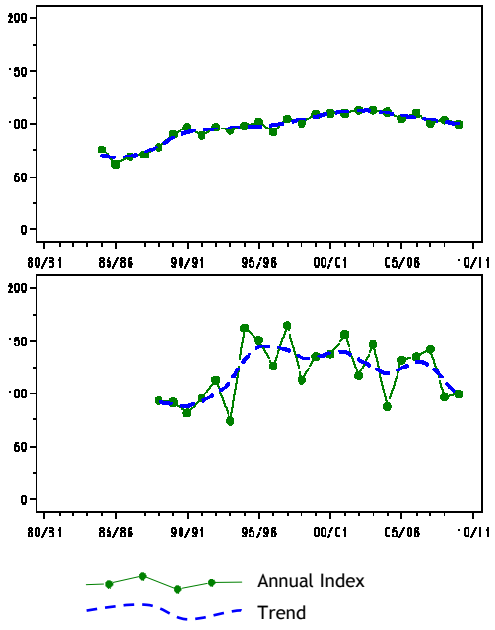


Figure 35.a, Annual indices & trend for Great Crested Grebe for GB (above) & NI (below).

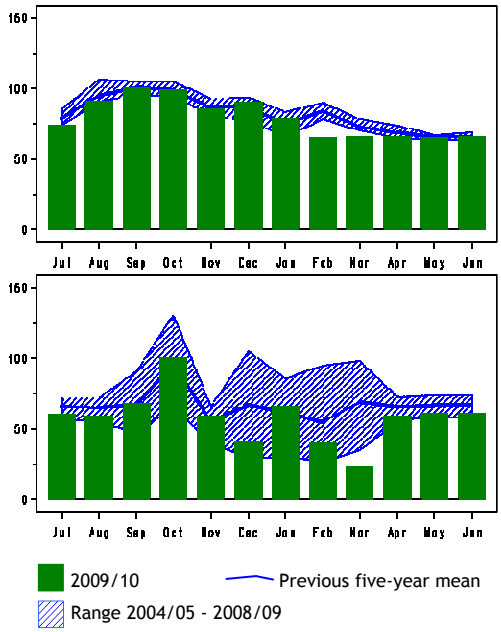


Figure 35.b, Monthly indices for Great Crested Grebe for GB (above) & NI (below).

During the winter months, Great Crested Grebes are found at both inland and coastal wetlands. At the latter however, birds are often difficult to monitor accurately particularly when frequenting open sea and/or in unsuitable weather conditions. In Britain, the most recent indices and associated trend hint at a slight decline, perhaps mirroring the current situation in The Netherlands (Hornman *et al*. 2011). Further years of data are required in order to ascertain whether this is genuinely the case.

In 2009/10, Dungeness & Rye Bay again hosted the largest aggregation of Great Crested Grebes during the year. A total of 1,735 in January represents the highest number ever recorded there, surpassing both last year's high total and the previous maximum of 1,667 from 2002/03. This is further evidence of the potentially increasing importance of the rich foraging available in the shallow waters at the east end of the English Channel.

Great Crested Grebe *(Jill Pakenham)*

In Northern Ireland, numbers at Loughs Neagh & Beg were fairly typical, but those at Belfast Lough were again low for the second year in succession. Among the principal inland wetlands in England, a highest ever WeBS total was reached at Cotswold Water Park (West), evidence of the increase in available habitat there. Peaks at both Rutland Water and Grafham Water were high compared to recent years, but fall considerably short of the respective all-time site maxima; 1,038 (in February 1991) and 950 (in February 1985), respectively.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean	
Sites of national importance in Great Britain								
Dungeness and Rye Bay	848	880 [12]	653	1,492	1,735	Jan	1,122	
Rutland Water	771	655	441	584	970	Jan	684	
Chew Valley Lake	275	430	665	690	665	Aug	545	
Grafham Water	463	471	132	471	525	Dec	412	
Dee Estuary (England and Wales)	33	378 [12]	458 [12]	435 [12]	455 [12]	Jan	352	
Cotswold Water Park (West)	354	284	309	317	365	Sep	326	
Glyne Gap	(116)	213	(206)	515	224	Jan	317	
Stour Estuary	157	124	232	708 [10]	327 [10]	Nov	310	
Southampton Water	(58)	(47)	(216)	375	206	Dec	291	
Pitsford Reservoir	308	267	312	186	267	Dec	268	
Minsmere (offshore)	18	57	1,210 [12]	5	4	Jul	259	
Swansea Bay	205	84	102	327	425	Dec	229	▲
Pegwell Bay	38	48	110	300	585 [12]	Jan	216	▲
Bewl Water	204	188	183	224	195	Aug	199	
Sites of all-Ireland importance in Northern Ireland								
Belfast Lough	2,095	1,482	2,150	1,156	1,175	Oct	1,612	
Loughs Neagh and Beg	449	959	1,191	752	959	Oct	862	
Upper Lough Erne	147	206	171	197	174	Feb	179	
Carlingford Lough	246	116	93	146	186	Jan	157	
Lough Foyle	169	116	116	49	160	Oct	122	
Strangford Lough	82	65	137	145	87	Dec	103	
Larne Lough	56	84	105	81	61	Sep	77	
Lower Lough Erne	48	123	55	(23)	(34)	Oct	75	
Sites no longer meeting table qualifying levels in WeBS-Year 2009/2010								
Lavan Sands	57	329	260	124	106	Sep	175	
Solway Firth								
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain								
Queen Mary Reservoir	126	130	208	98	362	Jan	185	
Loch Leven	150	198	141	157 [12]	266	Oct	182	
Alton Water	86	113	105	169	218	Nov	138	

Red-necked Grebe

Podiceps grisegena

International threshold:	**510**
Great Britain threshold:	**1*†**
All-Ireland threshold:	**?**

**50 is normally used as a minimum threshold*

GB max: **16 Jan**
NI max: **0**

Red-necked Grebes were recorded at 26 WeBS sites in Britain during 2009/10, with a peak monthly total of just 16 logged in January. Musgrove *et al*. (2011) estimate the wintering population to be approximately 55 birds.

The fall in numbers registered by WeBS during winter in recent years is largely attributable to a long-term decline on the Forth Estuary, Britain's principal site for the species. The WeBS peak there this year was just seven birds, in January; as recently as 1994/95 numbers noted there through WeBS in winter were as high as 89 birds. Supplementary data for 2009 indicate that a sizeable aggregation still occurs during late summer, so whether the apparent drop in winter numbers is due to a population decline or a distributional shift, either within or from the site, is unclear.

This is a species for which improved coverage of the coastline away from the priority wetlands would be beneficial, especially around the coastline of Scotland.

Elsewhere, with the exception of four birds at Gerrans Bay in March, all records of Red-necked Grebes on the coast in 2009/10 related to ones or twos at a scattering of sites mainly on the south and east coasts. Additionally, singles were recorded at nine inland sites during the course of the year, including spring sightings at Rutland Water and Catcleugh Reservoir.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites with mean peak counts of 2 or more birds in Great Britain†							
Forth Estuary	32	4	12	10	51 [47]	Aug	22
Studland Bay	3 [47]						3
Glyne Gap	(1)	(2)	(3)	4 [11]	2	Jan	3
North Norfolk Coast	6	4	2	1	1	May	3
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain†							
Seahouses to Budle Point	(0)	(1)	0	0	2	Jan	1
Fal Complex	0	0	0	0	2	Dec	0

† *a qualifying level of 2 has been chosen to select sites for presentation in this report*

Slavonian Grebe

Podiceps auritus

International threshold:	**55**
Great Britain threshold:	**11***
All-Ireland threshold:	**?†**

**50 is normally used as a minimum threshold*

GB max: **339 Feb**
NI max: **60 Oct**

Slavonian Grebes were recorded at 97 sites in the UK, including three in Northern Ireland. With the wintering population now estimated to be in the order of 1,100 birds (Musgrove *et al*. 2011), all sites with five-year means of 11+ birds are listed as surpassing the associated 1% threshold for national importance. Following a series of relatively poor years for the Forth Estuary and Moray Firth, the only coastal stretch which currently surpasses the threshold for international importance is Whiteness to Skelda Ness (Shetland).

This is another species for which improved coverage of the coastline away from the priority wetlands would be highly beneficial, especially around the coastline of Scotland. Away from there, the peak WeBS Core count was 20 at Gerrans Bay in March, part of a strong showing by coastal grebes and divers in south-west England during winter 2009/10 (*c.f*. Black-throated Diver, page 86). In Northern Ireland, the maximum of 60 Slavonian Grebes at Lough Foyle is well above the recent average for the site, but short of the historic peak of 103 birds in December 1995.

Inland, there was the typical scattering of records from gravel pits and reservoirs during the course of the year, the most notable of which was five birds at Abberton Reservoir in October.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean	
Sites of international importance in the UK								
Whiteness to Skelda Ness	52 [9]	67 [9]	68 [9]		77 [9]	Jan	66	
Sites of national importance in Great Britain								
Inner Firth of Clyde	35	41	73 [12]	49 [12]	47 [12]	Feb	49	
Sound of Gigha	30 [11]			89 [12]	27	Dec	49	
Moray Firth	42	50	41	(23)	(6)		44	
Rova Head to Kirkabister	42 [9]	32 [9]	42 [9]	43 [9]	49 [9]		42	
Scapa Flow					37	Feb	37	▲
Loch Ryan	23	39	19	40	46 [12]	Nov	33	
Loch of Harray	24	16	52	23	45	Oct	32	
Loch Na Keal		(0)	40 [12]	20	30	Feb	30	
Forth Estuary	55	25 [12]	18	29	25	Feb	30	
Sullom Voe	7 [9]	9 [9]	19 [9]	26 [9]	31 [9]	Jan	18	
Inner Loch Indaal					16	Oct	16	▲
Burghead Bay			5	(0)	26	Feb	16	▲
Gerrans Bay	26	5	4	13	20	Mar	14	
Broadford Bay	(7)	13	17	7	17 [11]	Feb	14	
Lindisfarne	22 [10]	(18)	4	9	7	Mar	12	
Loch of Swannay	10	15	14	11	9	Dec	12	
Loch Ewe	13	18	7	(5)	6	Feb	11	▲
Sites no longer meeting table qualifying levels in WeBS-Year 2009/2010								
Traigh Luskentyre		11	4				8	
Gualan and Balgarva								
Sites with mean peak counts of 4 or more birds in Northern Ireland†								
Lough Foyle	42	4	11	31	60	Oct	30	
Strangford Lough	5	0	(0)	22 [12]	22 [10]	Feb	12	
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain								
Loch Eriboll	0	4	21	5	20	Feb	10	

† *as no All-Ireland thresholds has been set, a qualifying level of 4 has been chosen to select sites for presentation in this report*

Black-necked Grebe

Podiceps nigricollis

International threshold: **2,200**
Great Britain threshold: **1*†**
All-Ireland threshold: **?†**

GB max: **57** **Jan**
NI max: **0**

**50 is normally used as a minimum threshold*

During 2009/10, Black-necked Grebes were seen at 51 WeBS sites in the UK, including two in Wales and one in Scotland. Two of the locations featured in the key sites table below have been kept confidential following the advice of the Rare Breeding Birds Panel and/or local counters.

Studland Bay rose to the top of the sites table below owing to a series of supplementary counts that indicate peak numbers may have increased in recent years (*per* www.birdguides.com). Counts of birds offshore at this site are likely to be somewhat dependent on weather and associated sea conditions.

William Girling Reservoir continues to be one of the most important sites in the UK, by virtue of a winter maximum in 2009/10 of 28 birds in February, consistent with the average peak at the site in recent years. Double-figure counts were reported from six further sites. This year, Black-necked Grebes were noted during WeBS Core counts at two traditional south coast locations; Fal Complex and Langstone Harbour – but supplementary data indicate that higher numbers were present at both these sites (as well as at Studland Bay) during the course of the winter. Interestingly, compared to The Netherlands where marked increases in Black-necked Grebes have been noted since the 1990s (Hornman *et al.* 2011), there has been relatively little inter-annual variation in maxima at the principal coastal locations in Britain.

Away from the main locations listed below, notable winter counts included eight at Fleet & Wey (Jan), eight at Abberton Reservoir (Mar) and five at Rutland Water (Nov-Dec). The sole record in Scotland during 2009/10 emanated from Loch Ryan (Oct).

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites with mean peak counts of 5 or more birds in Great Britain†							
Studland Bay	21 [47]	20 [47]	23 [47]	37 [47]	38 [47]	Jan	28
William Girling Reservoir	21	26	32	26	28	Feb	27
Fal Complex	56	4	5	32	17 [47]	Feb	23
Woolston Eyes	13	(35)	17	26	22	May	23
Langstone Harbour	20	24 [12]	5	16	42 [10]	Jan	21
Confidential Hertfordshire Site	10	9	12	18	14	Mar	13
Thames Estuary	9	4	4	4	38	Oct	12
Staines Reservoirs	11	9	9	7	11	Mar	9
Confidential Northumberland Site	16	10	8	6	0		8
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain†							
Fleet and Wey	7	3	0	1	8	Jan	4
Abberton Reservoir	2	3	4	2	8	Mar	4
Rutland Water	0	1	2	3	5	Nov	2
Lower Derwent Ings	0	2	0	0	5	Apr	1

† *a qualifying level of 5 has been chosen to select sites for presentation in this report*

Cormorant

Phalacrocorax carbo

International threshold: 1,200
Great Britain threshold: 350
All-Ireland threshold: 140

GB max: 17,234 Oct
NI max: 2,256 Sep

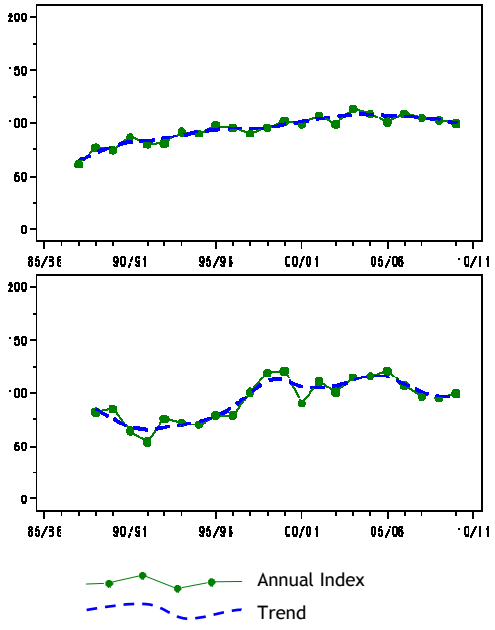


Figure 36.a, Annual indices & trend for Cormorant for GB (above) & NI (below).

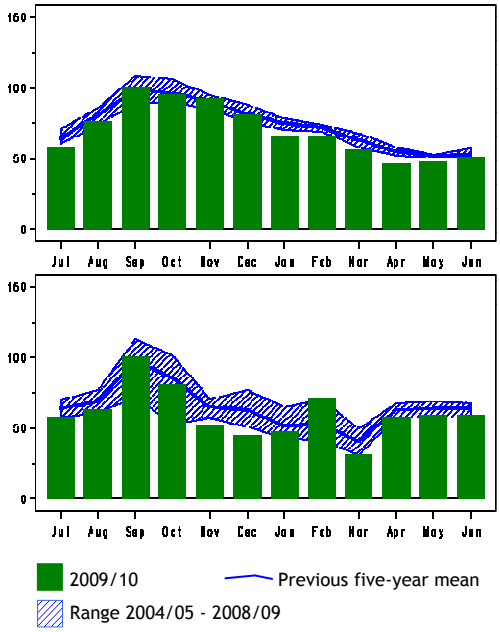


Figure 36.b, Monthly indices for Cormorant for GB (above) & NI (below).

Cormorants increased steadily in Britain and Northern Ireland up to the mid 2000s. This was in part due to the expansion of the more typically freshwater race *sinensis* from the continent, both as a breeder and non-breeder, supplementing the UK population of the native *carbo* race. The most recent years however have indicated an apparent levelling off in the Cormorant index for Britain, potentially in response to increased culling effort nationally. The breeding population fell by 7% between 2000 and 2010 (JNCC 2011).

In Northern Ireland, the index has remained relatively stable for three years. This was at least partly attributable to a rise in the maximum at Loughs Neagh & Beg, following the relatively low peak recorded there in 2008/09; this remains the

only site of international importance for Cormorants in the UK.

Following the revision of waterbird population estimates (Musgrove *et al*. 2011) the threshold for national importance in Britain has been increased by over 50%, to 350 birds. As a result, the table below is now trimmed to 19 sites, significantly fewer than have appeared in recent years. The peak from Dee Estuary fractionally surpassed that from Loughs Neagh & Beg for the second year in a row, but a number of other principal sites for Cormorants registered below-average maxima. These included, for example, The Wash (lowest peak since 2001/02), Alt Estuary (2002/03) and Dungeness & Rye Bay (2003/04). At Abberton Reservoir, the autumn peak was approximately half that of the previous year, yet in keeping with the longer-term average for the site.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean	
Sites of international importance in the UK								
Loughs Neagh and Beg	1,490	1,665	1,396	990	1,297	Sep	1,368	
Sites of national importance in Great Britain								
Dee Estuary (England & Wales)	623	1,003	1,133	1,160	1,323	Oct	1,048	
Alt Estuary	1,079	1,168	937	1,142	762 [12]	Oct	1,018	
Morecambe Bay	655	641	937	669	814	Sep	743	
Dungeness and Rye Bay	929	717	684	616	581	Jul	705	
Forth Estuary	713	653	477	(507)	(483)	Sep	614	
Abberton Reservoir	324	342	639	1,157	565	Sep	605	
Rutland Water	825	918	396	326	470	Oct	587	
Inner Firth of Clyde	(740) [11]	875 [11]	389	555	327	Sep	577	
Solway Estuary	(357)	530	497	(406)	(486)	Nov	514	
Ribble Estuary	293	316	504	600	515 [10]	Nov	446	
Walthamstow Reservoirs	306	640	433	395			444	
Ranworth and Cockshoot Broads	310 [11]	348 [11]	287 [11]	582 [11]	629 [11]	Mar	431	
The Wash	371	467	453	495	370	Oct	431	
Thames Estuary	526	434	(211)	398	344	Sep	426	
Poole Harbour	408	374	(254)	(349)	457	Sep	413	
Humber Estuary	(93)	(108)	(156)	(219)	(408)	Feb	(408)	▲
Hanningfield Reservoir	318	500	215	600	245	Sep	376	▲
Tees Estuary	511	329	378	306	284	Aug	362	
Blackwater Estuary	224	200	279	(674)	380	Oct	351	▲
Sites of all-Ireland importance in Northern Ireland								
Strangford Lough	455	422	286	(443)	359	Sep	393	
Belfast Lough	378	350	312	267	286	Oct	319	
Outer Ards Shoreline	455	397	177	153	105	Nov	257	
Carlingford Lough	238	230	142	98	(70)	Oct	177	
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain								
Stodmarsh	102	200	62	229	440	Feb	207	
Alde Complex	99	206	226	421	415	Mar	273	
Queen Mary Reservoir	85	88	295	211	406	Jan	217	
South Yell Sound	40 [9]	54 [9]	464 [9]	335 [9]	361 [9]	Jan	251	
Other sites surpassing table qualifying levels in Winter 2009/2010 in Northern Ireland								
Dundrum Inner Bay	102	33	101	117	197	Sep	110	
Upper Lough Erne	107	106	114	150	158	Feb	127	

Shag

Phalacrocorax aristotelis

International threshold: **2,000**
Great Britain threshold: **1,100**†
All-Ireland threshold: **?**†

GB max: **2,137** **Feb**
NI max: **712** **Nov**

The UK's breeding population of Shags, which account for approximately one third of the species' global population, is well-monitored by the JNCC Seabird Monitoring Programme, the results of which indicate a decline of 15% between 2000 and 2010 (JNCC 2011). However, wintering numbers are relatively poorly covered by surveys such as WeBS. Coverage would benefit from more counts of the Scottish coastline in particular; currently the counts table below

is largely populated with data collected by SOTEAG in Shetland.

In 2009/10, Shags were recorded during WeBS Core counts at 224 sites across the UK. The largest aggregations noted during the year, typically in Scotland, were 424 at Forth Estuary and 218 at Inner Firth of Clyde, both in September. In Northern Ireland, the peak was 334 at Outer Ards Shoreline, while in England numbers recorded at coastal sites were close to average. Typically, there were a small number of scattered inland records.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites with mean peak counts of 100 or more birds in Great Britain†							
South Yell Sound	790 [9]		1,065 [9]	886 [9]	1,047 [9]		947
Burra, Trondra & Scalloway Islands	892 [9]		553 [9]		904 [9]		796
Bluemull and Colgrave Sounds	625 [9]	891 [9]	846 [9]		365 [9]		682
Forth Estuary	420	719	(384)	(456)	(424)	Sep	570
Rova Head to Kirkabister	497 [9]	852 [9]	436 [9]	543 [9]	507 [9]		567
Moray Firth	308 [1]						308
Quendale to Virkie	503 [9]		102 [9]				303
Widewall Bay	150	390	800	70	50	Dec	292
South Unst	246 [9]						246
Inner Firth of Clyde	115	197	297	223	218	Sep	210
Island of Egilsay	47	230		286	161	Nov	181
Arran	304	123	(104)	120	115	Nov	166
Moray Coast (Consolidated)	33	193	347	(132)	42	Feb	154
Island of Papa Westray	150		92	146	(190)	Nov	145
Sullom Voe	68 [9]		219 [9]	145 [9]			144
Gerrans Bay	101	86	328	128	28	Feb	134
Loch Ewe	115	261	(98)	76	82	Feb	134
Red Point to Port Henderson	246	105	(68)	52	(74)	Jan	134
North Bressay	128 [9]						128
Thurso Bay	20	170	70	262 [12]	106	Feb	126
South Havra	125 [9]						125
Sites with mean peak counts of 100 or more birds in Northern Ireland†							
Outer Ards Shoreline	236	284	317	437	334	Nov	322
Strangford Lough	(295)	(291)	(156)	247	(277)	Nov	278
Belfast Lough	49	191 [10]	107	90 [10]	139 [10]	Nov	115
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain†							
Loch Fleet Complex	78	(73)	98	40	181	Oct	99
Durham Coast	26	(76)	(1)	28	(160)	Nov	73

† *as few sites surpass the GB threshold and no All-Ireland threshold has been set, a threshold of 120 has been chosen to select sites for presentation in this report*

Bittern

Botaurus stellaris

International threshold: 65
Great Britain threshold: 6

Bitterns were recorded at 81 WeBS sites in 2009/10, with a monthly maximum of 82 birds in January. These highest ever totals are likely to be largely the result of the arrival of a number of continental immigrants during the cold conditions in mid winter, set against the background of an increasing UK breeding population. Singletons were widespread during the winter, and several sites also hosted multiple birds. Site maxima were five at Kenfig Pool in February and Somerset Levels in March, while counts of four were received from a further seven sites including, perhaps most notably, Loe Pool in Cornwall.

The British wintering population of Bitterns is now estimated to be in the order of 600 individuals, of which more than 200 comprise the UK breeding population (Wotton *et al*. in press).

Night Heron

Nycticorax nycticorax

Vagrant and escape
Native Range: Worldwide

A Night Heron, of unknown origin, was reported from Moors Valley Country Park in December.

Cattle Egret

Bubulcus ibis

Vagrant and Escape
Native Range: Worldwide

Cattle Egret now appears to be fully established in the pages of the WeBS annual report. In 2009/10, the species was reported from eight WeBS sites. A group of three at Severn Estuary in September was followed by a scatter of records across southern England; Dungeness & Rye Bay, North West Solent (2), Tamar Complex, Kingsbridge Estuary (2), Somerset Levels (2) and Fal Complex (3). Notably, Northern Ireland registered its first WeBS record; a single at Loughs Neagh & Beg in November.

Little Egret

Egretta garzetta

International threshold: 1,300
Great Britain threshold: 45
All-Ireland threshold: ?†

GB max: 4,719 Sep
NI max: 78 Oct

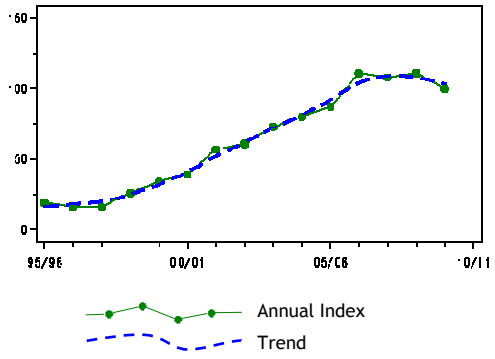


Figure 37.a, Annual indices & trend for Little Egret for GB.

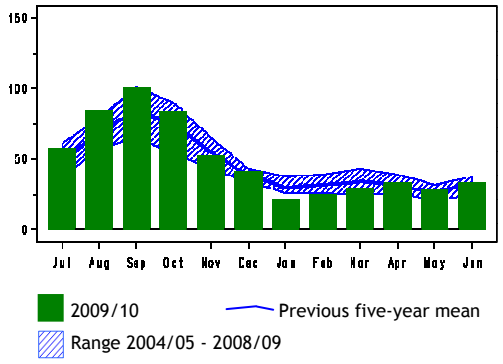


Figure 37.b, Monthly indices for Little Egret for GB.

A description of the well-documented rise in the Little Egret population requires little in the way of repetition here, it having become one of the most notable events within the UK's wetland avifauna during the last twenty years. Having expanded in terms of numbers and range, the species is now a familiar sight at wetlands, both coastal and inland, throughout the southern half of Britain. Little Egrets were recorded at 377 WeBS sites in 2009/10 with a record monthly maximum of 4,719 birds in September. The monthly peak of this species has now exceeded that for Grey Heron in three of the last four years! However, the annual indices show that the increase at WeBS sites has definitely slowed.

The latest population revision of Musgrove *et al.* (2011) lists a somewhat conservative 4,500 birds wintering in Britain. However, being based on WeBS data alone, this should clearly be treated as a minimum estimate as there is no account for birds present in the wider countryside. As yet there are no quantifiable data available for the latter contingent, but consideration of data from *Bird Atlas 2007-11* may help refine the estimate further. The largest inland WeBS site total in 2009/10 was from Somerset Levels (90, February), and such a total is probably an indication of significant numbers of birds

dispersed throughout the wider countryside in that part of southern England.

Among regularly counted sites, the September maximum at The Wash of 618 birds bolsters the site's position at the head of the sites table. Only time will tell if peak numbers there continue to rise, or whether the carrying capacity of the site has now been reached. A gradual expansion away from sites on the south coast continues; exemplified by all-time peaks at sites such as Dee Estuary and Morecambe Bay which now effectively represent the northern edge of the species' global distribution. Further north still, Little Egrets were seen at eight WeBS sites in Scotland during the year. In Northern Ireland, the maximum count was 51 at Strangford Lough in October.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean	
Sites of national importance in Great Britain								
The Wash	139	323	(319)	633	618	Sep	428	
Thames Estuary	260	316	277	421	383	Aug	331	
North Norfolk Coast	170 [12]	193	272 [12]	258	281 [12]	Sep	235	
Chichester Harbour	(206)	192	264	267	198	Sep	230	
Dee Estuary (England & Wales)	112 [12]	132 [12]	163	258 [12]	315 [12]	Sep	213	
Blackwater Estuary	133	(58)	245	221	(213)	Aug	181	
Poole Harbour	(112)	(84)	(79)	(136)	(146)	Sep	(146)	
Swale Estuary	(100)	(72)	(100)	(109)	139	Oct	139	
Jersey Shore		98	156				127	
Stour Estuary	102	143	102	102	184	Sep	127	
Lavan Sands	107	133	131	107	136	Sep	123	
Exe Estuary	107	116	135	103	137	Aug	120	
Tamar Complex	(129)	97	(126)	125	70	Oct	109	
Taw-Torridge Estuary	93	78	(121)	92	108	Aug	107	
Burry Inlet	108	86	87	156	99	Sep	107	
Langstone Harbour	91	77	76	112	135	Oct	98	
Crouch-Roach Estuary	(35)	102	100	83	104	Aug	97	
Hamford Water	72	135	95	70	(115)	Sep	97	
Severn Estuary	104	74	105	103	84	Aug	97	
Cleddau Estuary	83	(68)	120	(104)	69	Oct	94	
Breydon Water & Berney Marshes	61	71 [12]	126 [13]	114 [12]	81 [12]	Sep	91	
Camel Estuary	96	80	74	88	83	Sep	84	
Pagham Harbour	94	90	63	67	95	Aug	82	
Southampton Water	(44)	(80)	(24)	(40)	(67)	Aug	(80)	
Fal Complex	60	82	79	84	71	Oct	75	
Medway Estuary	(62)	(32)	(71)	(75)	(37)	Sep	(75)	
Carmarthen Bay	41	57	106	64	106	Oct	75	
Somerset Levels	(35)	64	73	90	90	Feb	70	
Portsmouth Harbour	45	96	111	49 [11]	51	Nov	70	
Kingsbridge Estuary	85	89	67	91	13	Jul	69	
Colne Estuary	(47)	(34)	64 [11]	(53)	(51)	Nov	64	
Fleet and Wey	56	59	67	66	58	Mar	61	
Pegwell Bay	56	71	33	79	62	Sep	60	
North West Solent	56	53	56	61	52	Sep	57	
Grouville Marsh	50	165		4	1	Dec	55	
Dengie Flats	45	51	58	63	59	Nov	55	
Alde Complex	44	56	66	50	51	Oct	53	
Newtown Estuary	(30)	52	41	41	71 [12]	Oct	52	
Humber Estuary	14	(36)	41	95	51	Aug	50	▲
Teign Estuary	59	49	69	45	24	Oct	49	
Dart Estuary	(39)	52	(37)	51	40	Aug	48	
Abberton Reservoir	(1)	(12)	12	31	97	Aug	47	▲
Avon Valley: Salisbury-Fordingbridge	48	57	46	41	40	Feb	46	
Morecambe Bay	10	28	(24)	56	69	Oct	45	▲
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/110 in Great Britain								
Ribble Estuary	5	(21)	31	50	86	Sep	43	
Leighton Moss	0	1	14	26	52	Dec	19	

Great White Egret

Ardea alba

Vagrant

Native Range: S Europe, Africa, Asia, N & C America

Great White Egrets were reported from 19 WeBS sites; the most ever in a year, providing further evidence of the species' slow expansion (and presumed imminent colonisation) in the UK. During 2009/10, typically most records involved single birds, exceptions being up to three at Somerset Levels and two at Ouse & Fen Pits, Morecambe Bay, River Avon (Fordingbridge to Ringwood) and Alde Complex. The only WeBS records outside England were birds on the Welsh side of Severn Estuary and at Ugie Estuary, the latter representing the fourth ever in Scotland.

Grey Heron

Ardea cinerea

International threshold: 2,700
Great Britain threshold: 610
All-Ireland threshold: 30

GB max: 4,390 Oct
NI max: 453 Oct

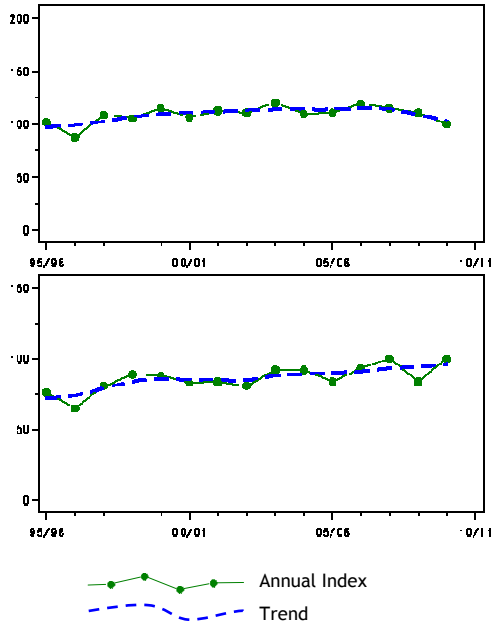


Figure 38.a, Annual indices & trend for Grey Heron for GB (above) & NI (below).

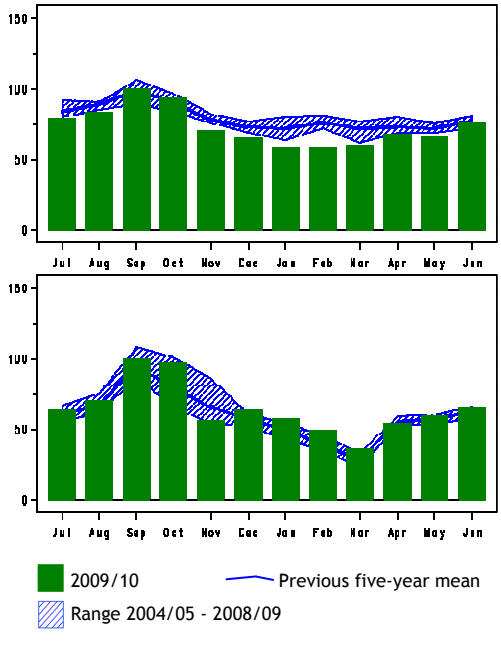


Figure 38.b, Monthly indices for Grey Heron for GB (above) & NI (below).

Despite being considered to be increasing slowly in terms of breeding population (Baillie *et al*. 2010), national WeBS indices for Grey Heron in both Britain show little in the way of variation from year to year; in fact the most recent three years indicate a very shallow decline. Although overall stability is consistent with trends from further east in Europe (e.g. Slabeyova *et al*. 2009), the species has increased markedly in The Netherlands in the last twenty years (Hornman *et al*. 2011).

In 2009/10 the monthly peaks in Britain and Northern Ireland occurred during the months of September to October respectively, somewhat typical of recent years. Seven sites held monthly peaks in excess of 100 birds, including an all-time maximum from River Avon (Fordingbridge to Ringwood) and the highest count from Morecambe Bay for 15 years. Reasons for the apparent sharp drop at Ouse Washes are unknown, but presumably water-level related.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of all-Ireland importance in Northern Ireland							
Loughs Neagh and Beg	202	225	173	147	208	Oct	191
Strangford Lough	121 [10]	95 [10]	138 [10]	92	111	Sep	111
Carlingford Lough	41	51	62	(34)	(12)	Oct	51
Lough Foyle	34	42	44	42	30	Oct	38
Belfast Lough	36	(32)	43	35	39	Sep	38
Dundrum Inner Bay	37	36	41	27	34	Aug	35
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Northern Ireland†							
Larne Lough	19	30	20	22	37	Sep	26
Upper Lough Erne	18	28	16	22	37	Feb	24
Outer Ards Shoreline	16	35	24	18	31	Jan	25
Sites with mean peak counts of 50 or more birds in Great Britain†							
Somerset Levels	119	143	135	161	122	Mar	136
Avon Valley - Salisbury to Fordingbridge	106	114	144	92	118	Apr	115
Forth Estuary	108	111	125	102	99	Oct	109
River Avon: Fordingbridge to Ringwood	73	83	82	109	181	Sep	106
Thames Estuary	117	89	(91)	(63)	110	Oct	105
Morecambe Bay	88	105	(38)	107	115	Sep	104
Ouse Washes	36	55 [13]	143	199	39	Mar	94
Coombe Country Park	120	107	106	81	50	Apr	93
Dee Estuary (England and Wales)	(48)	(66)	73	67	97	Sep	79
Humber Estuary	(29)	(33)	74	(48)	(33)	Sep	74
Inner Firth of Clyde	93	100	62	62	44	Aug	72
Severn Estuary	55	(43)	(47)	78	60	Oct	69
Wraysbury Gravel Pits	96	64	55				68
Tees Estuary	62	83	56	56	75	Aug	66
Cromarty Firth	58	64	58	(62)	67	Oct	62
Montrose Basin	32	55	54	82	72	Sep	59
Walthamstow Reservoirs	16	75	76	62		Feb	57
Inner Moray and Inverness Firth	68	68	61	38	50	Oct	57
Besthorpe and Girton Gravel Pits	(19)	96	(14)	16	(5)	Sep	56
Taw-Torridge Estuary	(29)	72	(70)	47	25	Dec	54
Colne Valley Gravel Pits	62	36	78	48	35	Mar	52
Ribble Estuary	45	(46)	37	59	61	Sep	51
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain†							
Beddington Sewage Farm	29	35	35	55	75	Jun	46
Swale Estuary	(43)	(23)	(33)	(24)	56	Oct	45
The Wash	52	59	39	34	51	Oct	47
Bough Beech Reservoir	13	54	(18)	54	50	Apr	37

† *as few sites surpass the British threshold (610), sites with mean peak counts of 50+ are also listed.*

White Stork

Ciconia ciconia

Vagrant and escape
Native Range: Europe, Africa, Asia

One noted near Blairdrummond Safari Park in February had, presumably, not travelled far…

Glossy Ibis

Plegadis falcinellus

Vagrant
Native Range: S Europe, Africa, Asia, Australia, N & C America

2009/10 was a record WeBS-year for Glossy Ibis. Following a July record at WWT Martin Mere, five sites hosted the species in September. These were North West Solent (six birds), Holland Marshes, Arun Valley, Teifi Estuary and Linne Mhuirich. The latter are the first WeBS records for Wales and Scotland. Three were seen at both Christchurch Harbour and Dungeness & Rye Harbour in October/November. A further four were at Somerset Levels (with three remaining until March) and singles were also noted at both Little Paxton Gravel Pits and Druridge Bay in October.

The recent increase in British records (e.g. Hudson *et al.* 2010) mirrors a rise in numbers breeding in the Camargue in southern France.

Spoonbill

Platalea leucorodia

International threshold: **110**
Great Britain threshold: **1**

Spoonbill *(Dawn Balmer)*

Spoonbills were recorded at 27 sites during Core counts, all in England with the exception of Cleddau Estuary (Wales). A WeBS monthly peak of 33 was noted in November. Most counts were of one to three birds, notable exceptions being a peak of 16 at Poole Harbour in November and nine at North Norfolk Coast in July. Inland records comprised birds at Chelmarsh Reservoir (Aug), Stodmarsh (Oct) and Somerset Levels (Mar).

Water Rail

Rallus aquaticus

International threshold: **10,000**
Great Britain threshold: **?**†
All-Ireland threshold: **?**†

GB max: **456** **Dec**
NI max: **3** **Dec**

Water Rails were recorded during WeBS Core counts at 382 sites across the UK in 2009/10. This represents an increase of 9% compared to the previous year, which may be attributable to the relatively cold winter rendering birds more visible than normal.

Favoured sites tend to be those with reedbeds and/or an extensive network of ditches. The species is inevitably under-recorded due to its secretive, generally unobtrusive, behaviour, and as a result any attempts to derive population estimates for this species are notoriously difficult (e.g. Musgrove *et al.* 2011). WeBS maxima this year were 33 at Somerset Levels (Nov) and 25 at Thames Estuary (Oct), presumably representing only a small fraction of the total number of birds present during the winter at both sites.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites with mean peak counts of 10 or more birds in Great Britain†							
Somerset Levels	50	58	62	38	(33)	Nov	52
Grouville Marsh	30	(10)		15	20	Feb	22
Thames Estuary	10	19	8	47	(25)	Oct	22
Severn Estuary	25	13	23	(26)	19	Jan	21
Longueville Marsh	20	(10)		15	12	Dec	16
Southampton Water	20	10	(20)	19	9	Dec	16
Stanwick Gravel Pits Consolidated	(7)			(16)	(12)	Apr	(16)
Malltraeth RSPB	(4)	11	15	10	25	Nov	15
Chew Valley Lake	5	5	22	31	8	Feb	14
London Wetland Centre	13	17	16	12	10	Dec	14
Poole Harbour	(6)	(6)	(4)	(13)	(4)	Jan	(13)
Rutland Water	9	10	10	24	12	Jul	13
Chichester Harbour	14	15	10	12	7	Dec	12
Dee Estuary (England and Wales)	10	8	(24)	13	7	Nov	12
River Cam - Kingfishers Bridge	22	15	7	7	6	Mar	11
North Norfolk Coast	15	7	16 [10]	7	10	Nov	11
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain†							
Dungeness and Rye Bay	8	10	7	8	14	Jan	9
Edderthorpe Flash		1	1	0	12	Dec	4
Fleet and Wey	7	3	2	3	11	Jan	5
Tees Estuary	6	2	(4)	(3)	10	Jan	6

† *as no British or All-Ireland thresholds have been set a qualifying level of 10 has been chosen to select sites for presentation in this report*

Moorhen

Gallinula chloropus

GB max:	**14,063**	**Oct**
NI max:	**226**	**Oct**

International threshold:	**20,000****
Great Britain threshold:	**3,200†**
All-Ireland threshold:	**?†**

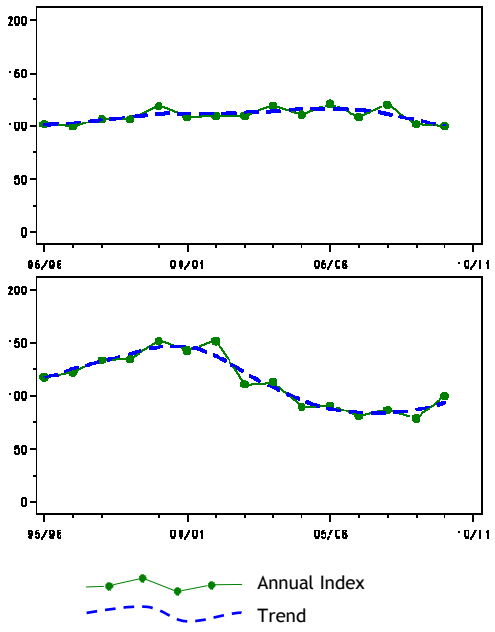


Figure 39.a, Annual indices & trend for Moorhen for GB (above) & NI (below).

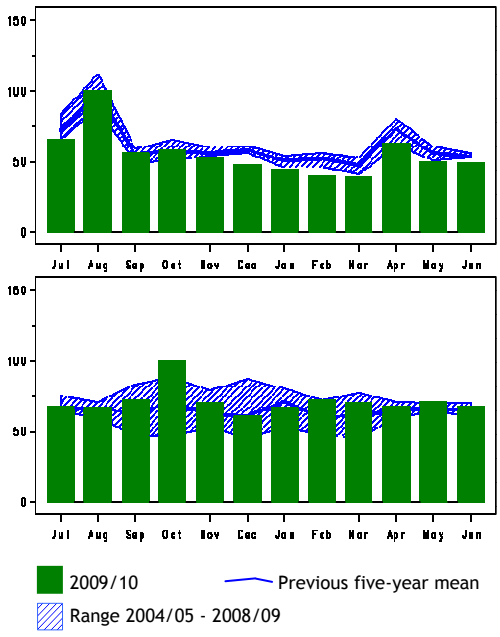


Figure 39.b, Monthly indices for Moorhen for GB (above) & NI (below).

Moorhens have a widespread distribution throughout the UK and occur in a wide variety of wetland habitats. As a consequence, compared to most waterbird species, they tend to be relatively poorly monitored by WeBS, and ideally require improved coverage of habitats within the wider countryside.

Moorhen *(Jill Pakenham)*

The WeBS trends are included in the annual report for the first time. They indicate that numbers at WeBS sites in Britain have been relatively stable over the course of the last fifteen years, while in Northern Ireland a shallow decline may have occurred during the last ten or so years.

The monthly indices for Britain are worthy of close scrutiny. They indicate that over the past six years, consistent peaks have occurred in both August and April. The increase in August is likely to be attributable to augmentation of regional populations with locally-bred juveniles, whereas might the apparent April peak be due to an increase in the detectability of Moorhens early in the breeding season? Alternatively, it is tempting to speculate that the slight increase in April relates to a flux of spring passage (e.g. Wernham *et al.* 2002). Future analysis of regional WeBS trends and monthly indices may elucidate this further. In Northern Ireland, where a relatively small number of Moorhens are counted during WeBS counts, it remains to be seen whether the October 2009 peak is repeated in future years. Consistent

counting effort of this species at WeBS sites is now especially important if valid inferences are to be drawn from the national trends.

In 2009/10, the counted British maximum was similar to that of recent years, with the highest site count being 359 at Severn Estuary in November. Numbers at virtually all of the principal sites were close to their respective five-year means, an exception being the conspicuously low peak at Chichester Gravel Pits for reasons unknown. Rutland Water recorded its highest monthly total ever, while in Northern Ireland, the peak at Loughs Neagh & Beg was the highest since 2002/03.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites with mean peak counts of 130 or more birds in Great Britain†							
Severn Estuary	465	546	1,003	(473)	359	Nov	593
WWT Martin Mere	490	438	485	(375)	330	Nov	436
Thames Estuary	383	367	(300)	406	(355)	Jan	385
Somerset Levels	410	430	392	156	(281)	Oct	347
Lower Derwent Ings	366	321	268	341	256	Nov	310
Ouse Washes	111	201	557 [12]	(420)	163	Feb	290
Pitsford Reservoir	266	389	241	126	304	Oct	265
Lee Valley Gravel Pits	292	(300)	296	228	180	Nov	259
North Norfolk Coast	281	223	230	203	253	Jan	238
London Wetland Centre	239	218	203	229	200	Nov	218
Old Moor	(80)	(171)	(366)	136	184	Sep	214
Rutland Water	188	157	219	152	285	Oct	200
Arun Valley	175	246	(195)	164	190	Sep	194
R.Wandle - Carshalton to Wandsworth	178	193	186	180	191	Dec	186
Dungeness and Rye Bay	213	166	181	192	167	Sep	184
Stanwick Gravel Pits Consolidated	(51)			(63)	(147)	Sep	(147)
Grand Western Canal	137	178	134	124	146		144
Chichester Gravel Pits	228	139	174	(5)	31	Sep	143
Cotswold Water Park (West)	(132)	117	144	(116)	151	Oct	137
Medway Estuary	84	131	180	144	130	Jan	134
Sutton and Lound Gravel Pits	108	158	128	141			134
Humber Estuary	(142)	136	166	116	100	Nov	132
Sites with mean peak counts of 30 or more birds in Northern Ireland†							
Loughs Neagh and Beg	143	98	118	96	181	Oct	127
Belfast Lough	54	43	42	49	43 [10]	Dec	46
Upper Lough Erne	60	75	40	18	36	Feb	46
Lower Lough Erne	(10)	43	25	(6)	(3)	Mar	34
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain†							
Chew Valley Lake	80	90	55	70	180	Sep	95
Fort Henry Ponds and Exton Park Lakes	91	83	58	52	136	Oct	84
Ditchford Gravel Pits	50	62	103	102	132	Jan	90

† *as no sites exceed the British threshold and no All-Ireland threshold has been set, qualifying levels of 130 and 30 have been chosen to select sites, in Great Britain and Northern Ireland respectively, for presentation in this report*

Spotted Crake

Scarce

Porzana porzana

Six Spotted Crakes were seen between August and September, representing the most records of the species in a WeBS-year since 2005/06.

They were at Camel Estuary, Stodmarsh, Edderthorpe Flash, London Wetland Centre, Wormleighton Reservoir, and Teifi Estuary. The latter is the first WeBS record in Wales.

Spotted Crake *(Kevin Carlson)*

Coot

Fulica atra

International threshold: 17,500
Great Britain threshold: 1,800
All-Ireland threshold: 330

GB max: 115,887 Nov
NI max: 2,322 Feb

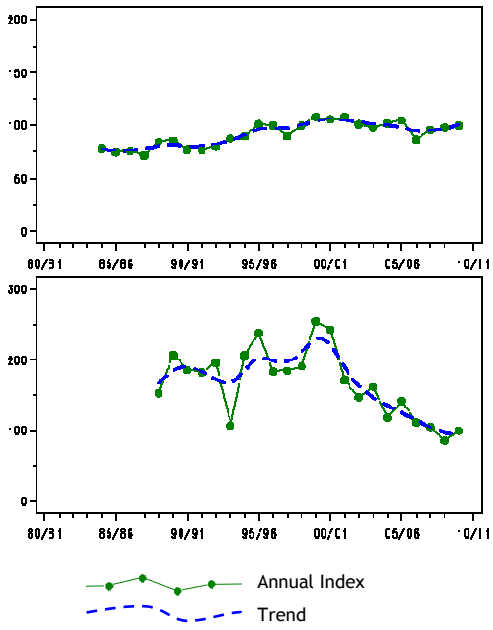


Figure 40.a, Annual indices & trend for Coot for GB (above) & NI (below).

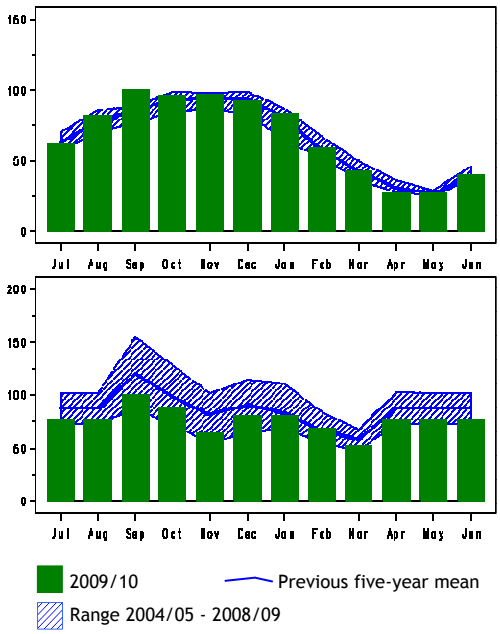


Figure 40.b, Monthly indices for Coot for GB (above) & NI (below).

Musgrove *et al.* (2011) estimate the wintering population of Coots to be in the order of 180,000 birds, thereby representing relative stability of a population that comprises residents augmented by winter immigrants from other parts of northwest Europe. In keeping with this, the index for Britain in 2009/10 was consistent with that of the last fifteen or so years. However, numbers in Northern Ireland continue to be in decline.

These national trends, when evaluated in tandem, continue to be suggestive of a possible shift in distribution in response to climate. In The Netherlands, the trend for Coot, although prone to fluctuations, has essentially been stable for a period of thirty years (Hornman *et al.* 2011), whereas further east in Europe numbers have been increasing, e.g. in Slovakia (Slabeyova *et al.* 2009). Similarly, in Scandinavia, numbers have increased in recent winters in response to milder climatic conditions (Nilsson 2008).

Scrutiny of the sites table indicates that Coot numbers at most UK sites in 2009/10 were relatively high compared to recent years. The counted monthly maximum was 115,887 birds (4% higher than the 2008/09 equivalent), and the top three sites all held peaks in excess of their respective five-year averages. The traditional autumn peak at Abberton Reservoir reached an impressive 12,188 birds, the most there since the all-time WeBS high of 18,632 in September 1994. The count from Rutland Water is the second most ever noted there, while the record peak at Cotswold Water Park (West) is further evidence of the increasing amount of wetland habitat there. While the monthly maximum at Chew Valley Lake was the highest for five years, that at nearby Blagdon Lake was the lowest since 1996/97.

In Northern Ireland, the monthly maximum at Loughs Neagh & Beg was again very low compared to the longer-term average at the site. In common with other diving waterfowl at the site, particularly Pochard, numbers have dropped steeply in

recent winters since a historical peak count of 8,848 birds in December 1992. Similarly, the peak at Upper Lough Erne, the other site of All-Ireland importance, was the lowest for ten years.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of national importance in Great Britain							
Abberton Reservoir	10,965	(2,088)	10,046	9,270	12,188	Sep	10,617
Rutland Water	3,490	6,233	4,284	4,792	6,277	Nov	5,015
Cotswold Water Park (West)	4,548	4,001	4,013	4,803	5,330	Nov	4,539
Ouse Washes	4,354	1,834	6,229	5,865 [12]	4,053	Feb	4,467
Lee Valley Gravel Pits	3,459	2,417	2,979	3,331	3,318	Nov	3,101
Cheddar Reservoir	3,140	3,380	3,324	2,222	2,977	Dec	3,009
Loch Leven	1,610	2,820	1,317	3,350	3,560	Oct	2,531
Fleet and Wey	2,699	2,650	2,337	2,291	2,397	Nov	2,475
Pitsford Reservoir	2,212	2,287	2,828	1,957	2,480	Oct	2,353
Dungeness and Rye Bay	1,768	2,421	2,280	2,162	3,123	Nov	2,351
Chew Valley Lake	2,205	2,360	2,095	2,020	3,050	Sep	2,346
Cotswold Water Park (East)	2,045	1,835	2,134	2,248	2,050	Nov	2,062
Carsington Water	1,614	2,136	1,880	2,175	1,770	Oct	1,915
Blagdon Lake	3,151	1,400	2,323	1,403	970	Aug	1,849
Sites of all-Ireland importance in Northern Ireland							
Loughs Neagh and Beg	2,506	2,371	1,813	1,236	1,546	Sep	1,894
Upper Lough Erne	2,023	1,696	1,072	1,093	1,051	Feb	1,387
Sites no longer meeting table qualifying levels in WeBS-Year 2009/2010							
Lower Windrush Valley Gravel Pits	(1,338)	1,566	(1,327)	(366)	(1,802)	Jan	1,684
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain							
Stodmarsh	1,213	904	1,369	1,350	2,310	Oct	1,429
Humber Estuary	1,059	1,404	1,103	1,298	2,261	Nov	1,425
Grafham Water	1,234	1,454	1,628	1,796	2,252	Jan	1,673
Fen Drayton Gravel Pits	1,362	1,460	1,228	1,772	1,870	Nov	1,538
Tophill Low Reservoirs	615	540	315	(840)	1,857	Jan	833
Lower Windrush Valley Gravel Pits	(1,338)	1,566	(1,327)	(366)	(1,802)	Jan	1,684

An inland wetland *(Mike Toms)*
Waterbirds, particularly diving species such as Coot, are often displaced from small inland wetlands during freezing weather such as that experienced in January 2010.

Crane

Grus grus

Scarce

In 2009/10, Cranes were recorded at seven WeBS sites; the same number as the previous year. Four of these sites are in the Cambridgeshire/Norfolk fens and therefore may involve duplication of roaming birds. Elsewhere, four were at Kinnordy Loch in April, two at North Norfolk Coast in May, and one at Forth Estuary in June.

Oystercatcher

Haematopus ostralegus

International threshold:		**10,200**
Great Britain threshold:		**3,200**
All-Ireland threshold:		**680**

GB max:	**264,459**	**Oct**
NI max:	**17,064**	**Oct**

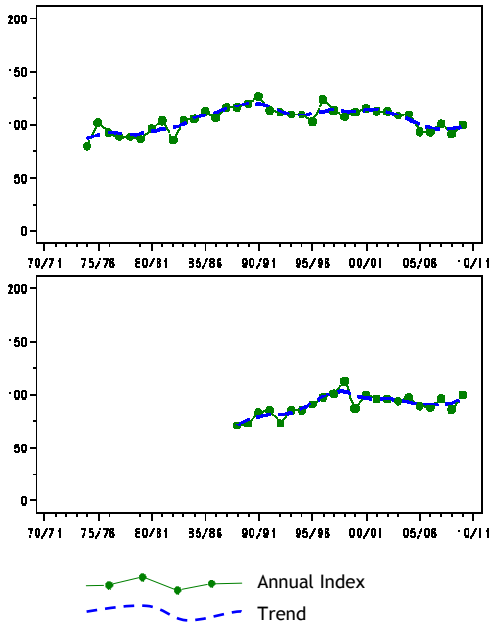


Figure 41.a, Annual indices & trend for Oystercatcher for GB (above) & NI (below).

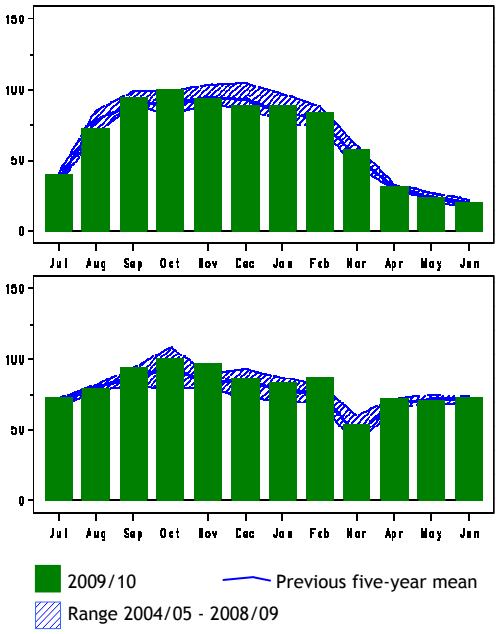


Figure 41.b, Monthly indices for Oystercatcher for GB (above) & NI (below).

Oystercatchers in the UK are from the *ostralegus* population, which breeds in north and west Europe and winters in west Europe and south to west Africa.

The British trend over the course of the last twenty years has been one of very slow decline, with the species now at the same level as when routine monitoring began over thirty-five years ago. In Northern Ireland however, numbers are stable and have increased slightly over the longer term. At the same time, the species has decreased at a faster rate in The Netherlands (Hornman *et al.* 2011).

Maxima at the sites of international importance were generally close to or above average compared to recent years. The only exception was Solway Estuary where, despite good coverage, the peak noted in October was considerably lower than expected. The principal site in the UK is Morecambe Bay, and following the second highest count ever there in 2008/09, the maximum in 2009/10 was again encouraging and evidence of thorough WeBS coverage at the site.

The peak at The Wash was close to average, the population having recovered following declines brought about by human over-exploitation of the shellfishery (Atkinson *et al.* 2010). As predicted in last year's report, Carmarthen Bay has now surpassed the qualifying threshold for international importance. Numbers there

have steadily increased in recent years, and reached a peak in January when 12,697 birds were counted during the Core count and 13,673 during Low Tide operations.

In Northern Ireland, there were no notable changes at the individual site level, although the peak from Lough Foyle was again relatively high following a similar peak in 2008/09.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of international importance in the UK							
Morecambe Bay	(46,760)	55,874	(41,199)	60,323	58,596	Oct	58,264
Solway Estuary	(34,542)	(35,571)	(31,091)	(25,417)	23,890	Oct	30,102
Thames Estuary	22,956	27,836	26,905	33,659	24,278	Sep	27,127
Dee Estuary (England and Wales)	22,847	15,808	20,922	32,820 [10]	25,886	Jan	23,657
The Wash	18,677	22,963	19,626	17,788	19,232	Oct	19,657
Burry Inlet	11,728	15,110 [12]	13,257	13,980	15,957	Nov	14,006
Ribble Estuary	(6,378)	10,872	13,148	(9,524)	(8,518)	Sep	12,010
Carmarthen Bay	7,754	10,154 [10]	10,911 [10]	10,562	13,673 [10]	Jan	10,611
Sites of national importance in Great Britain							
Forth Estuary	6,598	8,235	7,230	8,046	(5,949)	Oct	7,527
Lavan Sands	5,926	9,587	5,783	5,611	6,129	Oct	6,607
Duddon Estuary	5,577	5,758	(4,251)	(7,296)	(3,444)	Sep	6,210
Inner Firth of Clyde	5,880	5,308	5,836	4,101	5,042	Feb	5,233
Inner Moray and Inverness Firth	4,930	(5,099)	8,003	3,883	3,547	Oct	5,092
Swale Estuary	5,011	3,762	4,106	3,293	(5,425)	Dec	4,319
North Norfolk Coast	3,707	3,238	3,954	5,111	3,936	Nov	3,989
Swansea Bay	3,511	4,430 [12]	3,150	3,743	(3,850)	Sep	3,737
Humber Estuary	3,468	2,942	(3,121)	(2,746)	(4,463)	Dec	3,624
Sites of all-Ireland importance in Northern Ireland							
Strangford Lough	6,861	(6,842)	8,689	9,575	8,513	Oct	8,410
Belfast Lough	4,756	(4,411)	3,580	3,624	3,798	Sep	4,034
Lough Foyle	(1,805)	(2,347)	2,837	3,629	3,647	Nov	3,371
Outer Ards Shoreline	1,747	1,825	1,515	1,622	1,569	Jan	1,656
Carlingford Lough	1,442	1,552	(1,446)	1,529	(706)	Jan	1,508
Dundrum Inner Bay	1,389	1,027	1,700	1,497	(1,635)	Feb	1,450
Newcastle Shore				1,331			1,331
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain							
Alt Estuary	2,193	(1,397)	1,236	1,115	3,661	Apr	2,051

Avocet

Recurvirostra avosetta

International threshold: 730
Great Britain threshold: 75

GB max: 7,387 Oct
NI max: 0

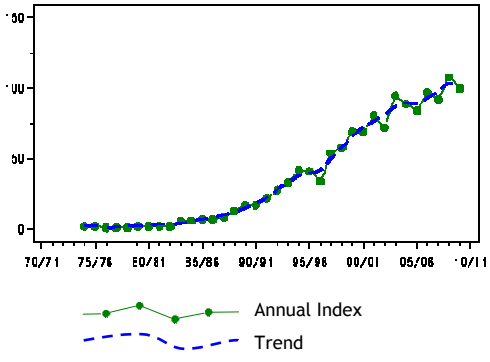


Figure 42.a, Annual indices & trend for Avocet for GB.

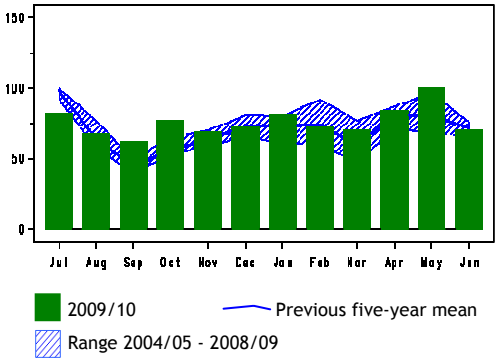


Figure 42.b, Monthly indices for Avocet for GB.

The wintering population of Avocets in Britain, considered in the most recent review of waterbird population estimates to be in the order of 7,500 birds (Musgrove *et al*. 2011), appears to be very effectively monitored by WeBS. Wintering birds in the UK are considered to comprise an increasing proportion of resident breeders and additional birds from the nearby Low Countries.

Although the rate of increase in the index has slowed slightly over the course of the last six years, there are no obvious signs of the trend doing anything other than continuing to steadily rise. Wintering numbers of this charismatic species appear to have not yet levelled off in Britain.

Avocets were recorded at 64 WeBS sites in 2009/10, all in England apart from single birds in January at Carmarthen Bay and Guernsey Shore. Peaks at the most important sites were generally close to or slightly above respective averages. The incomplete count of 1,553 at Poole Harbour in October represents the second highest ever there, surpassed only by the all-time WeBS high of 1,893 in February 2002. The 1,702 at Thames Estuary, also in October, represents the most ever noted there.

Perhaps the most striking feature of 2009/10 for Avocets in the UK was the marked increase recorded at Humber Estuary during the autumn period. The totals for August (1,153), September (903) and October (827) were all greater than the previous highest monthly maximum for the site. These observations and the record number noted at Ribble Estuary (where the species has only been an annual feature since 2002/03) are both an indication of the steady northward spread of this species in recent years.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of international importance in the UK							
Thames Estuary	1,663	1,578	1,633	1,689	(1,702)	Oct	1,653
Alde Complex	1,392	1,383	1,465	1,419	1,373	Jan	1,406
Poole Harbour	1,387	(1,303)	1,068	(1,131)	(1,553)	Oct	1,328
Medway Estuary	(557)	(1,027)	(453)	(791)	(604)	Sep	(1,027)
Breydon Water / Berney Marshes	1,044	706	896 [12]	897 [12]	1,017 [12]	Sep	912
Sites of national importance in Great Britain							
Colne Estuary	570 [12]	720 [12]	586 [10]	750 [12]	613 [12]	Dec	648
Humber Estuary	374	652	529	486	1,153	Aug	639
North Norfolk Coast	617	645	556	674	538	May	606
The Wash	760	322	850	541	493	Mar	593
Hamford Water	488	(629)	537	729 [10]	564	Mar	589
Blyth Estuary	208	660	889	369	576	Feb	540
Swale Estuary	320	(363)	447	(586)	654	Oct	502
Blackwater Estuary	622	367	585	(508)	422	Mar	501
Tamar Complex	494	465	620	380	396	Jan	471
Exe Estuary	(500)	380	358	557	(440)	Jan	447
Deben Estuary	236	315	224	342	306	Jan	285
Stour Estuary	89	428	159	112	444 [10]	Nov	246
Minsmere	171	190	205	164	153	Apr	177
Orwell Estuary	162	105 [10]	134 [10]	161	(124)	Oct	141
Crouch-Roach Estuary	26	22	135 [12]	213	111	Feb	101
Ribble Estuary	38	76	110	71	111	Apr	81

Stone Curlew

Scarce

Burhinus oedicnemus

Stone Curlews were present at both ends of the WeBS-year at a site in eastern England, close to a known breeding location.

Oriental Pratincole

Vagrant

Glareola maldivarum

Native Range: Asia

An Oriental Pratincole was recorded at Frampton Marsh (The Wash) in May. Present for eleven days (*per* www.birdguides.com), it represents the second ever record for WeBS following the first on the North Norfolk Coast in 1993.

Little Ringed Plover

Charadrius dubius

International threshold:	2,500
Great Britain threshold:	?†
All-Ireland threshold:	?†

GB max: **258** **Jun**
NI max: **0**

In 2009, Little Ringed Plovers were recorded at 140 sites during WeBS Core counts, including three sites in Scotland.

In March, the species was seen at 18 locations, suggesting a relatively early arrival (although interpretation of arrival dates of migratory species is obviously complicated by the timing of the Core count date).

The highest Core counts during the course of the year were in July; 18 at Dungeness & Rye Bay and 16 at Uttoxeter Quarry. A light autumn passage had concluded by the end of September.

	2005	2006	2007	2008	2009	Mon	Mean
Sites with mean peak counts of 10 or more birds in Great Britain†							
Nosterfield Gravel Pits	11	23	24	(8)			19
Uttoxeter Quarry					16	Jul	16
Old Moor	14	10	(18)	19	11	Jul	14
Dungeness and Rye Bay	11	9	9	12	18	Jul	12
Other sites surpassing table qualifying levels in Summer 2009 in Great Britain†							
River Avon - Fordingbridge to Ringwood		(1)	(1)	4	12	Jun	8
Rutland Water	14	8	9	6	10	Jun	9
Humber Estuary	3	4	1	(4)	10	May	5
Sandbach Flashes	6	4	3	4	10	Apr	5

† *as no British or All-Ireland thresholds have been set a qualifying level of 10 has been chosen to select sites for presentation in this report*

Ringed Plover

Charadrius hiaticula

International threshold:	730
Great Britain threshold:	340
All-Ireland threshold:	150

GB max: **27,232** **Aug**
NI max: **564** **Nov**

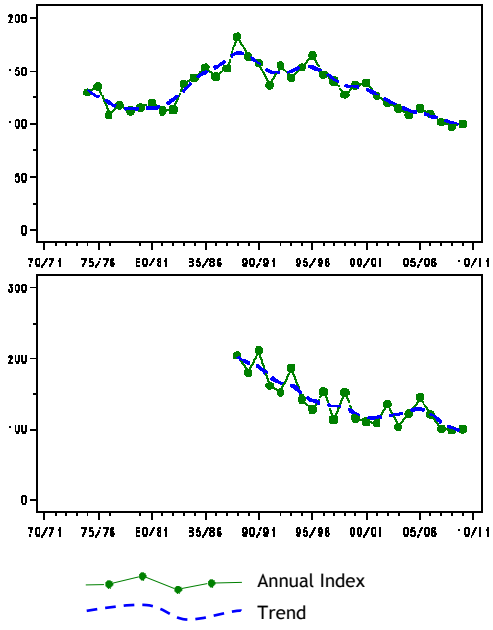


Figure 43.a, Annual indices & trend for Ringed Plover for GB (above) & NI (below).

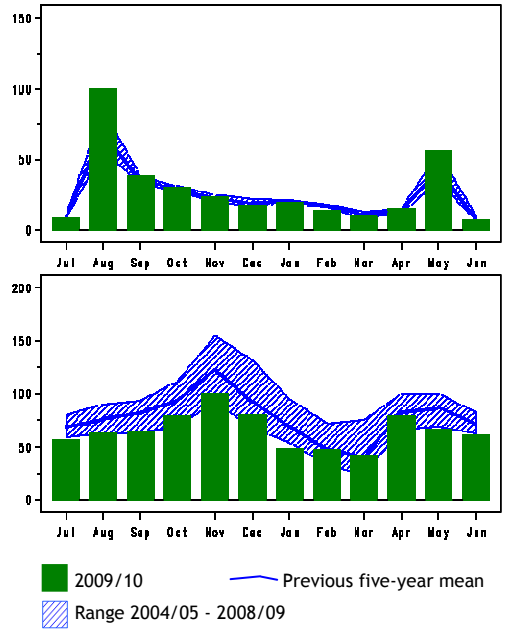


Figure 43.b, Monthly indices for Ringed Plover for GB (above) & NI (below).

Britain and Ireland are of considerable importance for Ringed Plovers, providing wintering refuges for both British and continental breeders, and critical passage sites for long-distance migrants of *tundrae*/*psammodroma* races. The breeding population comprises a large proportion of the nominate race *hiaticula*.

The Ringed Plover trends in both Britain and Northern Ireland have been in steady decline for over twenty years. These falls have coincided with an increase in The Netherlands over the course of the last thirty years (Hornman *et al*. 2011) and are therefore considered partly attributable to a shift of core wintering range (Maclean *et al*. 2008), but also due to the fact that in the UK the breeding population is in steady decline (Conway *et al*. 2008).

The numbers of passage Ringed Plovers using UK sites in spring and autumn are much greater than those which remain to overwinter. Hence, virtually all the peak monthly counts from the principal sites relate to passage periods, particularly August. This bias towards passage periods probably applies to Ringed Plover more than any other species of wader. In contrast to the downward trend overall, the peak count during 2009/10 was a very high 5,420 at Ribble Estuary in August, just twelve birds short of the most ever noted (in May 2000). Similarly, very high May counts of 2,505 at Humber Estuary and 2,138 at The Wash were attributable to an exceptional spring passage (M. Pilsworth, pers. comm.). Both counts represent the largest ever spring totals at those sites.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean	
Sites of international importance in the UK								
Ribble Estuary	1,950	(1,016)	1,734	(2,931)	5,420	Aug	3,035	
Humber Estuary	(2,168)	(783)	(860)	(781)	(2,505)	May	(2,505)	
North Norfolk Coast	2,310	2,046	1,023	1,814	2,758	Aug	1,990	
Solway Estuary	(665)	(644)	(402)	(936)	(1,644)	Aug	(1,644)	
Severn Estuary	(662)	1,453	(363)	1,457	(982)	Aug	1,455	
The Wash	1,416	(1,127)	400	1,831	2,138	May	1,446	
Thames Estuary	1,262	1,197	748	830	(733)	Aug	1,009	
Swale Estuary	(392)	(465)	(294)	(605)	(830)	Aug	(830)	▲
Morecambe Bay	1,000	355	(428)	936	894	Aug	796	
Sites of national importance in Great Britain								
Dengie Flats	331	(127)	1,013	577	710	Oct	658	
Tiree	648 [32]						648	
Forth Estuary	348	290	502	(875)	1,080	Aug	619	
Lindisfarne	415	581	(139)	(224)	(734)	May	577	
Stour Estuary	610	390	428	582	798	Aug	562	
Blackwater Estuary	367	418	531	767	(689)	Aug	554	
Crouch-Roach Estuary	(270)	816	594	349	419	Aug	545	
Barnkirk Point at Annan					535 [12]	Aug	535	▲
Duddon Estuary	757 [10]	(495)	200	525	407	Aug	477	
South Ford	300	743	400	300			436	
Tay Estuary	212	235	(170)	658	(611)	Aug	429	
Alt Estuary	404	257	515	515	416	Aug	421	
Dee Estuary (England & Wales)	392	127	(551)	744	265	Aug	416	
Taw-Torridge Estuary	(395)	(223)	(176)	(298)	(307)	Aug	(395)	
Chichester Harbour	400	365	233	395	422	Aug	363	▲
Sites of all-Ireland importance in Northern Ireland								
Strangford Lough	449	278 [10]	227 [10]	277 [10]	288 [10]	Nov	304	
Outer Ards Shoreline	308	338	125	308	238	Nov	263	
Carlingford Lough	247	247	154	(105)	(54)	Oct	216	
Belfast Lough	168 [10]	180	253	147 [10]	187	Oct	187	
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain								
Traeth Melynog	0			1	365	Aug	122	

American Golden Plover

Pluvialis dominica

Vagrant
Native Range: America

An American Golden Plover was at Baleshare (North Uist) in October; the 13th WeBS record, and third from Scotland following the first and second in 2007/08 and 2008/09, respectively.

Golden Plover

Pluvialis apricaria

International threshold:	9,300
Great Britain threshold:	4,000
All-Ireland threshold:	1,700

GB max: 150,337 Nov
NI max: 10,272 Nov

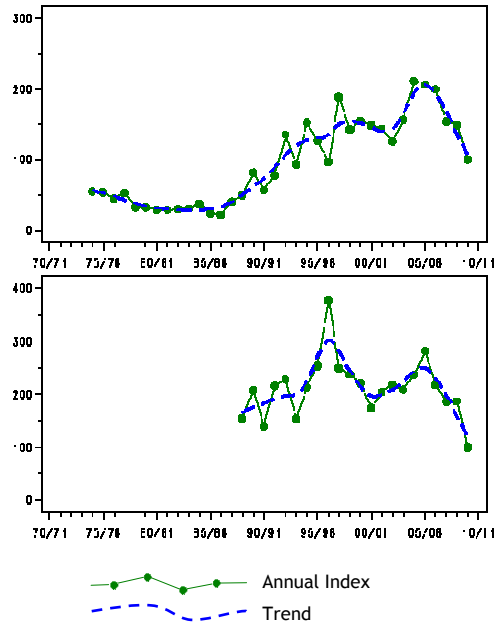


Figure 44.a, Annual indices & trend for Golden Plover for GB (above) & NI (below).

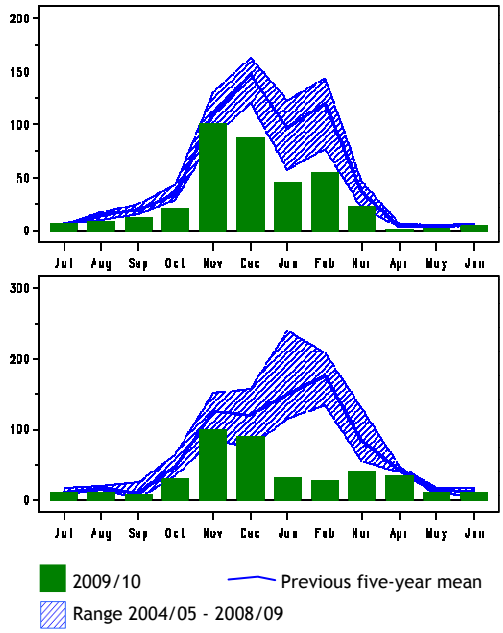


Figure 44.b, Monthly indices for Golden Plover for GB (above) & NI (below).

The British national index for Golden Plover fell sharply in 2009/10, returning the species to a level similar to that during the early 1990s. The counted monthly maximum of 150,337 birds in November was 19% lower than the peak total noted in 2008/09.

In common with those for Lapwing, the monthly indices are worthy of close scrutiny when evaluating the winter for Golden Plovers. Following a typical November, it is apparent that numbers were well below average during the remainder of the winter, presumably as a consequence of the cold winter forcing birds southwards out of north-west Europe including the UK.

Following a peak in the trend during the period of 2004/05 to 2006/07, the following the three years have seen a marked drop in index values. With The Netherlands having experienced a steady increase in the number of wintering Golden Plovers since the 1990s, it will be interesting to examine the effects of colder winters within a general context of climatic amelioration with associated shifts in ranges of waders (Maclean *et al*. 2008).

Six WeBS sites continue to surpass the threshold for international importance for Golden Plovers, and following the revision of the estimated wintering population by Gillings & Fuller (2009) 18 sites qualify as being of national importance. Peak numbers were generally low at all sites, notably at Somerset Levels where the maximum was approximately one-third of the peak recorded during the previous year. A similarly pronounced decline was also noted for Lapwing with which this species often forms mixed flocks at inland sites.

In Northern Ireland, the fall in the national index was even more marked than in Britain, dropping to its lowest ever level. All the major sites held their lowest peaks for several years, and the exodus during the cold period, as indicated by the monthly indices, was even more marked than that which occurred in Britain.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean	
Sites of international importance in the UK								
Humber Estuary	47,118	50,188	(23,526)	(29,172)	(13,719)	Nov	48,653	
The Wash	26,996	31,350	19,643	40,588	25,628	Nov	28,841	
Breydon Water & Berney Marshes	28,220	24,930 [10]	15,790 [12]	30,800 [12]	21,900 [12]	Dec	24,328	
Swale Estuary	12,014	(10,520)	17,327	(7,407)	6,112	Jan	11,818	
Blackwater Estuary	11,949	(15,810)	5,703	(13,173)	(4,224)	Dec	11,659	
Somerset Levels	5,018	12,054	12,422	18,467	6,874	Nov	10,967	
Sites of national importance in Great Britain								
Dengie Flats	12,678	5,520	4,520	11,070	8,500	Nov	8,458	
Hamford Water	8,859	(5,362)	10,228	7,234 [10]	2,284	Dec	7,151	
Carmarthen Bay	4,047	12,700	10,420	4,244	3,569	Feb	6,996	
Lower Derwent Ings	6,776	10,600	5,433	2,500	4,124	Nov	5,887	
Lindisfarne	(7,081)	(3,236)	(2,324)	4,228	(1,470)	Oct	5,655	
Ribble Estuary	3,829	(3,950)	6,610	4,307	5,815	Nov	5,140	
Old Moor	(6,200)	6,500	(3,800)	5,000	2,000	Oct	4,925	
Camel Estuary	9,000	(3,000)	2,501	6,000 [12]	2,100	Nov	4,900	
North Norfolk Coast	5,315	4,552	3,154	5,914	5,527	Nov	4,892	
Crouch-Roach Estuary	(3,718)	(2,387)	(6,696)	3,298	4,342	Dec	4,779	
Nene Washes	4,500	8,500	5,650	3,500	1,600	Mar	4,750	
Otmoor	(1,200)	4,670 [12]	(1,080)	(1,908)	(1,250)	Mar	4,670	▲
Pegwell Bay	7,000	4,170	(5,500)	3,500	3,150 [12]	Dec	4,664	
Dungeness and Rye Bay	3,600	5,000	7,210	3,772	3,450	Nov	4,606	
Ouse Washes	10,069	3,312 [12]	2,427 [12]	485	6,071 [12]	Nov	4,473	
Solway Estuary	3,991	5,746	3,761	3,223	5,428	Nov	4,430	
Thames Estuary	7,401	4,817	4,267	2,129	2,014	Feb	4,126	
Morecambe Bay	5,768	(3,429)	(3,382)	1,716	(4,715)	Nov	4,066	▲
Sites of all-Ireland importance in Northern Ireland								
Strangford Lough	7,970	8,513 [10]	8,817 [10]	11,328 [10]	7,435 [10]	Nov	8,813	
Lough Foyle	7,640	9,534	9,211	8,486	5,091	Dec	7,992	
Loughs Neagh and Beg	6,537	6,475	7,712	7,337	4,687	Nov	6,550	
Sites no longer meeting table qualifying levels in WeBS-Year 2009/2010								
Overcote Marina		6,000 [12]		2,500	6	Jan	2,835	
Bann Estuary	2,610	2,100	1,350	900	1,360	Apr	1,664	

Golden Plovers *(Ben Green)*

A poor winter for Golden Plovers in both Britain and Northern Ireland was probably weather related.

Grey Plover

Pluvialis squatarola

GB max:	**36,209**	**Jan**
NI max:	**262**	**Jan**

International threshold:	**2,500**
Great Britain threshold:	**430**
All-Ireland threshold:	**65**

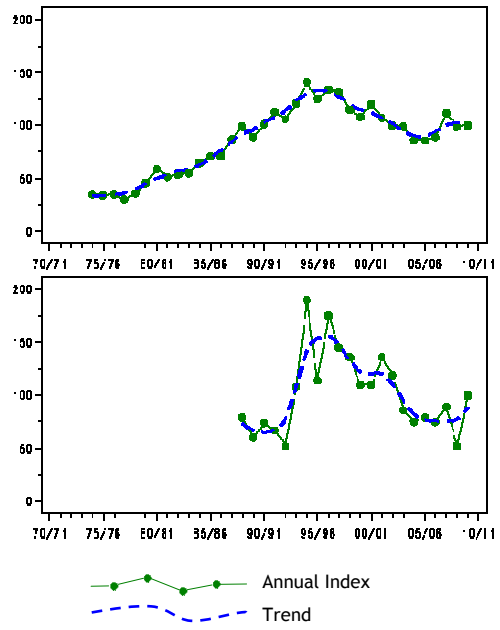


Figure 45.a, Annual indices & trend for Grey Plover for GB (above) & NI (below).

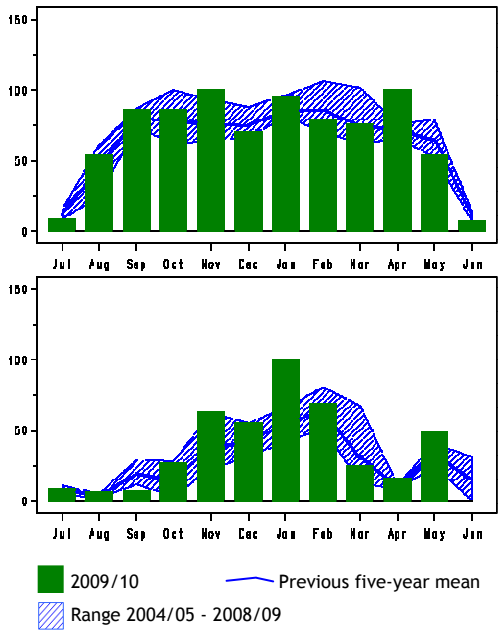


Figure 45.b, Monthly indices for Grey Plover for GB (above) & NI (below).

Grey Plovers breed in the tundra zones of Eurasia and North America, with the most important wintering areas in Europe being the southern North Sea coasts, other British estuaries, and the Atlantic coast of France. Further areas in the Mediterranean basin, along the Atlantic coast of Africa, the Middle East and Eastern Africa, are also used.

For a decade from the mid 1990s to the mid 2000s, Grey Plovers declined steadily at sites in Britain (having increased at an equally steady rate during the decade up to the mid 1990s). This fall occurred at the same time as a long-term increase at sites in The Netherlands, primarily the Wadden Sea, and has therefore been attributed to a north-eastward shift in core wintering range (Maclean *et al*. 2008). The last four years have seen an apparent reversal in that downward trend, but only time will tell whether numbers now stabilise. At the same time, Grey Plovers continue to increase on the Wadden Sea in The Netherlands (Hornman *et al*. 2011).

As first noted in last year's report, the WeBS monthly indices again show higher than normal numbers present in the UK at both the start and end of the core wintering period, with fewer than expected present during mid winter. Notably, a similar pattern of monthly abundance has occurred on the Wadden Sea in recent years (Hustings *et al*. 2009, Hornman *et al*. 2011).

Eight WeBS sites surpassed the threshold for international importance in 2009/10. The Wash and Dengie Flats continue to be the most important two sites, the April count at the former being especially noteworthy. The count of 15,411 has only ever been surpassed at The Wash on three previous occasions; the maximum there (and for WeBS overall) being 17,404 in March 1995. Based on the monthly maxima generated through the last four years of WeBS monitoring, approximately half of all Grey Plovers in Britain now occur at just these two principal sites; The Wash and Dengie Flats.

Elsewhere, peaks at most of the other listed sites were close to average. A notable exception was the early-spring aggregation at Alt Estuary which peaked at 3,141 birds in April, the most there for seven years. In the autumn, the adjacent Ribble Estuary held its highest number for six years; yet that total of 4,463 still compares poorly with an historic maximum of 16,395 birds there in May 2000.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean	
Sites of international importance in the UK								
The Wash	8,604	9,750	7,455	11,734	(15,411)	Apr	10,591	
Dengie Flats	4,909	7,239	11,940	10,669	9,550	Jan	8,861	
Thames Estuary	13,028	5,700	2,970	2,801	4,734	Feb	5,847	
Blackwater Estuary	2,650	(4,819)	5,766	(2,083)	(4,056)	Nov	4,412	
Ribble Estuary	(3,813)	3,518	3,902	2,315	(4,463)	Sep	3,602	
Humber Estuary	2,792	1,923	(3,417)	(3,530)	2,732	Apr	2,879	
Hamford Water	(2,198)	(2,685)	(2,658)	(2,394)	(2,246)	Mar	(2,685)	
Stour Estuary	3,263	2,355	2,329 [10]	2,003 [10]	2,910	Nov	2,572	▲
Sites of national importance in Great Britain								
Alt Estuary	2,837	1,244	1,206	1,731	3,141	Apr	2,032	
Lindisfarne	1,361	2,171	(989)	2,058	(512)	May	1,863	
Swale Estuary	(1,244)	(1,415)	1,631	(1,322)	2,003	Jan	1,817	
Chichester Harbour	2,017	1,592	1,604	1,416	1,960	Dec	1,718	
North Norfolk Coast	1,483	1,626	1,339 [10]	1,693	2,169	Aug	1,662	
Medway Estuary	989	(467)	(1,586)	(1,331)	(349)	Jan	1,302	
Dee Estuary (England/Wales)	1,091	1,214	762	2,033 [10]	1,160	Jan	1,252	
Pagham Harbour	1,067	902	1,269	1,059	1,329	Jan	1,125	
Morecambe Bay	1,074	(1,065)	747	994	1,073	Feb	991	
Langstone Harbour	(879)	702	848	989	820	Sep	848	
Colne Estuary	(800)	(840)	(720)	(740)	(726)	Sep	(840)	
Jersey Shore		939	373				656	
Crouch-Roach Estuary	595	816	292	526	431	Feb	532	
Deben Estuary	(719)	342	(574)	509	516	Nov	532	
Beaulieu Estuary	381	640	545	526	519	Jan	522	
Eden Estuary	(356)	400	590	558	173	Jan	430	
Sites of all-Ireland importance in Northern Ireland								
Strangford Lough	249 [10]	141	118	84	204	Jan	159	

Lapwing

Vanellus vanellus

International threshold: 20,000**
Great Britain threshold: 6,200
All-Ireland threshold: 2,100

GB max: 239,514 Nov
NI max: 9,424 Nov

The Lapwing population wintering in the UK comprises the part of the breeding population that does not move southwards to continental Europe, supplemented by birds from Scandinavia, Eastern Europe and Russia. Numbers wintering in the UK are known to vary in response to temperatures, both here and particularly in continental Europe.

As described for Golden Plover, the monthly indices for Lapwing often prove fascinating. In 2009/10, they indicate that the relatively cold winter probably forced a relatively large number of birds out of the UK to escape the cold conditions experienced during the mid-winter period, the monthly index being typical in November before falling sharply in December. As with Golden Plover the monthly maximum was noted in November, and was 17% lower than the peak in 2008/09.

The maxima at virtually all the sites of international and national importance were below average during 2009/10 (the only exception being a typical November peak at Ribble Estuary). The particularly low maximum from Somerset Levels, some 50% lower than recent years, provides further indication of the effects of a cold winter; birds generally tending to be forced towards the coast, at least initially, during freezing conditions. However Somerset Levels, along with The Wash and Breydon Water & Berney Marshes, remain sites

which surpassed the threshold for international importance.

In The Netherlands, the trend for this species has been stable over the last thirty years, although freshwater sites have experienced a recent decline (Hornman *et al*. 2011). One assumes that the close similarity of the trends for Lapwing and Golden Plover in the UK will continue to be maintained in future years, and that the fortunes of the two species will continue to follow the same path. However, interestingly, the trend for Golden Plover across the North Sea is one of a recent increase and therefore contrasts somewhat with Lapwing.

A comparison of the effects on Lapwings and other species of recent cold winters, both in the UK and in neighbouring countries such as The Netherlands, will be a particularly interesting aspect of future annual reports of the respective monitoring schemes.

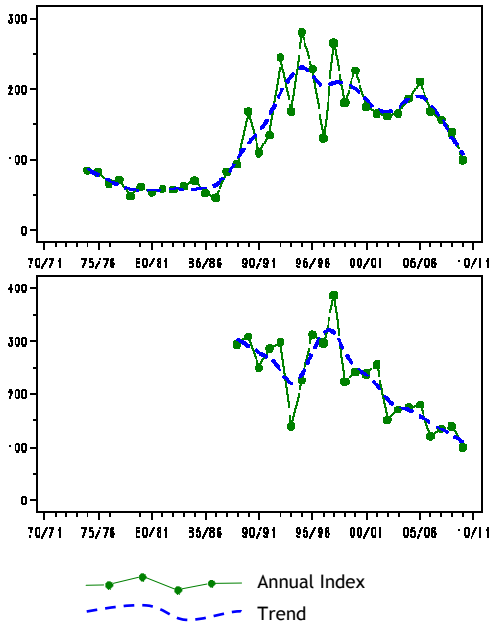


Figure 46.a, Annual indices & trend for Lapwing for GB (above) & NI (below).

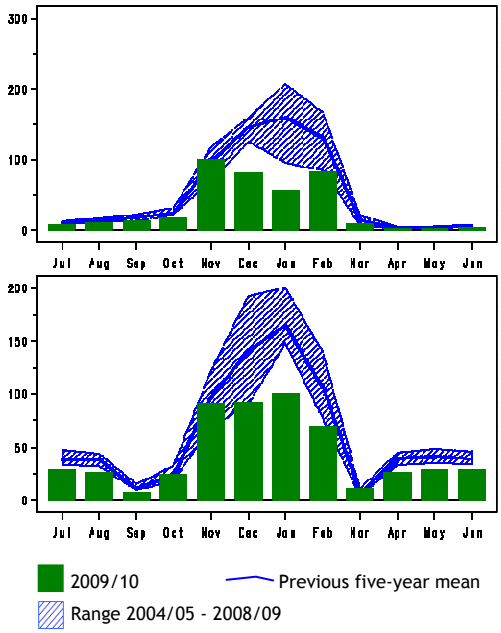


Figure 46.b, Monthly indices for Lapwing for GB (above) & NI (below).

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of international importance in the UK							
Somerset Levels	48,116	38,388	44,457	31,928	19,683	Nov	36,514
The Wash	36,327	36,998	11,186	24,543	21,265	Dec	26,064
Breydon Water & Berney Marshes	25,140	17,620 [12]	19,700 [12]	38,700 [12]	19,820 [12]	Dec	24,196
Sites of national importance in Great Britain							
Humber Estuary	27,421	(19,403)	16,500	11,700 [12]	(7,784)	Nov	18,756
Ribble Estuary	24,265	13,821	18,066	16,777	19,517	Nov	18,489
Morecambe Bay	19,192	13,484	(10,683)	(17,535)	(18,225)	Nov	17,109
Thames Estuary	18,662	17,270	(8,728)	(8,101)	9,246	Jan	15,059
Ouse Washes	25,835	13,026	11,222	(7,343)	7,340 [12]	Dec	14,356
Swale Estuary	14,913	(10,840)	23,479	9,996	8,744	Feb	14,283
Severn Estuary	19,434	9,895	11,035	11,951	7,967	Jan	12,056
Pegwell Bay	(8,100)	17,000	12,000	8,260 [10]	10,000 [12]	Dec	11,815
North Norfolk Coast	13,305	11,560	11,185	10,419	9,462	Dec	11,186
Dungeness and Rye Bay	9,320	9,936	12,758	5,320	7,553	Jan	8,977
Crouch-Roach Estuary	8,464	8,438	(9,255)	8,002	7,101	Nov	8,252
Blackwater Estuary	6,766	(8,160)	8,503	10,129	5,166	Nov	7,745
Dee Estuary (England and Wales)	8,800	5,319	9,526	4,402	5,641	Feb	6,738
Solway Estuary	(9,381)	(7,622)	(5,128)	5,023	(5,504)	Nov	6,532

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of all-Ireland importance in Northern Ireland							
Loughs Neagh and Beg	6,684	5,421	(7,720)	6,263	2,550	Nov	5,728
Strangford Lough	6,635	5,154 [10]	3,906 [10]	5,198 [10]	5,110	Dec	5,201
Lough Foyle	4,745	2,543	1,816	2,945	2,663	Nov	2,942
Sites no longer meeting table qualifying levels in WeBS-Year 2009/2010							
Nene Washes	6,070	4,720	10,575	6,353	1,996	Feb	5,943
Mersey Estuary	10,098 [10]	4,572	7,154	3,500	3,290	Feb	5,723
Alde Complex	7,843	5,406	7,322	(5,462)	2,001	Dec	5,643

Knot

Calidris canutus

International threshold: 4,500
Great Britain threshold: 3,200
All-Ireland threshold: 190

GB max: 251,035 Nov
NI max: 8,549 Jan

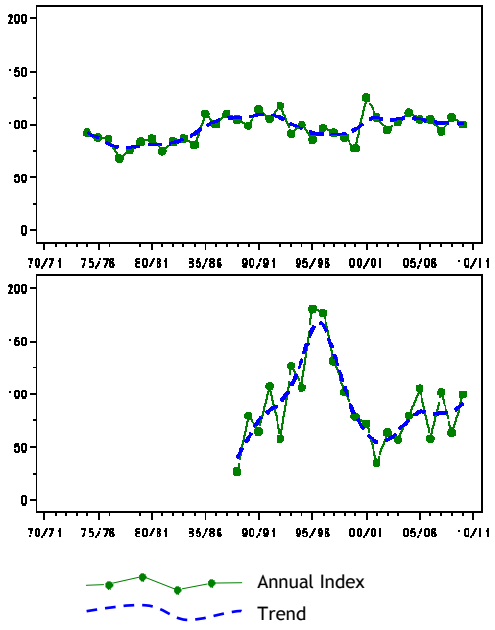


Figure 47.a, Annual indices & trend for Knot for GB (above) & NI (below).

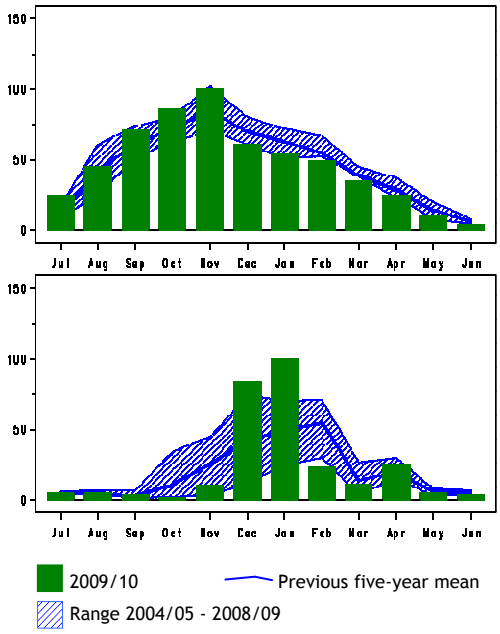


Figure 47.b, Monthly indices for Knot for GB (above) & NI (below).

The principal sub-population of Knot, which both passes through the UK on passage and remains to winter, relates to *islandica* (breeding in northeast Canada and Greenland), while *canutus* (breeding in Taimyr) largely stages on the Wadden Sea in The Netherlands and winters in West Africa having not passed through Britain (Davidson 2002).

Overall, the British trend has remained generally steady over the course of the last 25 years. Numbers of Knot in Britain are generally highest between September and December, with many moving west having stopped to moult at the Wadden Sea which supports approximately 75% of staging birds (Davidson 2002). 2009/10 was a typical year in that respect; the monthly indices illustrating a clear build-up during the autumn, culminating with a prominent peak in November. Thereafter, numbers during the main winter period were below average. This may have been at least partly attributable to a westward shift of birds to Northern Ireland where the monthly indices were well above average in December and January. However, such a movement would not account for the bulk of this apparent exodus, so one can only assume that birds left UK shores. The status and distribution of Knots in the Wadden Sea during this particular period is not yet published. However, potentially just as likely considering the cold conditions which were

experienced in the midwinter period would have been a movement west to Ireland or south to France. Typically, approximately 27,000 Knots winter in France (Stroud *et al*. 2004) and 18,970 in Ireland (Crowe *et al*. 2008) each winter.

Knot numbers reported from eastern England in late 2009 provided further evidence of the importance of both The Wash and North Norfolk Coast. November's total included a very high count of 180,572 at The Wash, a figure that has been surpassed on just one previous occasion (November 1992). A recent recovery in numbers of Knot on The Wash followed a period of steady decline and a change in overall waterbird assemblage, which arose from over-exploitation of the shellfishery stock and increased nutrient input (Atkinson *et al*. 2010). As discussed in last year's report, the monthly counts from The Wash and adjacent North Norfolk Coast indicate significant overlap in use. This is perhaps best exemplified by the November maximum from The Wash occurring at the same time as just 4,104 were logged at North Norfolk Coast. Notably, the previous two months had both seen counts of 76,000+ from North Norfolk Coast.

Knots *(Dawn Balmer)*

Among the other 11 sites of international importance, below average numbers were again reported from Thames Estuary where the maximum represents the lowest since 1985/86, and approximately one-fifth of the peak there just three years ago. It remains to be seen whether this represents a temporary blip in fortunes at this site. Notably below average numbers were also reported from Dee Estuary, Solway Estuary and Burry Inlet. In contrast, the maximum from Morecambe Bay was the most there since 2003/04.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean	
Sites of international importance in the UK								
The Wash	139,270	135,889	162,724	93,957	180,572	Nov	142,482	
Morecambe Bay	(31,245)	(19,635)	(24,544)	42,671	60,719	Dec	51,695	
North Norfolk Coast	25,551	22,928	11,239	84,812	83,003	Sep	45,507	
Thames Estuary	24,254	83,716	45,162	28,203	17,861	Feb	39,839	
Ribble Estuary	(26,106)	(41,681)	30,136	(45,400)	(25,000) [12]	Aug	39,072	
Humber Estuary	35,004	(33,529)	41,772	(17,552)	(35,595)	Jan	38,388	
Dengie Flats	15,650	30,500	17,375	10,200	(18,960)	Oct	18,537	
Dee Estuary (England & Wales)	24,505	12,937	11,212	20,850 [10]	10,465	Dec	15,994	
Alt Estuary	12,454	15,011	12,900	19,602	15,250	Oct	15,043	
Solway Estuary	(7,662)	8,910	(14,385)	(13,364)	6,006	Dec	10,065	
Strangford Lough	8,014 [10]	5,380 [10]	7,360 [10]	6,376 [10]	7,452	Dec	6,916	
Stour Estuary	6,701	3,028	6,660	4,357 [10]	7,455 [10]	Dec	5,640	
Blackwater Estuary	(5,326)	2,610	(3,492)	(8,630)	(4,032)	Jan	4,818	
Sites of national importance in Great Britain								
Burry Inlet	4,301	4,300	7,100	2,830	1,302 [10]	Feb	3,967	▼
Medway Estuary	3,574	(550)	(2,940)	4,304	(400)	Feb	3,939	
Hamford Water	3,185	3,550	2,200	4,263 [10]	(6,250)	Jan	3,890	▲
Inner Moray and Inverness Firth	5,146	2,762	2,485	5,952	3,027	Jan	3,874	
Forth Estuary	4,685	(3,542)	3,298	4,088	2,934	Nov	3,751	
Swale Estuary	4,060	4,506	5,002	3,528	1,650	Mar	3,749	
Severn Estuary	(2,642)	(966)	5,510	4,081	1,182	Jan	3,591	▼
Lindisfarne	(4,172)	1,475	(4,111)	(4,150)	(1,125)	Dec	3,477	
Orwell Estuary	3,569 [10]	(1,825)	3,552 [10]	3,357 [10]	3,421 [10]	Feb	3,475	▲
Sites of all-Ireland importance in Northern Ireland								
Dundrum Inner Bay	270	100	2,560	1,023	1,200	Jan	1,031	
Tyrella				(495)			(495)	
Lough Foyle	470	225	501	400	38	Feb	327	
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain								
Dornoch Firth	4,215	1,400	2,500	1,731	4,315	Feb	2,832	

Sanderling

Calidris alba

International threshold: 1,200
Great Britain threshold: 160
All-Ireland threshold: 65

GB max: 11,340 Oct
NI max: 492 Sep

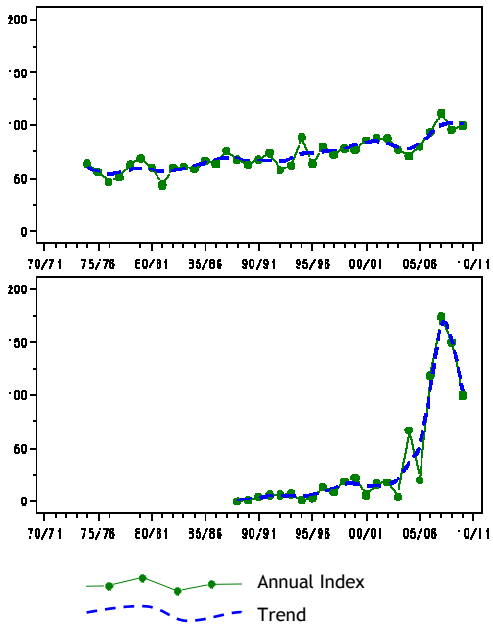


Figure 48.a, Annual indices & trend for Sanderling for GB (above) & NI (below).

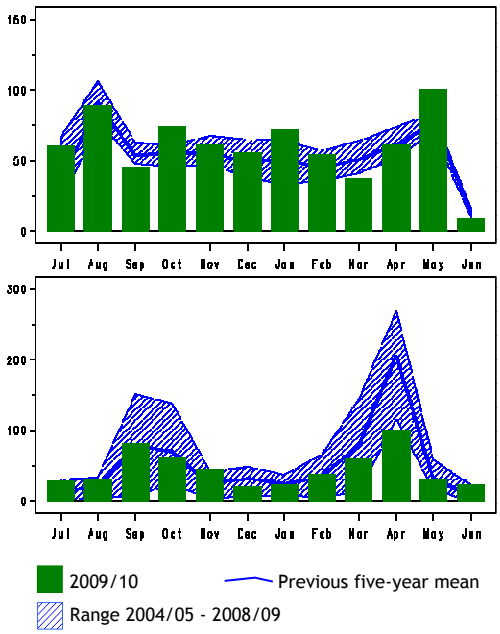


Figure 48.b, Monthly indices for Sanderling for GB (above) & NI (below).

Sanderling breed in the high Arctic and birds from both the Siberian and Greenland populations migrate south from northwest Europe utilising a network of key sites, reviewed by Reneerkens *et al.* (2009).

An increase in the number of Sanderlings in Britain has occurred at the same time as a more pronounced rise in The Netherlands (Hornman *et al.* 2011). Similarly, the index for Northern Ireland, albeit based on a relatively small number of birds, has been at a high level in five of the last six years, with Lough Foyle again supporting the largest aggregation during the year. The reasons behind these changes are not yet properly understood but are considered to be linked to a decrease in the proportion of birds using open coastlines.

Four sites again surpassed the threshold for international importance based on the use of monthly maxima from throughout the WeBS-year. The largest Core count during 2009/10 was 5,794 at The Wash in August. This is the largest number ever noted there, surpassing the previous maximum of 4,867 in May 1999. The peak total from Alt Estuary (3,629 in April) was also high compared to the total during the last five years, but short of the historical peak of 6,894 birds in August 2003. The all-time spring and autumn peaks, both from Ribble Estuary, are 8,737 in May 1992 and 9,450 in July 1972, respectively.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of international importance in the UK							
Ribble Estuary	3,491	(4,690)	4,700	(4,800)	(2,444)	Sep	4,420
The Wash	3,291	1,504	1,430	1,420	5,794	Aug	2,688
Alt Estuary	2,317	3,090	2,171	1,833	3,629	Apr	2,608
Carmarthen Bay	(800)	2,370 [10]	1,955 [10]	1,812	2,224	Jan	2,090
Sites of national importance in Great Britain							
North Norfolk Coast	1,241	973	1,200 [10]	927	1,307	Nov	1,130
Humber Estuary	(576)	(362)	(706)	(662)	(970)	Aug	(970)

	05/06	06/07	07/08	08/09	09/10	Mon	Mean	
Thames Estuary	1,072	870	689	951	587	Oct	834	
Jersey Shore		831	739				785	
Scuthvie Bay		(110)	705	810	530	Jan	682	
Dee Estuary (England & Wales)	1,020	370	762	778	280	Nov	642	
Morecambe Bay	925	332	(477)	532	624	May	603	
North Bay (South Uist)	300	318	650	780			512	
Lindisfarne	(294)	509	467	480	(433)	Oct	485	
Duddon Estuary	332	623 [12]	(450) [11]	(241)	(490)	Jan	482	
Tiree	468 [32]						468	
Solway Estuary	(524)	501	(455)	189	(450)	Oct	424	
Ardivachar Point (South Uist)	500	350	267	372			372	
Thanet Coast	307	322	431	282	499	Oct	368	
Swansea Bay	467	440 [10]	(279)	327	154	Mar	347	
Forth Estuary	290	168	(387)	(315)	404	Dec	313	
Tees Estuary	253	191	(193)	(351)	(353)	Feb	287	
Ryde Pier to Puckpool Point	305	200	310		292	Oct	277	
Severn Estuary	222	(140)	(29)	324	(45)	May	273	
South Ford	172	218	300	400			273	
Dungeness and Rye Bay	330	183 [12]	300 [12]	234	(178)	Nov	262	
Tay Estuary	635	303	103	160	102	Oct	261	
Taw-Torridge Estuary	(269)	(183)	(150)	(176)	203 [12]	Sep	236	
Chichester Harbour	109	324	245	242	210	Mar	226	
Inner Moray and Inverness Firth	193	197	243	(106)	188	Nov	205	
Pegwell Bay	41	120	110	280 [12]	386 [12]	Mar	187	▲
Durham Coast	186	(88)		(116)	(75)	Jan	186	
Don Mouth to Ythan Mouth	85	(49)	132	(150)	(361)	Apr	182	▲
Sites of all-Ireland importance in Northern Ireland								
Lough Foyle	(0)	(190)	879	925	488	Sep	764	
Bann Estuary	268	251	69	108	148	Apr	169	
Dundrum Inner Bay	5	180	200	155	0		108	
Tyrella				(73)			(73)	
Sites no longer meeting table qualifying levels in WeBS-Year 2009/2010								
South Hayling Seafront			150	180	140	Nov	157	
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain								
Loch Gruinart	91	39	108	60	326	Sep	125	
Loch Paible (North Uist)	(150)	185	25	18	302	Feb	136	
Eden Estuary	132	44	55	188 [10]	194	Oct	123	
Colne Estuary	152	100	132	114	166	Feb	133	

Little Stint

Calidris minuta

International threshold: **2,000**
Great Britain threshold: **1**†
All-Ireland threshold: **?**†

GB max: **46** **Sep**
NI max: **1** **Sep**

Little Stints breed across Siberia and west into the extremes of Scandinavia, typically wintering in the Mediterranean and Africa. The species was recorded at 30 WeBS sites in 2009/10, a very lean year. Away from England and the English/Welsh estuaries, these included single sites in Scotland and Northern Ireland.

A poor autumn passage built up to a peak of just 46 birds in September, including maxima of 11 at Severn Estuary and six at North Norfolk Coast. Numbers elsewhere related to one or twos at a scattering of coastal sites, the only inland record being two birds at Belvide Reservoir.

Typically, a very small wintering population, totalling some eight birds, was detected during Core counts in 2009/10 at four widespread sites; Camel Estuary, Dungeness & Rye Bay, Humber Estuary and Solway Estuary. In spring, singles were noted at five coastal sites in May and June.

Sites with 3 or more birds during passage periods in 2009/10†

Severn Estuary	11	Sep	Morecambe Bay	3	Sep
North Norfolk Coast	6	Sep	Humber Estuary	3	Dec
The Wash	3	Sep			

† *a qualifying level of 3 has been chosen to select sites for presentation in this report*

Temminck's Stint

Scarce

Calidris temminckii

One was at Swale Estuary in August, the second WeBS record there, following a record in October 1998.

White-rumped Sandpiper

Vagrant

Calidris fuscicollis

Native Range: America

One was at Abberton Reservoir in November; the 34th WeBS record.

Baird's Sandpiper

Vagrant

Calidris bairdii

Native Range: America

An unseasonal Baird's Sandpiper present at Barns Ness (Lothian) from November to January (*per* www.birdguides.com), was recorded during the WeBS Core count in December. It represents the 17th WeBS record, and the third in Scotland.

Pectoral Sandpiper

Vagrant

Calidris melanotos

Native Range: America, N Siberia, Australia

Pectoral Sandpipers noted at eight WeBS sites were typically all in autumn. September birds were at Dee Estuary (2), Morecambe Bay, Draycote Water, Castle Lake and Old Moor, while the following month the species featured at Camel Estuary (2), Ribble Estuary and Abberton Reservoir.

Curlew Sandpiper

Calidris ferruginea

International threshold:	**10,000**
Great Britain threshold:	**?†**
All-Ireland threshold:	**?†**

GB max:	**72**	**Sep**
NI max:	**0**	

Curlew Sandpipers are passage migrants to the UK, breeding in central Siberia with the bulk wintering in central and southern Africa. They are scarce in the UK in spring, and autumn numbers are largely dependent on the summer's breeding productivity and weather conditions during migration. The species primarily passes to the east of the UK on passage, rendering it relatively scarce; in contrast, a staging site on the German part of the Wadden Sea has, impressively, hosted up to 27,000 birds (Delany *et al*. 2009).

The species was recorded at 43 WeBS sites in Britain, with no records from Northern Ireland. The peak count of an unexceptional autumn passage was 25 at North Norfolk Coast in July, with the only other records reaching double-figures being 10 at WWT Martin Mere in August and 11 at Humber Estuary in September.

Singles were reported from three locations in eastern England during the winter; Pegwell Bay, Crouch-Roach Estuary and Hamford Water.

Noted at ten sites in April to June, the peak count of a typically light spring passage was four birds at The Wash in May.

Sites with 6 or more birds during passage periods in 2009/10†

North Norfolk Coast	25	Jul	WWT Martin Mere	10	Aug
Humber Estuary	11	Sep	Forth Estuary	6	Sep

† *as no British or All-Ireland thresholds have been set a qualifying level of 6 has been chosen to select sites for presentation in this report*

Purple Sandpiper

Calidris maritima

GB max:	**1,060**	**Jan**
NI max:	**59**	**Mar**

International threshold:	**750**
Great Britain threshold:	**130**
All-Ireland threshold:	**35***

**50 is normally used as a minimum threshold*

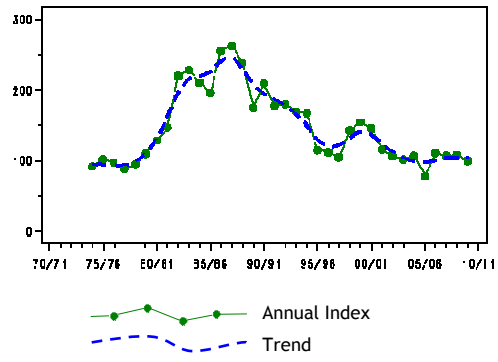


Figure 49.a, Annual indices & trend for Purple Sandpiper for GB.

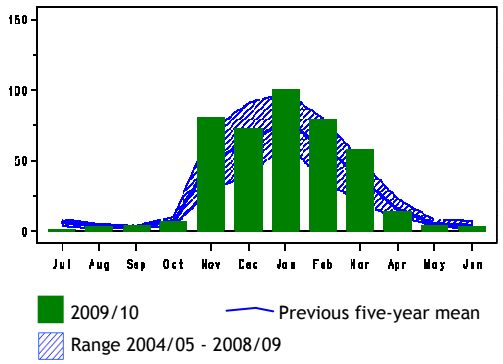


Figure 49.b, Monthly indices for Purple Sandpiper for GB.

Most Purple Sandpipers in the UK occur on the relatively poorly monitored rocky shores of Scotland. Such habitats are, of course, covered more effectively by NEWS (Non-Estuarine Waterbird Survey), last carried out in 2007 (Austin *et al.* 2008).

Following a marked decline during the 1980s and 1990s, the national indices in the most recent decade have been largely stable at their current relatively low level. There is a suggestion of a shift in winter distribution of this species in recent years, with the proportion of birds now found in the north-western parts of the UK having increased, indicating a shift towards Canadian breeding grounds (Rehfisch *et al.* 2004). The wintering population of Purple Sandpipers in the UK comprises birds which breed in eastern Canada, Scandinavia and Svalbard, while breeding birds on Iceland and much of Greenland are considered more likely to be resident.

In 2009/10, the largest Core counts were 280 on Papa Westray (Nov), 160 on Egilsay (Feb) and 147 at Forth Estuary (Jan). Away from Scotland, noteworthy numbers were present on the Northumberland coast, exemplified by peaks of 85 at Seahouses to Budle Bay (Nov) and 96 at Beadnell to Seahouses (Jan), while further south in England, 43 at Thanet Coast (Jan) was perhaps the most notable aggregation.

In Northern Ireland, numbers at Outer Ards Shoreline, the most important site for the species in the region, were lower than average; further indication of a downward trend at the site which has a historic maximum of 156 birds in February 1990.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of national importance in Great Britain							
Island of Papa Westray	431		413	324	(280)	Nov	389
Tiree	368 [32]						368
Farne Islands	116	(184)	(171)	(348)	73	Jul	178
Ardivachar Point (South Uist)	200	139	108	233			170
Moray Coast	118	67	229	199	88	Jan	140
Island of Egilsay	130	(90)		99	160	Feb	130
Sites of all-Ireland importance in Northern Ireland							
Outer Ards Shoreline	60	122	66	85	45	Nov	76
Sites no longer meeting table qualifying levels in WeBS-Year 2009/2010							
Dee Estuary (Scotland)	157	140	88	145	105	Mar	127
Scuthvie Bay		(35)	164	130	80	Mar	125
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain							
Forth Estuary	112	98	145	(114)	(147)	Jan	126

Dunlin

Calidris alpina

International threshold:	13,300
Great Britain threshold:	3,500
All-Ireland threshold:	880

GB max:	364,628	Jan
NI max:	6,508	Feb

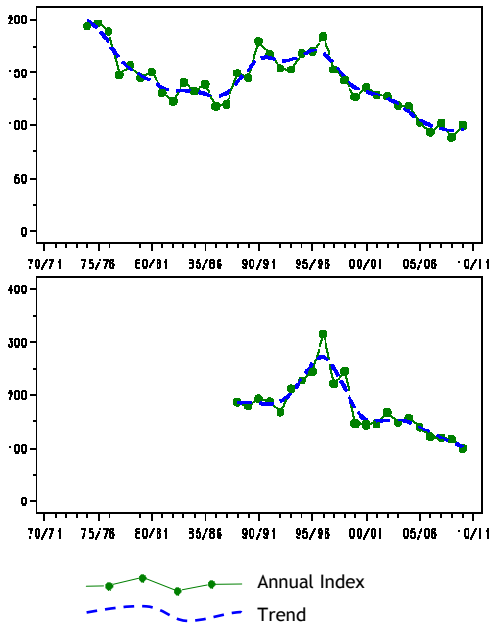


Figure 50.a, Annual indices & trend for Dunlin for GB (above) & NI (below).

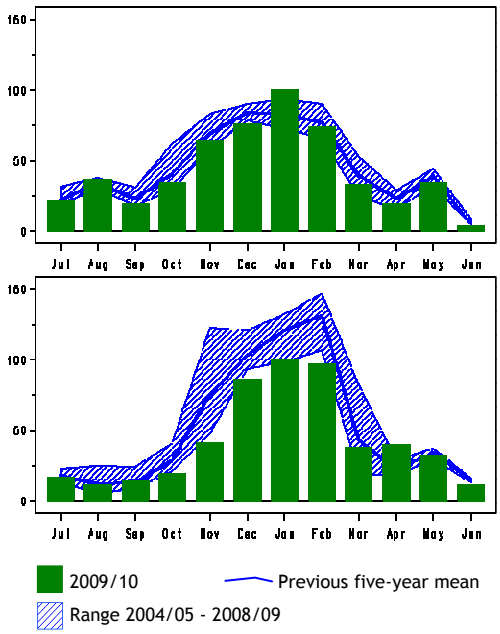


Figure 50.b, Monthly indices for Dunlin for GB (above) & NI (below).

Dunlins in Britain have been in steady decline since the mid 1990s, and the species has declined at one of the fastest rates of the regularly wintering waders. This fall has taken place at the same time as numbers have increased in The Netherlands (e.g. Hornman *et al.* 2011), suggesting that a larger proportion of birds from northern breeding populations now winter on the Wadden Sea, considered to be an effect of climate change (Maclean *et al.* 2008). This is in keeping with declines in wintering numbers of other wader species in Britain, including Bar-tailed Godwit and Curlew, which have similarly also been attributed to shifts in wintering range.

Eleven sites surpassed the threshold for international importance; the same selection as in 2008/09. In contrast to recent years, the highest individual site count this year did not relate to spring passage at Ribble Estuary, where birds of the nominate race (which breeds from Scandinavia north and westwards) are joined by the *arctica* and *schinzii* races. Indeed, the maximum at Ribble Estuary in May 2010 was the lowest annual peak there for five years. Instead, the year's highest count, related to 44,030 birds at Mersey Estuary in January, representing the most at that site since 2002/03. Other sites were generally close to recent average in terms of maxima, although the peak at Dee Estuary was the lowest reported there for over 30 years.

Dunlins *(Alan Harris)*

In light of the decline in wintering numbers of Dunlin, Musgrove *et al.* (2011) list a revised 1% threshold for national

importance of 3,500 birds, representing a decrease of 37% compared to the previous threshold figure of Rehfisch *et al*. (2003). Consequently, more sites of national importance are listed below compared to tables published in recent years. Included among the twenty sites is Alt Estuary where the total recorded in January was the most ever at the site. If the five-year average is maintained at that level, the site will surpass the threshold for international importance. Also worthy of mention is the peak at Swale Estuary, which was the most there for seven years. In contrast, the peaks at both Burry Inlet and Lindisfarne were both well below average.

In Northern Ireland, the recent trend is also one of decline. In 2009/10, peaks at individual sites were generally close to or below recent average. The maximum reported from Lough Foyle was the lowest for 25 years (following a stronger year in 2008/09).

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of international importance in the UK							
Ribble Estuary	29,305	33,506	52,551	(45,662)	28,940	May	37,993
Mersey Estuary	34,731 [10]	34,600	41,270	23,115	44,030	Jan	35,549
Thames Estuary	39,889	33,335	34,941	32,123 [10]	(23,217)	Dec	35,072
The Wash	35,468	25,913	24,523	24,444	33,181	Jul	28,706
Morecambe Bay	(27,110)	(38,248)	24,409	20,289	31,084	Jan	28,228
Severn Estuary	(19,561)	16,625	(16,072)	27,136 [10]	21,640	Jan	21,800
Humber Estuary	(26,305)	(14,951)	16,730	15,444	(15,426)	Jan	19,493
Chichester Harbour	12,989	14,152	(18,759)	26,311	17,465	Dec	17,935
Blackwater Estuary	15,178	9,581	15,015	17,966	(19,606)	Jan	15,469
Dee Estuary (England & Wales)	19,867	15,584	12,094	16,855 [10]	9,654	Feb	14,811
Langstone Harbour	22,356	12,950	15,007	8,126	9,994	Jan	13,687
Sites of national importance in Great Britain							
Stour Estuary	7,019	7,231	8,150	18,338 [10]	19,984 [10]	Nov	12,144
Dengie Flats	13,018	(7,340)	6,116	10,650	11,570	Jan	10,339
Portsmouth Harbour	(9,228)	(6,592)	(7,002)	(6,842)	(6,530)	Feb	(9,228)
Duddon Estuary	8,741 [10]	6,542	14,523	8,000 [12]	7,481	Dec	9,057
Medway Estuary	7,367	(5,222)	(9,132)	(10,633)	(3,795)	Feb	9,044
Alt Estuary	5,184	7,630	7,652	7,819	16,004	Jan	8,858
Solway Estuary	9,396	6,512	(7,194)	7,836	10,094	Jan	8,460
Swale Estuary	7,830	5,706	(7,692)	6,419	13,073	Jan	8,257
Colne Estuary	(5,323)	(3,756)	6,716 [10]	(4,970)	(4,891)	Feb	6,716
Forth Estuary	6,422	5,488	4,937	6,565	(5,357)	Dec	5,853
Breydon Water/Berney Marshes	8,072 [10]	5,755 [10]	5,310 [12]	4,720 [12]	5,108 [12]	Jan	5,793
Burry Inlet	6,965	6,218 [10]	6,903	5,703	2,412	Nov	5,640
Lindisfarne	(5,540)	6,951	(5,315)	3,755	2,108	Nov	4,734
Blyth Estuary	(1,228)	4,895	6,130	2,715	2,743	Feb	4,121
Alde Complex	2,595	3,149	5,380	4,782	4,601	Jan	4,101
Dornoch Firth	2,577	5,681	3,911	(1,050)	3,474	Jan	3,911
Crouch-Roach Estuary	(2,226)	3,684	(4,403)	2,930	(4,037)	Dec	3,764
Hamford Water	(3,534)	(3,735)	(3,340)	3,731 [10]	(2,945)	Jan	3,733
Cleddau Estuary	3,420	2,664	4,666	3,988	3,433	Jan	3,634
Exe Estuary	3,526	3,091 [10]	3,975	4,005	3,559	Jan	3,631
Sites of all-Ireland importance in Northern Ireland							
Bann Estuary	1,090	1,030	900	671	1,060	Jan	950
Belfast Lough	920	(1,712)	742	699	743	Dec	963
Carlingford Lough	1,573	(2,185)	2,621	1,552	(1,370)	Dec	1,983
Dundrum Inner Bay	1,202	1,047	1,186	1,277	1,157	Dec	1,174
Lough Foyle	3,334	1,592	2,028	3,750	1,183	Feb	2,377
Outer Ards Shoreline	1,119	2,810	739	605	425	Mar	1,140
Strangford Lough	7,669 [10]	3,151 [10]	4,115 [10]	4,455 [10]	2,514 [10]	Dec	4,381
Sites no longer meeting table qualifying levels in WeBS-Year 2009/2010							
North West Solent	2,632	2,743	2,920	5,850 [10]	3,025	Feb	3,434
Poole Harbour	(2,182)	(2,196)	(2,350)	(3,271)	(1,280)	Jan	(3,271)
Inner Moray and Inverness Firth	4,748	3,629	2,420	2,027	2,703	Jan	3,105
Lavan Sands	4,643	4,020	(2,516)	1,748	1,778	Feb	3,047
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain							
North Norfolk Coast	3,333	3,321	4,088	2,811	3,830	Jan	3,477

Broad-billed Sandpiper

Limicola falcinellus

Vagrant
Native Range: Asia

A Broad-billed Sandpiper at Tees Estuary in June is the first for WeBS since October 2003. Eight of the eleven WeBS records have been in spring.

Buff-breasted Sandpiper

Tryngites subruficollis

Vagrant
Native Range: America

Three were seen at Lough Foyle in September, the 20th WeBS record. Three of the previous WeBS records have involved duos, but never before has a group of three been seen during a Core count.

Ruff

Philomachus pugnax

International threshold:	**12,500**	
Great Britain threshold:	**8***	
All-Ireland threshold:	**+**[†]	

**50 is normally used as a minimum threshold*

GB max:	**336**	**Feb**
NI max:	**15**	**Sep**

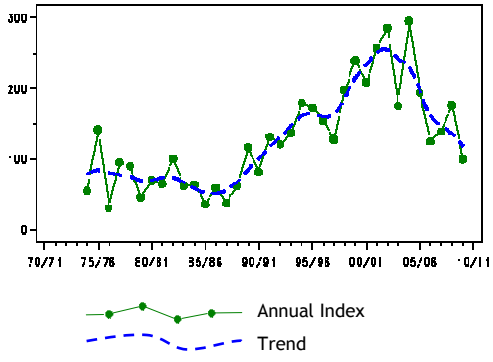


Figure 51.a, Annual indices & trend for Ruff for GB.

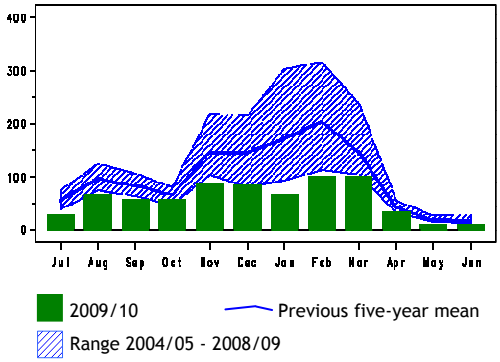


Figure 51.b, Monthly indices for Ruff for GB.

There was a drop in the national index for Ruff, and the monthly British maximum (336, Feb) was the lowest for many years. Reasons for the apparent recent decline in wintering numbers, following a marked increase during the 1990s and early 2000s, are unclear. However, the similarity with the trends for Golden Plover and Lapwing is striking, and so the trend may be habitat-related or in the case of 2009/10 in response to a period of cold weather.

Maxima at most of the important sites were below the five-year averages. The highest count on the coast was 116 at North Norfolk Coast in October while inland, where peak numbers often occur in midwinter, 78 were at Lower Derwent Ings in February. The peak count from Northern Ireland was 14 at Loughs Neagh & Beg in September.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of national importance in Great Britain							
Ouse Washes	357 [12]	82 [12]	135 [12]	115	73 [12]	Nov	152
North Norfolk Coast	193	121	90	189	116	Oct	142
Lower Derwent Ings	50	148	129	93	78	Feb	100
Humber Estuary	84	61	62	79	34	Aug	64
Overcote Marina		112 [12]		58	13	Feb	61
WWT Martin Mere	(50)	76	67	48	42	Jan	58
Breydon Water & Berney Marshes	72	55 [11]	89 [12]	20	38 [12]	Feb	55
Somerset Levels	12	29	96	48	37	Dec	44
Swale Estuary	37	49	40	14	44	Feb	37

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Nene Washes	2	4	38	76	62	Mar	36
Ribble Estuary	17	32	37	40	21	Apr	29
Dungeness and Rye Bay	56	34	16	22	14	Dec	28
Hickling Broad	0	3		55	47	Sep	26
Middle Yare Marshes	40	27	21	18	12	Dec	24
Tees Estuary	(29)	33	15	19	22	Sep	24
Abberton Reservoir	36	(9)	21	5	26	Aug	22
Fen Drayton Gravel Pits	1	33	60	8	8	Feb	22
Rutland Water	32	29	15	20	12	Oct	22
Morecambe Bay	4	92	3	2	3	Mar	21
Thames Estuary	38	3	(4)	11	22	Feb	19
Severn Estuary	16	33	14	18	9	Sep	18
Blackwater Estuary	18	10	15	18	11	Sep	14
Tophill Low Reservoirs	4	0	62 [12]	1	1	Jul	14
The Wash	14	11	(2)	12	15	Apr	13
Loch of Strathbeg	21	8	6	11	17	Aug	13
Stour Estuary	55	1	1	1	1	Sep	12
Minsmere	12	20	10	9	10	Apr	12
Nosterfield Gravel Pits	3	23	9				12
Hamford Water	18	5	14	7	12	Sep	11
Dee Estuary (England and Wales)	(10)	9	11	13	(7)	Mar	11
Sandbach Flashes	13	14	12	8	7	Oct	11
Stodmarsh	14	5	8	10	9	Aug	9
Otmoor	0	31 [12]	3 [12]	3 [12]	7 [12]	Feb	9
Cresswell Pond	6	10	2	24	1	Sep	9
Forth Estuary	(9)	14	4	6	10 [12]	Aug	9
Arun Valley	7	10	(10)	3	(9)	Feb	8
Holland Marshes	10	17	7	3	2 [12]	Sep	8
Sites no longer meeting table qualifying levels in WeBS-Year 2009/2010							
East Chevington Pools	28	6	1	0	1	May	7
Hurworth Burn Reservoir	10	0	3	17	0		6
Buckden and Stirtloe Pits				10	0		5
Crouch-Roach Estuary	4	2	6	5 [12]	2	Sep	4
Sites with mean peak counts of 8 or more birds in Northern Ireland†							
Loughs Neagh and Beg	7	34	6	0	14	Sep	12
Belfast Lough	4 [10]	1 [10]	39	2	0		9
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain							
Somersham Gravel Pit	0	0	0	0	19	Feb	4
Bolton-on-Swale Gravel Pits	0	1	2	5	12	Jan	4
Scorton Quarry	0	1	1	3	11	Oct	3

† *as no All-Ireland threshold has been set a qualifying level of eight has been chosen to select sites for presentation in this report*

Jack Snipe

Lymnocryptes minimus

International threshold: **?**
Great Britain threshold: **1,000†**
All-Ireland threshold: **250†**

GB max: **114** **Dec**
NI max: **4** **Mar**

Few reliable inferences can be drawn from analysis of each year's WeBS counts of Jack Snipe, as the species has very low detectability and favours habitats poorly covered by the survey. However, as emphasised in previous reports, standardised searches at regularly used sites can be valuable in assessing changes in status at the local level at least.

In 2009/10, Jack Snipes were recorded at 132 WeBS sites during Core counts, a very similar number to the previous year. Peak numbers were 15 at Somerset Levels (Mar), 14 at Severn Estuary (Dec) and 12 at Cathkin Marsh (Nov). Additionally, a supplementary count of 25 was received from Chat Moss, a regular site for the species. Doxey Marshes SSSI presumably also remains a favoured site for the species, despite only single-figure peaks having been reported from there since 2004/05 when 60+ were counted.

The species was seen at three sites in Northern Ireland during the winter.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites with mean peak counts of 5 or more birds in Great Britain†							
Craigmarloch		15 [12]	35				25
Chichester Harbour	18	37	21	8	10	Dec	19
Bickershaw Colliery Area	18 [19]	32 [19]	4 [19]	21 [19]			19
Windlaw Marsh	22	25	12	6	3	Oct	14
Chat Moss	14 [19]	7 [19]	6 [19]	11 [19]	25 [19]	Oct	13
Severn Estuary	19	6	12	7	14	Dec	12
Somerset Levels	(3)	9	9	9	(15)	Mar	11
Lower Derwent Ings	24	14	4	7	4	Feb	11
Rumworth Lodge Reservoir		21 [19]	1 [19]				11
Cainhoe Lakes				11	6	Feb	9
Fiddlers Ferry Power Station	16	5	5				9
Kinsham Pool	8	7	16	4	5	Jan	8
Doxey Marshes SSSI	18	9	6	6	3	Oct	8
Dee Estuary (England and Wales)	1	2	18	(8)	2	Jan	6
Cathkin Marsh				0	12	Nov	6
Inner Moray and Inverness Firth	2	7	11	2	(2)	Dec	6
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain†							
R.Avon - Ringwood to Christchurch	(1)	1	2	1	7	Feb	3
Southampton Water	(2)	1	(0)	1	7 [12]	Mar	3
Morecambe Bay	4	3	(0)	4	6	Jan	4
Malltraeth RSPB	1	0	10	2	6	Oct	4
Pegwell Bay	0	5	5	3	5 [12]	Jan	4
North Norfolk Coast	2	3	3	3	5	Nov	3
Wedholme Flow		0	0	2	5	Nov	2
Harelaw Reservoir (Barrhead)	0	0	5 [12]	0	5 [12]	Nov	2
Ugie Estuary	0			0	5	Dec	2
River Lea - East Hyde	0	0	0	0	5	Feb	1

† *as few sites exceed the British and All-Ireland thresholds, a qualifying level of five has been chosen to select sites for presentation in this report*

Snipe

Gallinago gallinago

International threshold: 20,000**
Great Britain threshold: 10,000†
All-Ireland threshold: ?†

GB max: 8,260 Dec
NI max: 239 Sep

In winter, Snipe are found in a range of habitats, both inland and coastal, and the population is considered to comprise residents as well as immigrants from northwest Europe. Because many favoured habitats are relatively poorly covered through WeBS, and there are difficulties in obtaining accurate estimates of numbers due to their secretive habits, interpretation of national figures for this species is notoriously difficult.

Snipe *(Richard Richardson)*

Musgrove et al. (2011) estimate that in the order of one million birds may be present in Britain during the winter period, while although the breeding population has experienced marked declines historically, there are indications that the number of 'drummers' may now be increasing (Baillie *et al*. 2010).

In 2009/10, the largest WeBS counts were, typically, from Lower Derwent Ings (765, Feb) and Somerset Levels (711, Dec); however, both represented decreases of over 40% compared to the respective maxima noted during the previous year. In general, counts at most of the other major sites were largely as to be expected.

The numbers reported do not indicate any obvious movements, towards the coast for example, during the spell of freezing weather in mid-winter. A count of 166 at Fleet & Wey in January, well above the

average expected from the site, was perhaps the most notable in that respect.

In Northern Ireland, the peak during the year was 204 at Loughs Neagh & Beg in September; the most ever there.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites with mean peak counts of 200 or more birds in Great Britain†							
Somerset Levels	713	1,012	1,794	1,240	711	Dec	1,094
Lower Derwent Ings	1,182	567	302	1,396	765	Feb	842
North Norfolk Coast	155	96	1,225 [10]	135	217	Jan	366
Doxey Marshes SSSI	455	224	278	495	209	Oct	332
Malltraeth RSPB	251	261	573	328	206	Nov	324
Morecambe Bay	304	140	107	378	276	Jan	241
Middle Yare Marshes	(237)	(34)	(159)	(26)	(29)	Oct	(237)
Severn Estuary	337	113	402	170	115	Nov	227
Southampton Water	210	(66)	(74)	(138)	204 [12]	Jan	207
Arun Valley	130	171	197	210	(315)	Dec	205
Sites with mean peak counts of 50 or more birds in Northern Ireland†							
Loughs Neagh and Beg	31	33	110	23	204	Sep	80
Strangford Lough	68 [10]	38 [10]	(27)	(27)	102 [10]	Jan	69
Belfast Lough	170	33	57	35	20	Sep	63
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain†							
Alde Complex	33	80	82	77	280	Dec	110
North Warren and Thorpeness Mere	58	20	32 [12]	24	256	Dec	78
Castlemartin Corse	23	50	(23)	40	250	Jan	91
Wedholme Flow		0	71	257	242	Nov	143
Chichester Harbour	219	190	140	135	(236)	Jan	184
Camel Estuary	320	103	53	(189)	(215)	Nov	176
R.Avon - Ringwood to Christchurch	(20)	(21)	46	37	210	Dec	98

† *as no sites exceed the British threshold and no All-Ireland threshold has been set, qualifying levels of 200 and 50, respectively, have been chosen to select sites for presentation in this report*

Long-billed Dowitcher

Limnodromus scolopaceus

Vagrant
Native Range: America

In north-west England, singles were present at both Morecambe Bay and Ribble Estuary in October. One at Loughs Neagh & Beg in November was then followed by records from Maer Lake, Bude in both December and January.

Woodcock

Scolopax rusticola

International threshold: 20,000**
Great Britain threshold: 14,000
All-Ireland threshold: ?

**50 is normally used as a minimum threshold*

GB max: 204 Jan
NI max: 1 Feb

Due to its secretive habits and preference for habitats not monitored by WeBS, drawing inferences from counts of Woodcock is always difficult. Musgrove *et al*. (2011) estimate the number wintering in Britain to be in the order of 1.4 million birds; 83% of which are considered to be of continental origin (Hoodless & Powell 2010).

Records were received from 147 WeBS sites in 2009/10. This is considerably more than recent years, probably as a result of the prolonged period of frozen conditions experienced in mid winter, which is likely to have forced birds into normally unused areas. A monthly maximum of 204 birds was logged in January. The majority of records were of singletons but there were several counts of more than five birds, the highest of which were all from the coast in January; 30 at Grouville Marsh (Channel Islands), 13 at Hamford Water (Essex) and 12 at Thanet Coast (Kent). Just one was reported from Northern Ireland, at Lower Lough Erne in February.

Black-tailed Godwit

Limosa limosa

International threshold:	470
Great Britain threshold:	430
All-Ireland threshold:	140

GB max:	34,977	Sep
NI max:	1,748	Sep

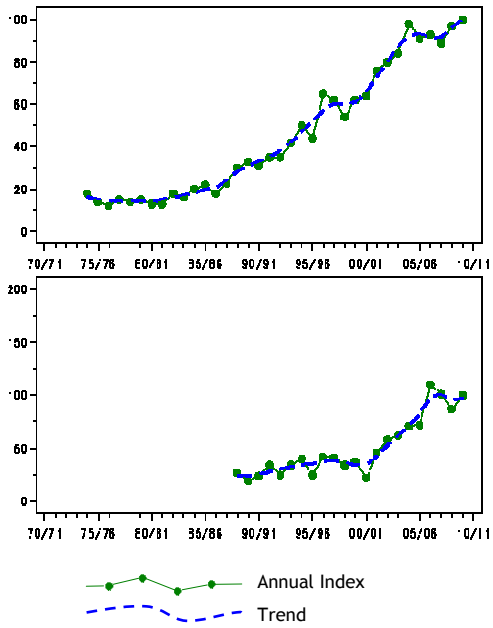


Figure 52.a, Annual indices & trend for Black-tailed Godwit for GB (above) & NI (below).

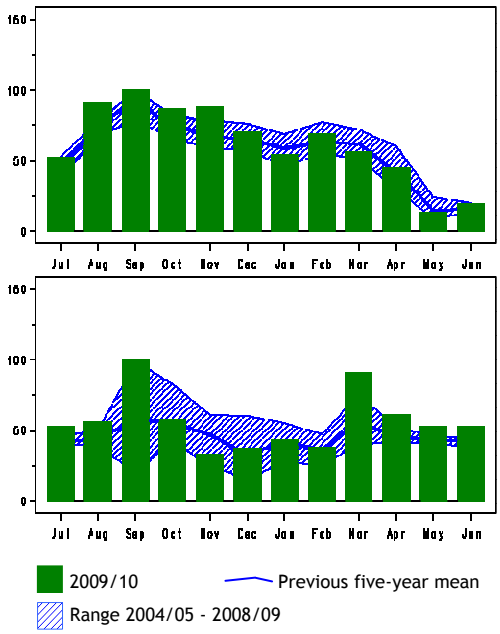


Figure 52.b, Monthly indices for Black-tailed Godwit for GB (above) & NI (below).

Most of the non-breeding Black-tailed Godwits that occur in Britain and Northern Ireland are of Icelandic origin, arriving in July and August and forming large moulting flocks at coastal sites that tend to peak in September. In addition, a small proportion of passage birds are of the nominate race which are mainly to be found in the south and east of England where a very small number breed.

After a brief period of apparent stability, the British index rose to its highest ever level in 2009/10, thereby continuing the long-term increase which this species has undergone over course of the last thirty years. This rise has occurred in line with that of the flyway population, considered partly attributable to higher productivity on the Icelandic breeding grounds and the high quality of stopover sites in Portugal (Gill *et al*. 2007, Lourenço & Piersma 2008).

Thirty-five sites surpassed the threshold of international importance in 2009/10. Peaks at most of the sites towards the top of the table below were above recent average. Notably, The Wash held over 9,600 birds in both August and November, a threshold that been surpassed only twice before (including last year). In northwest England, the maxima at Dee Estuary has only been surpassed in 2004/05, while the 5,714 at Ribble Estuary represents the most ever there, and Morecambe Bay again fared well after a record-breaking year in 2008/09.

Following the latest review of wintering waterbird populations in Britain, the 1% threshold for national importance for this species rose from 150 to 430 birds (Musgrove *et al*. 2011). As a consequence, fewer sites are listed compared to the number that readers will have become accustomed to seeing in recent years.

The trend for Northern Ireland follows a very similar trajectory to that for Britain. In 2009/10, the maximum at the main site, Strangford Lough, was the lowest for seven years, although a slight improvement compared to recent years was noted at Lough Foyle.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean	
Sites of international importance in the UK								
The Wash	8,205	8,090	(6,961)	10,839	9,925	Nov	9,265	
Thames Estuary	5,221	4,893	8,081	4,709	5,783	Aug	5,737	
Dee Estuary (England & Wales)	5,379	3,713	5,278	3,923	5,763	Oct	4,811	
Ribble Estuary	(2,921)	5,095	3,913	3,088	5,714	Nov	4,453	
Humber Estuary	3,296	5,323	4,554	3,828	3,897	Oct	4,180	
Nene Washes	156	1,120	3,800	3,530	3,500	Mar	2,421	
Poole Harbour	(1,431)	1,907	(1,413)	(2,371)	(1,926)	Nov	2,068	
Ouse Washes	4,154 [12]	1,790 [12]	761	2,067 [12]	809 [12]	Feb	1,916	
Breydon Water / Berney Marshes	1,675	1,421 [10]	2,469 [12]	2,712 [10]	1,023 [12]	Nov	1,860	
Blackwater Estuary	1,243	2,201	2,387	1,572	(1,712)	Mar	1,851	
R.Avon: Ringwood - Christchurch	1	(3,000)	2,000	650	2,530	Feb	1,636	
Swale Estuary	(1,389)	1,396	(1,186)	(1,545)	1,825	Mar	1,611	
Stour Estuary	1,507	1,215	2,148	1,939	1,214	Aug	1,605	
Mersey Estuary	2,510	420	(339)	(54)	(270)	Jul	1,465	
Morecambe Bay	747	(928)	759	1,844	1,605	Apr	1,239	
Medway Estuary	(190)	(1,120)	(490)	(603)	(384)	Jan	(1,120)	
Alde Complex	1,181	1,385	774	(840)	1,114	Oct	1,114	
Exe Estuary	1,090	999	913	943	980	Feb	985	
Belfast Lough	642	(586)	708	690 [10]	1,510	Sep	888	
Overcote Marina		850 [12]		1,400	373 [12]	Jan	874	
North Norfolk Coast	940	645	1,139	804	809	Aug	867	
Pagham Harbour	340	(764)	1,100	960	833	Feb	808	
Orwell Estuary	975	523	845 [10]	813 [10]	816	Sep	794	
R.Avon: Ford'bridge - Ringwood	0	(1,750)	888	(920)	381	Jan	788	
Chichester Harbour	(995)	685	775	613	603	Sep	734	
Crouch-Roach Estuary	(265)	(554)	754	627	764	Dec	715	
Warton Floods			600	950	570	Nov	707	
Deben Estuary	575	622	707	948	503	Apr	671	
Colne Estuary	171	800 [12]	617 [10]	500 [12]	812 [12]	Mar	580	
Langstone Harbour	665	562	674	422	574	Sep	579	
Strangford Lough	717 [10]	535 [10]	645	707	193 [10]	Dec	559	
Fen Drayton Gravel Pits	0	571	31	1,800	200	Mar	520	
Portsmouth Harbour	(494)	(398)	371	666 [10]	(30)	Nov	519	
North West Solent	474	353	469	525	640	Dec	492	▲
Hamford Water	625	372	441	521 [10]	(440)	Feb	490	▲
Sites of national importance in Great Britain								
Southampton Water	489	295	(374)	(490)	514	Aug	447	▲
Sites no longer meeting table qualifying levels in WeBS-Year 2009/2010								
Burry Inlet	994	300 [10]	40	200 [10]	343	Oct	375	
Lough Foyle	397	60	52	25	113	Oct	129	
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain								
Abberton Reservoir	74	2	3	2	493	Nov	115	
Forth Estuary	380	348	280	601	473	Sep	416	

Black-tailed Godwits *(Jill Pakenham)*

The ratio of Bar-tailed to Black-tailed Godwits in Britain has fallen from 4:1 to less than 1:1 in a decade (Musgrove *et al.* 2011).

Bar-tailed Godwit

Limosa lapponica

GB max:	42,984	Feb
NI max:	1,879	Mar

International threshold:	1,200
Great Britain threshold:	380
All-Ireland threshold:	160

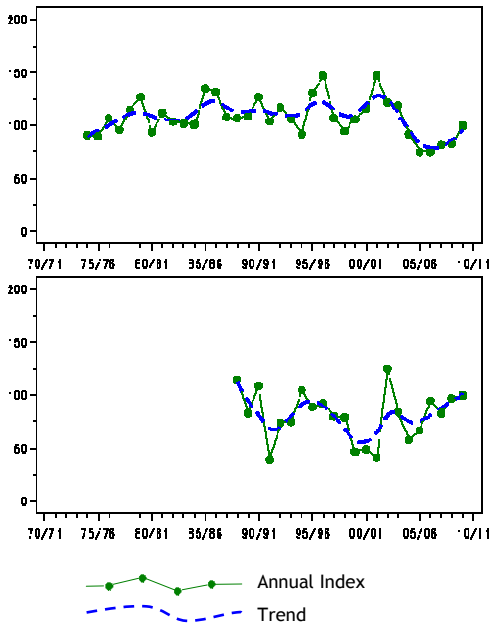


Figure 53.a, Annual indices & trend for Bar-tailed Godwit for GB (above) & NI (below).

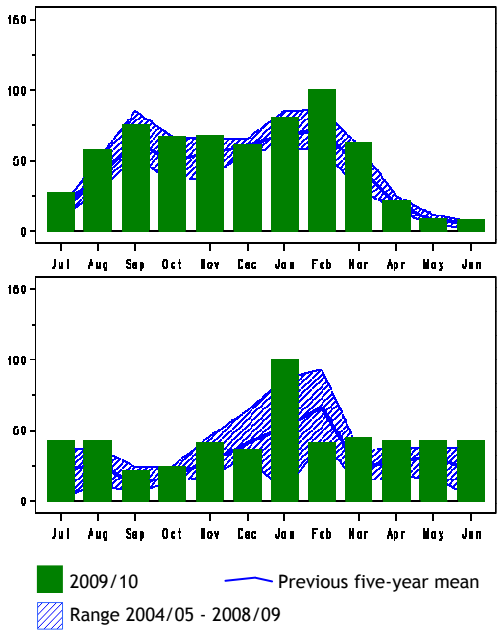


Figure 53.b, Monthly indices for Bar-tailed Godwit for GB (above) & NI (below).

Bar-tailed Godwits seen in Britain during winter are of the nominate race *lapponica* whose breeding range extends from northeast Europe to western Siberia. Many passage birds (at least in spring) are of the central Siberian race *taymyrensis*; regularly seen passing the south coast of England in April and May.

Bar-tailed Godwits *(Al Downie)*

In 2009/10, the national index rose in comparison to the preceding four years. It remains to be seen whether this represents an increase that will be maintained over the longer term, the British trend for this species over the last 15 years has typically been characterised by peaks and troughs. This pattern has contrasted with the steady rise in numbers in the Netherlands (Hornman *et al.* 2011), indicative of an eastward shift of the wintering population in western Europe (Maclean *et al.* 2008).

The monthly indices indicate above average numbers present in mid winter, during January and February; it is unknown the extent to which this may have represented a response to cold weather on the continent. The February count from The Wash is the highest ever monthly WeBS count for a site since the 21,086 there in August 2003 (surpassed only by the all-time maximum of 23,751 in March 2002). Following Alt Estuary's impressive showing in 2008/09, the peak there returned to near average in 2009/10.

Among the nine other sites surpassing the threshold for international importance, peaks were also generally close to or slightly above average. Encouragingly, the maxima at North Norfolk Coast and Thames Estuary represent the highest at those sites for six and three years, respectively.

In Northern Ireland, the annual index was at the same level as the previous year and the maximum at the principal site, Strangford Lough, was also close to recent average.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of international importance in the UK							
The Wash	(9,849)	11,900	10,755	15,381	15,490	Feb	13,382
Thames Estuary	6,613	8,629	3,711	3,804	7,903	Feb	6,132
Humber Estuary	(2,227)	(1,871)	(1,490)	(5,926)	(2,020)	Mar	(5,926)
Alt Estuary	4,221	4,100	2,939	8,171	5,265	Oct	4,939
Ribble Estuary	(3,510)	4,628	(5,162)	2,762	3,419 [10]	Feb	3,993
North Norfolk Coast	3,273	2,990	1,783	1,382	5,010	Mar	2,888
Dengie Flats	1,550	1,062	(1,500)	4,170	2,910	Jan	2,423
Lough Foyle	(1,133)	(2,672)	2,300	2,789	1,501	Mar	2,316
Lindisfarne	1,787 [10]	2,535	(2,170)	2,333	(1,398)	Oct	2,218
Morecambe Bay	(2,158)	(2,157)	(417)	(1,331)	(2,164)	Nov	(2,164)
Forth Estuary	1,188	1,502	921	1,270	(1,293)	Nov	1,235
Sites of national importance in Great Britain							
Hamford Water	(657)	(1,239)	1,255	655	(622)	Mar	1,050
Dee Estuary (England and Wales)	328	187	215	4,213 [10]	65	Oct	1,002
Chichester Harbour	(1,200)	630	(1,228)	802	1,006	Feb	973
Cromarty Firth	651	803	(707)	717	1,549	Feb	930
Swale Estuary	481	585	750	842	1,806	Mar	893
Tay Estuary	1,050	1,002 [10]	(1,000)	482	815	Oct	870
Dornoch Firth	1,681	541	301	871	749	Feb	829
Solway Estuary	958	529	473	(860)	952	Jan	754
Eden Estuary	(470)	555	605	682	(348)	Nov	614
South Ford	422	782	454	574			558
Inner Moray and Inverness Firth	770	785	390	311	464	Jan	544
Sites of all-Ireland importance in Northern Ireland							
Strangford Lough	(1,378)	529	(1,305)	969 [10]	1,158	Jan	1,068
Sites no longer meeting table qualifying levels in WeBS-Year 2009/2010							
Belfast Lough	139	(159)	212	167	43	Mar	144
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain							
Stour Estuary	186	259	212	500	425	Jan	316
Loch Gruinart	450	209	258	314	404	Feb	327

Whimbrel

Numenius phaeopus

International threshold: **6,800**
Great Britain threshold: **1+**†
All-Ireland threshold: **+**†

GB max: **1,182** **Apr**
NI max: **51** **Apr**

The majority of Whimbrels seen in Britain are en route to and from breeding sites in Iceland, Scandinavia and western Siberia, and the main wintering areas in west Africa. In 2009/10, the species was recorded at 139 WeBS sites across the UK, including five in Northern Ireland.

In spring, the short period of passage generally peaks in late April and early May. Being outside the mid-month Core count priority dates, this tends to result in the species being relatively poorly monitored by WeBS. Therefore, further supplementary counts for use in the table below are welcomed. Spring passage of Whimbrels tends to have a more westerly distribution than autumn passage (Grant 2002). This is illustrated by the site maxima listed in the table; a highest Core count in spring of 226 at Severn Estuary in April, while east coast peaks at The Wash and North Norfolk Coast were both noted in July.

A very small number of individuals winter on favoured British estuaries. In 2009/10, twelve sites held birds during the December to February period, involving approximately 25 birds. None were seen during the winter in Northern Ireland.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites with mean peak counts of 50 or more birds in Great Britain†							
Barnacre Res. & Grizedale Lea	270 [37]	477 [11]	417 [11]	372 [11]	529 [11]	May	413
Brockholes Quarry	154 [37]	210 [11]	304 [11]	246 [11]	290 [11]	Apr	241
The Wash	292	233	324	151	150	Jul	230
Severn Estuary	101	(186)	(85)	331 [12]	226	Apr	219
Dungeness and Rye Bay	222 [11]	246 [11]	287 [11]	23	28	Apr	161
North Norfolk Coast	129	70	257	123	97	Jul	135
Burry Inlet	111	223	40	94	108	May	115
Chichester Harbour	78	31	209	83	132	Jul	107
Taw-Torridge Estuary	(89)	(42)	(17)	93	(76)	Apr	93
Ribble Estuary	0	9	7	58	390 [11]	Apr	93
Morecambe Bay	60	(53)	(17)	103	76	Apr	80
Langstone Harbour	96	58	84	73	58	Jul	74
Pegwell Bay	27	76	19	51	191 [12]	Apr	73
Exe Estuary	(48)	109	60	51	33	Jul	63
Southampton Water	63	(27)	(7)	(46)	(21)	Jul	63
Humber Estuary	107	78	36	57	24	Aug	60
Solway Estuary	(7)	(46)	(4)	(22)	(52)	May	(52)
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain†							
Breydon Water & Berney Marshes	59	40 [12]	2	1	116 [12]	Apr	44
Tamar Complex	46	(29)	17	33	59	Apr	39

† *as all sites exceed the British or All-Ireland winter threshold (1), a qualifying level of 50 has been chosen to select sites for presentation in this report*

Curlew

Numenius arquata

International threshold: 8,500
Great Britain threshold: 1,400
All-Ireland threshold: 550

GB max: 84,531 Sep
NI max: 4,640 Nov

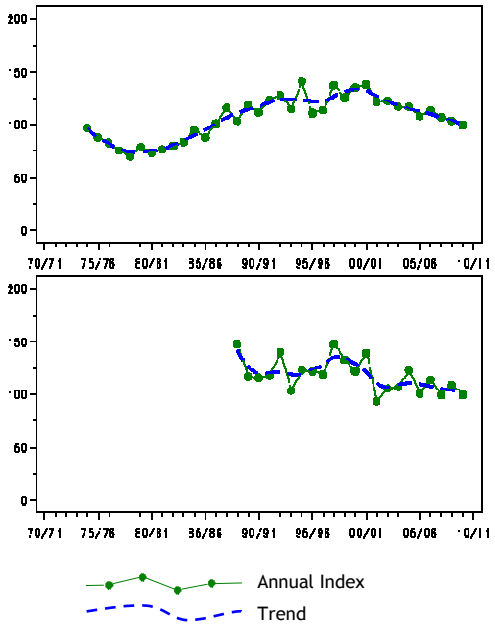


Figure 54.a, Annual indices & trend for Curlew for GB (above) & NI (below).

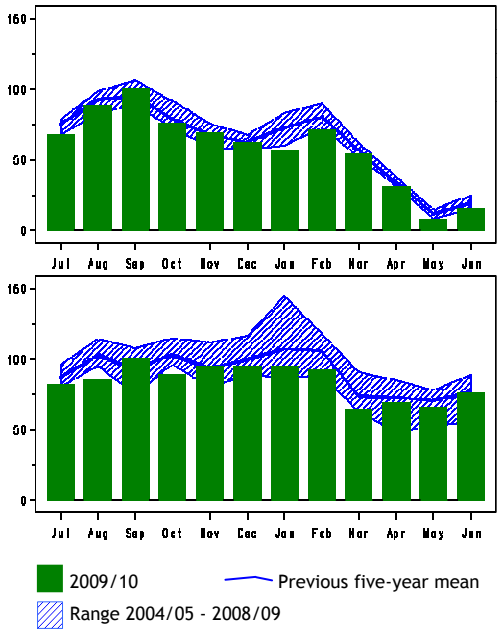


Figure 54.b, Monthly indices for Curlew for GB (above) & NI (below).

The wintering population of Curlews in UK comprises both British and Scandinavian breeding birds. The WeBS trend for Britain indicates that numbers of wintering Curlew increased from the mid 1970s until the start of the 2000s, since when the trend has been

one of a steady decline. This fall is likely to be associated with a decline in the UK breeding population (Baillie et al. 2010) and with a shift in wintering distribution (Maclean *et al*. 2008). The latter is supported by the situation in The Netherlands where numbers in the winter are continuing to increase steadily, both on the Wadden Sea and in the wider Dutch countryside (Hornman *et al*. 2011).

Following the second highest count of Curlews ever at the site, The Wash regained its status as a site of international importance for the species, joining Morecambe Bay as one of the two sites which surpass the threshold in the UK. The all-time record count of Curlews relates to 22,300 at Morecambe Bay in August 1973; as speculated in last year's report, it is doubtful if the magnitude of which will be seen again in the UK assuming a continuation of the current downward trend. Counts at most of the other major sites were either similar to recent years, or below average such as Dee Estuary, Humber Estuary, Forth Estuary and Solway Estuary all of which held their lowest peaks for at least five years.

The trend for Northern Ireland suggests a continuation of the slow decline of recent years. At the two principal sites, numbers at Strangford Lough were the highest since 2000/01, whereas the peak at Lough Foyle was the lowest since 2001/02.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean	
Sites of international importance in the UK								
Morecambe Bay	9,515	(14,027)	11,530	13,136	11,167	Sep	11,875	
The Wash	5,140	9,710	7,664	7,548	12,811	Sep	8,575	▲
Sites of national importance in Great Britain								
Thames Estuary	(3,611)	6,993	3,722	4,130	4,603	Aug	4,862	
Dee Estuary (England and Wales)	4,666	5,565	5,346	3,608	3,590	Aug	4,555	
Humber Estuary	(4,818)	5,180	3,993	(3,099)	2,966	Mar	4,239	
Forth Estuary	3,599	4,567	3,568	4,023	2,939	Oct	3,739	
Solway Estuary	(3,456)	4,007	(3,185)	(2,691)	2,698	Sep	3,387	
Severn Estuary	2,514	(3,230)	(2,560)	3,396	3,731	Sep	3,218	
North Norfolk Coast	2,284	2,190	2,884	2,318	2,293	Aug	2,394	
Duddon Estuary	1,816	2,113	2,145	(2,315)	1,716	Dec	2,021	
Lavan Sands	1,955	3,243	1,091	1,839	1,878	Oct	2,001	
Lindisfarne	1,548	(1,174)	(1,441)	(1,260)	(2,102)	Nov	1,825	
Inner Moray and Inverness Firth	1,838	(1,939)	1,687	1,840	1,702	Oct	1,801	
Chichester Harbour	1,889	2,052	1,760	1,481	1,763	Jan	1,789	
Inner Firth of Clyde	1,417	2,017	1,673	1,716	1,845	Sep	1,734	
Burry Inlet	2,587	1,413	1,370	1,689	1,488	Sep	1,709	
Cleddau Estuary	1,246	(1,869)	1,832	1,428	1,682	Jul	1,611	
Ribble Estuary	1,189	1,497	1,419	(1,308)	1,926	Sep	1,508	▲
Blackwater Estuary	1,914	1,296	(1,267)	1,481	1,249	Aug	1,485	
Montrose Basin	1,536	1,115	1,734	1,822	1,094	Sep	1,460	▲
Swale Estuary	1,118	(1,516)	1,357	(1,433)	1,808	Jan	1,446	▲
Langstone Harbour	1,811	1,343	1,279	1,228	1,469	Aug	1,426	
Sites of all-Ireland importance in Northern Ireland								
Lough Foyle	2,038	2,681	2,510	2,588	1,834	Nov	2,330	
Strangford Lough	1,523	1,918 [10]	1,552	1,571	2,040	Dec	1,721	
Belfast Lough	494 [10]	779 [10]	821	567	824	Jan	697	
Carlingford Lough	576	754	(759)	470	(106)	Jan	640	
Sites no longer meeting table qualifying levels in WeBS-Year 2009/2010								
Stour Estuary	1,171	1,424	1,669	1,231 [10]	1,480	Sep	1,395	
Mersey Estuary	1,792	1,379	(982)	1,038	1,051	Sep	1,315	
Poole Harbour	(1,013)	(1,135)	(908)	(866)	(549)	Nov	(1,135)	
Outer Ards Shoreline	632	519	238	601	721	Mar	542	
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain								
Dengie Flats	546	(621)	357	517	(2,076)	Sep	823	
Exe Estuary	1,302	1,129	1,285	1,143	1,508	Oct	1,273	
Stour Estuary	1,171	1,424	1,669	1,231 [10]	1,480	Sep	1,395	
Cromarty Firth	1,374	1,373	1,318	1,147	1,447	Oct	1,332	
Other sites surpassing table qualifying levels in Winter 2009/2010 in Northern Ireland								
Outer Ards Shoreline	632	519	238	601	721	Mar	542	

Common Sandpiper

Actitis hypoleucos

International threshold: **17,500**
Great Britain threshold: **1**†
All-Ireland threshold: **?**†

GB max: **872** **Jul**
NI max: **16** **Jul**

Away from upland breeding areas, Common Sandpipers are seen at a range of wetland habitats throughout Britain on migration, with the bulk of autumn passage taking place in July and August. Pegwell Bay again hosted the peak count of the year, 84 in August, albeit slightly lower than the current five-year mean for the site of 103 birds. Elsewhere, highest numbers were seen at locations which regularly attract high numbers, an exception being Chew Valley Lake where an August count of 31 birds is the most ever there.

A small number of Common Sandpipers over-winter in Britain. Musgrove *et al.* (2011) estimate the total to be over 70 birds, the majority typically being singles at coastal sites, primarily in the south. In 2009/10, during the mid-winter period of December to February the species was seen at 35 WeBS sites, including a peak of four birds at Severn Estuary in December. The only site to feature during this period which is a significant distance away from the coast was Staines Reservoirs, where two were seen in December. In Northern Ireland, one was at Loughs Neagh & Beg in January, the second year in succession that the species has wintered there.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites with mean peak counts of 30 or more birds in Great Britain†							
Pegwell Bay	39	163 [10]	106	122	84	Aug	103
Thames Estuary	(8)	50	41	(15)	(14)	Aug	46
Humber Estuary	(7)	(14)	46	(19)	(12)	Aug	46
Dungeness and Rye Bay	49	37	30	72	35	Aug	45
Severn Estuary	(11)	(12)	(20)	(40)	42	Aug	42
Morecambe Bay	32	48	(38)	21	48	Jul	37
Swale Estuary	36 [10]	(15)	(8)	(13)	(10)	Aug	36
Other sites surpassing table qualifying levels in Summer 2009 in Great Britain†							
The Wash	23	22	10	(26)	33	Jul	23
Chew Valley Lake	9	5	3	8	31	Aug	11

† *as all sites exceed the British winter threshold (1) and All-Ireland threshold has been set, a qualifying level of 30 has been chosen to select sites for presentation in this report*

Spotted Sandpiper

Actitis macularius

Vagrant
Native Range: America

Four Spotted Sandpipers were recorded during WeBS Core counts in 2009/10, at Abberton Reservoir (Nov), Endrick Water (Nov-Dec), Tamar Complex (Feb) and Forth Estuary (May). The latter is only the second ever WeBS record in May.

Green Sandpiper

Tringa ochropus

International threshold: **17,000**
Great Britain threshold: **9**†
All-Ireland threshold: **?**†

GB max: **599** **Aug**
NI max: **0**

Green Sandpipers were recorded during Core counts at 299 WeBS sites in 2009/10, but as in the previous year there were none in Northern Ireland. Widely distributed, particularly across England, during the autumn passage period, the monthly maximum typically fell in August when a high total of 599 birds were logged. The peak count of 43 at North Norfolk Coast represents the highest WeBS count there since 49 in August 1995. The historical maximum WeBS count of this species is 82 at Thames Estuary in August 1973.

During the period of November to February, when sites with at least some flowing freshwater (such as streams and

watercress beds) tend to be favoured, the species was noted at 154 WeBS sites. Typifying recent years, the two top sites for wintering Green Sandpipers were River Avon (Salisbury to Fordingbridge) and Beddington Sewage Farm, where maxima of ten and 11 birds, respectively, were noted during the winter. Elsewhere, notable winter counts included nine at Medway Estuary and eight at both Chew Valley Lake and River Cam, Kingfishers Bridge. Away from England, counts of more than one winterer were received from four sites in Wales and just one in Scotland.

Sites with 20 or more birds during passage periods in 2009/10[†]

North Norfolk Coast	43	Aug	Crouch-Roach Estuary	24	Aug
Blackwater Estuary	28	Aug	Thames Estuary	22	Aug
Beddington Sewage Farm	25	Aug	Rutland Water	20	Aug

[†] *a qualifying level of 20 has been chosen to select sites for presentation in this report*

Spotted Redshank

Tringa erythropus

International threshold: **900**
Great Britain threshold: **1**[†]
All-Ireland threshold: **+**[†]

GB max: **135** **Oct**
NI max: **0**

Spotted Redshank breed from Scandinavia through sub-arctic Russia, most wintering in equatorial Africa, with a small proportion remaining in western Europe. In general, very little is known about population trends in the species, although breeding populations appear to be stable (Delany *et al*. 2009).

In 2009/10 in the UK, typically the majority were recorded in autumn and winter, with a smaller number in spring. Overall, numbers during the course of the year were disappointing and the year was one of the poorest on record. The 67 WeBS sites where the species was recorded is also a drop compared to recent years.

The British peak monthly count was 135 birds in October, just slightly higher than the maximum noted in the previous year. The peak site count was 28 at The Wash in August which is the lowest ever site maximum during the course of a WeBS-year. However, away from the sites listed below, October peaks at Beaulieu Estuary (14) and Swale Estuary (20) represent the highest counts of the species at those sites for several years, although both fall some way short of the respective historic peaks; 150 at Swale Estuary (Aug 1988) and 65 at Beaulieu Estuary (Oct 1971).

Spotted Redshank *(John Harding)*

During the core winter period, the largest counts were eight at both North West Solent (Jan) and North Norfolk Coast (Feb). There were no records from Northern Ireland during the year.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites with mean peak counts of 10 or more birds in Great Britain[†]							
The Wash	39	86	40	48	28	Aug	48
North Norfolk Coast	35	42	29	26	18	Sep	30
Blackwater Estuary	24	8	32	26	9	Aug	20
Minsmere	14	3	6	47	23	Jul	19
Abberton Reservoir	26	(0)	14	4	23	Oct	17
Humber Estuary	10	25	13	13	25	Sep	17
Dee Estuary (England and Wales)	8	14	12	14 [10]	11	Apr	12
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain[†]							
Swale Estuary	(4)	6	1	(3)	20	Oct	9
Beaulieu Estuary	8	10	0	(1)	14	Oct	8

[†] *a qualifying level of 10 has been chosen to select sites for presentation in this report*

Greenshank

Tringa nebularia

GB max:	**1,594**	**Aug**
NI max:	**155**	**Oct**

International threshold:	**2,300**
Great Britain threshold:	**6***
All-Ireland threshold:	**20***

**50 is normally used as a minimum threshold*

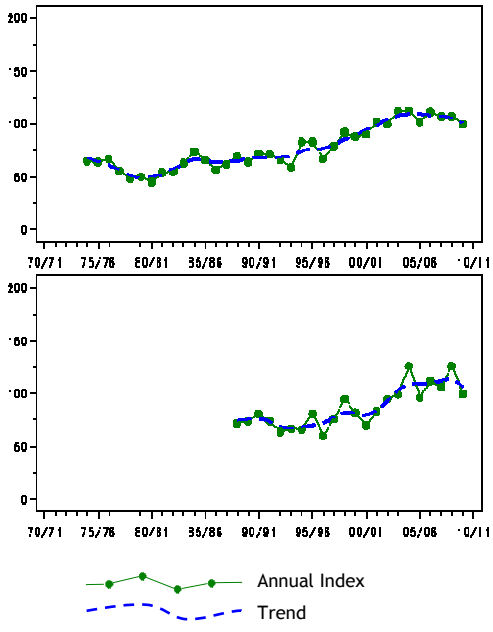


Figure 55.a, Annual indices & trend for Greenshank for GB (above) & NI (below).

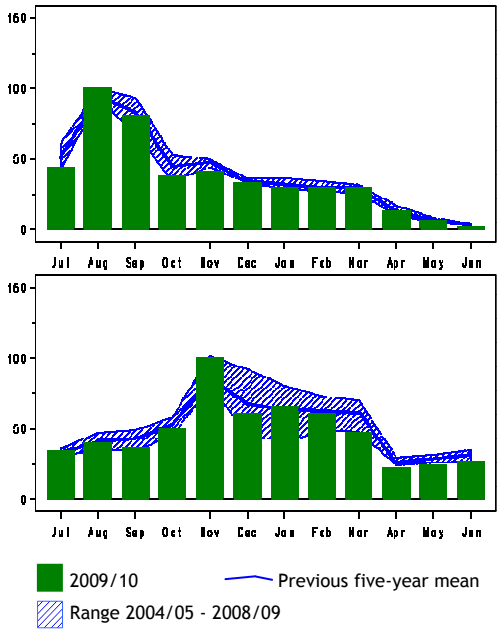


Figure 55.b, Monthly indices for Greenshank for GB (above) & NI (below).

Greenshanks were recorded during Core counts at 232 WeBS sites in 2009/10. Numbers at most of the major sites were close to average, with typically the peak counts noted during autumn when birds migrate from their breeding grounds in northern Europe (including some sites in Scotland) to wintering areas in southwest Europe, and north and west Africa.

Following the high count at The Wash in 2008/09, the maximum this year (173 in August) represents the lowest autumn peak at the site since 1993/94. Elsewhere, noteworthy counts were received from Camel Estuary (48, the highest since 1969/70), Montrose Basin (73, equalling the peak from 2002/03) and Eden Estuary (30, the most ever there).

Having steadily increased over three decades, probably at least partly as a result of milder climatic conditions (Austin & Rehfisch 2005, Maclean *et al.* 2008), the number over-wintering in Britain appears to have now stabilised. The highest counts during the December to February period were 19 at both Chichester Harbour and Eden Estuary. In Northern Ireland, the trend also appears relatively stable following a shallow increase during the 1990s and early 2000s. Maxima in 2009/10 were 95 at Strangford Lough in December and 48 at Lough Foyle in February.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites with mean peak counts of 20 or more birds in Great Britain†							
The Wash	258	201	252	301	173	Aug	237
Thames Estuary	144	196	132	130	129	Aug	146
Blackwater Estuary	(84)	(73)	(119)	(86)	(59)	Aug	(119)
North Norfolk Coast	147	118	87	71	118	Sep	108
Stour Estuary	78	106	103	110	84	Aug	96
Chichester Harbour	91	132	77	82	88	Sep	94
Hamford Water	104	79	86	31	8	Oct	62

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Fal Complex	58	59	66	52	67	Sep	60
Medway Estuary	(4)	(10)	(9)	(4)	(50)	Jul	(50)
Exe Estuary	38	71	41	34	61	Sep	49
Pegwell Bay	36	42 [12]	40	64 [13]	50	Aug	46
Morecambe Bay	33	59	(28)	44	38	Sep	46
Dee Estuary (England & Wales)	(16)	32	50	67	31	Aug	45
Humber Estuary	33	21	(47)	(52)	(54)	Sep	41
Langstone Harbour	38	51	37	26	26	Sep	36
Cleddau Estuary	42 [11]	25	25	39	40	Oct	34
Montrose Basin	5	19	(19)	36	73	Aug	33
Tamar Complex	36	29	32	31	34	Oct	32
Kingsbridge Estuary	35	27	45	48	5	Aug	32
Taw-Torridge Estuary	29	22	34	39	38	Aug	32
North West Solent	(17)	29	31	24	30	Sep	29
Jersey Shore		26	28				27
Camel Estuary	(21)	(20)	16	19	48	Sep	26
Poole Harbour	(9)	(19)	(24)	(11)	(13)	Sep	(24)
Swale Estuary	(55)	(15)	(7)	9	12	Oct	23
Crouch-Roach Estuary	(2)	(15)	32	9 [12]	20	Aug	20
Sites of all-Ireland importance in Northern Ireland							
Strangford Lough	84	85	65	95	70	Nov	80
Lough Foyle	74	34	65	48	47	Oct	54
Carlingford Lough	39	40	66	(17)	(14)	Oct	48
Dundrum Inner Bay	22	24	20	28	26	Aug	24
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain†							
Eden Estuary	9	7	10	19	30	Sep	15
Kentra Bay	25	10	18	16	(25)	Nov	19
Breydon Water and Berney Marshes	16	8	10	3	25 [12]	Apr	12
Queens Valley Reservoir			0	16	23	Sep	13
Dungeness and Rye Bay	18	13	10	15	21	Aug	15
Abberton Reservoir	18	(13)	24	14	20	Aug	19

† *as many sites exceed the British winter threshold a qualifying level of 20 has been used to select sites for presentation in this report*

Lesser Yellowlegs

Tringa flavipes

Vagrant
Native Range: America

One was at Aberlady Bay (Forth Estuary) from August through to December. The long stay recalls recent wintering birds in Fife in 2007/08 and Norfolk in 2004/05.

Wood Sandpiper

Tringa glareola

International threshold: 10,500
Great Britain threshold: +†
All-Ireland threshold: +†

GB max: 19 Aug
NI max: 0

During the course of 2009/10, Wood Sandpipers were seen at 23 WeBS sites. Autumn records, which tend to be highly dependent on Core count dates coinciding with fluxes of autumn passage, involved birds at seven sites in July, 11 in August and four in September. All sites held singles with the exception of five at Severn Estuary, three at The Wash, and two at North Norfolk Coast – all in August. A fair spring passage produced records in April to June from eight sites, including four at North Norfolk Coast and three at Tees Estuary in May.

Sites with 3 or more birds during passage periods in 2009/10†

Severn Estuary	5	Aug	The Wash	3	Aug
North Norfolk Coast	4	May	Tees Estuary	3	May

† *as no British or All-Ireland thresholds have been set, a qualifying level of 3 has been chosen to select sites for presentation in this report*

Redshank

Tringa totanus

International threshold:	2,800	
Great Britain threshold:	1,200	
All-Ireland threshold:	310	

GB max:	84,151	Oct
NI max:	8,858	Oct

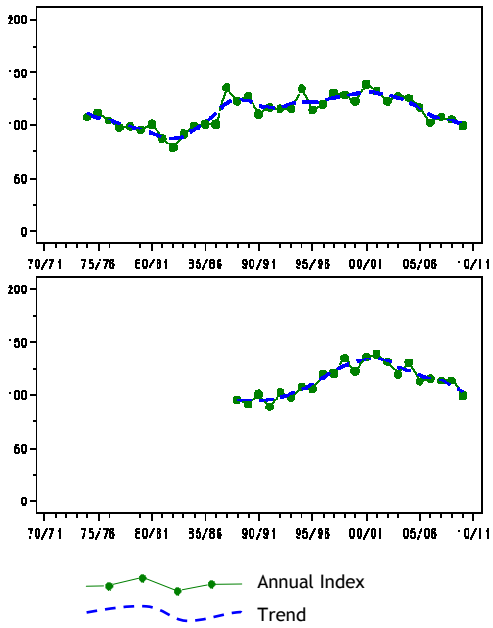


Figure 56.a, Annual indices & trend for Redshank for GB (above) & NI (below).

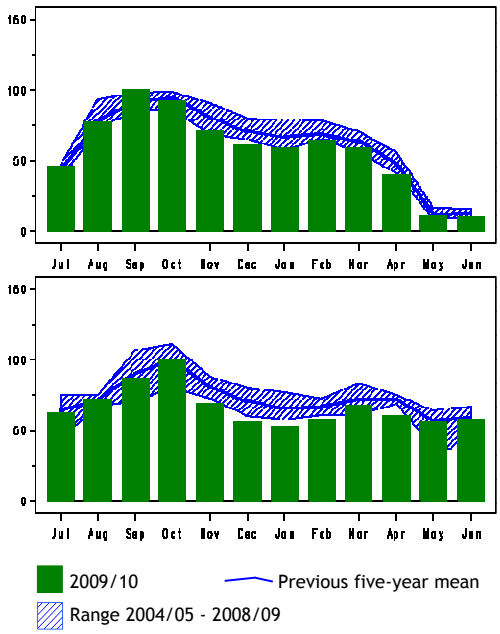


Figure 56.b, Monthly indices for Redshank for GB (above) & NI (below).

Predominantly found on the coast in the UK, the non-breeding population of Redshanks is considered to comprise local breeders and birds from Iceland and nearby European populations. The downward trends over the last decade, in both Britain and Northern Ireland, continue. In Britain, the species is now approaching the same status as the early 1980s when at an historical low.

Thirteen WeBS sites currently surpass the threshold for international importance. A further 21 WeBS sites are of national importance, following the revised threshold of Musgrove *et al.* (2011). Peaks at most of these sites were close to the respective five-year means, the notable exception being The Wash where numbers were considerably higher than normal in August and September, peaking at a record 11,017 in the latter month. Typically monthly maxima at many of the sites of international importance were in the autumn period of September to October, although more sites than usual also held respective highs in mid winter.

In general, sites in north-west Britain (e.g. Dee Estuary, Morecambe Bay and Ribble Estuary) appear to have experienced a reasonably good year in terms of peak numbers, whereas those in the south-east (e.g. Thames Estuary and Alde Complex) fared relatively poorly. This would appear to add weight to the results of Maclean *et al.* (2008) who demonstrated a north-westerly shift in core wintering range of Redshanks, indicative of short-stopping in the direction of Icelandic breeding grounds.

Scrutiny of the monthly indices show that numbers in the autumn period of August to October were close to average, but in general wintering totals during November to February were, for the second year in a row, markedly down compared to normal. This is also suggestive of a geographical shift in wintering distribution, but perhaps in more of an easterly direction; Redshanks in The Netherlands having slowly increased since the mid 1990s (Hornman *et al.* 2011).

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of international importance in the UK							
Dee Estuary (England/Wales)	12,367	9,384	12,994	9,576 [10]	11,235	Sep	11,111
Morecambe Bay	7,283	(8,254)	(5,802)	10,302	8,814	Sep	8,800
The Wash	6,052	5,605	4,407	5,367	11,017	Sep	6,490
Forth Estuary	6,039	4,689	4,374	5,141	4,244	Oct	4,897
Humber Estuary	4,682	3,886	(4,059)	4,716	(2,687)	Sep	4,428
Strangford Lough	4,099	3,632	4,028	4,969	4,488	Oct	4,243
Thames Estuary	4,811	4,134	3,512	4,243	3,701	Jan	4,080
Solway Estuary	(1,595)	(1,822)	(3,213)	(2,739)	3,918	Oct	3,918
Ribble Estuary	4,078	1,491	3,559	3,414	4,339	Oct	3,376
Blackwater Estuary	(2,472)	2,514	(3,586)	3,752	(1,926)	Nov	3,284
Alde Complex	1,608	1,673	9,246	1,213	2,289	Oct	3,206
Mersey Estuary	3,622	2,455	(2,069)	(1,228)	(1,520)	Dec	3,039
Duddon Estuary	3,698	3,122	2,562	3,213	2,102	Jan	2,939
Sites of national importance in Great Britain							
Severn Estuary	1,930	(2,362)	(1,962)	2,997	2,433	Oct	2,453
Ythan Estuary	(5,274)	1,481	1,497	(2,308)	(1,706)	Sep	2,453
Montrose Basin	2,237	1,794	(1,860)	2,198	2,770	Sep	2,250
Deben Estuary	2,037	2,710	2,080	1,856	1,992	Oct	2,135
Chichester Harbour	1,754	(2,535)	2,403	1,810	2,028	Oct	2,106
North Norfolk Coast	1,608	1,786	2,899 [10]	2,109	1,333	Jan	1,947
Stour Estuary	1,814	1,988	1,948	2,176 [10]	1,779 [10]	Nov	1,941
Inner Moray & Inverness Firth	1,910	(1,658)	2,040	1,988	1,731	Feb	1,917
Inner Firth of Clyde	1,984	1,915	1,901	1,965	1,596	Feb	1,872
Orwell Estuary	1,813 [10]	2,075 [10]	1,375 [10]	1,908	1,737 [10]	Feb	1,782
Cromarty Firth	2,266	1,491	1,514	(1,402)	1,613	Oct	1,721
Crouch-Roach Estuary	(556)	1,202	1,361	2,403	1,791	Sep	1,689
Tees Estuary	1,731	1,865	1,383	1,471	1,331	Oct	1,556
Hamford Water	1,695	1,266	1,538	1,366	(1,127)	Feb	1,466
Colne Estuary	(1,013)	(742)	1,442 [10]	(730)	(1,107)	Mar	1,442
Medway Estuary	(1,405)	(307)	(668)	(874)	(497)	Feb	(1,405)
Lindisfarne	1,104	(1,267)	(1,746)	1,367	(1,026)	Apr	1,371
Lavan Sands	1,644	1,016	1,794	1,058	1,221	Oct	1,347
Breydon Wtr/ Berney Marshes	1,663 [10]	1,310	1,405	1,117 [12]	1,189 [12]	Sep	1,337
Swale Estuary	(1,727)	1,139	(1,384)	(1,049)	910	Mar	1,242
Blyth Estuary	1,134	1,031	2,002	(1,012)	789	Nov	1,239
Sites of all-Ireland importance in Northern Ireland							
Belfast Lough	1,754	(1,698)	1,303	1,432	1,769	Sep	1,591
Carlingford Lough	1,554	1,128	1,174	1,818	(632)	Feb	1,419
Lough Foyle	1,314	1,177	905	1,239	1,305	Nov	1,188
Outer Ards Shoreline	1,307	1,160	1,124	1,145	1,183	Nov	1,184
Dundrum Inner Bay	723	759	1,284	1,105	897	Sep	954
Larne Lough	737	379	383	397	253	Jan	430
Bann Estuary	400	261	392	230	290	Jan	315

Redshank *(John Harding)*

Numbers have been declining in both Britain and Northern Ireland for a decade.

Turnstone

Arenaria interpres

International threshold:	1,500
Great Britain threshold:	480
All-Ireland threshold:	120

GB max: 10,236 Jan
NI max: 1,724 Mar

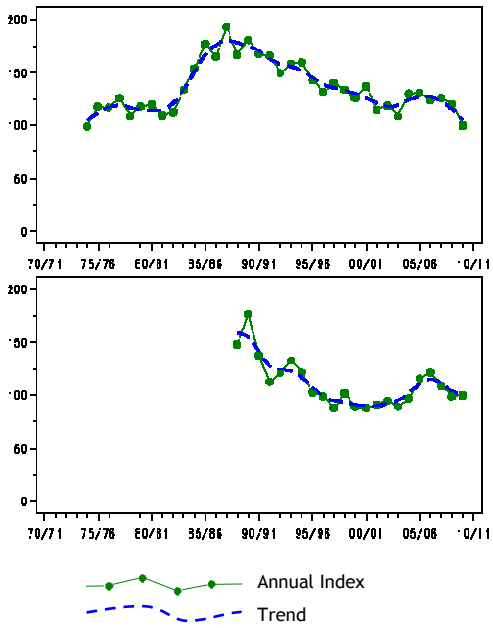


Figure 57.a, Annual indices & trend for Turnstone for GB (above) & NI (below).

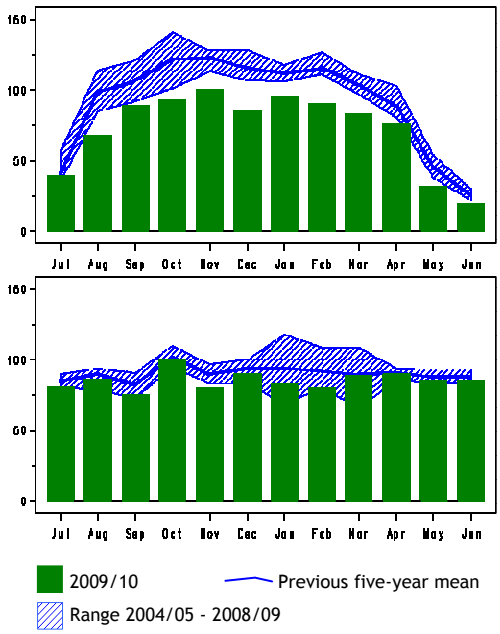


Figure 57.b, Monthly indices for Turnstone for GB (above) & NI (below).

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of national importance in Great Britain							
Morecambe Bay	1,269	1,163	(709)	973	1,394	Apr	1,200
Tiree	1,191 [32]						1,191
Thanet Coast	949	1,477	(783)	722	(624)	Dec	1,049
Forth Estuary	847	(778)	(934)	(855)	(699)	Nov	879
North Norfolk Coast	928	678	913	774	741	Jul	807
Thames Estuary	680	680	1,090	1,060	382	Jan	778
The Wash	1,169	657	478	685	547	Sep	707
Blackwater Estuary	498	527	676	1,102	502	Oct	661
Stour Estuary	655	569	617	525	459 [10]	Nov	565
Humber Estuary	(183)	(542)	(344)	(447)	(553)	Nov	(553)
Farne Islands	606	(445)	556	580	349	Aug	523
Langstone Harbour	742	450	488	550	299	Mar	506
Sites of all-Ireland importance in Northern Ireland							
Outer Ards Shoreline	1,203	1,292	930	937	949	Mar	1,062
Belfast Lough	418	436	419	503	537	Dec	463
Strangford Lough	435	382	344	589	391	Oct	428
Carlingford Lough	356	480	315	155	(98)	Oct	327
Sites no longer meeting table qualifying levels in WeBS-Year 2009/2010							
Swale Estuary	(480)	(456)	(432)	(268)	314	Oct	421
Sites below table qualifying levels but exceeding threshold in WeBS-Year 2009/10 in Great Britain							
Pegwell Bay	(7)	110	21	130	927 [12]	Mar	297
Other sites surpassing table qualifying levels in Winter 2009/2010 in Northern Ireland							
Larne Lough	58	(75)	105	74	160	Apr	99

Turnstones from two distinct breeding populations occur in the UK. The majority of those which winter in the UK originate from Greenland and east Canada, while Siberian and Scandinavian breeders pass through in spring and autumn en route to and from wintering sites in western Africa. The UK holds over 50% of the flyway

population during the winter (Delany *et al*. 2009) and numbers are estimated to be in the order of 48,000 birds (Musgrove *et al*. 2011).

Turnstone *(Jill Pakenham)*

Judging from the annual index and the monthly indices shown above, 2009/10 was a very poor year for Turnstones in Britain. The British index reached its lowest ever level, thereby accelerating a downward trend apparent since the late 1980s, in a similar vein to Purple Sandpiper with which it frequently shares favours habitats. Tunstones are considered to have slowly shifted northwards within Britain in recent decades in response to milder winters (Austin *et al*. 2008). It is notable therefore that rocky shores and associated specialist species have been identified as being especially vulnerable to the effects of changing climate, both due to the potential loss of habitat *per se* as a result of rising sea levels, as well as potential changes to invertebrate communities (Kendall *et al*. 2004, Rehfisch *et al*. 2004).

At Morecambe Bay, the highest number of Turnstones for several years was noted. The most recent five-year mean of 1,200 birds at the site is low when compared to the peaks recorded there during the 1970s when 2,000+ birds were regular. The historic maximum at Morecambe Bay is 3,795 in August 1972, which is, unsurprisingly, the largest site total ever noted by WeBS. In common with the overall trend, peak numbers were below average at all the other principal sites listed, particularly Thames Estuary where the lowest peak for thirty years was noted.

The peak monthly count at Outer Ards Shoreline, consistently the most important site in Northern Ireland, was at a similar level to the previous two years and hence somewhat lower than the longer term average. In contrast, the highest total since 2000/01 was seen at Belfast Lough.

Wilson's Phalarope

Phalaropus tricolor

Vagrant
Native Range: America

One was at Forth Estuary in November; the 22nd WeBS record and first in Scotland.

Red-necked Phalarope

Phalaropus lobatus

Scarce

Three passage Red-necked Phalaropes were recorded in 2009/10; autumn birds at Dee Estuary and Humber Estuary followed by a June record at Upton Warren LNR.

Grey Phalarope

Phalaropus fulicarius

Scarce

Five Grey Phalaropes were recorded in 2009/10; singles at Loch Gruinart (Oct), Chew Valley Lake (Nov), Thurso Bay (Nov), Weirwood Reservoir (Nov) and North West Solent (Dec).

Kittiwake

Rissa tridactyla

International threshold: 20,000**
Great Britain threshold: ?†
All-Ireland threshold: ?†

GB max: 2,501 Aug
NI max: 55 Dec

Kittiwakes were seen at the traditional sites during WeBS counts in 2009/10, with the exception, unusually, of Loch of Strathbeg, despite coverage there throughout the year. The peak monthly total of 2,501 birds in August was almost double the equivalent total of the previous year. Counts of 1,000+ were received from Arran (Sep), Howick to Beadnall (Mar) and Lunan Bay (Aug).

It is likely that counts of Kittiwakes at WeBS sites are affected by breeding productivity on stretches of coastline nearby, as well as the weather and offshore conditions. Nevertheless, low numbers recorded through WeBS may be associated with a declining UK breeding population and recent abysmal productivity. Breeding numbers, which account for approximately 8% of the global population of the species, declined by 25% during the period 1985-1988 to 1998-2002, and by a further 30% between 2000 and 2010 (JNCC 2011).

Typically, all records in Northern Ireland were from Belfast Lough.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites with mean peak counts of 200 or more birds in Great Britain†							
Loch of Strathbeg	1,130	3,282	785	37	0		1,047
Arran	701	400	1,000	800	1,500	Sep	880
Beadnell to Seahouses	512	850	(460)	200	450	Jul	503
Tay Estuary	(740)	(190)	300	(17)	155	Aug	398
Forth Estuary	(276)	(379)	(127)	(334)	(141)	Oct	(379)
Lunan Bay	250	133	67	(120)	(1,000)	Aug	363
Durham Coast	250	(363)	(71)	(225)	(379)	May	331
Dee Estuary (Scotland)	191	175	458	183	(640)	Sep	329
Dungeness and Rye Bay				500	2	Dec	251
Otter Estuary to Kingsbridge Estuary			250				250
Tweed Estuary	340	410	132	126	224	Aug	246
Howick to Beadnell	0	0	0	0	(1,208)	Mar	242
Glyne Gap	19	457	(233)	(78)	233	Jan	236
Other sites surpassing table qualifying levels in WeBS-Year 2009/2010 in Great Britain†							
Don Mouth to Ythan Mouth	(165)	3	119	35	317	Aug	128

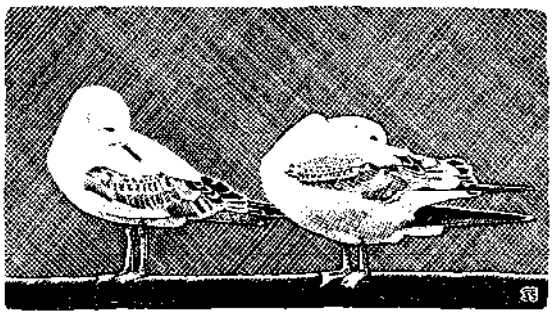
† *as no British or All-Ireland thresholds have been set, a qualifying level of 200 has been chosen to select sites for presentation in this report*

Bonaparte's Gull

Chroicocephalus philadelphia

Vagrant
Native Range: N America

One at Arlington Reservoir in April represents the ninth WeBS record and the first since 2004/05.



Black-headed Gulls *(Steve Suttill)*

Black-headed Gull

Chroicocephalus ridibundus

International threshold: 20,000**
Great Britain threshold: 22,000†
All-Ireland threshold: ?†

GB max: 187,110 Feb
NI max: 14,045 Mar

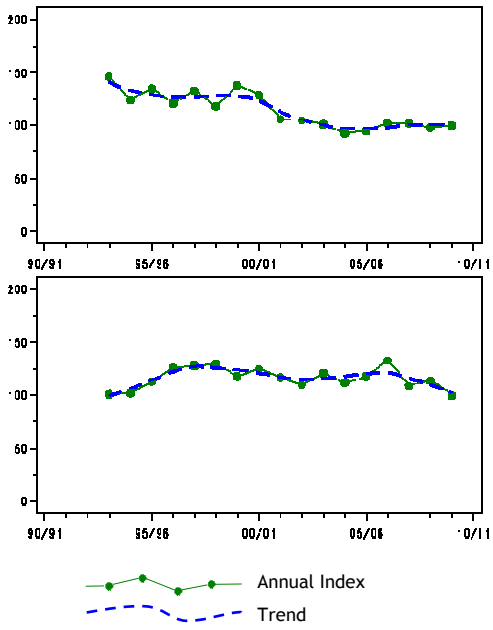


Figure 58.a, Annual indices & trend for Black-headed Gull for GB (above) & NI (below).

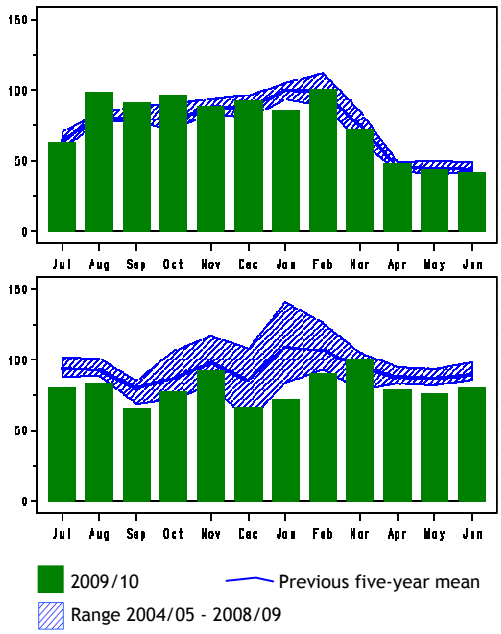


Figure 58.b, Monthly indices for Black-headed Gull for GB (above) & NI (below).

Numbers of Black-headed Gulls in 2009/10 were broadly similar to those recorded through WeBS in recent years, with counted monthly maximum again in February. Given that the species uses many non-wetland habitats combined with the fact that counting gulls remains optional during Core counts, the totals represent a relatively small proportion of the British population estimate of 2.2 million derived from the last Wintering Gulls Survey (Banks *et al*. 2007). Bearing in mind this important caveat, the trend based on WeBS indices (included in the report for the first time) is essentially stable, but over the last ten years there is a suggestion of a slight decline in the number present at WeBS sites. The breeding population is estimated to have risen by 36% between 2000 and 2010 (JNCC 2011).

Three sites are currently listed as surpassing the threshold for international importance; Bewl Water, Eccup Reservoir and The Wash. For the sixth WeBS-year in succession, the largest count submitted related to the roost at the former site.

As ever, it should be remembered that a number of sites of assumed importance do not feature within the tables below, owing to a lack of gull data submitted through WeBS since the last Wintering Gulls Survey (WinGS) in 2003/04. The submission of counts from sites formerly recognised as being used by large numbers of Black-headed Gulls, such as Chew Valley Lake and Humber Estuary, would inevitably help to provide a more representative picture of the abundance and distribution of the UK's most numerous waterbird (Musgrove *et al*. 2011).

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of international importance in the UK							
Bewl Water	55,600 [11]	67,840 [11]	48,400 [11]	35,340 [11]	36,400 [11]	Dec	48,716
The Wash	(15,595)	30,097	(18,679)	(20,878)	(29,615)	Sep	30,097
Eccup Reservoir			20,000				20,000 ▲

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites no longer meeting table qualifying levels in WeBS-Year 2009/2010							
Thames Estuary	(13,848)	10,712	(12,901)	(14,532)	(7,601)	Aug	12,998
Sites with mean peak counts of 10,000 or more birds in Great Britain†							
Morecambe Bay	(16,695)	(15,232)	(12,153)	13,758	13,034	Aug	14,680
Ribble Estuary	10,228	15,261	10,055	6,389	25,000 [10]	Nov	13,387
Thames Estuary	(13,848)	10,712	(12,901)	(14,532)	(7,601)	Aug	12,998
Rutland Water	5,500	12,000	10,000	5,000	30,000	Oct	12,500
Tophill Low Reservoirs	15,000 [11]	3,835 [11]	12,000 [11]	21,000 [11]	10,400	Feb	12,447
Severn Estuary	8,278 [27]	(3,589)	(4,851)	16,121 [10]	(9,721)	Sep	12,200
Swithland Reservoir					12,000 [11]	Nov	12,000
Blyth Estuary	4,203	23,700	3,971	(5,312)	(1,500)	Jan	10,625
Doddington Pool	12,000	11,000	11,000	8,500 [11]			10,625
Wint'sett & Cold Hiendley Resrs		5,000	20,000	6,000			10,333
Lower Derwent Ings	11,000	5,321	11,600	11,200	11,000	Mar	10,024
Sites with mean peak counts of 1,000 or more birds in Northern Ireland†							
Belfast Lough	9,936 [10]	(6,823)	4,971	2,168 [10]	4,307 [10]	Feb	5,641
Outer Ards Shoreline	4,566	3,800	2,893	3,614	5,628	Mar	4,100
Strangford Lough	4,011 [10]	3,889 [10]	4,109 [10]	5,656 [10]	2,826	Sep	4,098
Loughs Neagh and Beg	(3,472)	(3,978)	2,610	2,989	3,599	Mar	3,330
Lough Foyle	2,565	(2,091)	3,237	3,324	2,573	Nov	2,925
Larne Lough	591	2,245	1,989	2,453	692	Mar	1,594
Other sites surpassing table qualifying levels in WeBS-Year 2009/2010 in Great Britain†							
Dungeness and Rye Bay	(5,000) [12]	(1,500) [12]	5,020	2,336	10,000	Aug	5,785

† *as few sites exceed the British threshold and no All-Ireland threshold has been set, qualifying levels of 10,000 and 1,000 respectively, have been chosen to select sites for presentation in this report*

Little Gull

Hydrocoloeus minutus

International threshold: 1,230
Great Britain threshold: ?†
All-Ireland threshold: ?†

GB max: 132 Aug
NI max: 0

In 2009/10, Little Gulls were noted at 36 WeBS sites across Britain during WeBS Core counts. The totals recorded were largely unimpressive, autumn and spring Core count peaks being 117 at Hornsea Mere (Aug) and 66 at Alt Estuary (Apr), respectively. The latter count presumably coincided with a flux of spring passage, as birds were seen at several other localities on the same date, including 30 at Arlington Reservoir (providing company for a Bonaparte's Gull!) and 11 at Ribble Estuary.

Hornsea Mere remains the only site that surpasses the threshold for international importance. Although traditionally supporting large numbers of passage birds in autumn, the peak supplementary count there during 2009 fell well short of the exceptional numbers reported during the autumns of 2006 and 2007.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of international importance in the UK							
Hornsea Mere	160	(16,000) [11]	21,500 [11]	1,200 [11]	610 [11]	Sep	5,868
Sites with mean peak counts of 5 or more birds in Great Britain†							
Alt Estuary	530 [11]	162 [12]	97 [12]	75 [12]	66	Apr	186
Tophill Low Reservoirs	375 [11]	26 [11]	250 [11]	125 [12]	120 [12]	Jul	179
Tay Estuary	26	206	(3)	(0)	(1)	Aug	116
North Norfolk Coast	32	176	30	10	4	Jun	50
Humber Estuary	(3)	(0)	(33)	(2)	5	Sep	19
Morecambe Bay	(3)	14	(0)	3	23	Nov	13
Forth Estuary	(0)	25	9	3	(2)	Jul	12
Anstruther Bay	0	0	55	0	0		11
Alde Complex	49	0	0	0	0		10
Tees Estuary	4	6	11	21	10	Jul	10
East Chevington Pools	3	14	7	18	9	Jul	10
Other sites surpassing table qualifying levels in WeBS-Year 2009/2010 in Great Britain†							
Arlington Reservoir	0	0	0		30	Apr	8
Ribble Estuary	0	(0)	1	(0)	11	Apr	4

† *as no British or All-Ireland thresholds have been set, a qualifying level of ten has been chosen to select sites for presentation in this report*

Mediterranean Gull

Larus melanocephalus

International threshold:	6,600
Great Britain threshold:	18
All-Ireland threshold:	?†

GB max: 352 Jan
NI max: 5 Oct

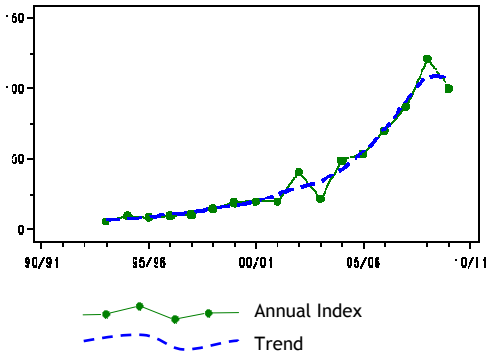


Figure 59.a, Annual indices & trend for Mediterranean Gull for GB (above) & NI (below).

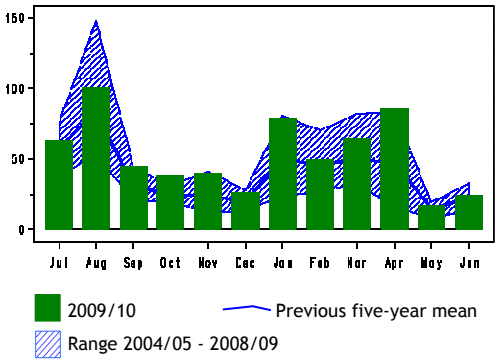


Figure 59.b, Monthly indices for Mediterranean Gull for GB (above) & NI (below).

In 2009/10, Mediterranean Gulls were recorded at a record 127 WeBS sites in Britain and two in Northern Ireland. The peak monthly British total counted through WeBS was 352 in January.

Mediterranean Gulls *(Peter M Wilson)*

The continued expansion of this species in Britain is exemplified by the revised population estimate of Musgrove *et al.* (2011); compiling numbers from recent county bird reports, approximately 1,800 wintering birds are now considered to be present. The table below lists the sites where counts surpass the associated 1% threshold.

For the first time in the annual WeBS report, a trend for Mediterranean Gull features; it illustrates the marked increase that has occurred over the course of the last fifteen or so years. The breeding population has also increased considerably (JNCC 2011). Considered a BBRC rarity until 1962, the species has slowly become an established fixture among Britain's *Laridae*.

Five counted WeBS sites, all located within the central south coast stronghold, held peaks in excess of 100 birds during the course of the year. Forty other sites held at least five birds. The WeBS site maximum was 172 at Beaulieu Estuary in September. Several other south coast locations known to be favoured by this species (including Copt Point in Kent) are not currently monitored through WeBS.

Still relatively few tend to be seen away from the southern counties and East Anglia, epitomised by records from just four sites in Scotland. Maxima outside the core range were eight at Cleddau Estuary (Sep) and six at Scarborough (Jan).

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of national importance in Great Britain							
Folkestone: Copt Pt/East Wear Bay				270 [12]			270
Brading Harbour	148	91	64	461 [12]	101	Aug	173
Southampton Water	(2)	(112)	(309)	(30)	36	Oct	152
Breydon Water & Berney Marshes	27 [27]		131 [12]	118 [11]	189 [11]	Aug	116

	05/06	06/07	07/08	08/09	09/10	Mon	Mean	
Pagham Harbour	60	71	(124)	(118)	140	Jan	103	
Fleet and Wey	23	39	61	140	211 [10]	Nov	95	
Newtown Estuary	57	56	19	53	111	Apr	59	
Beaulieu Estuary	9	6	1	65	172	Sep	51	▲
Tamar Complex	39	34	37	45	65	Aug	44	
Thames Estuary	30	71	34	40	37	Jan	42	
North West Solent	0	8	29	101	41	Jan	36	
Ryde Pier to Puckpool Point	45	22	45		27	Nov	35	
Foreland	50	20	50		10	Oct	33	
Camel Estuary	(18)	11	6	78	33	Oct	32	
Swansea Bay	28	33	12	34	55	Jul	32	
Chichester Harbour	(22)	12	(31)	28	(56)	Apr	30	
Wootton Creek	12	102	16	6	4	Aug	28	
Thorness Bay					27	Mar	27	▲
Minsmere	10	10	11	45	33	Apr	22	
Medway Estuary	(1)	(18)	(13)	(14)	(12)	Apr	(18)	▲
Other sites surpassing table qualifying levels in WeBS-Year 2009/2010 in Great Britain								
Yar Estuary	0	0	2	4	42	Mar	10	
R.Avon: Ringwood - Christchurch		0	(0)	0	35	Mar	12	
Medina Estuary	1	4	0	5	35	Apr	9	
Pegwell Bay	0	3	4	11	32 [12]	Aug	10	
Portsmouth Harbour	7	11	(12)	29	(22)	Mar	17	
Glyne Gap	5	(15)	8	(11)	19 [11]	Oct	12	

Common Gull

Larus canus

International threshold: 20,000**
Great Britain threshold: 7,000†
All-Ireland threshold: ?†

GB max: 66,256 Feb
NI max: 4,201 Nov

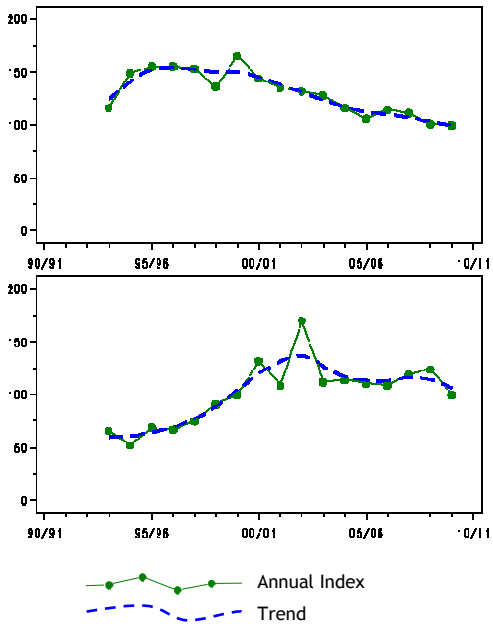


Figure 60.a, Annual indices & trend for Common Gull for GB (above) & NI (below).

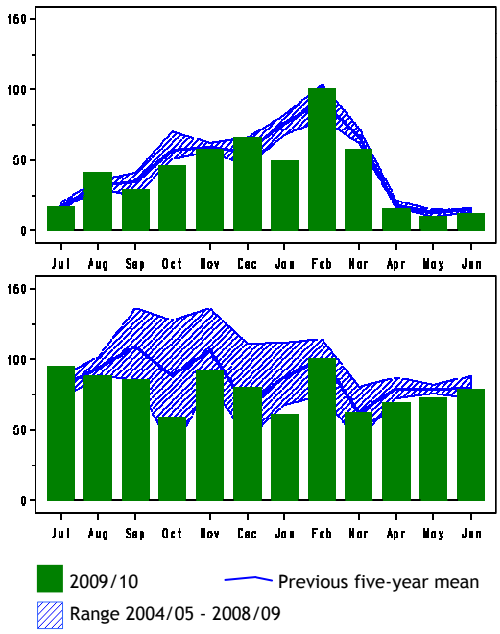


Figure 60.b, Monthly indices for Common Gull for GB (above) & NI (below).

As the counting of gulls remains optional during WeBS, total numbers reported here often reflect variation in coverage as much as fluctuation in actual numbers.

The peak monthly total of Common Gulls was the highest ever recorded. However it is probably evidence of increased coverage and a greater proportion of counters

submitting counts of gulls as opposed to a favourable status for this particular species. The annual indices and associated trends based on WeBS data are included in the WeBS report for the first time, and the British trend for this species indicates a steady decline in numbers using WeBS sites over the course of the last 15 years.

Continuing the theme of recent years, the maximum number of Common Gulls was recorded at the impressive roost at Bewl Water. Typically, numbers of Common Gulls at several other important sites have not been counted since the last Wintering Gulls Survey (WinGS) in 2003/04 (Banks *et al.* 2007). Submission of count data from all sites, particularly those where the species is known to roost in significant numbers, is therefore encouraged.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean	
Sites of international importance in the UK								
Bewl Water	90,000 [11]	75,500 [11]	59,650 [11]	34,200 [11]	52,000 [11]	Feb	62,270	
Sites of national importance in Great Britain								
Haweswater Reservoir	12,535 [11]	17,185 [11]	17,560 [11]	23,565 [11]	19,612 [11]	Mar	18,091	
Tophill Low Reservoirs	21,600 [11]	8,000 [11]	25,000 [11]	19,000 [11]	15,600	Feb	17,840	
Hallington Reservoir	34,000 [11]	700 [11]					17,350	
Ribble Estuary	(253)	(1,973)	5,020	1,758	32,000 [10]	Nov	12,926	▲
Derwent Reservoir	40,000 [11]	18,500 [11]	5,000	512	151	Nov	12,833	▼
Rutland Water	10,000	10,000	13,500	4,000	3,000	Nov	8,100	
Eccup Reservoir			8,000				8,000	▲
Sites no longer meeting table qualifying levels in WeBS-Year 2009/2010								
Colt Crag Reservoir								
Sites with mean peak counts of 3,000 or more birds in Great Britain†								
Forth Estuary	2,100 [27]	(603)	7,831	(1,118)	(1,264)	Dec	4,966	
Inner Firth of Clyde	2,463	6,234	3,610 [10]	1,778	9,438	Feb	4,705	
Longnewton Reservoir	2,700	3,400	5,400	5,400	2,700	Dec	3,920	
Carsebreck and Rhynd Lochs	6,250 [11]	3,000 [11]	320 [12]	6,700 [11]	3,300 [11]	Mar	3,914	
St Mary`s Island to N. Shields Quay	3,900 [11]						3,900	
Severn Estuary	5,110 [27]	(1,076)	(65)	2,430 [10]	(200) [12]	Feb	3,770	
Humber Estuary	(120)	(74)	(298)	(415)	(3,461)	Dec	(3,461)	
Blyth Estuary	4,914	6,300	228	1,600	(1,325)	Jan	3,261	
Chichester Harbour	2,379	3,225	2,289	4,862	3,424	Jan	3,236	
Thames Estuary	3,768	2,622	(1,552)	(895)	(1,945)	Jan	3,195	
Dungeness and Rye Bay	3,000 [12]	500	1,010	781	10,002	Aug	3,059	
Sites with mean peak counts of 1,000 or more birds in Northern Ireland†								
Lough Foyle	4,354	2,836	3,952	4,771	2,513	Dec	3,685	
Outer Ards Shoreline	1,328	984	1,022	1,075	1,753	Mar	1,232	
Belfast Lough	2,156	1,405 [10]	687	571 [10]	899 [10]	Nov	1,144	
Larne Lough	84	1,194	645	2,236	(687)	Feb	1,040	
Other sites surpassing table qualifying levels in WeBS-Year 2009/2010 in Great Britain†								
North Norfolk Coast	4,342	1,550	(790)	1,618	4,363	Dec	2,968	
Wet Sleddale Reservoir	1,765 [11]	2,020 [11]	533 [11]	2,046 [11]	3,740 [11]	Aug	2,021	
Lower Derwent Ings	5,500	950	1,070	1,850	3,200	Mar	2,514	
Hule Moss	1,850	40	2,750	1,050	3,000 [12]	Dec	1,738	
Other sites surpassing table qualifying levels in WeBS-Year 2009/2010 in Northern Ireland†								
Dundrum Inner Bay	128	301	724	1,190	1,124	Sep	693	

† *as few sites exceed the British threshold and no All-Ireland threshold has been set, qualifying levels of 3,000 and 1,000 respectively, have been chosen to select sites for presentation in this report*

Ring-billed Gull

Larus delawarensis

Vagrant
Native Range: N America

Ring-billed Gulls were seen at six WeBS sites, with a monthly maximum of five birds in January. In England, returning birds resided at Thames Estuary and Portsmouth Harbour throughout the winter, with others seen at Carsington Water (Nov), Tamar Complex (Jan, Mar) and Fal Complex (Jan). In Scotland, one was recorded at Forth Estuary (Jan).

Lesser Black-backed Gull

Larus fuscus

International threshold: 5,500
Great Britain threshold: 1,200
All-Ireland threshold: ?†

GB max: 26,358 Jun
NI max: 1,303 Sep

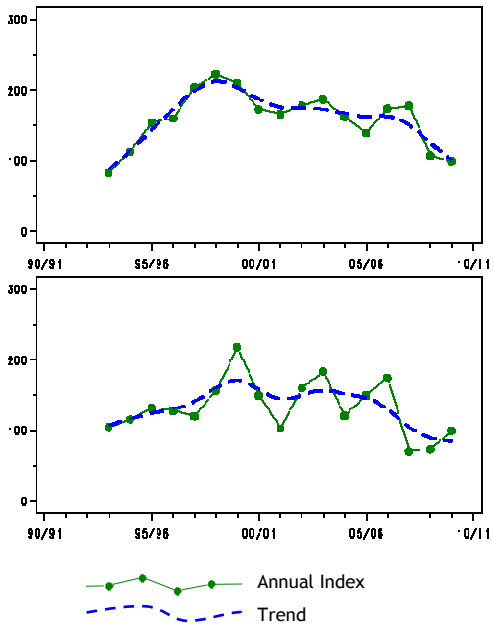


Figure 61.a, Annual indices & trend for Lesser Black-backed Gull for GB (above) & NI (below).

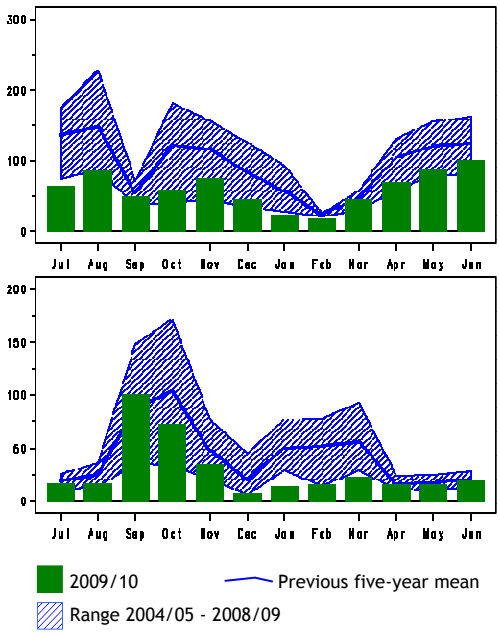


Figure 61.b, Monthly indices for Lesser Black-backed Gull for GB (above) & NI (below).

The monthly maximum of Lesser Black-backed Gulls was significantly lower than recent years, but because the counting of gulls is optional during WeBS, summed national maxima probably reflect changes in effort as much as actual numbers.

For a number of sites, comprehensive data are lacking since the last Wintering Gulls Survey (WinGS) in 2003/04 (Banks *et al*. 2007). Some of these sites are likely to be used by Lesser Black-backed Gulls in sufficient numbers to surpass the thresholds for international or national importance. Currently, just three sites (Morecambe Bay, Cotswold Water Park (West) and Ribble Estuary) have a five-year mean beyond the threshold for international importance.

Annual indices and associated trend are included in the WeBS report for the first time. As with the other gulls, an increased submission rate for this species during the winter is encouraged, to improve the robustness of these indices and therefore the representativeness of the associated trend.

It should be noted that of all the gull species for which WeBS trends are shown, the trend for this species is based on a relatively small sample of monitored sites (owing to the species' relative prevalence in the summer).

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites of international importance in the UK							
Morecambe Bay	21,932	29,576	41,347	17,097	20,110	Jun	26,012
Cotswold Water Park (West)	(141)	6,500 [11]	9,500 [11]	4,500 [11]	4,630 [11]	Jan	6,283
Ribble Estuary	3,011	5,525	9,005	6,045	6,800 [10]	Nov	6,077
Sites of national importance in Great Britain							
Solway Estuary	(363)	4,701	(202)	(384)	(219)	Jun	4,701
R. Avon - Fordingbridge to Ringwood	5,100	3,160	500	1,507	9,800 [11]	Sep	4,013
Severn Estuary	4,696 [27]	(115)	(130)	2,899 [10]	(143)	Aug	3,798
Great Pool Westwood Park	2,500	2,000	3,500	3,000	4,500	Dec	3,100

	05/06	06/07	07/08	08/09	09/10	Mon	Mean	
R.Severn and R.Vyrnwy Confluence	120	(144)	(401)	4,636	(242)	Sep	2,378	
Llys-y-fran Reservoir	600	(4,000)	700	2,000	3,000	Nov	2,060	
Alde Complex	1,162	2,990	453	2,775	2,609	Mar	1,998	
Hule Moss	(2,500)	550	(1,750)	(450)	2,900 [12]	Oct	1,925	
Longnewton Reservoir	3,310	2,740	1,320	1,810	430	Sep	1,922	
Alt Estuary	809	1,980	1,063	703	2,206	Sep	1,352	▲
The Wash	1,075	1,027	1,184	(1,081)	(2,052)	Jul	1,335	▲
Lower Windrush Valley GPs	1,071	2,922	(750)	852	468	Jan	1,328	
Calvert Brick Works		610	2,500	1,200	520	Nov	1,208	
Sites no longer meeting table qualifying levels in WeBS-Year 2009/2010								
Thames Estuary	775	273	(343)	(1,121)	(181)	Sep	723	
Sites with mean peak counts of 500 or more birds in Northern Ireland†								
Loughs Neagh and Beg	997	1,136	387	(214)	1,177	Sep	924	
Other sites surpassing table qualifying levels in WeBS-Year 2009/2010 in Great Britain								
Eversley Cross and Yateley GPs	6	862	693	80	3,010 [11]	Oct	930	
Chelmarsh Reservoir	56	47			3,000	Aug	1,034	
Wellington Gravel Pits		400 [12]	300	1,000	2,500	Oct	1,050	
Rutland Water	1,200	50	2,500	100	1,500	Aug	1,070	

† *as no All-Ireland threshold has been set, a qualifying level of 500 has been chosen to select sites for presentation in this report*

Herring Gull

Larus argentatus

International threshold: 5,900
Great Britain threshold: 7,300†
All-Ireland threshold: ?†

GB max: 86,058 Jan
NI max: 4,466 Nov

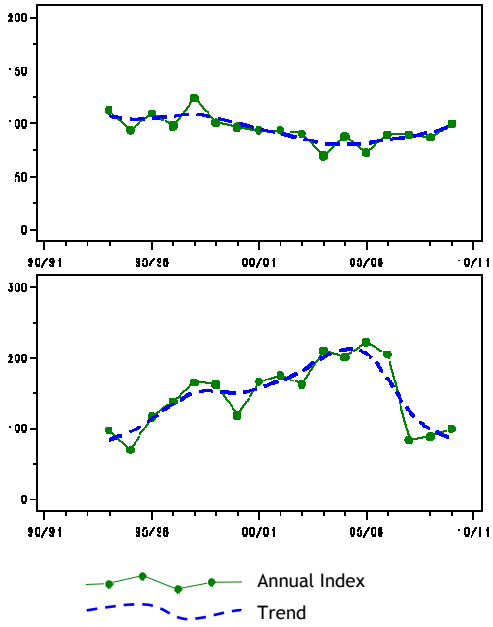


Figure 62.a, Annual indices & trend for Herring Gull for GB (above) & NI (below).

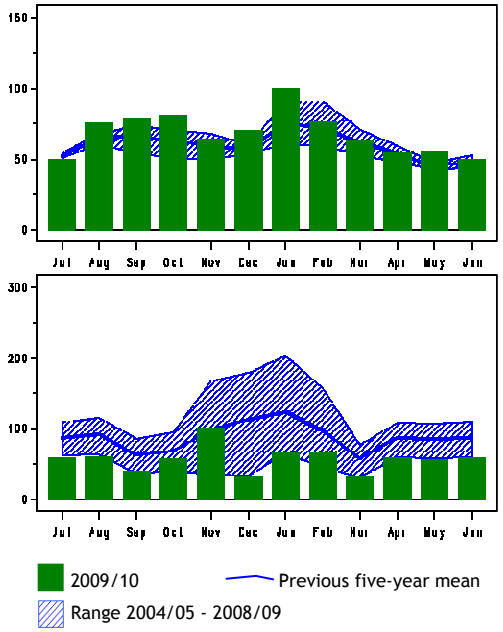


Figure 62.b, Monthly indices for Herring Gull for GB (above) & NI (below).

The counted British maximum of Herring Gulls was the highest for several years. However, because counting of gulls remains optional during WeBS, any summed national maxima reflect changes in effort as much as actual numbers. The national trend based on WeBS data is included in the WeBS report for the first time, indicating relative stability in the number at WeBS sites, thereby contrasting somewhat with a declining breeding population (JNCC 2011).

Counting gulls at all sites, including at roost, is very much encouraged. The continued submission of supplementary counts from Glyne Gap yielded the highest count of the year – an impressive 14,000 birds in October. In the table below, The Wash joins Glyne Gap and three traditional strongholds of Ribble Estuary, Morecambe Bay and Forth Estuary, as the five WeBS sites now surpassing the threshold for international importance. The count of 8,657 at The Wash is one of the highest ever at the site; the historic peak being 12,649 birds in January 1998.

A number of sites of known importance for this species do not feature in the tables below, having not been counted for WeBS since the last Wintering Gulls Survey (WinGS) in 2003/04 (Banks *et al*. 2007). These include Queen Mary Reservoir and Hamilton Low & Strathclyde Parks.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean	
Sites of international importance in the UK								
Ribble Estuary	2,060	(25,336)	(11,086)	(19,024)	29,000 [10]	Nov	18,855	
Glyne Gap	1,486	(2,700)	6,800 [11]	11,500 [11]	14,000 [11]	Oct	8,447	
Morecambe Bay	7,545	8,553	(10,258)	6,820	6,594	Aug	7,954	
The Wash	(3,527)	6,212	(5,960)	(3,455)	(8,657)	Jan	7,435	▲
Severn Estuary	(2,666)	(279)	(437)	6,332 [10]	(481)	May	6,332	
Sites of national importance in Great Britain								
North Norfolk Coast	2,340	2,474	5,351	(3,113)	12,935	Jan	5,775	▲
Isle of May	5,220 [27]						5,220	
Guernsey Shore	2,362	5,704	4,432	7,360	(3,677)	Aug	4,965	
Thames Estuary	3,680	4,456	6,655	(4,968)	(4,661)	Oct	4,940	
Sites no longer meeting table qualifying levels in WeBS-Year 2009/2010								
Forth Estuary	(1,780)	(2,814)	(2,764)	(1,864)	(3,349)	Sep	(3,349)	
Sites with mean peak counts of 2,500 or more birds in Great Britain†								
Alt Estuary	2,150	(1,005)	2,000	3,076	6,514	Oct	3,435	
Dungeness and Rye Bay	7,000 [12]	1,500 [12]	5,000 [12]	1,700	1,756	Mar	3,391	
Forth Estuary	(1,780)	(2,814)	(2,764)	(1,864)	(3,349)	Sep	(3,349)	
Burry Inlet	3,007	2,407	3,037 [10]	3,648	2,869	Aug	2,994	
Durham Coast	1,501	3,949	(300)	(629)	(983)	Feb	2,725	
Inner Moray and Inverness Firth	(3,000)	2,352	(274)	(643)	(348)	Dec	2,676	
Exe Estuary	2,574 [11]	2,357 [11]	2,849 [11]	2,689 [12]			2,617	
Sites with mean peak counts of 1,000 or more birds in Northern Ireland†								
Belfast Lough	10,296 [10]	6,655 [10]	2,511	649	970 [10]	Dec	4,216	
Outer Ards Shoreline	1,304	1,602	1,053	1,520	2,306	Nov	1,557	
Lough Foyle	1,480	443	535	1,350	1,331	Nov	1,028	
Other sites surpassing table qualifying levels in WeBS-Year 2009/2010 in Great Britain†								
Inner Firth of Clyde	1,313	1,202	1,355	1,477	3,095	Feb	1,688	
Humber Estuary	(37)	(14)	183	234	(2,900)	Jan	1,106	
Tees Estuary	1,227	1,765	1,948	1,660	2,605	Jan	1,841	
Newtown Estuary	(40)	16	62	75	(2,500) [11]	Sep	663	
Other sites surpassing table qualifying levels in WeBS-Year 2009/2010 in Northern Ireland†								
Strangford Lough	670 [10]	569	(658)	1,167 [10]	1,091 [10]	Dec	874	

† *as few sites exceed the British threshold and no All-Ireland threshold has been set, qualifying levels of 2,500 and 1,000 respectively, have been chosen to select sites for presentation in this report*

Yellow-legged Gull

Larus michahellis

International threshold: **7,000**
Great Britain threshold: **11**
All-Ireland threshold: **?†**

'Western' Yellow-legged Gulls were recorded at 60 WeBS sites in England, two in Scotland and two in Wales, with a peak of 138 birds in September. However, a lack of WeBS coverage during July to September at several important localities for Yellow-legged Gulls on the south coast of England means WeBS fails to yield a true picture of their numbers. Having collated information from recent county bird reports, Musgrove *et al*. (2011) estimate the population to now be in the order of 1,100 birds.

Sites with 11 or more birds in 2009/10

Kingsbridge Estuary	38	Jul	Poole Harbour	37	Sep
King George VI Reservoir	37	Jul	Eversley Cross & Yateley GPs	25	Sep

Caspian Gull
Larus cachinnans

International threshold: 7,000
Great Britain threshold: 1

Caspian Gulls were noted at ten WeBS sites in 2009/10, with a monthly peak of six birds in December. This is the same showing as the previous year, and is likely to be at least partly due to particular observers' confidence in being able to identify this difficult species. With the exception of a count of four at Ditchford Gravel Pits (Dec), all records related to singles in south-east or central England.

Iceland Gull
Larus glaucoides

International threshold: 2,000
Great Britain threshold: 2

Iceland Gulls were seen during WeBS Core counts at just 14 sites in 2009/10, evenly divided between Scotland and England. Records were spread from November through to May, with a monthly maximum of just four birds in December. All were single birds, perhaps the most notable of which were at Tamar Lakes in March and Blyth Estuary in May.

Glaucous Gull
Larus hyperboreus

International threshold: 10,000
Great Britain threshold: 2

2009/10 was a very poor year for records of Glaucous Gull; the species was recorded at just seven WeBS sites, with a monthly maximum of four birds in January. Following an unseasonal third-ever WeBS record for the month of July, from Lossie Estuary, singles were seen at Loch Spynie, Forth Estuary, Ditchford Gravel Pits, Albert Village Pit, Alde Complex and Guernsey Shore during the more typical winter and early spring period.

Glaucous Gull *(Peter M Wilson)*

Great Black-backed Gull
Larus marinus

International threshold: 4,400
Great Britain threshold: 760
All-Ireland threshold: ?†

GB max: 10,513 Oct
NI max: 385 Nov

Counts of 1,000+ Great Black-backed Gulls were received from five sites during the course of 2009/10, a good showing compared to recent years. The largest counts were scattered throughout the period of September to March, and the overall counted monthly maximum proved to be 10,513 birds in October. The national trends based on WeBS data are included here for the first time, indicating an apparent decline over the course of the last fifteen or so years. The breeding population is estimated to have declined by 14% between 2000 and 2010 (JNCC 2011).

A number of sites of known importance for this species do not feature in the tables below, having not been counted for WeBS since the last Wintering Gulls Survey (WinGS) in 2003/04. These include Lynmouth Ash Lagoons, Grafham Water, Brogborough Clay Pit, Ogston Reservoir and Southfield Reservoir. Submission of counts from these sites, as well as from gull roosts

more generally, is therefore particularly encouraged.

In Northern Ireland, the recent fall in numbers reported from Belfast Lough is again apparent. A peak of just 24 was reported in October; as recently as four years ago, over 1,000 were reported. Reasons for this are unknown, but implications for the national indices and associated trend are obvious and demonstrate that care should be taken if interpreting trends based on data from relatively few sites.

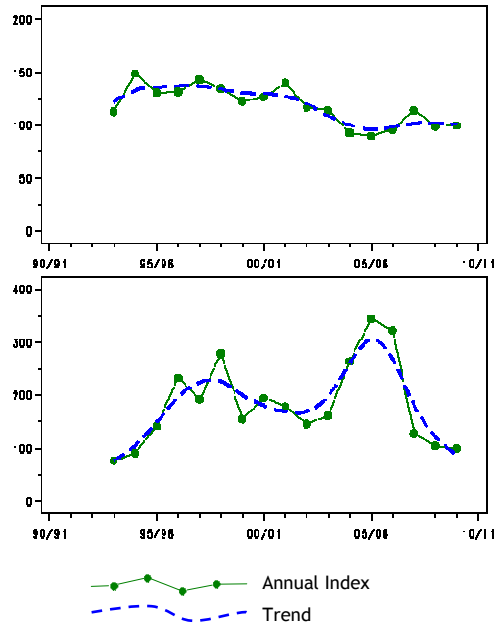


Figure 63.a, Annual indices & trend for Great Black-backed Gull for GB (above) & NI (below).

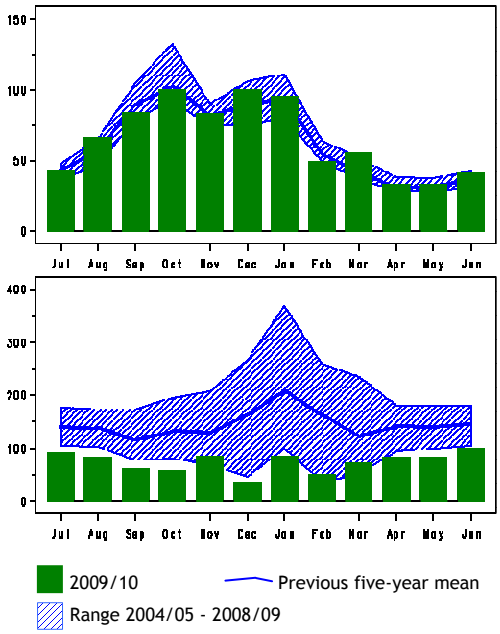


Figure 63.b, Monthly indices for Great Black-backed Gull for GB (above) & NI (below).

	05/06	06/07	07/08	08/09	09/10	Mon	Mean	
Sites of national importance in Great Britain								
Thames Estuary	1,972	1,096	2,107	(1,236)	(1,431)	Nov	1,725	
The Wash	1,773	1,186	(2,131)	(1,011)	1,726	Oct	1,704	
Lower Derwent Ings	500	1,030	870	1,000	1,740	Mar	1,028	
Tees Estuary	(366)	1,028	668	971	1,169	Jan	959	
Ribble Estuary	(27)	(200)	(365)	211	1,700 [10]	Nov	956	▲
Humber Estuary	(66)	(20)	(165)	176	(1,441)	Dec	809	▲
Pegwell Bay	1,190	700	850	821 [10]	420 [12]	Dec	796	
Durham Coast	776	(659)	(35)	(99)	(139)	Feb	776	
Dungeness and Rye Bay	1,000 [12]	700 [12]	1,200 [12]	305	601	Dec	761	
Sites with mean peak counts of 400 or more birds in Great Britain								
Glyne Gap	355	655	(800) [11]	1,100 [11]	850 [11]	Oct	752	
Fleet and Wey	873	111	897	711	491	Nov	617	
East Chevington Pools	230	400	2,000	190	200	Oct	604	
Cambois to Newbiggin	(600)	(0)	(0)	(0)	(0)		(600)	
Guernsey Shore	477	619	424	633	(180)	Dec	538	
Dee Estuary (England & Wales)	(58)	(176)	(152)	(465)	(147)	Nov	(465)	
Sites with mean peak counts of 400 or more birds in Northern Ireland†								
Belfast Lough	1,281	(827)	333	52	57 [10]	Nov	510	
Other sites surpassing table qualifying levels in WeBS-Year 2009/2010 in Great Britain								
Camel Estuary	492	75	159	189	492	Jan	281	
Morecambe Bay	313	466	280	(411)	487	Oct	391	
North Norfolk Coast	471	262	251	383	424	Sep	358	
Don Mouth to Ythan Mouth	(347)	33	27	(17)	420	Aug	207	

† *as no All-Ireland threshold has been set, a qualifying level of 500 has been chosen to select sites for presentation in this report*

Little Tern

Sternula albifrons

International threshold: **490**
Great Britain threshold: **?†**
All-Ireland threshold: **?†**

GB max: **1,254** **Jul**
NI max: **0**

Little Terns were recorded at 37 WeBS sites in 2009. Typically the majority of sites were in England, although nine in Scotland is another slight increase for there.

All records were in the period of April to August. Maxima from the principal WeBS sites for Little Terns were similar to those in 2008, with North Norfolk Coast and Dee Estuary consolidating their respective positions in the table below. The peak count was again high at Morecambe Bay in July, indicative of improved summer coverage and hopefully a productive breeding season.

Inland, one was at Fen Drayton Gravel Pits in April.

	2005	2006	2007	2008	2009	Mon	Mean
Sites with mean peak counts of 50 or more birds in Great Britain†							
North Norfolk Coast	246	284	496	593	491	Jul	422
Dee Estuary (England and Wales)	411	250	251	309	300	Jul	304
The Wash	(182)	83	255	(80)	153	Jul	168
Morecambe Bay	(1)	(4)	42	156	152	Jul	117
Thames Estuary	74	154	101	57	(125)	Aug	102
Durham Coast	67	39	(49)		(38)	Jul	53
Humber Estuary	(22)	(59)	(8)	44	(12)	May	52
Other sites surpassing table qualifying levels in Summer 2009 in Great Britain†							
Pegwell Bay	1	0	3	12	75 [13]	May	18
North West Solent	0	4	(4)	(14)	57	May	20

† *as no British or All-Ireland thresholds have been set, a qualifying level of 50 has been chosen to select sites for presentation in this report*

Gull-billed Tern

Gelochelidon nilotica

Vagrant
Native Range: S Europe

A Gull-billed Tern was recorded at Tamar Complex in July. There have now been five WeBS records, the last three of which have occurred in either Devon or Cornwall.

Black Tern

Chlidonias niger

International threshold: **7,500**
Great Britain threshold: **?**
All-Ireland threshold: **?**

GB max: **273** **Aug**
NI max: **0**

In 2009, Black Terns were seen during Core counts at 26 WeBS sites in England, half the total of the previous year. In spring, maxima among records from nine sites comprised eight birds at Buckden & Stirtloe Pits and seven at Wellington Gravel Pits, both in May. Similar to Little Gull, numbers recorded by WeBS tend to be dependent on Core count dates coinciding with fluxes of passage; exemplified in August 2009 by events at Thames Estuary where an impressive 142 birds were noted. Elsewhere the same movement yielded counts of 41 at Grafham Water, 26 at Pegwell Bay, 24 at Tring Reservoirs, 14 at Hanningfield Reservoir and 12 at Humber Estuary. The species was seen at 15 other sites in the August-September period.

White-winged Black Tern

Chlidonias leucopterus

Vagrant
Native Range: S Europe

Four White-winged Black Terns graced WeBS sites in 2009. These comprised adults at Fen Drayton Gravel Pits (July) and Thames Estuary (Aug) followed by two juveniles at Brading Harbour (Aug).

Sandwich Tern

Sterna sandvicensis

GB max:	**5,358**	**Aug**
NI max:	**193**	**Sep**

International threshold:	**1,700**
Great Britain threshold:	**?†**
All-Ireland threshold:	**?†**

Sandwich Terns were recorded at 126 WeBS sites across the UK in 2009, a very similar distribution to the previous year. The majority of records were for April through to October, although the regular occurrence of a small number of winterers continued; consequently there were records for all months of the year.

Sandwich Tern *(Jill Pakenham)*

Pegwell Bay, Guernsey Shore and Fishguard Harbour all hosted birds in January and February, while in December the species featured on the south coast of England at Chichester Harbour, Portsmouth Harbour, Southampton Water and Poole Harbour. Several of these winter records at re-occurring sites may relate to returning adults.

The British maximum was similar to the average for the last ten years, as was the maximum from North Norfolk Coast where a peak of 4,687 Sandwich Terns was recorded in June. Elsewhere, a notable site maximum at Minsmere in July represents the highest WeBS count ever there.

The peak count from the principal site in Northern Ireland, Dundrum Inner Bay, was fairly typical of recent years.

	2005	2006	2007	2008	2009	Mon	Mean
Sites of international importance in the UK							
North Norfolk Coast	3,228	8,062	2,873	5,729	4,687	Jun	4,916
Sites with mean peak counts of 200 or more birds in Great Britain†							
Forth Estuary	1,243	(1,037)	680	(448)	(312)	Jul	987
Dee Estuary (England and Wales)	829	530	1,334	953	(1,235)	Aug	976
Pegwell Bay	824	650 [13]	520	1,060	1,050 [13]	Jul	821
Duddon Estuary	604	843	460	886	877	May	734
Humber Estuary	325	(957)	805	(383)	349	Aug	609
Cemlyn Bay and Lagoon	2,000	12	208	22	42	Apr	457
Tay Estuary	126	(377)	545	373	648	Aug	423
Tees Estuary	221	(490)	438	(108)	249	Aug	350
The Wash	(307)	164	(338)	(498)	(213)	Jul	304
Lindisfarne	(7)	(300)	(30)	(126)	(140)	Apr	(300)
Eden Estuary	33	766	460	90	53	Sep	280
Solway Estuary	(209)	(339)	(162)	(227)	211	Jul	259
Alt Estuary	116	207	348	112	293	Apr	215
Minsmere	13	50	24	104	847	Jul	208
Peterhead Bay					206	Sep	206
Sites with mean peak counts of 200 or more birds in Northern Ireland†							
Dundrum Inner Bay	133	311	233	276	179	Jun	226
Other sites surpassing table qualifying levels in Summer 2009 in Great Britain†							
Morecambe Bay	110	190	201	216	280	Apr	199
Ribble Estuary	(32)	7	256	148	(220) [13]	Aug	158
Traeth Bach	0	30		15	218	Sep	66
Montrose Basin	140	13	43	22	204	Aug	84
Loch Ryan	107	(80)			200 [13]	Jul	154

† *as no British or All-Ireland thresholds have been set, a qualifying level of 200 has been chosen to select sites for presentation in this report*

Common Tern

Sterna hirundo

International threshold: 1,900
Great Britain threshold: ?†
All-Ireland threshold: ?†

GB max: 5,308 Aug
NI max: 8 May

Common Terns were recorded at 330 WeBS sites during 2009, exactly the same number of sites as the previous year. All were between April and October, featuring records from nine sites during the latter month (which included groups of 20 birds at The Wash and 17 at Eden Estuary).

The highest counts of the year were from Humber Estuary and Alt Estuary, both sites again exceeding 1,000 birds. At most sites, peak counts were generally as expected, although the maxima from both North Norfolk Coast and Loch of Strathbeg were somewhat reduced compared to recent years. This year saw no exceptional aggregations reported such as those of recent years at Humber Estuary (in 2008) and Breydon Water & Berney Marshes (in 2007 and 2008).

	2005	2006	2007	2008	2009	Mon	Mean
Sites of international importance in the UK							
Humber Estuary	(61)	(19)	(330)	7,000 [12]	(1,126)	Aug	7,000
Breydon Water and Berney Marshes			8,720 [13]	2,520 [12]			5,620
Sites with mean peak counts of 200 or more birds in Great Britain†							
Alt Estuary	2,010	1,503	1,074	1,655	1,513	Jun	1,551
Tees Estuary	(521)	869	618	558	536	Jun	645
The Wash	129	1,092	(342)	(688)	(179)	Jul	636
North Norfolk Coast	450	606	894	782	385	Jun	623
Dee Estuary (England and Wales)	(109)	454	677	(327)	(249)	May	566
Tay Estuary	(123)	(100)	600	105	410	Aug	372
Thames Estuary	219	(206)	(198)	514	(132)	Aug	367
Loch of Strathbeg	449	326	554	174	61	Jul	313
Southampton Water	(62)	(133)	(2)	(310)	(260)	Aug	(310)
Dungeness and Rye Bay	(0)	(1)	(0)	(62)	302	Apr	302
Pegwell Bay	26	5	173	474	440 [13]	Aug	224
Forth Estuary	287	(216)	207	169	(131)	May	221
Other sites surpassing table qualifying levels in Summer 2009 in Great Britain†							
Glyne Gap	(0)	31	(1)	105	(264)	Aug	133
Minsmere	111	84	136	165	210	Jul	141
Chichester Harbour	(102)	(54)	(25)	64	(202)	Aug	123

† *as no British or All-Ireland thresholds have been set, a qualifying level of 200 has been chosen to select sites for presentation in this report*

Roseate Tern

Sterna dougallii

Scarce

Roseate Terns were reported from eight WeBS sites during 2009. Sites in north-east England predominated, accounting for the peak counts in both spring (four at Cresswell to Newbiggin in June) and autumn (six at St Mary's Island in August).

Arctic Tern

Sterna paradisaea

International threshold: ?
Great Britain threshold: ?†
All-Ireland threshold: ?†

GB max: 917 Jul
NI max: 3 Oct

Counting of terns is optional during WeBS counts therefore any summed national maxima reflect changes in effort as much as actual numbers. The British maximum in 2009 of just 917 in July was one of the lowest ever. Typically, largest counts were from sites in Scotland, although maxima at the traditionally important sites of Tay Estuary and Loch of Strathbeg, like those of Kittiwake (page 142), were both low.

In total, birds were reported from 91 WeBS sites across the UK, a typical showing. The majority were seen between May and September, with small numbers in both April (including a group of 113 birds at Alt Estuary) and October. This was followed by a particularly late report from Lower Lough Erne in November, one of four records in Northern Ireland during the year.

The UK supports 3.1% of the global breeding population of Arctic Terns. A decline of 31% was estimated between seabird censuses carried out in 1985-1988 and 1998-2002, although an increase of 7% between 2000 and 2010 is estimated from trends derived from colonies sampled annually through the Seabird Monitoring Programme (JNCC 2011).

	2005	2006	2007	2008	2009	Mon	Mean
Sites with mean peak counts of 50 or more birds in Great Britain†							
Tay Estuary	(10)	(50)	1,841	1,100	200	Aug	1,047
Loch of Strathbeg	2,100	164	1,210	883	38	Jul	879
Loch of Beith	1,000	45	250	200	100	Jul	319
Loch An Duin, Aird Point (Lewis)	300						300
Eden Estuary	0	209	617	25	7	Jul	172
The Houb (Whalsay)	3	200	275	80	150	Jun	142
Morecambe Bay	(16)	(11)	(30)	123	122	Jul	123
St Andrews Bay	70	110	(0)	(0)			90
Ness of Sound		90	80	100	60	Jul	83
Loch a` Phuill (Tiree)	58	37	77	101	135	Jun	82
Hamna Voe and Galtagarth	50	50	100	150	50	Jul	80
Other sites surpassing table qualifying levels in Summer 2009 in Great Britain†							
Montrose Basin	12	21	2	90	144	Jun	54
Loch Inver	0	18	0	80	120	Jun	44
Alt Estuary	15	9	78	11	113	Apr	45

† *as no British or All-Ireland thresholds have been set, a qualifying level of 70 has been chosen to select sites for presentation in this report*

Kingfisher

Alcedo atthis

International threshold: **?**
Great Britain threshold: **?†**
All-Ireland threshold: **?†**

GB max: **493** **Sep**
NI max: **14** **Oct**

The Kingfisher is a difficult species to monitor accurately, owing to its widespread distribution and preference for linear waterways; a habitat which is relatively poorly covered by WeBS. Although breeding numbers declined up to the mid 1980s, the species seems to have recovered since (Baillie *et al*. 2010).

Kingfishers were recorded at 644 WeBS sites in 2009/10, which represents a very similar showing to the previous year. However, the British counted maximum of 493 in September was lower than both of the previous two years.

Somerset Levels, Ditchford Gravel Pits and Wraysbury Gravel Pits continue to vie for top spot in the table of WeBS sites below, the maximum during the year being 16 at Ditchford in October.

	05/06	06/07	07/08	08/09	09/10	Mon	Mean
Sites with mean peak counts of 7 or more birds in Great Britain†							
Somerset Levels	(18)	17	22	14	15	Mar	17
Ditchford Gravel Pits	13	12	19	17	16	Oct	15
Wraysbury Gravel Pits	16	17	14				15
Southampton Water	(11)	(8)	(8)	(6)	(6)	Aug	(11)
North Norfolk Coast	10	14	20 [10]	5	7	Nov	11
Chichester Gravel Pits	11	7	9	(0)	(2)	Dec	9
Lee Valley Gravel Pits	9	(13)	(9)	7	6	Nov	9
The Wash	(0)	(0)	9	8	9	Oct	9
Colne Valley Gravel Pits	9	9	7	10	4	Sep	8

† *as no British or All-Ireland thresholds have been set a qualifying level of 8 has been chosen to select sites for presentation in this report*

PRINCIPAL SITES

Table 5 below lists the principal sites for non-breeding waterbirds in the UK as monitored by WeBS. All sites supporting more than 10,000 waterbirds are listed, as are all sites supporting internationally important numbers of one or more waterbird species. Naturalised species (*e.g.* Canada Goose and Ruddy Duck) and non-native species presumed to have escaped from captive collections have been excluded from the totals, as have gulls and terns since the recording of these species is optional (see *Analysis*). In contrast to previous years, all Greylag Geese are now included following a reclassification of the listing of populations. Table 6 lists other sites holding internationally important numbers of waterbirds, which are not routinely monitored by standard WeBS surveys but by the Icelandic Goose Census and aerial surveys.

A total of 211 sites are listed in Tables 5 and 6. This is a lower total than recent years, mainly due to the removal of Northwest Scotland Greylag Goose from the species that can contribute to a site's international importance. (The national threshold for British/Irish Greylag Goose has been used as an international threshold). Of the 244 sites, 225 supported one or more species in internationally important numbers and 84 held a five-year mean peak of 10,000 or more birds. Typically there are few changes to the top twenty sites listed in the principal sites table, with the order of the top ten changing little from year to year.

The Wash remains as the key waterbird site in terms of absolute numbers and in 2009/10 held figures well above average for recent years. The total of 435,227 birds represents the highest site total in WeBS history. With the exceptions of North Norfolk Coast and Morecambe Bay, numbers at the majority of other top 10 sites were below recent average. Following the highest total at Ribble Estuary for ten years in 2008/09, the total in 2009/10 was the lowest since 2001/02. Reduced totals were especially marked at the two most important non-estuarine sites, namely Somerset Levels and Ouse Washes. This was probably attributable to the effects of freezing weather conditions during the midwinter period.

Across the UK, five-year averages of sites holding 10,000 or more waterbirds were relatively similar compared to the previous year, with 73 of the 84 sites undergoing changes of less than 10%. The greatest increases were experienced at Nosterfield Gravel Pits (18%), Mersehead RSPB (17%) and Lower Derwent Ings (14%). The greatest decreases were at WWT Caerlaverock (Inland) (22%), Stour Estuary (13%) and Poole Harbour (12%).

Table 5. Total number of waterbirds at principal sites in the UK, 2005/2006 to 2009/10 (includes data from all available sources) and species occurring in internationally important numbers at each. (Species codes are provided in Table 7.)

Site	05/06	06/07	07/08	08/09	09/10	Average	Int.Imp.Species
The Wash	399,378	381,341	373,565	345,609	435,227	387,024	PG,DB,SU,PT,OC,RP,GP,GV,L.,KN,SS,DN,BW,BA,CU,RK
Ribble Estuary	220,933	214,506	263,487	274,779	210,699	236,881	WS,PG,WN,T.,PT,OC,RP,GV,KN,SS,DN,BW,BA,RK
North Norfolk Coast	242,845	217,121	144,140	209,045	204,250	203,480	PG,DB,RP,KN,BW,BA
Morecambe Bay	206,452	194,990	155,048	220,209	236,976	202,735	PG,QN,SU,PT,OC,RP,KN,DN,BW,BA,CU,RK
Thames Estuary	186,784	226,591	189,813	158,941	141,278	180,681	DB,GA,SV,OC,AV,RP,GV,KN,DN,BW,BA,RK
Humber Estuary	187,591	168,246	146,689	126,711	121,723	150,192	MS,PG,DB,SU,RP,GP,GV,KN,DN,BW,BA,RK
Dee Estuary (England and Wales)	130,648	103,753	104,315	124,122	103,072	113,182	SU,PT,OC,KN,DN,BW,RK

Site	05/06	06/07	07/08	08/09	09/10	Average	Int.Imp.Species
Breydon Water & Berney Marshes	106,943	97,128	100,555	128,151	92,573	105,070	PG,WN,SV,AV,GP,L., BW
Solway Estuary	103,053	118,199	89,948	88,039	93,915	98,631	WS,PG,YS,PT,OC,RP, KN,RK
Somerset Levels	87,910	108,222	114,306	104,429	74,534	97,880	MS,WN,T.,PT,SV,GP,L.
Ouse Washes	134,143	73,012	67,604	78,260	68,535	84,311	MS,BS,WS,WN,GA,T., PT,SV,BW
Strangford Lough	83,667	74,657	87,535	81,876	74,063	80,360	MS,WS,QN,SU,KN,BW, RK
Swale Estuary	84,063	62,313	92,110	66,623	87,601	78,542	DB,T.,RP,GP,BW
Forth Estuary	76,269	59,926	76,441	93,609	68,463	74,942	PG,JI,SU,BA,RK
Severn Estuary	80,419	66,918	72,614	86,217	67,397	74,713	MS,BS,SU,PT,SV,RP,DN
Blackwater Estuary	70,416	72,445	71,693	86,467	66,794	73,563	DB,GP,GV,KN,DN,BW,R
Mersey Estuary	84,156	66,709	68,499	39,236	60,723	63,865	SU,T.,DN,BW,RK
Loch of Strathbeg	84,266	51,244	52,062	61,125	67,483	63,236	WS,PG,YS
Dengie Flats	58,285	61,848	53,043	58,269	64,265	59,142	DB,GV,KN,BA
Loughs Neagh and Beg	58,887	51,400	57,561	46,607	47,748	52,441	MS,WS,PO,SP,CA
Inner Moray/Inverness Firth	73,248	47,199	43,380	42,200	45,062	50,218	PG,JI
Chichester Harbour	47,685	44,029	54,125	55,980	48,518	50,067	DB,DN,BW
Alt Estuary	41,837	50,363	40,261	48,790	60,285	48,307	PG,KN,SS,BA
Lindisfarne	58,941	47,957	46,950	44,989	36,134	46,994	PG,YS,QS,BA
Montrose Basin	57,115	45,569	45,843	55,216	23,031	45,355	PG
Stour Estuary	38,094	35,069	40,305	49,937	55,449	43,771	MS,GV,KN,BW
Hamford Water	43,886	34,467	45,489	49,199	35,783	41,765	DB,T.,GV,BW
Burry Inlet	46,404	44,625	44,794	42,640	29,126	41,518	PT,OC
Carmarthen Bay	45,244	52,991	48,034	28,941	31,695	41,381	OC,SS
Lower Derwent Ings	39,898	43,648	34,294	26,055	38,770	36,533	
Lough Foyle	39,783	36,225	34,836	39,211	29,936	35,998	WS,QN,BA
Alde Complex	34,741	33,419	47,038	31,324	32,876	35,880	AV,BW,RK
West Water Reservoir	28,244	43,252	27,960	47,361	26,400	34,643	PG
Dungeness and Rye Bay	34,600	35,636	39,400	27,378	34,760	34,355	MS,SV
Loch Leven	40,355	34,279	19,699	44,962	29,497	33,758	MS,WS,PG,T.,PT
Nene Washes	20,723	30,467	37,849	30,430	45,394	32,973	BS,WS,PT,BW
Duddon Estuarv	34.854	28.924	34.971	35.220	28.284	32.451	PT.RK
Crouch-Roach Estuary	29,785	31,943	36,222	32,183	31,836	32,394	DB,BW
Abberton Reservoir	50,987	12,777	30,379	25,631	37,187	31,392	MS,GA,SV
Cromarty Firth	35,799	23,332	39,055	25,256	29,410	30,570	PG,JI
Dornoch Firth	34,313	28,356	30,940	32,282	26,867	30,552	JI
Langstone Harbour	41,481	28,041	30,784	22,066	29,051	30,285	DB,DN,BW
Medway Estuary	30,990	24,673	36,476	40,126	18,270	30,107	PT,AV,BW
Rutland Water	31,684	30,860	23,393	27,355	31,501	28,959	MS,GA,SV
WWT Martin Mere	38,161	28,860	22,660	26,507	28,045	28,847	WS,PG
Pegwell Bay	20,425	29,881	24,090	19,646	25,985	24,005	
Cleddau Estuary	33,420	19,659	23,336	21,693	19,004	23,422	
Orwell Estuary	26,996	23,995	20,510	23,934	21,009	23,289	BW
Colne Estuary	19,552	17,734	31,470	23,598	20,908	22,652	DB,BW
Tees Estuary	23,962	23,036	23,222	17,356	23,881	22,291	
Inner Firth of Clyde	23,161	24,257	22,174	19,801	19,710	21,821	
Loch of Skene	24,764	24,338	20,620	20,401	17,968	21,618	PG,JI
Wigtown Bay	14,994	18,101	26,145	19,647	20,218	19,821	WS,PG,YS
Pagham Harbour	20,800	22,679	18,437	16,672	16,909	19,099	DB,BW
Deben Estuary	19,390	17,540	21,611	18,521	16,669	18,746	BW
Belfast Lough	19,736	18,964	19,414	16,262	18,647	18,605	BW
Exe Estuary	19,172	17,774	19,275	19,566	17,069	18,571	BW

Site	05/06	06/07	07/08	08/09	09/10	Average	Int.Imp.Species
Tay Estuary	25,896	18,461	18,198	14,440	14,368	18,273	
Carsebreck and Rhynd Lochs	17,026	17,239	14,294	19,873	22,527	18,192	PG
Lavan Sands	19,844	22,772	16,502	13,991	15,824	17,787	
West Freugh					17,657	17,657	PG,NW,JI
Ythan Estuary	17,748	20,245	14,116	18,458	14,620	17,037	
Orkney West Mainland	17,008	.	.	.	.	17,008	JI
Poole Harbour	17,710	15,993	15,777	17,899	15,113	16,498	AV,BW
Eden Estuary	12,190	5,688	12,958	36,796	11,406	15,808	PG
Slains Lochs	12,615	11,408	17,603	19,700	14,100	15,085	PG
North West Solent	13,714	13,916	15,625	16,758	15,210	15,045	DB,BW
Middle Yare Marshes	18,412	12,711	18,658	13,819	11,600	15,040	
Fleet and Wey	17,352	13,777	13,051	14,355	15,686	14,844	MS
Portsmouth Harbour	17,245	14,276	14,019	14,037	12,172	14,350	DB,BW
Taw-Torridge Estuary	17,260	13,166	10,244	16,374	12,234	13,856	
Blyth Estuary	11,769	13,433	19,188	14,092	10,020	13,700	
Cotswold Water Park (West)	12,205	12,197	12,531	13,364	17,434	13,546	
WWT Caerlaverock (Inland)	16,300	14,199	13,932	10,544	6,223	12,240	WS,YS
Dyfi Estuary	12,022	13,123	12,332	12,814	9,607	11,980	
Southampton Water	13,673	11,467	11,360	11,170	11,623	11,859	
Nosterfield Gravel Pits	11,346	12,290	11,195	.	.	11,610	
Arun Valley	9,835	13,791	11,964	10,838	9,595	11,205	
Ouse Fen and Pits	11,483	12,953	8,729	13,247	8,406	10,964	
Camel Estuary	16,425	10,049	8,157	12,727	7,170	10,906	
Mersehead RSPB Reserve	124	16,113	12,456	1,420	22,808	10,584	YS,PT
Loch of Lintrathen	10,330	10,936	11,156	13,135	5,641	10,240	PG
Pitsford Reservoir	12,417	11,472	8,406	7,888	10,892	10,215	
Stodmarsh	12,309	9,648	10,440	7,717	10,678	10,158	
Outer Ards Shoreline	9,960	12,293	9,674	9,734	8,543	10,041	
Dundrum Inner Bay	8,435	6,565	13,582	8,634	9,270	9,297	QN
Loch of Harray	7,566	12,639	7,252	7,676	10,206	9,068	JI
Carlingford Lough	10,166	9,692	10,705	10,290	4,255	9,022	QN
Fen Drayton Gravel Pits	7,506	9,299	8,161	10,740	8,456	8,832	BW
Lee Valley Gravel Pits	8,982	7,477	9,073	9,005	8,635	8,634	GA
R.Avon: R'wood to C'church	3,164	12,900	9,306	4,749	9,631	7,950	BW
Loch Spynie	27,245	9,000	1,181	1,404	677	7,901	PG
R.Avon: F'bridge to Ringwood	6,535	8,636	8,238	7,810	8,090	7,862	GA,BW
Upper Lough Erne	9,216	8,785	7,460	6,455	6,043	7,592	MS,WS
Kilconquhar Loch	3,731	1,187	7,622	14,884	10,471	7,579	PG
Dupplin Lochs	.	1,450	2,100	.	18,608	7,386	PG
Loch Fleet Complex	7,972	7,141	7,754	4,803	7,745	7,083	JI
Hule Moss	6,954	2,648	7,095	6,570	10,251	6,704	PG
R.Nith: Keltonbank-Nunholm	.	8,115	.	4,282	7,563	6,653	YS
Wedholme Flow	.	1,295	2,534	8,271	12,848	6,237	PG
Horsey Mere	6,240	5,430	.	.	.	5,835	PG
Loch of Stenness	6,475	6,038	5,992	4,961	5,043	5,702	JI
Heigham Holmes	5,670	.	.	.	.	5,670	PG
Loch of Boardhouse	7,159	5,983	4,940	5,199	4,607	5,578	JI
Hornsea Mere	7,481	4,859	4,704	5,378	5,114	5,507	MS
The Ouse and Lairo Water	8,020	4,991	3,780	4,346	6,310	5,489	JI
Overcote Marina	.	7,828	.	6,055	2,006	5,296	BW
Tiree	15,171	5,297	4,196	979	787	5,286	NW,YN
Lochhill	4,576	1,816	5,506	7,516	7,000	5,283	PG
RClyde: Carstairs-Thankerton	5,785	3,666	6,283	5,833	4,445	5,202	PG

Site	05/06	06/07	07/08	08/09	09/10	Average	Int.Imp.Species
Traeth Melynog	4,580	.	.	4,945	5,871	5,132	QN
Loch Eye	15,005	1,085	1,667	2,002	5,708	5,093	WS,JI
Larne Lough	5,557	4,123	4,071	6,294	4,657	4,940	QN
Fala Flow	3,750	2,170	3,650	1,510	13,190	4,854	PG
Rossie Bog	3,060	.	2,645	8,855	4,664	4,806	PG
Loch Heilen	7,863	2,567	4,898	492	7,979	4,760	WS,JI
East Mainland	8,589	424	.	.	.	4,507	JI
Biggar Moss	2,327	638	7,443	7,375	.	4,446	PG
R.Tay - Haughs of Kercock	6,252	5,045	3,622	3,295	3,264	4,296	PG
Loch of Isbister	3,464	4,326	3,492	2,759	7,013	4,211	JI
Orchardton and Auchencairn	3,571	4,170	2,800	5,017	5,223	4,156	YS
Loch Watten	2,447	2,964	2,827	3,863	7,611	3,942	JI
Island of Papa Westray	4,067	.	3,144	4,139	3,484	3,709	JI
Loch Bee (South Uist)	3,430	3,907	3,672	3,709	.	3,680	MS
Loch Gruinart	3,808	3,042	3,276	3,323	4,338	3,557	JH
North Uist	2,671	4,437	.	.	.	3,554	YN
Killough Harbour	4,164	2,838	.	.	.	3,501	QN
Loch of Skaill	4,310	2,542	2,785	2,619	4,712	3,394	JI
Tweed Estuary	3,520	3,672	2,784	2,981	3,416	3,275	MS
Ravenstruther	987	2,344	2,131	9,650	1,208	3,264	PG
Martham Broad	1,820	1,059	1,199	10,932	1,178	3,238	PG
Loch of Swannay	2,778	3,075	3,729	3,259	3,130	3,194	JI
Sanday	2,990	.	.	.	.	2,990	JI
Inner Loch Indaal	960	810	870	.	8,473	2,778	YN
Islands of Shapinsay	5,200	178	.	.	.	2,689	JI
Warton Floods	.	.	3,049	3,138	1,691	2,626	BW
Lower Lough Erne	3,018	3,139	3,283	1,065	1,143	2,330	MS
Upper Quoile River	4,468	1,177	653	.	.	2,099	MS
Broubster Leans	1,123	2,979	.	.	.	2,051	JI
Gadloch	2,049	2,310	1,922	2,991	312	1,917	JI
Isle of Coll	4,000	3,143	1,245	351	323	1,812	NW,YN
Machrihanish	2,106	1,831	1,432	1,494	2,180	1,809	NW
Newmains Ponds	.	.	.	.	1,782	1,782	YS
Colonsay/Oronsay	.	.	1,200	.	.	1,200	YN
Loch Ussie	3,604	447	1,514	249	74	1,178	JI
Island of Eday	1,060	.	.	.	.	1,060	JI
Rhunahaorine	955	940	1,451	879	1,017	1,048	NW
Island of Rousay	1,024	.	.	.	.	1,024	JI
Isle of Cumbrae	1,000	.	.	.	.	1,000	JI
Loch Garten	1,715	1,573	284	.	2	894	JI
Stronsay (Whole Island)	2,393	.	.	9	3	802	JI
Sound of Gigha	520	105	194	1,350	1,600	754	ND
Stranraer Lochs	282	1,105	877	273	490	605	NW
Balnakiel Farm	1,196	288	1,109	33	225	570	YN
Keills Peninsula /Isle of Danna	816	300	913	239	214	496	YN
Scapa Flow and Shapinsay	457	.	.	.	.	457	ND
Scarp to Vatersay offshore	280	.	.	.	.	280	ND
Outer Loch Indaal	279	.	.	.	.	279	ND
Coll and Tiree and west Mull	73	.	.	.	.	73	ND

Table 6. Other sites in the UK holding internationally important numbers of waterbirds in 2009/10 which are not routinely monitored by standard WeBS surveys. (Species codes are provided in Table 7.)

Site	Int.Imp.species	Site	Int.Imp.species
Berney Marshes	PG	Morecambe Bay	PG
Bute	JI	Wyre to Cockerham	PG
Caithness Lochs	JI	Wyre Estuary	PG
Colonsay/Oronsay	YN	North Norfolk Coast	PG
Cromarty Firth	JI	Holkham Bay	PG
Dingwall Bay	JI	Holme and Thornham	PG
Nigg Bay	JI,PG	Norton Marsh	PG
East Fenton Farm Reservoir	WS	Scolt Head	PG
Floodwater South Of Braco	PG	Wells-next-the-Sea	PG
Forth Estuary	PG	North Uist	YN
Aberlady Bay	PG	Balranald, Clettraval & Tigharry	YN
Forth Grangemouth to Kincardine	PG	Berneray	YN
Hule Moss (West)	PG	Malaclate To Grenitote	YN
Read`s Island Flats	PG	Orkney	JI, YN
Inner Moray and Inverness Firth	PG,JI	Isle of South Ronaldsay	JI
Beauly Firth	PG,JI	South Walls (Hoy)	YN
Easterton - Fort George	PG,JI	Simonswood Peat Moss	PG
Findhorn Bay	PG	Solway Firth	YS
Munlochy Bay	JI	Southwest Lancashire	PG
Island of Islay	NW,YN	Strathearn (West)	PG JI
Isle of Oronsay	YN	Tay and Isla Valley	PG,JI
Isle of Lismore	NW	Tayinloan	NW
Loch Fleet	JI	The Wash	PG
Lune Estuary	PG	Snettisham	PG
Martin Mere and Ribble Estuary	WS	Winter Loch, St Fergus Gas Term.	PG
Meikle Loch	PG		
Moray Firth	ND		

Table 7. Species codes for species listed in Tables 5., 6. and 8.

AV	Avocet
BA	Bar-tailed Godwit
BS	Bewick's Swan
BV	Black-throated Diver
BW	Black-tailed Godwit
CA	Cormorant
CO	Coot
CU	Curlew
CX	Common Scoter
DB	Dark-bellied Brent Goose
DN	Dunlin
E.	Eider
EW	European White-fronted Goose
GA	Gadwall
GG	Great Crested Grebe
GK	Greenshank
GP	Golden Plover
GV	Grey Plover
JE/JH	British/Irish Greylag Goose
JI	Greylag Goose (Icelandic population)
KN	Knot
L.	Lapwing
LG	Little Grebe
MA	Mallard
MS	Mute Swan
ND	Great Northern Diver
NW	Greenland White-fronted Goose
OC	Oystercatcher
PG	Pink-footed Goose
PO	Pochard
PS	Purple Sandpiper
PT	Pintail
QN	Light-bellied Brent Goose (Nearctic population)
QS	Light-bellied Brent Goose (Svalbard population)
RH	Red-throated Diver
RK	Redshank
RM	Red-breasted Merganser
RP	Ringed Plover
RU	Ruff
SP	Scaup
SS	Sanderling
SU	Shelduck
SV	Shoveler
SZ	Slavonian Grebe
T.	Teal
TT	Turnstone
WN	Wigeon
WS	Whooper Swan
YN	Barnacle Goose (Nearctic population)

WeBS Low Tide Counts

AIMS

Estuarine sites in the UK provide the most important habitat for non-breeding waterbirds, acting as wintering grounds for many migrants but also as stopover feeding locations for other waterbirds passing along the East Atlantic Flyway. Core Counts on estuaries tend to quantify birds at high tide roosts. Although important, knowledge of roost sites provides only part of the picture, and does not elucidate the use that waterbirds make of a site for feeding.

The WeBS Low Tide Counts scheme has flourished since its inception in the winter of 1992/93, with most of the major estuaries covered. The scheme aims principally to monitor, assess and regularly update information on the relative importance of inter-tidal feeding areas of UK estuaries for wintering waterbirds, and thus complements the information gathered by WeBS Core Counts.

The data gathered contribute greatly to the conservation of waterbirds by providing supporting information for the establishment and management of UK Ramsar sites and Special Protection Areas (SPAs), other site designations and whole estuary conservation plans. In addition, WeBS Low Tide Counts enhance our knowledge of the low water distribution of waterbirds and provide data that highlight regional variations in habitat use, whilst also informing protection of the important foraging areas identified. WeBS Low Tide Counts provide valuable information needed to gauge the potential effects on waterbirds of a variety of human activities which affect the extent or value of inter-tidal habitats, such as proposals for dock developments, recreational activities, tidal power barrages, marinas and housing schemes. Designing mitigation or compensation for such activities can be assisted using WeBS Low Tide data. Furthermore, the effects on bird distributions of climate change and sea level rise can be assessed.

METHODS

The scheme provides information on the numbers of waterbirds feeding on subdivisions of the inter-tidal habitat within estuaries. Given the extra work that Low Tide Counts entail, often by the same counters that carry out the Core Counts, WeBS aims to cover most individual estuaries about once every six years, although on some sites more frequent counts are made. Co-ordinated counts of waterbirds are made by volunteers each month between November and February on pre-established subdivisions of the inter-tidal habitat in the period two hours either side of low tide.

DATA PRESENTATION

Tabulated Statistics

Tables 8 and 9 present three statistics for 18 of the more numerous waterbird species present on 15 estuaries covered during the 2009/10 winter: the peak number of a species over the whole site counted in any one month (with checks for count synchronicity made from assessing proximity of count dates and consultation with Local Organisers); an estimate of the mean number present over the winter for the whole site (obtained by summing the mean counts of each species for each count section) and the mean density over the site (in birds per hectare), which is the mean number divided by the total area surveyed (in hectares). The area value used for these calculations is the sum of the inter-tidal and non-tidal components of each count section but omits the sub-tidal areas (*i.e.* those parts of the count section which are under water on a mean low tide).

Dot Density Maps

WeBS Low Tide Count data are presented as dot density maps, with subdivision of count sections into basic habitat elements. The reason for such a subdivision is to ensure species are

plotted on appropriate habitat areas and to improve the accuracy of density estimates. Each section for which a count has been made is divided into a maximum of three different habitat components:

Inter-tidal: Areas that lie between mean high water and mean low water.

Sub-tidal: Areas that lie below mean low water. In more 'open-coast'-type situations, a sub-tidal zone reaching 500 m out from the inter-tidal sections has been created arbitrarily, to indicate the approximate extent of visibility offshore from land-based counts.

Non-tidal: Areas that lie above mean high water (usually saltmarsh although some grazing marshes are also covered).

The mean count for the sector is then divided amongst a varying number of the different components, dependent on the usual habitat preferences of the species involved. For example, Dunlin dots are plotted exclusively on inter-tidal sections whereas Wigeon dots are spread across inter-tidal, sub-tidal and non-tidal areas (in proportion to the relative areas of these three components).

Currently, throughout all WeBS Low Tide Count analyses, mean low tide and mean high tide are taken from the most recent Ordnance Survey 1:25,000 maps (in Scotland, the lines on the OS maps are mean low water springs and mean high water springs instead). It is recognised, unfortunately, that these maps represent the current real shape of the mudflats, water channels and saltmarshes to varying degrees of accuracy. However, in the interests of uniformity across the UK, the Ordnance Survey outlines are adhered to throughout the analyses.

The maps display the average number of birds in each count section as dots spread randomly across habitat components of count sections, thus providing an indication of both numbers and density. **It is important to note that individual dots do not represent the precise position of individual birds; dots have been assigned to habitat components proportionally and are then randomly placed within those areas. No information about the distribution of birds at a finer scale than the count sector level should be inferred from the dot density maps.** For all maps in the present report, one dot is equivalent to one bird, except where stated. The size of individual dots has no relevance other than for clarity.

As most estuaries have now been covered more than once at low tide, density maps show the relative distributions of species in the winter of 2009/10 compared to an earlier winter. It is hoped that comparative dot density distributions will lead to an easier and fuller appreciation of low tide estuarine waterbird distribution, and changes therein. The following colour conventions apply to density maps: red dots = 2009/10 winter; blue dots = earlier winter; pale blue = water; yellow = inter-tidal habitat (e.g. mudflat, sandflat); pale green = non-tidal habitat (e.g. saltmarsh, reedbed); grey = not covered in one survey winter. More detailed information concerning analysis and presentation of WeBS Low Tide Counts can be obtained from the Low Tide Counts National Organiser, or from the publication *Estuarine Waterbirds at Low Tide* (Musgrove *et al*. 2003)

ESTUARY ACCOUNTS

WeBS Low Tide Counts were carried out at 15 different sites; estuary accounts for four of these are included here. To allow space in this report for these sites which have not been counted for many years, dot density distribution maps for all other sites included in the 2009/10 Low Tide Counts are available on our website at www.bto.org/webs/low-tide-results or from the WeBS office. Other counts, usually on limited numbers of sectors or only in one month, were made in the winter of 2009/10 on Adur Estuary, Burry Inlet, Carmarthen Bay, Firth of Forth, Loch Fleet and Ribble Estuary. These sites are not included in the estuary accounts, but data can be obtained from the WeBS Low Tide Count National Organiser upon request.

For the main site accounts, data were collected during the period November to

February. Assessment of national and international importance is based on five-year peak mean counts from the main species accounts in this volume of *Waterbirds in the UK*. Figure 64 shows the location of the sites discussed, and a site description is presented for each estuary. Distribution maps are presented for selected species, which are those of national or international importance, or are known to be undergoing site-level changes, where possible. General bird distribution is described for the winter of 2009/10, focusing on species held in important numbers at the site in question.

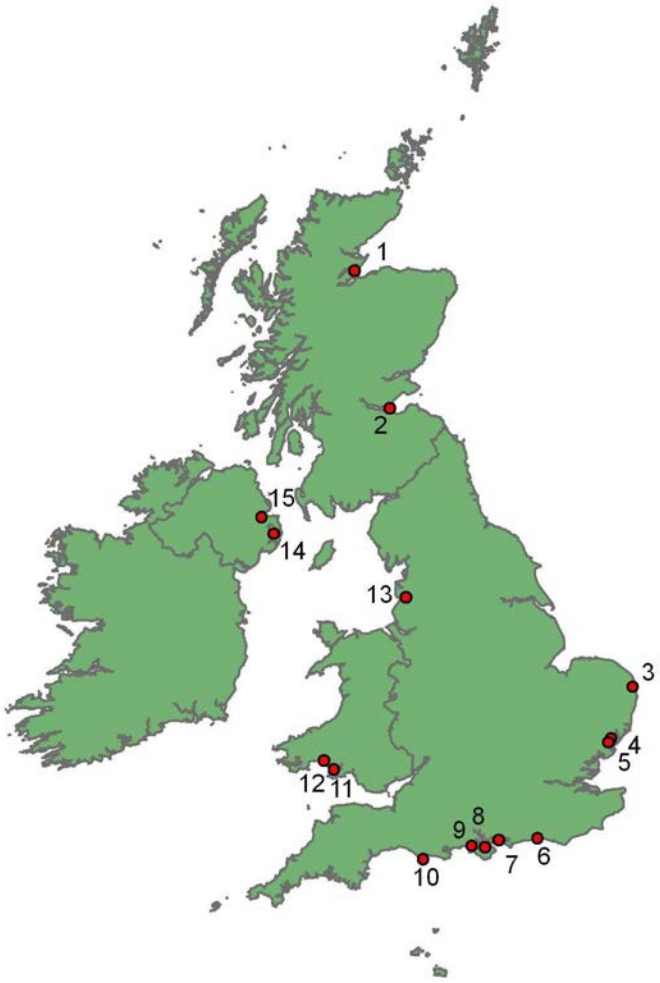


Figure 64. Map showing estuaries covered at low tide in the winter of 2009/10. 1: Loch Fleet; 2: Firth of Forth; 3: Breydon Water; 4: Orwell Estuary; 5: Stour Estuary; 6: Adur Estuary; 7: Langstone Harbour; 8: Medina Estuary; 9: Northwest Solent; 10: Portland Harbour & The Fleet; 11: Burry Inlet; 12: Carmarthen Bay; 13: Ribble Estuary; 14: Strangford Lough; 15: Belfast Lough.

Table 8. Sites covered by WeBS Low Tide Counts in 2009/10, with important bird numbers held. Numbers in parentheses refer to the location in Figure 64. For species codes see Table 7.

	International Importance	**National Importance**
Adur Estuary (6)	None	None
Belfast Lough (15)	BW	SU, T., MA, SV, SP, E., GN, RM, RH, GG, CA, H., OC, RP, DN, CU, RK, TT
Breydon Water (3)	PG, WN, T., SV, AV, GP, L., BW, CN	BS, EW, DN, RU, RK
Burry Inlet (11)	PT, OC, BW	DB, SV, KN, DN, CU, GK
Carmarthen Bay (12)	CX, OC, SS	GP, BW, GK
Firth of Forth (2)	PG, SU, BA, RK	T., E., LN, CX, VS, GN, RM, GD, RH, RX, SZ, CA, OC, RP, KN, SS DN, RU, CU, TT
Langstone Harbour (7)	DB, DN, BW	RM, GV, TT
Loch Fleet (1)	JI	None
Medina Estuary (8)	None	None
Northwest Solent (9)	DB, BW	PT
Orwell Estuary (4)	BW	DB, GA, PT, AV, KN, BW, RK
Portland Harbour (10) & The Fleet	MS	DB, PO, RM, CO
Ribble Estuary (13)	WN, T., PT, OC, RP, GV, KN, SS, DN, BW, BA, RK, LB, HG, GB	SU, CA, AV, GP, L., RU, CU, CM
Stour Estuary (5)	MS, BW, KN	DB, SU, PT, AV, GV, DN, RK TT
Strangford Lough (14)	MS, WS, QN, SU, KN, BW, RK BW, RK	T., WN, GA, T., MA, PT, SV, SP, E., GN, RM, BV, LG, GG, CA, CO, H., OC, RP, GP, GV, L., DN, BA, CU, GK, TT

Table 9. Peak and mean counts and mean density (birds per ha) of 18 waterbird species across 15 estuaries covered by the 2009/10 WeBS Low Tide Counts. Stour and Orwell estuaries displayed separately. "+" indicates non-zero densities of <0.01 birds per ha.

	Adur Estuary			Belfast Lough			Breydon Water		
	Peak	*Mean*	*Mean*	*Peak*	*Mean*	*Mean*	*Peak*	*Mean*	*Mean*
Species	*No.*	*No.*	*Dns.*	*No.*	*No.*	*Dns.*	*No.*	*No.*	*Dns.*
Brent Goose	0	0	0	103	64	0.14	112	29	0.07
Shelduck	1	0	+	916	574	1.26	38	25	0.06
Wigeon	0	0	0	163	141	0.31	11,838	7,971	19.83
Teal	60	45	0.6	520	467	1.02	495	327	0.81
Mallard	23	9	0.12	299	285	0.63	193	128	0.32
Pintail	0	0	0	1	0	+	37	20	0.05
Oystercatcher	3	3	0.04	3,119	2,829	6.2	3	1	+
Ringed Plover	49	27	0.36	133	81	0.18	43	24	0.06
Golden Plover	0	0	0	0	0	0	9,301	4,460	11.09
Grey Plover	16	8	0.11	1	0	+	31	17	0.04
Lapwing	792	515	6.87	821	697	1.53	11,812	3,609	8.98
Knot	0	0	0	39	19	0.04	80	49	0.12
Dunlin	80	73	0.97	675	577	1.27	4,806	2,864	7.12
Black-tailed Godwit	0	0	0	979	797	1.75	870	435	1.08
Bar-tailed Godwit	0	0	0	42	37	0.08	0	0	0
Curlew	0	0	0	724	556	1.22	258	131	0.33
Redshank	38	30	0.4	1,563	1,277	2.8	944	608	1.51
Turnstone	37	17	0.23	325	271	0.59	3	1	+

	Burry Inlet			Carmarthen Bay			Firth of Forth		
	Peak	*Mean*	*Mean*	*Peak*	*Mean*	*Mean*	*Peak*	*Mean*	*Mean*
Species	*No.*	*No.*	*Dns.*	*No.*	*No.*	*Dns.*	*No.*	*No.*	*Dns.*
Brent Goose	91	91	0.01	0	0	0	0	0	0
Shelduck	759	759	0.09	277	168	0.06	57	72	0.09
Wigeon	403	403	0.05	963	644	0.22	634	467	0.58
Teal	17	17	+	363	269	0.09	62	46	0.06
Mallard	10	10	+	189	104	0.04	58	19	0.02
Pintail	405	405	0.06	243	141	0.05	0	0	0
Oystercatcher	4,657	4,657	0.82	13,673	12,700	4.35	472	315	0.39
Ringed Plover	50	50	+	55	40	0.01	6	4	+
Golden Plover	1	1	+	49	12	+	158	53	0.07
Grey Plover	97	97	0.01	13	4	+	68	36	0.04
Lapwing	571	571	0.06	1,865	1,095	0.37	44	30	0.04
Knot	1,302	1,302	0.09	2,184	1,540	0.53	45	19	0.02
Dunlin	1,260	1,260	0.19	3,144	2,276	0.78	2,006	2,224	2.75
Black-tailed Godwit	320	320	0.03	87	57	0.02	0	0	0
Bar-tailed Godwit	42	42	+	64	41	0.01	28	19	0.02
Curlew	518	518	0.08	308	285	0.1	213	167	0.21
Redshank	348	348	0.05	302	304	0.1	739	757	0.94
Turnstone	3	3	+	36	15	0.01	48	24	0.03

	Langstone Harbour			Loch Fleet			Medina Estuary		
	Peak	*Mean*	*Mean*	*Peak*	*Mean*	*Mean*	*Peak*	*Mean*	*Mean*
Species	*No.*	*No.*	*Dns.*	*No.*	*No.*	*Dns.*	*No.*	*No.*	*Dns.*
Brent Goose	4,969	4,082	2.57	0	0	0	143	73	0.88
Shelduck	563	464	0.29	94	52	0.09	9	3	0.04
Wigeon	887	644	0.41	920	548	0.94	91	48	0.58
Teal	268	223	0.14	266	149	0.26	66	23	0.28
Mallard	96	86	0.05	374	229	0.39	131	96	1.16
Pintail	106	69	0.04	0	0	0	0	0	0
Oystercatcher	1,376	1,315	0.83	995	903	1.56	131	106	1.28
Ringed Plover	81	56	0.04	37	14	0.02	1	0	+
Golden Plover	21	7	+	0	0	0	0	0	0
Grey Plover	497	418	0.26	0	0	0	2	1	0.01
Lapwing	461	350	0.22	24	8	0.01	83	34	0.41
Knot	496	356	0.22	0	0	0	0	0	0
Dunlin	13,615	9,776	6.15	66	24	0.04	162	60	0.72
Black-tailed Godwit	220	92	0.06	0	0	0	33	19	0.23
Bar-tailed Godwit	178	58	0.04	86	29	0.05	0	0	0
Curlew	624	558	0.35	459	326	0.56	48	37	0.45
Redshank	546	494	0.31	287	177	0.31	42	40	0.48
Turnstone	256	186	0.12	15	8	0.01	25	14	0.17

Table 10 *continued*. Peak and mean counts and mean density (birds per ha) of 18 waterbird species across 15 estuaries covered by the 2009/10 WeBS Low Tide Counts. Stour and Orwell estuaries displayed separately. "+" indicates non-zero densities of <0.01 birds per ha.

	Northwest Solent			Orwell Estuary			Portland Harbour/The Fleet		
	Peak	*Mean*	*Mean*	*Peak*	*Mean*	*Mean*	*Peak*	*Mean*	*Mean*
Species	*No.*	*No.*	*Dns.*	*No.*	*No.*	*Dns.*	*No.*	*No.*	*Dns.*
Brent Goose	613	473	1.45	1,503	915	0.75	2,190	2,190	9.51
Shelduck	59	47	0.14	849	648	0.53	11	11	0.05
Wigeon	464	300	0.92	1,336	1,291	1.05	458	458	1.97
Teal	450	185	0.57	1,232	939	0.77	63	63	0.27
Mallard	27	16	0.05	275	222	0.18	12	13	0.06
Pintail	100	51	0.16	170	185	0.15	2	2	0.01
Oystercatcher	68	40	0.12	1,763	1,612	1.31	68	69	0.3
Ringed Plover	21	12	0.04	127	93	0.08	0	0	0
Golden Plover	0	0	0	79	41	0.03	0	0	0
Grey Plover	108	63	0.19	258	324	0.26	0	0	0
Lapwing	12	3	0.01	1,136	1,139	0.93	29	29	0.13
Knot	272	94	0.29	3,421	1,978	1.61	3	3	0.01
Dunlin	898	647	1.98	2,150	1,779	1.45	14	14	0.06
Black-tailed Godwit	41	13	0.04	746	413	0.34	0	0	0
Bar-tailed Godwit	2	2	0.01	2	1	+	3	3	0.01
Curlew	92	59	0.18	575	535	0.44	13	13	0.06
Redshank	49	37	0.11	1,737	1,221	1	45	45	0.19
Turnstone	44	23	0.07	143	113	0.09	61	54	0.23

	Ribble Estuary			Stour Estuary			Strangford Lough		
	Peak	*Mean*	*Mean*	*Peak*	*Mean*	*Mean*	*Peak*	*Mean*	*Mean*
Species	*No.*	*No.*	*Dns.*	*No.*	*No.*	*Dns.*	*No.*	*No.*	*Dns.*
Brent Goose	0	0	0	1,763	1,763	1.14	3,925	2,739	0.67
Shelduck	770	473	0.18	2,396	2,165	1.33	3,069	2,329	0.57
Wigeon	0	0	0	3,673	3,171	1.95	510	370	0.09
Teal	2	1	+	849	720	0.44	1,211	993	0.24
Mallard	3	1	+	231	166	0.1	408	317	0.08
Pintail	0	0	0	345	221	0.14	393	246	0.06
Oystercatcher	5,538	3,543	1.33	1,009	1,090	0.67	5,023	4,567	1.13
Ringed Plover	0	0	0	213	132	0.08	288	194	0.05
Golden Plover	0	0	0	1,436	849	0.52	7,435	3,753	0.92
Grey Plover	708	371	0.14	1,720	1,418	0.87	34	50	0.01
Lapwing	120	30	0.01	3,685	2,319	1.43	3,251	2,288	0.56
Knot	9,925	4,140	1.56	7,455	5,809	3.57	2,625	2,082	0.51
Dunlin	18,827	9,992	3.76	19,984	17,920	11.01	2,514	2,230	0.55
Black-tailed Godwit	0	0	0	656	615	0.38	193	128	0.03
Bar-tailed Godwit	3,419	2,179	0.82	261	143	0.09	1,023	904	0.22
Curlew	347	197	0.07	1,272	1,173	0.72	974	993	0.24
Redshank	171	71	0.03	1,779	1,662	1.02	2,017	1,862	0.46
Turnstone	1	0	+	459	425	0.26	194	158	0.04

Dunlins *(John Bowers)*

LANGSTONE HARBOUR

Site description

Langstone Harbour is situated between Portsmouth and Chichester Harbours on the south coast. At high tide the estuary resembles a land-locked lake, but at low tide this basin of saltmarsh and intertidal flats is predominantly muddy, becoming sandier towards the harbour mouth. The intertidal mudflats have extensive areas of both eelgrass (*Zostera*) and green algae (*Enteromorpha*). The predominant saltmarsh vegetation is cordgrass *Spartina* but much of this has suffered from dieback. The most diverse areas of saltmarsh are found on the harbour's islands, which also contain areas of vegetated shingle.

The harbour is designated as an SSSI and lies within SPA, Ramsar and SAC sites. Other conservation measures exist in the form of an RSPB reserve (one third of the harbour including the five islands) and three Local Nature Reserves (LNRs); Farlington Marshes LNR (a peninsula of enclosed grassland and marsh), The Kench LNR and West Hayling LNR. These reserves all act as roosting sites. Sailing, water skiing, sail-boarding, canoeing and angling are all popular leisure pursuits while walking and birdwatching constitute the main land-based recreations. Shellfish gathering, bait digging and wildfowling take place and commercial fishing also occurs, mostly dredging for oysters and clams. Predicted sea-level rise may lead to the loss of safe roosting sites on the islands.

General bird distribution 2009/10

Area covered 1,590 ha; Mean total birds 19,651; Mean bird density 12.4 birds per ha.

Langstone Harbour supports good numbers of many species of waterbird, with 52 species recorded on the Low Tide Counts, the highest total of the sites counted. As at many south coast sites, Dark-bellied Brent Geese were the most numerous wildfowl species present, and were found throughout the site with Farlington Marshes and Chalkdock Lake having distinct concentrations, which also included a Black Brant and three Light-bellied Brent Geese. Counts of 100+ were recorded for Shelduck, Wigeon, Teal, Pintail and, more unusually, Canada Goose. Single Green-winged Teal and Spoonbill were more unusual visitors, whilst up to 22 Black-necked Grebes were also recorded.

Wading birds are abundant at the site, with Dunlin being the most numerous, with a mean site count of over 9,700 birds. Oystercatchers peaked at over 1,200 birds. In addition, Grey Plover, Knot, Lapwing, Curlew, Redshank and Turnstone all had three-figure counts, highlighting the importance of this site.

Comparative bird distribution (Fig. 65)

Although numbers of Wigeon counted at Langstone Harbour have been subject to much inter-annual variation, the underlying trend is one of an increase. The overall distribution of Wigeon in Langstone Harbour indicates a preference for the northern end; Farlington Marshes has long been a favoured haunt along with Chalkdock Lake. Conversely however, numbers counted on the Low Tide Counts overall have fallen, with a mean site count of 806 (0.42 birds per hectare) in 2003/04 compared with 642 (0.33 birds per hectare) in 2009/10, though the freezing conditions in January 2010 causing birds to abandon Farlington Marshes (C. Cockburn *pers. comm.*) may have contributed to this apparent decline.

Numbers of Bar-tailed Godwits using Chichester and Langstone Harbours SPA have seen a steady decline over the past 25 years (www.bto.org/webs/alerts/). Low Tide Counts at Langstone Harbour reflect this decrease, with the mean site count in 2003/04 being 281 (0.18 birds per hectare) falling to just 58 (0.04 birds per hectare) in 2009/10. The distribution of Bar-tailed Godwits within Langstone Harbour was notably different, with birds in 2003/04 being widespread around the southern half of the harbour, particularly along the southwest of Hayling Island, though in 2009/10, birds were largely recorded in the Chalkdock Lake area – though this is not considered to represent a true shift in distribution (C. Cockburn, pers. comm.).

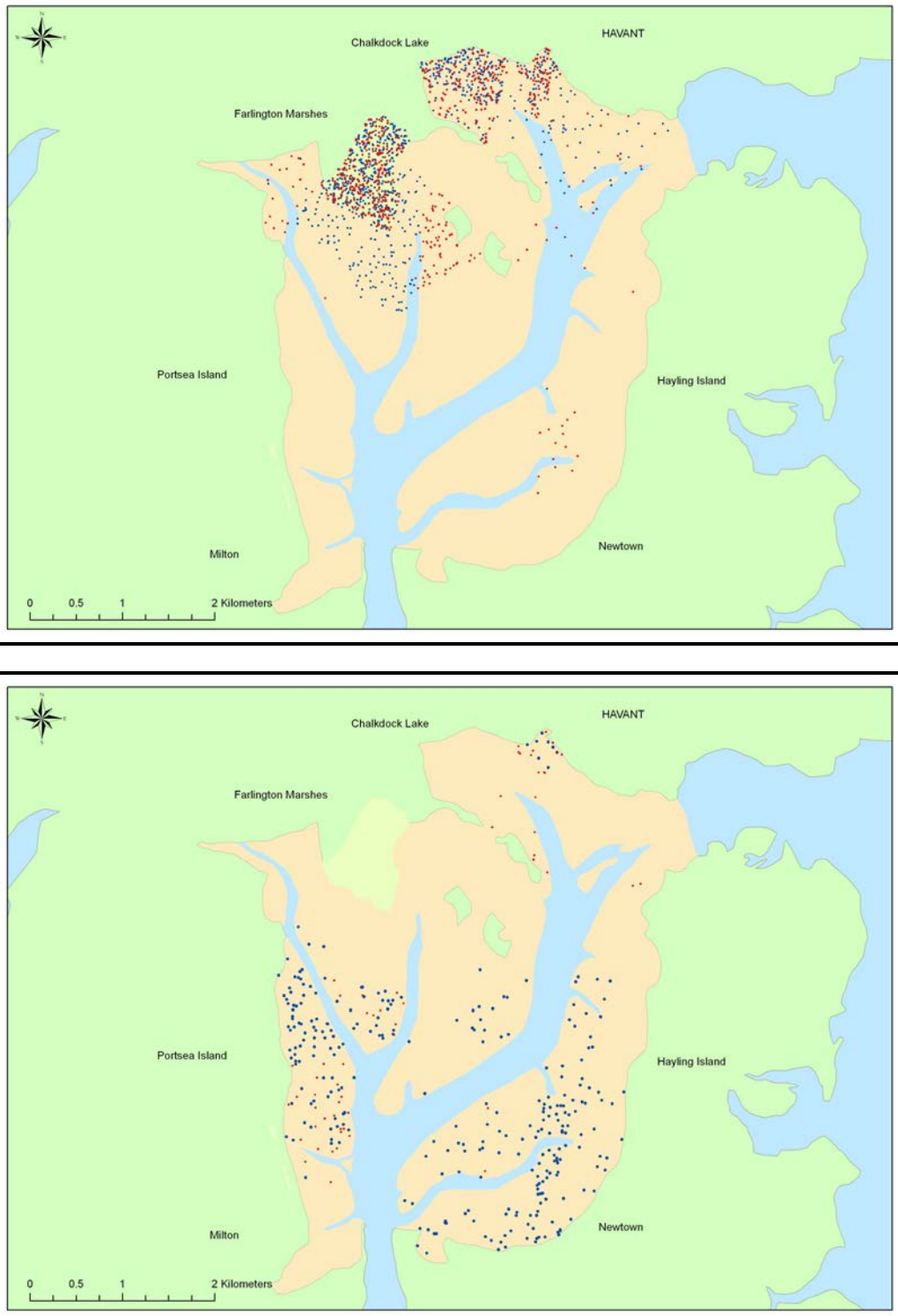


Figure 65. Low Tide distribution of Wigeon (above) and Bar-tailed Godwit (below) for the winters of 2003/04 (blue) and 2009/10 (red) at Langstone Harbour. Yellow = intertidal; pale green = non-tidal; blue = subtidal.

MEDINA ESTUARY

Site description

The long, narrow Medina Estuary runs almost due south from Cowes to Newport, cutting a channel about five miles long into the northern coastline of the Isle of Wight, making up part of the Solent estuarine system. The estuary comprises a relatively narrow tidal channel flanked by intertidal mudflats and saltmarsh in close association with a variety of brackish, freshwater and terrestrial habitats. Despite its length, the mudflats along its banks are relatively narrow. It lies in a wide shallow valley with a gentle incline on either side and the build up of sediment has formed characteristic mudflats. The mudflats support a large number of species, including shellfish, algae and locally and regionally important species of worm. These are important sources of food for fish and bird populations. Agricultural land, hedgerows and woods border the middle and upper reaches of the Medina. In contrast, the mouth of the estuary and its lower reaches are lined by docks, boatyards and marinas. Commercial and economic use of the estuary includes commercial shipping, ferry services, marine services, commercial fishing and tourism. Part of the estuary is designated as a SSSI and includes the Werrar Marshes and Dodnor Creek Local Nature Reserves. The site also includes land that has recently been designated as a Ramsar site, SAC and SPA.

General bird distribution 2009/10

Area covered 83 ha; Mean total birds 717; Mean bird density 8.6 birds per ha.

Although the Medina Estuary is the second smallest site counted under the Low Tide Count scheme, its location on the Solent nevertheless make it an important site.

Generally numbers of birds were low, with Mallard being the most numerous duck species, peaking at 131 birds, favouring the southern end of the estuary. Wigeon were largely concentrated around the middle reaches of the estuary, whilst Teal were most abundant at the north end. During cold weather in recent winters Coot numbers have increased, becoming concentrated in the upper estuary. Numbers of Gadwall and Teal also increase during these cold spells (K. Marston, pers. comm.). Little Egrets peaked at 22 birds and were widely distributed along the length of the estuary. Little Grebes often favour narrow creeks and up to 26 were counted, with the middle section of the estuary being favoured.

Wader numbers too were relatively low due to the restricted amount of intertidal habitat. Oystercatcher was one of the more numerous species, favouring the southern half of the estuary, whilst the majority of other species were concentrated around the middle section

Comparative bird distribution (Fig. 66)

Dark-bellied Brent Geese are present on the Solent in internationally important numbers, and although numbers on the Medina Estuary are relatively small, the site represents an important refuge for the species. The number of Dark-bellied Brent Geese using the Medina Estuary has steadily increased since the last Low Tide Counts were carried out in 1995/96 when the peak count was 85 birds. The peak in 2009/10 was 143 birds, which correlates with the increasing population using the Solent as a whole. This rise has seen the mean site total increase from 57 (0.43 birds per hectare) to 73 (0.52 birds per hectare) birds across the winter. In both years, the distribution of the birds was very similar, with the wider middle and northern stretches of the estuary being favoured.

In keeping with the national trend for the species, Dunlin numbers on the Solent have seen a significant decline, particularly in the period since the last Low Tide Counts, triggering a High Alert (see www.bto.org/webs/alerts). This decline on the Solent has been reflected in the number wintering on the Medina Estuary, with a fall from a mean of 276 birds (3.32 birds per hectare) in 1995/96 to a mean of just 60 (0.72 birds per hectare) in 2009/10. In both winters, the birds were concentrated around the middle of the estuary with a few birds further south in the earlier winter.

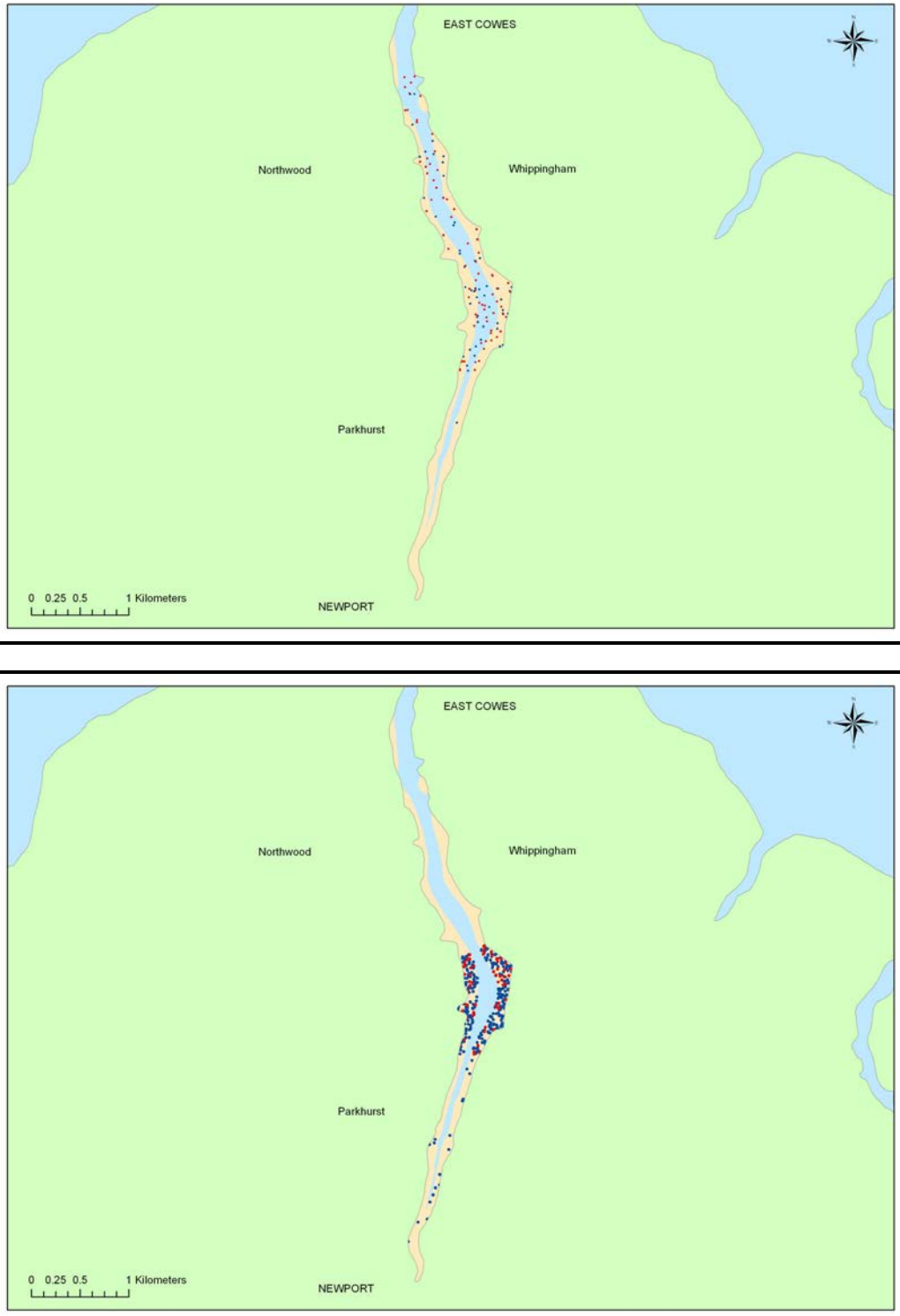


Figure 66. Low Tide distribution of Dark-bellied Brent Goose (above) and Dunlin (below) for the winters of 1995/96 (blue) and 2009/10 (red) on the Medina Estuary. Yellow = intertidal; pale green = non-tidal; blue = subtidal.

NORTHWEST SOLENT

Site description

The area of Northwest Solent counted for WeBS stretches along the Hampshire coast from the Hurst Spit shingle promontory east to Sowley, thereby encompassing the outflow of three running waters, the largest of which is the Lymington River. Intertidal mud is exposed principally inside the hook formed by Hurst Spit and at Lymington, grading into extensive saltmarsh on both sides of the Keyhaven and Lymington Rivers. The area is protected as an SSSI and forms the western end of the Solent and Southampton Water SPA. Hampshire Wildlife Trust manages part of the site as a nature reserve. Sowley Pond is also an SSSI and is included in the SPA designation, but is non-tidal. Much of the site is considered to be in unfavourable condition, mostly because of coastal squeeze of saltmarsh against sea defences. The site borders the New Forest, and there is little urbanisation except at Lymington. Here, sailing is popular and there are a number of marinas. Tourism and recreational disturbance are also potential factors affecting bird distribution.

General bird distribution 2008/09-2009/10

Area covered 753 ha; Mean total birds 8334; Mean bird density 11.1 birds per ha.

The Low Tide Counts on the Northwest Solent were carried out during the consecutive winters of 2008/09 and 2009/10, and displayed here as one count. Areas north of Lymington River were counted in 2008/09 and areas to the south in 2009/10.

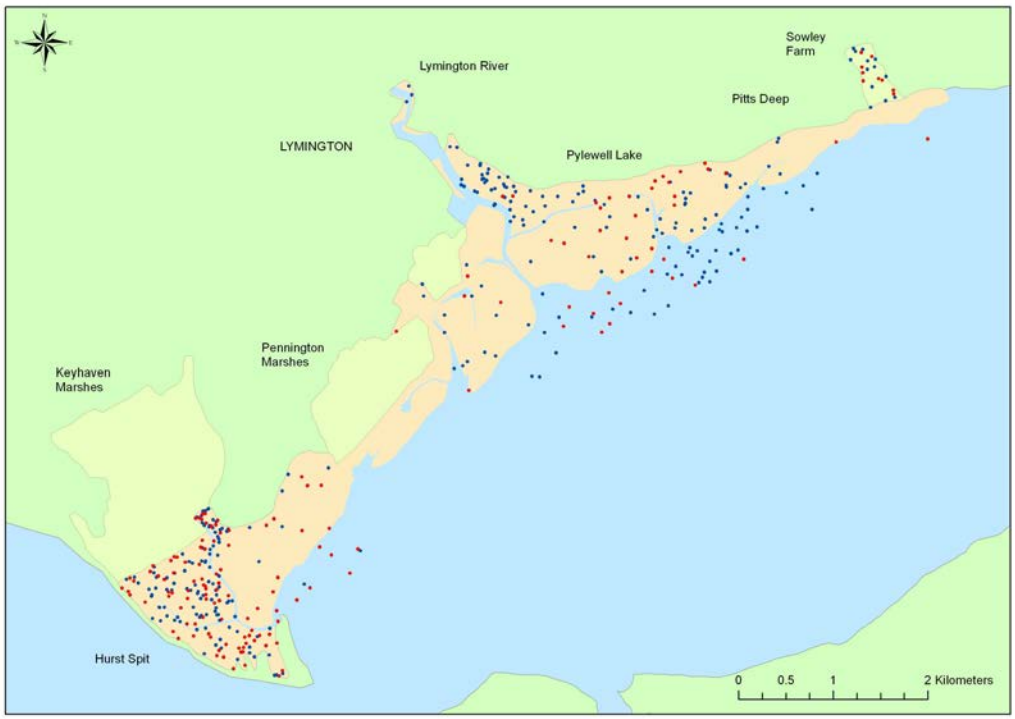
The Northwest Solent supports good numbers of many species of waterbirds, and 39 species were recorded during Low Tide Counts. Dark-bellied Brent Geese were the most abundant wildfowl species, with a combined peak of over 2,300 birds distributed widely along the length of the area with a distinct concentration around Hurst Spit. Other wildfowl species were represented in good numbers with over 700 Wigeon, 500 Teal and 100 Pintail counted, largely in the northeast of the site. Other species more associated with open coast included just short of 100 Red-breasted Mergansers, and small numbers of Goldeneye and Eider. Both Red-breasted Goose and Black Brant joined the Dark-bellied Brent Geese in 2008/09.

Wading birds were much more widespread, with Oystercatcher, Curlew and Redshank widely distributed across the site. Dunlin was the most numerous species present, with over 6,500 birds, with birds favouring the wide mudflats on the inside of Hurst Spit, and the mouth of the Lymington River and Pylewell Lakes.

Comparative bird distribution (Fig. 67)

Unlike other wildfowl species on the Solent and Southampton water SPA, Shelduck numbers have suffered large declines with a fall of 57% in the last 25 years (see www.bto.org/webs/alerts/). Low Tide Counts on the Northwest Solent reflect this decrease, with the mean site count in 1992/93 being 267 (0.21 birds per hectare) falling to 154 (0.12 birds per hectare) in 2008/10. Although widely distributed across the harbour, the two main areas of concentration were around Hurst Spit, northeast of the Lymington River mouth and around Pylewell Lake.

Reflecting the increasing national trend, Low Tide Counts of Black-tailed Godwits on the Solent, have increased in recent years, with a mean count of 238 (0.32 birds per hectare) in 2008/10 compared with 196 (0.26 birds per hectare) in 1992/93. The favoured area for Black-tailed Godwits in both years was the southeast corner of Keyhaven Marshes. Numbers at that specific area have also increased, from a mean of 101 (16.8 birds per hectare) in 1992/93 to 148 (24.6 birds per hectare) in 2008/09. In both winters, birds also favoured the area on the inside of Hurst Spit, although in 2008/10 birds were also found around the mouth of the Lymington River.



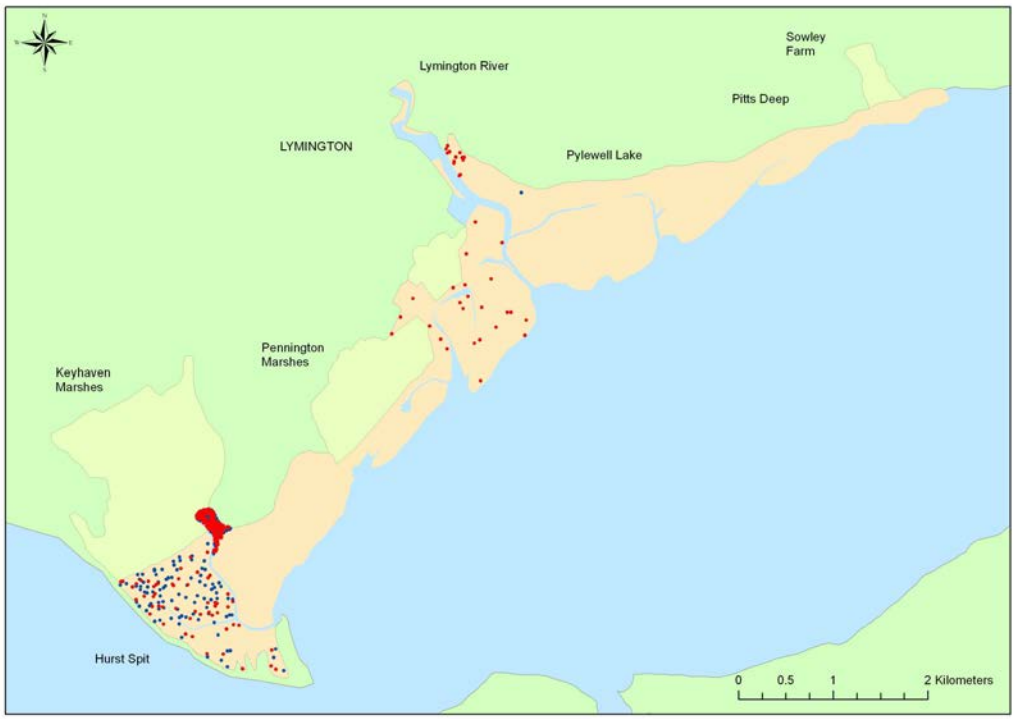


Figure 67. Low Tide distribution of Shelduck (above) and Black-tailed Godwit (below) for the winters of 1992/93 (blue) and 2008/09-2009/10 (red) on the Northwest Solent. Yellow = intertidal; pale green = non-tidal; blue = subtidal.

PORTLAND HARBOUR & THE FLEET

Site description

Portland Harbour on the Dorset coast is a huge man-made harbour, one of the largest of its kind in the world. It is enclosed on the western edge by Chesil Beach - a natural spit that reaches out to Portland Bill. Chesil Beach is a pebble beach, 18 miles long, and stretches northwest from Portland to West Bay. For much of its length it is separated from the mainland by an area of saline water called the Fleet Lagoon. The Fleet Lagoon, which derives its name from the Saxon 'fleot', meaning 'shallow water' is a 13km long stretch of shallow, saline water, which varies from a width of 900 metres at Littlesea to 65 metres in the Narrows. The deepest part is 4-5 metres deep, but all of the mid and upper Fleet is less than 2 metres deep. The Fleet is an important area for wildlife and has been designated as an SSSI, SAC, SPA and Ramsar site. The harbour is a popular location for wind surfing, diving and sailing, and will host sailing events during the 2012 Olympic Games.

General bird distribution 2009/10

Area covered 236 ha; Mean total birds 4,213; Mean bird density 17.9 birds per ha.

Despite its relatively small area, Portland Harbour still supports good numbers of several species of waterbird, with 35 species recorded on the Low Tide Counts. Due to the unpredictable nature of the tides and freezing conditions hampering efforts, the Fleet was only fully counted in November 2009.

By far the most numerous species was Dark-bellied Brent Goose with nearly 2,200 birds recorded, whilst a Black Brant in with the Brent Geese was a more unusual visitor and probably represented a returning bird from previous winters (e.g. Calbrade *et al.* 2010). Although the area covered by the Low Tide Counts did not include Abbotsbury Swannery, the attraction of the less tidal area at the northwest end of the Fleet for wildfowl was evident. Mute Swan, Teal, Wigeon and Coot were most numerous near Langton Herring, whilst the area also supported lesser numbers of Gadwall, Mallard, Shoveler and Pintail.

Wader numbers were relatively low throughout the area, owing to a general lack of expansive mudflats. The most numerous species was Oystercatcher, followed by Turnstone, both of which favoured the area near Charlestown where the main area of mud is located; numbers peaked at 68 and 61 birds, respectively. Redshanks were distributed more widely along the Fleet whilst a small number of Curlew, Dunlin, Knot and Bar-tailed Godwit were also present.

The number of Mediterranean Gulls using the site was exceptional, reflecting the rapid rise in the species in southern counties of England (Musgrove et al. 2011). A count of 211 Mediterranean Gulls at Portland Harbour and The Fleet in November represented almost one third of all gulls counted at the site that month; birds were distributed along The Fleet and in the harbour itself (Fig. 68).

Figure 68. The Low Tide distribution of Mediterranean Gull at Portland Harbour & The Fleet in winter 2009/10.

Comparative bird distribution (Fig. 69)

Portland Harbour and The Fleet were covered for the first time under the WeBS Low Tide Count scheme in 2009/10; make comparisons with distributions from previous years are therefore not possible.

Figure 69. Low Tide distribution of Red-breasted Merganser (above) and Oystercatcher (below) for the winter of 2009/10 at Portland Harbour & The Fleet. Yellow = intertidal; pale green = non-tidal; blue = subtidal.

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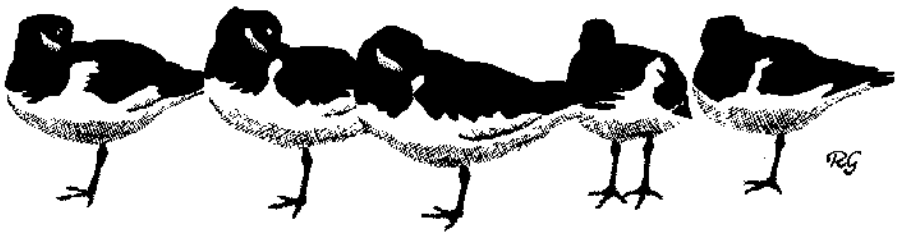

Oystercatchers *(Robert Gillmor)*

References

Atkinson, P.W., Maclean, I.M.D. & Clark, N.A. 2010. Impacts of shellfisheries and nutrient inputs on waterbird communities in the Wash, England. *Journal of Applied Ecology* 47: 191-199.

Austin, G.E. & Rehfisch, M.M. 2005. Shifting nonbreeding distributions of migratory fauna in relation to climate change. *Global Change Biology* 11: 31-38.

Baillie, S.R., Marchant, J.H., Leech, D.I., Joys, A.C., Noble, D.G., Barimore, C., Downie, I.S., Grantham, M.J., Risely, K. & Robinson, R.A. 2010. Breeding Birds in the Wider Countryside: their conservation status 2009. *BTO Research Report* 541. Thetford. http://www.bto.org/birdtrends

Banks, A.N., Burton, N.H.K., Calladine, J.R. & Austin, G.E. 2009. Indexing winter gull numbers in Great Britain using data from the 1953 to 2004 Winter Gull Roost Surveys. *Bird Study* 56: 103-119.

Boland, H., McElwaine, J.G., Henderson, G., Hall, C., Walsh, A. & Crowe, O. 2010. Whooper *Cygnus Cygnus* and Bewick's *C. colombianus bewickii* Swans in Ireland: results of the International Swan Census, January 2010. *Irish Birds* 9: 1-10.

Broyer, J. 2009. Compared distribution within a disturbed fishpond ecosystem of breeding ducks and bird species indicators of habitat quality. *Journal of Ornithology* 150: 761-768.

Calbrade, N.A., Holt, C.A., Austin, G.E., Mellan, H.J., Hearn, R.D., Stroud, D.A. & Musgrove, A.J. 2010. *Waterbirds in the UK 2008/09: The Wetland Bird Survey*. BTO/RSPB/JNCC in association with WWT, Thetford.

Clausen, P., Koffijberg, K., Clausen, K., Dierschke, J., Gunther, K. & Holt, C. in prep. *Branta bernicla hrota* subject to severe winters: should I stay or should I flee?

Conway, G.J., Burton, N.H.K., Handschuh, M. & Austin, G.E. 2008. UK population estimates from the 2007 Breeding Little Ringed Plover and Ringed Plover surveys. *BTO Research Report* 510. BTO, Thetford.

Coulson, J.C. 2010. A long-term study of the population dynamics of Common Eiders *Somateria mollissima*: why do several parameters fluctuate markedly? *Bird Study* 75: 1-18.

Cranswick, P.A., Kirby, J.S., Salmon, D.G., Atkinson-Willes, G.L., Pollitt, M.S. & Owen, M. 1997. A history of wildfowl counts by The Wildfowl & Wetlands Trust. *Wildfowl* 47: 217-230.

Crowe, O., Austin, G.E., Colhoun, K., Cranswick, P.A., Kershaw, M. & Musgrove, A.J. 2008. Estimates and trends of waterbird numbers wintering in Ireland, 1994/95 to 2003/04. *Bird Study* 55: 66-77.

D'Alba, L., Monaghan, P. & Nager, R.G. 2010. Advances in laying date and increasing population size suggest positive responses to climate change in Common Eiders *Somateria mollissima* in Iceland. *Ibis* 152: 19-28.

Davidson, N. 2002. Red Knot. The Migration Atlas – Movements of the birds of Britain and Ireland. BTO.

Davis, A.H. & Vinicombe, K.E. 2011. The probable breeding of Ferruginous Ducks in Avon. *British Birds* 104: 77-83.

Delany, S., Scott, D., Dodman, T. & Stroud, D. (Eds). 2009. An Atlas of Wader Populations in Africa and Western Eurasia. Wetlands International, Wageningen, The Netherlands.

Dillon, I.A., Smith, T.D., Williams, S.J., Haysom, S. & Eaton, M.A. 2009. Status of Red-throated Divers *Gavia stellata* in Britain in 2006. *Bird Study* 56: 147-157.

Fox, A.D., Madsen, J., Boyd, H., Kuijken, E., Norriss, D.W., Tombre, I.M. & Stroud, D.A. 2005. Effects of agricultural change on abundance, fitness components, and distribution of two arctic-nesting goose populations. *Global Change Biology* 11: 881-893.

Fox, A.D., Francis, I. & Walsh, A. 2009. *Report of 2008/2009 international census of Greenland White-fronted Geese*. Greenland White-fronted Goose Study, Kalø & National Parks and Wildlife Service, Wexford.

Furness, R.W., Mable, B., Savory, F., Griffiths, K., Baillie, S.R. & Heubeck, M. 2010. Subspecies status of common eiders *Somateria mollissima* in Shetland based on morphology and DNA. *Bird Study* 57: 330-335.

Gill, J.A., Langston, R.H.W., Alves, J.A., Atkinson, P.W., Bocher, P., Cidraes Vieira, N., Crockford, N.J., Gelinaud, G., Groen, N., Gunnarsson, T.G., Hayhow, B., Hooijmeijer, J., Kentie, R., Kleijn, D., Lorenco, P.M., Masero, J.A., Meunier, F., Potts, P.M., Roodbergen, M., Schekkerman, H., Schroder, J., Wymenga, E. & Piersma, T. 2007. Contrasting trends in two Black-tailed Godwit populations: a review of causes and recommendations. *Wader Study Group Bulletin* 114: 43-50.

Gill, J.A., Watkinson, A.R., Sutherland, W.J. 1996. The impact of sugar beet farming practice on wintering pink-footed goose (*Anser brachyrhynchus*) populations. *Biological Conservation* 76: 95-100.

Gillings, S. & Fuller, R.J. 2009. How many Eurasian Golden Plovers *Pluvialis apricaria* and Northern Lapwings *Vanellus vanellus* winter in Great Britain? Results from a large-scale survey in 2006/07. *Wader Study Group Bulletin* 116: 21-28.

Grant, M. 2002. Whimbrel. The Migration Atlas: Movements of the Birds of Britain and Ireland, T. & A.D. Poyser, London, 329-331.

Guillemain, M., Sadoul, N. & Simon, G. 2005. European flyway permeability and migration in Teal (*Anas crecca*), an analysis based on ring recoveries. *Ibis* 147: 688–696.

Heubeck, M. & Mellor, M. 2011. SOTEAG Ornithological Monitoring Programme 2010 Summary Report. SOTEAG, Aberdeen.

Holling, M. & the Rare Breeding Birds Panel. 2010. Rare breeding birds in the United Kingdom in 2008. *British Birds* 103: 482-538.

Holling, M. & the Rare Breeding Birds Panel. 2011. Non-native breeding birds in the UK in 2006, 2007 and 2008. *British Birds* 104: 114-138.

Hoodless, A.N. & Powell, A. 2010. Origins of wintering woodcock: initial findings. *Game & Wildlife Conservation Trust Review of 2009*: 18-19. GWCT, Fordingbridge.

Holt, C.A., Austin, G.E., Calbrade, N.A., Mellan, H., Hall, C., Stroud, D.A., Wotton, S.R. & Musgrove, A.J. 2009. *Waterbirds in the UK 2007/08: The Wetland Bird Survey*. BTO/WWT/RSPB/JNCC, Thetford.

Hornman, M., Hustings, F., Koffijberg, K., van Winden, E., SOVON Ganzen- en Zwanenwerkgroep & Soldaat L. 2011. *Watervogels in Nederland in 2008/09. SOVON-monitoringrapport 2011/03, Waterdienst-rapport BM 10.24.* SOVON Vogelonderzoek Nederland, Nijmegen.

Hudson, N. & the Rarities Commitee. 2010. Rare birds in the United Kingdom in 2009. *British Birds* 103: 562-638.

JNCC. 2011. Seabird Population Trends and Causes of Change: 2011 Report http://www.jncc.gov.uk/page-3201. Joint Nature Conservation Committee. Updated April 2011. Accessed 1 July 2011.

Kasahara, S. & Koyama, K. 2010. Population trends of common wintering waterfowl in Japan: participatory monitoring data from 1996-2009. *Ornithological Science* 9: 23-26.

Keller, V. 2000. Winter distribution and population change of Red-crested Pochard *Netta rufina* in southwestern and central Europe. *Bird Study* 47: 176-185.

Keller, V. 2009. Within-winter movements: a common phenomenon in the Common Pochard *Aythya ferina*. *Journal of Ornithology* 150: 483-494.

Keller, V. & Berkhardt, M. 2011. Monitoring hivernal des oiseaux d'eau: Résultats des recensements des oiseaux d'eau 2009/10 en Suisse. Stn. ornithologique suisse, Sempach.

Kendall, M.A., Burrowes, M.T., Southward, A.J. & Hawkins, S.J. 2004. Predicting the effects of marine climate change on the invertebrate prey of the birds of rocky shores. *Ibis* 146: 40-47.

Lehikoinen, A., Kilpi, M. & Ost, M. 2006. Winter climate affects subsequent breeding success of common eiders. *Global Change Biology* 12: 1355-1365.

Lourenço, P.M. & Piersma, T. 2008. Changes in the non-breeding distribution of Continental Black-tailed Godwits *Limosa limosa limosa* over 50 years: a synthesis of surveys. *Wader Study Group Bulletin* 115: 91-97.

Maclean, I.M.D., Burton, N.H.K. & Austin, G.E. 2007. *Declines in over-wintering diving ducks at Lough Neagh and Lough Beg: comparisons of within site, regional, national and European trends*. BTO Research Report 432. BTO, Thetford.

Maclean, I.M.D., Austin, G.E., Rehfisch, M.M., Blew, J., Crowe, O., Delany, S., Devos, K., Deceuninck, B., Gunther, K., Laursen, K., van Roomen, M. & Wahl, J. 2008. Climate change causes rapid changes in the distribution and site abundance of birds in winter. *Global Change Biology* 14: 2489-2500.

Mitchell, C. 2010. *Status and distribution of Icelandic-breeding geese: results of the 2009 international census*. Wildfowl & Wetlands Trust Report, Slimbridge.

Mitchell, C., Coulhoun, K., Fox, A., Griffin, L., Hall, C., Hearn, R., Holt, C. & Walsh, A. 2010. Trends in goose numbers wintering in Britain and Ireland, 1995 to 2008. *Ornis svecica* 20: 128-143.

Musgrove, A.J., Langston, R.H.W., Baker, H. & Ward, R.M. 2003. *Estuarine Waterbirds at Low Tide: the WeBS Low Tide Counts 1992/93 to 1998/99*. WSG/BTO/ WWT/RSPB/JNCC, Thetford.

Musgrove, A.J., Austin, G.E., Hearn, R.D., Holt, C.A., Stroud, D.A. & Wotton, S.R. 2011. Overwinter population estimates of British waterbirds. *British Birds* 104: 364-397.

Nilsson, L. 2008. Changes in numbers and distribution of wintering waterfowl in Sweden during forty years, 1967-2006. *Ornis Svecica* 18: 135-226.

O'Brien, S.H., Wilson, L.J., Webb, A. & Cranswick, P.A. 2008. Revised estimate of numbers of wintering Red-throated Divers Gavia stellata in Great Britain. *Bird Study* 55: 152-160.

Paulus, S.L. 1983. Dominance relations, resource use, and pairing chronology of Gadwalls in winter. *The Auk* 100: 947–952.

Pennington, M., Osborn, K., Harvey, P., Riddington, R., Okill, D., Ellis, P. & Heubeck, M. 2004. *The Birds of Shetland*. Helm, London.

Rees, E.C. & Beekman, J.H. 2010. Northwest European Bewick's Swans: a population in decline. *British Birds* 103: 640-650.

Rehfisch, M.M., Austin, G.E., Armitage, M.J.S., Atkinson, P.W., Holloway, S.J., Musgrove, A.J., & Pollitt, M.S. 2003. Numbers of wintering waterbirds in Great Britain, 1994/95–1998/99: II. Coastal waders (*Charadrii*). *Biological Conservation* 112: 329–341.

Rehfisch, M.M, Austin, G.E., Freeman, S.N., Armitage, M.J.S. & Burton, N.H.K. 2004. The possible impact of climate change on the future distribution and numbers of waders on Britain's non-estuarine coast. *Ibis* 146: 70-81.

Reneerkens, J., Behoussa, A., Boland, H., Collier, M., Grond, K., Gunther, K., Hallgrimson, G.T., Hansen, J., Meissner, W., de Meulenaar, B., Ntiamoa-Baidu, Y., Piersma, T., Poot, M., van Roomen, M., Summers, R.W., Tomkovich, P.S. & Underhill, L.G. 2009. Sanderlings using African-Eurasian flyways: a review of current knowledge. *Wader Study Group Bulletin* 116: 2-20.

Rose, P.M. & Stroud, D.A. 1994. Estimating international waterfowl populations: current activity and future directions. *Wader Study Group Bulletin* 73: 19-26.

Sauter, A., Korner-Nievergelt, F. & Jenni, L. 2010. Evidence of climate change effects on within-winter movements of European Mallards *Anas platyrhynchos*. *Ibis* 152: 600-609.

Scott, D.A., & Rose, P.M. 1996. *Atlas of Anatidae populations in Africa and western Eurasia*. Wetlands International Publication No. 41, Wageningen.

Soloviev, M. & Tomkovich, P. (Eds.). 2010. *Arctic birds: an international breeding conditions survey*. Online database: http://www.arcticbirds.ru/ Accessed 8 May 2011.

Stroud, D.A., Davidson, N.C., West, R., Scott, D.A., Haanstra, L., Thorup, O., Ganter, B. & Delany, S. (compilers) on behalf of the International Wader Study Group. 2004. Status of migratory wader populations in Africa and Western Eurasia in the 1990s. *International Wader Studies* 15: 259pp.

Sutherland, W.J. & Allport, G. 1991. The distribution and ecology of naturalized Egyptian Geese *Alopochen aegyptiacus* in Britain. *Bird Study* 38: 128-134.

Trinder, M., Mitchell, C. & Swann, R.L. & Urquhart, C. 2010. Status and population viability of Icelandic Greylag Geese *Anser anser* in Scotland. *Wildfowl* 60: 64-84.

Ward, R.M., Cranswick, P.A., Kershaw, M., Austin, G., Brown, A.W., Brown, L.M., Coleman, J.T., Chisholm, H. & Spray, C. 2007. *National Mute Swan Census 2002*. WWT, Slimbridge.

Wernham, C.V., Toms, M.P., Marchant, J.H., Clark, J.A., Siriwardena, G.M. & Baillie, S.R. (Eds.). 2002. *The Migration Atlas: movements of the birds of Britain and Ireland*. T. & A.D. Poyser, London.

Wetlands International. 2006. *Waterbird Population Estimates - Fourth Edition*. Wetlands International, Wageningen, The Netherlands.

Wotton, S., Grantham, M., Moran, N. & Gilbert, G. in press. Bittern distribution and abundance in the UK during the 2009/10 winter. *British Birds*

Zipkin, E.F., Gardner, B., Gilbert, A.T., O'Connell, A.F., Royle, J.A. & Silverman, E.D. 2010. Distribution patterns of wintering sea ducks in relation to the North Atlantic Oscillation and local environmental characteristics. *Oecologia* 163: 893-902.

Glossary

The terms listed below are generally restricted to those that have been adopted specifically for use within WeBS or more widely for monitoring.

1% criterion The criterion identifies sites as being of *international importance* if at least 1% of the *waterbirds* of a particular migratory flyway or population regularly make use of a site during their annual cycle. The term thus relates to the proportion (1%) that is used as a criterion of site selection. First used in the Ramsar Convention, the 1% criterion is used widely in assessment of site importance.

1% threshold This logically derives from the *1% criterion* and relates to the number of birds that are used as the nominal 1% of the population for the purposes of site selection. Thus, an international population of 75,215 Shelduck has a derived 1% threshold (adopting rounding conventions) of 750.

African-Eurasian Migratory Waterbird Agreement (AEWA) An independent international treaty developed under the Convention on the Conservation of Migratory Species of Wild Animals ('*Bonn Convention*'). Parties to the Agreement are called upon to engage in a wide range of conservation actions addressing key issues such as species and habitat conservation, management of human activities, research and monitoring, education and information, and implementation. www.unep-aewa.org

All-Ireland Comprises the whole island of Ireland (Northern Ireland and the Republic of Ireland).

British Trust for Ornithology (BTO) The BTO is a well-respected organisation, combining the skills of professional scientists and volunteer birdwatchers to carry out research on birds in all habitats and throughout the year. Data collected by the various surveys form the basis of extensive and unique databases, which enable the BTO to objectively advise conservation bodies, government agencies, planners and scientists on a diverse range of issues involving birds. www.bto.org

Complex site A *WeBS site* that consists of two or more *WeBS sectors*.

Core Counts The fundamental WeBS counts that monitor all types of wetlands throughout the UK once per month on, or as near as possible to, pre-selected *priority dates*. Used to determine population estimates and trends and identify important sites.

Great Britain The countries of England Scotland and Wales (excludes the Channel Isles and the Isle of Man).

Incomplete counts When presenting counts of an individual species, a large proportion of the number of birds was suspected to have been missed, *e.g.* due to part coverage of the site or poor counting conditions, or when presenting the total number of birds of all species on the site, a significant proportion of the total number was missed.

I-WeBS An independent but complementary scheme operating in the Republic of Ireland to monitor non-breeding *waterbirds*, organised by BirdWatch Ireland, the National Parks and Wildlife Service (Ireland) and The *Wildfowl & Wetlands Trust*. http://www.birdwatchireland.ie/Default.aspx?tabid=111

Joint Nature Conservation Committee (JNCC) JNCC is the statutory body constituted by the Environmental Protection Act 1990 to be responsible for research and advice on nature conservation at both UK and international levels. The committee is established by Natural England, Scottish Natural Heritage and the Countryside Council for Wales, together with independent members and representatives from the Countryside Commission and Northern Ireland, and is supported by specialist staff. www.jncc.gov.uk

Local Organiser Person responsible for coordinating counters and counts at a local level, normally a county or large estuary, and the usual point of contact with the *WeBS office*.

Low Tide Counts (LTC) WeBS counts made at low tide to assess the relative importance of different parts of individual estuaries as feeding areas for intertidal *waterbirds*.

Priority date Pre-determined dates published by the *WeBS Office* to aid coordination of surveys. Counters are asked to count on, or as near as possible to, priority dates to minimise the risk of missing birds or double counting.

Royal Society for the Protection of Birds (RSPB) The RSPB is the charity that takes action for wild birds and the environment in the UK. The RSPB is the national BirdLife partner in the UK. www.rspb.org.uk

United Kingdom *Great Britain* and Northern Ireland (excludes the Channel Isles and the Isle of Man).

Waterbirds WeBS follows the definition adopted by *Wetlands International*. This includes a large number of families, those occurring regularly in the UK being divers, grebes, cormorants, herons, storks, ibises and spoonbills, wildfowl, cranes, rails, waders, gulls and terns.

WeBS count unit The area/boundary within which a count is made. The generic term for *WeBS sites, WeBS sub-sites* and *WeBS sectors*.

WeBS Office Main administrative centre for the day-to-day running of WeBS and main point of contact for information or data pertaining to WeBS (webs@bto.org).

WeBS Online The online database for the submission and retrieval of WeBS Core Count, Low Tide Count and supplementary data. www.bto.org/webs

WeBS sector The unit of division of large *sites* into areas that can be counted by one person in a reasonable time period. They are often demarcated by geographic features to facilitate recognition of the boundary by counters. The finest level at which data are recorded.

WeBS site A biologically meaningful area that represents a discrete area used by *waterbirds* such that birds regularly move within but only occasionally between sites. The highest level at which count data are stored.

WeBS sub-site A grouping of *sectors* within a *site* to facilitate coordination. In most cases, sub-sites also relate to biologically meaningful units for describing *waterbird* distribution.

WeBS-Year Defined as July to June inclusive the WeBS Year is centred on the time when most *waterbird* species are present in their largest number, during *winter*. Counts during *autumn* passage and *spring* passage the following calendar year are logically associated with the intervening *winter*.

Wetlands International A leading global non-profit organisation whose mission is to sustain and restore wetlands, their resources and biodiversity for future generations through research, information exchange and conservation activities, worldwide. www.wetlands.org

Wildfowl & Wetlands Trust (WWT) Founded by Sir Peter Scott in 1946, WWT is the largest international wetland conservation charity in the UK. WWT works to conserve wetlands and their biodiversity, focusing particularly on waterbirds and their habitats, and seeks to raise awareness of the value of wetlands, the threats they face and the actions needed to save them. WWT has nine visitor centres throughout the UK. www.wwt.org.uk

Appendices

APPENDIX 1. INTERNATIONAL AND NATIONAL IMPORTANCE

Any site recognised as being of international ornithological importance is considered for classification as a Special Protection Area (SPA) under the EC Directive on the Conservation of Wild Birds (EC/79/409), whilst a site recognised as an internationally important wetland qualifies for designation as a Ramsar site under the Convention on Wetlands of International Importance especially as Waterfowl Habitat. Criteria for assessing the international importance of wetlands have been agreed by the Contracting Parties to the Ramsar Convention on Wetlands of International Importance (Ramsar Convention Bureau 1988). Under criterion 6, a wetland is considered internationally important if it regularly holds at least 1% of the individuals in a population of one species or subspecies of waterbird, while criterion 5 states that any site regularly supporting 20,000 or more waterbirds also qualifies. Britain and Ireland's wildfowl belong, in most cases, to the northwest European population and the waders to the east Atlantic flyway population (Wetlands International 2006).

A wetland in Britain is considered nationally important if it regularly holds 1% or more of the estimated British population of one species or subspecies of waterbird, and in Northern Ireland important in an all-Ireland context if it holds 1% or more of the estimated all-Ireland population.

The 1% thresholds for British, all-Ireland and international waterbird populations, where known, are listed in Table A1. Thus, any site regularly supporting at least this number of birds potentially qualifies for designation under national legislation, or the EC Birds Directive or Ramsar Convention. The international population for each species and subspecies is also specified in the table. However, it should be noted that, where 1% of the national population is less than 50 birds, 50 is normally used as a minimum qualifying threshold for the designation of sites of national or international importance.

It was agreed at the meeting of the Ramsar Convention in Brisbane that population estimates will be reviewed by Wetlands International every three years and 1% thresholds revised every nine years (Rose & Stroud 1994; Ramsar Resolution VI.4). 1% thresholds have not been derived for introduced species since protected sites would not be identified for these birds.

Sources of qualifying levels represent the most up-to-date figures following recent reviews: for wildfowl and waders in Britain see Musgrove *et al*. (2011); for gulls in Britain see Banks *et al*. (2007); for all-Ireland importance see Crowe *et al*. (2008). International criteria follow Wetlands International (2006).

It should be noted that for some populations, where the British total is the international total, the precise figure given for the estimates may differ because of different rounding conventions applied in the relevant publications.

Table A1. 1% thresholds for national and international importance

	Great Britain	all-Ireland	International	Subspecies/Population
Mute Swan: *British*	740	n/a	320	Britain
Irish	n/a	110	100	Ireland
Bewick's Swan	70	*20	200	*bewickii*, NW Europe (non-br)
Whooper Swan	110	130	210	Iceland (br)
Bean Goose: *Taiga*	*4	+	800	*fabalis*
Bean Goose: *Tundra*	*3	+	800	*rossicus*
Pink-footed Goose	3,600	+	2,700	Greenland, Iceland (br)
European White-fronted Goose	*24	+	10,000	*albifrons*, Baltic-North Sea
Greenland White-fronted Goose	130	110	270	*flavirostris*
Greylag Goose: *Iceland*	850	50	870	*anser*, Iceland (br)
British/Irish	1,400	?	?	*anser*, Britain/Ireland
Barnacle Goose: *Greenland*	580	90	560	E Greenland (br)
Svalbard	330	+	270	Svalbard (br)

Table A1. continued

	Great Britain	all-Ireland	International	Subspecies/Population
Dark-bellied Brent Goose	910	+	2,000	*Bernicla,* W Siberia (br)
Light-bellied Brent Goose: *Canada*	*7	220	260	*hrota*, Ireland (non-br)
Svalbard	*34	+	70	*hrota*, Svalbard, N Greenland (br)
Shelduck	610	150	3,000	NW Europe (br)
Wigeon	4,400	820	15,000	NW Europe (non-br)
Gadwall	250	20	600	*strepera*, NW Europe (br)
Teal	2,100	450	5,000	NW Europe (non-br)
Mallard	6,800	380	**20,000	*platyrhynchos*, NW Europe (non-br)
Pintail	290	20	600	NW Europe (non-br)
Garganey	+	+	**20,000	W Africa (non-br)
Shoveler	180	25	400	NW & C Europe (non-br)
Red-crested Pochard	+	+	500	C Europe & W Mediterranean
Pochard	380	400	3,500	NE & NW Europe (non-br)
Tufted Duck	1,100	370	12,000	NW Europe (non-br)
Scaup	52	*45	3,100	*marila*, W Europe (non-br)
Eider	550	*30	12,850	*mollissimma*, NW Europe[1]
Eider: *Shetland*	55	+	12,850	*mollissimma*, NW Europe[1]
Long-tailed Duck	110	+	**20,000	W Siberia, N Europe (br)
Common Scoter	1,000	230	16,000	*nigra*
Velvet Scoter	*25	+	10,000	*fusca*, Baltic, W Europe (non-br)
Goldeneye	200	95	11,500	*clangula*, NW & Central Europe (non-br)
Smew	*2	+	400	NW & C Europe (non-br)
Red-breasted Merganser	84	*35	1,700	NW & C Europe (non-br)
Goosander	120	+	2,700	*merganser*, NW Europe[2]
Red-throated Diver	170	*20	3,000	NW Europe (non-br)
Black-throated Diver	*6	*1	3,750	*arctica*
Great Northern Diver	*25	?	50	NW Europe (non-br)
Little Grebe	160	25	4,000	*ruficollis*
Great Crested Grebe	190	50	3,600	*cristatus*
Red-necked Grebe	*1	?	5,10	*grisegena*, NW Europe (non-br)
Slavonian Grebe	*11	?	55	*auritus*, NW Europe (large billed)
Black-necked Grebe	*1	?	2,200	*nigricollis*, Europe, N Africa
Cormorant	350	140	1,200	*carbo*, NW Europe
Shag	1,100	?	2,000	*aristotelis*
Little Egret	45	?	1,300	*garzetta*, W Europe, NW Africa
Grey Heron	610	30	2,700	*cinerea*, W Europe, NW Africa (br)
Moorhen	3,200	?	**20,000	*chloropus*, Europe, N Africa (br)
Coot	1,800	330	17,500	*atra*, NW Europe (non-br)
Oystercatcher	3,200	680	10,200	*ostralegus*, Europe, NW Africa
Avocet	75	+	730	W Europe (br)
Ringed Plover	340	150	730	*hiaticula*, Europe & N Africa (non-br)
Golden Plover	4,000	1,700	9,300	*altifrons*, Iceland & Faeroes, E Atlantic[3]
Grey Plover	430	65	2,500	E Atlantic (non-br)
Lapwing	6,200	2,100	**20,000	Europe (br)
Knot	3,200	190	4,500	*islandica*
Sanderling	160	65	1,200	E Atlantic, W & S Africa (non-br)
Purple Sandpiper	130	*35	750	*maritima*, E Atlantic
Dunlin	3,500	880	13,300	*alpina,* W Europe (non-br)[4]
Ruff	*8	+	?	W Africa (non-br)
Jack Snipe	1,000	250	?	NE Europe (br)
Snipe	10,000	?	**20,000	*gallinago*, Europe (br)
Woodcock	14,000	?	**20,000	Europe (br)
Black-tailed Godwit	430	140	470	*islandica*
Bar-tailed Godwit	380	160	1,200	*lapponica*
Whimbrel	*1	+	6,800	*islandicus*
Curlew	1,400	550	8,500	*arquata*
Spotted Redshank	*1	+	900	Europe (br)
Redshank	1,200	310	2,800	*robusta*[5]
Greenshank	*6	*20	2,300	Europe (br)
Green Sandpiper	*9	?	17,000	Europe (br)
Common Sandpiper	*1	?	17,500	N, W & C Europe (br)
Turnstone	480	120	1,500	*interpres*, NE Canada, Greenland (br)

Table A1. continued

	Great Britain	all-Ireland	International	Subspecies/Population
Little Gull	?	?	1,230	N, C & E Europe (br)
Black-headed Gull	22,000	?	**20,000	N & C Europe (br)
Common Gull	7,000	?	**20,000	*canus*
Lesser Black-backed Gull	1,200	?	5,500	*graellsii*
Herring Gull	7,300	?	5,900	*argenteus*[6]
Great Black-backed Gull	760	?	4,400	NE Atlantic
Kittiwake	?	?	**20,000	*tridactyla*, E Atlantic (br)
Sandwich Tern	?	?	1,700	*sandvicensis*, W Europe (br)
Common Tern	?	?	1,900	*hirundo*, S, W Europe (br)
Little Tern	?	?	490	*albifrons*, W Europe (br)
Black Tern	?	?	7,500	*niger*

? *Population size not accurately known.*
\+ *Population too small for meaningful figure to be obtained.*
* *Where 1% of the British or all-Ireland wintering population is less than 50 birds, 50 is normally used as a minimum qualifying level for national or all-Ireland importance respectively.*
** *A site regularly holding more than 20,000 waterbirds qualifies as internationally important by virtue of absolute numbers.*

1 Following the recommendations of Scott & Rose (1996) and Furness *et al.* (2010), Common Eiders Somateria mollissima on Shetland are treated as a separate population from those elsewhere in Britain, and have been listed as such in the annual *Waterbirds in the UK* since 2008/09 (Calbrade *et al.* 2010). However, the taxonomic recommendation of Furness *et al.* (2010) has not been followed, since BOU has yet to recognise this population as belonging to the subspecies faeroeensis.

2 Although Wetlands International (2006) considers Goosanders breeding in Scotland, northern England and Wales to be a discrete population, a recent review of available data by DEFRA's SPA and Ramsar Scientific Working Group has found limited evidence to support this conclusion for the time being, and recommended that for site-selection purposes, British Goosanders continue to be considered as a component of the NW and C European population of Goosander, with an international 1% threshold of 2,700.

3 Three populations of Golden Plover listed by Wetlands International (2006) overlap in the UK in winter. Draft guidelines from Ramsar suggest that the largest of the three thresholds (*i.e.* that for *altifrons,* Iceland & Faeroes, E Atlantic) should be used for site-selection purposes.

4 Whilst several populations of Dunlin occur in the UK at different times of the year, most wintering birds are referable to the listed population.

5 Three populations of Redshank listed by Wetlands International (2006) overlap in the UK in winter: *totanus* E Atlantic (non-br), *robusta* and *brittanica*. Most *totanus* winter outside the UK but the other populations are known to occur widely. Draft guidelines from Ramsar suggest that the larger of the two thresholds (*i.e.* that for *brittanica*) should be used for site-selection purposes.

6 Two populations of Herring Gull overlap in the winter in the UK; *argentatus* and *argenteus*. Whilst substantial numbers of *argentatus* appear to winter in the UK, the largest proportion of Herring Gulls in winter is probably of *argenteus*. Following Ramsar guidance and given the conservation status of British-breeding Herring Gulls, the threshold for *argenteus* is used in this report for site-selection purposes.

APPENDIX 2. LOCATIONS OF PRINCIPAL WeBS COUNT SITES

Table A2 provides details of principal WeBS sites that are mentioned in the Principal Sites table (Table 6.). Sites are listed alphabetically with details of the Ordnance Survey 1-km square that the centre of the sites falls into. Numbers following Principal Core Count sites refer to the sites' location in Figure A1. Details of all sites covered by WeBS are available from www.bto.org/webs or the WeBS Office (see *CONTACTS*).

Table A2. Details for Principal Sites mentioned in Table 6. Numbers refer to the sites' location in figure A1.

Site	1-km sq	
Abberton Reservoir	TL9618	111
Alde Complex	TM4257	104
Alt Estuary	SD2903	85
Arun Valley	TQ0314	120
Baleshare	NF7862	18
Balnakeil Bay	NC3869	9
Balranald Nat. Res.	NF7169	15
Beaulieu Estuary	SZ4297	126
Belfast Lough	IJ3983	73
Blackwater Estuary	TL9307	110
Breydon Water & Berney Marshes	TG4706	99
Broubster Leans	ND0361	10
Burry Inlet	SS5096	138
Cameron Reservoir	NO4611	40
Carlingford Lough	IJ1814	77
Carmarthen Bay	SN2501	139
Carsebreck and Rhynd Lochs	NN8609	45
Chew Valley Lake	ST5659	135
Chichester Harbour	SU7700	122
Cleddau Estuary	SN0005	140
Colne Estuary	TM0614	109
Cotswold Water Park (West)	SU0595	136
Cromarty Firth	NH7771	26
Crouch-Roach Est.	TQ9895	105
Dalreoch	NN9917	46
Deben Estuary	TM2942	106
Dee Estuary England and Wales	SJ2675	89
Dee Flood Meadows	SJ4059	90
Dengie Flats	TM0302	112
Dornoch Firth	NH7384	29
Duddon Estuary	SD2081	80
Dungeness GPs	TR0619	119
Dyfi Estuary	SN6394	141
Eden Estuary	NO4619	39
Exe Estuary	SX9883	132
Fleet and Wey	SY6976	131
Forth Estuary	NT2080	48
Gadloch	NS6471	52
Hamford Water	TM2225	103
Hickling Broad	TG4221	96
Holburn Moss	NU0536	61
Hornsea Mere	TA1846	83
Hule Moss	NT7149	59
Humber Estuary	TA2020	84
Inner Firth of Clyde	NS3576	50
Inner Moray and Inverness Firth	NH6752	28
Island of Egilsay	HY4831	1
Isle of Coll	NM2055	24
Kentra Moss and Lower Loch Shiel	NM7168	25
Kilconquhar Loch	NO4801	42
Lake of Menteith	NN5700	49
Langstone Harbour	SU6902	123
Lavan Sands	SH6474	142
Lee Valley GPs	TL3807	102
Lindisfarne	NU1041	62
Loch An Eilein	NL9843	22
Loch Bee	NF7743	17
Loch Bhasapoll	NL9746	21
Loch Eye	NH8379	30
Loch Fleet Complex	NH7896	27
Loch Garten	NH9718	36
Loch Gorm	NR2365	55
Loch Gruinart Floods	NR2766	56
Loch Hempriggs	ND3447	12
Loch Ken	NX6672	64
Loch Leven	NO1501	43
Loch Lomond	NS3599	51
Loch Paible	NF7168	14
Loch Riaghain	NM0347	23
Loch Sandary	NF7368	16
Loch Scarmclate	ND1859	11
Loch Slapin	NG5516	19
Loch Spynie	NJ2366	31
Loch Tullybelton	NO0034	47
Loch a` Phuill	NL9541	20
Loch of Boardhouse	HY2625	4
Loch of Harray	HY2915	7
Loch of Hundland	HY2926	3
Loch of Lintrathen	NO2754	38
Loch of Skaill	HY2418	5
Loch of Skene	NJ7807	35
Loch of Stenness	HY2813	8
Loch of Strathbeg	NK0660	32
Loch of Swannay	HY3128	2
Lough Foyle	IC5925	71
Loughs Neagh& Beg	IJ0475	72
Lower Derwent Ings	SE6939	82
Lower Lough Erne	IH0960	79
Lower Teviot Valley	NT6725	58
Medway Estuary	TQ8471	114
Mersehead RSPB	NX9255	66
Mersey Estuary	SJ4578	88
Middle Yare Marshes	TG3504	98
Milldam & Balfour Mains Pools	HY4817	6
Moine Mhor & Add Estuary	NR8293	53
Montrose Basin	NO7057	37
Morecambe Bay	SD4070	81
Nene Washes	TF3300	92
North Norfolk Coast	TF8546	95
North West Solent	SZ3395	127
Orchardton and Auchencairn Bays	NX8151	65
Orwell Estuary	TM2238	107
Ouse Washes	TL5394	93
Outer Ards Shoreline	IJ6660	76
Outer Loch Indaal	NR2353	54
Pagham Harbour	SZ8796	121
Pegwell Bay	TR3561	116
Pitsford Reservoir	SP7870	100
Poole Harbour	SY9988	130
Portsmouth Harbour	SU6204	124
R Clyde: Carstairs to Thankerton	NS9841	57
Ribble Estuary	SD3825	87
R.Avon: Fordingbr'-Ringwood	SU1410	128
R.Avon: Ringwood-Christchurch	SZ1499	129
R.Nith: Keltonbank – Nunholm	NX9774	67
R.Tay: Haughs of Kercock	NO1339	44
Rutland Water	SK9307	91
Rye Harbour and Pett Level	TQ9418	117
Severn Estuary	ST5084	137
Slains Lochs (Meikle, Sand & Cotehill)	NK0230	33
Solway Estuary	NY1060	69
Somerset Levels	ST4137	134
Southampton Water	SU4507	125
St Benet`s Levels	TG3815	97
Stour Estuary	TM1732	108
Strangford Lough	IJ5460	74
Swale Estuary	TQ9765	115
Taw-Torridge Est.	SS4731	133
Tay Estuary	NO4828	41
Tees Estuary	NZ5528	70
Thames Estuary	TQ7880	113
The Wash	TF5540	94
Traigh Luskentyre	NG0599	13
Tring Reservoirs	SP9113	101
Tweed Estuary	NU0052	60
Upper Lough Erne	IH3131	78
Upper Quoile River	IJ4745	75
Walland Marsh	TQ9923	118
Wigtown Bay	NX4456	63
WWT Caerlaverock	NY0565	68
WWT Martin Mere	SD4214	86
Ythan Estuary	NK0026	34

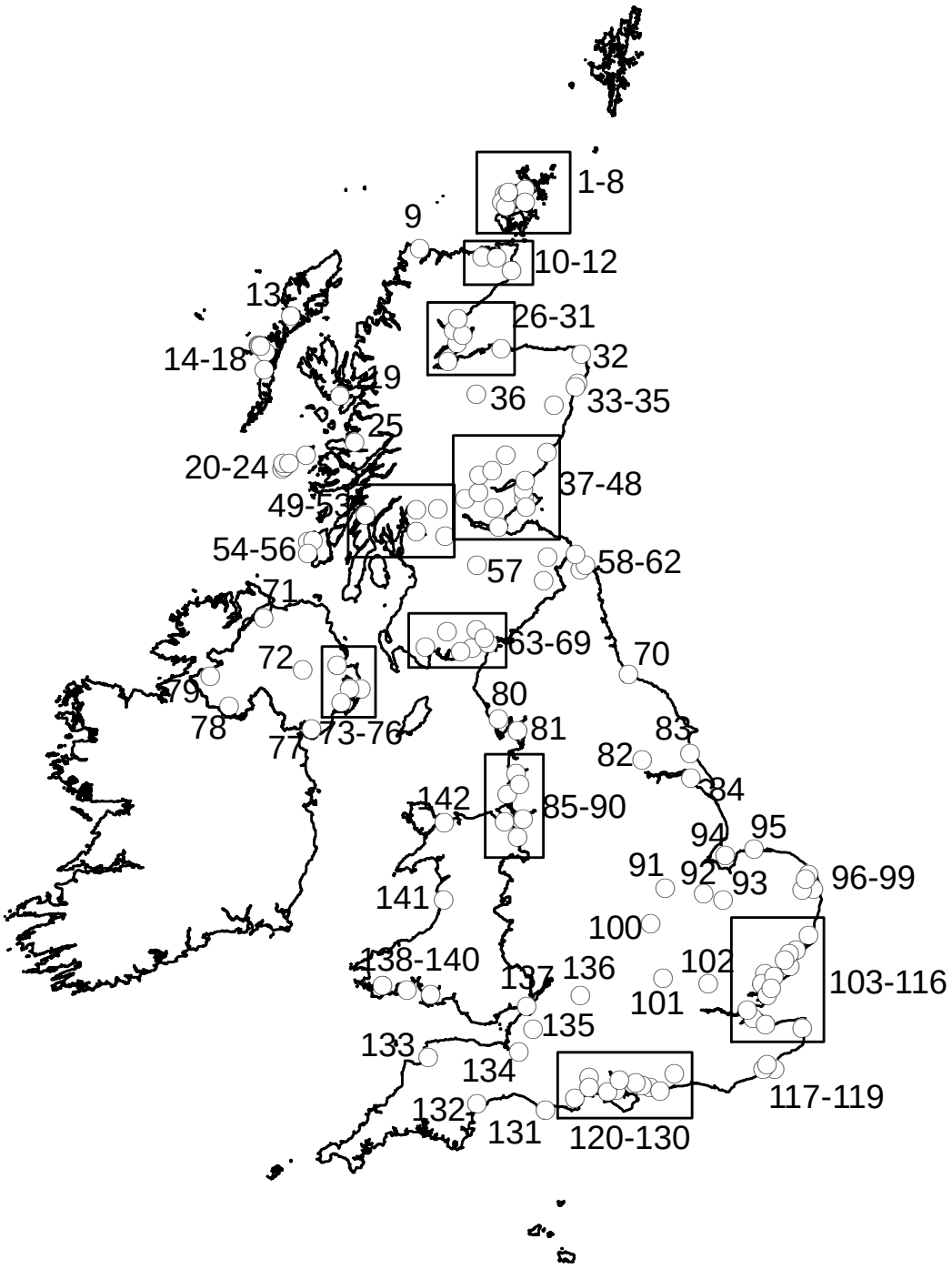

Figure A1. Locations of Core WeBS sites supporting more than 10,000 waterbirds or which support internationally important numbers of one or more waterbird species (see *PRINCIPAL SITES*). Numbers refer to sites listed in Table A2.