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# WILD BIRD POPULATIONS IN THE UK, 1970 TO 2013

# **Annual statistical release**

October 2014





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We have made lots of changes to the presentation of this statistical release in 2014. Please take two minutes to fill in this short, predominantly multiple-choice questionnaire to let us know what you think. Your help is greatly appreciated and will inform our decisions when it comes to revising this release next year.

https://www.surveymonkey.com/s/RS6YRZK

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PB 14214

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# **Executive summary**

# Wild bird populations in the UK, 1970-2013<sup>1</sup>

• Overall, breeding bird populations in the UK have declined compared with 40 years ago. In 2013, the **all-species index** was 12 per cent below its 1970 level, and there was a small but significant decline of five per cent from 2007 to 2012. However, trends vary between individual bird species, between habitat types and between groups of species that share the same habitat type.

• By 2013, the UK breeding **farmland bird index** had fallen by 55 per cent to a level less than half that of 1970. The largest declines in farmland bird populations occurred between the late seventies and the early nineties, but there has been a statistically significant on-going decline of ten per cent between 2007 and 2012.

• In 2013, the UK breeding **woodland bird index** was 28 per cent lower than its 1970 level. The greatest decline in the series occurred from the early eighties until the midnineties, after which the trend stabilised.

• In 2013, the UK breeding **water and wetland bird index** was 17 per cent lower than its 1975 level. There was a significant decline in the smoothed index of 12 per cent in the short term between 2007 and 2012.

• **Seabird** populations in the UK have fallen by 24 per cent since 1986; this is the lowest level recorded. Most of the decline has occurred since 2003; there has been a decline of nine per cent in the short term since 2008.

• In the winter of 2012-13, the **wintering waterbird index** in the UK was almost double its 1975-76 level (up 95 per cent). The index peaked in the late 1990s and has declined since, with the smoothed index falling by almost five per cent between 2006-07 and 2011-12.

<sup>&</sup>lt;sup>1</sup> A separate Defra National Statistics Release, <u>Wild bird populations in England, 1970-2013</u>, was also published today.

# Why monitor bird populations?

Bird populations have long been considered to provide a good indication of the broad state of wildlife. Birds occupy a wide range of habitats and there are considerable long-term data on changes in bird populations, which help in the interpretation of shorter term fluctuations in numbers. As they are a well-studied taxonomic group, drivers of change for birds are better understood than for other species groups, which allows for better interpretation of any observed changes. Birds also have huge cultural importance and are highly valued as a part of the UK's natural environment by the general public. However, the bird indicators presented in this publication are not intended, in isolation, as indicators of the health of the natural environment more widely.

Whilst it may not be possible to determine actual bird abundance with accuracy over large areas, it is possible to estimate changes or trends in populations, based on a range of national surveys and monitoring schemes coordinated by expert organisations<sup>2</sup>.

Trends in bird populations are used by policy makers, government agencies and nongovernmental organisations. They provide part of the evidence base to assess the effects of environmental management, such as agricultural practices, on bird populations, and also to assess whether environmental interventions intended to address declines, such as agri-environment schemes targeted at farmland birds, are delivering.

# Factors affecting bird populations<sup>3,4</sup>

The large declines in some **farmland birds** have many known and potential causes. Many of the declines have been caused by land management changes and the intensification of farming that took place over a long period, such as the loss of mixed farming, a move from spring to autumn sowing of arable crops, change in grassland management (e.g. a switch from hay to silage production), increased pesticide and fertiliser use, and the removal of non-cropped features such as hedgerows. The rate of these changes, which resulted in the loss of suitable nesting and suitable feeding habitats, and a reduction in available food, was greatest during the late 1970s and early 1980s, the period during which many farmland bird populations declined most rapidly.

Some farming practices still have negative impacts on bird populations, but most farmers can and do take positive steps to conserve birds on their land. In particular, a number of incentive schemes<sup>5</sup> encourage improved environmental stewardship in farming, with some measures specifically designed to help stabilise and recover farmland bird populations. These include the provision of over-wintered stubbles and planted wild bird crop covers to

<sup>&</sup>lt;sup>2</sup> See 'Main notes' at the end for more details of the surveys sources used.

 <sup>&</sup>lt;sup>3</sup> For more information see: Understanding the Causes of Decline in Breeding Bird Numbers in England, and,
<sup>4</sup> Newton, I. (2004) The recent declines of farmland bird populations in Britain: an appraisal of causal factors and conservation actions. Ibis 146, 579–600.

<sup>&</sup>lt;sup>5</sup> See 'Main notes' for more information.

provide seed in the winter, uncropped margins on arable fields and sympathetic management of hedgerows. The ongoing decline experienced by some species may, to a lesser extent, be further driven by other pressures. For example, there is evidence of an adverse impact for some species from disease.

The historical declines in **breeding waders**, such as those featured in the water and wetland indicator, resulted from land management changes such as drainage, the intensification of grassland management and the conversion of coastal and floodplain grazing marshes to arable land. Where populations persist in small fragments of high quality habitat, their nests and young are vulnerable to predation from increasing numbers of a range of generalist predator species, such as foxes and carrion crows. Predation is currently thought to be limiting the recovery of several species of breeding wader<sup>6</sup>.

The declines in **woodland birds** have several known and potential causes, such as a lack of woodland management and increased deer browsing pressure, both of which result in a reduced diversity of woodland structure and, therefore, reduced availability of suitable nesting and foraging habitats. In addition, several declining woodland birds are longdistance migrants, and a decline in the extent or quality of habitats used outside the breeding season may be one factor affecting these species outside of the UK.

Populations of **wintering wetland birds** are affected by a range of factors including conditions in the countries where they breed, the condition and amount of coastal and wetland habitat in the UK and changes in migratory patterns, which may be affected by climatic changes.

# **Understanding the bird population indices**

Individual bird species population trends, based on expert surveys, are calculated as an index. This relates the population in a given year to a 'baseline' – the first year that data are available – which is given a value of 100. Thereafter, the index is expressing the population as a percentage of this 'baseline'.

This annual Defra National Statistics Release presents trends up to 2013 in populations of common birds (species with a population of at least 500 breeding pairs) that are native to, and breed in, the UK, with trends overall and for four main habitat groups (see Annex A for a list of birds in each group):

i) 'All species', covering all species for which there is sufficient information to calculate a trend (131 species)

- ii) Farmland birds (19 species)
- iii) Woodland birds (37 species)

<sup>&</sup>lt;sup>6</sup> Ausden, M. *et al.* (2009) Predation of breeding waders on lowland wet grassland – is it a problem? *British Wildlife* **21**, 29-38.

- iv) Water and wetland birds (26 species)
- v) Seabirds (14 species)

The Release also presents population trends in:

vi) Wintering waterbirds: waterbirds that over winter in the UK (46 species, subspecies and/or populations), although some of them also breed in the UK.

The charts presented combine individual species indices<sup>7</sup> into a single indicator to provide an overall trend for each group mentioned above. The indices are considered to give reliable medium to long-term trends but strong reliance should not be attached to short term changes from year to year.

# Assessing trends

The indices show the year-to-year fluctuation in populations, reflecting the observed changes in the survey results, and smoothed trends<sup>8</sup>, which are used to formally assess the statistical significance of change over time. Smoothed trends are used for assessments as they reduce the short-term peaks and troughs resulting from, for example, year to year weather and sampling variations. These smoothed trends, derived using a published statistical methodology<sup>9</sup>, have been used to make assessments of change over the whole data run and the most recent five-year period possible, from 2007 to 2012. The most recent year of data, i.e. 2013 in this update, is likely to change due to the smoothing process following the inclusion of 2014 data in next year's update. As a result it is not appropriate to make assessments based on this figure. Where results from the smoothed indices are quoted, this is clearly indicated.

Smoothed trends are presented with 95% confidence intervals. A confidence interval (CI) is a measure of the reliability of an estimate: a 95% CI means we are 95% confident that the true value of an indicator in a given year falls within the confidence interval around it. Bootstrapping, a standard statistical technique, is used to calculate a confidence interval around each indicator trend. The width of the confidence interval for a given indicator is influenced by the number of species in that indicator and the precision of the individual species trends that make up that indicator. The precision of trends varies between species; this is true even for species for which trends come from the same source, due to the variation in sample size. Therefore the size of confidence intervals varies among habitat indicators.

<sup>&</sup>lt;sup>7</sup> Using a geometric mean - an average calculated by multiplying a set of index values and taking the n<sup>th</sup> root, where n is the number of index values. More information can be found in <u>Introduction to the Wild Birds</u> <u>Population Indicator</u>.

<sup>&</sup>lt;sup>8</sup> There are currently no smoothed trends available for seabirds.

<sup>&</sup>lt;sup>9</sup> See analytical methods on BTO website (<u>www.bto.org/birdtrends2011/methodology.htm</u>) Fewster et al. 2000. Ecology 81: 1970-84.

Throughout this release, assessment periods are referred to as:

- 'Long-term' an assessment of change since the earliest date for which data are available (i.e. since the baseline); this varies among habitat indicators and among individual species. Annex A shows the period of the long-term assessment for each individual bird species.
- 'Short-term' an assessment of change over the latest five years (2007-2012).

The percentage of species within each indicator that have increased or decreased in the long term and in the short term is also shown. Whether an individual species is increasing or in decline has been decided by its rate of annual change over the time period (long or short) of interest. If the rate of annual change would lead to a population decrease of 50% (halving), or a population increase of 100% (doubling) or more over 25 years, the species is said to have shown a 'strong decline' or a 'strong increase' respectively. Rates of change less than these but below -25% (decrease) or above +33% (increase) are labelled 'weak'. Asymmetric thresholds are used for declines and increases to represent symmetrical proportional change in an index. These thresholds are used in the formal, Government endorsed, Birds of Conservation Concern<sup>10</sup> status assessment for birds in the UK.

The bird population indices have been compiled in conjunction with the Royal Society for the Protection of Birds (RSPB), the British Trust for Ornithology (BTO) and the Joint Nature Conservation Committee (JNCC).

<sup>&</sup>lt;sup>10</sup> See the BTO website (<u>http://www.bto.org/volunteer-surveys/birdtrack/bird-recording/birds-conservation-concern</u>)

# Native breeding wild bird populations in the UK





Source: RSPB, BTO, JNCC, Defra

### Note:

i) figures in brackets show the number of species,

ii) graph shows unsmoothed trend (dashed line) and smoothed trend (solid line) with its 95% confidence interval (shaded).

# Summary

• In 2013, the **all-species index in the UK** was twelve per cent below its 1970 level. The smoothed index showed a small but statistically significant decline of five per cent between 2007 and 2012.

• Within the index, 28 per cent of species have increased, 42 per cent have shown no change and 27 per cent have declined between 1970 and 2012. It was not possible to calculate a long term trend for four species because their data series start in 2006 or later.

• Over the short-term period between 2007 and 2012, 27 per cent of species showed an increase, 33 per cent showed no change and 41 per cent showed decline; the majority of these declines were strong declines, rather than weak declines.

# The all species indicator

The all-species index comprises 131 species of birds, which is all widespread species, with populations of at least 500 breeding pairs, for which we have sufficient data. Species trends within this index vary widely from species increasing several-fold (e.g. Cetti's warbler, blackcap, great spotted woodpecker, red kite and collared dove) to those having declined to less than a tenth of 1970 levels (turtle dove, corn

bunting, willow tit and grey partridge). The main patterns and drivers of change are best considered by looking at the indices of species grouped by habitat (Figure 1a and below).





Source: RSPB, BTO, JNCC, Defra

#### Note:

i) figures in brackets show the number of species,

ii) graph shows unsmoothed trends (dashed lines) and smoothed trends (solid lines). No smoothed trend is available for seabirds as individual species population trends are based on full counts at colonies or wetland and coastal sites.

**Note:** The species composition of this indicator has changed since the update in 2013 due to the addition of eight species for which reliable data are now available for the latter part of the time period, and the exclusion of five species for which recent trend estimates are no longer considered reliable. The species trends added are for red kite, golden plover, swift, house martin, raven, hooded crow, stonechat and whinchat. The species now excluded are great skua, common gull, puffin, gannet and hawfinch. The effects of these changes on the overall indicator have been very small.

# Breeding farmland bird populations in the UK

Figure 2: Populations of farmland birds in the UK, 1970-2013



Source: RSPB, BTO, JNCC, Defra

#### Note:

i) figures in brackets show the number of species,

ii) graph shows unsmoothed trend (dashed line) and smoothed trend (solid line) with its 95% confidence interval (shaded).

### Summary

• In 2013, the breeding **farmland bird index in the UK** was less than half (a decline of 55 per cent) of its 1970 level – the lowest level recorded.

• Within the index over this long term period, 21 per cent of species showed a weak increase, 21 per cent showed no change and 58 per cent showed either a weak or a strong decline.

• Most of the decline for the farmland bird index occurred between the late seventies and the early nineties, largely due to the impact of rapid changes in farmland management during this period.

• The smoothed indicator shows a significant on-going decline of ten per cent between 2007 and 2012.

• Within the index over this short term period, 32 per cent of species showed an increase (the majority of these species showed a strong increase, rather than a weak increase), 16 per cent showed no change and 53 per cent showed a decline.

# The farmland indicator

The farmland bird index comprises 19 species of bird. The long term decline of farmland birds in the UK has been driven mainly by the decline of those species that are restricted to, or highly dependent on, farmland habitats (the 'specialists'). Between 1970 and 2013, populations of farmland specialists declined by 70 per cent while farmland generalist populations declined by ten per cent (Figure 2a).





Source: RSPB, BTO, JNCC, Defra

### Note:

i) figures in brackets show the number of species,

ii) graph shows unsmoothed trends (dashed lines) and smoothed trends (solid lines).

Changes in farming practices, such as the loss of mixed farming systems, the move from spring to autumn sowing of arable crops, and increased pesticide use, have been demonstrated to have had adverse impacts on farmland birds such as skylark and grey partridge, although other species such as woodpigeon have benefitted. Four farmland specialists (grey partridge, turtle dove, tree sparrow and corn bunting) have declined by over 85 per cent relative to 1970 levels. By contrast two farmland specialists (stock dove and goldfinch) have doubled, or nearly so, over the same period, illustrating how pressures and responses to pressures varies between species. Overall, 75 per cent of the 12 specialist species in the farmland indicator have declined over this long term period, while 17 percent have increased and eight per cent have shown no change (Figure 2b).



### Figure 2b: Populations of specialist farmland birds in the UK, 1970-2013

Source: RSPB, BTO, JNCC, Defra

#### Note:

i) figures in brackets show the number of species,

ii) graph shows unsmoothed trend (dashed line) and smoothed trend (solid line) with its 95% confidence interval (shaded).

Generalist species have fared better: woodpigeon and jackdaw populations have more than doubled relative to 1970. However, the yellow wagtail has declined by over 65 per cent. Overall, 29 per cent of the seven generalist species in the indicator have declined over this long-term period, while 29 per cent have shown an increase and 43 per cent have shown no change (Figure 2c).



#### Figure 2c: Populations of generalist farmland birds in the UK, 1970-2013

#### Source: RSPB, BTO, JNCC, Defra

### Note:

i) figures in brackets show the number of species,

ii) graph shows unsmoothed trend (dashed line) and smoothed trend (solid line) with its 95% confidence interval (shaded).

The smoothed indices show that between 2007 and 2012 both specialist and generalist farmland birds have declined: populations of farmland specialists declined by eleven per cent while farmland generalist populations declined by nine per cent. A number of species have shown marked trends over this five-year period, with turtle dove decreasing by 65 per cent, greenfinch by 37 per cent (the latter related to the disease trichomonosis, which may also have affected the turtle dove, a farmland specialist, in recent years) and lapwing by 36 per cent, whereas goldfinch and tree sparrow both increased by over 40 per cent. Overall, 33 per cent of specialists and 29 per cent of generalists have increased over this time period, while 50 per cent of specialists and 57 per cent of generalists have declined.

# Breeding woodland bird populations in the UK



### Figure 3: Populations of woodland birds in the UK, 1970-2013

Source: RSPB, BTO, JNCC, Defra

#### Note:

i) figures in brackets show the number of species. There is one less species in the indicator than in previous years: hawfinch has been removed as its population trend is felt to be unreliable. The all woodland birds index has been recalculated with 37 species for the whole period 1970-2013: the effect of removing hawfinch on the trend has been negligible.

ii) graph shows unsmoothed trend (dashed line) and smoothed trend (solid line) with its 95% confidence interval (shaded).

## Summary

• In 2013, the breeding **woodland bird index in the UK** was 28 per cent lower than its 1970 level – the second lowest level recorded since 1970.

• Within the index over this long term period, 24 per cent of species showed an increase and 46 per cent showed no change; however, 30 per cent of species showed a decline; the majority of these species showed a strong decline.

• The greatest decline of woodland birds occurred from the early eighties until the early nineties, and the index has been more stable in recent years. The smoothed index showed no significant change between 2007 and 2012.

• Within the index over this short term period, 32 per cent of species showed an increase, 38 per cent showed no change and 30 per cent declined.

# The woodland indicator

There are 37 species of bird in the woodland bird index and these can either be 'specialist' (highly dependent on woodland habitats) or 'generalist' (found in a range of habitats, including woodland). While the index of generalist birds has decreased by only two per cent relative to 1970 and an analysis of the underlying smoothed trend shows no change, the index for specialist woodland birds has decreased by 40 per cent over the same period (Figure 3a). Smoothed trends for both indices show little change between 2007 and 2012: specialist woodland birds show a small significant increase of three per cent (Figure 3b) and generalists show a small significant decrease of five per cent (Figure 3c).





Source: RSPB, BTO, JNCC, Defra

Note:

i) figures in brackets show the number of species,

ii) graph shows unsmoothed trends (dashed lines) and smoothed trends (solid lines).

A number of woodland specialists (lesser spotted woodpecker, lesser redpoll, spotted flycatcher, tree pipit, wood warbler, crossbill and marsh tit) have declined by over 70 per cent relative to 1970 levels, with willow tit and capercaillie down by more than 90 per cent. By contrast populations of four other woodland specialists (blackcap, great spotted woodpecker, green woodpecker and nuthatch) more than doubled over the same period.





Source: RSPB, BTO, JNCC, Defra

#### Note:

i) figures in brackets show the number of species,

ii) graph shows unsmoothed trend (dashed line) and smoothed trend (solid line) with its 95% confidence interval (shaded).

Populations of some woodland generalist species (blackbird, bullfinch, dunnock, song thrush and tawny owl) have declined relative to 1970; tawny owl and bullfinch by almost 50 per cent. In contrast, populations of great tit and long-tailed tit have increased by more than 60 per cent since 1970.







### Note:

i) figures in brackets show the number of species,

ii) graph shows unsmoothed trend (dashed line) and smoothed trend (solid line) with its 95% confidence interval (shaded).

# **Breeding water and wetland bird populations** in the UK



Figure 4: Populations of water and wetland birds in the UK, 1975-2013

Source: RSPB, BTO, JNCC, Defra

### Note:

i) figures in brackets show the number of species,

ii) graph shows unsmoothed trend (dashed line) and smoothed trend (solid line) with its 95% confidence interval (shaded).

# Summary

• In 2013, the breeding water and wetland bird index in the UK was 17 per cent lower than its 1975 level. There was a significant decline in the smoothed index of 12 per cent between 2007 and 2012.

• In the long term, between 1975 and 2012, 35 per cent of species in the water and wetland bird index showed an increase and 35 per cent showed no change; however, 27 per cent of species showed a decline. It was not possible to calculate a long term trend for one species because its data series starts in 2006.

• Over the short-term period, between 2007 and 2012, only 12 per cent of species showed an increase, while 27 per cent showed no change and 62 per cent declined.

# The water and wetland indicator

There are 26 species of bird included in the water and wetland bird index. The water and wetland bird index can be split into four sub-habitat indicators showing differing trends (Figure 4a), although it should be borne in mind that each sub-habitat trend is derived from relatively few species trends.





Source: RSPB, BTO, JNCC, Defra

### Note:

i) figures in brackets show the number of species,

ii) graph shows unsmoothed trends (dashed lines) and smoothed trends (solid lines).

Birds of slow flowing and standing water have shown the most positive trend, increasing by 43 per cent since 1975 (Figure 4b). This is driven by marked increases in two duck species (mallard and tufted duck) and in coot, although moorhen and little grebe have declined by almost a third. Conversely, the index for wet grassland birds decreased by 53 per cent since 1975 (Figure 4c): although little egrets and some waterfowl (mute swan and teal) have increased, redshank, snipe and yellow wagtail have declined, by more than 60 per cent, 80 per cent and 95 per cent respectively. The index for fast flowing waterbirds has also decreased in the long term, by 30 per cent, compared to 1975 (Figure 4d). One species in this indicator (grey wagtail) is more than 50 per cent lower than its 1975 baseline. The index for reedbed birds has declined more moderately over the same period (by 18 per cent); large declines in sedge warbler and reed bunting, 50 per cent and 62 per cent respectively, have been offset by increases in Cetti's warbler and reed warbler (Figure 4e).

All four sub-habitat indicators have contributed to the decline in the overall water and wetland indicator in the short term between 2007 and 2012.

# Figure 4b: Populations of slow flowing and standing waterbirds in the UK, 1975-2013



Source: RSPB, BTO, JNCC, Defra

#### Note:

i) figures in brackets show the number of species,

ii) graph shows unsmoothed trend (dashed line) and smoothed trend (solid line) with its 95% confidence interval (shaded).

# 160 140 -

Figure 4c: Populations of wet grassland birds in the UK, 1975-2013





#### Note:

i) figures in brackets show the number of species,

ii) graph shows unsmoothed trend (dashed line) and smoothed trend (solid line) with its 95% confidence interval (shaded).



### Figure 4d: Populations of fast flowing waterbirds in the UK, 1975-2013

Source: RSPB, BTO, JNCC, Defra

#### Note:

i) figures in brackets show the number of species,

ii) graph shows unsmoothed trend (dashed line) and smoothed trend (solid line) with its 95% confidence interval (shaded).



### Figure 4e: Populations of reedbed birds in the UK, 1975-2013

#### Note:

i) figures in brackets show the number of species,

ii) graph shows unsmoothed trend (dashed line) and smoothed trend (solid line) with its 95% confidence interval (shaded).

Source: RSPB, BTO, JNCC, Defra

# **Breeding seabird populations in the UK**



Figure 5: Populations of seabirds in the UK, 1986-2013

Source: RSPB, BTO, JNCC, Defra

#### Note:

i) figures in brackets show the number of species,

ii) graph shows unsmoothed trend (solid line) - no smoothed trend is available for seabirds as individual species population trends are based on full counts at colonies or wetland and coastal sites.

## Summary

• In 2013, the breeding **seabird index in the UK** was 24 per cent lower than its level in 1986 – the lowest level recorded. Most of the decline has occurred since 2003; there has been an ongoing decline of nine per cent in the short term since 2008.

• One species in the index has shown a weak increase in population size between 1986 and 2013; while the majority (71 per cent) have shown no change. Three species (21 per cent) have declined.

• In the short term, between 2008 and 2013, three species (21 per cent) have increased, six (43 per cent) have shown no change in population size and five (36 per cent) have declined.

## The seabird indicator

The seabird index comprises 14 species of birds (see Note below). Only three species (common guillemot, razorbill and Arctic tern) have increased since the beginning of the index, while all the other species in the indicator have decreased. In particular, black-legged kittiwakes declined by 72 per cent since 1986 and Arctic skuas declined by 82 per cent. Declines of black-legged kittiwakes, which are surface feeders, have been linked to increases in sea surface temperatures, a result of climate change. Some seabirds have

been impacted through predation by invasive non-native mammals such as rats and mink, though successful eradication programmes have been implemented in a number of areas and populations of some species have increased dramatically as a result.

**Note:** The UK trend published here is not directly comparable with the UK seabird trend published in 2013.

In this update of the Wild Bird Populations Indicators, the UK and England seabird indicators have been standardised by applying exactly the same definition of seabird, indexing from the same 1986 baseline, and excluding species for which there is no reliable trend data since the last seabird census in 2000. This has resulted in two species additions (gannet and herring gull) to the England seabird indicator and the exclusion of five species (puffin, common gull, black-headed gull, great skua and gannet) from the UK seabird indicator.

Despite these changes, the seabirds index in the UK in 2013 shows a different pattern to the England index<sup>11</sup>. The main reason for this difference is species composition. Some species breed only in Scotland whereas others are more widespread but have the bulk of their populations in northern parts of the British Isles, and there may be insufficient data to generate an England-only trend. Furthermore, it was possible to generate an England trend for gannet based on reliable data from a single large colony, but there are insufficient data to produce a reliable UK trend for this species.

<sup>&</sup>lt;sup>11</sup> The England seabird trend can be seen in the Defra National Statistics Release, <u>Wild bird populations in</u> <u>England, 1970-2013</u>, also published today.

# Wintering waterbird populations in the UK

Figure 6: Populations of wintering waterbirds in the UK, 1975-76 to 2012-13







#### Note:

i) figures in brackets show the number of species,

ii) graph shows unsmoothed trend (dashed line) and smoothed trend (solid line). Data from surveys of wintering waterbirds are based on full counts at colonies or wetland and coastal sites of markedly varying size. This means that bootstrapping methods cannot be applied and that trends for these groups are currently presented without confidence intervals.

# Summary

• In the winter of 2012-13 the **wintering waterbird index in the UK** was almost double (up 95 per cent) from its 1975-76 level. The index peaked in the late 1990s, and has declined since, with the smoothed index falling by almost five per cent in the short term between 2006-07 and 2011-12.

• Since 1975-76, populations of 52 per cent of species included in the wintering waterbird indicator have increased, while 39 per cent have remained stable and only nine per cent have declined.

• In the short term, between the winters of 2006-07 and 2011-12 the percentage of species that have shown population increases has fallen to 30 per cent, while 30 per cent have shown no change and 39 per cent have shown declines.

# The wintering waterbird indicator

There are 46 species, races and populations of bird included in the wintering waterbird indicator, which shows a drop of four per cent between 2011-12 and 2012-13 to an index value 95 per cent higher than in 1975-76. Overall, populations of wildfowl and wader have increased by 117 per cent and 57 per cent, respectively, since 1975-76. However, between 2006-07 and 2011-12, the smoothed indices for wildfowl showed a difference of less than one per cent and the index for waders declined by almost ten per cent.

Amongst wildfowl, scaup numbers are down by two-thirds and European white-fronted goose and pochard populations by 79 per cent and 46 per cent respectively since 1975-76. In contrast, numbers of Svalbard light bellied brent goose and gadwall increased 13 fold, and British/Irish greylag geese by 43-fold over the same period.

Amongst waders, populations of avocet have increased almost seven-fold since being included in the indicator in 1989-90. Ringed plover and dunlin numbers showed the steepest declines, declining by 44 per cent and 49 per cent respectively since the start of the time series in the winter of 1975-76.

We have made lots of changes to the presentation of this statistical release in 2014. Please take two minutes to fill in this short, predominantly multiple-choice questionnaire to let us know what you think. Your help is greatly appreciated and will inform our decisions when it comes to revising this release next year.

https://www.surveymonkey.com/s/RS6YRZK

# Main notes: methodological detail, limitations of the indicators and further information

- 1. The bird population indices have been compiled in conjunction with the Royal Society for the Protection of Birds (RSPB), the British Trust for Ornithology (BTO) and the Joint Nature Conservation Committee (JNCC) from a wide range of sources, principally:
  - the Common Birds Census (from 1966 to 2000),
  - the <u>BTO/JNCC/RSPB Breeding Bird Survey</u> (from 1994 to 2013),
  - the <u>BTO/ Waterways Bird Survey</u> (from 1974 to 2007),
  - the <u>BTO/Environment Agency for England and Wales (EA) Waterways Breeding</u> <u>Bird Survey</u> (from 1998 to 2013),
  - the <u>BTO/Wildfowl & Wetland Trust/RSPB/JNCC Wetland Bird Survey counts</u> (from 1975-76 to 2012-13),
  - the WWT <u>Goose & Swan Monitoring Programme</u> in partnership with the JNCC and Scottish Natural Heritage,
  - the Seabird Monitoring Programme (from 1986 to 2013),
  - the Periodic Seabird censuses supplied by JNCC, RSPB, the Seabird Group, SOTEAG (Shetland Oil Terminal Environmental Advisory Group) and other partners,
  - Monitoring of scarce and rare breeding birds by the Statutory Conservation Agency and RSPB Annual Breeding Bird Scheme (SCARABBS) and the <u>Rare</u> <u>Breeding Birds Panel</u>.

Regional analysis is published as part of the Breeding Bird Survey.

The census sources provide an indication of the average annual rate of change between censuses for some species, and this is assumed to apply to each year between censuses.

More information about individual species trends, including photographs, background to the changes in population are available via the <u>BTO</u> website. Some regional analysis is also published as part of the <u>Breeding Bird Survey</u>, including for other constituent countries of the UK. More information about the <u>State of UK birds</u> can be accessed through the RSPB website. Details on the monitoring of scarce and rare breeding birds, including annual reports, can be found on the <u>website</u> of the Rare Breeding Birds Panel.

2. The indices cover birds that are native to the UK, excluding rare (less than 500 breeding pairs) and introduced species. The indices portray the annual changes in abundance. Within the indices, each species is given equal weighting, and the overall index is the geometric mean of the individual species indices. Individual species populations within the index may be increasing or decreasing, irrespective of the overall index trends. Species indices are derived by modelling count data and

estimates are revised when new data or improved methodologies are developed and applied retrospectively to earlier years.

- 3. The indices are considered to give reliable medium to long-term trends but strong reliance should not be attached to short term changes from year to year.
- 4. The individual species included within each indicator are given in Annex A. The underlying unsmoothed figures for England can be downloaded from <u>the Gov.uk</u> <u>website</u>.
- 5. Smoothing is a standard procedure in the generation and reporting of bird population trends (www.bto.org/birdtrends2010/methodology.htm) by the BTO and partners in its major bird monitoring schemes, i.e. RSPB and JNCC. The smoothing methodology involves the application of a thin plate smoothing spline to remove the short-term peaks and troughs due to weather effects and any between year sampling error. Research by the BTO and RSPB further developed this procedure to enable the production of an indicator based on smoothed individual species' indices. Bootstrapping, a standard statistical technique, is used to calculate 95 per cent confidence intervals in the indicators and in change over any specified period.
- 6. For the farmland bird index it should be noted that although 20 species were originally chosen for the index, a reliable annual index is not available for barn owl, so for that reason this species is excluded.
- 7. Details of agri-environmental schemes designed to improve environmental management in farming can be found via the following administrating bodies:
  - Natural England
  - Welsh Government
  - Scottish Government
  - Department for Agriculture and Rural Development, Northern Ireland

# Annex A: Trends in bird species, by habitat<sup>12</sup> group, in the UK

The tables below list the species that are included in each indicator. Percentage changes are based on smoothed data, except in the case of seabirds, for which no smoothed trend data are available.

### Farmland (19)

Generalists (7)

	Long term change (1970-2012)			Short term change (2007-2012)		
Species	Long term percentage change	Annual percentage change	Trend	Short term percentage change	Annual percentage change	Trend
greenfinch ( <i>Carduelis chloris</i> )	-25	-0.67	no change	-37	-8.89	strong decline
jackdaw ( <i>Corvus monedul</i> a)	142	2.13	weak increase	17	3.25	strong increase
kestrel ( <i>Falco tinnunculus</i> )	-48	-1.55	weak decline	-27	-6.02	strong decline
reed bunting ( <i>Emberiza schoeniclus</i> )	-41	-1.24	no change	-12	-2.61	weak decline
rook (Corvus frugilegus)	10 (1975-2012)	0.23	no change	-10	-2.06	weak decline
woodpigeon ( <i>Columba palumbus</i> )	134	2.04	weak increase	6	1.22	no change
yellow wagtail <i>(Motacilla flava</i> )	-68	-2.70	weak decline	17	3.14	strong increase

<sup>&</sup>lt;sup>12</sup> Habitat classifications are generally based on 'Gibbons, D.W., Reid, J.B. & Chapman, R.A. 1993. The New Atlas of Breeding Birds in Britain and Ireland: 1988-1991. London: T. & A.D. Poyser.

### Specialists (12)

	Long term change (1970-2012)			Short term change (2007-2012)		
Spacias	Long term	Annual percentage	Trend	Short term	Annual percentage	Trend
opecies	percentage change	change		percentage change	change	
corn bunting ( <i>Emberiza calandra</i> )	-90	-5.42	strong decline	-11	-2.42	weak decline
goldfinch ( <i>Carduelis carduelis</i> )	144	2.14	weak increase	43	7.36	strong increase
grey partridge ( <i>Perdix perdix</i> )	-91	-5.61	strong decline	-24	-5.23	strong decline
lapwing ( <i>Vanellus vanellus</i> )	-64	-2.43	weak decline	-37	-8.67	strong decline
linnet (Carduelis cannabina)	-58	-2.02	weak decline	0	0.07	no change
skylark ( <i>Alauda arvensis</i> )	-61	-2.24	weak decline	-17	-3.72	strong decline
starling ( <i>Sturnus vulgaris</i> )	-81	-3.93	strong decline	-27	-6.13	strong decline
stock dove ( <i>Columba oena</i> s)	97	1.63	weak increase	14	2.68	weak increase
tree sparrow ( <i>Passer montanus</i> )	-90	-5.27	strong decline	47	7.95	strong increase
turtle dove ( <i>Streptopelia turtur</i> )	-96	-7.23	strong decline	-65	-18.95	strong decline
whitethroat ( <i>Sylvia communis</i> )	-2	-0.05	no change	18	3.36	strong increase
yellowhammer ( <i>Emberiza citrinella</i> )	-55	-1.87	weak decline	0	0.03	no change

# Woodland (37)

Generalists (12)

	Long term change (1970-2012)			Short term change (2007-2012)		
Spacias	Long term	Annual percentage	Trend	Short term	Annual percentage	Trend
opecies	percentage change	change		percentage change	change	
blackbird ( <i>Turdus merul</i> a)	-17	-0.45	no change	-4	-0.76	no change
blue tit ( <i>Cyanistes caeruleus</i> )	26	0.54	no change	-2	-0.43	no change
bullfinch ( <i>Pyrrhula pyrrhula</i> )	-41	-1.26	no change	16	2.95	strong increase
chaffinch ( <i>Fringilla coelebs</i> )	35	0.71	no change	-2	-0.39	no change
dunnock ( <i>Prunella modularis</i> )	-31	-0.86	no change	-1	-0.10	no change
great tit ( <i>Parus major</i> )	87	1.51	weak increase	-3	-0.54	no change
lesser whitethroat (Sylvia curruca)	11	0.25	no change	-1	-0.25	no change
long-tailed tit (Aegithalos caudatus)	94	1.59	weak increase	3	0.57	no change
robin ( <i>Erithacus rubecula</i> )	32	0.66	no change	-12	-2.52	weak decline
song thrush ( <i>Turdus philomelos</i> )	-58	-2.02	weak decline	-17	-3.65	strong decline
tawny owl ( <i>Strix aluco</i> )	-35	-1.00	no change	-11	-2.18	weak decline
wren ( <i>Troglodytes troglodytes</i> )	21	0.45	no change	-21	-4.71	strong decline

### Specialists (25)

	Long term change (1970-2012)			Short term change (2007-2012)		
Species	Long term percentage change	Annual percentage change	Trend	Short term percentage change	Annual percentage change	Trend
blackcap ( <i>Sylvia atricapilla</i> )	278	3.22	strong increase	55	9.15	strong increase
capercaillie ( <i>Tetrao urogallus</i> )	-90	-5.39	strong decline	-31	-7.20	strong decline
chiffchaff ( <i>Phylloscopus collybita</i> )	86	1.49	no change	37	6.45	strong increase
coal tit ( <i>Periparus ater</i> )	28	0.58	no change	3	0.59	no change
crossbill ( <i>Loxia curvirostra</i> )	79 (1995-2012)	3.48	strong increase	72	11.42	strong increase
garden warbler ( <i>Sylvia borin</i> )	0	-0.01	no change	0	-0.05	no change
goldcrest ( <i>Regulus regulus</i> )	-30	-0.85	no change	-25	-5.70	strong decline
green woodpecker ( <i>Picus viridis</i> )	111	1.79	weak increase	-6	-1.23	no change
great spotted woodpecker ( <i>Dendrocopos major</i> )	361	3.70	strong increase	5	1.03	no change
jay (Garrulus glandarius)	13	0.28	no change	12	2.30	weak increase
lesser redpoll ( <i>Carduelis cabaret</i> )	-85	-4.39	strong decline	42	7.24	strong increase
lesser spotted woodpecker ( <i>Dendrocopos minor</i> )	-81	-3.85	strong decline	-38	-9.00	strong decline
marsh tit ( <i>Poecile palustri</i> s)	-71	-2.87	strong decline	-15	-3.09	strong decline
nightingale ( <i>Luscinia</i>	-42 (1995-2012)	-3.15	strong decline	12	2.25	weak increase

megarhynchos)						
nuthatch ( <i>Sitta europaea</i> )	248	3.01	strong increase	27	4.83	strong increase
pied flycatcher ( <i>Ficedula hypoleuca</i> )	-53 (1995-2012)	-4.30	strong decline	0	-0.03	no change
redstart (Phoenicurus phoenicurus)	60	1.12	no change	40	6.93	strong increase
siskin ( <i>Carduelis spinus</i> )	70 (1995-2012)	3.14	strong increase	48	8.22	strong increase
sparrowhawk ( <i>Accipiter nisus</i> )	114	1.83	weak increase	-6	-1.20	no change
spotted flycatcher ( <i>Muscicapa striata</i> )	-88	-4.91	strong decline	-18	-3.96	strong decline
treecreeper ( <i>Certhia familiaris</i> )	-13	-0.33	no change	7	1.36	no change
tree pipit ( <i>Anthus trivialis</i> )	-71	-2.89	strong decline	12	2.22	weak increase
willow tit ( <i>Poecile montana</i> )	-94	-6.55	strong decline	-44	-11.02	strong decline
willow warbler ( <i>Phylloscopus trochilus</i> )	-36	-1.07	no change	11	2.15	weak increase
wood warbler ( <i>Phylloscopus sibilatrix</i> )	-65 (1995-2012)	-6.01	strong decline	-21	-4.59	strong decline

# Water and wetland birds (26)

Fast flowing (4)

	Long te	erm change (1975-2012	2)	Short term change (2007-2012)		
Species	Long term percentage change	Annual percentage change	Trend	Short term percentage change	Annual percentage change	Trend
common sandpiper ( <i>Actitis hypoleucos</i> )	-48	-1.74	weak decline	-18	-3.89	strong decline
dipper ( <i>Cinclus cinclus</i> )	-32	-1.02	no change	-8	-1.54	weak decline
goosander ( <i>Mergus merganser</i> )	78 (1981-2012)	1.87	weak increase	2	0.31	no change
grey wagtail ( <i>Motacilla cinerea</i> )	-60	-2.42	weak decline	-45	-11.21	strong decline

Slow standing (6)

	Long term change (1975-2012)			Short term change (2007-2012)		
Species	Long term percentage change	Annual percentage change	Trend	Short term percentage change	Annual percentage change	Trend
coot ( <i>Fulica atra</i> )	88	1.72	weak increase	-11	-2.33	weak decline
great-crested grebe ( <i>Podiceps cristatus</i> )	-5 (1995-2012)	-0.32	no change	-21	-4.70	strong decline
little grebe ( <i>Tachybaptus ruficollis</i> )	-39	-1.31	no change	-13	-2.66	weak decline
mallard (Anas platyrhynchos)	221	3.20	strong increase	-1	-0.15	no change
moorhen ( <i>Gallinula chloropus</i> )	-32	-1.02	no change	-26	-5.71	strong decline
tufted duck ( <i>Aythya fuligula</i> )	106	1.97	weak increase	-3	-0.54	no change

### Reedbed (4)

	Long term change (1975-2012)			Long term change (2007-2012)		
Species	Long term	Annual percentage	Trend	Short term	Annual percentage	Trend
	percentage change	change		percentage change	change	
Cetti's warbler ( <i>Cettia cetti</i> )	385 (1989-2012)	7.11	strong increase	-11	-2.21	weak decline
reed bunting ( <i>Emberiza schoeniclus</i> )	-62	-2.59	weak decline	-9	-1.79	weak decline
reed warbler (Acrocephalus scirpaceus)	85 (1989-2012)	2.00	weak increase	-3	-0.67	no change
sedge warbler (Acrocephalus schoenobaenus)	-34	-1.11	no change	-7	-1.36	no change

Wet grassland (8)

	Long term change (1975-2012)			Short term change (2007-2012)		
Species	Long term	Annual percentage	Trend	Short term	Annual percentage	Trend
opecies	percentage change	change		percentage change	change	
curlew ( <i>Numenius arquata</i> )	-17 (1980-2012)	-0.59	no change	-8	-1.63	weak decline
lapwing ( <i>Vanellus vanellus</i> )	-52 (1980-2012)	-2.28	weak decline	-34	-8.07	strong decline
little egret ( <i>Egretta garzetta</i> )	Not available (data series starts in 2006)			46	7.83	strong increase
mute swan ( <i>Cygnus olor</i> )	95	1.82	weak increase	3	0.51	no change
redshank ( <i>Tringa totanus</i> )	-59	-2.38	weak decline	-23	-5.18	strong decline
snipe ( <i>Gallinago gallinago</i> )	-84	-4.82	strong decline	-18	-3.83	strong decline
teal ( <i>Anas crecca</i> )	35 (1995-2012)	1.78	weak increase	10	1.96	weak increase
yellow wagtail ( <i>Motacilla flava</i> )	-96	-8.29	strong decline	-29	-6.56	strong decline

### All species only (4)

	Long term change (1975-2012)			Short term change (2007-2012)		
Species	Long term percentage change	Annual percentage change	Trend	Short term percentage change	Annual percentage change	Trend
grey heron ( <i>Ardea cinerea</i> )	-15	-0.45	no change	-18	-3.85	strong decline
kingfisher ( <i>Alcedo atthis</i> )	-28	-0.88	no change	-26	-5.89	strong decline
oystercatcher (Haematopus ostralegus)	80	1.60	weak increase	-5	-0.99	no change
sand martin ( <i>Riparia riparia</i> )	13 (1978-2012)	0.35	no change	11	2.05	weak increase

## Seabird (14)

	Long term change (1986-2013)			Short term change (2008-2013)		
Spacias	Long term	Annual percentage	Trend	Short term	Annual percentage	Trend
opecies	percentage change	change		percentage change	change	
Arctic skua (Stercorarius parasiticus)	-82	-6.21	strong decline	-42	-10.18	strong decline
Arctic tern ( <i>Sterna paradisaea</i> )	30	0.97	no change	7	1.42	no change
black-legged kittiwake ( <i>Rissa tridactyla</i> )	-72	-4.56	strong decline	-41	-10.03	strong decline
common guillemot ( <i>Uria aalge</i> )	43	1.34	no change	11	2.10	weak increase
common tern ( <i>Sterna hirundo</i> )	-13	-0.52	no change	-1	-0.21	no change
European shag ( <i>Phalacrocorax</i> aristotelis)	-52	-2.64	weak decline	-21	-4.56	strong decline
great black-backed gull (Larus marinus)	-15	-0.59	no change	-8	-1.63	weak decline
great cormorant ( <i>Phalacrocorax carbo</i> )	-8	-0.32	no change	-23	-5.02	strong decline
herring gull ( <i>Larus argentatus</i> )	-21	-0.87	no change	3	0.52	no change
lesser black-backed gull (Larus fuscus)	-13	-0.51	no change	-5	-0.96	no change
little tern ( <i>Sternula albifrons</i> )	-10	-0.41	no change	3	0.67	no change
Northern fulmar ( <i>Fulmarus glacialis</i> )	-24	-1.01	no change	-3	-0.52	no change
razorbill ( <i>Alca torda</i> )	56	1.67	weak increase	11	2.08	weak increase
Sandwich tern (Sterna sandvicensis)	-11	-0.44	no change	12	2.27	weak increase

# Wintering waterbirds (46)

Wildfowl (27)

	Long term change (1975/76 - 2011/12)			Short term change (2006/07 - 2011/12)			
Species	Long term percentage change	Annual percentage change	Trend	Short term percentage change	Annual percentage change	Trend	
Bewick's swan (Cygnus columbianus)	22	0.56	no change	-28	-6.33	strong decline	
British/Irish greylag goose ( <i>Anser anser</i> <i>anser</i> )	5189	11.65	strong increase	27	4.95	strong increase	
dark-bellied brent goose ( <i>Branta bernicla</i> <i>bernicla</i> )	158	2.67	weak increase	6	1.11	no change	
eider (Somateria mollissima)	52 (1987/88 – 2011/12)	1.76	weak increase	4	0.69	no change	
European white-fronted goose (Anser albifrons albifrons)	-41	-1.44	weak decline	34	6.05	strong increase	
gadwall ( <i>Anas strepera</i> )	1426	7.86	strong increase	28	5.08	strong increase	
goldeneye ( <i>Bucephala clangula</i> )	30	0.74	no change	-11	-2.26	weak decline	
goosander ( <i>Mergus merganser</i> )	66	1.42	no change	26	4.71	strong increase	
Greenland white-fronted goose (Anser albifrons flavirostris)	85	1.73	weak increase	-14	-2.86	strong decline	
lcelandic greylag goose ( <i>Anser anser</i> )	44	1.01	no change	7	1.29	no change	
mallard ( <i>Anas platyrhynchos</i> )	-15	-0.44	no change	-2	-0.39	no change	
mute swan ( <i>Cygnus olor</i> )	188 (1983/84 – 2011/12)	3.85	strong increase	0	-0.01	no change	
Nearctic barnacle goose (Branta leucopsis)	286	6.33	strong	-2	-0.35	no change	

	(1989/90 – 2011/12)		increase			
Nearctic light-bellied brent goose <i>(Branta bernicla hrota)</i>	243 (1988/89 – 2011/12)	5.50	strong increase	40	6.88	strong increase
pink-footed goose (Anser brachyrhynchus)	288	3.83	strong increase	8	1.56	weak increase
pintail ( <i>Anas acuta</i> )	-15	-0.46	no change	-41	-10.00	strong decline
pochard ( <i>Aythya ferina</i> )	-41	-1.43	weak decline	-20	-4.25	strong decline
red-breasted merganser ( <i>Mergus serrator</i> )	94	1.86	weak increase	-6	-1.19	no change
scaup ( <i>Aythya marila</i> )	-55	-2.21	weak decline	-61	-16.94	strong decline
shelduck ( <i>Tadorna tadorna</i> )	44	1.02	no change	-17	-3.67	strong decline
shoveler ( <i>Anas clypeata</i> )	79	1.63	weak increase	-11	-2.19	weak decline
Svalbard barnacle goose ( <i>Branta leucopsis</i> )	456	4.88	strong increase	30	5.46	strong increase
Svalbard light-bellied brent goose ( <i>Branta bernicla hrota</i> )	1424	7.86	strong increase	38	6.59	strong increase
teal ( <i>Anas crecca</i> )	161	2.70	weak increase	10	2.00	weak increase
tufted duck ( <i>Aythya fuligula</i> )	58	1.28	no change	10	1.92	weak increase
whooper swan ( <i>Cygnus cygnus</i> )	590	5.51	strong increase	27	4.88	strong increase
wigeon ( <i>Anas penelope</i> )	123	2.25	weak increase	-14	-3.06	strong decline

### Wader (15)

	Long term change (1975/76 - 2011/12)			Short term change (2006/07 - 2011/12)		
Species	Long term percentage change	Annual percentage change	Trend	Short term percentage change	Annual percentage change	Trend
avocet ( <i>Recurvirostra avosetta</i> )	1471 (1989/90 – 2011/12)	13.34	strong increase	27	4.82	strong increase
bar-tailed godwit ( <i>Limosa lapponica</i> )	10	0.26	no change	30	5.41	strong increase
black-tailed godwit ( <i>Limosa limosa</i> )	630	5.68	strong increase	12	2.19	weak increase
curlew ( <i>Numenius arquata</i> )	24	0.60	no change	-7	-1.39	no change
dunlin ( <i>Calidris alpina</i> )	-47	-1.73	weak decline	0	0.02	no change
golden plover ( <i>Pluvialis apricaria</i> )	100	1.95	weak increase	-51	-13.17	strong decline
grey plover ( <i>Pluvialis squatarola</i> )	155	2.63	weak increase	-11	-2.36	weak decline
knot ( <i>Calidris canutus</i> )	11	0.29	no change	-3	-0.69	no change
lapwing ( <i>Vanellus vanellus</i> )	58	1.27	no change	-36	-8.45	strong decline
oystercatcher (Haematopus ostralegus)	9	0.24	no change	-4	-0.86	no change
purple sandpiper ( <i>Calidris maritima</i> )	27	0.67	no change	3	0.68	no change
redshank ( <i>Tringa totanus</i> )	-7	-0.20	no change	-15	-3.26	strong decline
ringed plover ( <i>Charadrius hiaticula</i> )	-36	-1.24	no change	-29	-6.58	strong decline
sanderling ( <i>Calidris alba</i> )	58	1.28	no change	-9	-1.81	weak decline
turnstone (Arenaria interpres)	6	0.16	no change	-19	-4.01	strong decline

### Other (4)

	Long term change (1975/76 - 2011/12)			Short term change (2006/07 - 2011/12)		
Species	Long term percentage change	Annual percentage change	Trend	Short term percentage change	Annual percentage change	Trend
coot ( <i>Fulica atra</i> )	81 (1985/86 – 2011/12)	2.32	weak increase	-4	-0.73	no change
cormorant ( <i>Phalacrocorax carbo</i> )	171 1988/89 – 2011/12	4.42	strong increase	-5	-0.94	no change
great crested grebe ( <i>Podiceps cristatus</i> )	102 1984/85 – 2011/12	2.64	weak increase	-22	-4.86	strong decline
little grebe ( <i>Tachybaptus ruficollis</i> )	247 1989/90 – 2011/12	5.82	strong increase	-15	-3.20	strong decline

# **Bird species included in the all-species index in the UK**

The all-species line is comprised of all 131 available population trends for widespread breeding species in the UK, from all landscape types. It excludes rare species (with less than 500 breeding pairs) and all species for which no UK trend information is available.

The species composition of all species index (131 species) includes:

- 19 farmland\* species trends (i.e. those in the farmland bird index);
- 37 woodland bird species (i.e. those in the woodland bird index);
- 26 breeding wetland\* species (i.e. those in the breeding birds of water and wetlands index);
- 14 seabirds, and;
- 38 other species trends, including birds of urban areas, heathlands, uplands, coasts and species with no strong habitat preferences (generalists).

	Long term change (1970-2012)			Short term change (2007-2012)		
Species	Long term percentage change	Annual percentage change	Trend	Short term percentage change	Annual percentage change	Trend
avocet (Recurvirostra avosetta)	332 (1990-2012)	6.88	strong increase	31	5.50	strong increase
bearded tit (Panurus biarmicus)	10 (1977-2012)	0.27	no change	6	1.23	no change
black-headed gull (Chroicocephalus ridibundus)	26	0.54	no change	8	1.53	weak increase
buzzard <i>(Buteo buteo)</i>	438	4.09	strong increase	10	1.96	weak increase
carrion crow (Corvus corone)	95	1.60	weak increase	1	0.10	no change
cirl bunting	147	8.56	strong	54	9.00	strong increase

(Emberiza cirlus)	(2001-2012)		increase			
collared dove (Streptopelia decaocto)	917	5.68	strong increase	-9	-1.94	weak decline
corncrake (Crex crex)	-53	-1.78	weak decline	-3	-0.68	no change
cuckoo <i>(Cuculus canorus)</i>	-62	-2.29	weak decline	-16	-3.52	strong decline
Dartford warbler (Sylvia undata)	52 (1975-2012)	1.13	no change	-65	-19.02	strong decline
firecrest (Regulus ignicapilla)	Not available (data series starts in 2007)			10	1.92	weak increase
gadwall (Anas strepera)	101 (1995-2012)	4.18	strong increase	38	6.63	strong increase
golden plover ( <i>Pluvialis apricaria)</i>	-6 (1995-2012)	-0.34	no change	0	0.03	no change
greylag goose (Anser anser)	148 (1993-2012)	4.90	strong increase	-4	-0.79	no change
hen harrier (Circus cyaneus)	8 (1991-2012)	0.37	no change	-15	-3.24	strong decline
hobby (Falco subbuteo)	9 (1995-2012)	0.49	no change	3	0.64	no change
hooded crow (Corvus cornix)	7 (1995-2012)	0.37	no change	5	1.00	no change
house martin (Delichon urbicum)	-5 (1995-2012)	-0.31	no change	-12	-2.60	weak decline
house sparrow (Passer domesticus)	-71	-2.91	strong decline	7	1.30	no change
magpie <i>(Pica pica)</i>	96	1.62	weak increase	1	0.15	no change
meadow pipit (Anthus pratensis)	-44	-1.37	no change	-4	-0.88	no change
Mediterranean gull (Larus melanocephalus)	Not available (data series starts in 2006)			1401	19.20	strong increase
mistle thrush	-61	-2.22	weak decline	-26	-5.87	strong decline

(Turdus viscivorus)						
peregrine (Falco peregrinus)	243	2.98	strong increase	-2	-0.41	no change
pied/white wagtail <i>(Motacilla alba)</i>	20	0.43	no change	-14	-2.88	strong decline
pochard (Aythya ferina)	29 (1993-2012)	1.35	no change	15	2.91	strong increase
quail (Coturnix coturnix)	41 (1990-2012)	1.59	weak increase	104	15.27	strong increase
raven (Corvus corax)	9 (1995-2012)	0.50	no change	-5	-1.02	no change
red-breasted merganser (Mergus serrator)	649	4.91	strong increase	-3	-0.53	no change
red grouse (Lagopus lagopus)	12 (1995-2012)	0.68	no change	34	6.05	strong increase
red kite <i>(Milvus milvus)</i>	221.4 (2004-2012)	15.71	strong increase	96	14.42	strong increase
shelduck <i>(Tadorna tadorna)</i>	-12 (1995-2012)	-0.75	no change	-11	-2.28	weak decline
shoveler (Anas clypeata)	Not available (data series starts in 2006)			-2	-0.42	no change
stonechat (Saxicola rubicola)	-5 (1995-2012)	-0.31	no change	-64	-18.20	strong decline
swallow (Hirundo rustica)	20	0.43	no change	-1	-0.20	no change
swift <i>(Apus apus)</i>	-38 (1995-2012)	-2.80	strong decline	-17	-3.70	strong decline
whinchat (Saxicola rubetra)	-56 (1995-2012)	-4.67	strong decline	-20	-4.44	strong decline
woodlark <i>(Lullula arborea)</i>	52 (1993-2012)	2.22	weak increase	-43	-10.52	strong decline

\* Note that trends for three species (yellow wagtail, reed bunting and lapwing) are included in two separate habitat-specific indicators (farmland and breeding wetland) due to their reliance on both of these habitats. The same trends as used in the farmland bird indicator are used for these three species in the all-species indicator to avoid duplication.