

**Directive of the European Parliament and of the Council
on the conservation of wild birds
(2009/147/EC)**

**11th Report by the United Kingdom under
Article 12
on the implementation of the Directive
from January 2013 to December 2018**

UK Approach to the 11th report

November 2019

1. Introduction

The eleventh UK report under Article 12 of the EU Birds Directive follows the format established by the 10th report which gives major emphasis to reporting by Member States on the status and trends of bird species. This part of the report (so-called Annex B) is described in this document; Annex A (General Report) is largely self-explanatory and therefore is not discussed here. The report provides a wealth of data and information to assess the efficacy not just of the Directive's implementation but also wider processes such as the EU's Biodiversity Strategy¹ as well as the Biodiversity Convention's Aichi (2020) Targets² since these relate to the United Kingdom's (UK) birds and their associated habitats.

Further information about the background to the new report format and its rationale is available at http://cdr.eionet.europa.eu/help/birds_art12 .

The Article 12 report has been co-ordinated by JNCC and the country conservation agencies³ with inputs from ornithological specialists in the British Trust for Ornithology (BTO), the Royal Society for the Protection of Birds (RSPB), the Wildfowl & Wetlands Trust (WWT) and the Game and Wildlife Conservation Trust (GWCT) to ensure it fully represents the wide body of information available on UK birds and their conservation.

Distribution maps have generously been made available by the BTO, the Scottish Ornithologists Club and BirdWatch Ireland from the *Bird Atlas 2007-2011* (Balmer *et al.* 2013).

Those involved in the production of this assessment are acknowledged below.

The list of species for which reporting is required comprises all regularly breeding bird species in the UK, together with information from the non-breeding season essentially for those species (or populations) for which Special Protection Areas (SPAs) have been classified in that season either in the UK or elsewhere.

Since non-native species are excluded from the scope of the Directive (other than Canada Geese *Branta canadensis*, Pheasant *Phasianus colchicus* and Wild Turkey *Meleagris gallopavo* which are listed on Annex II), reporting on non-natives is not mandatory. However, given the acknowledged importance of non-native species as one of the major drivers of biodiversity loss, and the considerable efforts the UK has made to ensure that monitoring of non-native birds is fully integrated within national ornithological surveillance schemes, this report attempts to be as comprehensive as possible also with respect to these species.

Section 2. Population size

The population estimates presented in section 2 are drawn in major part from the sources summarised in Table 1. Sources are given for each species in the relevant section of Annex B of the report.

Table 1. Primary sources of information used for population estimates.

Species group	Source of population estimates
Non-breeding waterbirds	Frost <i>et al.</i> (2019) for Great Britain, and Burke <i>et al.</i> (2019) for the island of Ireland

¹ <http://ec.europa.eu/environment/nature/biodiversity/comm2006/2020.htm>

² <http://www.cbd.int/sp/targets/>

³ Natural England, Natural Resources Wales, Scottish Natural Heritage and the Department of Agriculture, Environment and Rural Affairs (Northern Ireland)

Species group	Source of population estimates
Breeding seabirds	Mitchell et al. (2004); also JNCC (in litt.). See below.
Species subject to national surveys funded by the Statutory Conservation Agency/RSPB Annual Breeding Bird Scheme (SCARABBS) scheme and others	As published in the scientific literature
More abundant terrestrial birds	Largely from work undertaken by BTO to revise existing estimates in the light of trend information from national monitoring schemes

Details of the approach and methods used generally follow those documented by the Avian Population Estimates Panel in its third report (APEP 3) and published by [Musgrove et al. \(2013\)](#).

UK population sizes exclude totals for the Isle of Man (IoM) and the Channel Islands as these are not part of the EU for the purposes of Birds Directive reporting. Thus, the totals in this report will differ in some cases from other published “UK” totals, notably as reported by RBBP. For most species, proportions of populations on these islands are trivial as a proportion of wider UK totals, yet significant numbers of Red-billed Chough *Pyrrhocorax pyrrhocorax* and Hen Harrier *Circus cyaneus* breed on the Isle of Man (and are not included here).

For some breeding seabirds, new UK population estimates (updating, where possible, Mitchell et al. 2004) were derived from the method used by APEP 3 as follows. Population estimates were calculated using the Thomas trend index from the year 2000 – 2015 (using counts from a sample of colonies monitored by the UK Seabird Monitoring Programme), anchored to the last census count, Seabird 2000. To test the robustness of the Thomas trend an estimation the Seabird 2000 population was produced using the trend index between 1986-2000 and anchored to the 1986 (Seabird Colony Register) census population for the species. If this estimate had a variance of 30% (or over) from the actual Seabird 2000 population, the method was not used (and an alternative is given, such as the Seabird 2000 census). Thomas trend methodology can be found at <http://jncc.defra.gov.uk/page-3201>.

Section 3. Population trend

Conceptually, population trend information for UK birds derives from three different sorts of information (in order of declining preference):

1. directly from the results of structured monitoring schemes;
2. by comparison of two national population estimates at different points in time to yield a change value; or
3. where a quantitative assessment is not possible, direction of population trend is indirectly inferred from changes in distribution as reported by Atlases (Balmer *et al.* 2013).

Both short-term and long-term trends are required. The former ideally relate the previous two reporting cycles – *i.e.* 2007-2018 (or a period as close as possible to this. Long-term trends relate to the period from *c.*1980 (when the Birds Directive came into force) to *c.*2018 (or as recently as possible). Owing to data constraints a range of different periods were reported, as closely approximating to these ideals as possible.

Currently for population estimates no single source of information exists, and the information presented in this report was collated from a number of sources, notably:

- The Breeding Bird Survey (BBS) (Harris *et al.* 2018) give trends for commoner breeding birds. For long-term trends, and where statistical feasible, combined BBS/Common Bird Census (CBC) trends have been used.
- For a small number of riverine species, trend information from BTO's Waterways Bird Survey/Waterways Breeding Bird Survey has been used.
- For seabirds, trend information from JNCC's Seabird Monitoring Programme (JNCC 2016) has been used. Where trend information from annual monitoring did not exist, short- and long-term trends were calculated from comparison of national totals from Operation Seafarer (1969-70, Cramp *et al.* 1974); the Seabird Colony Register (1985-88, Lloyd *et al.* 1991); and Seabird 2000 (1998-2002, Mitchell *et al.* 2004).
- For many native and non-native non-breeding waterbirds, trend information comes from the Wetland Bird Survey (WeBS - Frost *et al.* 2018).
- For rare breeding birds, trend information has generally been drawn from the Rare Breeding Birds Panel (RBBP) for native (Holling *et al.* 2018) or non-native (Holling *et al.* 2017) species, unless better quality assessments were available from national surveys (below). For rare breeders, trends have been calculated based on comparison of five-year mean values straddling the report periods *i.e.* 1978-1982 to 2012-2016 for long-term trends, and 2001-2005 to 2012-2016 for short-term trends. As for treatment of BBS indices, this provides a degree of 'smoothing' in situations where there may be significant population changes between individual breeding seasons.
- For a number of scarce species not well monitored by RBBP but too scarce to be monitored by BBS, trends were calculated from comparison of population sizes derived from national surveys undertaken through the aegis of the Statutory Conservation Agency/RSPB Annual Breeding Bird Scheme (SCARABBS). The published sources, typically journal papers, are cited for the relevant species.
- For a small number of species where other sources are not available, and where valid trends were calculated from comparison of national totals presented by the Britain and Ireland breeding bird atlases in 1968-72 (Sharrock 1976), 1988-91 (Gibbons *et al.* 1993) against recent population estimates derived for the current report.
- The trends of a small number of species remain as unknown, typically as a consequence of the logistical problems of undertaking monitoring and/or methodological difficulties (*e.g.* Manx Shearwater *Puffinus puffinus* and Scottish Crossbill *Loxia scotica*).

The EU guidance for the 10th report (covering the period 2008-2013) gave no definition of the term 'Stable' in the context of trend directions. The 10th UK report (JNCC 2013) defined stable as any trend between -5.0% and +5.0%. However, the guidance for the 11th report defines stable as either a trend of more or less than 10%. Also, trends are given as either increasing or decreasing where they are within $\pm 10\%$ but are statistically significant (*i.e.* where 95% confidence intervals do not overlap zero). **Given this change of methodology, we thus stress that simple comparisons of total number of species in increasing, decreasing or stable categories between the 10th and 11th reports are not valid.**

'Fluctuating' has been used solely for Short-eared Owl *Asio flammeus*, a species whose population size is known to vary erratically and significantly according to the cyclical population dynamics of its main prey-base – voles *Microtus* spp..

Section 4. Breeding distribution map and size

Relevant maps of breeding distributions are taken from the *Bird Atlas 2007-2011* (Balmer *et al.* 2013).

As required for all EU Member States, the UK distribution maps have been re-plotted to a standard European grid⁴.

Section 5. Breeding distribution trend

Short- and long-term distribution trends have been calculated by comparison of the 2007-11 Atlas with the earlier Atlases from 1968-72 (Sharrock 1976) and 1988-90 (Gibbons *et al.* 1993) and are the same as reported in the 10th report (JNCC 2013).

As noted for population size trends above, for the 10th report distribution trends of between -5.0% and +5.0% were interpreted as stable. For this report and following new EU guidance that stable is $\pm 10\%$ we have reattributed distribution trends of both +5 to +10% and -5 to -10% as stable.

Section 6. Progress in work related to international Species Action Plans (SAPs), Management Plans (MPs) and Brief Management Statements (BMSs)

Hotlinks have been provided to relevant UK Biodiversity Action Plans for species subject to EU (or wider) SAPs, MPs or BMSs.

For the species where no such UK plan exists, a brief statement summarising UK implementation of identified conservation actions has been given.

Section 7. Main Pressures and threats

EU guidance and approach

The assessment of Pressures and Threats is required only for those species for which SPAs have been classified (what the EU call ‘SPA trigger species’). However, the UK is submitting data on Pressures and Threats for all species for which population estimates have been submitted.

EU guidance states that

“*pressures* are considered to be factors that are acting now or which were acting during the reporting period, while *threats* are factors that are expected to act in the future.”

Also that:

“It is recommended that the time span for pressures is the six years covered by the current reporting period (exceptionally, due to the change in reporting cycles, 2008-2012 for the current reporting round). For threats, the recommended time span is two reporting periods (i.e. 12 years) into the future, reporting only those impacts that are very likely to occur.”

Assessment

Unlike some other elements of the Article 12 report, until the 10th report (JNCC 2013) no prior collated source of Pressures and Threats acting on UK birds exists, so assessments for that report involved considerable work. Initial assessments were derived from major multi-species ornithological reviews (*e.g.* Brown & Grice 2005; Forrester & Andrews 2007). These were supplemented with information from species monographs, species action plans and recently published review papers. Where publications were ‘secondary’ (*e.g.* Brown & Grice 2005; Forrester & Andrews 2007), cited primary sources were assessed to confirm the strength of evidence supporting each apparent Pressure and/or Threat.

⁴ 10 x 10 km ETRS LAEA 5210 projection

In addition to species-derived review, where possible thematic reviews were also used (*e.g.* species subject to illegal persecution, or impacted as bycatch of marine fisheries, *e.g.* Furness 2016).

Multiple reviews of the initial assessments were made from both the separate perspectives of the species and the issues to quality-assess the final listing. This aided the identification of any gaps or missing species issues. The quality assessment process has been informed by the EU guidance which states that Pressures and Threats are:

“...the principal factors responsible for causing individual species to decline, suppressing their numbers or restricting their ranges.”

To this end, Pressures have not been assigned to species with an *increasing* short-term population trend – since the issue cannot be thus currently ‘causing decline’ or ‘suppressing numbers’ (although it may do so in the future). There are three exceptions to this:

- for species which may be recovering through dedicated species recovery programmes following historic depletion of numbers (*e.g.* Bittern *Botaurus stellaris*, Corncrake *Crex crex*, or Tree Sparrow *Passer montanus*). For such species a current Pressure may nonetheless be constraining the rate of population increase;
- for rare species with very small populations where the difference between different trend statuses can depend on just a few individuals (*e.g.* Spotted Crake *Porzana porzana*); and
- where, although reported as ‘increasing’, there is significant uncertainty around that status – *i.e.* species that are more data deficient (*e.g.* Rock Pigeon *Columba livia*).

In assessing Threats, we have been informed by the EU guidance which states that these were “only those impacts that are very likely to occur.”

Pressures and Threats have been assessed from a UK perspective. For some species individual issues (for example, persecution of raptors) may be acute in some parts of UK, but much less so elsewhere. Importantly, a Pressure/Threat may have acute impact on birds at a local or site scale (or *e.g.* in the context of an individual development proposal), but nonetheless not be included in the UK assessment if it has been judged not to occur frequently, and/or at wide spatial scales.

For the 11th report, we reviewed and updated previous assessments, in particular reviewing the continued operation of previously identified pressures and likely threats, as well as new knowledge and published information.

As the Pressure/Threat coding system has changed significantly between the two reports, we re-categorised all Pressures/Threats identified in the 10th report into the categorisation adopted for the 11th report.

Section 8. Conservation measures

8.2 Conservation measures

As for Pressures & Threats (above), conservation measures are only required to be assessed for those species for which SPAs have been classified. However, the UK is submitting data on Conservation Measures for all species for which population estimates have been submitted.

Whilst a considerable improvement on the coding schema used for the 2013 Article 12 report, for several issues, the coding seems more appropriate for habitats than for birds, and in particular it has not been possible to record some important bird conservation interventions such as supplementary feeding and modified management of arable crops.

Section 9. Natura 2000 (SPAs) coverage

9.1 Population inside the SPA Network

Statistics related to occurrence of qualifying species in the UK SPA Network have been drawn from the current network review (Stroud *et al.* 2016). This collated population assessments from the 2000s, typically from the latter part of the decade (*e.g.* for non-breeding waterbirds, WeBS data from the five-year period 2005/06 – 2009/10 have been used). Totals have been calculated for each species' SPA suite as defined by Stroud *et al.* (2001) subject to any changes consequent on SPA classifications since 2001.

The Article 12 Report requests the total population of species on national SPA Networks either whether as qualifying species, or otherwise incidentally present. It is not feasible to derive this statistic for the UK, so what is presented is the SPA suite total (*i.e.* total qualifying species occurrence) as a minimum measure of occurrence in field 9.1.b 'SPA network population size: minimum'. Field 9.1.c 'SPA network population size: maximum' will be left blank other than for Fair Isle Wren *Troglodytes troglodytes fridariensis* where it is known that the entire (global) population occurs within the single SPA classified for this Annex I-listed race.

The 'short-term trend of population size in the SPA network' (field 9.4) is derived from a simple comparison of SPA suite totals in the 1990s (Stroud *et al.* 2001) and from the 2000s (Stroud *et al.* 2016). It makes no allowance for inflation of suite totals that may have occurred as a consequence of additional classifications that may have occurred since 2001.

Section 10. Information related to Annex II species (Article 7)

The UK has no statutory bag recording scheme, although some voluntarily reported data and information are available from other sources. Aebischer (2019) has estimated bags for 2012/13, based on calibrating the Game and Wildlife Conservation Trust's National Gamebag Census against two extensive surveys of participants in sport shooting. These estimates are used in this report.

Further information on the recording of UK hunting bags is available at <https://tinyurl.com/ybcmq2vj>.

Acknowledgements

The report was drafted with inputs from an advisory group comprising Matt Parsons & David Stroud (JNCC); Alison Giacomelli and Alex Banks (NE); Simon Foster (SNH); Ronan Owens & Neil McCulloch (DAERA); Patrick Lindley (CCW/Natural Resources Wales); Mark Eaton (RSPB); David Noble (BTO); Nicholas Aebischer (GWCT) and Richard Hearn (WWT).

The work to compile the population estimates presented in section 2 was undertaken by David Noble and Iain Woodward (BTO) for commoner terrestrial breeding birds; Ilka Win, Daisy Burnell, Matt Parsons and Tim Dunn (JNCC) for breeding seabirds; Teresa Frost, Graham Austin, Stephen McAvoy & Ian Woodward (BTO), Richard Hearn (WWT), Anna Robinson & David Stroud (JNCC), and Simon Wotton (RSPB) for non-breeding waterbirds in Great Britain; Brian Burke & Lesley Lewis (BirdWatch Ireland), Teresa Frost & Graham Austin (BTO) and David Tierney (National Parks & Wildlife Service) for non-breeding waterbirds in the island of Ireland.

We thank Mark Holling, Secretary of the Rare Breeding Birds Panel, for his tireless and meticulous work collating the national archive of data and information on the UK's rarest birds. Without his (and his predecessors) enormous efforts over decades our knowledge of the populations of these species would be scant indeed. Thank you.

BTO generously made available maps and derived statistics from the atlas of breeding and wintering birds in Britain and Ireland (Balmer *et al.* 2013) and this was facilitated by Rob Fuller. These data were used previously in the 10th report and Veronica Mendez & David Noble (BTO), and David Chambers (JNCC) undertook the necessary map manipulation and data processing for these data.

Pressure, Threat and Conservation Measure assessments were made by advisory group members and Phil Grice, Allan Drewitt, Richard Saunders, Ivan Lakin, Sarah Anthony, Bart Donato and Tim Frayling (NE).

Other database and web-site support has been provided by Graham French, Lynn Heeley, and Stephen Grady (JNCC).

Work to compile totals for SPA suites in section 9 was undertaken as part of the 2008-2014 SPA Review overseen by the SPA & Ramsar Scientific Working Group (SPAR SWG) (Stroud *et al.* 2016). This has involved a major data collation exercise. Those providing data and other help for the Review are fully acknowledged by Stroud *et al.* (2016) and include many of the same individuals that are listed above. The Review was co-ordinated by David Stroud and Ant Mattock (JNCC) and led by Ian Bainbridge (Chair of SPAR SWG).

Surveys from which the data in this report were derived were funded or organised, *inter alia*, by the following organisations (and their predecessor bodies): BirdWatch Ireland, BTO; DAERA; GWCT; JNCC; Natural Resources Wales; NE; Raptor Study Groups in Scotland, England and Wales; RSPB; Scottish Ornithologists Club; Shetland Oil Terminal Environmental Advisory Group; SNH and WWT.

Finally, it is important to acknowledge that this assessment would simply not have been possible without the massive voluntary efforts of many tens of thousands of volunteers who have given their time (and resources) to participate in systematic surveys and monitoring of UK birds since the 1960s. We acknowledge their huge input and interest, without which knowledge of the UK's changing birds would be immeasurably poorer.

References

- Aebischer, N.J. 2018. How many birds are shot in the UK? *Game and Wildlife Conservation Trust Review* 49: 42-43.
- Aebischer, N.J. 2019. Fifty-year trends in UK hunting bags of birds and mammals, and calibrated estimation of national bag size, using GWCT's National Gamebag Census. *European Journal of Wildlife Research*, 65(64): 1-13. <https://doi.org/10.1007/s10344-019-1299-x> .
- Balmer, D., Gillings, S., Caffrey, B., Swann, B., Downie, I. & Fuller, R.J. 2013. *Bird Atlas 2007-2011. The breeding and wintering birds of Britain and Ireland*. BTO, BirdWatch Ireland & SOC; Thetford, Norfolk.
- Brown, A. & Grice, P. 2005. *Birds in England*. Poyser, London.
- Burke, B., Lewis, L.J., Frost, T., Austin, G. & Tierney, T.D. 2019. Estimates of waterbird numbers wintering in Ireland, 2011/12 – 2015/16. *Irish Birds* in press
- Cramp, S., Bourne, W.R.P. & Saunders, D. 1974. *The seabirds of Britain and Ireland*. London, Collins.
- Forrester, R.W. & Andrews, I.J. 2007. *The Birds of Scotland*. Scottish Ornithologists' Club, Aberlady. Two volumes.

- Frost, T.M., Austin, G.E., Calbrade, N.A., Mellan, H.J., Hearn, R.D., Stroud, D.A., Wotton, S.R. & Balmer, D.E. 2018. *Waterbirds in the UK 2016/17: The Wetland Bird Survey*. BTO, RSPB and JNCC, in association with WWT. British Trust for Ornithology, Thetford. 40 pp.
- Frost, T.M., Austin, G.E., Hearn, R.D., McAvoy, S.G., Robinson, A.E., Stroud, D.A., Woodward, I.D. & Wotton, S.R. 2019. Population estimates of wintering waterbirds in Great Britain. *British Birds* 112: 130–145.
- Furness, R.W. 2016. *Key pressures and threats faced by marine birds in the UK, conservation action for these birds, and identification of pressures and threats not effectively addressed by existing conservation action*. Unpublished report to JNCC.
- Gibbons, D.W., Reid, J.B. & Chapman, R.A. 1993. *The New Atlas of Breeding Birds in Britain and Ireland: 1988–1991*. Poyser, London.
- Harris, S.J., Massimino, D., Gillings, S., Eaton, M.A., Noble, D.G., Balmer, D.E., Procter, D., Pearce-Higgins, J.W. & Woodcock, P. 2018. The Breeding Bird Survey 2017. BTO Research Report 706 British Trust for Ornithology, Thetford.
<https://www.bto.org/sites/default/files/bbs-report-2017.pdf>
- Holling, M. & the Rare Breeding Birds Panel. 2017. Non-native breeding birds in the UK, 2012–2014. *British Birds* 110: 92–108.
- Holling, M. & the Rare Breeding Birds Panel 2018. Rare breeding birds in the United Kingdom in 2016. *British Birds* 111: 644–694.
- Joint Nature Conservation Committee 2013. *10th Report by the United Kingdom under Article 12 on the implementation of the Directive on the conservation of wild birds (2009/147/EC) from January 2008 to December 2012*. JNCC, Peterborough. Available at:
<http://jncc.defra.gov.uk/default.aspx?page=6526>
- Joint Nature Conservation Committee 2016. Seabird population trends and causes of change: 1986–2015 report. <http://jncc.defra.gov.uk/page-3201>. Joint Nature Conservation Committee. Updated September 2016.
- Lloyd, C., Tasker, M.L. & Partridge, K. 1991. *The status of seabirds in Britain and Ireland*. London, T. & A.D. Poyser. 355 pp.
- Mitchell, P.I., Newton, S., Ratcliffe, N. & Dunn, T.E. (eds.) 2004. *Seabird populations of Britain and Ireland*. T. & A.D. Poyser.
- Musgrove, A.J., Aebischer, N.J., Eaton, M.A., Hearn, R.D., Newson, S.E., Noble, D.G., Parsons, M., Risely, K. & Stroud, D.A. 2013. Population estimates of birds in Great Britain and the United Kingdom. *British Birds* 106: 64–100.
- Sharrock, J.T.R. 1976. *The Atlas of Breeding Birds in Britain and Ireland*. Berkhamsted, T. & A.D. Poyser.
- Stroud, D.A., Chambers, D., Cook, S., Buxton, N., Fraser, B., Clement, P., Lewis, P., McLean, I., Baker, H. & Whitehead, S. (eds.) (2001). [*The UK SPA network: its scope and content*](#). JNCC, Peterborough. Three volumes. (90 pp; 438 pp; 392 pp)

Stroud, D.A., Bainbridge, I.P., Maddock, A., Anthony, S., Baker, H., Buxton, N., Chambers, D., Enlander, I., Hearn, R.D., Jennings, K.R, Mavor, R., Whitehead, S. & Wilson, J.D. - on behalf of the UK SPA & Ramsar Scientific Working Group (eds.) (2016). *The status of UK SPAs in the 2000s: the third network review*. 1,108 pp. JNCC, Peterborough.
<http://jncc.defra.gov.uk/page-7309>