

Bird Atlas 2007-11

Title

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Description and Summary of Results

Fieldwork for atlases of breeding distribution was carried out from 1968 to 1972 and from 1988 to 1991, and for the winter from 1981/82 to 1983/84. Bird Atlas 2007-2011 aimed to repeat both to provide updated distribution maps for all species which occur in both the breeding season and winter in all of Britain and Ireland. Methods employed were similar in both seasons and were similar to those employed in the 1988-1991 breeding atlas although very different to those for the 1981/82-1983/84 winter atlas or the 1968-1972 breeding atlas. The basic unit of distribution was the 10-km squares of the National Grids of Britain and Ireland and the intention was to provide both distribution maps and an estimate of relative abundance in each 10-km square in both seasons.

Fieldwork for estimating relative abundance was based on counts of birds in tetrads (2-km squares) and both these counts and other records resolved to tetrad were used by about 45 local atlases which were carried out at the same time. Most of these were based on counties and provided some detailed local information on bird distribution and numbers.

Methods of Data Capture

Fieldwork spanned 4 winters and 4 breeding seasons, starting in November 2007. During this time the aim was to survey the whole of Britain and Ireland (all 10-km squares with land) although in Ireland there was a system of priority squares.

There were two complementary fieldwork methods.

Timed Tetrad Visits (TTVs) -- principally aimed to produce an estimate of relative abundance in each 10-km square.

Observers were requested to walk around a tetrad (2-km square) for 1 (or optionally 2) hours and count all the birds seen or heard. Counts from the first hour and second hour were kept separate. Observers were asked to aim to survey all the major habitat types present in the tetrad and count all individuals of all species (winter), or all the adults of all species (breeding season). For the latter observers were asked where possible to exclude juveniles (birds of the year) from their count. Any evidence of breeding was noted even in the winter, and observers were asked to visit once early in the season (November/December for winter and April/May for breeding season) and once late (January/February for winter and June/July for breeding season). Once the four visits had been done then that tetrad was finished as far as TTVs for the national atlas were concerned and there was no need to survey it in a subsequent winter or breeding season. However many Roving Records were resolved to tetrad level especially in areas carrying out a local atlas.

TTVs did not aim to produce a complete species list for the tetrad, but a sample of what one could find during a pair of visits in winter and/or summer. The aim was to survey at least 8 tetrads in every 10-km square in Britain and Ireland during winter and summer. After the TTV fieldwork observers were encouraged to provide an estimate of the number of birds (not pairs) thought to be present (not necessarily those thought to be breeding) in the tetrad at the relevant season. (In the event rather few observers did this and the figures produced were not used in subsequent analyses.)

Roving Records -- aimed to ensure that as complete a species list as possible was obtained for each 10-km square in both the winter and the breeding season. All systematic or casual records of species could potentially be included and especially valuable were records of those species often missed during systematic surveys such as TTVs (eg nocturnal species such as owls), and records containing evidence of breeding. Some areas requested similar records for each tetrad.

The list and number of species recorded in each 10-km square will be as complete as they can be. Clearly those squares visited for less time are likely to have fewer species recorded and it is the rarer and more elusive species (eg nocturnal) ones which will not be recorded in these circumstances. However the BTO believes that the maps as published are a true representation of the distribution of the species at a national level, while accepting that there will be some gaps in individual squares.

The list and number of species recorded in each tetrad, even those visited, will not be complete by definition -- see above.

Purpose of Data Capture

To compile a complete species list for each 10-km square in both the winter and breeding seasons.

To count the numbers of each species seen or heard in a tetrad in a 1- or a 2-hour time slot in each half of each season -- note that this is unlikely to lead to a complete list of species which occur in the tetrad.

Geographic Coverage

All of Britain, Ireland, Isle of Man and the Channel Islands.

All 10-km squares with more than a very small amount of land could be visited. In the more populated (by humans) parts a high proportion of the 2-km squares in each were visited for a standard count time but in the less well-populated areas only the minimum eight was. In the Republic of Ireland a system of priority squares was set up to ensure even coverage by TTVs across the country (alternate 10-km squares, the "chequerboard"). This meant that TTVs could be prioritised to attempt to reach the minimum eight in the priority 10-km squares.

Note that the specified purpose was to compile as complete a list as possible at the 10-km square resolution. By definition the species lists in tetrads were not complete but were only those recorded in the 2 (or 4) hours of timed visits. Also only a proportion of the tetrads were visited.

(Note that areas compiling a local atlas at the same time tried to obtain a complete species list for each tetrad.)

Temporal Coverage

Winter Season: 1 November to 28/29 February in each of 2007/08 - 2010/11; Timed Tetrad Visits were divided into Early (November/December) and Late (January/February) periods.

Breeding Season: 1 April to 31 July in each of 2008 - 2011; Timed Tetrad Visits were divided into Early (April/May) and Late (June/July) periods.

However evidence of breeding was recorded at any time of year.

Other Interested parties

The BTO organised the survey in partnership with BirdWatch Ireland and the Scottish Ornithologists' Club. Funding came from many and various sources.

Organiser(s)

For BTO: Dawn Balmer (organiser), Simon Gillings (scientific coordinator)

For SOC: Bob Swann

For BWI: Brian Caffrey

Current Staff Contact

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Publications

The atlas was published as:

Balmer, D.E., Gillings, S., Caffrey, B.J., Swann, R.L., Downie, I.S. & Fuller, R.J. 2013. *Bird Atlas 2007-11: the breeding and wintering birds of Britain and Ireland*. BTO Books, Thetford.

An annual newsletter was produced, and there were many mentions in *BTO News* and many other popular and semi-popular birdwatching magazines, as well as regular updates and mentions on the BTO and other websites. Areas carrying out local atlases produced many and various newsletters, articles and web pages in their local bird club reports, newsletters, websites and equivalent.

Available from NBN?

No.

A decision will be taken in due course as to whether, and if so what, data will be placed onto the NBN Gateway.

Computer data -- location

All data are stored in the online Oracle database. Most observers input their observations directly but the rather few paper forms (<10%) were input and loaded into the database after each season. In addition relevant data from other surveys were either input directly or were accessed from the database.

The 'snapshot' of data used for the production of the book and various derived files are stored elsewhere on the BTO Unix network. It is these files which are normally used for such as data requests.

Computer data -- outline contents

All records are stored as the number of individuals of each species counted on a date in a square (10-km at least and with many defined to tetrad).

Computer data -- description of contents

Bird Atlas data are identified as such within the online Oracle database with individual records stored in the standard structure.

Information held in BTO Archives

All the records which were sent in on paper (ca 10% of the total) are retained for the present in 10 large Archive Boxes. All were input and incorporated into the database.

Notes on Access and Use

The data for some species are considered sensitive and access to all data for these species is restricted or only available at a resolution greater than 10-km square. The list of species affected and whose data are restricted in some way for each season is noted on the website (http://www.bto.org/birdatlas/taking_part/confpolicy.htm).

Other information needed**Notes on Survey Design**

The design of the fieldwork was determined after extensive Pilot trials, especially for the winter season. Full details of the results of these are in:

Gillings, S. 2008. Designing a winter bird atlas field methodology: issues of time and space in sampling and interactions with habitat. *Journal of Ornithology* 149: 345-355.

Specific Issues for Analysis