

European Atlas

Title

European Atlas

Description and Summary of Results

From shortly after the completion of the first atlas of breeding birds in Britain and Ireland the International Bird Census Committee and European Ornithological Atlas Committee (now European Bird Census Council) conceived the idea of producing a similar atlas covering all of Europe. This gained more momentum as other countries also produced such atlases over the next few years. Eventually the concept narrowed down to try to do this with fieldwork from 1985 to 1988.

After many difficulties, notably with financing the project, the data were accumulated from each country, they were analysed and maps were produced and a book published showing the distribution and relative numbers of all species breeding in Europe.

The published maps show the presence of each species in each square and with in many cases an estimate of numbers on a log scale. They are accompanied by a text which includes estimates of the total numbers of each species in each country and the trends in each where they are known.

Coverage was not the same all over Europe. Some fieldwork was done in most 'squares' but large areas mainly in the eastern part of the continent were covered poorly. Therefore an indication of the quality, called 'completeness of coverage', was assigned to each square to facilitate the use and interpretation of the data. There was no coverage in some – mainly in Russia; poor coverage (less than 5 species (except polar regions) in 626 squares; incomplete (less than 75% expected species) in 722 squares; and good coverage (at least 75% expected species) in 2591 squares. Within the European Union all squares had incomplete or good coverage.

Methods of Data Capture

From an early stage it was decided to use the 50-km squares of the UTM grid across Europe although those countries such as Britain and Ireland could use their own national grids and adapt as necessary. Also because radians on the globe get closer together as one moves north there were a few 'squares' which were smaller and trapezium-shaped.

The aim was for fieldwork to be done in 1985-1988 but this stipulation was not strictly adhered to in some cases especially in some of the more remote parts and those with fewer observers. Fieldwork was organised throughout by individual countries and they set their own timetables for doing the work. It was decided to do the necessary fieldwork for the British and Irish contribution in 1987 with any necessary filling in of gaps done in 1988. The 50-km square grid used in Britain and Ireland was each quarter of each 100-km square, ie the by then well-known 2 letters of the grid reference (1 letter in Ireland) referred a 100-km square and this was divided into the four quarters. Records were then assigned to the appropriate UTM grid square.

Observers were asked to record the maximum breeding evidence (on the standard possible, probable, confirmed scale) for each species they recorded in each square. For most the national organiser, with help from observers, then estimated the total number of pairs breeding in that square. Organisers were also asked to provide the proportion of each square which was each main habitat type although in the event these data were not used.

Purpose of Data Capture

To determine the distribution and relative numbers of all species breeding in Europe.

Geographic Coverage

The base used was the area covered by *Atlas Florae Europaeae*, ie Europe east to the Russian border, plus Novaya Zemlya and Franz Josef Land in the north, all Greek islands near mainland Turkey in the south, as well as Madeira and the Azores in the west and the Stavropol region of SW Russia and the Caucasus republics in the east. It had been hoped to cover the whole of the Western Palearctic but this proved impractical. Overall 43 countries were covered.

All of Britain and Ireland were covered with records from just over 200 50-km squares.

Temporal Coverage

The request was for all fieldwork to be done between 1985 and 1988. However some leeway was allowed in some areas and in practice some records from most of the 1980s were accepted. In Britain and Ireland data were primarily from 1987.

Other Interested parties

The fieldwork was organised, carried out and collated by individuals and organisers from each participating country. For the later phases of analysis, writing and publication, funding was secured from Eurostat (Statistical Office of the European Union), the National Reference Centre for Nature, Forests and Landscape (of the Dutch Ministry of Agriculture, Nature Management and Fisheries), the Department of the Environment (UK government), the German government (employing an editor for several months) and various donations from trusts and individuals. Over 100 species were sponsored by individuals, organisations and companies.

The Editorial process was housed by SOVON in The Netherlands and BTO.

Organiser(s)

Much of the fieldwork phase was co-ordinated by Mike Taylor, then Chairman of the European Ornithological Atlas Committee. Johan Bekhuis was employed at SOVON to help co-ordinate from 1987, Ward Hagemeyer joined the process in 1992 and Mike Blair in 1993.

Current Staff Contact

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or the European Bird Census Council (see <http://www.ebcc.info/index.php?ID=5>)

Publications

The book containing the maps and a full history and explanation of the project is:

Hagemeijer, W. & Blair, M. (eds) 1997. *The EBCC Atlas of European breeding birds. Their distribution and abundance*. T. & A.D. Poyser.

The maps are now available on the web on a link from

<http://www.ebcc.info/new-atlas.html>

The British part of the survey was noticed in *BTO News* number 148.

Available from NBN?

No.

Computer data -- location

A copy of the dataset is in the BTO Windows network central area.

Computer data -- outline contents

A zip file with all the data in various files, and a text file containing the bird data.

Computer data -- description of contents

A zip file containing all the data in various files (most are .dbf files) suitable for use within a GIS. Also a .txt file containing the bird data.

The main file is the table with the bird data:

EOA-birddata.dbf (and the text file derived from it) containing fields:

Euringcode -- 5-digit text-field with leading zeroes; Euringnr -- Euringcode as a number; Species -- scientific name (note: this may differ from names in the published version); Engl_name -- English name (note: this may differ from names in the published version); EOAGrid -- name of the 50x50 km UTM-square; Breed_cert -- breeding certainty (+, A, B, C, D – see below for explanation of codes); Estimate -- estimate of the number of breeding pairs (scale 1-7); LAT -- Latitude (in decimal degrees) of the centre of the square in WGS1984 coordinate system; LON -- Longitude (ditto); X -- X-coordinate (metres) of the centre of the square in LAEA-ETRS1989 projection; Y -- Y-coordinate (metres ditto).

The other GIS files include:

EOAGrid-WGS1984.shp: shape file with the squares in WGS1984 coordinate system; **EOAGrid-ETRS1989.shp**: shape file with the squares in LAEA ETRS 1989 projection (the most commonly used projection by the EEA) and includes Completeness of Coverage; **Species.dbf**: table with species codes, scientific names and English names; **COC-codes.dbf**: 0 -- no coverage (mainly in Russia); 1 -- poor coverage (less than 5 species recorded outside of the polar region); 2 -- incomplete (less than 75% of expected species); 3 -- good (at least 75% expected species); **Breeding_certainty-codes.dbf**: + -- present, no indication of breeding certainty provided; A -- possible breeding; B -- probable breeding; C -- confirmed breeding; D -- species is breeding in the region, but precise location is classified, and arbitrarily placed in centre of region; **Estimate-classes.dbf**: 1 -- 1-9; 2 -- 10-99; 3 -- 100-999; 4 -- 1000-9999; 5 -- 10000-99999; 6 -- 100000-999999; 7 -- >= 1000000; **EOA-presence.dbf**: presences and absences per 50x50km grid cell -- zeroes are based on the completeness of coverage (COC).

Only for cells with a COC of 2 or 3 was a zero-observation calculated; **Country-ETRS1989.shp**: reference file with borders of European countries.

Information held in BTO Archives

1 Transfer Case of correspondence and the habitat data from each square and a folder containing overhead transparencies for a talk. The bird data cards and sheets are held by SOVON in The Netherlands.

Notes on Access and Use

Use of EBCC European Breeding Birds data must have EBCC approval. Please contact BTO in the first instance.

Other information

Notes on Survey Design

Specific Issues for Analysis