

## Winter Atlas 1981/82-1983/84

### Title

Atlas of Wintering Birds in Britain and Ireland: 1981/82-1983/84.

### Description and Summary of Results

The publication of *The Atlas of Breeding Birds in Britain and Ireland* in 1976 was a milestone in publishing bird books in being the first objective mapping of birds over the two countries. This was for the breeding season and it was realised shortly afterwards that actually even less was known about the distribution of most birds in the winter and that winter was actually a very important time of year. Some ideas on where were the concentrations of most waterbirds were available from the National Wildfowl Counts and the Birds of Estuaries Enquiry (now combined as the Wetland Bird Survey) but these were counts on specific sites only, and did not attempt to map the whole distribution; the numbers and range away from the main sites were largely unknown.

The idea for an atlas of wintering birds was therefore born, but it was not the first time that such had been attempted. Both the French and the Dutch had already done (or were doing at the time) atlases as were Kent and NE Scotland. In the event a project was launched in the autumn of 1980 with the intention of doing a Pilot Survey in that winter and the main survey in the following three. It was always intended that the result would be a companion to the breeding season atlas, but from the start it was thought essential that some measure of the abundance, and not just presence, was needed. There were of course some major complications, not the least being that many birds move around when not breeding and that there is limited daylight in which to observe.

As for the breeding season the project covered the whole of Britain and Ireland with the Irish Wildbird Conservancy (now Birdwatch Ireland) as partners and the units were the 10-km squares of the respective National Grids. This time though observers sent in counts of the birds they saw and not just a species list. The maps plot the maximum count of a species seen in a day at any stage during the survey period as one of three levels of abundance – 50% of the dots are small, the next 30% are medium and the top 20% are large with actual number of birds these represent being dependent on the species. (Full details of the analysis and how the figures for the maps were produced are included as an appendix of the published book.)

The book published maps of the distribution and relative abundance of nearly 200 species and listed the squares in which another 110 (mostly rare or feral) species were noted during the fieldwork. There is also a chapter describing some of the differences recorded for some species between the three different winters and some information on the movements recorded during the course of a winter.

The list of species recorded in each 10-km square is as complete as it can be. Those squares visited for less time (especially the more remote areas) 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 it was considered that the maps as published were representative of the distribution of the species at a national level, while accepting that there were some gaps in individual squares. (Further and more detailed analyses done while compiling Bird Atlas 2007-11, however, indicated that some of the more remote areas, eg parts of NW Scotland, were actually under-recorded and up to around 20% of species present could have been missed.)

It is known that if observers spend longer in the field in a square then, on average, a higher number of individuals will be recorded. This potential bias is discussed in some detail in the Introduction to the book and although there is some evidence for some species being recorded as more abundant in squares which received more visits (in turn broadly correlated with human population density) the species most affected are those which would be expected to be most commonly associated with humans.

### **Methods of Data Capture**

The units of distribution were the 10-km squares of the respective National Grids.

Fieldwork was conducted by mainly volunteer observers although professional help was used in some remoter areas. Two methods of fieldwork were requested from observers:

1) Specific timed visits. An observer visited a 10-km square for a minimum of one hour and counted all the individual birds seen in that time. At the end of the project these counts were standardized to a 'day', defined as 6 hours, in the field by using a regression of numbers seen on time spent on a species specific basis.

2) Supplementary Records. Observers were encouraged to send in any and all records of counts of species from 10-km squares. In particular these records were of species not seen on timed visits and those involving high numbers.

### **Purpose of Data Capture**

To compile as complete a list of species as possible for each 10-km square and to provide a count of the number of each species seen.

### **Geographic Coverage**

All of Britain and Ireland, including the Channel Islands. All 10-km squares with more than a very small amount of land were visited. Note that, at the residents' request, Fair Isle (Shetland) was considered to be one 10-km square even though it actually comprises parts of four, and the five main Channel Islands (Alderney, Guernsey, Herm, Jersey and Sark) were considered as one square each – as had been the case in the Breeding Atlas 1968-1972.

### **Temporal Coverage**

Records for 10-km squares were collated over the three winters 1981/82, 1982/83 and 1983/84. Records from the period 14, 13 and 12 November (to accommodate the middle

weekend) in each of the three winters respectively until the last day of February were accepted.

### **Other Interested parties**

The project was organised and run by the BTO in conjunction with the Irish Wildbird Conservancy (now Birdwatch Ireland). It was funded from several enterprises run by Susan Cowdy and Joy Danter and donations from several Charitable Trusts and others (list on page 13 of the book).

### **Organiser(s)**

Peter Lack organised and ran the whole project with considerable help from, in particular, Ian Forsyth in Northern Ireland, and firstly Sean Fleming and latterly Chris Wilson in the Republic of Ireland (under the auspices of the Irish Wildbird Conservancy).

### **Current Staff Contact**

birdatlas@bto.org (or archives@bto.org)

### **Publications**

The book containing the main results is:

Lack, P. 1986. *The Atlas of Wintering Birds in Britain and Ireland*. T. & A.D. Poyser, Calton.

Some results including rather more detail than was possible in the book itself are in:

Lack, P.C. 1985. The Winter Atlas in Ireland: a comparison of two consecutive winters. Pp 351-357 in: Taylor, K., Fuller, R.J. & Lack, P.C. (eds) *Bird Census and Atlas Studies*. BTO, Tring;

Lack, P.C. 1988. The Winter Atlas in Britain and Ireland: a review of the methods, and the movements of the finches, buntings and sparrows. *Sitta* 2: 3-20;

Kirby, J.S. & Lack, P.C. 1993. Spatial dynamics of wintering Lapwings and Golden Plovers in Britain and Ireland, 1981/82 to 1983/84. *Bird Study* 40: 38-50.

Specific articles and other publicity was given in many and various magazines and journals and it was noticed in many issues of *BTO News* between numbers 113 and 144, in particular supplements accompanying numbers 116, 122 and 128.

### **Available from NBN?**

Yes.

The public can view presence or absence of species at 10-km square resolution apart from the Golden Eagle for which a few records are still considered sensitive by the Rare Breeding Birds Panel. Some records of some other species were considered sensitive at the time the book was published but are no longer considered to be so.

The data also contain the attribute of level of relative abundance. These data can be seen on request.

### **Computer data -- location**

The BTO Windows network central area.

### **Computer data -- outline contents**

The files contain species number, 2-letter species code, real 10-km square, published 10-km square and either maximum count or dot size and the data are sorted by either square or species.

### **Computer data -- description of contents**

Full details of the contents are in a document in the archive directory itself.

The nine major directories are:

book -- maps and text from the book itself;

britain81, britain82, britain83, ireland, chisles -- original data from visit cards, supplementary sheets and all records of species;

coverage -- information on how many visits and time spent in each square;

progsetc -- all the programs used in checking and analysis;

pilotsurvey -- data and programs from the Pilot Survey.

### **Information held in BTO Archives**

An archive box contains Pilot Survey cards and information, various documents, a proof copy of the book and all information relating to the overlays.

Apart from a sample, the original data visit cards and supplementary sheets were destroyed in 1999 following agreement that they contained no useful information that was not on computer.

### **Notes on Access and Use**

See notes under Available from NBN?

### **Other information needed**

### **Notes on Survey Design**

A Pilot Survey carried out in the winter of 1980/81 was used to aid the determination of the best methods to use in the field. See Lack, P.C. 1983. Pp 5-12 in *Proceedings VII International Conference Bird Census Committee (IBCC), November 1981*. Leon, Spain. Full details of the regression calculations and associated issues used to produce the maps are in the appendix of the book (pp431-439).

**Specific Issues for Analysis**

Some discussion of issues with interpreting the maps including discussion of potential biases is included on pp14-18 of the book.