

WHAT HAPPENED TO BREEDING BIRD POPULATIONS IN 2001?

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Mike Raven, the BTO/JNCC/RSPB Breeding Bird Survey coordinator, looks at the findings for the Foot & Mouth-affected 2001 survey.

¿QUÉ LES OCURRIÓ A LAS POBLACIONES DE AVES REPRODUCTORAS EN 2001?

Mike Raven, coordinador del Conteo de Cría (BBS) de BTO/JNCC/RSPB, presenta los resultados del conteo de 2001, afectado por la fiebre aftosa.

In operation since 1994, the BTO/JNCC/RSPB Breeding Bird Survey (BBS) has proved to be highly successful in monitoring breeding bird populations in the UK. Each year, the results of BBS surveys carried out by thousands of volunteers are collated at BTO Thetford HQ and analysed over the winter. The annual BBS report summarises population trends for the UK for more than 100 species, and also provides population trends for many species in each country (England, Scotland, Wales and Northern Ireland) as well as the nine English Government Office Regions (GORs). In 2001, however, there was a problem; the Foot and Mouth Disease (FMD) epidemic that swept across the UK resulted in the closure of large areas of the countryside.

The BTO and its partners decided not to cancel the BBS altogether, but to collect data from observers who were able to gain access to their BBS route, or who were in urban areas where FMD was not a problem. Coverage is obviously biased towards these habitats, but the data that were collected are almost the only hint we have of what happened to terrestrial bird populations in the UK in the summer of 2001. It is in this

context, not the long-term trends, that these results are presented.

METHODS

The BBS is a volunteer-based survey run by the BTO since 1994. Randomly selected 1-km squares are allocated to participants within each BBS Region by volunteer Regional Organisers (ROs). The BBS is a line-transect survey, where birds are recorded on two visits per season. Its sampling and field protocols were designed to increase the level of coverage and eliminate the geographical and habitat biases of the long-running Common Birds Census (CBC). Since the CBC's final year in 2000, the BBS has become the principal terrestrial survey for monitoring population trends of common and widespread breeding bird species in the UK.

SURVEY COVERAGE

Despite the access restrictions imposed by the outbreak of FMD, a total of 581 BBS squares were completed in 2001, representing a considerable effort on the part of ROs and

observers alike. Large parts of the countryside were out of bounds to fieldwork, with the BBS being completely cancelled in Northern Ireland and North East England, and only very sparse coverage possible in Wales and much of western England. The South East and East of England were the least affected areas, although even there, only 40% of the coverage was achieved. Only in London was the survey virtually unaffected, with 87% of the squares visited in 2000 being surveyed in 2001.

SPECIES AND HABITAT COVERAGE

A total of 168 species was recorded in 2001 and of these, 63 species were found in 50 or more squares. No official UK rarities were reported, although a number of very localised breeding species were noted, together with several passage migrants and late winter visitors such as Black-necked Grebe, Bar-tailed Godwit, Sanderling and Knot. Not surprisingly, the access restrictions resulted in changes in the type of habitat surveyed. Urban and suburban squares formed a much larger proportion of the total area surveyed in 2001, resulting in gardens, parks and other man-made habitats forming 33% of the total habitat surveyed, instead of only 17% in 2000. Large areas of pasture and unimproved grassland remained out of bounds throughout the survey season, and this led to a considerable fall in the coverage of this habitat type, from 28% of the total in 2001 to only 13% in 2001. Upland areas of grassland, moor and bog were similarly affected. In contrast, arable farmland formed a larger proportion of the total habitat (although a much smaller number of sites) in 2001, while the percentage of woodland coverage was similar in both years.

POPULATION TRENDS

The bias caused by the shift in habitat coverage and the fact that 30% of the squares surveyed in 2001 did not receive an early visit, meant that analysis of the 2001 data was limited to considering just the late visits on those squares that were covered in both 2000 and 2001. Although coverage was much reduced, sample sizes were still large enough to produce inter-annual population indices for the UK, England and Scotland, plus three GORs within England;

the South East, East of England and London. Although these inter-year changes cannot be linked to the longer-term population changes reported previously, the data collected in 2001 will be valuable in assessing population changes at particular sites and in associated research.

UNITED KINGDOM

Of 67 species recorded on at least 30 squares in the UK, 15 increased in numbers by 10% or more, 22 declined by 10% or more and 30 remained stable during 2000-01 (see Table 1). It must be stressed that considerable caution should be attached to all of these results, because of the differences in the type of habitat covered in 2001 compared with 2000. Results suggest that several familiar garden birds declined between 2000 and 2001, with Goldcrest numbers down 47%, Wren down 16%, Blue Tit down 14% and Robin and House Sparrow down 10%. Although some of these small-bodied residents are subject to considerable annual fluctuations in numbers caused partly by the severity of the previous winter, the recent run of wet springs may also be having an impact on the numbers of some species such as Blue Tit. Buzzard is now said to breed in virtually every county in England, and this expansion is borne out by the 56% increase in numbers recorded by the BBS between 2000 and 2001. The other two raptors monitored by the BBS also showed increases, with numbers of Sparrowhawk up by 11% and Kestrel up by 37% over the two-season period.

Recent concern over the populations of some of our woodland species appear justified by the fall in numbers of Treecreeper (down 37%) and Nuthatch (down 10%) during 2000-01. However, numbers of Green and Great Spotted Woodpeckers, Jay and Coal Tit increased, although it must be stressed that these results come from potentially biased samples.

ENGLAND, SCOTLAND AND WALES

Of the 581 squares surveyed in the UK, 483 were located in England, 71 in Scotland and 20 in Wales. Not surprisingly, with such a large proportion of the data coming from England, the English results were often similar to those

TABLE 1. Population changes of common and widespread species 2000–2001. (Estimates may be biased by unrepresentative coverage in 2001).

Species	Sample	Change 00-01	Species	Sample	Change 00-01
Cormorant	34	-26	Robin	434	-10
Grey Heron	91	-1	Blackbird	491	-5
Mute Swan	39	-3	Song Thrush	332	2
Canada Goose	50	-46	Mistle Thrush	165	2
Mallard	169	2	Sedge Warbler	49	-4
Sparrowhawk	36	11	Whitethroat	243	1
Buzzard	51	56	Garden Warbler	68	20
Kestrel	99	37	Blackcap	271	8
Red-legged Partridge	79	-12	Chiffchaff	204	20
Pheasant	250	-34	Willow Warbler	182	7
Moorhen	120	-1	Goldcrest	103	-47
Coot	58	35	Spotted Flycatcher	32	23
Oystercatcher	33	9	Long-tailed Tit	117	7
Lapwing	71	-12	Coal Tit	98	10
Curlew	35	-31	Blue Tit	434	-14
Black-headed Gull	94	-13	Great Tit	347	-9
Lesser Bl-backed Gull	83	-43	Nuthatch	58	-10
Herring Gull	94	-15	Treecreeper	33	-37
Feral Pigeon	164	-2	Jay	120	18
Stock Dove	123	-23	Magpie	371	-7
Woodpigeon	494	16	Jackdaw	244	-3
Collared Dove	290	-6	Rook	151	-2
Turtle Dove	60	-25	Carrion Crow	451	3
Cuckoo	81	-29	Starling	380	3
Swift	265	2	House Sparrow	339	-10
Green Woodpecker	121	11	Chaffinch	442	2
Gr Sp Woodpecker	135	23	Greenfinch	359	-4
Skylark	283	-5	Goldfinch	205	10
Swallow	265	9	Linnet	191	33
House Martin	183	1	Bullfinch	75	-18
Meadow Pipit	76	-11	Yellowhammer	207	-1
Pied Wagtail	167	0	Reed Bunting	48	28
Wren	462	-16	Corn Bunting	30	-15
Duncock	363	-7			

for the UK. There were, however, a few differences, with numbers of Willow Warbler and Coal Tit declining in England over the last year, but not elsewhere. Meadow Pipit trends also differed regionally, showing a decline of 11% in the UK as a whole, while increasing by 20% in England. Of the 61 species detected in at least 30 squares in England, 17 increased in numbers by 10% or more, 17 declined by 10% or more and 27 remained relatively stable.

A number of scarce breeding species are being increasingly recorded on BBS squares, with Little Egret reported from Hampshire, Kent and Sussex, Cetti's Warbler from Suffolk and Red

Kite from Berkshire and Oxfordshire. Wood Pigeon was the most widely recorded species in England, although it was closely followed by Blackbird, Carrion Crow, Wren and Blue Tit, all of which were recorded in more than 90% of squares.

The small number of squares surveyed in Scotland in 2001 severely restricted the number of species whose population changes could be assessed, with just nine species detected in 30 or more squares. Of these, Wren, Robin and Meadow Pipit appeared to show declines in excess of 10% in Scotland, as in the UK. On a more positive note, Black-throated and Red-

throated Divers, Golden Eagle, Merlin, Red Kite and Arctic Skua were all recorded from squares in the Highlands, together with Chough and Corncrake on Islay and Black Grouse in Lanarkshire. Chaffinch was the most widely recorded species on BBS squares in Scotland, followed by Wren, Willow Warbler and Meadow Pipit.

No data were received for Northern Ireland or the Isle of Man, and because of the small number of squares surveyed, we were unable to produce any population indices for Wales. Fortunately the BBS remained unaffected on the Channel Islands, where Short-toed Treecreeper was recorded on three of the six squares surveyed on Jersey.

ENGLISH REGIONS

We were able to produce population change measures for the 2000–01 period for three of the nine English GORs; the South East, East of England and London. Although estimates for the South East and East of England are biased by unrepresentative coverage, counts suggest that many familiar garden birds declined over this short period. Mistle Thrush numbers were down by 40% in the East, Long-tailed Tits by 30% in the South East and Blue Tit and Great Tit numbers fell by more than 10% in both regions. On a brighter note, both Green and Great Spotted Woodpeckers increased by more than 10%.

Coverage in the London region was close to the levels achieved in 2000, and this resulted in a relatively unbiased sample being obtained for 2001. BBS data since 1994 have shown the decline of the House Sparrow to be greatest in London and this was again apparent, with a 25% fall in numbers recorded during 2000–01. Numbers of Swift and Starling also declined, falling by 37% and 12% respectively over the same period. In common with the overall UK

trend, Blue Tit numbers declined in London, falling by 28% during 2000–01, whereas Wren and Wood Pigeon both increased by 11%. The latter, together with Blackbird, was the most widespread in London, being recorded in 94% of squares.

THE FUTURE

Firstly, we are again extremely grateful to all the ROs, observers and members alike who took part in the BBS last year. We would also like to thank the farmers and landowners for their support and cooperation in allowing BBS volunteers onto their land during the FMD crisis. The BBS continues to be an enormous success and is now the primary source of information on national and regional trends in common breeding birds. The data you collect each year are used by government and non-government conservation organisations to identify priorities for research and conservation initiatives, which aim to improve the overall status of declining species. The scheme has already proved invaluable for identifying regional differences in the population trends of such species as Song Thrush, House Sparrow, Swallow and Starling.

The outlook for 2002 is very positive with larger than expected numbers of forms being sent out to ROs, and a general feeling that people are very keen to get out into the field again and take part in what is a very enjoyable and interesting survey. The number of completed forms returned for 2002 has already far exceeded the total for 2001, with at least two lucky observers recording White-tailed Eagle on their squares, and one obtaining the schemes' first ever sighting of Minke Whale! So you never know what you might find out there.

Copies of the report are available from Mike Raven at BTO Thetford HQ, price £5.00 inc p&sp.