

2000 — A GOOD YEAR FOR MANY SPECIES

RICHARD THEWLIS, JOHN MARCHANT, DAVID NOBLE AND DAVID GLUE

*British Trust for Ornithology
The National Centre for Ornithology
The Nunnery, Thetford
Norfolk, IP24 2PU, United Kingdom*

The 2000 breeding season was the last in which the Common Birds Census operated as the main tool for monitoring breeding bird numbers in the UK. *Richard Thewlis, John Marchant, David Noble* and *David Glue* report the latest information from the CBC on population change.

2000 - UN BUEN AÑO PARA MUCHAS ESPECIES

La temporada reproductiva de 2000 fue la última en que el Censo de Aves Comunes operó como herramienta principal para el monitoreo de números de aves reproductoras en el Reino Unido. *Richard Thewlis, John Marchant, David Noble* y *David Glue* informan sobre los últimos resultados del CAC sobre cambios poblacionales.

2000 – UNE BONNE ANNEE POUR BEAUCOUP D’ESPECES

La saison de reproduction 2000 a été la dernière au cours de laquelle le Common Bird Census a été l’outil principal du suivi du nombre d’oiseaux nicheurs au Royaume-Uni. *Richard Thewlis, John Marchant, David Noble* et *David Glue* donnent les dernières informations du CBC sur l’évolution des populations.

DAS JAHR 2000 – EIN GUTES JAHR FÜR VIELE ARTEN

Im Brutjahr 2000 wurde das Monitoring häufiger Brutvogelarten CBC letztmalig als britisches Haupt-Brutbestandsmonitoring durchgeführt. *Richard Thewlis, John Marchant, David Noble* und *David Glue* geben Auskunft über jüngste Bestandsveränderungen aus diesem Programm.

The Common Birds Census (CBC) is one of the longest-running schemes organised by the BTO. Its volunteers have been mapping breeding territories of common and widespread birds in the UK since 1962. The data generated by the CBC are used in a variety of ways to promote bird study and conservation. Its long-term data for common birds have quantified trends that otherwise would have remained conjecture, and brought the declines among farmland birds to the forefront of conservation thinking and also to the attention of the general public.

CBC results were an important component of the second, 2000 edition of the *State of the*

UK’s Birds, published earlier this year by RSPB, WWT and BTO. CBC provided a large input to the national wild bird indicators, published jointly by DETR, RSPB and BTO last autumn. The CBC has also been virtually the only source of data on long-term population trends for ten UK Biodiversity Action Plan (BAP) priority species: Skylark, Corn Bunting, Grey Partridge, Bullfinch, Spotted Flycatcher, Linnet, Reed Bunting, Turtle Dove, Song Thrush and Tree Sparrow. The report on Breeding Birds in the Wider Countryside 2000, disseminating BTO survey results worldwide on-line at www.bto.org/birdtrends, draws

heavily on CBC data.

The territory maps themselves, on file at BTO HQ in Thetford, are constantly in use by researchers investigating a range of species-, or habitat-based topics. It is however the CBC's trend data that are reported here.

SOME CBC STATISTICS

The CBC archive represents a massive co-operative effort by around 2,000 observers in total over its 40-year history. We are still adding to the CBC files. So far, however:

- 1,571 different sites have been surveyed
- 10,031 CBC surveys have been compiled, across all years
- 1,977,159 territories have been mapped
- over 100,000 territories are on file for each of the CBC's top five species: Blackbird, Wren, Robin, Chaffinch and Blue Tit

The ten-thousandth CBC survey was completed in 2000. We may reach two million territories in 2001, depending on how many sites have been accessible during the Foot & Mouth outbreak.

LOOKING TO THE FUTURE

The 2000 breeding season was the last year of the CBC as a national monitoring scheme, and these results are therefore an important milestone in long-term monitoring of terrestrial bird populations. CBC is not ending, however, but will continue with redefined aims. Indeed, the CBC's mapping method will continue to be used wherever a survey requires territory maps and fine details of birds' use of habitat.

During the past winter, and with a great deal of heart-searching, we have selected a group of 50-60 plots that the BTO will use its funds to support, in the same way as before, for as long as possible. These "core" plots were selected on the basis of four criteria. The most important was their status, as designated internationally (SPA and SAC) or nationally (National Park, SSSI, National Nature Reserve). So many plots were Local Nature Reserves that we could not use this as a basis for selection. Other considerations were whether plots were particularly suitable for studies of habitat management, whether other demographic surveys were being carried out (e.g. nest finding, ringing) and the period of time that

they had been running. Because so many CBC observers have been surveying their plots for more than 10 years, however, plots had to be extremely long-running to qualify automatically.

Observers whose plots were not selected as part of this core group were asked whether they would like to continue surveying their plot for their own purposes, even if the BTO could not support the analysis of territories. A large proportion of participants said that they would continue anyway, and the BTO has agreed to supply them with the necessary maps, at least for one year. Additionally, for one year only, the core plots will be supplemented by a set of about 50 farmland sites, for a special project on Birds of Lowland Farms.

The 2001 breeding season was intended to be the first year of the CBC in its new guise. Foot & Mouth Disease has completely disrupted the fieldwork season, however. At the time of writing, we do not know how many observers were able to visit their plots. Of course, this makes it impossible to assess the success of the new version of the CBC, or how the results of the independently monitored (non-core) plots can be used. It also means that the project on Birds of Lowland Farms has had to be postponed until next year, and last winter's habitat surveys will have to be repeated.

Work to link the BTO/JNCC/RSPB Breeding Bird Survey (BBS) scheme with the CBC will be completed later this year. In future, long-term trends using both BBS and CBC data will be used in the important conservation initiatives, such as alerts, red lists, wild bird indicators and demographic research, that previously relied solely on the CBC.

COVERAGE IN 2000

Sites for the CBC encompass ordinary farms and woods, and some plots of other habitats such as urban parks, wetlands and moorlands, that are chosen, with some guidance from Census Unit staff, by the observers themselves. For each year's survey, around ten visits are needed in the period March-July, during which the observer maps all encounters with birds. Species maps, summarising the activity of each species during the season, show clusters that relate to the locations of breeding territories. Trained Census Unit staff have assessed territory numbers on all

the CBC's species maps, thus ensuring consistent treatment throughout the survey.

The Census continues to receive strong volunteer support. We have received 189 CBC returns for 2000 so far; a few more are perhaps still to arrive. All but a few of these were repeats of 1999 surveys and thus provided data for comparison. A number of maps have yet to be processed, however, so that our estimates of population change will be refined a little further over the coming weeks. Table 1 gives some detail of the plots from which we have drawn data for this report.

The figures in Table 1 are similar to the CBC norm. Half the 130 contributing plots were woodland sites, averaging 19.7 hectares in extent. Farmland, averaging 63.9 hectares, made up most of the rest. Southern England, south of Bristol and London, and Eastern England, between the Thames and the Humber, have always been strongly represented in the CBC, whereas plots in other UK countries are scarce.

SIGNIFICANT CHANGES BETWEEN 1999 AND 2000

The results of the 1999 to 2000 comparison are shown in Table 2 for plots of all habitats, and in Table 3 for a selection of species where sample sizes allow changes to be calculated for farmland and woodland plots separately. We have chosen species that show significant changes on farmland or woodland and those that are of conservation concern. "Significant" indicates that the 95% confidence limits both show the same directional component as the estimate of percentage change — and therefore that we are 95% sure that the increase or

decrease is a genuine indication of population change rather than just a chance event.

Fifteen species showed significant population changes across all CBC habitats between 1999 and 2000 (indicated by "*" in Table 2). All except one of these changes being increases, it is clear that 2000, like 1999, was a year of upturn for many UK birds. There were significant increases over the past year for several of our most common and widespread resident birds — Wren, Dunnock, Robin, Blackbird, Song Thrush, Carrion Crow and Chaffinch. This was especially good to note for Song Thrush, a species of high conservation concern. Less-common residents Red-legged Partridge, Tawny Owl and Great Spotted Woodpecker also increased. Among migrant songbird populations, there were increases for Whitethroat, Blackcap and Chiffchaff. The Chiffchaff increase made up for the significant decrease in 1999 (*BTO News* 228: 10-13). The only significant decrease was for Blue Tit but this was of only 6% and runs counter to the long-term increase recorded for this species.

A comparison between farmland and woodland plots (see Table 3) shows that populations of Robin, Song Thrush, Blackcap, Chiffchaff and Chaffinch have increased significantly in both habitats between 1999 and 2000. It was encouraging to see Whitethroat numbers up in both habitats, and significantly so on farmland. Bullfinch populations were slightly up in woodland habitats, but down on farmland; however the decrease on farmland is only a difference of seven territories, and it is still relatively a more abundant species in woodland plots. Interestingly, both increases and decreases tended to be of larger magnitude

TABLE 1. Geographical distribution and habitat composition of plots used in the 1999-2000 comparison.

Region	Farmland		Woodland		Special		All plots	
	No. of plots	%	No. of plots	%	No. of plots	%	No. of plots	%
Southern England	14	26%	23	35%	5	42%	42	32%
Eastern England	18	34%	15	23%	2	17%	35	27%
Western England	9	17%	7	11%	2	17%	18	14%
Northern England	7	13%	11	17%	2	17%	20	15%
Wales	4	8%	2	3%	0		6	5%
Scotland	0		6	9%	1	8%	7	5%
Northern Ireland	1	2%	1	2%	0		2	2%
Totals + % of all plots	53	41%	65	50%	12	9%	130	100%

TABLE 2. Population changes as measured by the CBC in all habitats, 1999-2000.

Species	% change 1974-99 (25 years)	No. of territories 1999	No. of territories 2000	% change 1999-2000
Little Grebe	+2	11	9	-18 !
Mute Swan	+166	34	37	+9 !
<i>Shelduck</i>	+10	37	38	+3 !
Mallard	+56	295	326	+11
Tufted Duck	+462	33	27	-18 !
Sparrowhawk	+114	28	30	+7
Buzzard	+320	43	43	0
<i>Kestrel</i>	-28	49	50	+2
Red-legged Partridge	-34	37	47	+27 ! *
Grey Partridge	-85	24	26	+8 !
Pheasant	+17	274	278	+1
Moorhen	-22	144	148	+3
Coot	+19	78	74	-5 !
Lapwing	-43	59	64	+8 !
<i>Woodcock</i>	-75	8	9	+13 !
<i>Curlew</i>	-36	22	20	-9 !
<i>Stock Dove</i>	+85	120	132	+10
Wood Pigeon	+96	873	843	-3
Collared Dove	+160	118	117	-1
Turtle Dove	-71	35	31	-11 !
Cuckoo	-31	60	64	+7
Little Owl	-13	16	15	-6 !
<i>Tawny Owl</i>	-15	33	44	+33 *
Green Woodpecker	+57	118	124	+5
Gr. Sp. Woodpecker	+57	126	148	+17 *
Skylark	-55	448	468	+4
<i>Swallow</i>	+39	162	179	+10
House Martin	-30	81	78	-4 !
Tree Pipit	-76	26	32	+23 !
Meadow Pipit	-45	67	55	-18 !
Yellow Wagtail	-36	26	23	-12 !
Grey Wagtail	-21	17	18	+6 !
Pied Wagtail	+2	74	72	-3
Wren	-5	2,903	3,125	+8 *
<i>Duncock</i>	-44	816	894	+10 *
Robin	+28	2,334	2,631	+13 *
<i>Redstart</i>	+114	47	41	-13 !
<i>Blackbird</i>	-23	1,691	1,787	+6 *
Song Thrush	-55	415	484	+17 *
Mistle Thrush	-40	99	130	+31 *
Sedge Warbler	+13	203	252	+24 !
Reed Warbler	+117	331	349	+5 !
Lesser Whitethroat	-17	60	67	+12
Whitethroat	+40	435	520	+20 *
Garden Warbler	+57	203	190	-6
Blackcap	+120	773	880	+14 *
Chiffchaff	+69	462	576	+25 *
Willow Warbler	-31	907	858	-5
Goldcrest	-56	213	243	+14
Spotted Flycatcher	-76	29	39	+34 !
Long-tailed Tit	0	222	242	+9
<i>Marsh Tit</i>	-53	69	66	-4
Coal Tit	-9	227	256	+13

TABLE 2. Continued.

Species	% change 1974-99 (25 years)	No. of territories 1999	No. of territories 2000	% change 1999-2000
Blue Tit	+9	1,623	1,531	-6 *
Great Tit	+29	1,088	1,144	+5
Nuthatch	+99	115	114	-1
Treecreeper	-26	127	129	+2
Jay	-14	110	116	+5
Magpie	+72	311	299	-4
Jackdaw	+89	222	228	+3
Carriion Crow	+61	350	394	+13 *
<i>Starling</i>	-67	172	162	-6
House Sparrow	-46	131	135	+3
Chaffinch	+24	1,880	2,018	+7 *
Greenfinch	+7	300	311	+4
<i>Goldfinch</i>	-14	165	161	-2
Linnet	-56	222	225	+1
Bullfinch	-58	122	133	+9
Yellowhammer	-55	327	335	+2
Reed Bunting	-61	156	164	+5

Key to Tables 2 and 3

* significant at the 5% level or above.

! small sample size (between 10 and 30 plots).

Species in **bold** are *Birds of Conservation Concern* red-listed or within Tables 1-3 on the list of *Birds of Conservation Importance* (high conservation concern).

Species in *italics* are *Birds of Conservation Concern* amber-listed or within Table 4 on the list of *Birds of Conservation Importance* (medium conservation concern).

The following species now found on fewer than 10 CBC plots annually are excluded from Table 2: Redshank, Snipe, Lesser Spotted Woodpecker, Willow Tit, Grasshopper Warbler, Wood Warbler, Tree Sparrow, Lesser Redpoll and Corn Bunting.

TABLE 3. A comparison of population changes of selected species in farmland and woodland habitats as measured by the CBC.

Species	Farmland Plots			Woodland Plots		
	No. of territories 1999	No. of territories 2000	% change (1999-2000)	No. of territories 1999	No. of territories 2000	% change (1999-2000)
<i>Stock Dove</i>	58	57	-2 !	57	70	+23 !
Cuckoo	30	30	0 !	23	23	0 !
Green Woodpecker	38	44	+16 !	70	70	0
Wren	1,123	1,273	+13 *	1,592	1,640	+3
Robin	803	957	+19 *	1,377	1,505	+9 *
Song Thrush	121	141	+17 *	261	311	+19 *
Mistle Thrush	32	55	+72 *	59	69	+17
Whitethroat	292	367	+26 *	92	97	+5 !
Blackcap	243	288	+19 *	467	526	+13 *
Chiffchaff	121	181	+50 *	308	344	+12 *
Blue Tit	584	528	-10 *	935	900	-4
<i>Starling</i>	111	101	-9 !	44	46	+5 !
Chaffinch	962	1,043	+8 *	814	870	+7 *
Bullfinch	31	24	-23 !	84	97	+15
Yellowhammer	267	288	+8	41	35	-15 !

on farmland than in woodland overall, suggesting that farmland was acting as a secondary habitat for most of these species.

LONG-TERM TRENDS AND ALERTS

Despite the encouraging increases shown by a range of species between 1999 and 2000, it is the trend over a longer period of time that indicates how well UK bird populations are performing. The BTO has established a system for alerting Government to downward trends, based on rates of decline in species over certain time periods. BTO Alerts are either Medium (25-50% decrease) or High (greater than 50% decrease), and are calculated over 25-, 10- and 5-year periods. Table 2 includes the overall trend of the past 25 years, as used to issue the most recent set of Alerts to JNCC (May 2000). Comparison of the long-term trend with the 1999-2000 figure shows whether the latest annual change continues or runs against the trend, but the 25-year trend will be influenced rather little by the 1999-2000 change, however large. All of the Alerts reported here will be tested for significance with the full set of CBC sites once all are analysed.

Nineteen species have shown population decreases of more than 50% during the 25 years 1974-99, and thus have triggered High Alerts. These include all 10 of the widespread species that are priorities in the UK Government's

Biodiversity Action Plan. Most alarmingly, six of these species declined by more than 50% just in the 10-year period 1989-99: Grey Partridge, Spotted Flycatcher, Tree Pipit, Willow Tit, Lesser Spotted Woodpecker and Lesser Redpoll. Of the remaining 13 species triggering High Alerts for the 25-year period, seven also triggered Medium Alerts for the 10-year period (Woodcock, Turtle Dove, Marsh Tit, Starling, Tree Sparrow, Yellowhammer and Corn Bunting). Five species exhibited declines in the period 1994-99, triggering 5-year Medium Alerts: these were Grey Partridge, Lesser Spotted Woodpecker, Willow Tit, Starling and Corn Bunting. Lesser Redpoll declined by more than half in just the 5-year period and was the only High Alert in this timespan. Some of these species are now so rare that CBC was unable to estimate the change from 1999 to 2000.

Of the BAP species showing long-term declines, most triggered shorter-term alerts as well but the trends for Song Thrush, Skylark, Bullfinch, Linnet and Reed Bunting were more favourable over the 5- and 10-year periods.

A further 13 species triggered Medium Alerts for the 25-year period: these were Red-legged Partridge, Kestrel, Lapwing, Curlew, Cuckoo, House Martin, Meadow Pipit, Yellow Wagtail, Mistle Thrush, Willow Warbler, Dunnock, Treecreeper and House Sparrow. Of these, Yellow Wagtail also gave a Medium Alert for the 10-year period, 1989-99. Wide confidence

CUCKOO DECLINE IS MATCHED BY SOME OF ITS FOSTER PARENTS

The Cuckoo's song is a widely recognised and popular sound of spring, with an appeal more widespread than just to keen birdwatchers. The general perception of "fewer Cuckoos calling these days" is endorsed by recent CBC findings. The large and overlapping territories of the male bird make monitoring difficult but CBC does provide some meaningful data. Some increase was recorded during the 1960s and 1970s, but since then there has been a decline of around 31% (Table 2). Similar losses have been seen among most of its main foster species in dry habitats, notably Tree Pipit (-76%), Meadow Pipit (-45%) and Dunnock (-44%). Other species parasitised by Cuckoos have increased, however, Reed Warbler by 117% and Robins (now seldom parasitised) by 28%. The number of cuckolded Reed Warbler nests reported to the Nest Record Scheme has also more than doubled, perhaps reflecting increased exploitation of this wetland host. It is possible that the population size of the Cuckoo is influenced by those of its hosts but, given its evolutionary capacity to switch to new hosts. The Cuckoo's decline may owe more to loss of feeding opportunities in UK farms and woods, or in its African winter quarters.

intervals are associated with the indices for House Martin and Yellow Wagtail, however, and some of these Medium Alerts may not be statistically significant when all of the 2000 results are included. Little Owl, Blackbird and Whitethroat triggered Medium Alerts but only when the period was extended to cover 1968-99. 1968 was the year before the famous 'Whitethroat crash', from which the species has not fully recovered.

The following 15 species, which have all undergone declines sufficient to trigger High or Medium Alerts since 1974, were not included as *Birds of Conservation Concern* in the listings prepared in 1996: Red-legged Partridge (not eligible, as an introduction), Lapwing, Cuckoo, Lesser Spotted Woodpecker, House Martin, Tree Pipit, Meadow Pipit, Yellow Wagtail, Mistle Thrush, Willow Warbler, Goldcrest, Treecreeper, House Sparrow, Lesser Redpoll and Yellowhammer. Although the distribution of some species, like Tree Pipit and Lesser Redpoll, is believed to lie mostly beyond the CBC's area of main coverage, the sheer magnitude of the declines detected on CBC plots warrants urgent concern.

CHANGES IN ALERT STATUS SINCE 1999

One species, House Sparrow, has been demoted from High Alert to Medium Alert, its 25-year population change having ameliorated slightly

from -51% in 1973-98 to -46%. This does not represent any real change in its population status, however. The CBC trends suggest that the House Sparrow decline may be levelling out in recent years, but do not include urban habitats, where evidence from other sources suggest that this species is declining rapidly.

Four other species — Blackbird, Tree Sparrow, Lesser Whitethroat and Willow Warbler — improved marginally in alert status due to improvements in their 25-year, 10-year or 5-year population changes.

The only new High Alert issued is for Bullfinch, whose 1968-99 population change is -52% (up from -49.8% for 1968-98). Treecreeper now triggers a Medium 25-year Alert on the basis of a decline of 26% (previously 24.7%). Two species, Marsh Tit and Yellow Wagtail, trigger new Medium 10-year Alerts, and Corn Bunting a Medium 5-year Alert.

MANY THANKS

The CBC's key contribution to bird conservation in the UK has been made possible by the efforts of over 2000 volunteers over the past four decades. We would like to extend our warmest thanks to the great many observers who have participated in the CBC over the years, and especially to current surveyors for continuing to support the scheme.

The statistics presented earlier indicate that

SEDENTARY DOVES ARE CURRENTLY THE MORE SUCCESSFUL

CBC has monitored four of the UK's five common doves and pigeons. Feral Pigeons, while not monitored reliably, are clearly thriving. The 25-year trends for the others range from +160% for Collared Dove to -71% for Turtle Dove. Wood Pigeon (+96%) and Stock Dove (+85%) are both success stories. Wood Pigeon declines in the 1960s and early 1970s were attributed in part to cold winters, chemical seed dressings, weed control and the switch to autumn-sowing of cereals. This species adapted by breeding earlier and exploiting the new abundance of oil-seed rape. Stock Doves have apparently shown a protracted recovery from the pesticide kills of the 1950s and early 1960s. Collared Doves have become largely sedentary in the UK following the influxes that followed the first colonisation in 1955. It seems likely that the migratory habit of the Turtle Dove is a major factor influencing its decline. Tied to a rigid annual cycle of migration, breeding and moult, it may have been unable to change its timing of breeding or its feeding strategies to exploit the new opportunities on farmland that have been available to the resident species. Although its use of habitat and breeding performance are currently being researched, habitat change has also been occurring in its African winter quarters, and the hunting pressure the Turtle Dove encounters on migration has hardly diminished.

plots are surveyed, on average, for more than six years! Among current surveys, 45 began in the 1970s. This reflects the tremendous commitment and hard work put in by observers. Most impressive, several have been surveying since the 1960s.

In particular we would like to acknowledge the special contribution made by some of our longest-serving observers: Rebecca Woodell

(1968), Eric Ward (1968), Lyall Charlton (1967), Geoff Atkin (1965), John Butterworth (1964), Bill Edwards (1964), Mary Waller (1964), Richard Williamson (1963), Denis Summers-Smith (1962) and finally P D Mann, who has censused his plot at Bucklebury Slade in Berkshire since 1961: the year 2000 was his 40th census year! A very big thank you to all of you!

The CBC has been supported by the JNCC.