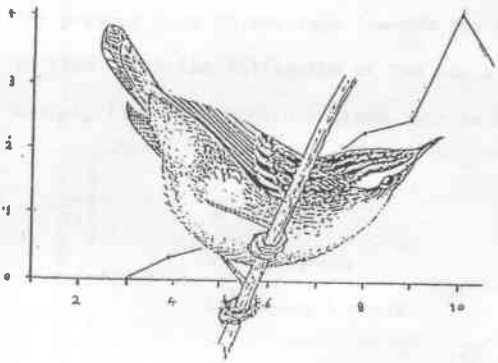
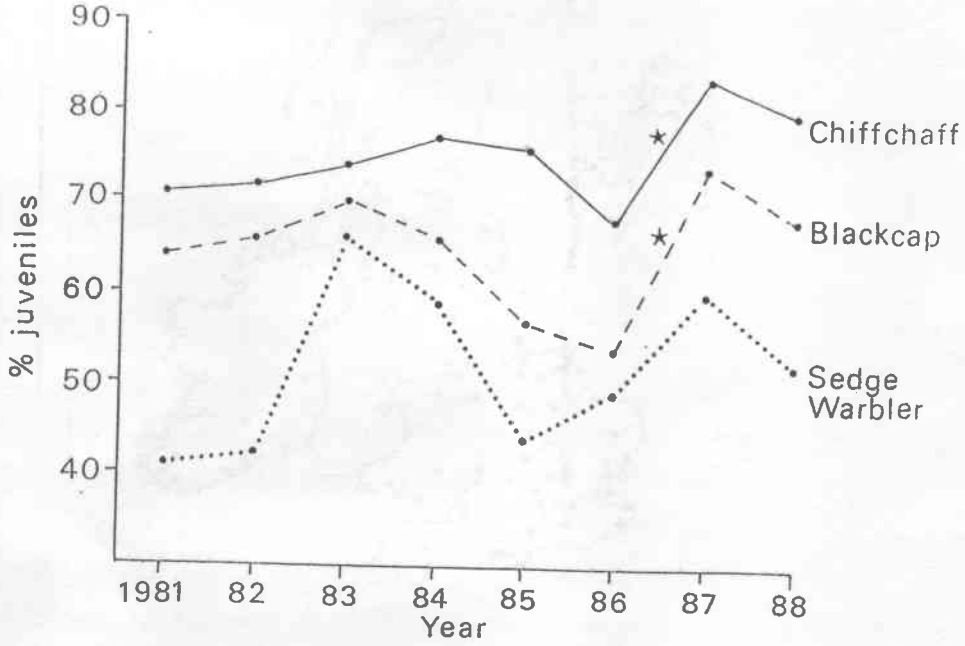
CES News



Number Three



This is the third edition of the newsletter produced for CES ringers past and present. Its aim is to keep ringers in touch with developments in the CES scheme and to summarise research activities using CES data.

Coverage

The distribution of CES sites worked in 1988 is shown on the map below. The present bias in coverage towards the south-east should be reduced in 1989 with the initiation of two new sites for Scotland (Tay Ringing Group), five in northern England, one in Angelsey and three more in the

CONSTANT EFFORT SITES - 1988

Midlands. Needless to say we are still hoping to register more new sites for 1989 so please spread the word amongst your ringing friends. Mention of the partial ring refund might help!

The 1988 Season

Despite another difficult summer weatherwise most CES ringers completed most of their of their main visits. All twelve of the main visits were completed at 42 of the 88 sites worked in 1988 and at least 10 visits were completed at 68 sites. There was a further increase in the number of sites used in the calculation of the annual CES changes (published in the March-April edition of BTO NEWS and summarised at the back of this newsletter) from 62 sites worked in both 1986 and 1987 to 75 sites worked in 1987 and 1988. More sites means greater precision in the population changes we detect and hopefully a better regional coverage.

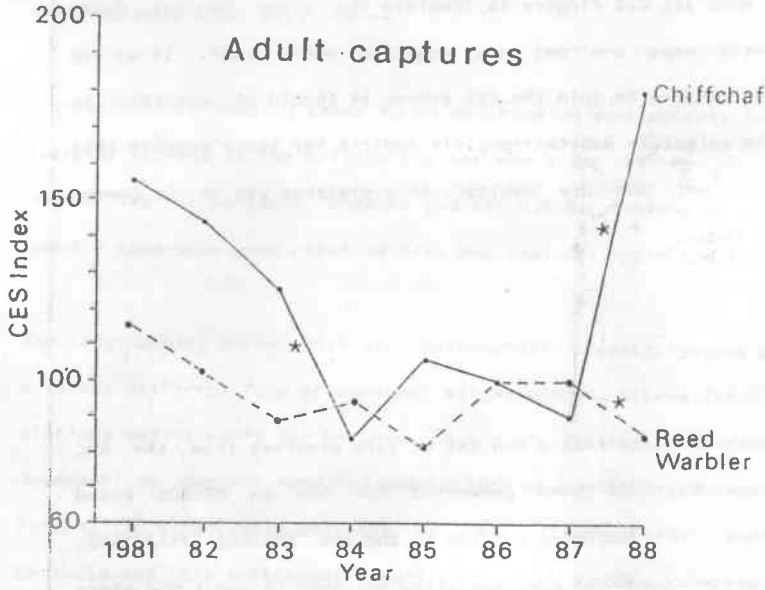
Additional copies of the BTO NEWS report are available from me if needed.

Population Changes

Adult captures were well up in 1988 compared to 1987 with significant increases being recorded for five resident species and three summer visitors. Overall seventeen of the twenty-three species that are well-covered by the CES scheme were caught in greater numbers in 1988. Chiffchaff showed the largest increase with more than twice as many adults being caught in 1988 compared to 1987. Reed Warbler was the only species to show a significant decline in the numbers of adults caught. This result was largely a consequence of a major reduction in the numbers of Reed Warblers caught at a single reed bed site in Essex. If this site is excluded from the analysis the decline in Reed Warbler

numbers is no longer significant.

Juveniles were generally less abundant on CES sites in 1988, but this may well indicate a 'return to normality' after the exceptional breeding success of 1987. Changes in the percentages of juveniles of three of the warbler species caught at CES sites are shown on the front cover of this newsletter.



***** RARITIES *****

This year ringing at constant effort sites has thrown up its usual crop of rarities. Some of the more notable catches were:

Spotted Crake (Dyfed)
Green Sandpiper (West Yorkshire)
Savi's Warbler (Leicestershire)
Aquatic Warbler (Mid-Glamorgan)
Long-Eared Owl (Lincolnshire and Kildare)
Great Grey Shrike (Lincolnshire)

***** Habitats *****

The CES scheme aims primarily to monitor population changes in scrub and wetland habitats though woodland sites are also accepted. Many CES sites are made up of patches of different habitat types and the designation of each site as either wetland, dry scrub or woodland is not always straightforward. A possible solution to this problem is to use the species catch composition of each site as an indicator of the habitat features of that site and I am currently looking into this. We do still need all CES ringers to complete the green habitat forms although sketch maps are not now required every year. If we can persuade more ringers to join the CES scheme it should be possible in the future to calculate habitat-specific indices for those species that occur in both wet and dry habitats in a simialar way to the Common Birds Census today.

***** B-RING FOR PC'S *****

We are happy to announce that a new set of core programs from the BBC B-RING package has now been converted for use on MS-DOS based micro-computers. This includes the IBM PC and the AMSTRAD 1512/1640. The current set of converted programs allow the user to input and store ringing data, to print schedules and to carry out various cross tabulations (including the production of age-specific totals lists). The statistical and CES-related facilities of the current BBC version of B-RING will be converted in due course and purchasers of the current PC version will be entitled to free updates of future versions.

We hope that this facility will encourage more CES ringers to computerise their data. This not only makes it easier for ringers to analyse their own data, but also reduces the likelihood of errors and saves the BTO time and money spent inputing data. The current version of B-RING for PCs is available now on floppy disk for £10.00 from Will Peach in the Ringing Office.

***** INTERNATIONAL NEWS ******

Constant effort ringing seems to be catching on particularly in Europe. Similar schemes to the British CES are now being set up in Finland, France, the Netherlands, Denmark and the U.S.A. Interested letters of enquiry have also been received from New Zealand, Spain and Israel.

The long-running German-Austrian 'Mettnau-Reit-Illmitz-Program' employs a rather different form of constant effort ringing (three large ringing stations manned every day between the end of June and the beginning of November) to monitor songbird populations on migration through central Europe. In a published analysis of their findings (*) Prof Peter Berthold and his colleagues report that of 37 species investigated, 26 (70%) had declined between 1974 and 1983. Some of the largest declines were seen in Redstart, Whinchat, Great Reed Warber, Aquatic Warbler and Lesser Whitethroat. As a consequence of these worrying findings the German government has recently guaranteed further funds to continue this study.

* Berthold, P., Fliege, G., Querner, U. & Winkler, H. (1986). The development of songbird populations in central Europe: Analysis of trapping data. Journal fur Ornithologie, 127, Number 4, 397-437.

***** Research *******

Since I started at the BTO in July '88 I have spent most of my research time looking at DIFFERENCES IN CAPTURE TRENDS BETWEEN CES SITES. The overall changes in captures that are published each year are simply an overall trend calculated by aggregating changes at all sites. When I looked for differences between sites it was encouraging to find that for most species the adult trends did not differ significantly between sites - capture trends on individual sites are usually similar to the overall trend. This was not true of juvenile captures, however, with trends often differing between sites. It appears that these differences may be the result of unusually large captures of young birds on a single visit presumably as a large 'flock' move through the site. Any thoughts on this would be welcome.

The other current research topic is the estimation of ADULT SURVIVAL RATES using retrap data from CES sites. There are two general approaches to the calculation of survival rates. One uses the recovery rate of ringed birds as an index of mortality whilst the other uses the retrap rate between years as a direct measure of survival. The problem with the first of these approaches is that for many species - particularly the warblers - recovery rates are very low (as all CES ringers will know !!) which means that very large numbers would need to be ringed in order to get sensible estimates of survival. The second approach is an attractive alternative but to date has only been used on retrap data from single ringing sites. The next step is to combine retrap data from more than one site to provide an overall estimate of adult survival between years. We are looking at this now.

***** 1989 *****

The coming CES season is likely to be a fascinating and important year for the scheme. Will the already swollen resident adult populations continue to increase after yet another mild winter and if they do will productivity be affected ? Will Reed Warbler numbers continue to fall after their dissappointing performance in 1988 ? Will two of the keener CES ringers repeat last years 37 (!) and 47 (yes, forty-seven !!) CES visits ? .... WATCH THIS SPACE

Finally. I would like to welcome aboard the twelve new sites that have registered for 1989 and wish all CES ringers the best of luck for the coming season.

Will Peach (CES organiser)

February, 1989.

Table 1. Changes in Total captures on CES sites from 1987 to 1988

Species	ADULTS (visits 1-12) n	Total 1987	Total 1988	% Change	SE	JUVENILES (visits 1-12) n	Total 1987	Total 1988	% Change	SE
Wren	56	233	285	+ 22*	9.5	58	698	910	+30*	10.9
Dunnock	57	271	357	+ 32*	9.2	57	465	491	+ 6	9.1
Robin	52	141	201	+ 43*	12.8	57	626	715	+14	9.4
Blackbird	59	451	569	+ 26*	7.5	59	387	373	− 4	8.8
Song Thrush	51	146	187	+ 28	16.5	52	123	137	+11	20.5
Sedge Warbler	39	523	582	+ 11	12.6	40	782	637	−19	10.8
Reed Warbler	35	1090	937	− 14*	7.0	36	1183	758	−36*	7.5
Lesser Whitethroat	39	127	134	+ 6	14.6	43	158	136	−14	13.4
Whitethroat	39	181	192	+ 6	14.5	49	343	311	− 9	13.8
Garden Warbler	46	196	224	+ 14	11.0	49	207	169	−18	15.7
Blackcap	54	304	384	+ 26*	11.8	56	882	809	− 8	11.5
Chiffchaff	43	113	227	+101*	28.3	52	577	899	+56*	25.1
Willow Warbler	58	792	891	+ 13*	6.0	59	1687	1787	+ 6	6.7
Long-tailed Tit	40	171	161	− 6	17.1	38	302	294	− 3	26.8
Blue Tit	56	303	359	+ 19	15.3	59	1620	1059	−35*	9.8
Great Tit	56	190	189	0	11.4	58	742	616	−17	12.5
Chaffinch	49	231	275	+ 19	14.0	40	184	163	−11	20.2
Greenfinch	27	67	96	+ 43	36.9	15	42	40	− 5	27.7
Linnet	16	86	89	+ 4	31.2	13	36	42	+17	60.1
Redpoll	21	81	144	+ 78	53.7	15	44	52	+18	25.8
Bullfinch	54	302	366	+ 21*	10.6	51	229	196	−14	12.1
Reed Bunting	37	214	210	− 2	9.9	33	144	160	+11	21.0
Treecreeper	22	27	41	+ 52	40.7	38	106	67	−37*	12.1

n = number of paired sites
Total = number of individuals captured at all paired sites
* = Significant change at 5% level
SE = Standard error of percentage change; smaller values indicate a more precise measure of change

Table 2. Changes in the percentage of juveniles caught on CES sites from 1987 to 1988.

Species	n	Paired sites 1987–1988 Total 1987	% juv 1987	Total 1988	% juv 1988	Diff in % juv
Wren	56	931	75	1195	76	+ 1
Dunnock	56	736	63	848	58	− 5
Robin	55	767	82	916	78	− 4
Blackbird	56	838	46	942	40	− 6
Song Thrush	41	269	46	324	42	− 4
Sedge Warbler	36	1305	60	1219	52	− 8
Reed Warbler	33	2273	52	1695	45	− 7
Lesser Whitethroat	34	285	55	270	50	− 5
Whitethroat	39	524	65	503	62	− 3
Garden Warbler	45	403	51	393	43	− 8
Blackcap	52	1186	74	1193	68	− 6
Chiffchaff	42	690	84	1126	80	− 4
Willow Warbler	59	2479	68	2678	67	− 1
Long-tailed Tit	37	473	64	455	65	+ 1
Blue Tit	58	1923	84	1418	75	− 9*
Great Tit	55	932	80	805	77	− 3
Chaffinch	40	415	44	438	37	− 7
Greenfinch	17	109	39	136	29	− 10
Linnet	9	122	30	131	32	+ 2
Redpoll	13	125	35	196	27	− 8
Bullfinch	53	531	43	562	35	− 8*
Reed Bunting	33	358	40	370	43	+ 3
Treecreeper	26	133	80	108	62	− 18*

n = number of paired sites
Total = total number of adults plus juveniles captured
% juv = percentage of captures which were juveniles
diff in % juv = % juveniles 1988 minus % juveniles 1986
* = statistically significant change at 5% level