

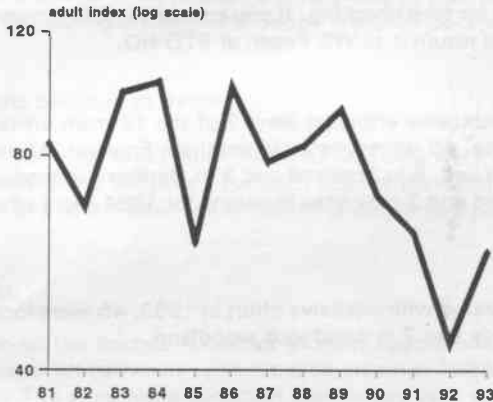
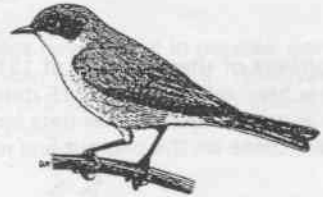
CES News



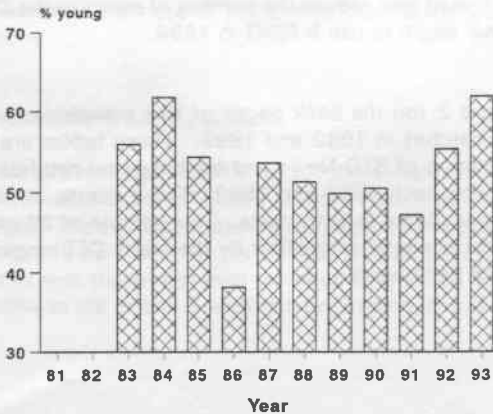
Number Seven

Lesser Whitethroats in 1993

Adults bounce back



..... and productivity high



This is the seventh edition of the newsletter of the Constant Effort Sites (CES) Scheme organised by the British Trust for Ornithology. If you require additional copies of this newsletter please contact Will Peach at BTO HQ.

The aim of the CES Scheme is to monitor changes in the populations and breeding success of a range of common passerines. Each summer volunteer ringers make twelve visits to their chosen site between May and August where a series of mist nets are erected in standard positions for a standardised period of time. By combining data from more than 100 sites, changes in the size of the adult catch are used as a measure of changing population size, whilst the percentage of young birds is used as an index of breeding success. When a site is operated for several years in succession then between-year recaptures can be used to calculate adult survival rates.

CES RINGING IN 1993

Numbers of sites - A total of 121 sets of CES data were received in 1993. All of these have now been added to the CES database on the BTO computer and all CES ringers should have received printouts of their data for final checking. If you spot any errors, however minor, please mark these on the printout and return it to Will Peach at BTO HQ.

Regional Coverage - In 1993 intensive effort (at least 9 of the 12 main visits completed) was achieved at 114 sites. Of these, 46 were located in southern England, 31 in central England, 25 in northern England, 4 in Wales, 6 in Scotland and 2 in Northern Ireland. Although 3 new sites have registered in Scotland and 2 new sites in Ireland for 1994 more sites are still needed outside of England.

Habitats - Of the 114 sites operated with intensive effort in 1993, 45 were located in dry scrub, 42 in wet scrub, 20 in reedbeds and 7 in deciduous woodland.

B-RING - 1993 saw a dramatic rise in the numbers of CES ringers using B-RING to computerise their data. Data from 56 sites (nearly half of all sites) were sent in on floppy disc. This is a great help because it reduces the amount of staff time needed to input and check the CES data once it arrives at BTO HQ. It should also reduce the number of errors in the CES database. We hope that more CES ringers will begin to use B-RING in 1994.

Updated Results - Tables 1 and 2 (on the back pages of this newsletter) show the updated results for the comparison of catches in 1992 and 1993. These tables are updates of those published in the March-April edition of BTO News and are based on catches made at 89 sites operated in the same way during both 1992 and 1993. For a site to be included at least 8 paired visits must have been completed in both years. This sample of 89 paired sites is more than ever before and represents a magnificent effort by the many CES ringers who made sure they completed most of the 12 main visits.

Adult Catches Recover

Following two poor years for catches of adult birds, 1993 saw a marked improvement in catches for most CES species. The largest increases in adult catches were recorded for Wrens, Long-tailed Tits, Lesser Whitethroats, Robins, Whitethroats and Song Thrushes (Table 1). The small residents probably benefitted from a relatively mild winter whilst Lesser Whitethroats experienced less severe conditions in a slightly damper east Africa.

Two significant declines in adult catches were recorded in 1993: -14% in the case of Sedge Warbler and -38% in the case of Redpoll (Table 1). Catches of adult Linnets fell by 35% but this was not quite statistically significant.

Whitethroats up, Sedge Warblers down

The decline in the catch of adult Sedge Warblers in 1993 has taken this species to its lowest level on CES sites since 1985. Whitethroats, on the other hand, were much more numerous in 1993 though still well down on the levels reached back in 1989.

In the past population levels of Sedge Warblers and Whitethroats have varied in parallel, both species apparently being sensitive to conditions in the West African winter quarters. However, in recent years there seems to have been a divergence in the fortunes of these two species, with Whitethroats increasing strongly and Sedge Warblers declining.

Linnets and Redpolls continue to decline

Probably the most worrying results from the 1993 CES data were the continuing declines in the catches of both Linnets and Redpolls. For both species the catches of both adults and young declined massively and in the case of Linnet this is very much part of a longer-term decline.

Juveniles abundant

With the exception of the finches, juveniles of most species were abundant on CES sites in 1993. Juvenile Lesser Whitethroats were more abundant in 1993 than in any year since 1984, whilst juvenile Blue Tits were more abundant than in any year since 1987. Catches of young Wrens, Dunnocks and Robins increased significantly for a second year in succession.

Declines in the catches of young Greenfinches, Linnets and Reed Buntings are continuations of longer-term trends which in the case of Linnet and Reed Bunting are associated with declines in breeding populations.

A Second Highly Productive Breeding Season

After a highly successful breeding season in 1992, there were further increases in productivity, notably for Dunnock, Blackbird, Song Thrush, Lesser Whitethroat, Garden Warbler and Blackcap (Table 2 on back page). The significant decline in the percentage of young Whitethroats caught in 1993 marks a 'return to normal' after the bumper breeding season of 1992. The percentage of young Greenfinches was the lowest ever recorded by the CES Scheme. Although there is no evidence of any decline in the British Greenfinch population, this is certainly a species to watch in 1994.

Yellowhammer, Willow Tit and Goldfinch - New CES Monitoring Species?

Have you ever wondered whatever happens to all those records of species caught at CES sites but which are not on the list of 23 species included each year in the annual report ? We do keep an eye on other species and as the numbers of CES sites increases we can expect to add more species to the monitoring list. Here we present the 1992-93 catch totals for some of the less common species at paired sites (i.e. those worked in both years with at least 8 paired visits).

Species	Adult Catches			Juvenile Catches		
	No Sites	1992	1993	No Sites	1992	1993
Nightingale	10	19	27	7	5	14
Grasshopper Warbler	16	24	21	16	16	22
Goldcrest	14	17	36	32	53	76
Spotted Flycatcher	22	29	26	16	12	20
Marsh Tit	12	14	16	27	47	74
Willow Tit	28	41	43	42	131	144
Coal Tit	24	24	51	41	112	111
Jay	24	19	24	11	8	10
Tree Sparrow	3	17	4	3	1	64
Goldfinch	28	78	77	24	40	85
Siskin	9	163	101	4	40	34
Yellowhammer	27	81	66	18	36	31

Judging from these figures we may soon be able to include Yellowhammer, Willow Tit and Goldfinch in the annual CES monitoring reports. Unfortunately, we still have some way to go before we can monitor species like Nightingale, Spotted Flycatcher and Grasshopper Warbler.

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Early reports from CES ringers in 1994 suggest good numbers of birds being caught in perfect weather conditions. Whitethroats and Willow Warblers may be particularly abundant.

Rarities

A number of unusual or rare species were caught at CES sites in 1993. Amongst the more exotic extractions from CES mist-nets were :

Tufted Duck - Hertfordshire	Firecrest - Hertfordshire
Long-eared Owl - Merseyside	Brambling - Lincolnshire
Lapwing - Yorkshire	Scarlet Rosefinch - Highland Region
Woodcock - Berkshire	Savi's Warbler - Kent
Water Rail - Hertfordshire	Corn Bunting - Essex

Selected Retraps/Controls

XN38892	Great Spotted Woodpecker	4F	10.6.87	Kimpton Mill CES, Herts
		Retrap	25.8.90	Kimpton Mill CES, Herts
		Retrap	3.6.93	Kimpton Mill CES, Herts
8K1403	Treecreeper	2	17.10.86	Westbere CES, Kent
		Retrap	6.5.87	Westbere CES, Kent
		Retrap	30.6.88	Westbere Railway, Kent
		Retrap	9.5.89	Westbere CES, Kent
		Retrap	15.5.90	Westbere Railway, Kent
		Retrap	9.5.91	Westbere CES, Kent
H416729	Blackcap	4M	31.5.92	Thorpe Marsh CES, S.Yorks
		Control	10.4.93	Guernsey, C.I.
		Retrap	4.5.93	Thorpe Marsh CES, S.Yorks
F685741	Sedge Warbler	4M	25.5.91	Oxford Island CES, Armagh
		Control	23.12.91	Djoudj National Park, Senegal
		Retrap	17.5.92	Oxford Island CES, Armagh
E798520	Garden Warbler	4F	10.5.88	Dinton Pastures CES, Berks
		Retrap	2.8.91	Dinton pastures CES, Berks
		Retrap	15.5.92	Dinton Pastures CES, Berks
E798999	Blackcap	4F	11.5.90	Dinton Pastures CES, Berks
		Control	20.7.90	Wilstone Resv. CES, Herts (41km)
E454415	Reed Warbler	4M	8.7.88	Redgrave Fen CES, Norfolk
		Retrap	7.7.89	Redgrave Fen CES, Norfolk
		Retrap	29.7.90	Redgrave Fen CES, Norfolk
		Retrap	27.6.91	Redgrave Fen CES, Norfolk
		Retrap	7.6.92	Redgrave Fen CES, Norfolk
		Retrap	26.6.93	Redgrave Fen CES, Norfolk

(all captures of E454415 were at nets within 100m of one another)

The ideal CES site produces good catches of both adults and juveniles. It is particularly important that good numbers of adult birds are caught because these are used to monitor changes in the size of the breeding population and to calculate survival rates (from recaptures). Last year the "Top 10" CES sites were listed for all of the 8 warbler species monitored by the CES Scheme. This year I present similar tables for 8 resident species.

TOP 10 CES SITES FOR RESIDENT SPECIES

Wren			
Rank	Site Number	Adult catch in	
		1992	1993
1	152	17	25
2	4	16	15
3	25	7	18
4	144	10	14
4	263	12	12
6	13	10	12
6	289	8	14
8	182	11	10
9	10	7	13
9	229	4	16
9	292	5	15

Dunnock			
Rank	Site Number	Adult catch in	
		1992	1993
1	110	20	16
2	152	17	18
3	295	14	16
4	263	11	17
5	298	13	14
6	229	8	17
7	255	13	12
8	243	11	13
9	234	9	14
10	310	11	12

Robin			
Rank	Site Number	Adult catch in	
		1992	1993
1	13	14	12
1	160	9	17
1	229	8	18
4	20	9	15
4	152	10	14
6	110	13	10
6	300	12	11
8	263	10	9
9	54	8	10
10	271	9	8
10	277	6	11

Blackbird			
Rank	Site Number	Adult catch in	
		1992	1993
1	110	29	29
2	152	24	24
3	263	28	17
4	255	23	20
5	226	19	20
6	4	16	16
6	10	16	16
8	20	15	13
8	277	16	12
10	234	10	16
10	243	14	12
10	275	12	14
10	293	15	11

TOP 10 CES SITES FOR RESIDENT SPECIES

Blue Tit			
Rank	Site Number	Adult catch in	
		1992	1993
1	20	15	14
2	54	14	11
2	135	13	12
2	283	11	14
5	110	10	14
5	226	9	15
5	227	11	13
5	243	6	18
9	34	9	13
9	292	9	13

Chaffinch			
Rank	Site Number	Adult catch in	
		1991	1992
1	28	42	73
2	277	25	14
3	271	29	9
4	301	20	9
4	152	20	9
6	20	12	16
7	283	18	8
7	123	17	9
9	110	10	13
10	250	4	18

Bullfinch			
Rank	Site Number	Adult catch in	
		1992	1993
1	275	18	16
1	301	21	13
3	220	10	20
4	298	11	18
5	110	12	14
5	152	14	12
7	300	10	15
8	288	12	12
9	153	9	13
9	291	12	10

Reed Bunting			
Rank	Site Number	Adult catch in	
		1992	1993
1	141	20	15
1	232	15	20
3	25	10	16
4	86	9	13
5	251	10	11
5	265	7	14
7	160	11	8
8	154	6	12
9	150	5	12
9	182	7	10
9	256	8	9
9	309	9	8

NB To be included all sites must have completed at least 8 paired visits in 1992 and 1993.

NEWS ITEMS

- A New System of Habitat Recording on CES sites

A slightly modified version of last years' new habitat recording system is currently being finalised. Revised instructions and forms will be sent out to ringers from all participating sites before the end of June. The habitat recording needs to be carried out around about the end of July or early August. The new recording scheme requires CES ringers to make a few simple measurements of the height and density of the scrub on either side of each standard CES net ride. More than 30 CES ringers have already volunteered to try out the new system in 1994. For an average size CES site the new system of habitat recording should take about 2-3 hours. **Please consider trying out the new system yourself this year.** Habitat recording is a vital aspect of CES ringing.

- CES Meeting in California

Last November I was lucky enough to be invited to a workshop on standardised mist-netting at the Point Reyes Bird Observatory in California. The Americans and Canadians are interested in setting up a CES-style monitoring project throughout the continent of North America. Many species of North American migratory songbirds have declined dramatically in recent years and there is an ongoing debate concerning the causes of these declines. Some experts argue that the declines are being caused by problems on the breeding grounds such as habitat fragmentation and perhaps cowbird parasitism. Others suggest that habitat destruction on the winter quarters or along the migration routes may be causing the declines. This is exactly the kind of situation where a network of standardised mist-netting sites might help provide the answers. The proportions of young birds caught can be used to monitor changes in breeding success whilst the return rates of adult birds can be used to monitor survival rates.

A North American CES-style monitoring project was started in 1989 with 17 sites (or stations). The project has been named the Monitoring Avian Productivity and Survivorship (MAPS) Programme and is based largely upon the UK CES model (12 visits each year with a set of standard nets). Point counts and habitat information are collected at all MAPS stations. The project has expanded to include 250 stations in 1993. The aim is to set up many more MAPS stations but progress is being hampered by the lack of experienced passerine ringers in North America. Strenuous efforts are now being made to encourage passerine ringing through regular training courses and extensive publicity of the MAPS Programme.

The aim of the California workshop was to bring together people involved with using standardised mist-netting to monitor bird populations. The success of the UK CES Scheme has played a vital role in convincing some sceptical American scientists of two things. Firstly, that it is possible to establish an extensive network of monitoring sites operated by volunteer ringers, and secondly, that data collected at CES sites are scientifically valid and useful.

A detailed collection of scientific papers will be published as a **workshop proceedings** and this will include two important contributions from the UK CES Scheme. One paper reviews the methodology of the CES Scheme and compares long-term population trends from the BTO's Common Birds Census with trends in adult catches at CES sites. The other compares the numbers of pulli ringed each year in Treswell Wood (Nottinghamshire), with the numbers of juveniles caught in CES nets. Strong correlations between these two measures of annual productivity suggest that captures of juvenile birds at Treswell do reflect year-to-year changes

in local breeding success. Look out for more information on the North American MAPS Programme early next year in BTO News.

- Recent Publications by CES ringers

Many CES ringers write annual ringing reports or articles for local bird reports summarising results from their CES sites. An increasing number of CES ringers are now writing up the results of their CES work as scientific papers. Two fine examples of scientific papers from CES ringers have recently been published in *Ringing & Migration*. These are:

- Dispersal and site fidelity in Lesser Whitethroats *Sylvia curruca*. by Steve Norman, *Ringing & Migration* 1992, volume 13, pages 167-174.
- Whitethroat *Sylvia communis* population studies during 1981-91 at a breeding site on the Lincolnshire coast. by Mike Boddy *Ringing & Migration* 1993, volume 14, pages 73-83.

Further papers on Lesser Whitethroats, Wrens and Treecreepers should be published within the next 12 months.

If you feel that your ringing data have a story to tell then why not consider writing it up for publication in *Ringing and Migration*? The editor and his editorial board are always willing to provide advice and support for new authors.

- The Importance of Retraps

All CES ringers know that retraps of ringed birds at CES sites are very important and scientifically valuable pieces of information. The most valuable sort of recapture are those of birds ringed in previous years. Between-year retraps tell us that adult birds have survived the intervening period and that birds ringed as juveniles have been recruited into the local breeding population. Within-year retraps are also important because they tell us that birds have remained on or near to the study site.

It is very important that the ring numbers of all recaptures are accurately recorded both at the time of handling and on the CES computer files. **Please double check the ring numbers of all retraps at the time of handling and give special attention to the accuracy of ring numbers on the computer printouts sent out to all CES ringers for checking.**

- Visits to CES sites during April

Some CES ringers make occasional visits to CES sites during April. This is not contrary to the rules of the CES Scheme but if some birds become 'net-shy' this may affect catches during main CES visits. For this reason visits to CES sites during April (particularly the second half of April) should be kept to a minimum, and all visits carried out during the second half of April should be considered as extra CES visits and all captures included on CES capture calendars (or CES B-RING files). Extra CES visits are denoted with letters (A, B, C, D etc) whilst main visits are denoted by numbers (1-12).

SITE EFFICIENCY

This table lists the 40 most efficient CES sites in 1993. Catching efficiency is the mean catch per main visit divided by the length of standard netting used. Sites where fewer than 9 visits were completed are excluded.

Site No	No. Visits	Total Catch	Mean Catch per visit (x)	Stand. Net Length (y)	Catching Efficiency Index = (x/y) * 1000	Habitat (1)	Region (2)
148	11	394	35.8	150	238	WS	NE
313	10	402	40.2	170	236	DS	CE
28	12	381	31.7	160	198	DS	NE
303	12	529	44.0	240	183	DS	SE
177	11	401	36.4	200	182	DS	SE
34	12	380	31.6	190	166	WS	SE
220	12	612	51.0	320	159	DS	CE
135	12	527	43.9	300	146	RB	SE
271	11	351	31.9	220	145	WS	CE
321	12	564	47.0	330	142	WS	SE
309	9	255	28.3	200	141	WS	CE
329	12	586	48.8	350	139	WS	CE
226	12	635	52.9	380	139	WS	CE
276	12	1158	96.5	700	137	WS	CE
234	12	980	81.6	600	136	DS	NE
244	11	358	32.5	240	135	DS	NE
229	12	853	71.0	530	134	DS	NE
241	9	215	23.8	180	132	DS	NE
333	12	508	42.3	320	132	RB	SE
295	12	525	43.7	340	128	DS	CE
297	11	480	43.6	340	128	WS	SE
301	10	383	38.3	310	123	WS	NE
143	12	800	66.6	540	123	RB	SE
273	9	264	29.3	242	121	DS	SC
275	11	474	43.0	360	119	DS	CE
272	10	175	17.5	150	116	DS	NE
154	12	612	51.0	450	113	RB	SE
296	12	618	51.5	460	111	DS	CE
323	11	344	31.2	280	111	DS	CE
310	12	662	55.1	500	110	DS	NE
223	11	447	40.6	370	109	DS	SE
25	12	599	49.9	460	108	WS	SE
300	10	362	36.2	336	107	DS	SC
215	12	310	25.8	240	107	DS	SC
256	12	284	23.6	220	107	RB	IR
232	12	436	36.3	340	106	RB	CE
293	12	510	42.5	400	106	DS	CE
4	12	748	62.3	600	103	WS	SE
20	12	261	21.7	210	103	WD	NE
265	12	371	30.9	300	103	RB	SE

Notes :

1. WS wet scrub; DS dry scrub; RB reedbed; WD woodland.
2. CE central England and Wales; NE northern England; SE southern England; SC Scotland; IR Ireland.

Table 1. Changes in captures on CES sites from 1992 to 1993.

Species	ADULTS (VISITS 1-12)				JUVENILES (VISITS 1-12)			
	n	Total 1992	Total 1993	% Change SE	n	Total 1992	Total 1993	% Change SE
Wren	89	418	577	+38* 9.5	89	1293	1626	+26* 6.4
Duncock	88	514	542	+5 5.0	86	859	1082	+26* 8.5
Robin	85	335	414	+24* 8.6	89	1247	1511	+21* 6.3
Blackbird	88	738	719	-3 5.2	86	619	688	+11 8.3
Song Thrush	81	231	273	+18* 10.1	75	171	276	+61* 19.9
Sedge Warbler	57	790	676	-14* 4.7	61	991	863	-13 7.8
Reed Warbler	53	1314	1308	0 4.2	61	1175	1049	-11 7.6
Lesser Whitethroat	51	157	211	+34* 15.7	64	194	343	+77* 24.4
Whitethroat	58	306	372	+22* 10.5	64	720	573	-20* 8.5
Garden Warbler	69	322	332	+3 8.1	75	382	421	+10 14.0
Blackcap	83	649	615	-5 6.0	86	1625	1718	+6 7.3
Chiffchaff	69	213	221	+4 11.5	79	640	860	+34* 12.1
Willow Warbler	86	1082	1177	+8 5.8	89	2027	2228	+10 8.5
Long-tailed Tit	79	275	380	+38* 14.4	78	705	1018	+44* 21.9
Blue Tit	89	439	481	+10 7.8	89	1361	2334	+72* 14.9
Great Tit	84	327	361	+10 8.4	88	1207	1370	+14 10.4
Treecreeper	43	50	51	+2 17.0	71	157	201	+28* 14.5
Chaffinch	77	425	466	+10 13.0	67	365	334	-9 18.3
Greenfinch	50	174	200	+15 17.1	35	70	56	-20 18.7
Linnet	28	139	91	-35 11.6	15	88	42	-52 18.5
Redpoll	16	94	58	-38* 10.6	8	73	39	-47* 12.6
Bullfinch	83	450	442	-2 7.7	74	333	319	-4 12.5
Reed Bunting	56	232	263	+13 9.8	42	175	172	-2 18.5

n = number of paired sites
Total = number of individuals captured at all paired sites
* = significant change at the 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 at CES sites from 1992 to 1993.

PAIRED SITES 1992-1993						
Species	n	Total 1992	%juv 1992	Total 1993	% juv 1993	Diff in % juv
Wren	88	1711	76	2203	74	-2
Dunnoek	88	1373	63	1624	67	+4
Robin	89	1582	79	1925	78	-1
Blackbird	86	1357	46	1407	49	+3
Song Thrush	73	402	43	549	50	+7
Sedge Warbler	53	1781	56	1539	56	0
Reed Warbler	53	2489	47	2357	45	-2
Lesser Whitethroat	49	351	55	554	62	+7
Whitethroat	56	1026	70	945	61	-9 *
Garden Warbler	65	704	54	753	56	+2
Blackcap	84	2274	72	2333	74	+2
Chiffchaff	66	853	75	1081	80	+5
Willow Warbler	86	3109	65	3405	65	0
Long-tailed Tit	70	980	72	1398	73	+1
Blue Tit	89	1800	76	2815	83	+7 *
Great Tit	86	1534	79	1731	79	0
Treecreeper	52	207	76	252	80	+4
Chaffinch	67	790	46	800	42	-4
Greenfinch	28	244	29	256	22	-7
Linnet	18	227	39	133	32	-7
Redpoll	10	167	44	97	40	-4
Bullfinch	75	783	43	761	42	-1
Reed Bunting	43	407	43	435	40	-3

n = number of paired sites
 Total = total number of adults plus juveniles captured
 % juv = percentage of captures which were juveniles
 Diff in % juv = % juveniles in 1993 minus % juveniles in 1992
 (* statistically significant change at 5% level)

The Constant Effort Sites Scheme forms part of the BTO's Integrated Population Monitoring Programme carried out under contract from the Joint Nature Conservation Committee on behalf of English Nature, Scottish Natural Heritage and the Countryside Council for Wales, and under a contract from the Department of the Environment for Northern Ireland.

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