

CES NOW MONITORING CETTI'S WARBLER

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Dawn Balmer reports on changes in the populations and productivity of common songbirds between 2003 and 2004 on Constant Effort Sites (CES).

EL PROGRAMA CES MONITOREA AL RUISEÑOR BASTARDO

Dawn Balmer informa sobre cambios poblacionales y productividad en aves canoras comunes entre 2003 y 2004 según los Sitios de Esfuerzo Constante (CES).

After a below average breeding season in 2003 for many of the common songbirds monitored by CES, ringers headed out with high hopes for a better year. Each year between May and September, trained and enthusiastic ringers visit their well-established sites about once every ten days. Nets are erected in the same place on each visit and run for the same length of time. This standard approach allows us to compare catches from one year to the next and therefore get a good estimate of changes in adult numbers and breeding success. We can also use these captures of ringed and retrapped birds to investigate changes in survival; recent work developing this was described in the last issue of *BTO News*. For most ringers, 2004 was a busy season with many species having a successful breeding year.

UPS AND DOWNS FOR ADULTS

The results we present here come from standardised catches at 105 sites that submitted data for 2004 by early January. As in previous years, the majority of sites were in England (81 sites) with smaller numbers in Scotland (15), Wales (five) and Ireland (four). Table 1 shows the changes on CE sites between 2003 and 2004.

Two factors can influence the level of the adult

population each year: breeding success in the previous year, with subsequent recruitment into the adult population, and over-winter survival. There were statistically significant increases in the numbers of adults caught between 2003 and 2004 for Sedge Warbler, Reed Warbler, White-throat, Blackcap, Willow Warbler and Reed Bunting. Interestingly all these species had a below average breeding season in 2003 which implies over-winter survival must have been good. All, except Reed Bunting, are long-distance migrants, and may have benefited from high rainfall in Africa in 2003. Four species showed a statistically significant decline in the number of adults caught between 2003 and 2004: Dunnock, Blackbird, Song Thrush and Blue Tit.

Dunnock is currently amber-listed on the *Population Status of Birds in the UK* list on the basis of a moderate (25–49%) decline in the UK breeding population in the last 25 years. The Dunnock population fell substantially during the late 1970s and early 1980s (Common Birds Census data) after a period of stability. Since the late 1990s there has been some recovery. The long-term trend in adult abundance on CE sites (Figure 1) shows a shallow decline during the 1980s followed by a shallow increase from the early 1990s. The decline in 2004 may be a knock-

TABLE 1. Changes in captures on CE sites from 2003 to 2004.

Species	Adults	Juveniles	Adult % change vs 2003	Trend	Productivity % change		Trend
	n 2004	n 2004			vs 2003	vs 2003	
Wren	100	101	-7	↑	+15 *	0	↔
Dunnock	98	96	-13 *	↔	+33 *	+10	↔
Robin	96	100	-10	↑	+16 *	-3	↓
Blackbird	100	97	-9 *	↓	+41 *	+10	↓
Song Thrush	85	77	-22 *	↓	+57 *	+40	↓
Cetti's Warbler	11	14	-2	↑	+113 *	+63	↔
Sedge Warbler	64	67	+31 *	↔	+7	+1	↓
Reed Warbler	56	55	+22 *	↓	+1	+4	↔
Lesser Whitethroat	37	45	+15	↓	+14	-12	↔
Whitethroat	63	69	+33 *	↓	+9	+7	↓
Garden Warbler	53	62	+2	↓	+19	+3	↓
Blackcap	90	95	+18 *	↑	+19 *	+4	↔
Chiffchaff	87	90	-3	↑	+39 *	+11	↔
Willow Warbler	84	90	+30 *	↓	-19 *	-7	↓
Long-tailed Tit	77	80	-4	↑	+27 *	-5	↔
Willow Tit	9	14	+41	↓	-45	-50	↔
Blue Tit	97	100	-11 *	↔	+58 *	+16	↓
Great Tit	96	100	-5	↔	+56 *	+24	↓
Treecreeper	41	67	+1	↔	+7	+24	↔
Chaffinch	81	71	-6	↔	+22	+51	↔
Greenfinch	46	42	+1	↑	-6	+8	↓
Goldfinch	44	21	+30	↔	-57 *	-45	↔
Linnet	18	14	-14	↓	-33	-29	↓
Bullfinch	77	62	-3	↓	-4	0	↔
Reed Bunting	62	46	+25 *	↓	+6	-10	↓

n 2004 = number of sites operated in 2004 at which the species was captured

vs 2003 = percentage change between 2003 and 2004

vs 83-03 = % change with respect to 1983-2003 average

* = significance (at the 5% level) of increase/decrease with respect to previous year only

Long-term trend = long-term trend during the period of CES ringing

↑ = long-term trend shows an increase, ↓ = decrease, ↔ = stability

on effect from a poor breeding season in 2003.

Figure 1 also shows the long-term trend in catches of adult Robins. Like the Dunnock, the Robin is a fairly common resident insectivore with a similar breeding ecology. On CE sites, Robins have increased steadily since the inception of CES in 1983. It is interesting to note how similar the pattern in adult numbers is for Robin and Dunnock, particularly in the early years. Declines due to the cold winter of 1990/91 and the poor breeding season in 1996 (reflected in a decline in adult numbers in 1997) can be clearly seen. The long-term trend for Robin from CBC/BBS data shows a large increase since the mid- 1980s. Information from the Nest Record Scheme suggests improved breeding success (reductions in nest failure rates

at both egg and chick stages) although the CES productivity index (Figure 2) shows a shallow decline over the same period. Recent research (see *BTO News* 255) shows that the number of snow days in a year is the key variable that affects survival for Robins and Dunnocks. Long-term survival is tending to increase for Robins but decrease for Dunnocks.

GOOD BREEDING SEASON

Looking back over the weather reports for spring and summer 2004 (*British Wildlife*) highlights what a mixed season it was and how extreme regional variation can be. March started off with high pressure, producing sunny spells and overnight frosts, but became unsettled mid-

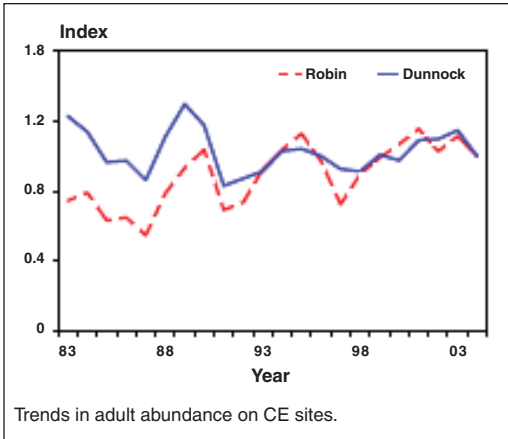


FIGURE 1. Robin and Dunnock adult. abundance.

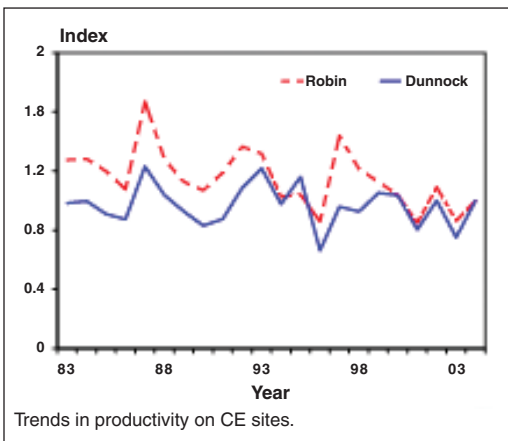


FIGURE 2. Robin and Dunnock productivity.

month. April and May were generally fine mild months but there were periods of very heavy rain and some flooding, particularly in the north and west. The first half of June was generally mild in England and unsettled in Scotland and later a cold front moved in bringing rain and gales to northern Britain. July started off unsettled but, by mid-month, high pressure had moved in over most of Britain, although cold fronts continued in the north. For many, August was the wettest month since 1956 and the floods at Boscastle in Cornwall will be long remembered; Scotland, though, had below average rainfall.

It is somewhat surprising, given the mix of weather, that productivity was quite good for most species. Comparing productivity with that of 2003 (which was below average) 11 species showed a statistically significant increase: Wren,

Dunnock, Robin, Blackbird, Song Thrush, Cetti’s Warbler, Blackcap, Chiffchaff, Long-tailed Tit, Blue Tit and Great Tit. Table 1 also presents a measure of how good or bad the breeding season was in 2004 compared with the average in previous years (1983–2003). This helps us to put the results from the 2004 breeding season into a long-term perspective. For many species, breeding success in 2004 was above average.

Resident insectivores had a good breeding season, compared to 2003, although Robin productivity was slightly below the long-term average. Blackbirds had a slow start to the season with some failure of first broods; subsequent broods were more successful and overall productivity was 10% above the long-term average. Song Thrush had an excellent breeding season with productivity 40% above the long-term average, which is a welcome upturn in fortunes. Despite increasing trends in adult abundance for Chiffchaff and Blackcap, breeding success remains fairly constant with large annual fluctuations.

Only Willow Warbler and Goldfinch showed a statistically significant decline in productivity between 2003 and 2004 and for both species breeding success was below the long-term average. Willow Warbler shows a long-term decline in productivity although in 2002 and 2003 productivity was actually above average. Goldfinch shows quite large annual variation in breeding success and has shown a shallow increase over the last 10 years.

CES MONITORS CETTI’S WARBLER

For the first time CES has been able to monitor Cetti’s Warbler. Sufficient numbers are now caught on CE sites for us to be able to produce an index of adult abundance and productivity. The number of birds caught at present is quite low, with most sites catching just one or two birds. The CES at The Nunnery in Thetford caught its first Cetti’s Warbler in late July; a dispersing juvenile male that stayed around for a few weeks. We will monitor closely the number of sites contributing records and the usefulness of these data. The long-term trend in adult Cetti’s Warbler is presented in Figure 3. They have really taken off since 1998.

Cetti’s Warblers have been expanding their

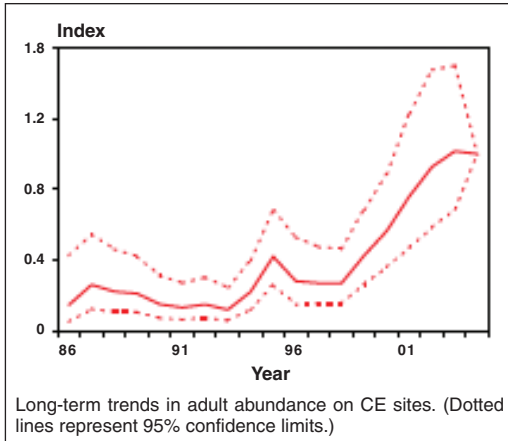


FIGURE 3. Adult Cetti's Warbler abundance.

range over the last few years. Productivity from CES is fairly constant so it is likely that the expansion has been partly fuelled by mild winter weather and good over-winter survival.

Cetti's Warbler is not currently monitored by any other scheme, although their distribution

and numbers are reasonably well covered by county bird reports. It will be interesting to see what happens when (if!) we get a really cold winter like the one in 1981/82.

In 2000 we dropped Redpoll from the list because too few sites caught them to be able to confidently report on their fortunes. Willow Tit is perilously close to dropping off as well. It is pleasing, therefore, to be able to report on a species such as Cetti's doing so well.

FIND OUT MORE AND GET INVOLVED

The CES Scheme is a key component of the BTO's Integrated Population Monitoring programme. Results from CES, together with information from other longrunning BTO schemes can be found in the *Wider Countryside Report* on the BTO website www.bto.org/birdtrends.

To find out more about ringing and how to become a trainee ringer visit the website www.bto.org/ringing or contact the Ringing Unit at BTO Thetford HQ.

ACKNOWLEDGEMENTS

Many thanks to Rob Robinson for overseeing the running of the CES Scheme and for contributing to this report and to Steve Freeman for help with analysis. Jane Waters kindly entered CES data received in a noncomputerised format.

The Constant Effort Sites Scheme was undertaken within the Partnership between the BTO and JNCC as part of its programme of research into nature conservation.

THANK YOU

As with all ongoing BTO projects, the success of the CES Scheme depends entirely on the dedication, enthusiasm and skill of its volunteers. We are grateful to all the ringers and helpers who participated in the scheme in 2004, some of whom are listed here.

Aylesbury Vale RG, Barnsley RG, Brandon RG, John Calladine, Jim Cobb, Dartford RG, Durham RG, Durham Dales RG, Dave Francis, Ian Grier, Steve Hales, Chris Harris, Keith Herber, Chris Hughes, Bob Husbands, Tom Kittle, Simon Lane, Market Weston RG, Doug Miller, Natural History Society of Northumbria, Newbury RG, North Lancashire RG, Northumbria RG, Nunnery RG, Runnymede RG, Rutland Water RG, Chris Sharpe, Brian Shaw, Roger Short, Bob Swann, Nick & Gill Tardivel, Tay RG, Bill Taylor, Tring RG, Chris Wernham, Mark Woodhead, Wychavon RG.

(RG= Ringing Group).