

## Catching up in 2010!

**After a run of poor years, we finally had a season that was almost ideal, at least at the majority of sites, with many enjoying a fantastic year of very high catches...**

**T**he 2010 breeding season was another good one for many birds following two poor summers in 2007 and 2008. Twelve species showed significant increases in adult numbers compared to the average over the previous five years. The harsh winter took its toll on a number of resident species, however, with six showing significant declines in abundance.

Datasets were received from 120 sites in 2010, providing the best coverage since 2004 (Table 1, see page 2), with three additional sites still to submit information. This is a fantastic effort and we're very grateful to all who took part in the CES Scheme last year.

As the fortunes of species such as Willow Warbler vary from country to country, achieving good coverage across Britain & Ireland is vital if results are to be representative. It is therefore



**BUMPER BREEDING SEASON**  
See Page 3

**In 2010, Chaffinch productivity was the highest recorded since the start of CES in 1983**

very encouraging that the number of sites operating in Wales has almost doubled over the last five years. Such increases have enabled us to develop regional CES trends, and you can see the results on pages 8 & 9. This year, for the first time, we have also produced adult survival trends, displayed on pages 6 & 7, which will form part of the annual reporting for the Wider Countryside Report ([www.bto.org/birdtrends](http://www.bto.org/birdtrends)).

**TABLE 1.** Number of CE sites by country for the last five years.

Species	England	Scotland	Wales	Rep. of Ireland	N. Ireland	Total
2010	90	15	11	3	1	120
2009	89	14	8	4	1	116
2008	91	15	8	4	1	119
2007	87	15	8	4	3	117
2006	85	15	6	3	3	112

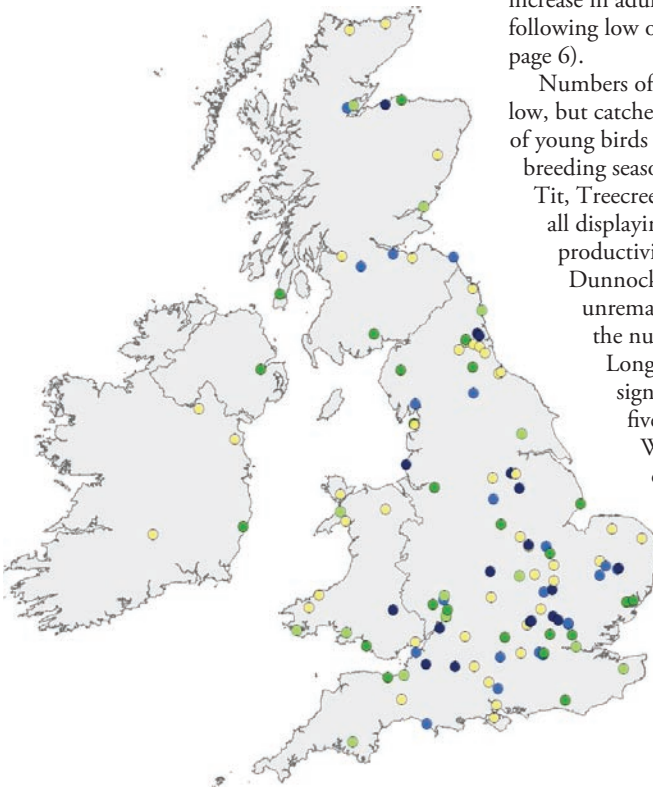
# 2010 CES Results

**Resident numbers fell but migrants returned in good numbers, with most species experiencing a productive breeding season.**

The 2010 season, as summarised by the results in Table 1, was notable for a number of reasons, not least the severe winter of 2009/10, the coldest for 30 years in many parts of Britain & Ireland. Despite the cold start, many species experienced an excellent breeding season, resulting in higher than average catches at many sites.

Unsurprisingly, adult abundance of a number of resident species, including Wren, Dunnock, Robin, Song Thrush, Chaffinch and Greenfinch, fell significantly when compared to the average over the previous five years. Prolonged periods of frozen ground and snow cover will have greatly reduced feeding opportunities for most of these species, but outbreaks of *Trichomonosis*, associated with national population declines in recent years (Robinson *et al* 2010), are a more likely cause of the fall in Greenfinch numbers. Somewhat surprisingly given its small size, the only resident species to display a significant increase in adult abundance was Long-tailed Tit, following low over-winter survival in 2009 (see page 6).

Numbers of resident species may have been low, but catches were bolstered by an abundance of young birds following a very productive breeding season, with Robin, Blue Tit, Great Tit, Treecreeper, Chaffinch and Greenfinch all displaying significant increases in productivity (Table 1). In contrast, Wren, Dunnock and Song Thrush all had unremarkable breeding seasons, and the number of young produced by Long-tailed Tit and Blackbird was significantly lower than both the five-year and long-term averages. While there were no significant changes for Willow Tit, adult abundance was greatly reduced;



**FIGURE 1.** Location of CE sites operated in 2010.

- < 5 years
- 6 – 10 years
- 11 – 15
- 16 – 20
- 21 – 30

**TABLE 1.** Changes in captures on Constant Effort sites in 2010

Species	Adult Numbers		Productivity	
	2010 vs five-year average	2010 vs five-year average	2010 1983-2009 average	Smoothed trend 1983-2009
Wren	<b>-22%</b>	+6%	+3%	-4%
Dunnock	<b>-13%</b>	-1%	-3%	-6%
Robin	<b>-26%</b>	<b>+18%</b>	+12%	-13%
Blackbird	-5%	<b>-20%</b>	<b>-19%</b>	-33%
Song Thrush	<b>-14%</b>	-12%	-13%	-41%
Cetti's Warbler	+8%	-3%	-3%	N/A
Sedge Warbler	+5%	+6%	-1%	-56%
Reed Warbler	+9%	<b>+30%</b>	<b>+29%</b>	+30%
Lesser Whitethroat	<b>-23%</b>	<b>+41%</b>	+38%	+57%
Whitethroat	<b>+29%</b>	+1%	-5%	+20%
Garden Warbler	-9%	<b>+34%</b>	+20%	-43%
Blackcap	<b>+11%</b>	<b>+11%</b>	+6%	-17%
Chiffchaff	+8%	<b>+27%</b>	<b>+24%</b>	-9%
Willow Warbler	-4%	<b>+38%</b>	<b>+32%</b>	-21%
Long-tailed Tit	<b>+17%</b>	<b>-13%</b>	<b>-13%</b>	+8%
Willow Tit	-29%	+60%	+29%	-55%
Blue Tit	+2%	<b>+69%</b>	<b>+49%</b>	-50%
Great Tit	+2%	<b>+40%</b>	<b>+28%</b>	-30%
Treecreeper	+1%	<b>+43%</b>	+26%	+7%
Chaffinch	<b>-16%</b>	<b>+45%</b>	<b>+56%</b>	+101%
Greenfinch	<b>-38%</b>	<b>+44%</b>	<b>+63%</b>	-36%
Goldfinch	+20%	+22%	+11%	-66%
Bullfinch	+10%	+8%	+10%	+4%
Reed Bunting	-11%	+17%	+6%	-47%

- **Changes in adult numbers shown compare the 2010 season with the running five-year average (2005–09).**
- **Productivity in 2010 is also compared to the long-term average since the scheme began in 1983.**
- **The smoothed trends indicate the overall productivity trend since 1983, as shown in the Wider Countryside Report ([www.bto.org/birdtrends](http://www.bto.org/birdtrends)). Significant changes are coloured and printed in bold.**

productivity was high, however, giving some hope that numbers might be maintained.

Migrants returned in number, with adult abundance of Reed Warbler, Whitethroat and Blackcap all significantly higher than over the previous five years, although there were significantly fewer Lesser Whitethroats. Six species of warbler displayed a significant increase in breeding success and productivity reached record levels for Reed Warbler.

### Reference:

**Robinson, R.A., Lawson, B., Toms, M.P., Peck, K.M., Kirkwood, J.K., Chantrey, J., Clatworthy, I.R., Evans, A.D., Hughes, L.A., Hutchinson, O.C., John, S.K., Pennycott, T.W., Perkins, M.W., Rowley, S.A., Simpson, V.R., Tyler, K.M. & Cunningham, A.A. (2010)** Emerging infectious disease leads to rapid population declines of common British birds. *PLOS One* 5(8): e12215. doi:10.1371/journal.pone.0012215 Open access: [www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0012215](http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0012215)

# CES feedback

If you have any questions you would like answered, send an email to [ces@bto.org](mailto:ces@bto.org).

## More rare species needed for CES

Thanks to your efforts, the current network of CE sites allow us to monitor trends in productivity and adult abundance for 24 species. The latest addition to this list is **Cetti's Warbler**, a species that has increased dramatically in number and range over recent years. Unfortunately, dwindling numbers mean that abundance and productivity trends for **Linnet** can no longer be calculated, and we are also in danger of **Willow Tit** and **Lesser Whitethroat** following suit should captures become any less frequent.

Conversely, a small increase in the number of adults caught could see **Nightingale**, **Marsh Tit** and **Yellowhammer** added to the list (and Linnet reinstated). It is particularly important to try to incorporate these species in the CES Scheme if possible, as they have all demonstrated recent population declines and sample sizes collected by other demographic monitoring surveys are relatively small.

Locations in which any of these species are present, preferably in good numbers, are therefore a priority for the establishment of new CE sites.

## 2011 preliminary reporting

We are very grateful to all who were in a position to submit their data for inclusion in the preliminary CES trends in 2010, despite being swamped by above average catches. These initial figures were very well received and we hope to repeat this analysis in 2011, providing the first evidence of the impacts of the cold winter and prolonged spring drought on resident and migrant birds. To do this, we need your help – the minimum number of sites required for the preliminary figures is 70, and we are hoping to achieve this by **15 October**.



**Q** Where do Scottish Song Thrushes spend the winter?

**A** Many thanks to **Iain Livingstone of Clyde RG** for providing details of two recent Song Thrush recoveries in Ireland. These double the previous number of birds Clyde RG have recorded as making this journey and may indicate where birds departing in August are heading.

**RT24798 5F** Strathclyde Country Park, Motherwell  
14 June 2008.

Killed by cat 4 November 2010, Crossmolina, Mayo,  
Eire 873 days, 387 km.

**RS08495 6M** Strathclyde Country Park, Motherwell  
21 June 2009.

Taken by predatory bird 26 January 2010, Kells,  
Meath, Eire, 219 days, 294 km

Of the 102 Song Thrush recoveries from the Strathclyde region, the majority have been found in the same region; however, 15 went to Ireland, two to northern England and three elsewhere in Scotland. The recent series of hard winters may have resulted in more birds moving greater distances to reach milder regions.

## 2010 season at Barry Links CES 754 (Angus) – Peter Ellis

Another trying year in Angus with our third successive wet summer, although numbers were generally up on what was a very poor year in 2009. My CE site is in one corner of the famous Carnoustie Championship Golf Course with net rides around old robber pits dug historically to provide sand for the bunkers – high water levels necessitated the wearing of waders on the majority of visits this year! The pits are now surrounded by willow and birch scrub and there is a very small reed bed.

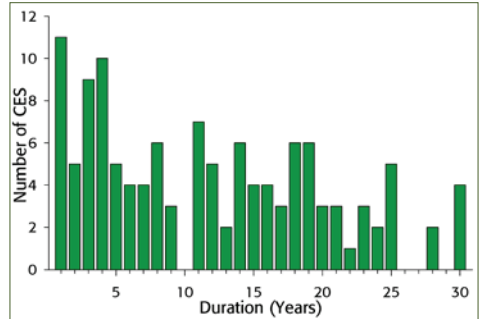
My principal species is Willow Warbler, followed by Lesser Redpoll, Robin and Reed Bunting. Willow Warbler numbers picked up after a poor year in 2009 and I had my first control this year when AHA068, a 4F ringed on 27 June 2006, was recaptured at Portland Bill on 2 May 2010. Lesser Redpoll numbers vary greatly from year to year but were slightly up after their lowest level in 2009 – the mostly juvenile birds disperse and give me some interesting controls, with L414618 ringed as a 3J on the last visit of the year being caught seven weeks later at Easter Inch Moss, Blackburn, Lothian. My longest Redpoll movement was that of V198893, another juvenile, caught at Sandwich Bay, Kent in October 2007. Robin abundance increased after a couple of poor years, as did that of Blue Tit and Great Tit, whilst Bullfinch numbers were more than double their previous highest level and Sedge Warbler recovered well after catching just one bird in 2009.

Reed Bunting numbers continued to decline, however, and were at their lowest ever level for the site, as were those of Wren. Blackbird abundance has also fallen steadily over the past four years.

A bonus of the site is that I have fun catching Sand Martins in non CES nets as they feed low over the shallow pools, mainly in June. Just over 100 birds per annum have been caught in each of the past three years, giving movements to and from the local colony, between other colonies and roost sites in Angus and Perthshire and also Icklesham in Sussex.

**Q** What is the current life span of a CE site?

**A** The life span of a CES varies from one to a staggering 30 years (Fig 1); although CE ringing formally started in 1983. Also 70% of sites have operated for five or more years.



**FIGURE 1.** Operational life span of CE sites active in 2010.

## Do you need any extra help with your CES?

**Have you considered using the BTO Ringers' forum? This is a good way to make contact with other local ringers in your area who may be able to assist at your site.**

**To join the BTO ringers' forum please send an email to [btoringers-subscribe@yahoo.com](mailto:btoringers-subscribe@yahoo.com) (including your name and permit no) or please contact the CES organiser ([ces@bto.org](mailto:ces@bto.org)) who will be able to approach other local ringers.**



# CES survival trends

## How do winter conditions affect resident and migrant survival rates?

One of the main strengths of CES is the ability to examine a number of demographic parameters simultaneously, which can be used in combination to identify the factors responsible for annual changes in population sizes. While conditions on the breeding grounds might be expected to influence the productivity of both resident and migrant species, survival rates will also be affected by environmental pressures experienced on the wintering grounds and during the migratory journey. As CES species utilise a vast array of wintering locations, ranging from the CE site itself to sub-Saharan Africa, we might therefore predict substantial variation in survival rate trends.

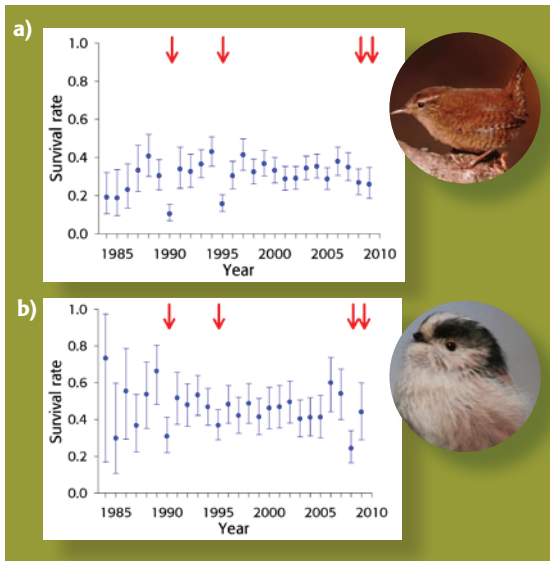
In 2009, we produced survival estimates for the 21 CES species where sufficient data were

available, although the small sample sizes for some species in the early years mean that they have relatively wide confidence limits. The survival trends were updated in 2010 and will now form a regular part of the annual reporting process, through their inclusion in the Wider Countryside Report (WCR) ([www.bto.org/birdtrends](http://www.bto.org/birdtrends)) alongside trends in adult abundance and juvenile:adult ratios.

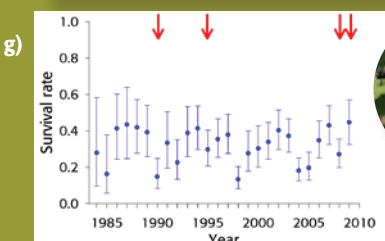
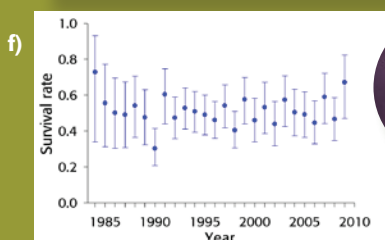
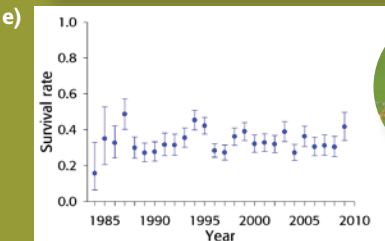
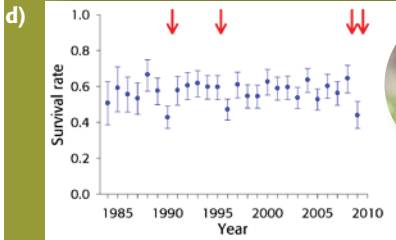
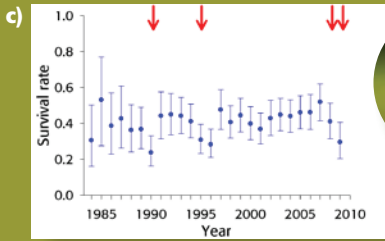
Extremely cold, wet winter conditions are likely to have the greatest effect on survival of the smaller residents such as Wren and Long-tailed Tit. The results presented in Figure 1 demonstrate that the probability of survival of both species is indeed reduced by severe winters (indicated by red arrows), particularly those of 1990/91 and 1995/96. However, while the survival of Long-tailed Tit was significantly reduced by adverse weather experienced during the 2008/09 winter, falling to the

minimum recorded since the scheme began, it did return to more average levels over the winter of 2009/10, despite conditions appearing equally unsuitable. While the survival rate of Wren also fell in these two years, the impact was far less than that of the extreme winters in the 1990s.

Robin and Blackbird also had reduced survival rates during harsh winters, particularly those of 1990/91 and 2009/10. Interestingly, both



**FIGURE 1.** Annual adult survival estimates for selected species. Red arrows indicate cold winters. a) Wren (Tommy Holden), b) Long-tailed Tit (Jill Pakenham), c) Robin (John Harding), d) Blackbird (John Harding), e) Sedge Warbler (Dawn Balmer), f) Garden Warbler (Paul Standcliffe) and g) Chiffchaff (John Harding).



species also show reduced survival after the 1996/97 winter, which was not noted for its severity. Both species are early breeders, however, and prolonged dry conditions at the end of winter and during the start of the breeding season may have led to reduced prey availability, potentially lowering survival prior to, and during, the breeding season.

Patterns in annual survival rates of migrants are more varied, probably reflecting the conditions at their different wintering sites. Survival of sub-Saharan migrants, is likely to correlate positively with Sahel rainfall, which stimulates vegetation growth and thus leads to greater food availability.

The mean survival rate for Sedge Warbler in 2010 was the fourth highest since the start of CES, bringing a welcome increase in captures to this species at many sites following a run of relatively poor years. Survival rates for Garden Warbler and Chiffchaff also reached near record levels in 2010. Interestingly, after the severe 1990/91 winter the survival rates for both of these species were at or near their lowest levels, possibly due to the resultant retardation of vegetation growth, limiting suitable nesting opportunities and/or reducing prey availability.

Although it is difficult to predict accurately the effects of conditions in the wintering areas, we might expect that, following a productive breeding season and a relatively average winter in terms of African rainfall, migrants are likely to return in good numbers in 2011. However, the effect of heavy snow cover in some parts of Britain and Ireland, combined with another cold winter and a dry start to the breeding season, may cause local population reductions for a number of resident species. Only the results at end of the 2011 season will tell.

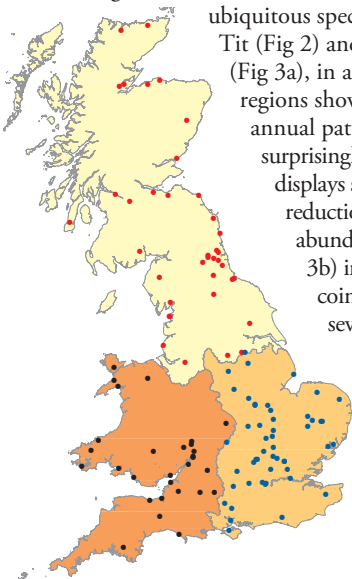
# CES regional trends

## How do abundance and productivity vary across Britain?

The data from the network of CE sites provide us with a very detailed national picture of species' fortunes. However, with such a wide geographic spread of CE sites and regional variation in the ranges of some species, the overall trends don't always reflect what is happening more locally.

In 2011, for the first time, we are able to generate regional trends for adult abundance and productivity, exploring the spatial variation that may arise from differences in habitat and weather conditions. Ultimately, the numbers of available CE sites and their geographical distribution have dictated the definition of the regions and separate trends have been produced for three areas (Fig 1): West (black), East (blue) and North (red). Regrettably there were too few CE sites in Ireland to constitute a separate region.

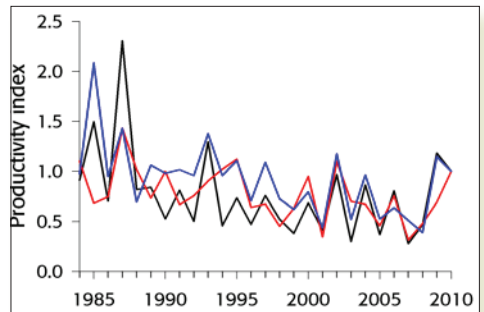
Breeding success trends for the most ubiquitous species, Blue Tit (Fig 2) and Blackbird (Fig 3a), in all three regions show similar annual patterns. Not surprisingly, Wren displays sharp reductions in adult abundance (Fig 3b) in all regions, coinciding with severe winters,



**FIGURE 1.** CES sites and regions.

as does Blackbird but to a lesser extent.

For those species currently on the increase, such as Blackcap, there has been a consistent upward trend in adult abundance (Fig 3c) in all regions, but there has been a steeper increase in the East and North over time. However, though showing similar variation among years,



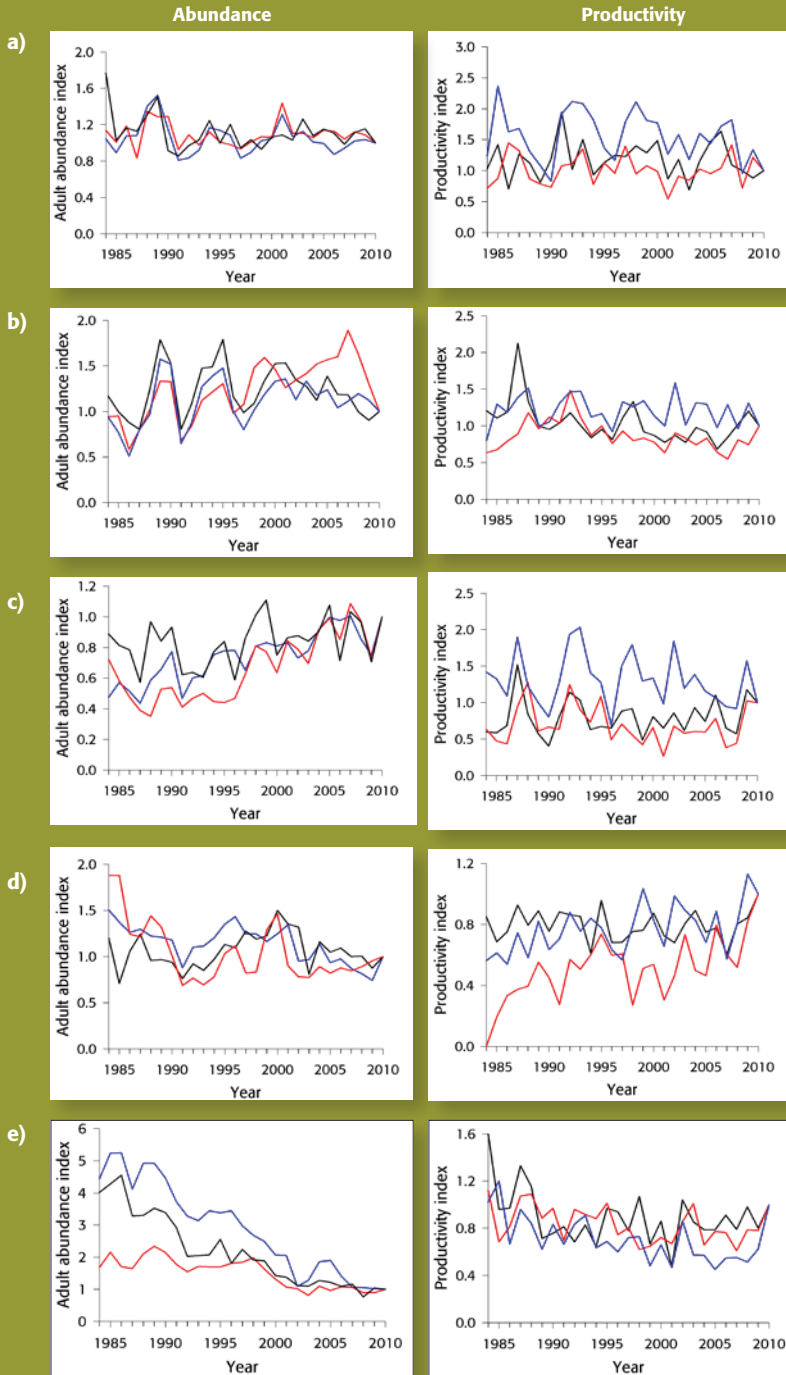
**FIGURE 2.** Blue Tit productivity has declined over time.

productivity remains unchanged through time. Reed Warbler (Fig 3d) is another interesting case, where the breeding range has been steadily pushing northward; adult abundance trends in all three regions have shown similar annual 'ups and downs'. Productivity tells a very different story, with a shallow increase in the West and East, as compared with a more marked increase in the North. Could an increase in breeding success in the North be related to the population expansion?

Willow Warbler is a prime example of a species in decline, where adult abundance (Fig 3e) has reduced drastically in all regions, particularly the East, but numbers have still halved even in the 'stronghold' of the North. In contrast, productivity, as measured by CES, appears to be relatively stable.

With the addition of more sites in future, the precision of these regional trends will be further improved.





**FIGURE 3.** Regional abundance and productivity trends for: a) Blackbird b) Wren c) Blackcap d) Reed Warbler e) Willow Warbler.

Regions: Figures 2 & 3 North (red line), east (blue lines) and west (black lines)



Long-tailed Tit

KEITH CLOWES

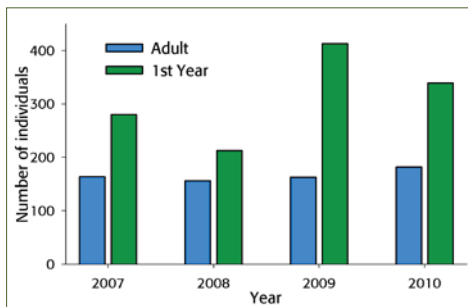
## How Kintbury compares to the annual CES results

**John Swallow (Newbury RG) compares captures at his site with those recorded nationally.**

**C**ES ringing on a wet Alder woodland site on Benham Estate near Kintbury, Berkshire began back in the summer of 2007. I use the term summer here loosely - as you may remember it was very wet, so much so that the trial net rides of 2006 quickly became water-logged and finally disappeared underwater. The summer of 2008 was not much better and a number of 'bridges' had to be constructed along some of the net rides to reduce the amount of wading!

While biological monitoring typically requires long term effort and there are few 'quick wins', I have been pleasantly surprised to see how quickly the information collected is beginning to reveal worthwhile trends after relatively few years.

After the two 'lean years' of 2007 and 2008, productivity really jumped in 2009. Figure



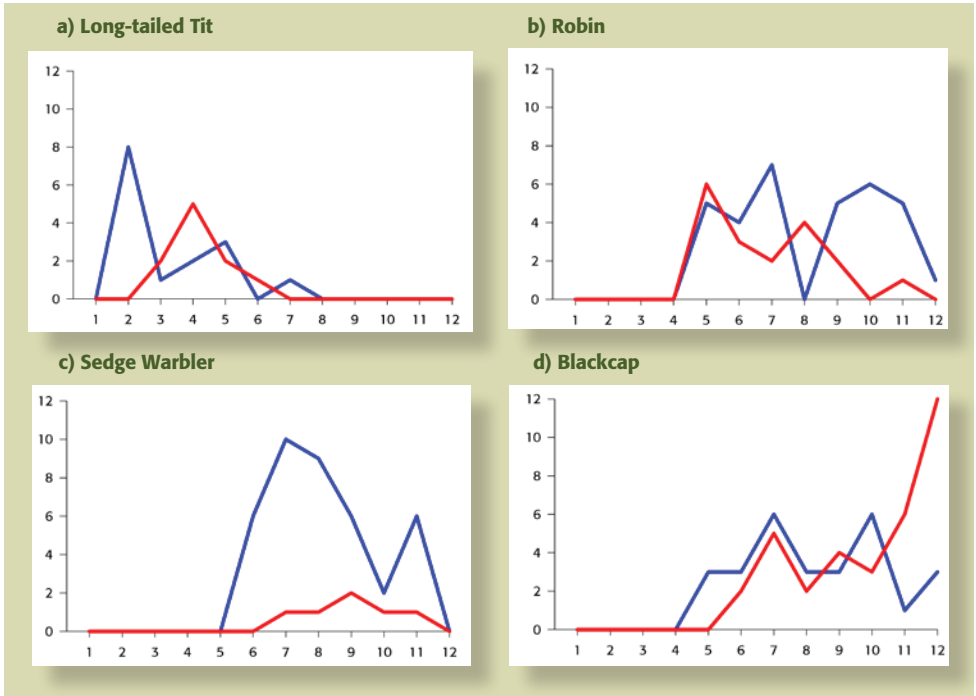
**FIGURE 1.** Annual capture total of adult and first-year birds at Kintbury between 2007 and 2010.

1 shows that, overall, the number of adults caught remained relatively constant, in marked contrast to the number of young which increased dramatically in 2009 and was again high, if falling back, in 2010.

I noticed in 2009 that the timing of juvenile catches reflected their fledging date, such that Long-tailed Tit (Fig 2a) were the first to appear with the young of other residents, such as Robin (Fig 2b), caught a few visits later. Unsurprisingly, migrants like Sedge Warbler produced offspring later still (Fig 2c); interestingly there were hints of a 'second peak' that may be due to the occurrence of second broods or perhaps to post-breeding dispersal.

I had noticed from nest recording of breeding Blue and Great Tit at another site in 2010 that they were a few weeks later than 'normal', perhaps due to a prolonged period of cold weather and northerly winds at the start of the breeding season. This may also have delayed the appearance of juvenile Long-tailed Tit in 2010 compared to 2009 (Fig 2a). Especially clear in the 2010 season was a late peak in the number of juvenile Blackcap (Fig 2d) caught towards the end of the CES period. This trend continued into September, producing our largest ever catches as these birds moved through the Kennet river valley.

While 2010 was a pretty good year, not all species increased and some actually decreased in abundance. I was interested to know if trends



**FIGURE 2.** Catch totals of new juveniles per visit in 2009 (blue line) and 2010 (red line).

on this site were merely local or reflected the national picture (Table 1) I wasn't expecting all trends seen at our CES to be reflected nationally and the differences are potentially just as

interesting as the similarities. Willow Warbler is one of the species that shows a very different trend at Benham than it does nationally. Perhaps the local results reflect the recent southern decline of this species, while the national figure is dominated by more northerly sites (especially Scotland), of which numbers are increasing.

**TABLE 1.** Breeding productivity in 2010 at Kintbury vs Britain & Ireland

	Kintbury 2010 vs 2009	Britain & Ireland 2010 vs five-year average
Blue Tit	+ 24%	+ 63%
Wren	+ 14%	+ 14%
Blackbird	- 86%	- 21%
Song Thrush	- 76%	- 21%
Dunnock	- 63%	- 4%
Robin	- 44%	+ 22%
Long-tailed Tit	- 29%	- 12%
Great Tit	- 16%	+ 37%
Blackcap	+ 21%	+ 11%
Sedge Warbler	- 85%	+ 14%
Willow Warbler	- 33%	+ 42%

The 2010 season has been a good one in many other ways. We have completed four years, which means including a couple of repeat visits, that we have reached our half century of visits. Notable events included the capture of two foreign Sedge Warbler controls on our first visit on 1 May. Results are back for Z53246, ringed as a first year on 28 July 2009 during its first migration south at Guipuzcoa, Spain some 895 km due south. The next most eventful session was on 24 July when we had a peak catch of 107 birds, ensuring a busy morning's ringing.

Thanks to the Benham Estate for access permission and all the ringers who have assisted!

# 28 CES years at Tewinbury

**Robin Cole describes the role of his CE site in monitoring the local bird population at Tewinbury nature reserve.**

It is always a challenge to be able to determine which factors in the environment may have caused changes in the populations of species. Weather patterns, climatic warming or habitat change could all be involved and it is often guesswork. One of the pre-requisites of monitoring population changes accurately is to collect standardised data. At the Herts & Middlesex Wildlife Trust is Tewinbury Nature Reserve where we have local examples of both a long-term population monitoring programme and a long-term programme of habitat management, allowing the effects of management to be quantified.

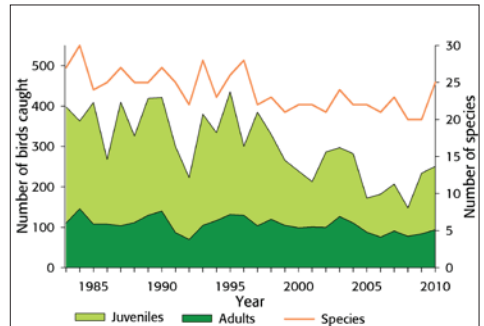
The CE site at Tewinbury has been monitoring the breeding bird population size and productivity since 1983. By holding those operating conditions constant, that might affect catch sizes, the comparison of the numbers of adults caught in consecutive years provides an index of changes in the population. Similarly, the fluctuations in breeding success can be assessed by comparing the ratio of juveniles to adults caught in successive years.

Management of the wetland habitat at Tewinbury has varied over the years. Up to 2005 it was carried out by volunteers using hand tools with the aim of creating a small lagoon and subsequently maintaining a constant mix of willows, reed bed and open water. Since then, heavy machinery has been used to produce more open water, reducing the proportion of willow. This work was carried out by contractors and funded by Thames Water Utilities and the Environment Agency to deliver the Water Level Management Plan 2005–06. This included reed bed lowering and raising the water level.

Two changes in water level have in fact

been implemented over the 28-year period of operating the CES. During the late 70s and early 80s, the reed bed had partly dried up because the retaining wall of the lagoon had been breached. This was repaired in 1988, raising the water level by almost three feet at the lower end of the lagoon. In 2006, a further increase, of approximately one foot, was achieved by repairing a length of the lagoon retaining wall.

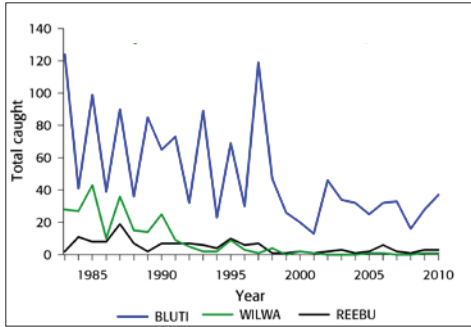
The total numbers of birds caught and species total each year during CES bird ringing are summarised in Figure 1, which shows that the catch totals for both adults and juveniles have declined over the period of operation; consequently the number of species caught has also declined, though 20 core species comprise over 90% of the annual catches.



**FIGURE 1.** Trends in annual catches at Tewinbury

Although almost all species totals have fallen, including that for Blue Tit, the decline in the Willow Warbler is most dramatic (Fig 2), consistent with the trend of decline in the south of England, and not therefore likely to be due to habitat management. In the case of the water dependent species, the small number of Reed Bunting has fallen to almost nil, while Kingfisher totals have remained stable but the number of Reed Warbler caught has tripled (Fig 3), though the latter effect is not consistent with the national CES trend.

The annual changes in adult and total

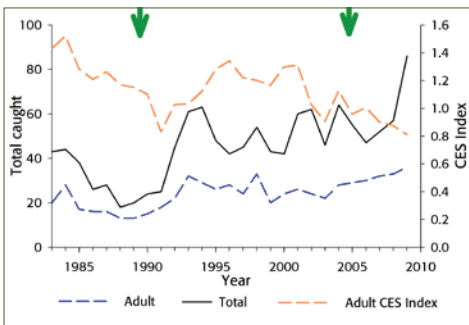


**FIGURE 2.** Annual capture totals of Blue Tit, Willow Warbler and Reed Bunting.

numbers of Reed Warbler caught on the Tewinbury CE site fluctuate but the comparison with the national index for adults shows two big increases (green arrows) compared to the national decline, the first in 1999, and the second in 2005/6. These are the occasions when the water level was raised, thereby invigorating the reed beds.

The ratio of the juvenile to adult Reed Warblers has also increased recently to 1.5 compared to a long-term average at Tewinbury of 0.9, reflecting improved breeding success. The increased adult population and the breeding success combined to make 2009 a record year both for adults (34) and juvenile birds (51).

Interestingly other reed bed CE sites in



**FIGURE 3.** Annual capture totals of Reed Warblers at Tewinbury and CES abundance index.

Hertfordshire have reported even higher breeding success, notably Marsworth (1.9) and Rye Meads (2.2), though these are bigger and perhaps do not ‘leak’ young birds in the way that smaller reed beds like Tewinbury do. On the other hand, we may well have not yet seen the full effect of the recent management, as the above figure suggests the response of the reed bed has not yet stabilised and we may see a consolidation in numbers over the next couple of years. The lack of recovery in the local Reed Bunting population may suggest that factors other than the provision of good breeding habitat may be affecting this species.

While catching effort is under the control of the ringer, large-scale habitat management may not be. However, Herts & Middlesex Wildlife Trust is working with landowners to improve habitats throughout the Mimram Valley, where Tewinbury is located, as part of their ‘Living Landscape’ initiative. The impacts of such work on Reed Warbler numbers at Tewinbury illustrate the need for large numbers of CE sites to operate across Britain & Ireland, thus ensuring that the figures produced are representative of national, and not local, trends.



JOHN HARDING

# CES Catching rates and efficiency

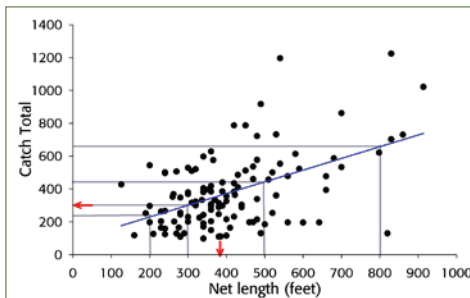
## How does your CE site compare to the rest?

Two of the most frequent ‘practical’ questions from ringers considering a CES are ‘How many nets do I need?’ and ‘How many birds do I need to catch?’ Then there are the related questions from existing CES ringers concerning ‘Who catches the most birds?’, ‘Who uses the most netting?’ and, most interestingly, ‘Which site is most efficient?’ (*ie* which site catches the most birds for the length of netting used, rather than how ringing on the site is organised!).

In an attempt to answer most of these questions, we’ve used the 2010 data available for 116 CE sites where the majority of visits have been completed.

## How much netting do you need to use?

The amount of standard netting used in 2010 (Fig 1), ranges from a minimum of 100 feet (Whittle Wood) up to a maximum of 960 (Wraysbury Soft Rush), with a median of 375 feet, indicated by the lower red arrow.



**FIGURE 1.** Relationship between net length and birds caught for all CE sites operating in 2010. Median catch size shown by left red arrow and median net length indicated by lower red arrow.

## How many birds (individuals) do I need to catch per year?

Catch totals in 2010 (Fig 1) range from a minimum of 97 (Kimpton Mill) to a maximum of 1,223 (Teifi, Cilgerran) with a median of 385 (Fig 1, left red arrow). Catch totals for the top 25 sites in 2010 are given in Table 1, while the top two sites in terms of efficiency are listed in Table 2.

Figure 1 also gives an indication of the number of birds you might expect to catch for a given amount of netting. The blue line indicates the general relationship between the amount of netting used and birds caught. For example, if you use 200 feet of net you might expect to catch 225 birds, whereas if you use 500 feet of

**TABLE 1.** Top 25 CE sites by catch totals 2010

CES No	Site	Catch total	Net length
813	Teifi, Cilgerran	1,223	830
834	Cors Ddyga	1,195	540
420	Foxglove Covert	1,020	914
827	Much Marcle	915	490
276	Bainton	860	620
742	Crossness	786	450
154	Wilstone Reservoir	786	450
229	Finningley Park	731	540
330	Wraysbury Soft Rush	729	960
807	Birtley STW	721	515
732	Pitsford Reservoir	701	810
395	Ashleworth Ham	628	360
152	Cowleaze Wood	620	708
800	West Everleigh Down	612	580
808	Loch of Leys	596	340
836	Kilpaison Marsh	585	680
354	North Haugh	576	385
786	Waterhay, Ashton Keynes	575	540
10	Llangorse Lake	574	366
728	Gosforth Park NR	552	540
309	Williamthorpe	543	480
812	Rowlands Gill STW	535	480
796	Hinderclay Fen	532	810
788	Birchwood, Chard	528	600
774	The Wilderness, Kintbury	521	590

**TABLE 2.** Top 25 CE Sites by catching efficiency 2010

CES No	Site	Catch total	Net length	Birds/foot
834	Cors Ddyga	1,195	540	2.21
335	Castlemorton Common	501	240	2.09
783	Llyn Ystumllyn	495	240	2.06
827	Much Marcle	915	490	1.87
808	Loch of Leys	596	340	1.75
742	Crossness	786	450	1.75
154	Wilstone Reservoir	786	450	1.75
395	Ashleworth Ham	628	360	1.74
829	Ty Rhyg, Rosebush	508	310	1.64
833	Mickley Football Field	519	320	1.62
10	Llangorse Lake	574	366	1.57
354	North Haugh	576	385	1.50
766	Lower Parting	295	200	1.48
813	Teifi, Cilgerran	1,223	830	1.47
807	Birtley STW	721	515	1.40
276	Bainton	860	620	1.39
229	Finningley Park	731	540	1.35
115	Big Waters NR	505	380	1.33
828	Dinton Pastures	378	300	1.26
703	Five Bells	347	280	1.24
771	Pensthorpe	368	300	1.23
303	Priory Park	265	220	1.20
389	Little Crosthwaite	417	360	1.16
273	River Almond, Turnhouse	368	320	1.15
831	Bronbannog	511	450	1.14

netting, catches are likely to average around 440 birds and 800 feet of netting would give you around 650 birds.

As a guideline, participants should aim to catch upwards of 150 birds on the main visits during the CES season, which would typically require just over 200 feet of netting, although this will vary depending on habitat and density of the target species. The larger the number of captures, the more robust the trends that can be produced from the data, but for those operating sites where manpower is limited, or there are relatively few options to place nets, smaller catches still have the potential to provide sufficient information for CES.

## CES Birthdays

### 30 years

Llangorse Lake (Powys, Jerry Lewis), Treswell Wood (Notts, Chris du Feu), Kimpton Mill (Herts, Tom Kittle) & Marsworth (Herts, Lynne Lambert).

### 25 years

Redgrave & Lopham Fen (Norfolk, Stephen Baillie), Big Waters Nature Reserve, Seaton Burn (Tyneside, Alan Johnston), Cowleaze Wood (Wilts, Iain Grier), Wilstone Reservoir (Herts, John Taylor) & Chew Valley (Avon, Alan Ashman).

### 20 years

Winchester College (Hants, Wilf Simcox), Bainton (Cambs, Chris Hughes) & River Almond, Turnhouse (Lothian, Andy Coates).

### 15 years

Hilfield Park Reservoir (Herts, Jack Fearnside), Ferry Meadows (Cambs, Daniel Piec), Witton le Wear (Durham, John Hawes), Bedfont Lakes (London, David Harris) & Much Marcle (Worcs, Mervyn Greening).

### 5 years

Saltholme RSPB (Cleveland, Derek Clayton), Longstock, Leckford Estate (Hants, Martin de Retuerto), Pensthorpe (Norfolk, Jed Andrews), Thurles (Tipperary, Alex Copland), Waterhay & Ashton Keynes (Wilts, John Wells).

### New in 2010

Cors Ddyga (Anglesey, Steve Dodd), Middleton Nature Reserve (Lancs, Peter Marsh), Balscote Quarry (Oxon, Andy Turner), Dinton Pastures (Berks, Tim Alexander), Ty Rhyg, Rosebush (Dyfed, Paddy Jenks), Bronbannog (Clwyd, Ian Spence), Drayton Beauchamp (Bucks, Stuart Downhill), Mickley Football Field (Northumberland, David Leat), Five Arches Pit (Cambs, Alan Brimmell), Bure Marshes (Norfolk, Iain Barr), Newham NNR (Northumberland, Philip Hanmer) & Jersey Camp, Newtown (IOW, Elaine Rice).

## 2011 CES Visit dates

Visit no	First date	Last date	No of days
1	Sunday 1 May	Tuesday 10 May	10
2	Weds 11 May	Saturday 21 May	11
3	Sunday 22 May	Tuesday 31 May	10
4	Weds 1 June	Saturday 11 June	11
5	Sunday 12 June	Tuesday 21 June	10
6	Weds 22 June	Saturday 2 July	11
7	Sunday 3 July	Tuesday 12 July	10
8	Weds 13 July	Saturday 23 July	11
9	Sunday 24 July	Tuesday 2 August	10
10	Weds 3 August	Saturday 13 August	11
11	Sunday 14 August	Tuesday 23 August	10
12	Weds 24 August	Saturday 3 September	11

## CES Reporting deadlines

Virtually all the 2010 CES data submissions were received before the end of the year, a fantastic effort that is very much appreciated. Rapid submission of data allows us to process the information and produce the results and feedback promptly, which both increases the effectiveness of CES as a conservation monitoring tool and improves the chances of the results being picked up by the media, further increasing the profile of ringing and the BTO. Key submission deadlines:

**Preliminary reporting - 15 October**

**Final reporting - 1 January (28 February for refund).**

Please send all CES data submissions to: [ces@bto.org](mailto:ces@bto.org)

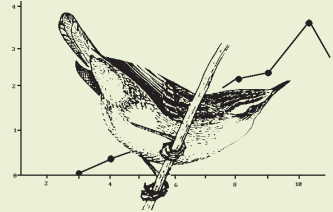
## CES Forum

If you do not currently subscribe, please consider joining the CES Forum. This is a great way of exchanging details of catches and getting feedback from sites throughout Britain & Ireland as the CES season progresses.

To join, please send an email (including your name and permit number) to: [btocesforum-subscribe@yahoo.com](mailto:btocesforum-subscribe@yahoo.com)

## CES News

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### Photos and illustrations

Page 4 - Jill Pakenham (Linnet), Rob Robinson (Willow Tit), Tommy Holden (Lesser Whitethroat), Mike Weston (Nightingale), Jill Pakenham (Yellowhammer)

Page 5 - Dawn Balmer

The Constant Effort Sites Scheme is supported by a partnership between the British Trust for Ornithology (BTO) and the Joint Nature Conservation Committee (JNCC) (on behalf of: Council for Nature Conservation and the Countryside, the Countryside Council for Wales, Natural England and Scottish Natural Heritage). It is also part of the BTO Ringing Scheme which is funded by the BTO/JNCC Partnership, The National Parks and Wildlife Service (Ireland) and the ringers themselves.