

Let's meet those targets yet again!

The Countryside Bird Survey is well and truly back in action. The cancellation of the 2020 season due to Covid-19 travel restrictions was a blow, but thanks to the dedication and enthusiasm of over 220 of you, volunteers and National Parks and Wildlife Service conservation rangers alike, 2021 saw the survey successfully back on track. It was tight, but we are relieved to report that the total number of squares covered was 302 – just two over the required 300 target, but we (or rather you) made it. Well done!

As we launch into the 24th year of the survey, it is very encouraging to see that so many of you have stuck with it through thick and thin. Like any long-term monitoring scheme, the CBS is, by its very nature, a repetitive process – every year we need more of the same. We need (as far as possible) the same squares to be surveyed each year, on roughly the same dates, using the same routes and methods, and so on. Real changes in bird populations can only be reliably picked up if we exercise the necessary rigour and consistency in our data gathering.

But that sameness should never mean boring! CBS should be (and is!) enjoyable. Every time you visit your square the weather will be slightly different, as will the variety and numbers of birds. And of course, it is those numbers that matter – they are the raw material we need in order to monitor the ups and downs in our bird populations.

The human effort involved in all this survey work generates some numbers too. For starters, over 660 people have participated in the survey since it began in 1998 (around 220 in any one year), and 402 squares nationwide have been surveyed at least twice (most of them multiple times). The number of visits made to squares stands at a staggering 12,800 or so. Double that to get the number of kilometres walked, just along the transects alone! This volume of effort is necessary to ensure a good sample size every season. But maybe we should dial down the superlatives for a second and reflect on the fact that it all boils down to individual people setting aside the time and energy to rise early, drive a distance



Treecreeper - a species recorded in fewer than 30 squares annually in CBS. Always a treat to see one in woodland. **Photo:** Shay Connolly

to their square and spend a couple of hours diligently counting birds. Every single square, indeed every single bird, counted has value.

Analysis of the 2021 season has not been completed yet, but anecdotal feedback from survey participants suggests that those species hit by severe winters a decade ago, such as **Meadow Pipit**, **Grey Wagtail** and **Stonechat**, appear to be back up to “normal” numbers again. Last April was cold, making the dawn chorus a rather subdued affair, so the numbers recorded on early visits may have been artificially low. However, overall, with the exception of **Swallows**, most species seemed to be faring quite well.

There are many pressures on the natural environment around us, and the need to keep track of our breeding birds

and their habitats is as vital as ever. Come the 1st of April, I for one will be straining at the leash to get out there surveying my squares again. I hope you will too.

Thank you everyone and enjoy the fieldwork!

Dick Coombes,
CBS Co-ordinator

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Burren landscape
Photo: Seamus Mallon

Contrasting squares

CBS volunteer **Seamus Mallon** on his experiences in the field

It's a very early spring morning, slightly chilly, and I'm carrying out the first survey on square N8090, just a few kilometres outside Nobber, Co Meath.

It's a beautiful old estate farm with large trees and many

streams. The owner is very conscious of nature, so there have not been too many changes over the years. I sometimes anticipate where I will hear or see certain species, as I have seen

the same on previous years and am expecting to mark them down. I think I hear drumming in one of the tall beech trees, but it may be two branches rubbing together. I second-guess myself, make a side note of it and carry on.

Two months later, during the second survey and not far from where I heard the drumming earlier in the season, I look up and there is my first Irish sighting of a

Great Spotted Woodpecker – a species that is common in Europe and I have seen many times on my travels. There was something very exciting about getting a sudden and fleeting glimpse of one in Ireland, especially as it has only recently colonised, or maybe recolonised, our island.

There was no BTO species code on the recording sheet, so I wrote it down in full and left it for later. I was on high alert then and was not expecting my next sighting, which was of a **Spotted Flycatcher**. I do not see them as regularly as I used to. The remainder of the survey went back to normal, and the **Willow Warblers, Chiffchaffs and Blackcaps** were all in their correct areas!

I started surveying in 1998 and continued annually, aside from the break due to foot-and-mouth in 2001, a six-year stint living abroad and, more recently, the Covid. All the squares I was surveying were in the north-east, and so I wanted something a little different. In 2018, I searched on the CBS site and found that square M3000 in the Burren was available. As my wife, **AnneMarie**, is from Clare, and we visit regularly, it was ideal. It

is in typical Burren countryside, about a kilometre north of the Burren Perfumery, just outside Carran.

It was very easy to map out the transects, but not so easy to walk them. I don't think I could have found any landscape as contrasting, if I tried. It felt like I could see the full square from any point: no trees, only huge bare limestone beds with deep crevices, dry stone walls and impenetrable stands of Hazel bushes in parts where there was some soil. For the early survey, AnneMarie decided to join me, so we stayed locally in the camper, with just a short commute to the square.

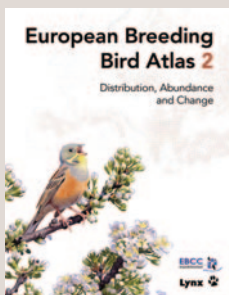
Early the following morning, we started off and, instantly, the differences in common species here was apparent. Within a few minutes, I started to hear **Cuckoos**, and their call was constant for the full survey. At one point I was looking at three Cuckoos in the binoculars, only 50 metres away, and could hear another two behind me!

There were **Meadow Pipits** perched anxiously all around, keeping a watchful eye on the chattering Cuckoos. I used to hear them on Ardee Bog when I was young, but rarely managed to see one. By the end of the survey the call was so embedded in our brains, we were unsure if there were any other birds here at all!



Great Spotted Woodpecker
Photo: Dick Coombes

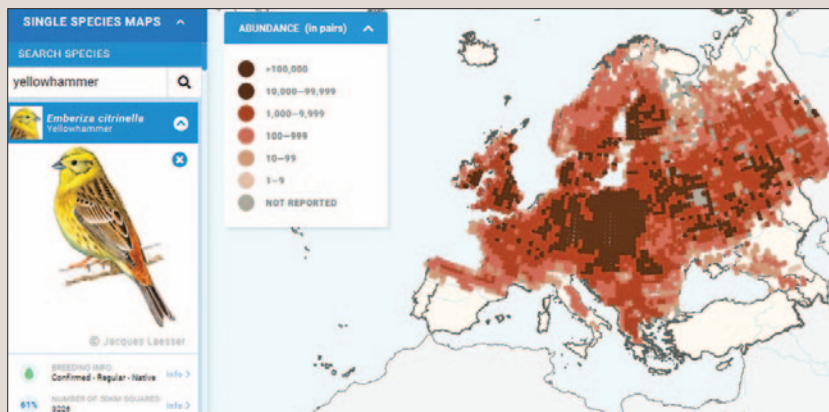
European Breeding Bird Atlas maps now online



CBS data made a significant contribution to the recent **European Breeding Bird Atlas 2**, published in 2020, which illustrates the current distribution of 596 breeding birds across 48 countries. All of the maps from this award-winning tome are now available

online, for free, at www.ebba2.info/maps.

You can easily browse any species of interest to you, examine their abundance across Europe, their breeding status over the period 2013-2017, and how all of that has changed since the previous European atlas in the 1980s. Many of the changes in Ireland will be well known to CBS counters, but it's interesting to 'zoom out' and see the similarities and differences on a broader scale.



Assessments on this large a scale provide really valuable information for the monitoring and conservation of species at international level, and the data from this atlas are already being put to good use for scientific research across Europe.

Brian Burke

CBS square coverage: every square counts!

John Kennedy (CBS team) unpacks the statistics on what's been covered, and how often, since the survey began in 1998

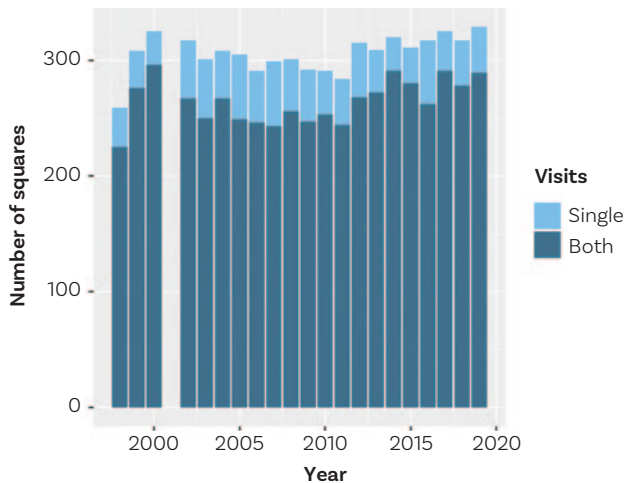


Figure 1. Number of squares surveyed per year.

Ireland's Countryside Bird Survey (CBS) was launched in 1998 with incredible ambition: to survey, from day one, a rich sample of the entire countryside, to see how our breeding bird populations were fairing.

As those familiar with the survey will know, candidate CBS squares are the south-westerly 1km square of each 10km square in the Irish national grid. If we rule out CBS squares in the middle of lakes, on firing ranges or teetering over the edges of cliffs, there are about 700 CBS squares that could possibly be surveyed in Ireland.

In its inaugural year, CBS participants surveyed a whopping 259 of these squares. The CBS methodology includes two visits to a square in a season, to allow both early-breeding species and late-breeding species to be detected; there were 484 visits in this first year.

CBS annual coverage of the country has expanded, and sometimes contracted, over the years since then, but, as you can see from the accompanying graph (**Figure 1**), we are now consistently exceeding 300 squares (the minimum target set) per annum.

2019 was our best year for coverage, with a total of 329 squares surveyed via 618 visits. The survey didn't run in 2001 due to foot-and-mouth disease precautions, nor in 2020 due to Covid restrictions. The records for 2021 are still coming in, but it appears that we have again met the 300-plus squares target, with data from 302 squares submitted at the time of writing – a fantastic result given the extreme challenges that existed last year.

Over the lifetime of the project, over 402 squares have been fully surveyed in at least one season. All of these squares – and the year in which they were most recently surveyed – are illustrated in the accompanying map (**Figure 2**).

Maintaining consistency in the selection of squares surveyed over time is another important factor that the CBS team regularly considers. Those squares that have been fully surveyed the most are also illustrated (**Figure 3**).

Directing surveyors to specific squares

Evaluating long-term changes in species is the primary goal of CBS, and comparing site counts from the early years of CBS with those of recent years can reveal significant increases or declines. Thus, continuing to survey those squares that were fully surveyed at the beginning of the CBS can enable potentially valuable site-by-site comparisons. The 168 squares that were fully surveyed in the years 1998, 1999 and 2000 are shown in **Figure 4**. Eighty-five of these squares were resurveyed fully in the years 2017-2019. If we direct future surveyors to more of these 168 squares in the years ahead then it will allow an even broader site-by-site comparison when those counts come in.

The CBS team will factor in these types of considerations when allocating squares to surveyors going forward. Where the opportunity arises, we will endeavour to match people with the most valuable, as well as the most convenient, CBS squares available. We will also strive to maximise the scientific value that can be extracted from your valuable fieldwork. Thank you indeed for your continued support. Every square counts!

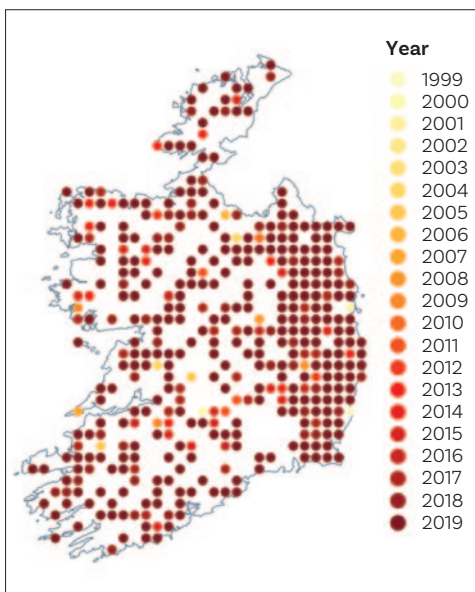


Figure 2. Squares surveyed in at least one year, and the year in which they were most recently surveyed.

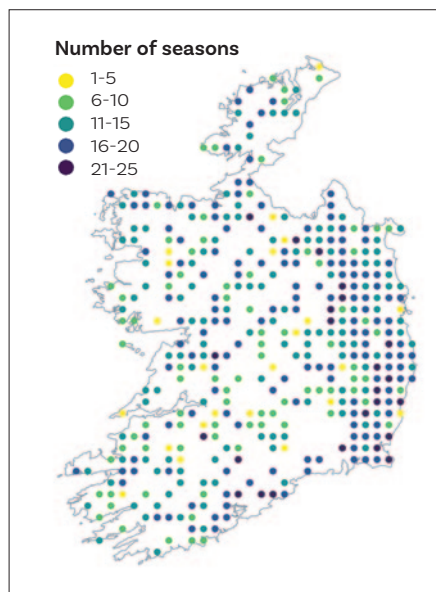


Figure 3. Number of years each square was fully surveyed.

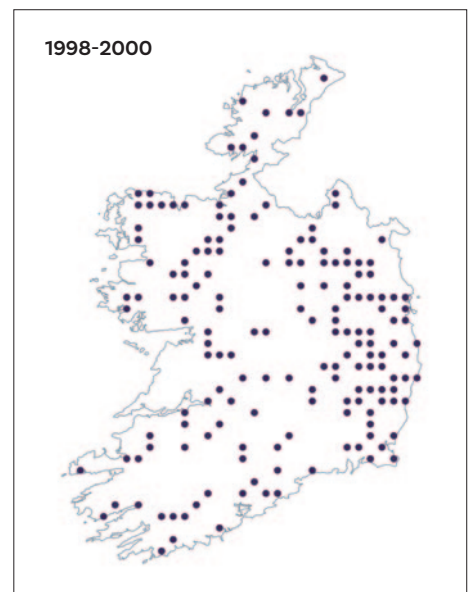


Figure 4. Squares fully covered in each of the first three years of the survey.

Species Focus

Wren

We know them as tiny little brown jobs: they are, in fact, our second smallest bird (after Goldcrest) and often hard to observe, largely remaining out of view, yet their loud trilling song makes them one of the easiest birds to detect during CBS. Knowledge of their song and calls is therefore vital when carrying out the survey.

The Wren was the most widespread species in our most recent CBS report (94% of squares) and nearly the most abundant species too. Their family name is Troglodytidae, meaning 'cave dwellers,' and Wrens are usually seen lurking in the darker, sheltered parts of hedgerows, etc, and roost at night and nest in dark holes and cavities or cracks in walls.

word for Wren in Irish is Dreoilín, which means a trickster, although Celtic mythology regards the Wren as 'the king of all birds,' and it was generally believed that killing the bird or damaging its nest was wrong, as the bird was known for its good fortune. Seemingly contradictory, then, is the annual tradition of the 'Wren hunt' and 'Wren boys,' still occurring in many Irish towns and villages on St Stephen's Day each year. One source suggests that the Wren hunt represents the death of the dark Earth powers and the beginning of a new season of light and life. Such a history for the diminutive bird that graces our CBS logo!

The Bird Atlas 2007-2011 confirms that the Wren is one of the most widespread bird species in Ireland, and the extent of its breeding range has remained broadly stable across the atlases. In terms of abundance, there were some increases in abundance

between the Breeding Atlas of 1988-91 and the Bird Atlas 2007-2011, but the Atlas data can tell us little more than that.

Annual data collected by the CBS are therefore extremely important in assessing fluctuations in population size not picked up by Atlas studies. Within CBS, the long-term trend for the Wren is a 'moderate increase' (see Figure 1), but looking closely at the trend line we can also see a marked dip in the annual index around 2010 and 2011. This sudden drop in numbers can be linked to the extremely cold winters of 2009/10 and 2010/11, and we now know that winter cold is the main driver of annual variation in population size.

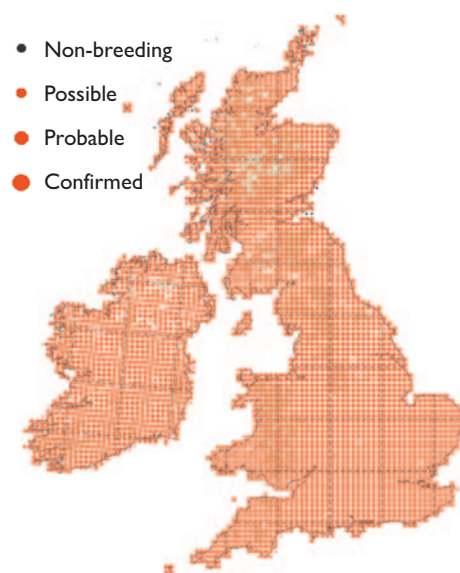
Weighing about the same amount as two sheets of A4 paper, Wrens are certainly tiny, but this also means that their surface-to-volume ratio is greater, and the more surface you have, relative to volume, the more heat you will lose. This spells bad news in cold winters and, coupled with the difficulty in finding insect prey in cold weather, means that Wrens are hit hard in cold winters. Interestingly,

previous research in the UK, based on ringing and BBS data (similar to CBS), suggests that Wrens have adapted to local climate, with Wrens in Scotland having a higher body mass and more resilience to cold winters.¹

While much previous research on evolutionary adaptation to climate change has focused on phenological change, examples of studies that show that a species can exhibit rapid evolutionary adaptation are relatively rare. Are Wrens larger in colder parts of Ireland?

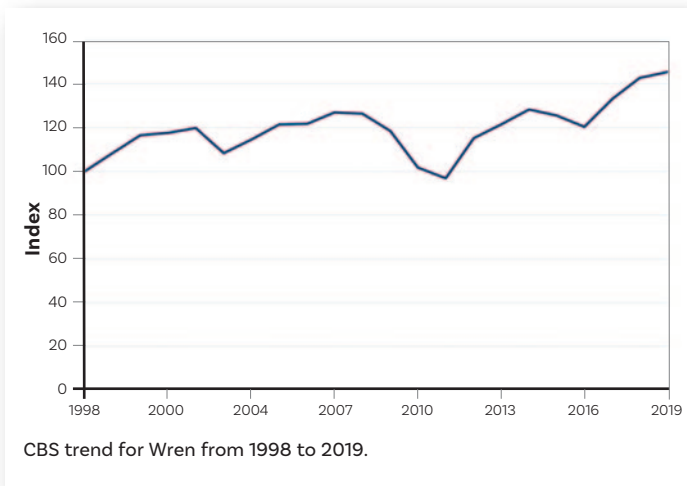
**Lesley Lewis,
CBS team**

¹ Morrison CA, Robinson, RA & Pearce-Higgins, JW, 2016 Winter wren populations show adaptation to local climate. R. Soc. open sci. 3: 160250. www.dx.doi.org/10.1098/rsos.160250



Wren breeding distribution 2008-11. From the Bird Atlas 2007-11, courtesy of BTO.

As ever, the CBS team welcomes requests for use of CBS data from research institutes and individuals. See birdwatchireland.ie/publications/cbs-data-request-form or email ljlewis@birdwatchireland.ie.



CBS trend for Wren from 1998 to 2019.

For such a small bird, the Wren has played an important part in folk tradition. It is noted as a *magus avium* ('magician' or 'sorcerer') in the legends of saints' and is regarded as a druidic bird of prophecy. The

Wren. Photo: Dick Coombes

