

## Starting over: the survey resumes

These past twelve months have been a nightmare. Who would have believed this time last year, just as we were gearing up to launch into another CBS field season, that the world would be brought to its knees by a microscopic virus? The stuff of science fiction for sure, but very real for so many in terms of personal loss, stress and hardship.

The enforced cancellation of the training days in March 2020, due to the unfolding pandemic, and the subsequent abandonment of the CBS field season itself, left a void in many people's calendar. And indeed, this caused a break in the continuity of the data gathering that the CBS is built upon.

It happened before, in 2001, when the foot-and-mouth disease outbreak stopped us in our tracks. In time, the loss of a season registers as little more than a bump in the road – a blip on the trend graphs. However, two successive years with no data being gathered is a very different story.

It has been very heartening to see the flood of enthusiastic responses to the call to action over the last few weeks. Everyone, it seems, is straining at the leash to get back out there surveying – a sign that not only do participants appreciate the value of the CBS, but also that taking part in the survey itself is an enjoyable experience.

We say it every year, so forgive me for trotting this out again – the CBS simply could not function without your help! And although most of you will never meet one another – that is, all 220 or so of you, volunteers and **National Parks and Wildlife Service** (NPWS) conservation rangers alike – you are a team that collectively forms the backbone of this important survey.

Proof that the CBS is an effective tool for monitoring breeding bird populations was graphically provided when the survey detected dramatic declines in several species – most notably **Stonechat**, **Grey Wagtail** and **Meadow Pipit** – in the breeding seasons following the severe



Dick Coombes

**Sedge Warbler** – showing a stable trend in CBS. Usually heard before it is seen – sings in reedbeds and other wet habitats.

winters of 2009/10 and 2010/11.

The CBS has also tracked ongoing upward trends in species such as **Blackcap** and **Goldfinch** – climate change and increased provision of food at bird tables, respectively, being possible factors causing these increases.

The reasons for population changes are not always clear, but the first step is knowing that change is taking place, and that is why long-term monitoring is so important.

We are all very aware of the impact that the COVID-19 pandemic has had on the human race, but what effect has it (or, more specifically, have the lockdowns) had on our breeding birds? Could it be that the reduction in air and noise pollution and disturbance has benefited birds? The low traffic volumes over such a sustained period must surely

have meant lower mortality on country roads, especially of fledglings. The 2021 results could be very interesting.

So, this year, more than ever, we need all hands on deck. If restrictions allow, let us pick up where we left off.

Enjoy the fieldwork!

**Dick Coombes,**  
**CBS Co-ordinator**

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# John Kennedy joins the CBS team

**H**ello there! I signed up to be a CBS volunteer surveyor in 1998 and I have had the pleasure of surveying a CBS square in the heart of County Meath ever since. One half of the square is a wonderful species-rich meadow with breeding **Skylarks**, increasingly regular **Tree Sparrows** and the occasional **Lapwing**. The other half of the square is largely intensive tillage farmland (see picture) but still hosts a number of **Yellowhammers**.

For twenty years the CBS survey provided me with wonderful breaks from the day job (in IT research and development), but after a year of studies in Maynooth University, and diving into some Yellowhammer data for my dissertation, my day job is now the CBS! I am delighted to say I now manage the



John surveying his CBS square in County Meath in 2019. **Photo:** John Kennedy

CBS database as a new member of the **BirdWatch Ireland CBS team**.

After my recent dive into the data, I can assure you that every sighting, every detail, every habitat code you record is valuable and very much appreciated. Also, as advances continue to be made in IT and research, new ways are emerging of extracting insights from the CBS data, insights that could not have been

imagined when the CBS was first launched. Complementary datasets – for example from satellite imagery – are also becoming richer and more accessible.

The CBS is not just a wonderful excuse to get out and enjoy the countryside; it is also providing a rich dataset that can inform future countryside management policy and best practice. I wish you every success in your CBS fieldwork. – **John Kennedy**

## Introducing the new CBS online form

**L**ong-term CBS participants may know that CBS has been using the same online form system since 2009 – an impressive achievement for an internet-based citizen-science portal. But with older technologies gradually becoming obsolete, in recent years the need to replace the system has become clear.

Following a successful pilot of a new online form system for the **I-WeBS survey**, we are happy to announce that a new online form system will be introduced for the **CBS survey** this year. The new system will be able to capture all of the data gathered by CBS observers. It will also be easily extendable, should it become helpful to gather additional types of data in future years.

Validation will be built in, and it will offer us the possibility of uploading photos or scans of the paper maps and forms. The new online form will be accessible from tablets and even from smartphones, as well as from regular computers.

To more efficiently manage the volumes of data we receive in the CBS, the form will have a new structure. Previously, the data have been entered species by species, but

### Transect Section 7

Species *	1	2	3	F	
B. - Blackbird	3		2		X
CH - Chaffinch	1				X
SL - Swallow				11	X
WP - Woodpigeon	1		1	3	X
+					

### Filling out a transect section in the new online form

with the new form the data will be entered transect section by transect section, as shown in the figure above.

Some surveyors will be happy to hear that the current step of manually transposing the **Field Recording Sheet** (white form) to the species-based **Count Summary Sheet** (yellow form) will no longer be necessary.

The new online form will include as much validation as the technology allows to catch any inadvertent typographical errors ('typos'). Once the data are submitted, a more comprehensive

automated validation exercise will review all aspects of the data. If something unusual is detected, for example an unusually large number of some species, the CBS team will refer to the paper records, or reach out to the relevant observer, to confirm the details as appropriate.

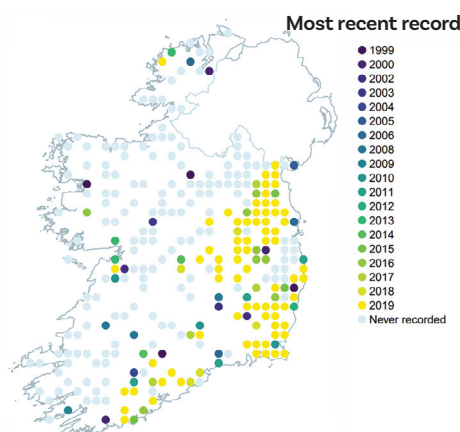
The new system is currently being tested, and so far the results are encouraging. We hope you will find it a convenient way in which to submit your valuable data. – **John Kennedy**



# Yellowhammer findings

John Kennedy drills down into the Yellowhammer datasets from the CBS

**Y**ellowhammers have been recorded 8,438 times over the lifetime of the CBS, and the survey is revealing interesting insights into Yellowhammer populations in Ireland. The map below uses colour to indicate the most recent year the Yellowhammer was recorded in each CBS square. Recent records (*the brighter dots*) are predominantly in the south-east, while numerous populations have disappeared over the last 20 years (*the darker dots*).



Most recent CBS records of Yellowhammers (from squares surveyed twice in 2019)

CBS data can also be used to indicate the **net gain** or **net loss** of squares over time. Eighty-five CBS squares were surveyed six times in the period 1998-2000, and six times in the period 2017-2019. The Yellowhammer was present in 33 of these squares at least once in the period 1998-2000, but was detected in only 22 of these squares in the period 2017-2019. This reveals a **net loss** of squares where the Yellowhammer is present of 14.1%.

CBS surveyors record **counts** of species, not just their presence, and so we can also analyse **relative abundance**. Preliminary findings indicate that, just considering CBS squares where the Yellowhammer remained present in 2019, the relative abundance of Yellowhammers in these squares decreased by at least 10% between the periods 1998-2000 and 2017-2019.

**Correlation analysis** is also possible with CBS data, and, from our correlation plotting graph, we can see that the cloudier the day of a visit, the higher the likelihood of rain and poorer visibility!

More interestingly, it also indicates that the further east, or the further south, the survey square, the higher the likelihood of



Yellowhammer (adult male)  
Photo: Dick Coombes

Yellowhammer being present. This is not new information, but a similar correlation analysis is also being performed on the **habitat data** gathered by the CBS. This will reveal if the presence or relative abundance of the Yellowhammer is associated with particular habitat codes.

While all of this analysis is possible by looking at CBS data alone, yet more insights can be gained if **complementary datasets** are introduced. For example, as a member of the European Space Agency, Ireland helps fund the Sentinel satellites from which high-resolution data on **land cover classification**, the presence of different types of **forestry**, and the presence of **hedgerows** is now accessible.

We look forward to publishing results of this research in the coming months.

## Our CBS data is useful far beyond our shores

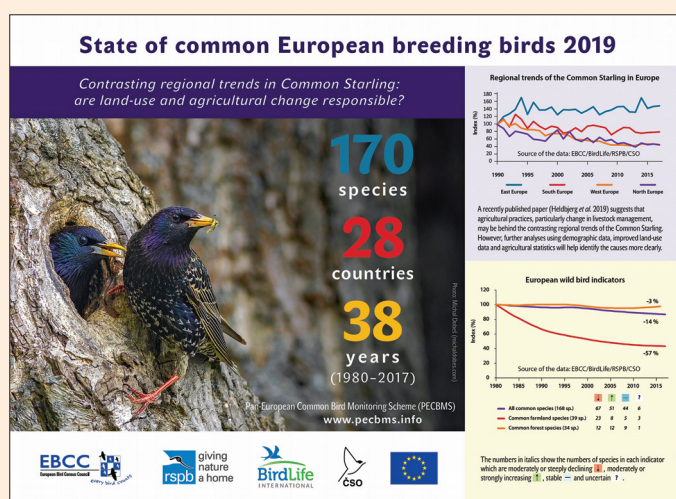
CBS data are actively sought for research purposes and for compiling reports in Ireland and abroad, writes Lesley Lewis

**A**long with this newsletter, you will have received a copy of the latest CBS publication, reporting on the trends of common and widespread breeding birds monitored through the CBS. We hope you will enjoy reading the outputs that have resulted from the data you collected during fieldwork.

As many of you will already know, CBS data also contribute to reporting on a much wider scale. We send data annually to the **Pan-European Common Bird Monitoring Scheme** (PECBMS), contributing to information on trends in

common bird species in Europe,<sup>1</sup> while, last autumn, the *State of Nature in the EU*<sup>2</sup> report was published, based on reports from EU Member States under the Birds Directive and the Habitats Directive.

It also seems that international requests for use of CBS data are increasing, many of these requests coming via PECBMS. In the past year alone, the CBS project has given approval for the Irish survey data to be used in university research into bird community responses to multiple **stressors**; the breeding and foraging ecology of the **House Sparrow**; and a review of



contrasting population trends of **Starlings** across Europe; to name but a few.

**John Kennedy**, our newest CBS team member, describes, above, how CBS data (including counts and habitat details) have underpinned his

research into the **Yellowhammer**.

So, don't forget, we actively welcome requests for use of CBS data from any Irish researchers, students or individuals.

**Please just get in touch!**

<sup>1</sup> <https://pecbms.info/trends-of-common-birds-in-europe-2019-update>

<sup>2</sup> [www.eea.europa.eu/publications/state-of-nature-in-the-eu-2020](http://www.eea.europa.eu/publications/state-of-nature-in-the-eu-2020)



## Species Focus

# Spotted Flycatcher

It is often the case that birds endowed with a dull, nondescript plumage “make up for it” by having a quite complex, far-carrying and (to our ears, anyway) beautiful voice – the rather plain-looking **Willow Warbler** is a good example of this. A bird’s dual efforts to attract a mate and defend a territory are often achieved either by elaborate vocalisations or visual signals (in the form of striking plumage features).

A notable exception to this generalisation, however, is the **Spotted Flycatcher**, which is not equipped with either of those qualities or strategies. Its mousy grey-and-white tones (the spots are barely visible) could hardly be described as eye-catching, and its “Tsip-tseep-tsip” song is so quiet and almost apologetic, you could be forgiven for thinking that this bird really has no desire to be noticed at all.

The Spotted Flycatcher is one of the final summer visitors to reach us each year – the bulk of the arrivals hit our shores in early May, around the same time as **Swifts**. In fact, the timing of the arrival of both of these species coincides with a rise in air temperature and a corresponding increase in the availability of their food – flying insects.

Both species catch insects in the air, but while the Swift is a true aerial feeder, snatching (and eating on the wing) what prey comes its way as it swoops endlessly across the sky, the flycatcher uses a more focused technique. Patiently watching for passing prey from its perch – typically the low, drooping bough of a majestic chestnut tree, a fence wire or even a piece of farmyard machinery – the bird will launch a surgical strike into the air to seize a single

insect, returning immediately to the same perch with its catch.

As well as a range of fly species, prey items include moths, butterflies, wasps and bees (the stings of which are deftly removed by striking them against a branch with a swing of the head).

Spotted Flycatchers are found in wooded habitats – broadleaved and mixed – as well as large gardens, orchards and farmland where mature tree-lines and copses feature. They are not gregarious birds, and rarely will you see more than two together.

The nest is usually well concealed in thick, twiggy growth next to the trunk of a tree, or in a cavity in the tree itself. Some choose nest sites closer to humans, such as a crevice in outbuildings or even in the dense tangle of *Wisteria*, or maybe *Virginia Creeper*, at the farmhouse door.

With its dull plumage, unobtrusive habits and a song that could pass for a fledgling Robin’s begging calls, it is likely that many Spotted Flycatchers are overlooked, and therefore under-recorded, during survey work. In the CBS, they are recorded in approximately 28 squares annually, which falls just short of the 30-square threshold required for reliable trend analysis. This is unfortunate, as there are indications that the Spotted Flycatcher is in decline, and therefore it is a species we need to watch closely.

The most recent **Bird Atlas**, carried out from 2007-2011, flagged the flycatcher’s



Spotted Flycatcher  
Photo: Dick Coombes

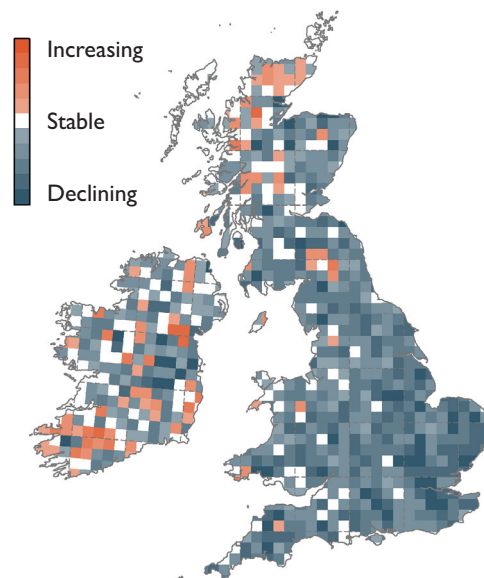
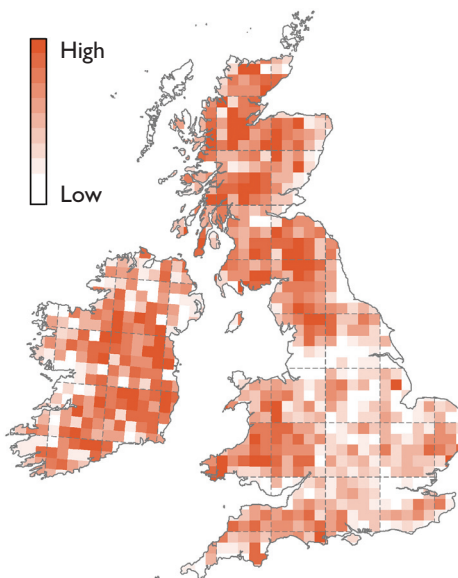
alarming 21% range contraction in Ireland over the last forty years, and moderate population declines have been recorded across Europe since the 1960s.

The exact causes for its decline are unclear, but increased pesticide use, cool, wet summers affecting breeding success, and deterioration of its habitats in West African wintering grounds and on migration routes may all be factors.

Given Ireland’s relatively low woodland cover, it is perhaps surprising that we have a higher population density of Spotted Flycatchers overall than England, where decline has been particularly acute in south-eastern counties.

Dick Coombes  
CBS Co-ordinator

Spotted Flycatcher investigating a used Great Spotted Woodpecker nest hole. Photo: Dick Coombes



Spotted Flycatcher breeding relative abundance 2008-11, left, and breeding relative abundance change from 1988-91 to 2008-11, right. From the **Bird Atlas 2007-11**, courtesy of BTO