



NUTHATCH, SARAH KELMAN / BTO

Welcome to the latest issue of *GBFS News*. As always, thank you very much for continued contributions to this important and long-running project. The data you provide not only allow for the monitoring of garden species, but also contribute to novel research into these species and their use of gardens and supplementary food. In addition, they also provide a picture of what is occurring across a wider spatial scale, telling us, for example, about patterns happening in the wider countryside. This is most obvious in species such as Siskin and Redwing, whose numbers link so closely to the weather patterns and availability of food at a European scale.

This edition of the newsletter is a catch-up issue, presenting your data from the 2019/20 winter. This means that the next issue, which will go out just ahead of the next winter season, will bring us back to where we should be on our annual timeline. We are very sorry things slipped, but want to reassure you that we will keep to the annual timeline going forwards.

Summary of 2019/20 winter

October and November 2019 were wetter than usual, particularly in England and Wales, with little sun and the temperature slightly higher than average. While temperatures remained mild, with relatively infrequent frosts throughout most of the winter, February and March 2020 saw heavy rainfall. This affected many of the birds seen most frequently in your gardens and came at a time when some were beginning to establish breeding territories. February had three named storms (Inès, Jorge and most notably Dennis), bringing heavy rainfall to most of the UK besides northeast Scotland.

In the last issue we discussed the impact that cold weather, notably 2018's 'Beast from the East', had on our populations of small birds, including species such as Goldcrest, Wren and Long-tailed Tit. We will be picking up this story again, to see how these diminutive birds fared after a warmer but wetter season.

Rob Jaques
Supporter Development Officer

GBFS review of winter 2019/20

While temperatures were mild on average throughout the UK, which is generally good news for small birds, the winter period was punctuated by several periods of heavy rainfall. This is likely to have had some impact on birds, for example by dislodging seed from trees, and potentially altering the use of garden bird feeders.

Siskin

During a typical winter we would expect to see a peak in your average Siskin counts towards the end of the winter. This seasonal increase in garden feeder use aligns with a low point in the availability of tree seeds within the wider countryside, notably those of spruce, Alder and birch. BTO research shows that the use of garden feeders by Siskins is lower in those years where there has been a particularly large crop of conifer seed, something known as a ‘masting event’,

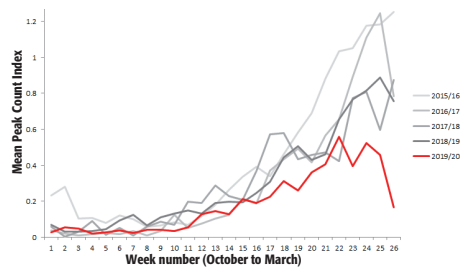


SISKIN, GRAHAM CATLEY / BTO

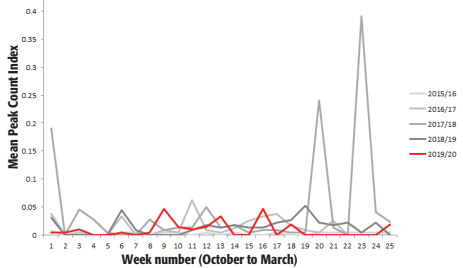
and that may be what happened during winter 2019/20. Having said that, it is also worth noting that data from the BTO/JNCC/ RSPB Breeding Bird Survey (BBS) show that the UK Siskin population has been falling over recent years, the index declining by 22% between 2012 and 2017. Longer term, Siskin numbers are still up by a third on where they were when BBS started back in 1995, and the species has certainly benefited from the maturing of conifer plantations planted many decades ago.

GBFS mean peak count per garden for winter 2019/20 for (a) Siskin and (b) Redwing,

(a) Siskin



(b) Redwing



Redwing and Fieldfare

The arrival of winter thrushes, such as Redwing and Fieldfare in UK gardens, is linked to weather conditions, both here in the UK and more widely across northern Europe. During periods of heavy snow or cold conditions, we see an uptick in the GBFS Peak Count Indices for these species. As the GBFS graph demonstrates, the 2019/20 winter – lacking periods of cold weather and snow – failed to deliver these winter thrushes into our gardens in any numbers.

Jackdaw

Many corvid populations have increased over recent decades, and Jackdaw is no exception. BTO data demonstrate a sustained population increase since the early 1990s. GBFS data also show this, although interestingly the period of increasing peak counts in gardens comes to an end in the early 2000s, since when it has dropped back somewhat. We know from Garden BirdWatch that garden use by Jackdaws peaks in May, but individuals also use garden feeding stations throughout the rest of the year. The use of GBFS gardens in the 2019/20 winter was down on recent years, perhaps reflecting the mild conditions.



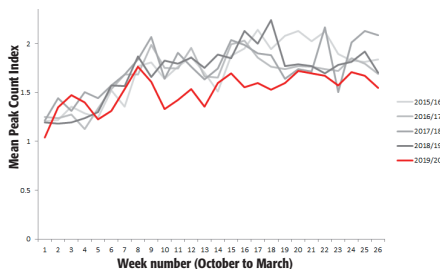
REDWING, LIZ CUTTING / BTO

Long-tailed Tit

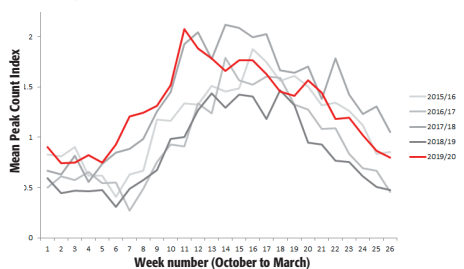
Like many small birds, Long-tailed Tit numbers were hit by the 'Beast from the East' and we saw the effects of this carry through into your 2018/19 GBFS results. Thanks to better conditions in 2019, and a successful breeding season, GBFS peak counts were back where we would have expected them to be by winter 2019/20. These results underline how this small and vulnerable species is able to bounce back from a poor winter.

GBFS mean peak count per garden for winter 2019/20 for (c) Jackdaw and (d) Long-tailed Tit.

(c) Jackdaw



(d) Long-tailed Tit





PIED WAGTAIL, LIZ CUTTING / BTO

Pied Wagtail

We usually see the average GBFS Mean Peak Count Index for Pied Wagtail rise through the first half of the winter, typically peaking in late January or early February, suggestive of birds moving into gardens from the wider countryside. During the 2019/20 winter we saw a departure from this pattern, with the

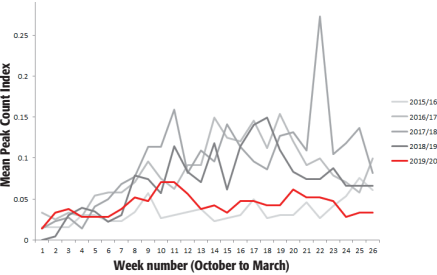
index dropping in December and remaining low for the remainder of the count period. Pied Wagtail counts normally rise during cold spells, when wild food such as tiny invertebrates and seeds become more difficult to access outside gardens. The low garden numbers probably reflect the relatively mild conditions experienced across much of the country during this winter. Pied Wagtail populations, as monitored by BBS, show a similar pattern of increase and decrease to some of our other small insectivorous species – notably Wren and Long-tailed Tit.

Nuthatch

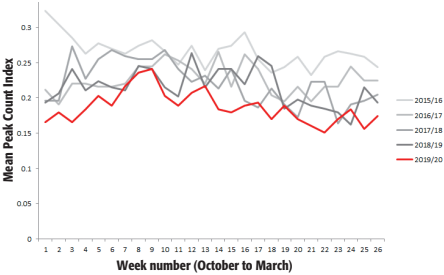
Although analyses of GBFS data reveal that garden use varies in relation to the availability of tree seed within the wider countryside, notably that of beech and oak, Nuthatch populations have shown a significant long-term increase; data from BBS show a 293% increase in breeding populations since 1967. Evidence of the variation in garden use between winters can be seen from your GBFS data from the last few years, with the 2019/20 winter index the lowest that we have seen for several years.

GBFS mean peak count per garden for winter 2019/20 for (e) Pied Wagtail and (f) Nuthatch.

(e) Pied Wagtail



(f) Nuthatch





NUTHATCH, MOSSTAYLOR / BTO

House Sparrow

After years of decline, the last few GBFS seasons have seen a stabilisation in House Sparrow counts. These reflect the wider change of fortunes evident in this species. Data from BBS reveal an 8% increase in the breeding population over the last decade, though this does need to be viewed against a long-term decline of 69% since 1977. Analyses of GBFS data, which go back to the winter of 1970/71, reveal differences in the timing of the original decline between rural and suburban gardens (see below). There are also regional differences in how House Sparrows are doing.

Analyses of your GBFS data demonstrate a shift in the timing of the peak winter use of gardens by House Sparrows. Research by BTO staff has revealed that the seasonal peak has moved from mid-January (week 16) to mid-October (week 3). The timing of the peak also varies with garden type, being later in rural gardens than suburban ones, and presumably linked to the importance of wider countryside seeds in the diet. Rural sparrows feed in the fields on spilt seed, only moving into gardens once this has been exhausted. As the availability of farmland seed has declined, so the overall pattern has shifted towards the suburban one.



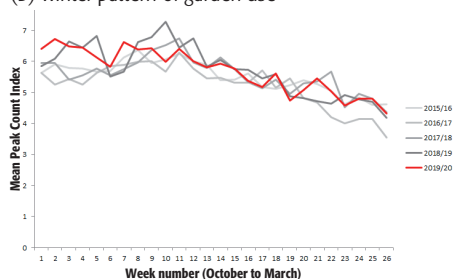
HOUSE SPARROW, JOHN HARDING / BTO

GBFS mean peak count per garden for House Sparrow over the long term and recent winters.

(a) long-term pattern of garden use



(b) winter pattern of garden use



Garden Bird Feeding Survey Results

Winter 2019/20

Top 12 species

Species	Plots	%
Robin	195	92.0
Blue Tit	194	91.5
Blackbird	193	91.0
Dunnock	186	87.7
Great Tit	184	86.8
Chaffinch	176	83.0

Species	Plots	%
Woodpigeon	170	80.2
House Sparrow	163	76.9
Goldfinch	161	75.9
Coal Tit	154	72.6
Magpie	143	67.5
Collared Dove	141	66.5

Additional species

Species	Plots	%
Long-tailed Tit	140	66.0
Starling	135	63.7
Greenfinch	127	59.9
Jackdaw	104	49.1
Great Spotted Woodpecker	81	38.2
Sparrowhawk	77	36.3
Wren	64	30.2
Carrion Crow	63	29.7
Pheasant	55	25.9
Siskin	50	23.6
Song Thrush	46	21.7
Nuthatch	43	20.3
Rook	43	20.3
Blackcap	42	19.8
Feral Pigeon	42	19.8
Bullfinch	38	17.9
Herring Gull	31	14.6
Stock Dove	28	13.2

Species	Plots	%
Jay	27	12.7
Tree Sparrow	27	12.7
Pied Wagtail	22	10.4
Black-headed Gull	18	8.5
Marsh/Willow Tit	13	6.1
Reed Bunting	13	6.1
Yellowhammer	12	5.7
Grey Wagtail	8	3.8
Moorhen	8	3.8
Lesser Black-backed Gull	7	3.3
Mallard	7	3.3
Hooded Crow	6	2.8
Red-legged Partridge	6	2.8
Red Kite	5	2.4
Mistle Thrush	5	2.4
Treecreeper	5	2.4
Chiffchaff	4	1.9
Ring-necked Parakeet	4	1.9

Species	Plots	%
Brambling	3	1.4
Tawny Owl	3	1.4
Common Buzzard	2	0.9
Green Woodpecker	2	0.9
Linnet	2	0.9
Marsh Tit	2	0.9
Barn Owl	1	0.5
Common Gull	1	0.5
Coot	1	0.5
Curlew	1	0.5
Rock Dove	1	0.5
Fieldfare	1	0.5
Great Black-backed Gull	1	0.5

Species	Plots	%
Grey Heron	1	0.5
Kestrel	1	0.5
Redwing	1	0.5
Raven	1	0.5
Red Grouse	1	0.5
Water Rail	1	0.5
White Wagtail	1	0.5
Willow Tit	1	0.5
Willow Warbler	1	0.5
Yellow-Legged Gull	1	0.5

Focus on sites

212 gardens participated in the survey the winter of 2019/20, with 75 different species recorded and 204,471 individual birds counted. Three gardens recorded 32 species, the highest diversity of the season, while two gardens recorded seven species, the lowest number, but still providing fantastic data and giving us a complete picture of the diversity seen in different gardens.

Among the more unusual species recorded this year were Curlew (recorded from a garden on the Isle of Man) and Red Grouse (recorded from a garden in North Yorkshire and only recorded in one previous GBFS winter, namely 1986). Some of the predators recorded hunting at your garden feeders have included Tawny Owl, Barn Owl and Buzzard, alongside the more typical Sparrowhawk.



Goldfinch

While Goldfinch was once an unusual garden visitor, mainly visiting gardens in rural areas, this delightful finch has become a staple visitor at many garden feeding stations, as your GBFS observations reveal.

Background

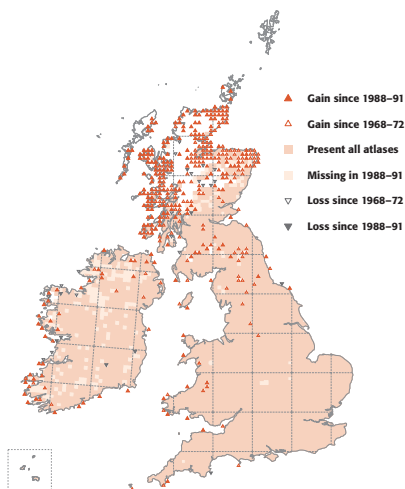
The Goldfinch was historically a bird of the open countryside, feeding in flocks on the margins of farmland fields, where the seed heads of flowers provided food. There is anecdotal evidence that Goldfinch populations were suppressed during the 19th century because of bird-catching, but numbers are thought to have increased from 1881 onwards.

BTO data on the species begin in the mid-1960s and chart a decline in abundance through the late 1970s and 1980s, reaching a low point in 1986. This period of population decline matches a period of particular intensification in agriculture, something that also impacted other farmland birds.

Since then, and reflected in your GBFS data, we have seen a long-term and pronounced increase in Goldfinch populations here in the UK. GBFS gardens on average recorded 0.005 individuals during the first years of the survey, and several weeks in a typical season wouldn't record any Goldfinches. This has since changed and as of 2019/20, the average garden records 3.31 Goldfinches in each week. The last time no Goldfinches were recorded in a single week was 1984.

This rise in population also saw an expansion in the Goldfinch's breeding range within the UK, with northern Scotland being colonised by Goldfinches. As data from *Bird Atlas 2007–11* reveal, the species is now found throughout most of the UK, with the exception of open moorland and mountains.

BREEDING DISTRIBUTION CHANGE 1968–72 to 2008–11



The lure of gardens

With its fine bill, the Goldfinch specialises on plant seeds in the family Compositae, particularly the thistles and dandelions. It is thought that it was this preference that first brought the species into gardens, where individuals were observed to feed on ornamental thistles, lavenders and cornflowers. The long-term increase in Goldfinch numbers in gardens seems to have been supported by the introduction of a wider variety of garden foods. Sunflower hearts and Niger seed are the most common draws for these finches today.

Our gardens also replicate the Goldfinch's preferred breeding habitat, characterised by areas of scattered trees and shrubs.

Other factors may also be benefiting Goldfinches. Climate change may have enabled birds to spread further north and warmer springs mean that Goldfinches are now nesting several days earlier, on average, than was the case 40 years ago. For a multi-brooded species such as Goldfinch, this might allow for more nesting attempts during a season.

One other factor that might contribute to the changing numbers of Goldfinches seen at garden feeding stations is the recent and substantial decline in Greenfinch populations, brought about by the emergence of the disease finch trichomonosis. The larger Greenfinch is dominant over Goldfinch at feeding stations, so a fall in Greenfinch numbers should mean reduced competition.

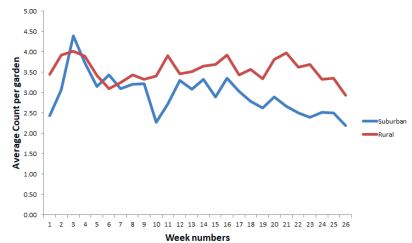


GOLDFINCH, LIZ CUTTING / BTO

Yearly movements

Throughout the year we see a change in the number of Goldfinches visiting gardens. During autumn months, Goldfinches begin to flock together following the breeding season. Some of our breeding birds head south, with ringed birds being recovered in Spain and southern France.

Garden Bird Feeding Survey average peak count per garden for Goldfinch, by garden type.



Closer look at 2019/20

Several weeks in the 2019/20 GBFS season had the highest count ever for Goldfinch, but on average their numbers were slightly down on the previous year. Their rise, uninterrupted for two decades, seems to have plateaued, and numbers over the past three years have been somewhat similar. This could indicate that Goldfinch populations have reached the carrying capacity, with few places left for them to expand into. While Goldfinches might be vulnerable to further changes to agricultural and other management of the wider countryside, these popular, charming birds will likely find an abundance of food in our gardens for some time to come.

Atlas map reproduced from *Bird Atlas 2007–11* (Balmer *et al.*, 2013), which was a joint project between BTO, BirdWatch Ireland and the Scottish Ornithologists' Club.

Extracts and highlights from Winter 2019/20

October

Wiltshire – A rare visitor in the garden is the Song Thrush. It was in this week seeking out slugs underneath apple tree.

Cornwall – Two Lesser Redpoll feeding with Goldfinch at 8:30 am.

Suffolk – Kestrel appeared at water trough. Later returned and spent some time on a post before flying around soaring.

Norfolk – Pair of Nuthatches visited feeders. First in some time.

November

Worcestershire – Black sunflower seeds a hit with Coal Tits, three or four of them almost constantly.

Norfolk – First Green Woodpecker for some time, though only made use of our grass.



GREEN WOODPECKER, CHRIS KNIGHTS / BTO

Sussex – Grey Wagtail coming daily to feed on bird-cake crumble and mixed finely chopped nuts, ignoring mealworms.

Suffolk – Sparrowhawk caught a Goldfinch beneath the feeder, plucking it on the ground while other Goldfinches were landing in the branches above.

December

Aberdeenshire – Snipe in garden probing for worms in shrubbery and long grass near the house.

Nottinghamshire – Two Blackbirds wrestling beak to beak over access to layer of dead leaves.

Herefordshire – A beautiful sunny Christmas day. Some Siskins in our birch tree, though they spurned our feeders.



SPARROWHAWK, AMY LEWIS / BTO

January

Fife – Two male Blackcaps fought over a pear we had put out, before the dominant female Blackbird chased them both off.

West Midlands – Goldcrest feeding on fat balls – a first!

Glamorgan – Pied Wagtail feeding on mixed seed on ground. It chased off a Robin and a Dunnock!

Buckinghamshire – Red Kite has mice and chicks this week – proving they can beat the Magpies.

February

Derbyshire – Treecreeper appeared, actually picking at bits of food discarded by birds at feeders.

Sussex – Another wet week, another storm. Chaffinch seen again on one occasion.

Kent – Mating behaviour from two Dunnocks in region of feeder but only visit.

Carmarthenshire – A Great Spotted Woodpecker came at lunchtime and fed on sunflower hearts. I do my survey at breakfast so I couldn't count it.

March

Kent – The last week of the year and a pair of Greenfinches were seen on the sunflower hearts. A great surprise.

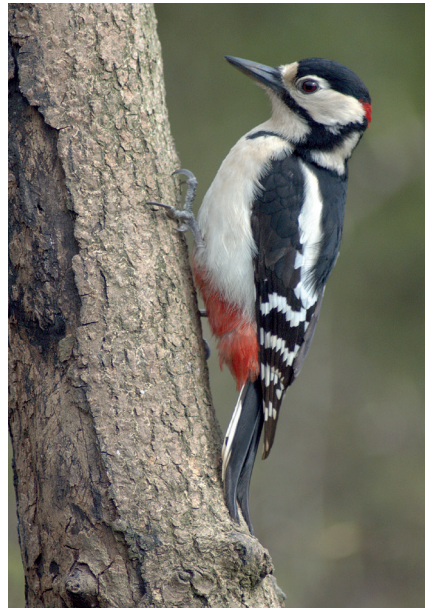
County Londonderry – Blackbird was beginning to build nest in *Kolkwitzia* bush in my garden.

Cornwall – Gulls only by the end of week though Yellow-legged Gulls a surprise!

Bedfordshire – After an absence of many weeks, a pair of Bullfinches returned to feed on sunflower hearts.



BLUETTI, PHILIP GROFT / BTO

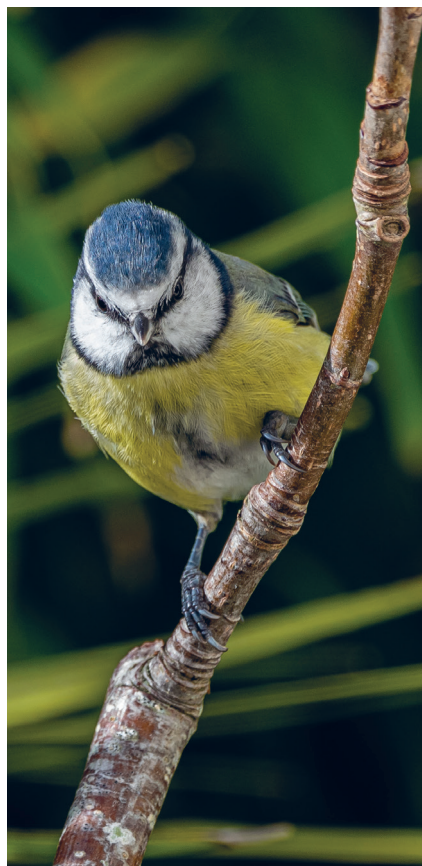


GREATSPOTTED WOODPECKER, CHRIS BRADLEY / BTO

Looking ahead

The 2020/21 Winter

We saw snow in many parts of the country during early February 2021, though not as heavily as 2018. We would expect to see an increase in certain species during the coldest weeks, as birds seek food in gardens that is not available elsewhere. We expect to see lower counts of Great Tits and Blue Tits, which had a poor breeding season. We may see improved rates for Siskin, with several areas reporting higher than average numbers during autumn 2020.



BLUETTI, PHILIP CROFT / BTO

BTO GARDEN BIRD FEEDING SURVEY

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GBFS has been monitoring the numbers and variety of garden birds coming to supplementary foods in winter since 1970. It is the longest running annual survey of its kind in the world and allows direct comparison of garden types and locations over time.

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