

Hertfordshire & Middlesex Butterflies 2021



**Butterfly
Conservation**

Saving butterflies, moths and our environment

Andrew Wood

February 2022

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Front cover image: Duke of Burgundy by Andrew Wood

Introduction

Welcome to our 26th annual report on butterflies in our area. We are grateful to everyone who has submitted records for 2021 (and earlier years). If you still have records from previous years, we are very happy to add them to the county database as every bit of information helps to build up a picture of how butterflies are doing. Butterflies react very quickly to environmental changes so all this data is important in looking at the wider health of the climate and the environment.

Our branch website <http://www.hertsmiddx-butterflies.org.uk/> has a very active sightings page and we welcome all submissions to this too. Anything, once verified, sent there or submitted via the 'iRecord', 'iRecord Butterflies', 'iNaturalist' apps is added to the branch database and used in this report. We also have data from 72 butterfly transect routes and the Wider Countryside Butterfly Survey. You are also welcome to send records direct to me, preferably in a spreadsheet format. These should have columns for grid reference, site name, date, species and number and stage(s) seen. Big Butterfly Count numbers are used to show the distribution of species but have not been used for the flight charts as this survey covers only three weeks in high summer and to have included them would unduly skew these charts.

Weather summary

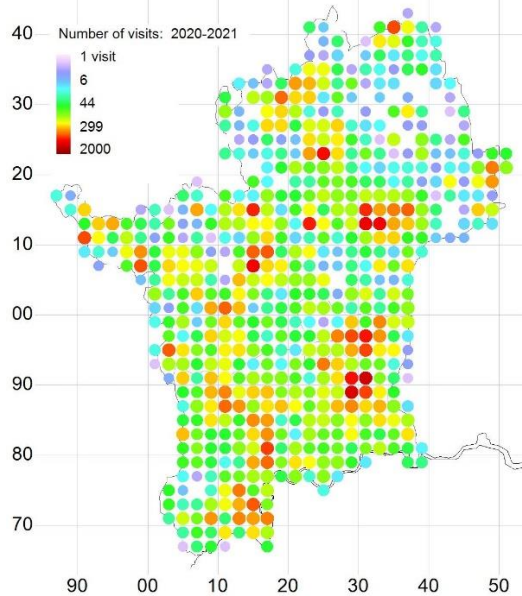
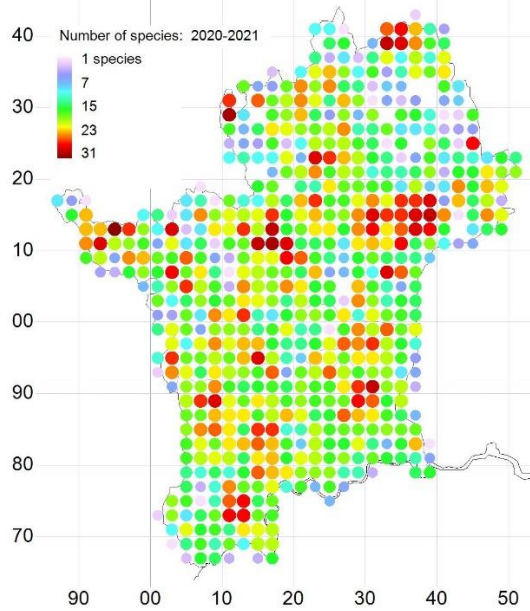
January	Wet and not very sunny. Temperatures were below average giving the coldest January since 2010.	July	Warmer than average and hot and dry mid-month. The last week was wet, and temperatures were average.
February	Generally mild after a cold start. Sunshine was below average and rainfall above it.	August	Very dull with well below average sunshine and average temperatures. Wet early on but drier later in the month.
March	Cold early on but much of the month was warmer than average. Sunshine amounts were average, and it was drier than normal.	September	Largely dry and sunny, especially in the middle of the month.
April	Dry and sunny but cold with more frosts than any April since 1960. The sunniest April since 1919. On average colder than March.	October	Unsettled and wet, but mild, especially in the middle of the month, and rather dull.
May	Cold and wet with below average sunshine and heavy rainfall. The 4 th wettest May since 1862.	November	Largely mild in the first two thirds of the month, colder in the final third. Low rainfall and above average sunshine.
June	Dry and warm in the first half, with cooler, showery weather in the second half. Rainfall was well below average with sunshine just above average.	December	Cold and dull with a mild spell mid-month and record mild but dull few days at the end of the month. Overall, the least sunny December since 1956

2021 was generally a poor year for butterfly numbers with many spells of cool, wet weather or dry but dull weather. The spring was exceptionally poor, and this influenced many species' flight times and breeding success.

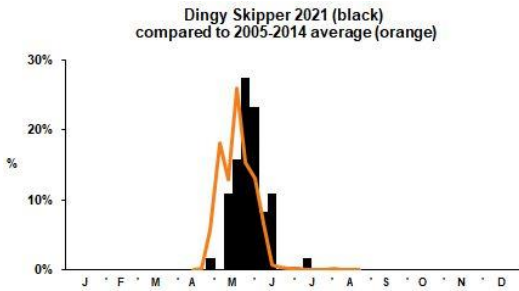
Recording Effort

This is the 2nd year of the 5-year 2020 -2024 survey. In 2021 we received records from 600 2 km squares in our area. For the two years of the survey, we have records for 641 2km squares. In 2021, 3379 recorders submitted 51036 records compared to 57354 records in 2020.

These maps show the number of species recorded (top) and number of recorder visits (bottom) for each square in 2021 and 2021. Our aim is to raise the white, purple and blue squares to the green, yellow and red categories to give our area maximum coverage.



Dingy Skipper *Erynnis tages*

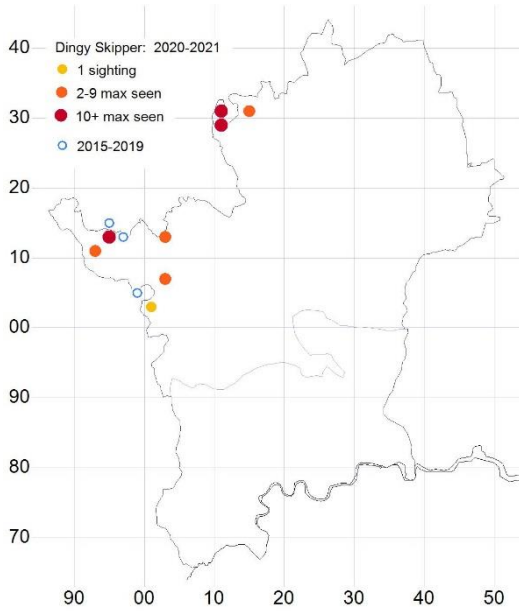


Restricted and rare



Photo Lucy Claxton

First: 24 Apr
Last: 9 Jul
Peak week: 21-27 May



Distribution % squares	
2021	1% (6)
2020	1% (7)
2015-19 mean	1%

Abundance (transects)	
2021	5
2020	3
2015-19 mean	9

Distribution change
Unchanged compared with 2015-2019

Abundance change
Down 44% compared with 2015-2019

Restricted to the west and north-west of Hertfordshire, mainly in chalky landscapes except for Bovington Brick Pits. Dingy Skipper was not seen in large numbers anywhere except the HMWT reserve at Hexton Chalk Pit where there were three double figure counts, all in the second half of May. Not surprisingly, given the poor spring the main flight period and peak week were about two weeks later than the longer term. There were no records from Shrubhill Common, but it was recorded on the Wood Lane, Pirton Transect.

Grizzled Skipper *Pyrgus malvae*

Restricted & rare

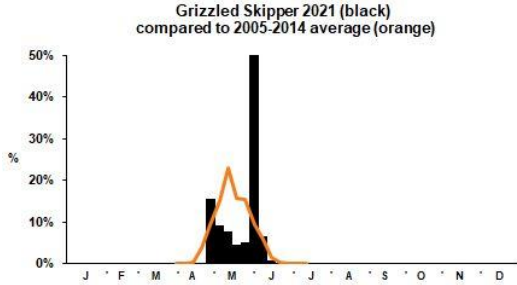
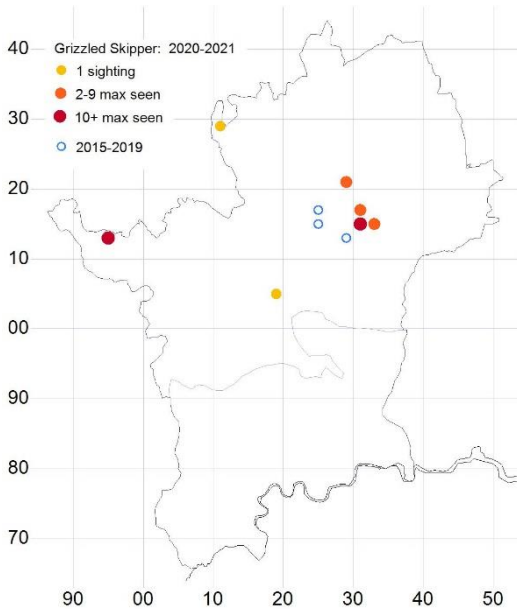


Photo Chris Benton

First: 23 Apr

Last: 14 Jun

Peak week: 28 May – 3 Jun



Distribution % squares	
2021	1% (7)
2020	1% (5)
2015-19 mean	1%

Abundance (transects)	
2021	7
2020	10
2015-19 mean	8

Distribution change	
Unchanged compared with 2015-2019	

Abundance change	
Down 13% compared with 2015-2019	

Like most of the spring-flying species the poor weather meant low numbers and late flight dates. The peak week was a full four weeks later than 2020. After last year's increase in abundance figures there was a drop back below the longer-term average. There was only one double figure count, at Waterford Heath North Pit on 2 June. The marked peak, late in the flight season, in early June is largely caused by intensive searching at several Beane valley sites.

Essex Skipper *Thymelicus lineola*

Widespread but recently declining

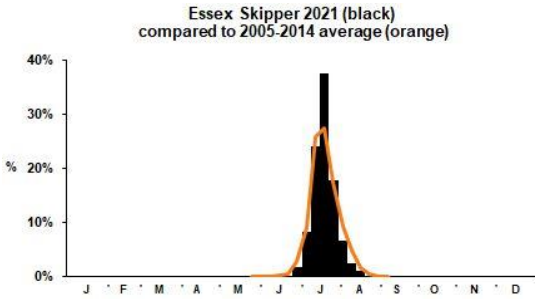
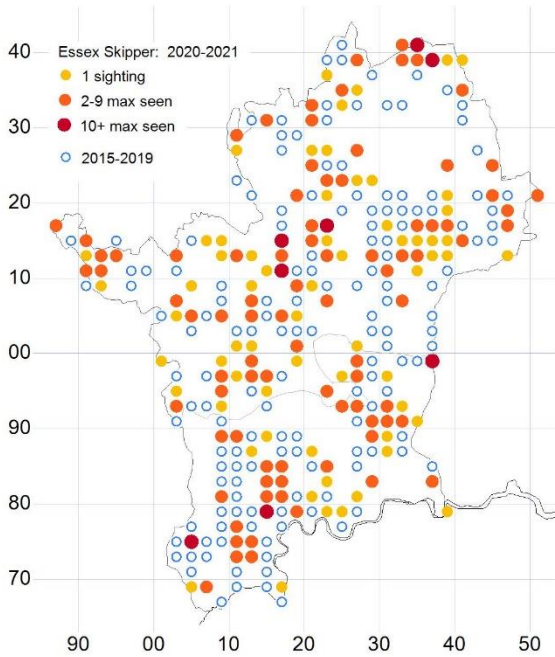


Photo Andrew Wood

First: 26 Jun
Last: 20 Aug
Peak week: 16-22 Jul



Distribution % squares	
2021	16% (95)
2020	18% (111)
2015-19 mean	17%

Abundance (transects)	
2021	5
2020	7
2015-19 mean	10

Distribution change	
Down 6% compared with 2015-2019	

Abundance change	
Down 50% compared with 2015-2019	

The Essex Skipper spends the winter as an egg and so emerges as a caterpillar to feed later than the Small Skipper. This may have helped it to avoid a little more of the cold spring and enable it to have a flight period that was a very close reflection of the longer-term average. Its flight period was about two weeks later starting and finishing than 2020. The further drop in abundance figures is worrying as is the small drop in recorded squares, after a couple years of slight recovery. There were only three double figured counts through the year. As the map shows there are many areas where it has not been recorded in the current survey period.

Small Skipper *Thymelicus sylvestris*

Widespread but recently declining

Small Skipper 2021 (black) compared to 2005-2014 average (orange)

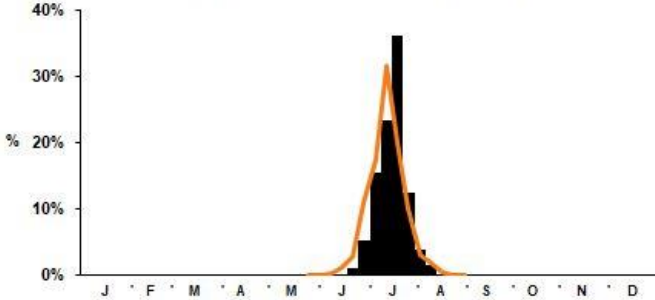
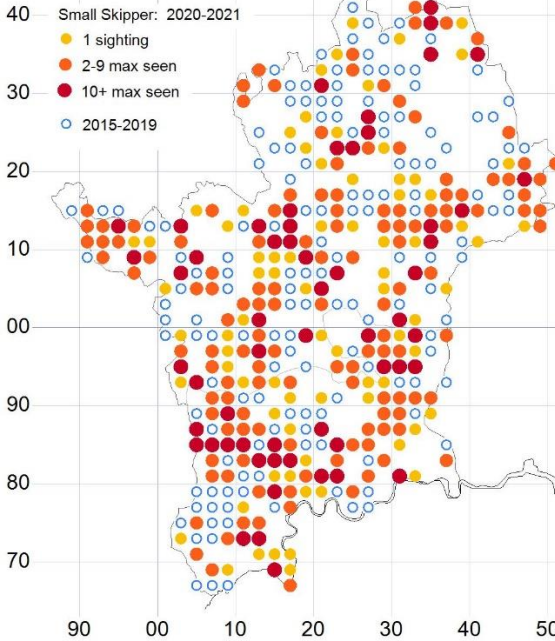


Photo Chris Benton

First: 13 Jun
Last: 25 Aug
Peak week: 16-22 Jul



Distribution % squares	
2021	26% (158)
2020	30% (179)
2015-19 mean	26%

Abundance (transects)	
2021	16
2020	18
2015-19 mean	20

Distribution change
Unchanged compared with 2015-2019

Abundance change
Down 20% compared with 2015-2019

The Small Skipper emerged late due to the delay in the caterpillars maturing during the cold wet spring. The flight period was two weeks later than 2020 and slightly later than the long-term pattern. Distribution and abundance were down compared to the previous year, giving the same concern for this species as for the Essex Skipper. I am again emphasising that great care should be taken to distinguish this skipper from the Essex Skipper and early in the flight season, checking that the butterfly you record is not a Large Skipper (which is only relatively larger!). See https://www.hertsmiddx-butterflies.org.uk/identification_sippers-new.php#s.

Large Skipper *Ochlodes sylvanus*

Widespread but recently declining

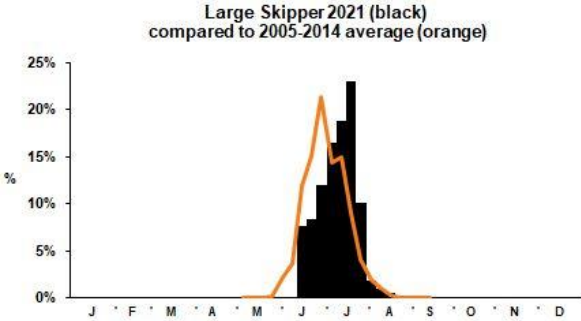
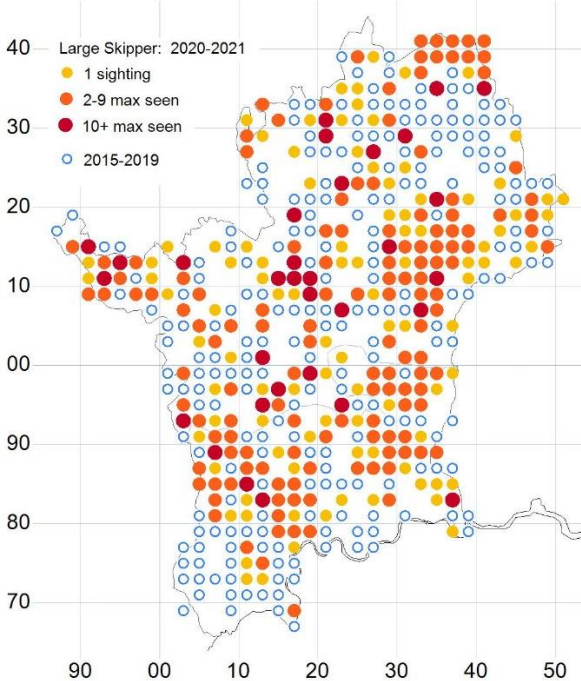


Photo Chris Benton



First: 31 May
Last: 25 Aug
Peak week: 16-22 Jul

Distribution % squares	
2021	30% (181)
2020	31% (181)
2015-19 mean	35%

Abundance (transects)	
2021	16
2020	22
2015-19 mean	19

Distribution change
Down 14% compared with 2015-2019

Abundance change
Down 16% compared with 2015-2019

Just like the two other golden skipper species, the Large Skipper’s flight was delayed by two weeks and its peak by four weeks compared to 2020 for similar reasons to the Small Skipper. Distribution held up compared to 2020, although many extra squares were covered in the Royston area in the north of Hertfordshire, showing that many species may be more widely found if the less likely looking squares are surveyed. This shows how visiting areas away from the traditional hot spots can add useful information to our knowledge. Like its close relations, its abundance figures continued to drop.

Orange Tip *Anthocharis cardamines*

Widespread & Common

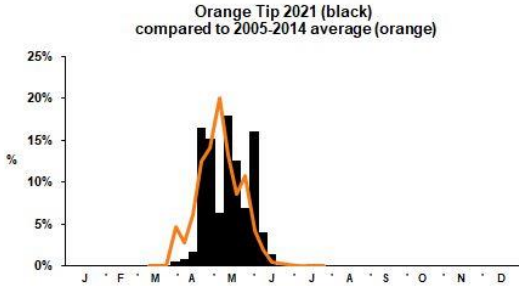
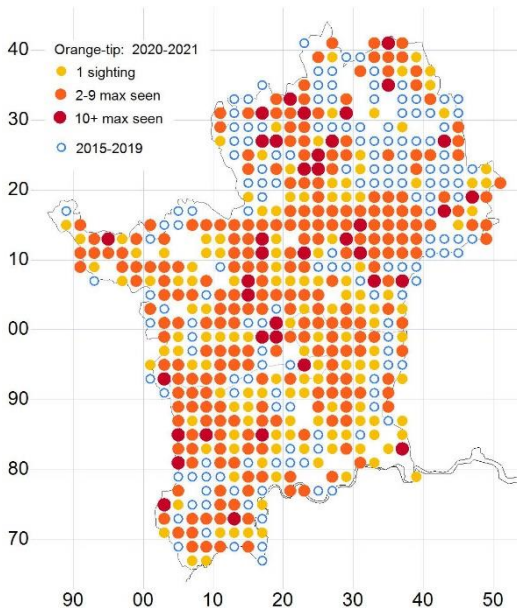


Photo Chris Benton

First: 22 Mar

Last: 19 Jul

Peak week: 7-13 May



Distribution % squares

2021	50% (302)
2020	45% (272)
2015-19 mean	42%

Abundance (transects)

2021	13
2020	13
2015-19 mean	16

Distribution change

Up 20% compared with 2015-2019

Abundance change

Down 18% compared with 2015-2019

The strangely jagged flight chart compared to previous years serves to point up the poor spring weather where very short, good spells of weather alternated with cold and wet conditions. It's also noticeable that the whole flight period was delayed compared to the longer-term pattern and especially compared to the mild spring of 2020 with the peak week being three weeks later than that year. Although abundance was down, compared to last year and the longer-term trend the number of squares where it was recorded increased noticeably. Like last year there were a few mid-July records.

Large White *Pieris brassicae*

Widespread & common

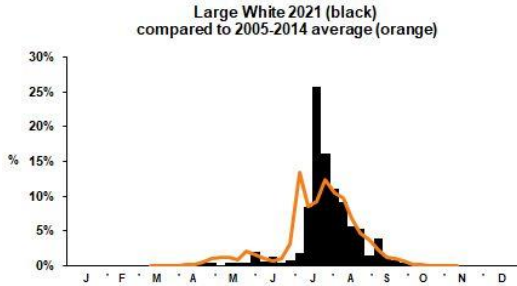
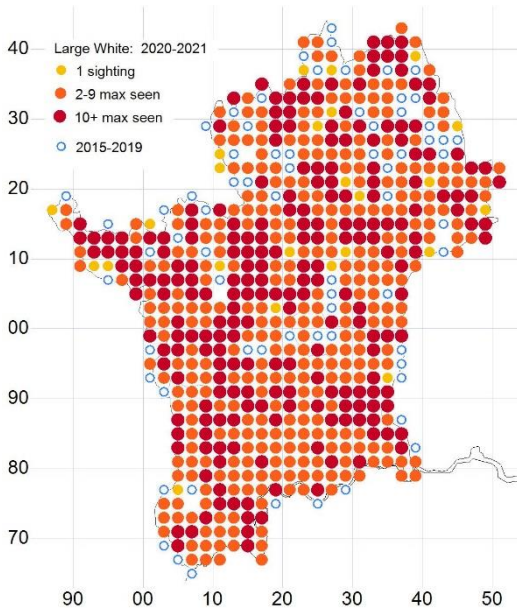


Photo Chris Benton



First: 14 Mar
Last: 27 Oct
Peak week: 16-22 Jul

Distribution % squares	
2021	83% (498)
2020	87% (528)
2015-19 mean	77%

Abundance (transects)	
2021	30
2020	55
2015-19 mean	47

Distribution change
Up 8% compared with 2015-2019

Abundance change
Down 32% compared with 2015-2019

This species continues to be doing well, even if there is a slight fall in distribution from last year. The spring flight period was affected by the poor weather. The always larger summer flight began later but peaked at the same time as 2020. As with so many other species the abundance was well down on the previous year and the longer-term average. With the later start to flight times it is perhaps not a surprise that examples were recorded throughout the summer and autumn, finishing over three weeks later than 2020.

Small White *Pieris rapae*

Widespread & common

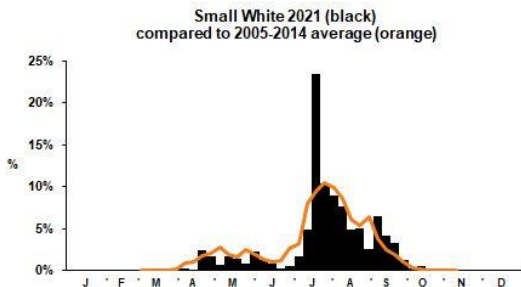
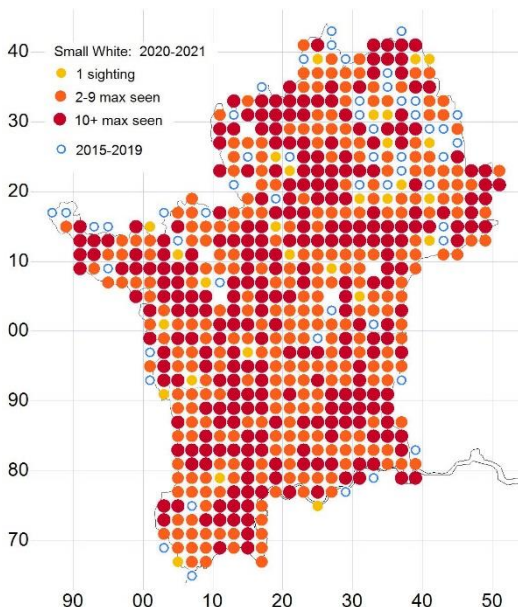


Photo Andrew Wood

First: 14 Mar
Last: 27 Oct
Peak week: 16-22 Jul



Distribution % squares	
2021	87% (522)
2020	90% (545))
2015-19 mean	80%

Abundance (transects)	
2021	60
2020	78
2015-19 mean	64

Distribution change	
Up 11% compared with 2015-2019	

Abundance change	
Down 6% compared with 2015-2019	

Like its larger relation it was a good year for the Small White, even if abundance and distribution fell back slightly from last year. Both broods were about a week later than 2020. The third peak in September was present for the third year running

Green-veined White *Pieris napi*

Widespread & common

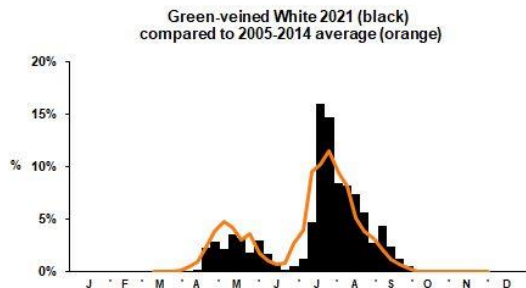
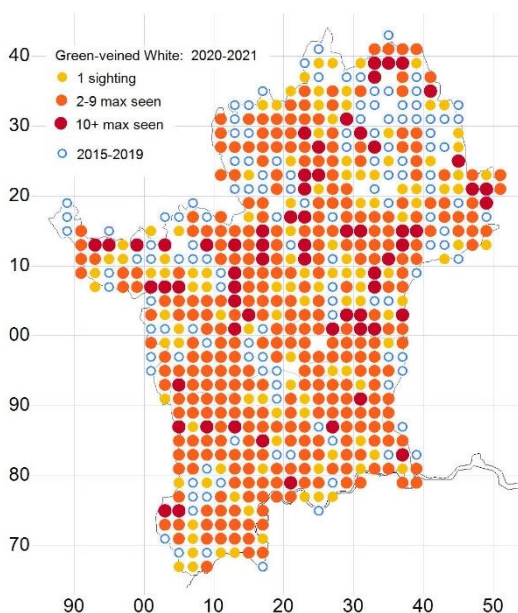


Photo Chris Benton



First: 29 Mar
 Last: 24 Oct
 Peak week: 16-22 Jul

Distribution % squares	
2021	64% (384)
2020	68% (408)
2015-19 mean	58%

Abundance (transects)	
2021	30
2020	38
2015-19 mean	38

Distribution change
Up 9% compared with 2015-2019

Abundance change
Down 22% compared with 2015-2019

As with the Orange Tip there was a series of peaks and troughs in the spring brood, rather than a smooth curve, reflecting the ups and downs of the poor spring. The proportion of the adults flying in the spring was well down on both the previous year and the longer-term trends. Interestingly although the summer brood was later, it peaked at the same times as 2020. As with the other two white species they seem to have survived the poor 2021 weather quite well.

Clouded Yellow *Colias croceus*

Less common migrant

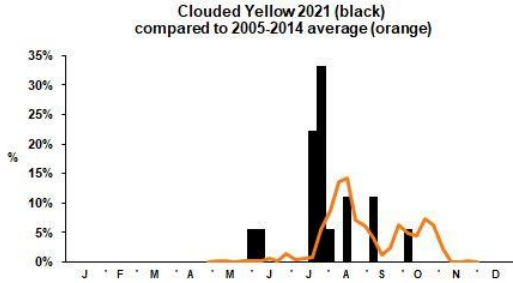
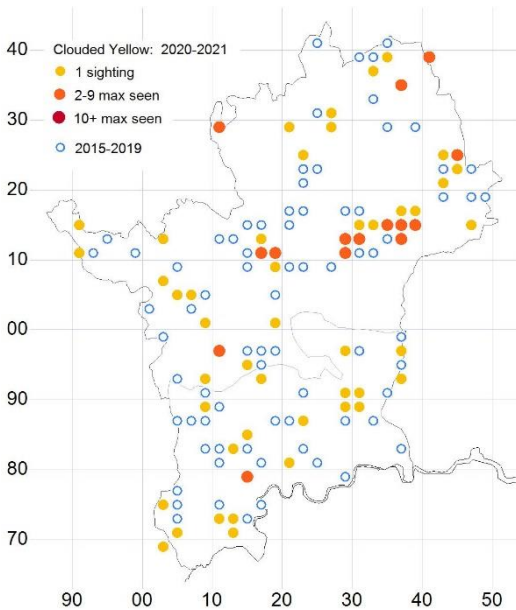


Photo Peter Elton

First: 2 Jun
Last: 1 Oct
Peak week: 23 Jul–29 Jul



Distribution % squares	
2021	3% (16)
2020	7% (44)
2015-19 mean	4%

Abundance (transects)	
2021	1
2020	2
2015-19 mean	1

Distribution change
Down 25% compared with 2015-2019

Abundance change
Unchanged compared with 2015-2019

The Clouded Yellow is normally the least common of the three regular migratory adult butterflies in Britain and 2021 was no exception with distribution and abundance both well down. The flight chart, albeit based on only 18 records, is very disjointed, illustrating the lack of an organised migration event. Unlike 2020, the now widely planted fields of clover did not yield many records, despite considerable searching.

Brimstone *Gonepteryx rhamni*

Widespread

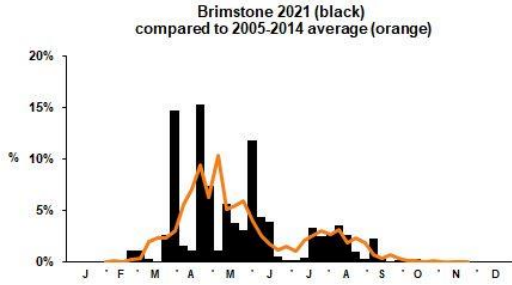
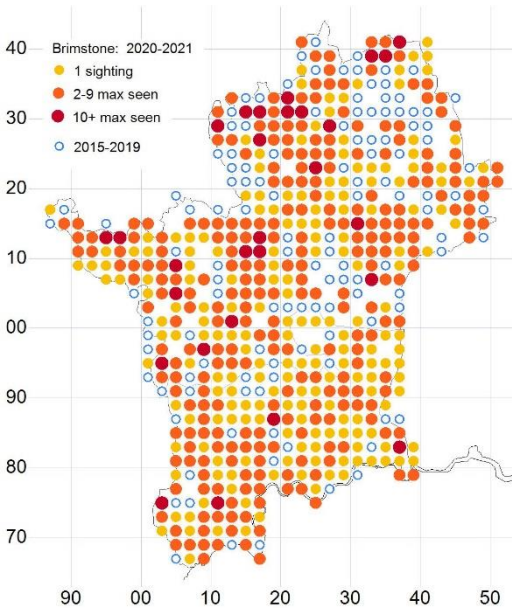


Photo Chris Benton



First: 31 Jan

Last: 9 Nov

Peak week: 16-22 Apr

Distribution % squares	
2021	65% (388)
2020	56% (339)
2015-19 mean	53%

Abundance (transects)	
2021	21
2020	12
2015-19 mean	19

Distribution change
Up 22% compared with 2015-2019

Abundance change
Up 9% compared with 2015-2019

Unlike most other species the Brimstone experienced a successful year with increase in both abundance and distribution. This is particularly unusual for one of our least volatile species. As with several other species with a spring flight period there were several peaks and troughs reflecting the ups and downs of the weather. There was a noticeable break between the end of the spring brood and the summer one which is also unusual.

Speckled Wood *Pararge aegeria*

Widespread & common

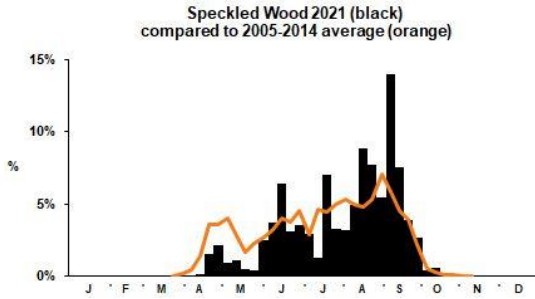
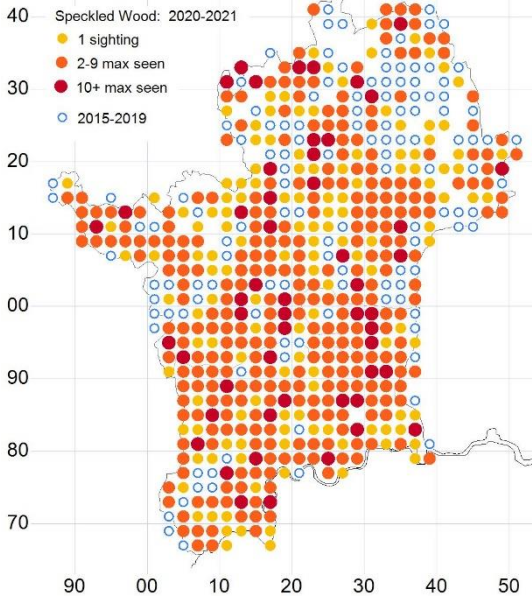


Photo Chris Benton



First: 5 Feb
Last: 22 Nov
Peak week: 3 – 9 Sep

Distribution % squares	
2021	60% (357)
2020	62% (376))
2015-19 mean	61%

Abundance (transects)	
2021	37
2020	30
2015-19 mean	48

Distribution change
Down 2% compared with 2015-2019

Abundance change
Down 21% compared with 2015-2019

The classic pattern of populations gradually growing through the year was very evident in 2021. The poor spring and better autumn meant that the first emergence was low and the final emergence proportionately large. The peak in the first week of September is also the usual pattern for this species. Also, unlike many other species, distribution was not vastly different from the previous year or the longer-term trends. Abundance was more than in 2020, but well down on the longer term data and counts of over 10 on transects were again rare.

Small Heath *Coenonympha pamphilus*

Widespread

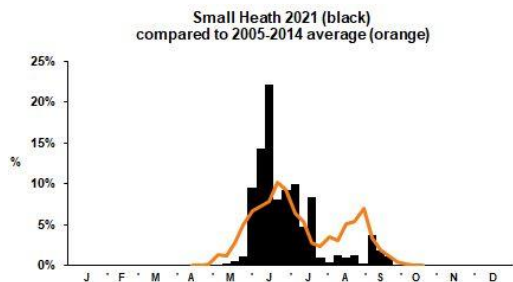
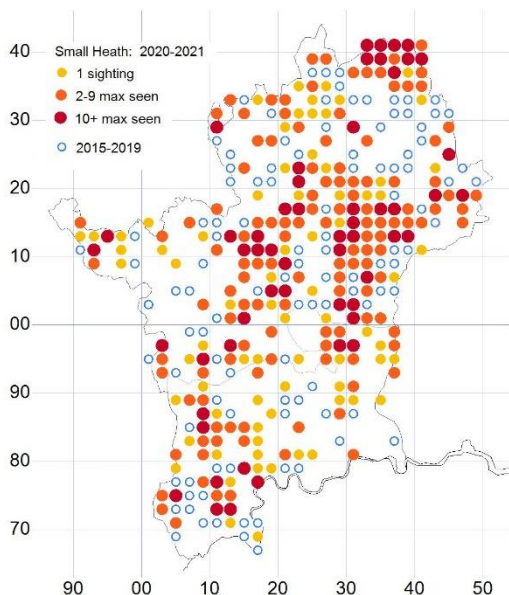


Photo Chris Benton

First: 1 May

Last: 27 Oct

Peak week: 11-17 Jun



Distribution % squares	
2021	27% (160)
2020	33% (198)
2015-19 mean	20%

Abundance (transects)	
2021	32
2020	47
2015-19 mean	42

Distribution change
Up 35% compared with 2015-2019

Abundance change
Down 25% compared with 2015-2019

Having celebrated the continuing success of this little butterfly in last year's report it is a shame to have to report drops in both abundance and distribution from last year, although the distribution is still well above the longer-term average. Start and finish times were three weeks later than in 2020 and as the flight chart shows, its flight time in the spring and early summer was late compared to the longer-term average. The very small summer flight does not bode well for spring numbers in 2022.

Ringlet *Aphantopus hyperantus*

Widespread & Common

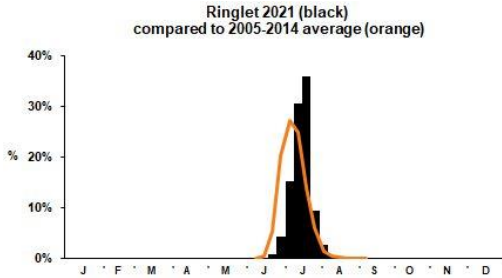
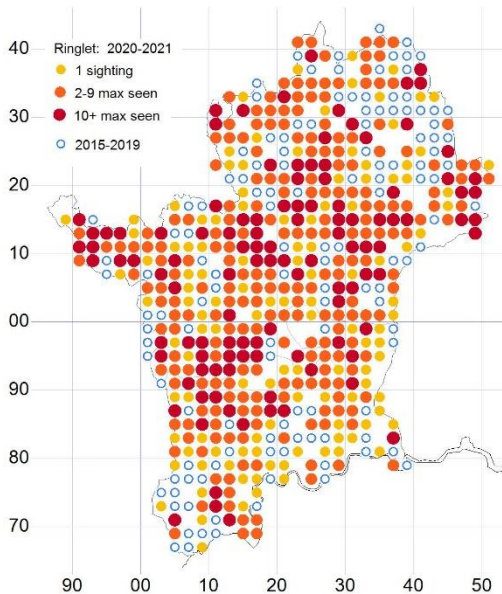


Photo Chris Benton



First: 8 Jun
Last: 15 Sep
Peak week: 16-22 Jul

Distribution % squares	
2021	60% (359)
2020	55% (332)
2015-19 mean	45%

Abundance (transects)	
2021	53
2020	62
2015-19 mean	108

Distribution change
Up 33% compared with 2015-2019

Abundance change
Down 52% compared with 2015-2019

Despite the poor spring the first flight date was only six days later than 2020, the peak was two weeks later, and the last date was just over two weeks later. Strangely this butterfly was recorded in many more squares than last year, but the actual numbers plummeted on transects, probably a reflection of the cold wet spring holding back and damaging the ability of the caterpillars to feed up successfully. This is well illustrated from its best site, Balls Wood where the maximum weekly count over the last three years is: 2019 - 514, 2020 - 202, 2021 - 127.

Meadow Brown *Maniola jurtina*

Widespread & Common

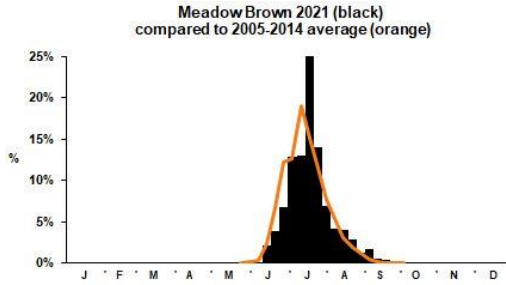
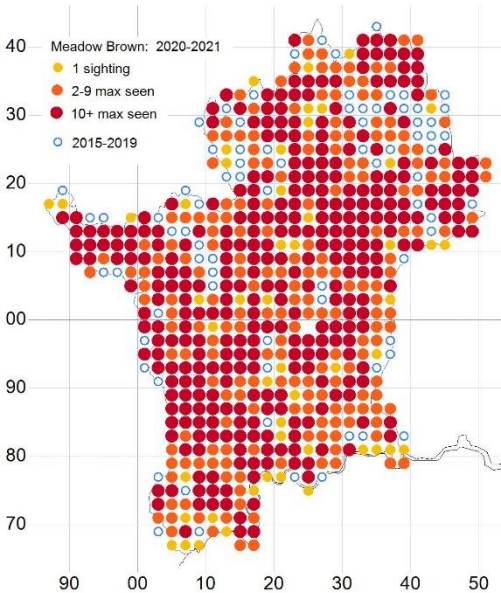


Photo Chris Benton

First: 30 May

Last: 9 Oct

Peak week: 16-22 Jul



Distribution % squares

2021	81% (486)
2020	82% (492)
2015-19 mean	68%

Abundance (transects)

2021	228
2020	266
2015-19 mean	307

Distribution change

Up 17% compared with 2015-2019

Abundance change

Down 26% compared with 2015-2019

The development time and therefore first and last flight times were only slightly affected by the cold, wet spring, much less of an effect than for other species. But like many other species although distribution held up, abundance dropped noticeably. The effect on flight of that poor spring is illustrated by a comparison between May 2020 when there were 75 records and May 2021 when there were just two, one each on the final two days of the month.

Gatekeeper *Pyronia tithonus*

Widespread & common

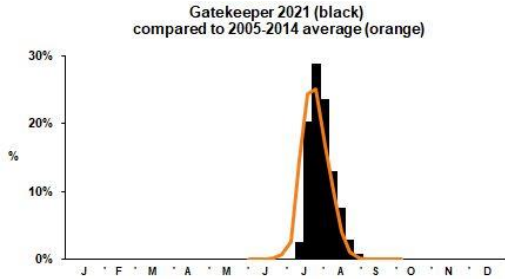
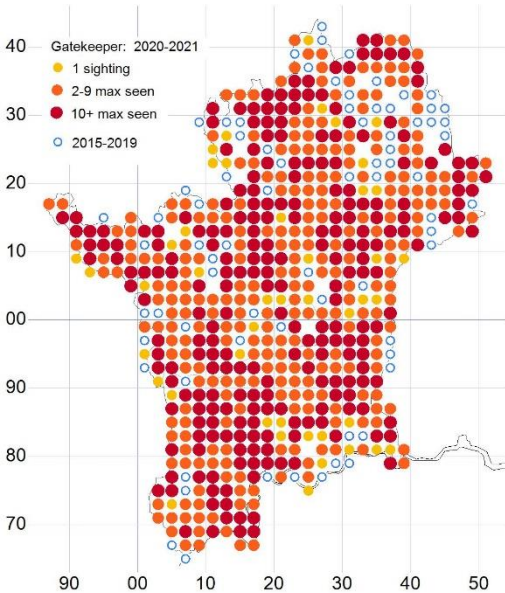


Photo Chris Benton



First: 12 Jun
Last: 15 Sep
Peak week: 23-29 Jul

Distribution % squares	
2021	76% (454)
2020	82% (492)
2015-19 mean	70%

Abundance (transects)	
2021	62
2020	82
2015-19 mean	85

Distribution change
Up 9% compared with 2015-2019

Abundance change
Down 22% compared with 2015-2019

Following the pattern of other close relations, numbers dropped noticeably, although it continued to be well distributed. Again, not surprisingly it began to fly later than the longer-term average but did not fly for significantly longer leading to a short rather concentrated flight period. It was still flying widely in the first week of September and these records constituted a higher proportion of adults on the wing that late compared to any previous year.

Marbled White *Melanargia galathea*

Widespread

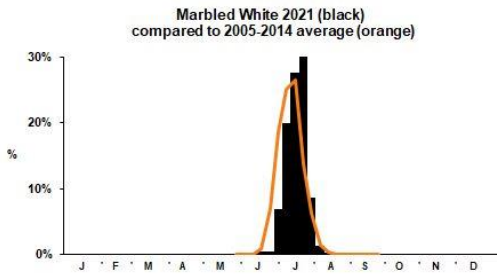
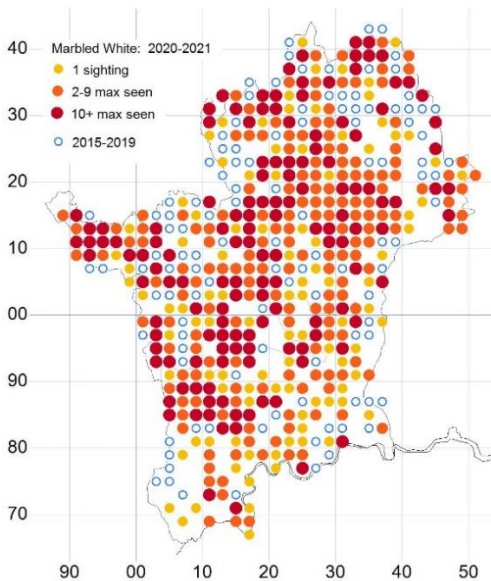


Photo Chris Benton

First: 14 Jun

Last: 20 Aug

Peak week: 16-22 Ju1



Distribution % squares

2021	53% (319)
2020	48% (291)
2015-19 mean	34%

Abundance (transects)

2021	74
2020	97
2015-19 mean	90

Distribution change

Up 55% compared with 2015-2019

Abundance change

Down 18% compared with 2015-2019

The flight period of this species and Gatekeeper are almost identical, except that the flight ended three weeks earlier. Compared to earlier years this species had a delayed flight time and like many others numbers were down, even though it was recorded in more squares on the map. Its movement into Middlesex is well illustrated in that the largest counts came from transects on Horsenden Hill in the London Borough of Ealing.

Dark Green Fritillary *Argynnis aglaja*

Restricted to chalky areas

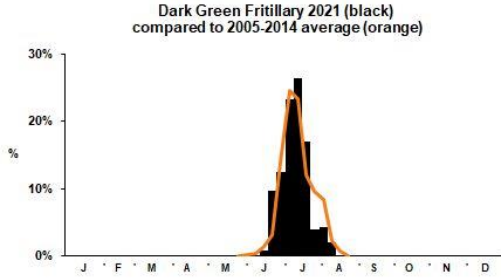
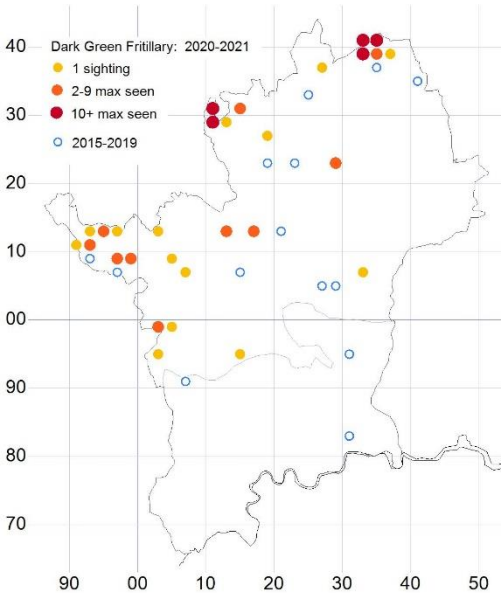


Photo Chris Benton

First: 15 Jun

Last: 11 Aug

Peak week: 2-5 Jul



Distribution % squares	
2021	3% (19)
2020	3% (17)
2015-19 mean	2%

Abundance (transects)	
2021	8
2020	9
2015-19 mean	14

Distribution change
Up 50% compared with 2015-2019

Abundance change
Up 60% compared with 2015-2019

Unlike almost all the species in this report, 2021's weather seemed to make little difference to this butterfly in terms of abundance or distribution. However it was affected by the poor spring with a flight period and peak week pushed on about two weeks compared to 2020. As in 2020, Therfield Heath saw the largest numbers with 40 recorded by several recorders on different occasions. Worryingly there were only three reports from what was, until the last two years, the best site of Hexton Chalk Pit with a maximum count of only 18. I am still concerned that some of the records received from outside north west Hertfordshire may be the not dissimilar Silver-washed Fritillary.

Silver-washed Fritillary *Argynnis paphia*

Locally common, spreading

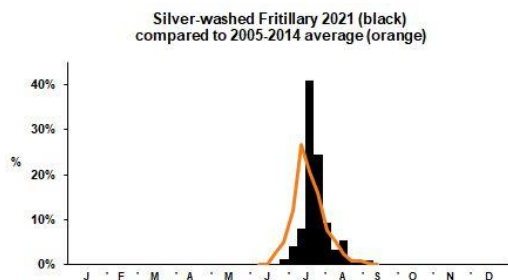
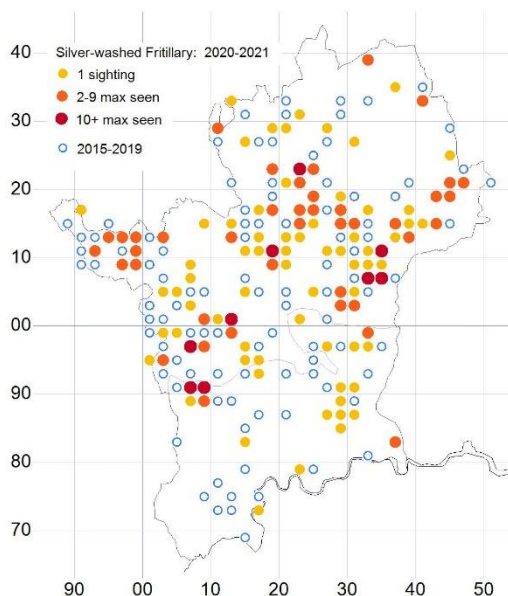


Photo Chris Benton

First: 23 Jun

Last: 13 Sep

Peak week: 16-22 July



Distribution % squares	
2021	12% (63)
2020	12% (72)
2015-19 mean	11%

Abundance (transects)	
2021	8
2020	13
2015-19 mean	14

Distribution change
Up 9% compared with 2015-2019

Abundance change
Down 42% compared with 2015-2019

Not unusually for 2021, there was a slight drop in distribution and a larger one in abundance. The flight period was pushed back by three weeks compared to 2020 and as the flight chart shows it was well behind the longer-term curve. The dots for the last two years show that this is now a well distributed butterfly across Hertfordshire and parts of north and eastern Middlesex. It can be expected in virtually any deciduous wood as well as now turning up in gardens, often on buddleias in several places such as Watton at Stone, Weston, South Mymms and Hertford.

White Admiral *Limenithis camilla*

Declining woodland species

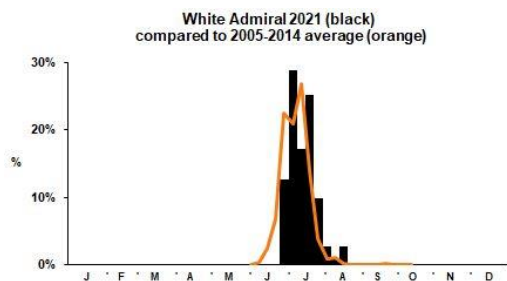
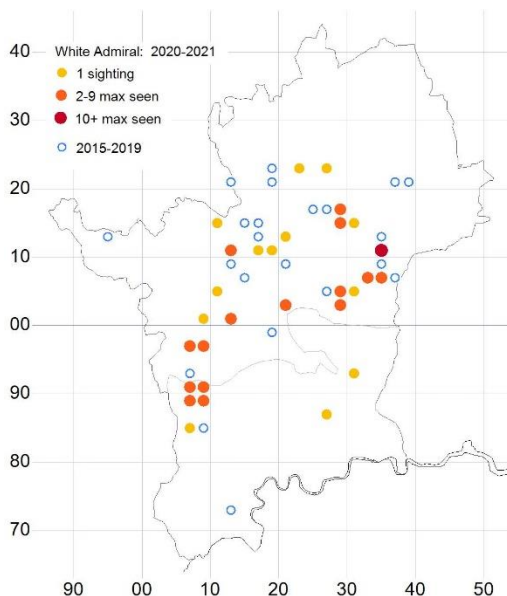


Photo Chris Benton



First: 27 Jun

Last: 15 Aug

Peak week: 2–8 Jul

Distribution % squares	
2021	3% (19)
2020	3% (21)
2015-19 mean	3%

Abundance (transects)	
2021	4
2020	4
2015-19 mean	5

Distribution change	
Unchanged compared with 2015-2019	

Abundance change	
Down 20% compared with 2015-2019	

Not a great deal of change for this species, which is in decline in many areas, both locally and nationally. Most of our records were from the usual large woodland complexes in south Hertfordshire and north Middlesex but, as last year, there were some records from new sites. These included a rare record from Hampstead Heath, one in Harpenden and one in a garden at Waterford a good two miles from the Bramfield sites. In common with so many species the flight period was about two weeks later than 2020 and not surprisingly there were no second brood records. Records from transect sites were again low, with a total of 6 at Bricket Wood Common and only 5 at Balls Wood.

Purple Emperor *Apatura iris*

Local and increasing in woodland

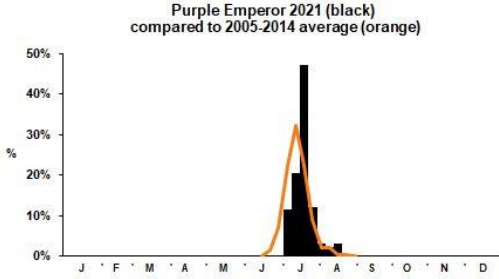
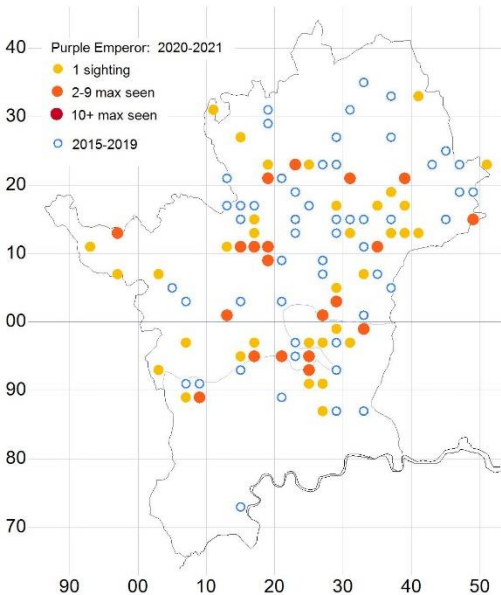


Photo Murray Brown

First 4 Jul

Last 19 Aug

Peak week: 16-22 Jul



Distribution % squares	
2021	7% (40)
2020	4% (27)
2015-19 mean	5%

Abundance (transects)	
2021	2
2020	2
2015-19 mean	1

Distribution change
Up 40% compared with 2015-2019

Abundance change
Up 50% compared with 2015-2019

There was actually a large increase in sites where this fine butterfly was recorded during 2021. Away from the usual woodland locations it was seen in a garden in Hemel Hempstead in western Hertfordshire, Whempstead and the small Post Wood in Ware both in east Hertfordshire and at Hardwick Fruit Farm just north of St Albans and Marshall’s Heath both in central Hertfordshire. Those two central Hertfordshire sites are relatively close to the Woodland Trust’s Heartwood Forest which current data shows is now the best place in our area to see the Purple Emperor.

Red Admiral *Vanessa atalanta*

Common migrant/Resident

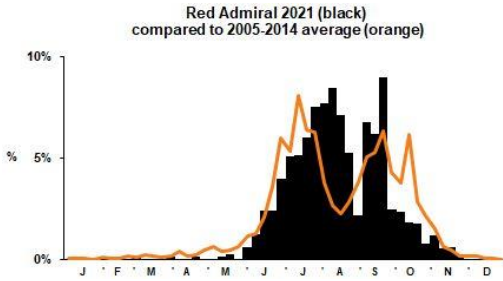
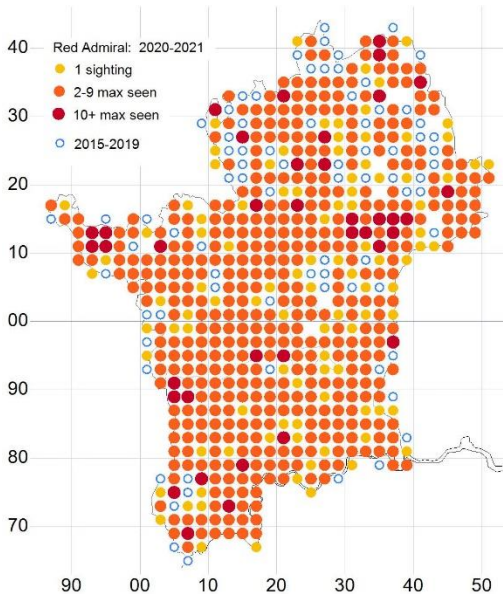


Photo Chris Benton

First: 21 Feb
Last: 31 Dec
Peak week: 7–23 Sep



Distribution % squares	
2021	83% (494)
2020	81% (492)
2015-19 mean	68%

Abundance (transects)	
2021	15
2020	9
2015-19 mean	9

Distribution change
Up 22% compared with 2015-2019

Abundance change
Up 67% compared with 2015-2019

One of only a few species to have had a successful year in 2021. There were very few winter records, suggesting that the vast majority of Red Admirals seen in 2021 were migrants or their offspring bred locally during the year. Flight was later than both last year and over a long-term period but the occupied squares were slightly up and the abundance on transects was considerably up. Unlike 2019 and 2020 they were very evident during the autumn through October and into November, though nowhere in huge numbers. The very mild last few days of December led to several records, largely from inner London. These may have been taking advantage of the London heat island.

Painted Lady *Vanessa cardui*

Variable migrant

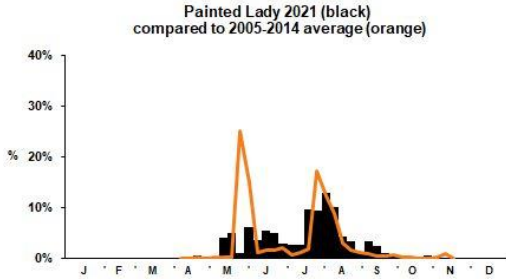
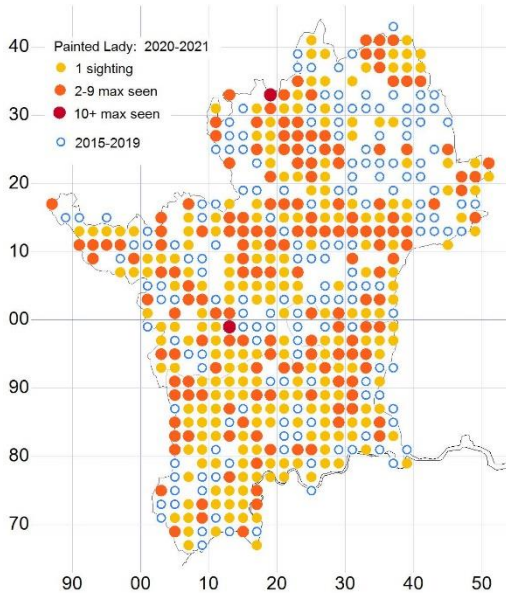


Photo Chris Benton

First: 14 Mar

Last: 28 Oct

Peak week: 16-22 Jul



Distribution % squares

2021	52% (312)
2020	35% (213)
2015-19 mean	43%

Abundance (transects)

2021	3
2020	1
2015-19 mean	4

Distribution change

Up 22% compared with 2015-2019

Abundance change

Down 25% compared with 2015-2019

The Painted Lady had a pretty good year in 2021, but without the year being good enough to be called a Painted Lady year. The usual early influx of migrants around the end of May was relatively small but during July and August there were many records, a peak week in mid-July at the start of the period is suggestive of more migrants arriving in reasonable numbers before dispersing across our area. By far the largest count of 22 came from the Hitchin Lavender Farm on 10 August, but most counts were of 1-3 individuals.

Peacock *Inachis io*

Common & Widespread

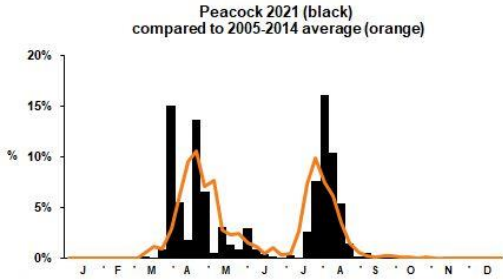
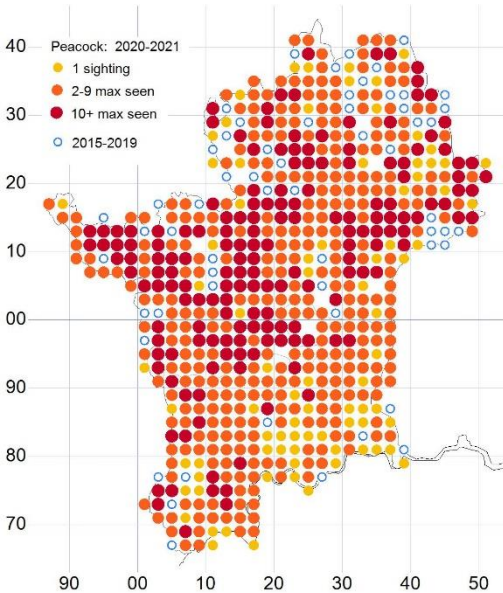


Photo Chris Benton

First: 17 Jan
Last: 23 Nov
Peak week: 30 Jul – 5 Aug



Distribution % squares	
2021	80% (479)
2020	85% (512)
2015-19 mean	63%

Abundance (transects)	
2021	28
2020	28
2015-19 mean	20

Distribution change
Up 25% compared with 2015-2019

Abundance change
Up 40% compared with 2015-2019

The fact that the adults hibernate meant that spring numbers were quite good as they did not rely on good weather for larval development, however the saw-toothed flight chart shows the effect of spells of very poor spring weather. The summer emergence was slightly delayed but was much more of a classic rising and falling curve, with individuals entering hibernation as soon as they have taken enough nectar to last through the winter. Records of caterpillars in September and a small flurry of adult records from the end of October into November suggests another small and partial second generation.

Small Tortoiseshell *Aglais urticae*

Common & Widespread

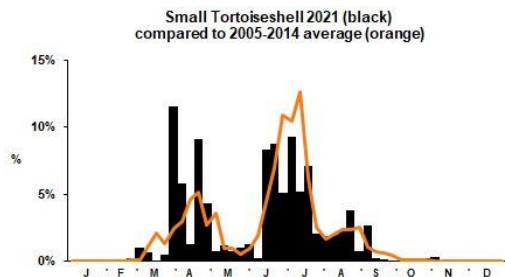
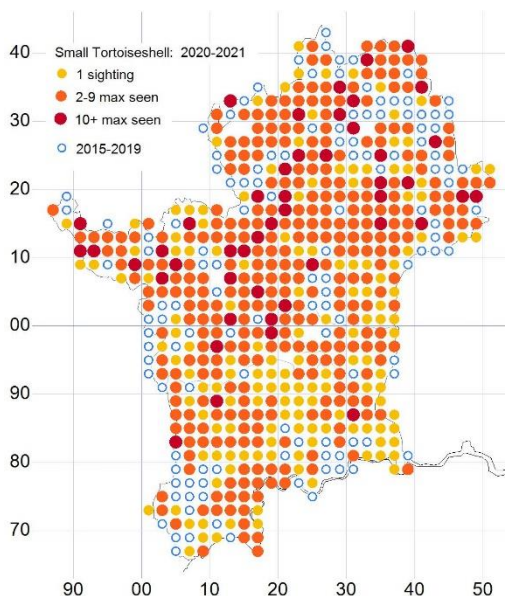


Photo Andrew Wood

First: 21 Feb

Last: 25 Nov

Peak week: 26 Mar – 1 Apr



Distribution % squares	
2021	65% (387)
2020	70% (423)
2015-19 mean	66%

Abundance (transects)	
2021	10
2020	16
2015-19 mean	19

Distribution change
Down 1% compared with 2015-2019

Abundance change
Down 90% compared with 2015-2019

Not such a good year for this species with noticeable drops in distribution and abundance, although it is still a common butterfly. The spring weather caused a somewhat disjointed flight period with the summer and small autumn broods being close to the longer-term averages. There were 24 February records between 21 and 28 February and only 23 between 9 and 22 March with none in between these two early sets of dates. There were appreciably more Small Tortoiseshells on the wing from August onwards compared to 2020. This suggests that the early records of hibernation in June and July in recent years is not yet habitual for this species.

Comma *Polygona c-album*

Common & widespread

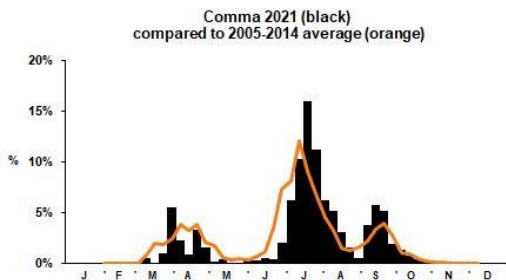
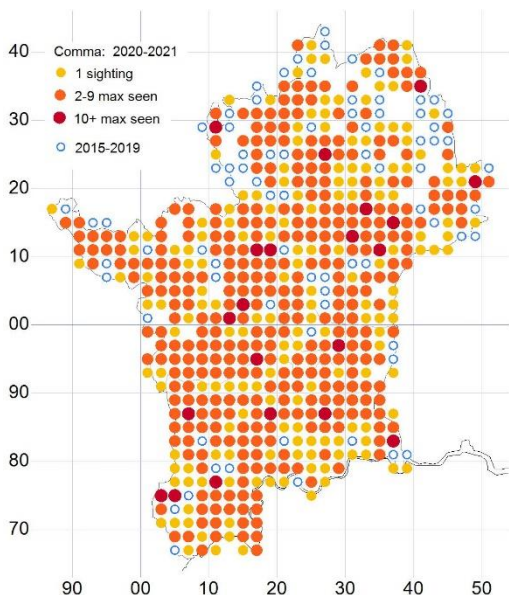


Photo Chris Benton

First: 21 Feb
Last: 22 Nov
Peak week: 16-22 Jul



Distribution % squares	
2021	67% (400)
2020	77% (463)
2015-19 mean	64%

Abundance (transects)	
2021	10
2020	13
2015-19 mean	15

Distribution change
Up 4% compared with 2015-2019

Abundance change
Down 33% compared with 2015-2019

The post hibernation flight was relatively small before typical, but slightly delayed summer and autumn generations. However, the distribution and abundance were well down and there were times when the Comma was the least encountered nymphalid species. The main brood was only about a week later than 2021, more examples this year of adults in autumn suggests that hibernation was not entered early unlike, possibly, 2020.

Duke of Burgundy *Hamearis lucina*

Rare and restricted

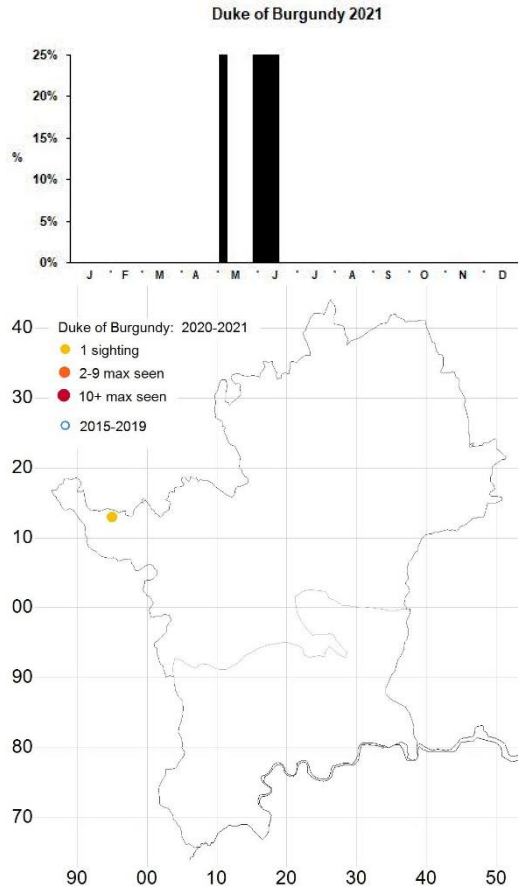


Photo Nick Murray

First: 2 May
 Last: 14 Jun
 Peak week: 4 equal weeks

Distribution % squares	
2021	1 (>1%)
2020	n/a
2015-19 mean	n/a

Abundance (transects)	
2021	2
2020	n/a
2015-19 mean	n/a

Distribution change
Insufficient data

Abundance change
Insufficient data

It is a real pleasure to include a full page for this small butterfly that has long lurked just outside our area over the Buckinghamshire border around Pitstone Hill. The last Hertfordshire record was an odd garden record in 2009 and the last confirmed records at Aldbury Nowers, where all this year's records (4 in total) were seen, was 1998 and before that 1994. In no year since 1990 have there been more than 4 records. As each record was on a separate date it is hard to know if this was one wanderer or several individuals. 2022 may help to answer this question if more are seen. It is important that management of the areas of cowslips on this HMWT reserve is prioritised for this nationally rare species.

Small Copper *Lycaena phlaeas*

Widespread & common

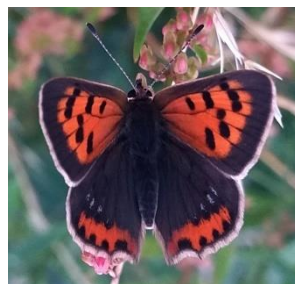
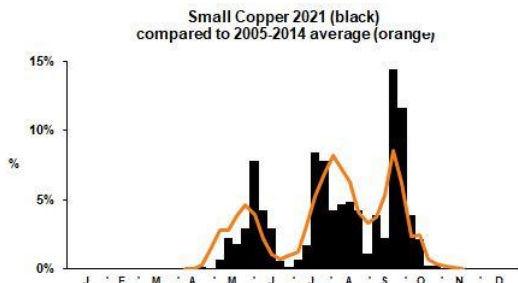
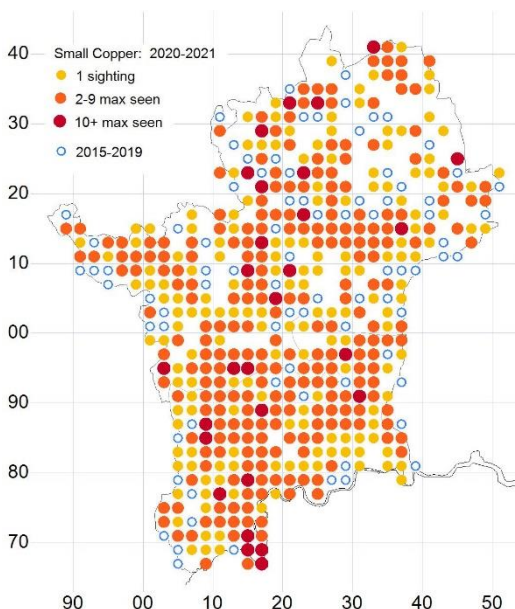


Photo Chris Benton



First: 20 Apr

Last: 17 Oct

Peak week: 17–23 Sep

Distribution % squares	
2021	55% (332)
2020	54% (328)
2015-19 mean	32%

Abundance (transects)	
2021	8
2020	14
2015-19 mean	10

Distribution change
Up 67% compared with 2015-2019

Abundance change
Down 20% compared with 2015-2019

The Small Copper continues to be well distributed in our area, but the numbers showed a big drop compared to last year and the longer-term average. Last year I said that Nomansland Common in central Hertfordshire was the best site for this species but based on numbers seen that site has been eclipsed by Bushy Park in south-west Middlesex. The spring brood flight was delayed due to the poor weather, but the summer and autumn broods were quite a close match to the longer-term pattern. For the second year running the peak numbers for each brood increased through the year.

Brown Hairstreak *Thecla betulae*

Very rare & restricted

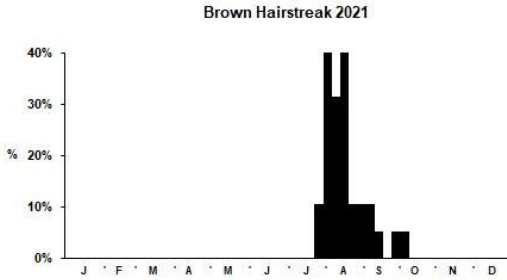
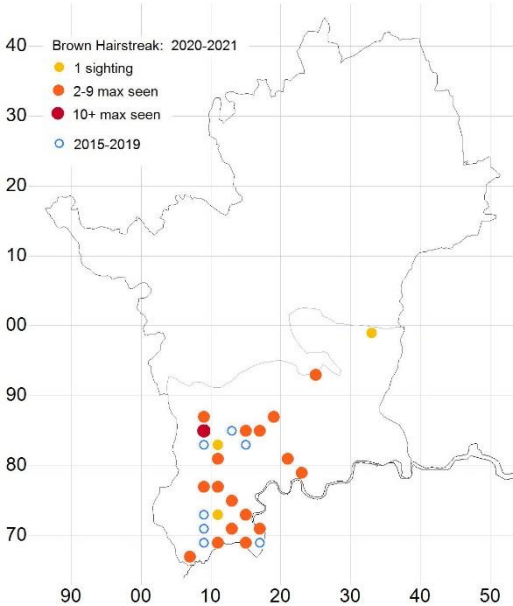


Photo Andrew Wood

First: 25 Jul

Last: 4 Oct

Peak week: 13-19 Aug



Distribution % squares	
2021	2% (13)
2020	2% (13)
2015-19 mean	1%

Abundance (transects)	
2021	No data
2020	No data
2015-19 mean	No data

Distribution change	
Insufficient data	

Abundance change	
No data	

A slightly later flight period for this spreading but still rare butterfly. The area around Stafford Road Open Space near Ruislip Gardens is still the stronghold for it, with an increasing number of observers reporting adults. More sympathetic management of the extensive blackthorn here has now been implemented. A few new sites were added this year including Margravine Cemetery (adults and larvae) near Fulham, Hounslow Heath, Whitewebbs Park in northern Enfield, Wormwood Scrubs and from a garden in Sunbury on Thames. It is certainly worth checking Blackthorn for the eggs before it starts flowering if you are anywhere in Middlesex or south Hertfordshire. For detailed information please look at <https://tinyurl.com/wcucxj5>.

Purple Hairstreak *Neozephyrus quercus*

Common around oaks

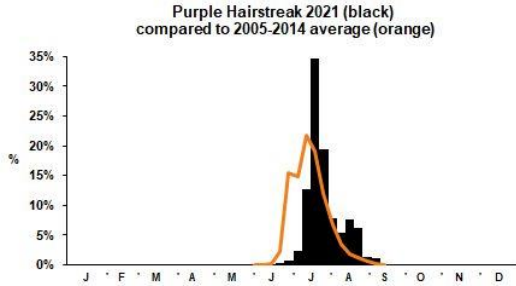
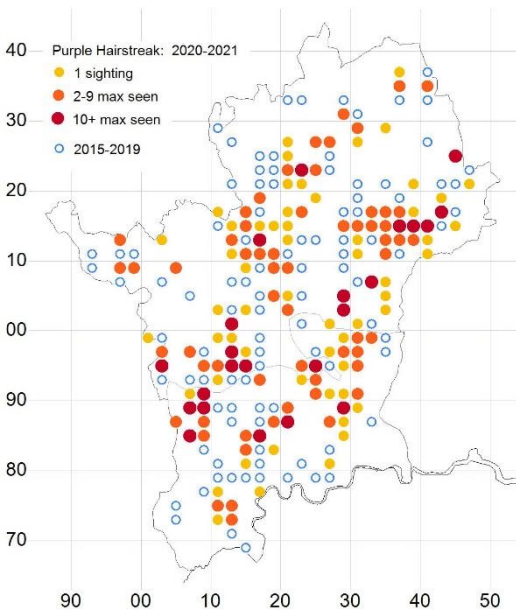


Photo Andrew Wood

First: 14 Jun

Last: 8 Sep

Peak week: 16-22 Jul



Distribution % squares	
2021	12% (73)
2020	17% (103)
2015-19 mean	13%

Abundance (transects)	
2021	7
2020	13
2015-19 mean	7

Distribution change
Down 8% compared with 2015-2019

Abundance change
Unchanged compared with 2015-2019

Not a great year after last year's improvement, however it remains our most abundant hairstreak and its habits make it one of our more under-recorded species. The poor spring weather delayed caterpillar development with the result that the flight started about two weeks later than last year, although the peak week was still just after mid-July.

Green Hairstreak *Callophrys rubi*

Very rare & restricted

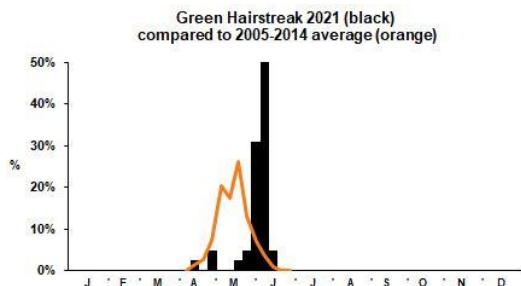
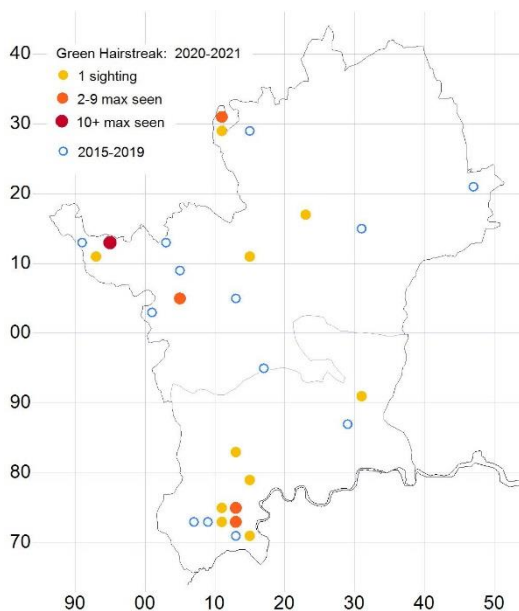


Photo Andrew Wood

First: 9 Apr

Last: 14 Jun

Peak week: 4 -10 Jun



Distribution % squares	
2021	1% (7)
2020	1% (7)
2015-19 mean	2%

Abundance (transects)	
2021	2
2020	3
2015-19 mean	4

Distribution change	
Down 50% compared with 2015-2019	

Abundance change	
Down 50% compared with 2015-2019	

An odd spring for this species it started flying earlier than 2020, probably due to the mild weather in February but the poor weather in the spring meant it was only recorded fitfully and most of the flight was beyond the end of main longer-term pattern, with a peak a month after 2020. As sometimes happens there were odd records outside the north-west Hertfordshire/south-west Middlesex strongholds. These included Alexandra Park in north London, Heartwood Forest and closer to existing sites in Middlesex at Bushy Park.

White-letter Hairstreak *Satyrrium w-album*

Common around elm

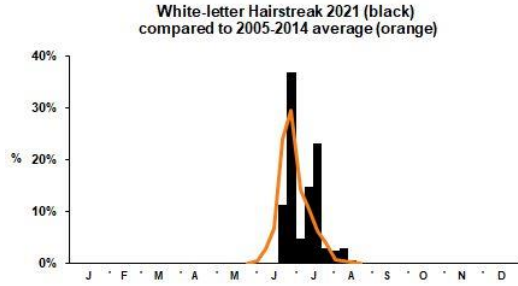
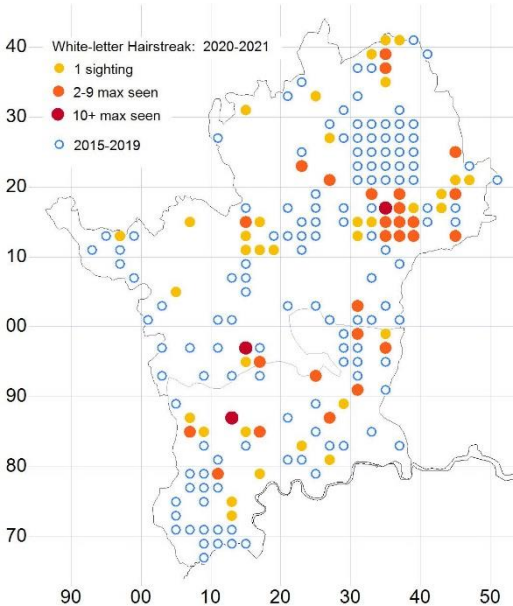


Photo Andrew Wood

First: 23 Jun

Last: 14 Aug

Peak week: 25 Jun–1 Jul



Distribution % squares	
2021	7% (41)
2020	6% (35)
2015-19 mean	9%

Abundance (transects)	
2021	2
2020	1
2015-19 mean	2

Distribution change
Down 22% compared with 2015-2019

Abundance change
Unchanged compared with 2015-2019

Not a great deal of change for 2021. Its flight was about ten days later than 2020. In previous years I have mentioned how intensive searching will often find this butterfly where elm is present, and this year’s map shows this with the addition of several squares around Royston in the north and in central Hertfordshire. Like the Purple Hairstreak this is almost certainly under-recorded through a combination of its secretive habits and the incorrect perception that its caterpillar food plants, various types of elm are rare.

Small Blue *Cupido minimus*

Very rare & restricted

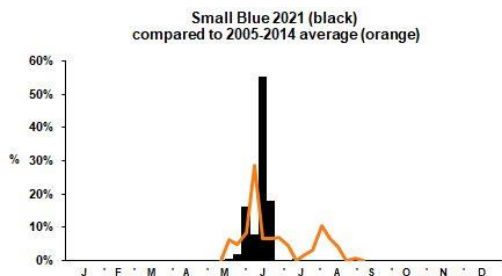
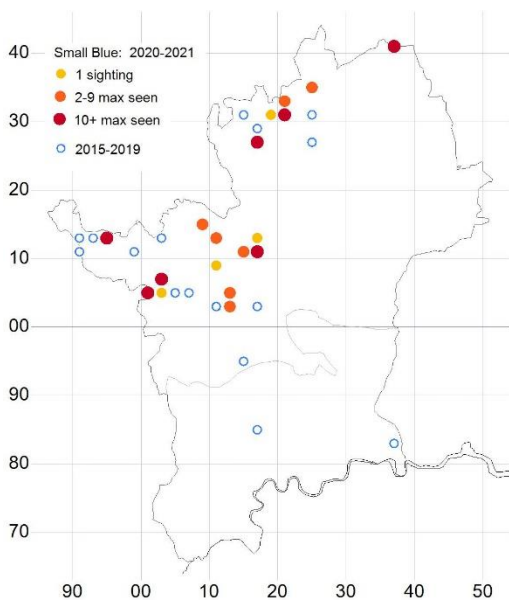


Photo Andrew Wood

First: 19 May

Last: 14 Jul

Peak week: 11-17 Jun



Distribution % squares

2021	2% (11)
2020	2% (13)
2015-19 mean	2%

Abundance (transects)

2021	2
2020	7
2015-19 mean	89

Distribution change

Unchanged compared with 2015-2019

Abundance change

Too little data to calculate

Even allowing for the loss of the Butterfly World Transect the further drop in abundance is not a good sign. However away from transects there was good news in new colonies found on seeded kidney vetch east of Royston near the Cambridgeshire border and at Flamstead. At existing sites, numbers were down at Bourne End and Letchworth but more were seen in the recently established colony north of Clothall Common near Baldock. We continue to work with the landowners at Letchworth to try to improve management and prevent scrubbing up of the site. There was very little evidence of a second brood this year, probably due to the later flight times after the poor spring allied with a relatively poor summer.

Holly Blue *Celastrina argiolus*

Widespread & common

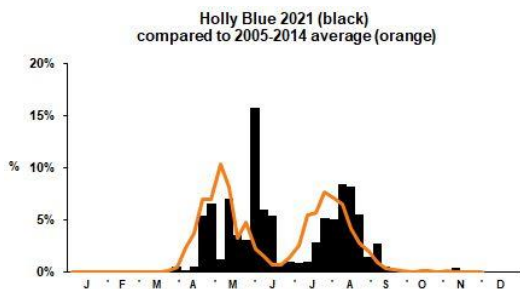
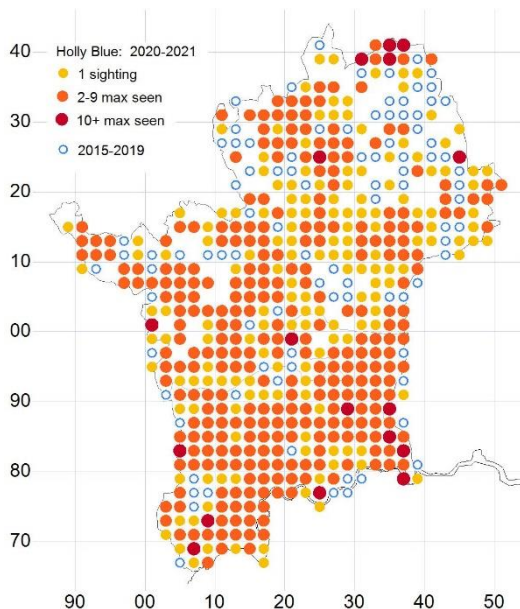


Photo Chris Benton

First 15 Mar

Last: 18 Nov

Peak week: 28 May – 3 Jun



Distribution % squares	
2021	57% (343)
2020	67% (404)
2015-19 mean	55%

Abundance (transects)	
2021	6
2020	9
2015-19 mean	13

Distribution change
Up 3% compared with 2015-2019

Abundance change
Down 55% compared with 2015-2019

Holly Blue fell back from its good year in 2020, with abundance being noticeably reduced on transects. In casual recording most records were of just one or two adults. Both main broods were later flying than both 2020 and the longer-term pattern but there were still a few late autumn records for the now regular partial third brood (7 in October and November). The spring peak was a full six weeks later than 2020.

Brown Argus *Aricia agesthis*

Widely distributed

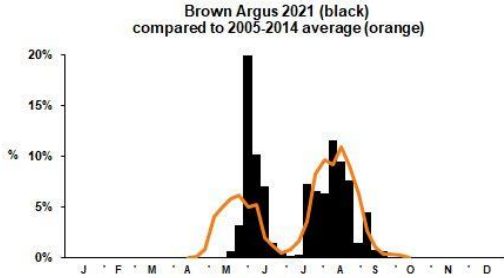
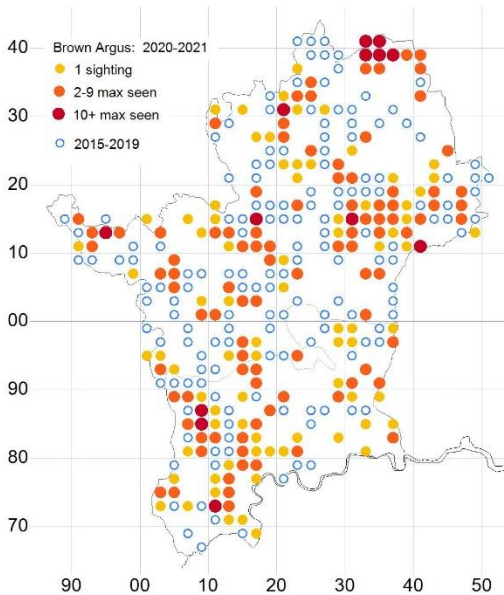


Photo Andrew Wood

First: 16 May

Last: 10 Oct

Peak week: 28 May–3 Jun



Distribution % squares	
2021	18% (109)
2020	21% (121)
2015-19 mean	20%

Abundance (transects)	
2021	7
2020	9
2015-19 mean	15

Distribution change
Down 10% compared with 2015-2019

Abundance change
Down 55% compared with 2015-2019

Another poor year for this butterfly which does tend to expand and then contract every few years. Clearly the poor spring did it no favours with the flight period starting three weeks later than 2020 and the longer-term average. The summer brood seemed to catch up, which was not the case for many species. Interestingly areas on the chalk, its traditional habitat, saw some increases in distribution compared to 2020.

Common Blue *Polyommatus icarus*

Widespread & common

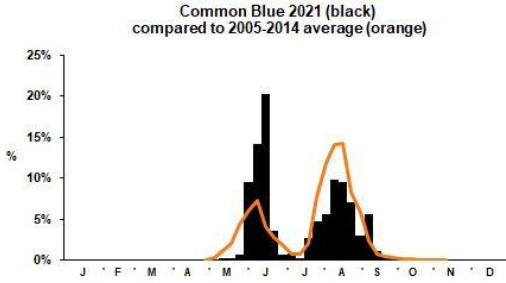
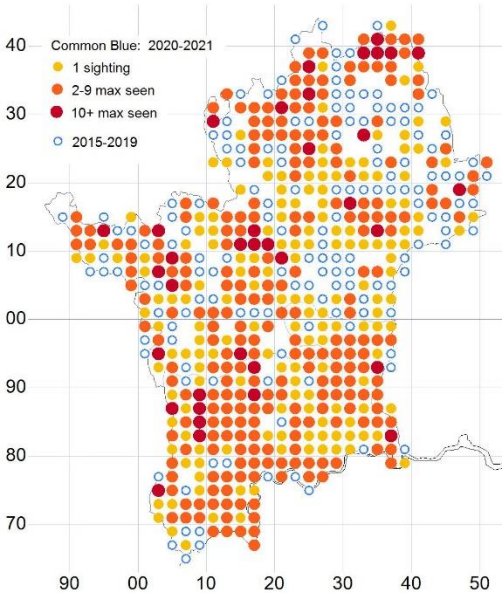


Photo Chris Benton



First: 2 May
Last: 24 Sep
Peak week: 11–17 Jun

Distribution % squares

2021	49% (279)
2020	62% (377)
2015-19 mean	54%

Abundance (transects)

2021	15
2020	19
2015-19 mean	38

Distribution change

Down 9% compared with 2015-2019

Abundance change

Down 67% compared with 2015-2019

One of the largest distribution drops of any species in our area and a further drop in abundance on transects. What is interesting is that the spring brood is normally much smaller relative to the summer brood whereas they were more equal in 2021 with the peak flight week in that earlier brood. The smaller, weaker summer brood does not bode well for 2022. This is a species that we need to pay special attention to as it seems to be declining sharply in a way last seen only a few years ago. It's also interesting to note that there are fewer empty squares in the urban areas of London than in the more rural areas of Hertfordshire which may be a pointer to reasons for its overall decline.

Adonis Blue *Polyommatus bellargus*

Probable undocumented release

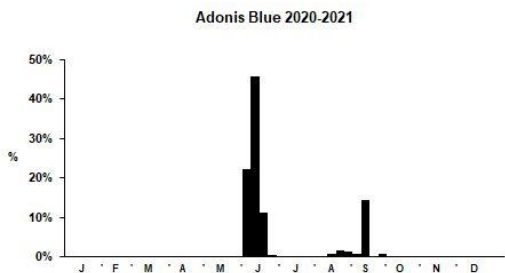
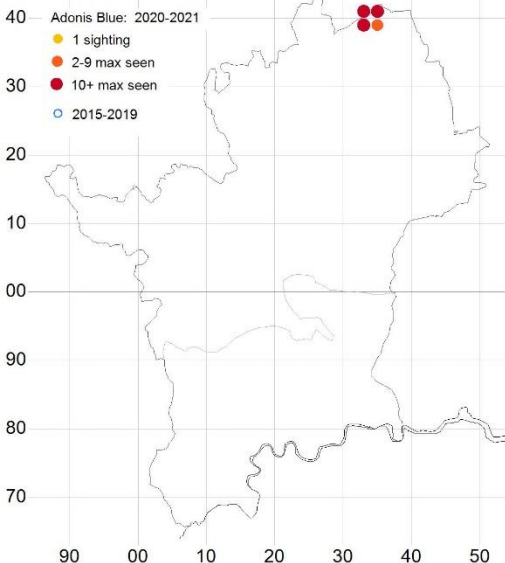


Photo Chris Benton



First: 27 May
 Last: 21 Sep
 Peak week: 4-10 Jun

Distribution % squares	
2021	>1% (4)
2020	>1% (4)
2015-19 mean	>1%

Abundance (transects)	
2021	28
2020	12
2015-19 mean	2

Distribution change	
Unchanged since 2015-2019	

Abundance change	
Up 1400% compared with 2015-2019	

We have now seen five broods of this presumed undocumented introduction and it can now be found right across the Therfield Heath complex. The earlier brood was much larger this year, but we have insufficient data to know if that is significant. The numbers recorded on the five transects across the area continue to show increasing numbers.

Chalkhill Blue *Lysandra coridon*

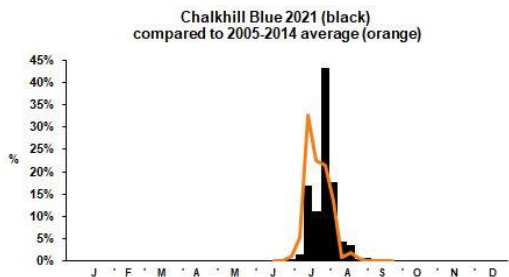
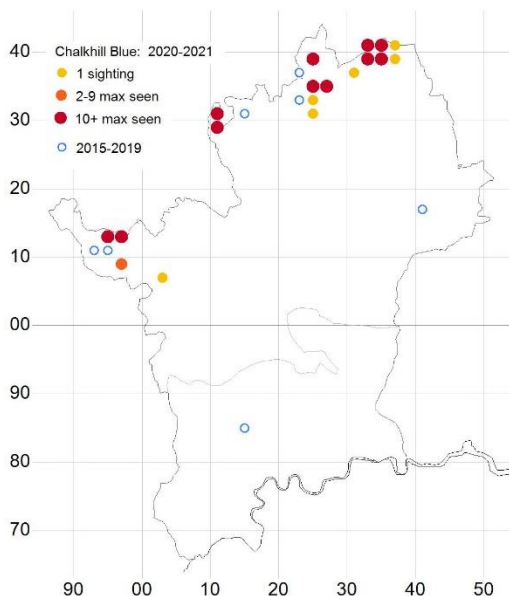


Photo Chris Benton



First: 4 Jul
Last: 18 Sep
Peak week: 30 Jul-5 Aug

Distribution % squares	
2021	3% (16)
2020	2% (11)
2015-19 mean	2%

Abundance (transects)	
2021	187
2020	95
2015-19 mean	188

Distribution change
Up 50% compared with 2015-2019

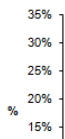
Abundance change
Unchanged compared with 2015-2019

A success in this poor year with all the data moving in the right direction. The late summer flight time meant that the poor spring had an insignificant effect on its flight period and numbers were up both on transects and on my annual survey at Hexton Chalk Pit where the total rose from 88 to 152 over a standardised route. The newer colonies at Ashwell Quarry and north of Clothall Common were still present and the only records outside the general area of the known colonies were from Dudswell near Hemel Hempstead.

Key to the Species pages

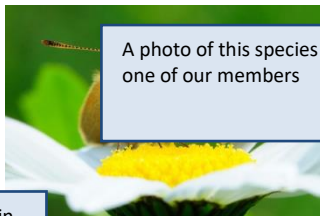
Common Name *Scientific name*

Small Skipper 2015 (black)
compared to 2000-2019 average (orange)



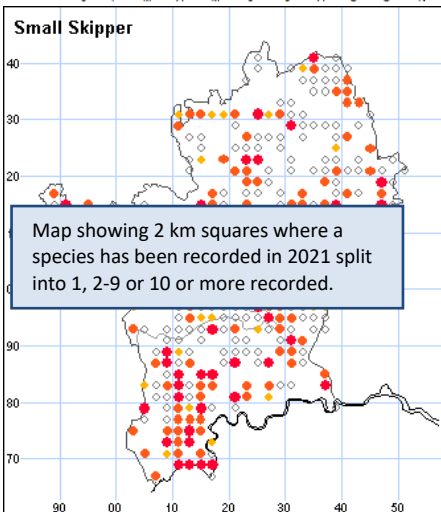
The flight period showing proportion of species flying in any week compared with the 2015-2019 average

Widespread but declining



A photo of this species taken by one of our members

Brian Knight



Map showing 2 km squares where a species has been recorded in 2021 split into 1, 2-9 or 10 or more recorded.

First: 16 Jun

Last: 16 Aug

Peak week: 25 Jun -1 Jul

Distribution % squares

2021 30% (155)

2021

2015-19
mean

Abundance

2021

2021

2015-19
mean

Distribution

Up 3% compared to
2015-2019

Abundance change

First sighting

Last sighting

Peak Week when most seen

Distribution % squares. The % and

number of 2km squares with records in

which this species was recorded

Abundance (transects) Average

number of a species seen on transects

(so comparable year on year)

Distribution and Abundance change

compared with the recent 5-year

period to smooth out year to year

comparisons

Some notes on the species during the year, together with interesting or unusual observations

Our branch website <http://www.hertsmiddx-butterflies.org.uk/> has a very active sightings page and we welcome all submissions. Anything, sent there or submitted via the 'iRecord' apps or the Big Butterfly Count, once verified, is added to the branch database and used in this report

Records Collator: Andrew Wood, 93 Bengo Street, Hertford SG14 3EZ, Tel: 07765 098824, Email: zoothorn@ntlworld.com

Branch Organiser/Secretary: Liz Goodyear, 7 Chestnut Avenue, Ware. SG12 7JE, Tel: 01920 487066, Email: elizabethgoodyear@talk21.com

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