Hertfordshire & Middlesex Butterflies 2019



Saving butterflies, moths and our environment

Andrew Wood

February 2020

Contents

Contents	
Section	Page
Introduction	1
Key to species accounts	Back cover
Adonis Blue	2
Brimstone	13
Brown Argus	36
Brown Hairstreak	30
Camberwell Beauty	2
Chalkhill Blue	38
Clouded Yellow	12
Comma	28
Common Blue	37
Dark Green Fritillary	20
Dingy Skipper	3
Essex Skipper	5
Gatekeeper	18
Green Hairstreak	32
Green-veined White	11
Grizzled Skipper	4
Holly Blue	35
Large Skipper	7

Large White 9 Marbled White 19 Meadow Brown 17 Orange Tip 8 Painted Lady 25 Peacock 26 Purple Emperor 23 Purple Hairstreak 31 Queen of Spain Fritillary 2 Red Admiral 24 Ringlet 16 Silver-washed Fritillary 21 Small Blue 34 Small Copper 30 Small Heath 15 Small Skipper 6 Small Tortoiseshell 27 Small White 10 Speckled Wood 14 White Admiral 22 White-letter Hairstreak 33		
Meadow Brown17Orange Tip8Painted Lady25Peacock26Purple Emperor23Purple Hairstreak31Queen of Spain Fritillary2Red Admiral24Ringlet16Silver-washed Fritillary21Small Blue34Small Copper30Small Heath15Small Skipper6Small Tortoiseshell27Small White10Speckled Wood14White Admiral22	Large White	9
Orange Tip 8 Painted Lady 25 Peacock 26 Purple Emperor 23 Purple Hairstreak 31 Queen of Spain Fritillary 2 Red Admiral 24 Ringlet 16 Silver-washed Fritillary 21 Small Blue 34 Small Copper 30 Small Heath 15 Small Skipper 6 Small Tortoiseshell 27 Small White 10 Speckled Wood 14 White Admiral 225	Marbled White	19
Painted Lady Peacock Purple Emperor 23 Purple Hairstreak Queen of Spain Fritillary Red Admiral Ringlet Silver-washed Fritillary 21 Small Blue 34 Small Copper 30 Small Heath 15 Small Skipper 6 Small Tortoiseshell 27 Small White Speckled Wood 14 White Admiral 22 26 27 28 29 20 20 20 21 22 25 26 27 27 28 28 29 20 20 20 20 20 20 20 20 20	Meadow Brown	17
Peacock26Purple Emperor23Purple Hairstreak31Queen of Spain Fritillary2Red Admiral24Ringlet16Silver-washed Fritillary21Small Blue34Small Copper30Small Heath15Small Skipper6Small Tortoiseshell27Small White10Speckled Wood14White Admiral22	Orange Tip	8
Purple Emperor 23 Purple Hairstreak 31 Queen of Spain Fritillary 2 Red Admiral 24 Ringlet 16 Silver-washed Fritillary 21 Small Blue 34 Small Copper 30 Small Heath 15 Small Skipper 6 Small Tortoiseshell 27 Small White 10 Speckled Wood 14 White Admiral 22	Painted Lady	25
Purple Hairstreak 31 Queen of Spain Fritillary 2 Red Admiral 24 Ringlet 16 Silver-washed Fritillary 21 Small Blue 34 Small Copper 30 Small Heath 15 Small Skipper 6 Small Tortoiseshell 27 Small White 10 Speckled Wood 14 White Admiral 22	Peacock	26
Queen of Spain Fritillary2Red Admiral24Ringlet16Silver-washed Fritillary21Small Blue34Small Copper30Small Heath15Small Skipper6Small Tortoiseshell27Small White10Speckled Wood14White Admiral22	Purple Emperor	23
Red Admiral 24 Ringlet 16 Silver-washed Fritillary 21 Small Blue 34 Small Copper 30 Small Heath 15 Small Skipper 6 Small Tortoiseshell 27 Small White 10 Speckled Wood 14 White Admiral 22	Purple Hairstreak	31
Ringlet 16 Silver-washed Fritillary 21 Small Blue 34 Small Copper 30 Small Heath 15 Small Skipper 6 Small Tortoiseshell 27 Small White 10 Speckled Wood 14 White Admiral 22	Queen of Spain Fritillary	2
Silver-washed Fritillary 21 Small Blue 34 Small Copper 30 Small Heath 15 Small Skipper 6 Small Tortoiseshell 27 Small White 10 Speckled Wood 14 White Admiral 22	Red Admiral	24
Small Blue 34 Small Copper 30 Small Heath 15 Small Skipper 6 Small Tortoiseshell 27 Small White 10 Speckled Wood 14 White Admiral 22	Ringlet	16
Small Copper30Small Heath15Small Skipper6Small Tortoiseshell27Small White10Speckled Wood14White Admiral22	Silver-washed Fritillary	21
Small Heath15Small Skipper6Small Tortoiseshell27Small White10Speckled Wood14White Admiral22	Small Blue	34
Small Skipper6Small Tortoiseshell27Small White10Speckled Wood14White Admiral22	Small Copper	30
Small Tortoiseshell 27 Small White 10 Speckled Wood 14 White Admiral 22	Small Heath	15
Small White10Speckled Wood14White Admiral22	Small Skipper	6
Speckled Wood 14 White Admiral 22	Small Tortoiseshell	27
White Admiral 22	Small White	10
	Speckled Wood	14
White-letter Hairstreak 33	White Admiral	22
	White-letter Hairstreak	33

Cover Photo: Dark Green Fritillary at Church Hill, Therfield Heath by Richard Norris

Introduction

2019 had an exceptionally mild and sunny February which resulted in many sightings. Late March was mild, but it was followed by an April which began cool but was notably warm towards the end. The summer weather from late June through to late August was very warm and September was generally dry and mild, but the autumn was rather dull and cool.

2487 recorders submitted 41083 records compared to 47301 records in 2018. About 25% of these were from the three weeks in the summer during the Big Butterfly Count. As with any citizen science project there are some records that cannot be accepted but many of them help us to fill in gaps in the distribution of many species, particularly in urban areas, of which we have many.

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.

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' apps is added to the branch database and used in this report

Records Collator:

Andrew Wood, 93 Bengeo Street, Hertford SG14 3EZ Tel: 07765 098824

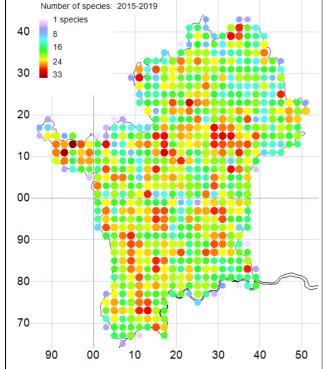
zoothorn@ntlworld.com

Branch Organiser/Secretary:

Liz Goodyear, 7 Chestnut Avenue.

Ware. SG12 7JE Tel: 01920 487066

elizabethgoodyear@talk21.com



Recording Effort

In 2019 we received records from 617 squares in our area. This means we have records from 683 squares for 2015-2019 survey period.

This map shows the number of species recorded for each square. This is the final year of the 5-year survey and this booklet will act as a supplement to the 2016 book on the region's butterflies (see back cover). An extra table for each species shows abundance and distribution averages for 2015-2019 and the previous 5-year period. Generally, this shows drops in abundance but stability or increase in distribution. The latter may partly reflect more recorder effort rather than a real improvement.

Species not included in the main section

Adonis Blue Polyommatus bellargus

Unrecorded in Hertfordshire since 1959, we received first reports of one at Church Hill, Therfield Heath on 20 Aug, many other records were received up to 8 September, with a likely total of around 25-30 adults in flight at the peak. This was almost certainly an undocumented release, possibly of pupae.



hoto: Andrew Wood

Camberwell Beauty Nymphalis antiopa

Winchmore Hill (9 Mar) and Muswell Hill (24 Mar), both north London and likely to be releases as there is no other evidence of migration of this species at that time.

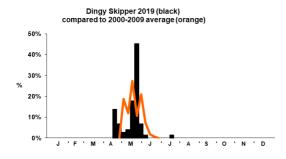
Queen of Spain Fritillary Issoria lathonia

One at Patmore Heath in north east Hertfordshire on 20 Aug - origin unknown.

A key to the main species accounts that follow can be found on the back cover

Dingy Skipper Erynnis tages

Restricted and rare





First: 22 Apr

Last: 4 Aug

Peak week: 14-20 May

	Dingy Skip	per: 2015	-2019					
	1 sighti	ng			_/)			
40	9 2-9 max	seen			7		1	
	10+ ma	x seen		7	2		1	
				~77,4			4	
30-	0 2010-2	014	` ≱ŏ∙	• "			\	
50		1				0	(
			}			ď		
			1				سمسا	5
20-	~~		m ((
	< 4	V \	~				2	
		V					لبر	
10								
	\-~	√				/		
		72				{		
00-						(
		7	0			(
		1				- /		
00		1.0	~~		~ ~	- /		
90-						(
)				1		
		- ({	~	
80					ſ	\sim		Ĵ
		- {		2				
70-		1		\cdot				
				\vee				
	90	00	10	20	30	4	0 5	0
	90	00	10	20	50	4	0 0	•

Distribution % squares			
2019	1% (9)		
2018	1% (5)		
2010-14	1%		
mean			

Abundance (transects)			
2019	12		
2018	9		
2010-14 mean	13		

Distribution change
Unchanged compared with
2010-2014

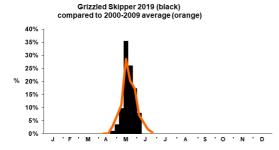
Abundance change	
Down 8% compared with	
2010-2014	

The increase in distribution this year relates to observations at several sites right on the border with Buckinghamshire. The main centres for this butterfly remain Hexton Chalk Pit, (all the largest counts were from here), Aldbury Nowers and Bovingdon Brickworks. There was only one second brood record on 4 Aug from the same site near Tring as in 2018. Abundance increased this year, almost back to the longer-term mean, though this is only based on two transects where this species occurs. The first flight date was over 3 weeks earlier than in 2018.

Five-year Trends	2010-2014	2015-2019	Change
Distribution % squares	1%	1%	Stable
Abundance (transects)	13	9	Down 31%

Grizzled Skipper Pyrgus malvae

Restricted & rare





First: 21 Apr Last: 3 Jun

Peak week: 7-13 May

	Grizzled Skippe 1 sighting 2-9 max see 10+ max see	n -	9	5	_^_	\
30-	0 2010-2014	- C) "			
20-		3rm	}	:	: .	}
10—		>	0		{	
00—	}	?		2	}	
90-		>				
80-			\$	<u></u>		
70	90 00) 10	~) 20) 3	0 4	0 50

Distribut	ion % squares
2019	1% (6)
2018	1% (6)
2010-14	1%
mean	

Abundance (ti	ransects)
2019	7
2018	11
2010-14	21
mean	

Distribution change
Unchanged compared with
2010-2014

Abundance change			
Down 67% compared with			
2010-2014			

The distribution of the Grizzled Skipper was unchanged in 2019, however the abundance fell sharply from last year back to near 2017s which was already much lower than the longer-term average. Double figure roost counts were achieved at two different sites. The mild spring led to a much earlier date of first emergence, but the flight period still lasted into early June.

Five-year Trends	2010-2014	2015-2019	Change
Distribution % squares	1%	1%	Stable
Abundance (transects)	21	8	Down 62%

Widespread but declining

Essex Skipper Thymelicus lineola

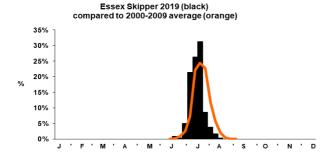




Photo Dave Miller

First: 17 Jun Last: 21 Aug

2018

2014

Peak week: 16-22 Jul

Distribution 9	% squares
2019	16% (100)
2018	14% (69)
2010-14	14%
mean	

2018	14% (69)
2010-14	14%
mean	
Abundance (t	ransects)
2019	11

2010-14 mean	13
Distribution change	
Up 28% compared with	2010-

8

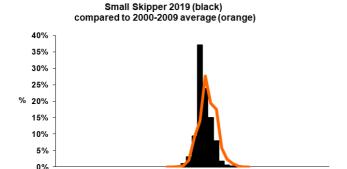
Abundance change
Down 15% compared with
2010-2014

0 1 40− 0 2-	x Skipper: 201 sighting -9 max seen 0+ max seen	5-2019		1		
30-	010-2014		90	0 0	0	
20		m		0	000	
10		0	0	• 0		
00		•••	000			
90	(•		
80			3		T)	
70 90	00	10	20	30	40	50

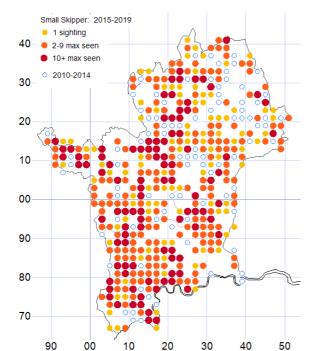
A recovery in distribution and abundance since last year, meaning that it has gone some of the way back to the better figures of 2017. This illustrates how comparing annual changes, as opposed to longer term trends can make it difficult to draw firm conclusions over a species. Virtually all the records were of ones or twos, probably because of the difficulty of accurately identifying this species meaning that many had to be recorded as a Small/Essex Skipper aggregate, those records are not mapped or used in species analysis.

Five-year Trends	2010-2014	2015-2019	Change
Distribution % squares	14%	17%	Up 21%
Abundance (transects)	13	10	Down 23%

Small Skipper Thymelicus sylvestris







First: 9 Jun Last: 21 Aug Peak week: 2-8 Jul

Distribution % squares			
2019	25% (152)		
2018	23% (144)		
2010-14	25%		
mean			

Abundance (transects)		
2019	25	
2018	15	
2010-14 mean	25	

Distribution change
Unchanged compared with
2010-2014

Abundance change
Unchanged compared with
2010-2014

A slight improvement over 2018 with abundance and distribution both matching the longer-term means. The peak flight week was noticeably ahead of the average, reflecting the mild spring conditions. The map suggests that this species is much better distributed across the western halves of both Hertfordshire and Middlesex, in arable north east Hertfordshire there are many squares where it was recorded in 2010-2014 but recently seemingly absent

Five-year Trends	2010-2014	2015-2019	Change
Distribution % squares	25%	20%	Down 20%
Abundance (transects)	25	8	Down 68%

Large Skipper Ochlodes sylvanus Large Skipper 2019 (black)

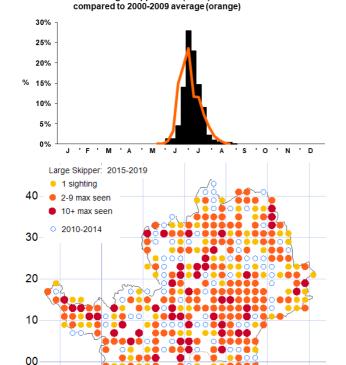




Photo Dave Miller

First: 20 May Last: 28 Aug

Peak week: 25 Jun 1 Jul

Distribution % squares			
2019	30% (183)		
2018	29% (177)		
2010-14	40%		
mean			

Abundance (transects)			
2019	19		
2018	20		
2010-14 mean	29		

Distribution change		
Down 25% compared with		
2010-2014		

Abundance change
Down 34% compared with
2010-2014
•

Very little change from last year, meaning that there is still a downward trend for this species. It emerged a week earlier than 2018 and flew almost to the end of August, this latter date probably reflecting the warmer conditions in late August this year. However, its peak flight week was very much on the longer-term average. Unlike the smaller golden skippers, it seems to be holding on better in the eastern half of Hertfordshire

Five-year Trends	2010-2014	2015-2019	Change
Distribution % squares	40%	35%	Down 13%
Abundance (transects)	29	20	Down 31%

10

00

90

80

70

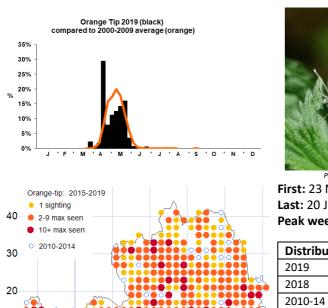
90

00

10

20

30





First: 23 Mar Last: 20 Jun

Peak week: 16-22 Apr

Distribution % squares			
2019	42% (260)		
2018	42% (263)		
2010-14	42%		
mean			

Abundance (transects)			
2019	18		
2018	18		
2010-14 mean	21		

Distribution change
No change compared with
2010-2014

Abundance change			
Down 14% compared with	า		
2010-2014			

Remarkably there were 35 records of this species from March, doubtless a consequence of the mild early spring. There were few records after the first week of June. Judged by the number of larval records it was a good year for breeding so let's hope that bodes well for 2020. Overall abundance and distribution were little changed both from last year and the longer-term pattern. The illustration above shows the female which has no orange on the wings.

40

50

Five-year Trends	2010-2014	2015-2019	Change
Distribution % squares	42%	42%	Stable
Abundance (transects)	21	16	Down 24%

Large White Pieris brassicae

0%

Large White: 2015-2019

Widespread & common



First: 21 Mar

Last: 22 Oct

Peak week: 16-22 Jul

Large will		119		_		
1 sighti 40 - 2-9 max	ng cseen —			<u> </u>		
● 10+ ma			7	0 1 1		
0 2010-2	014	4		*##		
30-	_		***	***		
				:::#	姓姓	
20				1111	###	
· • • • • • • • • • • • • • • • • • • •	- ₹		***	####	###	
200		##		###		35
10		##	***	###		
		# <mark>d</mark> ‡	###	####		
00		####	###	1111	<u> </u>	
			## I			
00			###			
90						
	8					
80	- 3					
	1 23'			, -	_	
70			K			
, ,			₹			
90	00	10	20	30	40	50

Distribution % squares		
2019	74% (458)	
2018	82% (511)	
2010-14	67%	
mean		

Abundance (transects)		
2019	39	
2018	78	
2010-14 mean	38	

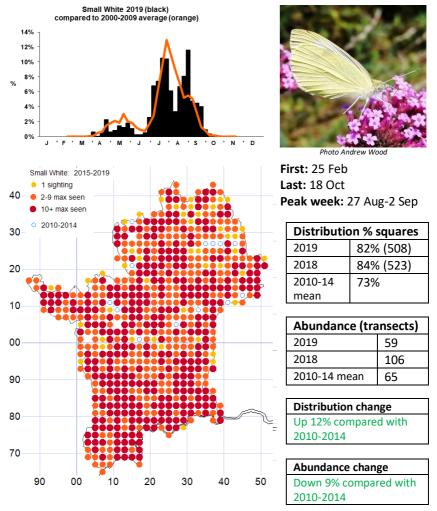
Distribution change	
Up 10% compared with	
2010-2014	

Abundance change	
Up 2% compared with	
2010-2014	

It wasn't present at the huge levels seen last year, but it was still very common. Interestingly the peak flight week was a week later than last year, despite the initial flight date being almost four weeks earlier. A second, but smaller peak in August may indicate some migrant activity. Dave Miller noted that when not feeding at flowers, "they tend to be an arboreal species, spending their time cruising along woodland fringes 5 or 6 metres up, and stopping to bask in the higher foliage where they also appear to roost"

Five-year Trends	2010-2014	2015-2019	Change
Distribution % squares	67%	77%	Up 14%
Abundance (transects)	38	47	Up 19%

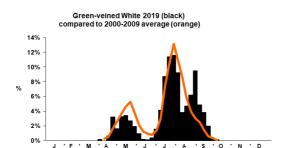
Small White Pieris rapae



Searching in north east Hertfordshire filled in some empty squares for this very well distributed butterfly and ths accounts for, at least, some of the increase in the distribution. However the huge numbers seen last year were not repeated as they fell back by almost half to slightly under the longer-term average. Despite this the Small White is still one of our most common species. The flight period chart is interesting as it shows two distinct and almost equal summer peaks, as if there had been an extra generation.

Five-year Trends	2010-2014	2015-2019	Change
Distribution % squares	73%	80%	Up 9%
Abundance (transects)	65	64	Down 2%

Green-veined White Pieris napi



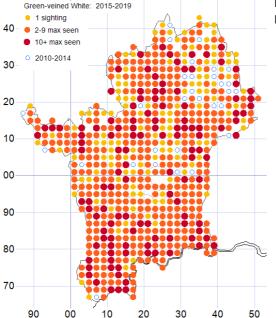
Widespread &common



Photo Andrew Wood

First: 23 Mar Last: 4 Oct

Peak week: 23-29 Jul



Distribution % squares		
2019	56% (346)	
2018	68% (421)	
2010-14	52%	
mean		

Abundance (transects)		
2019	25	
2018	62	
2010-14 mean	51	

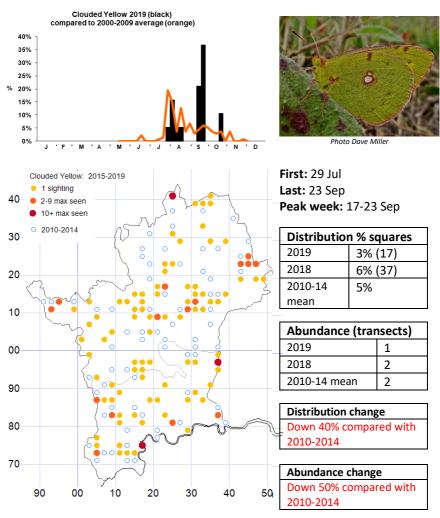
Distribution change Up 8% compared with 2010-2014

Abundance change	
Down 50% compared	
with 2010-2014	

Not such a good year for this species compared to the other whites. Numbers dropped off compared to last year and the longer-term average, while the number and proportion of recorded squares saw a large fall. Interestingly it shows the same flight pattern with an extra early September peak as the Small White

Five-year Trends	2010-2014	2015-2019	Change
Distribution % squares	52%	58%	Up 12%
Abundance (transects)	51	38	Down 25%

Clouded Yellow *Colias croceus*



There was little sign of this migrant butterfly, making it quite an unusual sight in 2019 with only 18 records spread across 17 different grid squares. Only two of these were in Middlesex. The peak, based, of course, on only a few records was almost seven weeks later than 2018.

Five-year Trends	2010-2014	2015-2019	Change
Distribution % squares	5%	4%	Down 20%
Abundance (transects)	2	1	Down 50%

Widespread **Brimstone** *Gonepteryx rhamni* Brimstone 2019 (black) compared to 2000-2009 average (orange) 25% 20% 15% 10% 5% 0% Photo Dave Miller First: 2 Feb Brimstone: 2015-2019 Last: 22 Oct 1 sighting 2-9 max seen Peak week: 16-22 Apr 10+ max seen 0 2010-2014 **Distribution % squares** 30 56% (346) 2019 2018 52% (326)) 20 2010-14 39% mean 10 Abundance (transects) 2019 00 19 2018 20 2010-14 mean 21 90 Distribution change 80 Up 37% compared with 2010-2014 70 Abundance change 50 Down 10% compared with 90 00 10 20 30 2010-2014

As consistent as ever, albeit with a noticeable increase in distribution. The rather disjoined flight pattern in the spring reflects the several early periods of mild weather we enjoyed. Despite this, the summer emergence was rather later than the longer-term pattern.

Five-year Trends	2010-2014	2015-2019	Change
Distribution % squares	39%	53%	Up 26%
Abundance (transects)	21	19	Down 10%

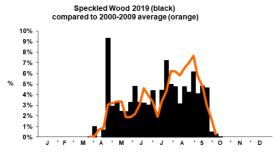
Speckled Wood Pararge aegeria

Speckled Wood: 2015-2019

1 sighting40 - 2-9 max seen10+ max seen

Widespread & common





First: 24 Mar Last: 16 Oct

Peak week: 16-22 Apr

Distribution % squares			
2019	57% (351)		
2018	70% (423)		
2010-14	60%		
mean			

				- N - 1	0 💽		
30-	0 2010-2	2014	<u> </u>) (
			0				
20	~~		print }			<u> </u>	
		•					
10-			0				
00-				o			
00-							
90		7		$\Pi\Pi$		•	
			HH	HH			
80				进进	ijř		
					J O		
70				1			
	90	00	10	20	30	40	50

Abundance (transects)		
2019	38	
2018	67	
2010-14 mean	58	

Distribution change		
Down 5% compared with		
2010-2014		

Abundance change
Down 32% compared with
2010-2014

Not the best of years for the Speckled Wood. This is another species with an early spring emergence for 2019, but unusually the peak was early in the year rather than in late summer as is normally the case. Overall numbers and distribution were down. There were only five transect walks where over 20 were recorded and only one with over 30. These are unusually low numbers.

Five-year Trends	2010-2014	2015-2019	Change
Distribution % squares	60%	61%	Up 2%
Abundance (transects)	91	90	Down 1%

Small Heath *Coenonympha pamphilus*

Widespread

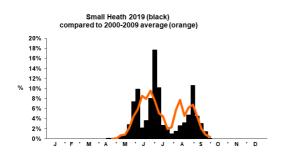




Photo Peter Tallantire

First: 15 Apr Last: 28 Sep

Peak week: 25 Jun- 1 Jul

	Small Heat	th: 2015-	2019				
	1 sight	ing					
40-	2-9 ma	x seen		- (
	● 10+ ma	ax seen		7			
				27/2			
30-	0 2010-2	2014	<u> </u>	000	0000		3
				000	- T-		3
			₹.	o 👤	o o		
20			7'	0	000		
20	~		sun_)				
	ه کا آگر کو	1	• • •			0	4
40			•••				
10-	Ţ	•0	•	••••	000		
	·~~	7					
		(• i	Ö • [3	
00-		L-0			- 00	-	
						9	
				56	~	/	
90-		14	0			9	
		1) . •	•			
			0	0	•	•)	
80			0		_	1	
		_		\sim	ر	O	0
				2	⇒′		
70		7	• 0	<u></u>			
, 0				₹			
			~~				_ _
	90	00	10	20	30	40	50

Distribution % squares			
2019	26% (158)		
2018	23% (145)		
2010-14	17%		
mean			

Abundance (transects)		
2019	52	
2018	63	
2010-14 mean	38	

Distribution change	
Up 51% compared with	
2010-2014	

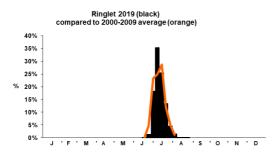
Abundance change
Up 35% compared with
2010-2014

Targeted searching in north east Hertfordshire is responsible for most of the increase in abundance over last year. It is good to find that it is present in a good number of the squares in this intensively farmed area. Numbers were down a little on last year but still well ahead of longer-term trends. 15 April is a very early date for the start of the flight period. However, it peaked slightly later than the longer-term pattern.

Five-year Trends	2010-2014	2015-2019	Change
Distribution % squares	17%	20%	Up 17%
Abundance (transects)	38	42	Up 11%

Ringlet Aphantopus hyperantus

Ringlet: 2015-2019

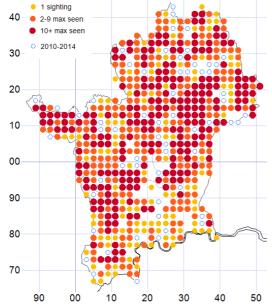


Widespread & Common



Photo Dave Miller

First: 14 Jun Last: 31 Aug Peak week: 2-7 Jul



Distribution % squares		
2019	48% (294)	
2018	49% (302)	
2010-14	44%	
mean		

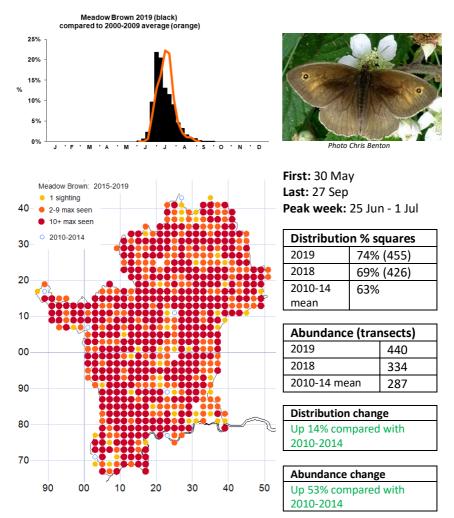
Abundance (transects)		
2019	102	
2018	100	
2010-14 mean	122	

Distribution change
Up 9% compared with 2010-
2014

Abundance change			
Down 17% compared with			
2010-2014			

For the third year running there has been little major change in the fortunes of this species. It peaked slightly earlier than the long term, but a week later than 2018. Every count of over 100 came from woodland sites where a combination of some degree of shade and damp grassland creates very favourable conditions for this species, especially in dry years. At Balls Wood a count of 514 in 45 minutes accounted for over 25% of the individual butterflies seen in 26 weeks of walks.

Five-year Trends	2010-2014	2015-2019	Change
Distribution % squares	44%	45%	Up 2%
Abundance (transects)	122	108	Down 11%



Concentrating on the squares unrecorded in the first four years of this survey period has allowed virtually all the empty squares on the map to be filled and this accounts for the increase in distribution in 2019. The abundance totals are well up on the last two years too. All in all, a good year for this species. The peak flight week was again well ahead of the longer-term trend.

Five-year Trends	2010-2014	2015-2019	Change
Distribution % squares	63%	68%	Up 8%
Abundance (transects)	287	307	Up 7%

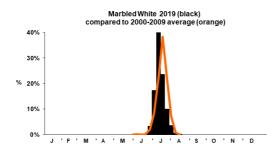
Widespread & common **Gatekeeper** Pyronia tithonus Gatekeeper 2019 (black) compared to 2000-2009 average (orange) 40% 35% 30% 25% % 20% 15% 5% Photo Dave Miller First: 15 Jun Gatekeeper: 2015-2019 Last: 8 Sep 1 sighting Peak week: 23-29 Jul 2-9 max seen 10+ max seen Distribution % squares 2010-2014 30 73% (452) 2019 2018 68% (420) 20 2010-14 65% mean 10 **Abundance (transects)** 2019 104 00 2018 76 2010-14 mean 91 90 Distribution change 80 Up 13% compared with 2010-2014 70 Abundance change 90 00 20 30 50 Up 15% compared with 2010-2014

Last year's drops were reversed in 2019 and this species is currently thriving. However, the flight period was later than the longer-term trends, despite a very early start date for a species often not seen until early July.

Five-year Trends	2010-2014	2015-2019	Change
Distribution % squares	65%	70%	Up 8%
Abundance (transects)	91	85	Down 6%

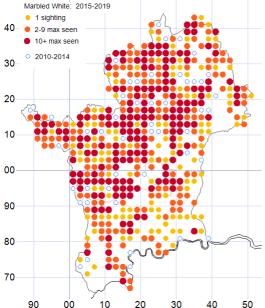
Marbled White Melanargia galathea

Widespread





r noto bave wiii



First: 14 Jun
Last: 26 Aug
Peak week: 2-8 Jul

Distribution % squares		
2019	43% (263)	
2018	34% (214)	
2010-14	26%	
mean		

Abundance (transects)	
2019	141
2018	87
2010-14 mean	91

Distribution change
Up 66% compared with
2010-2014

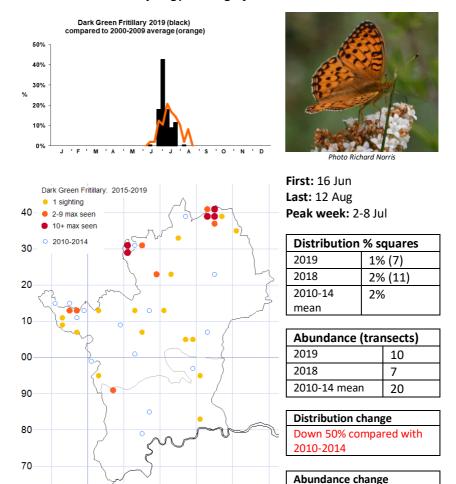
Abundance change	
Up 55% compared with	
2010-2014	

A continuing success story in our area with many more squares occupied at higher numbers than both 2018 and further into the past. This butterfly is now widespread over both counties. There were several reports of Marbled Whites turning up for the first time in suburban gardens.

Five-year Trends	2010-2014	2015-2019	Change
Distribution % squares	26%	34%	Up 31%
Abundance (transects)	91	90	Down 1%

Dark Green Fritillary Argynnis aglaja

Rare



Not too much should be read into the distribution and abundance changes as they are based on a small sample. The main sites are at Therfield Heath, Hexton Chalk Pit and Aldbury Nowers, showing its close association with chalk and it is this that will probably prevent its becoming really widespread in Hertfordshire. Totals of over 30 were recorded at both Therfield Heath and Hexton Chalk Pit so where it does occur it can be seen in some numbers in favourable conditions.

Down 50% compared with

2010-2014

Five-year Trends	2010-2014	2015-2019	Change
Distribution % squares	2%	2%	Stable
Abundance (transects)	20	5	Down 75%

Silver-washed Fritillary Argynnis paphia

Locally common and spreading

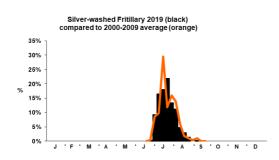




Photo Chris Benton

First: 16 Jun Last: 26 Sep

Peak week: 16-22 July

40	Silver-washed Fritillary: 2015-2019 1 sighting 2-9 max seen 10+ max seen
30-	0 2010-2014
20	
10-	
00-	
90-	
80-	
70-	90 00 10 20 30 40 50

Distribution % squares		
2019	12% (74)	
2018	15% (91)	
2010-14	6%	
mean		

Abundance (transects)	
2019	13
2018	14
2010-14 mean	13

Distribution change
Up 100% compared with
2010-2014

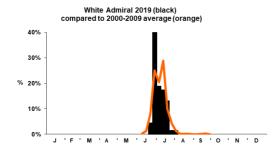
Abundance change	
Unchanged compared with	
2010-2014	

The number of recorded sites was lower than 2018, but most woodlands of any size seem likley to support this magnificent butterfly and it is now increasingly being recorded at garden buddleias as well. On 4 Jul Chris Newman reported," at Bricket Wood Common I saw what looked like a female, except it looked grey-brown rather than orangey-brown. I found that it was the *valezina* form. Walking home 2½ hours after I first spotted her, she was still in the same area, probably egg-laying on an ash tree,"

Five-year Trends	2010-2014	2015-2019	Change
Distribution % squares	6%	11%	Up 80%
Abundance (transects)	13	14	Up 8%

White Admiral Limenithis camilla

Declining



White Admiral: 2015-2019



First: 23 Jun Last: 1 Aug

Peak week: 25 Jun - 1 Jul

1 40- • 2	sighting -9 max seen	2013		2	~	
0.2	0+ max seen 010-2014	75	77		2	
30-						
20	کے	m }		0	• •	
10	~~~ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	~	0	0	·	<u>ح</u> ر
		0	0		3	
00	7	••	•		}	
90	4			\sim	/	
		•			}	~
80			\sim	<u>~</u>	V	J
70			5			
90	00	77 10	20	30	40	50

Distribution % squares		
2019	2% (14)	
2018	3% (21)	
2010-14	3%	
mean		

Abundance (transects)	
2019	3
2018	5
2010-14 mean	15

Distribution change
Down 33% compared with
2010-2014

Abundance change
Down 80% compared with
2010-2014

The worrying decline of this butterfly, unfortunately continued in 2019. What is causing this is not clear – it is not just a local issue. The highest counts were of six individuals, most records were just one or two, the abundance drop compared to 2010-2014 is stark. There were no records from outside the core woodland sites in south Hertfordshire and north-west Middlesex.

Five-year Trends	2010-2014	2015-2019	Change
Distribution % squares	3%	3%	Stable
Abundance (transects)	15	5	Down 67%

Purple Emperor Apatura iris

Purple Emperor: 2015-2019

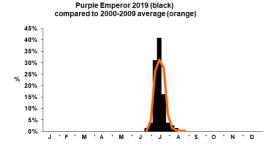
1 sighting

2-9 max seen10+ max seen2010-2014

Local and increasing in woodland







First 22 Jun Last 11 Aug

Peak week: 9-15 Jul

Distribution % squares		
2019	5% (25)	
2018	8% (48)	
2010-14	4%	
mean		

٠ر٥	0	•••	00		_	Abund
~0		•				2019
	_		· · · · · · · · · · · · · · · · · · ·		—	2018
		0.0	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			2010-1
	1		1		_ [
	9		••			Distrib
	1		,	}		Un hy 2

Abundance (transects)		
2019	2	
2018	2	
2010-14 mean	2	

Distribution change	
Up by 25% since 2010-	
2014	

Abundance change
Too little data to calculate

A big drop in recorded sites but it still turns up at new locations, often in gardens or outhouses to the surprise of the occupants. Examples this year included at Westmill in north east Hertfordshire, Essendon and Balls Park in east Hertfordshire. However it has yet to become widespread in the urban and suburban areas of North London. In this survey period this butterfly, only recently considered very rare, was seen in twice as many squares as the White Admiral!

Five-year Trends	2010-2014	2015-2019	Change
Distribution % squares	4%	5%	Up 25%
Abundance (transects)	2	1	Down 50%

Red Admiral Vanessa atalanta

10%

5%

30

20

10

00

90

80

2-9 max seen

10+ max seen 0 2010-2014

Red Admiral 2019 (black) compared to 2000-2009 average (orange)

Common migrant/Resident





Peak week: 25 Jun-1 Jul

Distribution % squares				
2019	76% (470)			
2018	58% (360)			
2010-14	59%			
mean				

Abundance (tra	nsects)
2019	11
2018	5
2010-14 mean	11

Distribution change
Up 29% compared with
2010-2014

Abundance change
Unchanged compared with
2010-2014

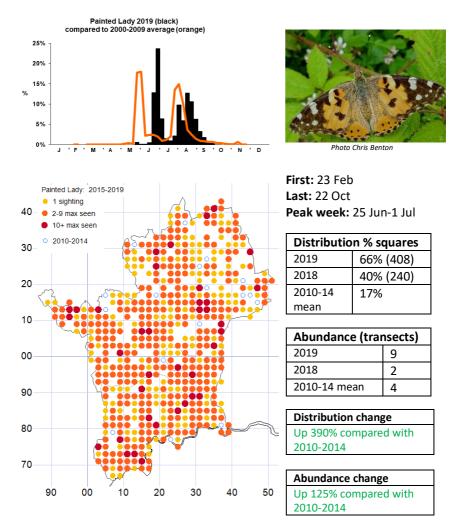
70 90 00 10 20 30 40 50 The Red Admiral had a good year, the late June peak probably represents primary immigration. However they were thin on the ground in the autumn with few records beyond the end of September rather than being a common autumn sight on ivy. Was this a function of poor breeding success, lack of

later migration, the weather, or a combination of all of these?

Five-year Trends	2010-2014	2015-2019	Change
Distribution % squares	59%	68%	Up 15%
Abundance (transects)	11	9	Down 18%

Painted Lady Vanessa cardui

Variable migrant



2019 will go down nationally as a Painted Lady year but much migration and dispersal was across north east England and Scotland with rather more limited penetration of our part of the south-east. Having said that they were seen in many more places and in greater numbers than usual. The abundance figure of 9 is the highest since the 2009 Painted Lady year but the difference in scale of that year is shown by its index of 31.

Five-year Trends	2010-2014	2015-2019	Change
Distribution % squares	17%	43%	Up 153%
Abundance (transects)	2	4	Up 100%

Peacock Inachis io

Peacock: 2015-2019

Peacock 2019 (black) compared to 2000-2009 average (orange) 15% 10% 5% 0%

Common & Widespread



First: 8 Jan

Last: 13 Nov

Peak week: 16-22 Jul

1 si	ghting		-/-	Λ		
40- 🌘 2-9	max seen		- 3		○	
10+	max seen		m			
30- 0 201	0-2014					
		ं				
20	0.0	Ma				
10						
00						
					5 / 5	
90		99	0			
		###	####	####		
80			1101			
	25			<i>y</i> = 0	9	
70						
70			4			
90	00	10	20	30	40	50

Distribution % squares			
2019	73% (449)		
2018	52% (324)		
2010-14	62%		
mean			

Abundance (transects)			
2019	23		
2018	11		
2010-14 mean	27		

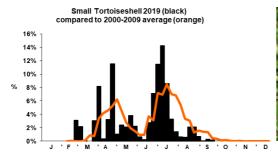
Distribution change
Up 13% compared with
2010-2014

Abundance change
Down 14% compared with
2010-2014

The two early high points reflect concentrated emergence from hibernation in spells of good early spring weather. These over wintering adults bred to produce the summer generation slightly earlier than the longer-term pattern and by mid August virtually all of them had gone into hibernation.

Five-year Trends	2010-2014	2015-2019	Change
Distribution % squares	62%	63%	Up 2%
Abundance (transects)	27	20	Down 26%

Small Tortoiseshell Aglais urticae





First: 14 Feb Last: 23 Dec

Peak week: 2-8 Jul

	Small Torto		2015-2019				
40	1 sighti					••	
40-	2-9 max10+ max			78			
	2010-2						
30-	2010-2	014					
			1				
20			***				
20	/ 2,	r.6					
10	333				0		
	0.01	4	e e	***	***		
00-			ō			<u> </u>	
						•	
00				#17#		5	
90						•	
80		- 3					
70			The state of the s				
				3			
	90	00	10	20	30	40	50

Distribution % squares				
2019	66% (410)			
2018	58% (361)			
2010-14	53%			
mean				

Abundance (transects)		
2019	12	
2018	12	
2010-14 mean	24	

Distribution change	
Up 25% compared with	
2010-2014	

Abundance change
Down 50% compared with
2010-2014

Seen widely but the numbers were as low as last year. The pattern of emergence from hibernation and summer entry into hibernation in his garden shed has been monitored by Malcolm Hull, he reported, "The majority of the first-generation individuals went into hibernation before the end of July. This year there was a small second generation, which entered hibernation during late August and September. By October the total number of hibernators was 35, compared to just 13 the previous winter".

Five-year Trends	2010-2014	2015-2019	Change
Distribution % squares	53%	62%	Up 17%
Abundance (transects)	24	19	Down 21%

Comma Polygonia c-album

0 2010-2014

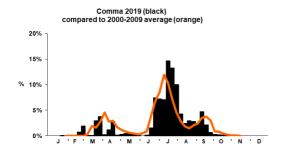
00

90

30

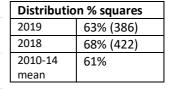
20

Common & widespread





First: 28 Jan
Comma: 2015-2019
1 sighting
2-9 max seen
10+ max seen



	, com	°			>
10	0	0	Á	0000	
00)		Ö		
90	•••				
80					J-
70					

20

Abundance (transects)	
2019	11
2018	13
2010-14 mean	15

Distribution change
Up 4% compared with 2010-
2014

Abundance change
Down 27% compared with
2010-2014

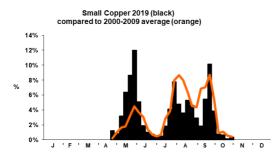
The Comma fell back a little in 2019 but the number of butterflies that hibernated from 2018's small emergences managed to breed well and produce summer broods very much in line with long term trends. However, the abundance count has fallen for two years and is well below the long-term mean.

50

Five-year Trends	2010-2014	2015-2019	Change
Distribution % squares	61%	64%	Up 5%
Abundance (transects)	15	15	Stable

Small Copper *Lycaena phlaeas*

Small Copper: 2015-2019



Widespread & common



First: 20 Apr Last: 28 Oct

Peak week: 21-27 May

40-	1 sight2-9 ma10+ ma	ing x seen	-2019		1		
30-	0 2010-2	014		0		٥٠١	
20-		- 6 5	w >		0 0	000	
10-		~_\g^			0 0 0 0		
00-		6.				0	
90					7		
80-					۔ ر	السرارة	
70-	00		7		00	40	50
	90	00	10	20	30	40	50

Distribution	on % squares
2019	36% (220)
2018	38% (236)
2010-14	28%
mean	

Abundance (transects)	
2019	11
2018	15
2010-14 mean	8

Distribution change
Up 28% compared with
2010-2014

Abundance change
Up 38% compared with
2010-2014

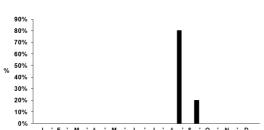
After two years increase it was perhaps unsurprising that this butterfly's abundance and distribution dropped back a little, however it remains above the longer-term trends. There were no November records this year.

Five-year Trends	2010-2014	2015-2019	Change
Distribution % squares	28%	32%	Up 7%
Abundance (transects)	8	10	Up 25%

Brown Hairstreak Thecla betulae

Brown Hairstreak: 2015-2019

Brown Hairstreak 2019



Very rare & restricted



Photo Malcolm Hull



Peak week: no data

40- 🔸 2	1 sighting 2-9 max se 10+ max se			7	2	~	
30			15	ur-			
20		\\ \	\$				3
10	-	>				{	
00	`	}			2	}	
90			•••	•	(
80		7		ζ~			
70 90	١	0	10	20	30	40	50

Distribution % squares		
2019	1% (10)	
2018	1% (5)	
2010-14	None	
mean		

Abundance (transects)		
2019	No data	
2018	No data	
2010-14	No data	
mean		

Distribution change	
To little data	

Abundance change	
No data	

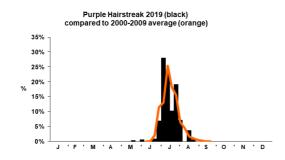
Most of our records are of eggs, where exploration of likely sites has found them at Bedfont Country Park, Horsenden Hill, Fryent Country Park and Islip Manor Meadows. All but one of the adult sightings were from the sites between Ickenham and South Ruislip with up to 10 adults seen during one visit. The other adult was seen at Hampton Wick allotments right in the south of our area.

Five-year Trends	2010-2014	2015-2019	Change
Distribution % squares	Unrecorded	1%	N/A
Abundance (transects)	Unrecorded	No data	N/A

.

Purple Hairstreak *Neozephyrus quercus*

Common around oaks





First: 1 Jun

Last: 6 Sep

Peak week: 2-8 July

Purple Hairs	streak: 201	5-2019				
1 sightir			_	1 .		
40 - 🧶 2-9 max				7	\neg	
10+ max	seen		27 27		• 🖏	
30- 0 2010-20	14	NST	r lr	000	• • –	
30-			0	0	•00	\
		100			00	
20		•	o o c	0	_ ` ` • •	-
₹~ <u>``</u>	7~5~~			o o	•	<u> </u>
/ C-01				0		
10	0	0 •			•	
·~~	₩.,	. ••			9'	
00	5 0		• •		9	
00	-2	0		0	7	
			1		<i>}</i>	
90	T.					
	{	o g	•	<u>•</u> 0	0	_
80	+ }			· 5~	V	F
	5	•	SUC.	<i></i>		
70	1	0	5			
70			9			
90	00	10	20	30	40	50

Distribution % squares		
2019	11% (70)	
2018	23% (140)	
2010-14	13%	
mean		

Abundance (transects)		
2019	5	
2018	10	
2010-14 mean	10	

Distribution change
Down 16% compared
with 2010-2014

Abundance change
Down 50% compared
with 2010-2014

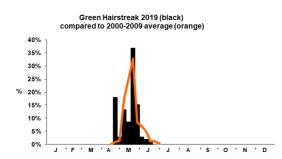
2018's high point was not matched in 2019 with many fewer reports of lowlevel behaviour, indeed even the longer-term trends were not matched. However, this behaviour was seen by Dee Cullen at Northaw Great Wood transects, "Purple Hairstreaks were active low down, and on one particular oak tree were at head height. At first, I thought courtship behaviour was going on, however it seems they were taking sap or other sustenance from the young acorns".

Five-year Trends	2010-2014	2015-2019	Change
Distribution % squares	13%	13%	Stable
Abundance (transects)	10	7	Down 30%

Green Hairstreak Callophrys rubi

Green Hairstreak: 2015-2019

Very rare & restricted





riioto ciiris benta

First: 19 Apr Last: 15 Jun

Peak week: 14-20 May

1 sighting 40 - 2-9 max seel 10+ max see		5/2	<u> </u>	\	
30- 2010-2014		\r\ ^r			
20	fram }			1	>
10	•			كسرمسد	
00	7		}		
90					
80	<i></i> <	لى	~		Ē
70					
90 00	¹⁰	20 30) 4	0 5	0

Distribution % squares	
2019	2% (12)
2018	2% (10)
2010-14	1%
mean	

Abundance (transects)	
2019	5
2018	3
2010-14 mean	11

Distribution change	
Up 50% compared with	
2010-2014	

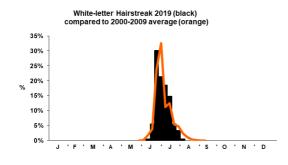
Abundance change
Too little data to calculate

The Green Hairstreak seems to be expanding its range slightly with further new sites reported. One was recorded from near the Gardens of the Rose in Chiswell Green, a good description accompanied the record from Waterford Heath and a photograph confirms the record from Dartmouth Park just to the east of Hampstead Heath in north London.

Five-year Trends	2010-2014	2015-2019	Change
Distribution % squares	1%	2%	Up 100%
Abundance (transects)	11	4	Down 63%

White-letter Hairstreak Satyrium w-album

Common around elm





First: 5 Jun

Last: 31 Jul

Peak week: 18-24 Jun

White-letter Hairstreak: 2015-2019 1 sighting 2-9 max seen 10+ max seen	
30 - 2010-2014	
20	
10	
00	_
90	
	=
90 00 10 20 30 40 50	
00 00 10 20 00 40 00	

Distribution % squares	
2019	8% (49)
2018	19% (118)
2010-14	7%
mean	

Abundance (transects)		
2019	2	
2018	3	
2010-14 mean	2	

Distribution change
Up 14% compared with
2010-2014

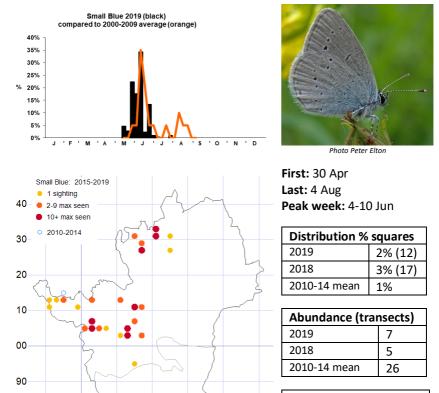
Abundance change
Unchanged compared
with 2010-2014

An average year for this butterfly but with it being seen at many fewer sites than in 2018. Only around 40% of this drop can be accounted for by the lack of a systematic 10km square survey. The flight period was in line with longer-term trends, but the peak was slightly earlier. At several sites, observers mentioned a decline in elms due to Dutch Elm disease, but this is not new, and regeneration of suckers has, so far, ensured enough larval food plant opportunities for continued breeding.

Five-year Trends	2010-2014 2015-2019		Change	
Distribution % squares	7%	9%	Up 29%	
Abundance (transects)	2	2	Stable	

Small Blue Cupido minimus

Very rare & restricted

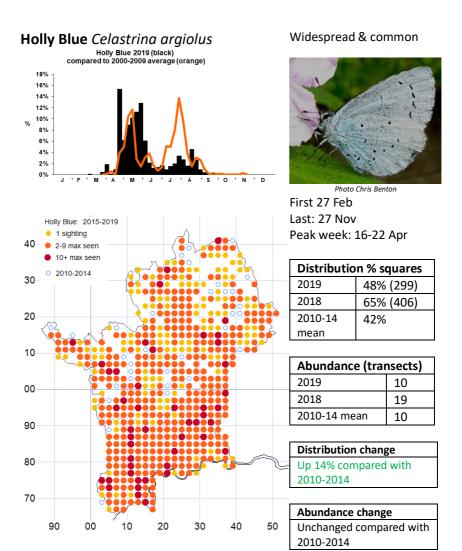


Distribution change
Up 100% compared with
2010-2014

Abundance change
Too little data to calculate

The mild spring prompted an early first brood emergence but there were very few second brood records, it only being recorded in late summer at the A41 Bourne End junction, Aldbury Nowers and Chiswell Green. The distribution was largely confined to the well known existing sites. An adult was seen at a new site in Tring and its continued presence at Hilfield Reservoir was confirmed.

Five-year Trends	2010-2014	2015-2019	Change	
Distribution % squares	1%	1%	Stable	
Abundance (transects)	26	89	Up 242%	



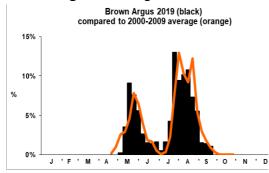
An interesting flight pattern this year following 2018's evenly matched broods. The spring brood was very strong but this was followed by a rather small summer brood. Was this due to a reassertion of the parasite which affects this species? As regularly happens there was a small partial third brood in late October/early November. Searching in arable north east Hertfordshire produced records in several squares where it has not been recorded for over 10 years.

Five-year Trends	2010-2014 2015-2019		Change	
Distribution % squares	42%	55%	Up 31%	
Abundance (transects)	10	13	Up 30%	

Brown Argus Aricia agesthis

Brown Argus: 2015-2019

Widely distributed





First: 30 Apr Last: 23 Sep

Peak week: 23-29 Jul

	ting ax seen ax seen		m [1		
30-	2014	1	000	000		-
20	- A SA	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	0		000	
10		0		0	~~~~	-
00-	000	0		\ <u>\</u> \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	0	
90						
80		000	31	~ر		
70	190					
90	00	10	20	30	40	50

Distribution % squares			
2019	24% (146)		
2018	27% (165)		
2010-14	16%		
mean			

Abundance (transects)			
2019		16	
2018		28	
2010-1	L4 mean	14	

Distribution change
Up 50% compared with
2010-2014

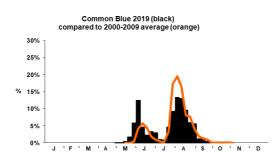
Abundance change
Up 28% compared with
2010-2014

The last two year's advances were slightly reversed but this is a species that is still doing well compared to longer term trends. The success of this species in the Hounslow area south west Middlesex is reflected in Peter Gore's comment, "Brown Argus, now seems to turn up anywhere outside the woodland area".

Five-year Trends	2010-2014	2015-2019	Change	
Distribution % squares	16%	20%	Up 25%	
Abundance (transects)	14	15	Up 7%	

36

Common Blue *Polyommatus icarus*



Common Blue: 2015-2019

Widespread & common



First: 20 Apr

Last: 10 Oct

Peak week: 30 Jul -5 Aug

1 sighting40 - 2-9 max seen10+ max seen		m			F
30- 0 2010-2014		6	0 0 0		_
20			o O		
10	0 0		0		L
00	0				
90					
80	0				-
70	10	20	20	40	50
90 00	10	20	30	40	50

Distribution % squares		
2019	52% (322)	
2018	67% (415)	
2010-14	41%	
mean		

Abundance (transects)	
2019	21
2018	83
2010-14 mean	38

Distribution change
Up 26% compared with
2010-2014

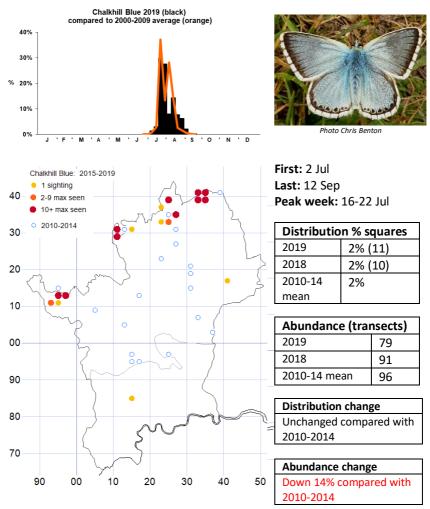
Abundance change	
Down 45% compared with	
2010-2014	

The Common Blue had a poor year compared to the last two, but it was still widespread, albeit in rather small numbers. The spring brood, perhaps reflecting the early mild conditions, was unusually large compared to the summer brood. Several reliable observations in late April also reflect this phenomenon

Five-year Trends	2010-2014	2015-2019	Change
Distribution % squares	41%	54%	Up 32%
Abundance (transects)	38	38	Stable

Chalkhill Blue Lysandra coridon

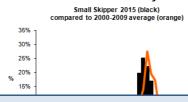
Common at known chalk sites



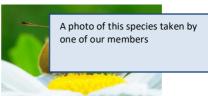
The Chalkhill Blue had another poor year with only one observation away from the core sites. This was very close to the county boundary at Baldock services where one was found on the steep cutting side near the entrance. This may have drifted from the relatively new site at Clothall Common on the eastern side of the town

Five-year Trends	2010-2014	2015-2019	Change
Distribution % squares	2%	2%	Stable
Abundance (transects)	368	188	Down 32%

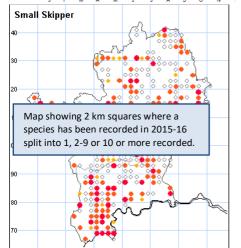
Key to the Species pages Common Name Scientific name



Widespread but declining



The flight period showing proportion of species flying in any week compared with the 2000-2009 average



First: 16 June Last: 16 Aug

Brian Kniaht

Peak week: 25 Jun -1 Jul

Distribut	tion % squares
2019	200/ /455)
2018	First sighting
2010-14	Last sighting Peak Week when most seen
mean	Distribution % squares . The % and
Abundaı	number of 2km squares with records in
2019	which this species was recorded
2018	Abundance (transects) Average number of a species seen on transects
2010-14	(so comparable year on year)
mean	Distribution and Abundance change
Distributi	compared with the recent 5-year
Up 3% co	
2010-201	comparisons

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

Abundance change

The Butterflies of Hertfordshire and Middlesex" is still available. It is a fully illustrated 272-page hardback that updates the previous books covering our region published in 1987. There are hundreds of colour photos and detailed analysis of the changes between then and now, together with practical advice on how to find and observe our butterflies. Published by the Hertfordshire Natural History Society and ourselves at the price of £28 (including post and packing). It can be ordered at: http://www.hnhs.org/publications



This report is produced by the Hertfordshire and Middlesex branch of Butterfly Conservation. © Hertfordshire & Middlesex Branch 2020. The views expressed in the report are not necessarily those of the branch or the national society. Butterfly Conservation A Company limited by guarantee, registered in England (2206468) Registered Office: Manor Yard, East Lulworth, Wareham, Dorset, BH20 5QP Charity registered in England & Wales (254937) and in Scotland (SCO39268). VAT No GB 991 2771 89