

2019 BUTTERFLY REPORT SPECIAL

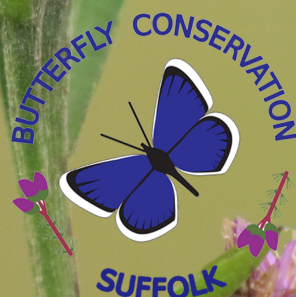
The **Suffolk Argus**
Volume 78 Summer 2020



**Butterfly
Conservation**

Saving butterflies, moths and our environment

Meadow Brown by Trevor Goodfellow





Brimstone Eggs by Simon Waters



Brimstones by Trevor Goodfellow



Silver Studded Blue, Purdis Heath by Kev Ling

Contents

Editorial	3	WCBS	11
Branch contacts	4	Scarcity	13
2019 Suffolk Butterfly Report by Bill Stone	5	Earliest & latest	14
Residents & migrants	6	Trends	15
Other species	8	Annex D1 distribution maps 2019	17
Recording coverage	9	Annex D2 distribution maps 2015-2019	24
BAP & UKBMS	10	BAP species	32

Editorial

Trevor Goodfellow

Welcome to The Suffolk Argus butterfly report special edition which replaces the Summer edition. I have included a few moth photos as light relief and hopefully we will be able to get back to a 'new normal' for the Autumn issue.

February saw the most intense and longest lasting gales I have experienced for a very long time and another very dry April. I remember when January was snowy, February was cold, March was windy, and April meant showers, all that has now changed. Within one generation we have seen Spring and Autumn disappear into extended milder Winters and longer drier Summers.

Our precious Lepidoptera are battling to survive the climate altered hibernation periods as their predators flourish virtually all through the year.

We can but dream of longer butterfly flight periods and successful extra broods. Though losses in native species, gains in new colonists may be helpful if not upsetting the fragile balance of our countryside. Perhaps more Camberwell Beauty and Clifden Nonpareil?

Butterfly Conservation, along with many other organisations, had a stand at the SNS Conference in March. We heard interesting talks from various experts about managing roadside verges as potential wildlife sanctuaries.

By April, Covid19 had a major effect on us all. Necessary recommended safety measures resulted in cancellation of SBC scheduled events until further notice, but I hope members still

managed to get out and do some recording during their 'hour of daily exercise' while observing social distancing of course.

With less content offered for this issue, we were able to make issue 78 a 'special' instead, featuring Bill Stones full butterfly report for 2019. All the items destined for issue 78 will be featured in issue 79.

I was envious of a member's Green Hairstreak sighting while she was 'exercising'. She wished me luck and I remarked how I have never seen one within several miles of home, then, blow me! I saw one in the garden a few days later making it the first sighting for me at home.

At home we have planted sixty new trees, partly hoping to contribute to a national surge towards carbon capture. But in my home village, there was local uproar about some Oak trees being felled to make way for a new 3-metre-wide foot/cycle path serving a new housing development. This resulted in the trees being spared (this time). Developers cutting down trees in their way and removing hedgerows will require a deeply committed move towards making ample new planting schemes in mitigation. Perhaps a new law stating that a minimum of 10 trees should be planted if 1 is removed? Maybe not, I can see it now: a 100-year-old Oak is cut down and 10 Blackthorn whips planted, not much of a replacement. Stay safe. Ed.

Copy date for the next issue is September 27th, 2020

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Butterfly Conservation

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2019 Suffolk Butterfly Report

Bill Stone

1. Introduction.

The closing of the 2019 butterfly season also closed the current 5-year Butterflies for the New Millennium (BNM) recording period. The BNM remains the key recording scheme for general distribution and numbers of butterflies. The BNM aims to achieve comprehensive national coverage in successive five-year recording periods and will result in a comprehensive summary report being produced by Butterfly Conservation and key stakeholders.

Records received in 2019 reached almost 42,000 and comprised of those submitted under the UK Butterfly Monitoring Scheme (UKBMS)-Transects and Wider Countryside Butterfly Scheme, Big Butterfly Count and via online recording portals such as i-Record and the Garden Butterfly Survey. Looking at the number of recorders involved, Suffolk is lucky to have a core of approximately 75 regular recorders using these schemes to provide sets of records and sightings ranging from detailed daily counts through to casual butterfly encounters. Alongside these recording “stalwarts” are an increasing number of individuals who may send in only a few records a year but when combined, as a county, we are fortunate to have a significant recording resource for which I am incredibly grateful.

It should never be forgotten that the vast amount of recording effort comes from unpaid volunteers. On this point, it was interesting to see that one of the “Take home messages” included in the UKBMS Official Briefing (in support of the 2019 survey results) credited 2,500 skilled volunteers as having been involved nationally. The monetary value of this contribution was a staggering £2 million based on a day rate of £150 for the most of the volunteers and £350 a day for “local coordinators”.

The report that follows is dedicated to all those contributors who have happily and voluntarily provided records, walked miles, completed forms and continue to support butterfly conservation. You truly are worth a million!

2. Overview of the UK weather in 2019.

The year was warmer than average for the UK, although slightly less so than both 2018 and 2017. February was notably warm, the second warmest February in a series since 1910 (behind 1998) and included a new UK winter maximum temperature record (21.2 °C, at Kew Gardens). March, April, July and December were all a degree or more warmer than average overall – and a new UK record of 38.7 °C was recorded at Cambridge Botanical Garden on July 25th – while November was colder than average. It was a rather wet year, with above average rainfall in March and then most months from June onwards. It was also a sunnier than average year, with February noteworthy as the second sunniest in a series from 1929, and eastern areas often had the best of the sunshine.

Notable extreme events during the year included a series of heavy-rainfall events in February, March, April and June, and numerous incidences of flooding from the end of July onwards. Five named storms affected the UK during 2019. Towards the end of the year flooding was exacerbated by the fact that further rainfall was falling onto already saturated ground. Also noteworthy were the record-breaking warm spells in February and July as noted above, and record-breaking warmth for both the Easter and late-August bank holiday weekends. Temperatures exceeded 30 °C somewhere in the UK on 10 days during the summer.

The provisional UK mean temperature for 2019 was 9.4 °C, which is 0.6 °C above the 1981-2010 long-term average. This ranks as the eleventh warmest year in the historical UK series from 1910. All top-ten warmest years in this series have occurred this century. The provisional UK rainfall total for 2019 was 1240 mm, which is 107% of the 1981-2010 average, making this a wet year overall although not especially so. Parts of the North Midlands, South Yorkshire and Lincolnshire were notably wet through the year, and Sheffield had its second wettest year in a station record from 1883. However, parts of

northern Scotland and East Anglia were slightly drier than average for the year. The provisional UK sunshine total for 2019 was 1455 hours, which is 106% of the 1981-2010 average. Eastern areas fared best relative to average, getting within the top ten sunniest years for some areas. February was the second sunniest on record for the UK. (www.metoffice.gov.uk)

3. Residents, Winners & Losers

(See *Annex A- Scarcity for species seen in Suffolk in 2019*).

For me, 2019 felt like a rather average butterfly year but I was very interested to read the annual report from the UKBMS which identified 2019 as the 8th best year out of the UKBMS recording series covering 44 years. It was also the best year in this series since 1997, with just over half of species (53%) showing a higher population index compared to 2018.

The year promised a Painted Lady invasion and although it was a very good year for this species it wasn't a classic year and certainly fell short of what we experienced in 2009 (see below 5. *Migrants and Rarities*). That said, Painted Lady was the fifth most abundant butterfly in Suffolk for the year behind Peacock (4th), Large White (3rd), Red Admiral (2nd) and Small White (1st).

Garden favourites Peacock and Small Tortoiseshell both enjoyed year increases from 2018. Of note, numbers of these species recorded from Butterfly Conservation's Big Butterfly Count increased considerably with Small Tortoiseshell up 167% and Peacock up 235% on 2018 results. Both species also recorded their highest number of records since the Count commenced in its current form in 2010. In Suffolk, to me Small Tortoiseshell remained scarce and disappeared early to hibernation. An interesting paper is available to read on this behaviour, written by Malcolm Hull from the Herts & Middx BC Branch. See link <https://hertsmiddx-butterflies.org.uk/SmallTortoiseshells.pdf>

The warm weather experienced early in the year certainly helped a number of spring species with Brimstone doing particularly well in Suffolk. Nationally, according to the UKBMS report

Brimstone enjoyed a "statistically significant positive 10-year UK trend, of 108%".

The long hot summer of 2019 seemed to pay some dividends with many grass loving butterflies enjoying a good year. The three golden skipper species (Essex, Small and Large) all held their own and Meadow Brown and Ringlet showed small increases on 2018. However, despite having a great year in 2018, summer woodland fliers seemed to struggle and both Purple Hairstreak and White-letter Hairstreak saw numbers fall along with those of White Admiral. Both Purple Emperor and Silver- washed Fritillary remained at a similar level to 2018.

Sadly, 2019 was not a great year for some species with Common Blue, Silver-studded Blue and Grayling (see below) all struggling in Suffolk. Disappointingly, these three species also struggled at a national level

4. Early & Late records.

(See *Annex B- Suffolk Butterfly Species Earliest and Latest dates up to end 2019*).

A review of Annex B provides for first and last records reported for each species seen in the year. This information sits alongside the Earliest and Latest dates recorded for each species as county records. Only one new earliest date was achieved in 2019 and this related to a **White-letter Hairstreak** being seen on 18th May (Sandy Drove, Icknield Way), beating the previous earliest date for this species of 30th May 2015. A **Swallowtail** sighting on 3rd September became Suffolk's latest.

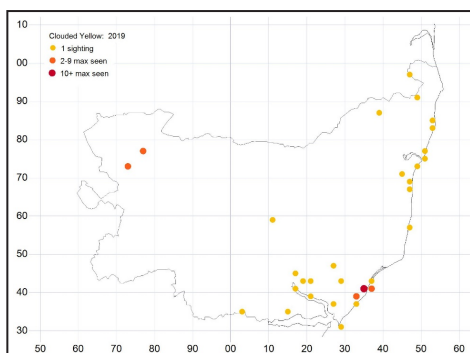
Of note, last year's table contained an error for the earliest date for **Orange-tip**. This was reported as 16/02/2015 whereas it should have remained at 9th March 2014. That said, Orange-tip was seen later in 2019 with a new latest county date recorded of 8th August and suggests a partial 2nd generation.

5. Migrants and Rarities.

Overall, 2019 was generally poor for migrants in respect of the variety and extreme rarity of species. However, migration was to some extent significant in respect of Painted Lady, Red Admiral and Small White.

Three records were received for **Swallowtail**: Burgh Castle on 23rd August, Lower-Ufford, Woodbridge on 25th August and on 3rd September at Woodbridge Airbase site. The Burgh Castle individual is potentially a wanderer from the Norfolk breeding grounds and the Woodbridge sightings could relate to a migrant and could also relate to the same individual.

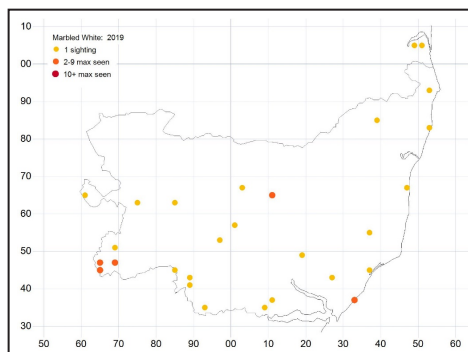
The year was poor for **Clouded Yellow** sightings, and the maximum count only reached 10 at East Lane (25-29 August). Very little inland penetration was achieved as can be seen by map below.



Map 1: Distribution of Clouded Yellow, 2019

Of interest, **Small White** was seen in good numbers at various coastal sites with some immigration and coastal movements witnessed. One significant observation was of an estimated 1000+ Small Whites flying inland along the River Orwell, touching land at Levington on 25th August.

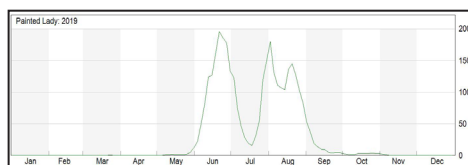
Of note, in some of the large influxes, **Marbled Whites** were also seen possibly suggesting that Small White could act as a carrier for other species dispersal. I personally saw this at Felixstowe Ferry on 13th July where over 500 Small Whites were seen roosting and flying around the hamlet's gardens and coastal marshes. As the temperature increased, I saw two Marbled Whites flying strongly amongst other Small Whites which were moving along the beach and inland to the River Deben. Several other Marbled Whites were recorded at coastal sites as shown below.



Map 2: Distribution of Marbled White, 2019

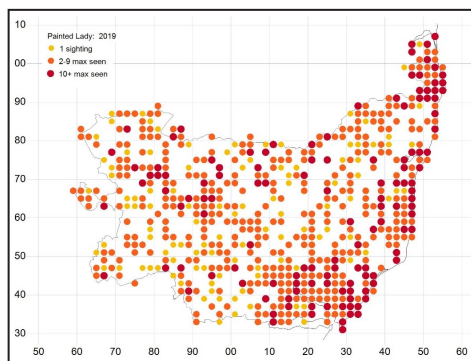
Only a single record was received for **Long-tailed Blue**, this despite good numbers reported along the south coast of England. It is highly likely that as a species it went unnoticed given its fast flight and restless behaviour. The Suffolk record was at Sizewell on 24th August.

It was a particularly good **Painted Lady** year but far from what was seen back in 2009. The butterfly was widespread throughout the county with three real peaks as shown below in June and August. It was first seen on 16th March and last seen on 9th November. The graph below shows clear peaks in numbers, indicative of arrivals from the continent.



Graph 1: Painted Lady peak dates, 2019

Highest counts received were 200+ Felixstowe Ferry on 11th June, 100+ Felixstowe Ferry on 21st June, 100+ East Lane on 2nd August, 100+ Beck Row on 6th August, 175- Martlesham Creek, River Deben on 11th August. The butterfly was seen widely across the county penetrating far inland as shown in the distribution map below.

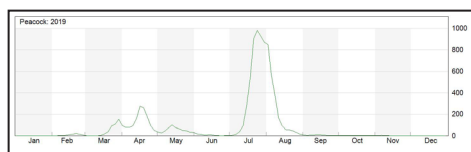


Map 3: Distribution of Painted Lady, 2019

There were two records received for **Large Tortoiseshell** during the year. One was at Lamberts Lane, Iken on 23rd April and the other at Saxmundham on 21st July. Both were seen clearly, and one was photographed so the rarer, Scarce Tortoiseshell was ruled out.

The **Red Admiral** was widespread throughout the county, often flying in good numbers alongside Painted Lady. A few records were received from offshore by yachtsmen and fisherman and these related to individuals flying strongly over open water. Coastal counts of note were: 50 flying along river at Levington, River Orwell, 50 at RSPB Minsmere on 2nd August and 50 at Lowestoft Beach on 18th August.

An increase in sightings of **Peacock** was noted, 23rd and 26th July, along the Suffolk coast between Aldeburgh and Lowestoft with several 100+ counts reported. On 26th July, a significant movement of Peacock was observed at Aldeburgh where several thousands were seen coming in off the sea. Of note, on 26th July, **Large White** was seen arriving in large numbers along the Suffolk coast and amongst the Peacocks. The graph below shows the peak in Peacock numbers through July.



Graph 2: Peacock peak dates, 2019

6. Other species of note.

Chalkhill Blue: The site in the west of the county was visited on several occasions with butterflies seen between 23rd July and 3rd August. Numbers on this latter date were encouraging with at least 13 males and 4 females counted. Previous years have seen this species fly to the end of August, so it is likely that peak site occupation was still a week or so away.

Great news was received from the A14 Project run by Twm Wade where a lone female Chalkhill Blue was recorded from the site on 1st August. This is a particularly good result and a nice reward for all of Twm's efforts. The site saw large quantities of Horseshoe Vetch being planted along a stretch of A14 cutting over several years. Hopefully, with proper management and stakeholder support this project could lead to a new Chalkhill Blue site for Suffolk in a few years.

6.1 Central Ipswich sightings:

The **Marbled White** continued to fly in central Ipswich at Landseer Park and nearby at Pipers Vale, Orwell Country Park. These butterflies are known to originate from unauthorised introductions and anecdotal evidence received suggests that they continue to be "topped-up". The first record was on 23rd June and the last on 29th July. A max count of 50 was reported on 7th July.

Records continued to be received for **Brown Hairstreak** from the Pipers Vale and Belstead areas of Ipswich both from winter egg counts and flying adults albeit in much smaller numbers than seen in recent years. A Winter egg count on 13th January produced a count of 63 across the Pipers Vale site. The first adult record was on 1st August with the last on 31st August. The highest number reported was 6 flying adults on 21st and 23rd August at Pipers Vale.

The recording position on these presumed releases of Marbled White and Brown Hairstreaks at central Ipswich sites is that they will not be submitted to Butterfly Conservation for inclusion in national data sets. However, local monitoring will be undertaken, and records will be maintained at a county level in order to assess

population and range changes.

Two records of **Dingy Skipper** were also received for Landseer Park, Ipswich at the end of May (30th and 31st) with one being described as, being barely able to fly.

Landseer Park also played host to **Small Blue**. The butterfly was first found on 15th June and last reported on 22nd June. The maximum count was of 5 males on the 17th June. The obvious question is why or how this species has suddenly occurred at this site and whether these Small Blue sightings relate to yet another local introduction or release? However, on a positive note, the site does have Kidney Vetch, the larval food plant, present across the site. In addition, it is a species that is known to be capable of dispersing large distances. This species also unexpectedly occurred in Norfolk in 2019 at Cranwich Camp and at a site in South Essex.

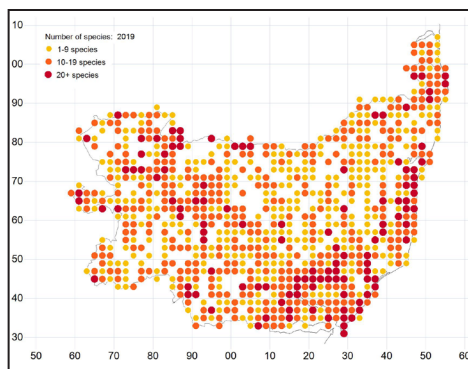
Two records of Dark-green Fritillary were received from Landseer Park, Ipswich on 29th and 30th June. A photograph was received to support the identification although the records are on separate days it is highly likely that they refer to an individual butterfly. Again, given the site location and with no other county records for comparison there is some concern as to it being another released specimen.

Of note, this species was also reported from a heathland site in the north of the county but neither description nor photo was provided so the record has been discounted. As an aside, **Dark-green Fritillary** flew in reasonable numbers on the Cambridgeshire/ Suffolk border along the Devils Dyke through late June into early August. It is believed to breed in this area, albeit in small numbers. As such, wanderers from this population could be expected in the west of Suffolk but none were reported.

7. Recording and Geographic Coverage in 2019

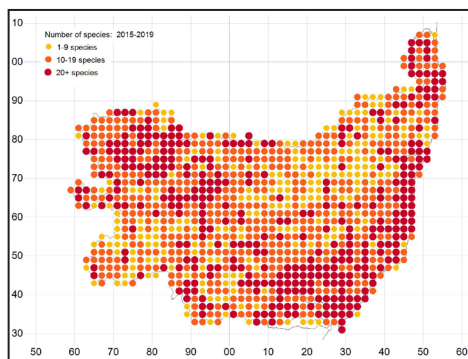
As discussed above the BNM remains the key recording scheme for general distribution and numbers of butterflies. 2019 was the final year in the current five-year (2015-2019) recording

period. Nearly, **42,000** records were received for 2019 and butterflies were recorded in **827** county tetrads (2km x 2km squares). The **Suffolk coverage map for 2019** is shown below.



Map 4: Suffolk recording coverage 2019

However, as this was the last year of the current five-year period it is appropriate to consider the extent of coverage achieved. Combining the data from **2015, 2016, 2017, 2018** and **2019** shows that over **175,000** records have been received with butterflies being seen from **1075** county tetrads. This gives us an incredible **98.7%** county coverage which is a brilliant position to be in at the end of the recording period. The **Suffolk coverage map for 2015-2019** is shown below.



Map 5: Suffolk Coverage 2015-2019

8. Analysis

(See *Annex C- Long term trends for residents and regular visitors 1995 to 2019*)

The **39** species of butterfly recorded in 2019 are shown in **Annex A**, in order of scarcity, with a direct comparison to last year's results.

However, trends over a longer period are presented separately at **Annex C** for our regular species. The rolling 5-year figure (2015-2019) covers **1075** tetrads and shows an average of **15.7** species per tetrad.

9. Distribution Maps

(See **Annex D.1- 2019 and Annex D.2 2015-19**)

Distribution maps have been created for each individual species, firstly for 2019, and also the 5-year period 2015-2019.

10. Suffolk Biodiversity Action Plan- Priority Species

(See also, <https://www.suffolkbis.org.uk/biodiversity/speciesandhabitats/specieslist>)

Seven species of butterfly occurring in Suffolk are deemed as UK BAP priority species. These are Dingy Skipper, Silver-studded Blue, White-letter Hairstreak, White Admiral, Grayling,

Wall and Small Heath. These are all dealt with separately in the accompanying **Annex (E-K)** as listed below.

11. UK Butterfly Monitoring Scheme (UKBMS)

Transects- Transects are highly effective at monitoring habitat specialist butterflies and lowland semi-natural habitats. They are resource intensive but give a sharp view of butterfly trends. The 2019 results from those transects walked in Suffolk have been added to the Suffolk database and are a useful addition as they reflect consistent, sustained and focused recording within the county.

During 2019, **25** transects and **2** single species transects were monitored and these are listed below. 2019 also marked the first year of a new transect, Foxearth Meadows, Glemsford. My thanks go to all those team coordinators and walkers, who put in dedicated monitoring efforts and for the records achieved to be part of this report:

Suffolk Transects:

Site Name	
Alton Water	
Black Heath	Rookery Farm, Ousden
Center Parcs (Elveden)	RSPB Lakenheath
Dunwich Forest 1	RSPB Minsmere
Foxearth Meadows, Glemsford	RSPB Wolves Wood
Little Ouse Headwaters	Sizewell Belts
Manor Farm (Coddham)	Spring Lane (Bury St Edmunds)
NE Cavenham Heath	SWT Church Farm
Newsons Farm (Thorpe Green)	SWT Lackford Lakes
Newsons Farm Ext-(Thorpe Green)	SWT Knettishall Heath
Nowton Country Park	SWT Redgrave and Lopham Fen
Ramsey/Hintlesham Woods	SWT Reydon Wood
River Lark Path	Upper Abbey Farm (Leiston)

Suffolk Single-species transects:

Site Name	Species
Blaxhall Common	Silver-studded Blue
Purdis Heath	Silver-studded Blue

Wider Countryside Butterfly Scheme (WCBS)

The WCBS complements transect monitoring of butterfly populations on semi-natural sites and forms part of an integrated approach to monitoring butterflies through the UK Butterfly Monitoring Scheme (UKBMS). It runs as a partnership between Butterfly Conservation, the British Trust for Ornithology (BTO), the Centre for Ecology and Hydrology (CEH) and the Joint Nature Conservation Committee (JNCC). The

scheme targets common and widespread butterflies by selecting random 1km squares which are then subject to a minimum of two visits ideally in July and August.

The records generated from the scheme are included in the Suffolk data set and represent a significant contribution both in terms of record numbers but also in respect of the locations involved. In 2019, records were received from the 39 squares as shown below.

WCBS – Suffolk 2019					
OS Reference	Sda	Name	OS Reference	Org'	Name
TL6381	BC	West Row	TM0048	BC	Nedging-with-Naughton
TL6545	BC	Haverhill	TM0057	BC	Buxhall
TL7163	BC	Gazeley	TM0058	BC	Buxhall
TL7262	BC	Dalham Hall	TM0553	BC	Battisford
TL7673	BC	Icklingham (2019)	TM0871	BC	Gislingham
TL7781	BC	Wangford	TM1234	BTO	Brantham
TL7866	BC	Risby	TM2144	BTO	Foxhall
TL7882	BC	Brandon	TM2147	BC	Playford
TL7951	BC	Hawkedon	TM2160	BC	Cretingham
TL8161	BC	Ickworth (New 2018)	TM2481	BTO	Shotford Heath
TL8183	BC	Thetford	TM2975	BC	Cratfield
TL8271	BC	Wordwell	TM2984	BTO	St Cross, South Elmham
TL8381	BC	Elveden	TM3150	BC	Eye,
TL8482	BC	Thetford	TM3183	BC	St Margaret, South Elmham
TL8566	BC	Fornham St Martin, Bury St Edmunds (N)	TM3450	BC	Butley Corner
TL8843	BC	Sudbury (N)	TM3549	BC	Rendlesham Forest,
TL8862	BTO	Rushbrooke	TM3762	BC	Benhall
TL9047	BC	Acton, Lavenham	TM5075	BTO	Southwold
TL9475	BTO	Bardwell	TM5195	BC	Flixton
TL9859	BC	Rattlesden			

There are always WCBS squares available for adoption in Suffolk and if you are interested in getting involved with butterfly surveys then please consider this type of activity aspect. The Suffolk Coordinator, Twm Wade would be very pleased to hear from you, email: twm.wade@yahoo.com

12. Summary of Annexes:

Annex A	Scarcity for species seen in Suffolk in 2019
Annex B	Suffolk Butterfly Species Earliest and Latest dates up to end 2019
Annex C	Long term trends for residents and regular visitors 1995 to 2019
Annex D 1.	Distribution Maps for 2019
Annex D 2.	Distribution Maps for 2015-19

Annex E	BAP species- Dingy Skipper
Annex F	BAP species- Silver-studded Blue
Annex G	BAP species- White-letter Hairstreak
Annex H	BAP species- White Admiral
Annex I	BAP species- Grayling
Annex J	BAP species- Wall
Annex K	BAP species- Small Heath



Painted Lady by Beryl Johnson

Annex A- Scarcity for 39 species seen in Suffolk in 2019

Tetrads per Species – 2018 & 2019 (*Species listed in order of scarcity in 2019*)

% of 786 Tetrads	2018 Tetrads	Species	2019 Tetrads	% of 827 Tetrads	*cf last
0.1	1	Camberwell Beauty	0	0	0
0	0	Small Blue	1	0.1	0
0.1	1	Dark-green Fritillary	1	0.1	1.00
0.1	1	Long-tailed Blue	1	0.1	1.00
0.1	1	Large Tortoiseshell	2	0.2	2.00
0.1	1	Chalkhill Blue	2	0.2	2.00
0.3	3	Swallowtail	3	0.3	1.00
1.0	8	Dingy Skipper	8	0.9	0.90
2.0	16	Silver-studded Blue	13	1.5	0.75
2.2	18	Wall	22	2.6	1.18
2.4	19	Purple Emperor	22	2.6	1.08
4.8	38	Clouded Yellow	31	3.7	0.77
7.3	58	Grayling	46	5.5	0.75
9.0	71	White-letter Hairstreak	51	6.1	0.67
8.3	66	White Admiral	57	6.8	0.81
6.9	55	Silver-washed Fritillary	62	7.4	1.07
8.5	67	Green Hairstreak	75	9.0	1.05
19.0	150	Purple Hairstreak	104	12.5	0.65
13.1	103	Essex Skipper	128	15.4	1.17
22.1	174	Brown Argus	184	22.2	1.00
22.1	174	Large Skipper	190	22.9	1.03
25.4	200	Small Heath	215	25.9	1.01
25.5	201	Small Skipper	218	26.3	1.03
34.0	268	Small Copper	275	33.2	0.97
44.0	346	Holly Blue	329	39.7	0.90
39.5	311	Orange-tip	332	40.1	1.01
50.2	395	Common Blue	334	40.3	0.80
36.6	288	Brimstone	371	44.8	1.22
55.0	433	Green-veined White	404	48.8	0.88
45.0	354	Ringlet	408	49.3	1.09
45.2	356	Small Tortoiseshell	431	52.1	1.15
52.9	416	Speckled Wood	440	53.2	1.00
48.0	378	Comma	507	61.3	1.27
60.4	475	Gatekeeper	545	65.9	1.09
62.5	492	Meadow Brown	575	69.5	1.11
30.7	242	Painted Lady	591	71.4	2.32
58.6	461	Peacock	614	74.2	1.26
74.9	589	Large White	628	75.9	1.01
59.6	469	Red Admiral	631	76.2	1.27
77.2	607	Small White	652	78.8	1.02

*cf last- Indicates change against last year's coverage when compared with current year.

Note 1: Swallowtail includes *P. m. britannicus* and *P. m. gorganus*

Note 2: Marbled White and Brown Hairstreak not included in comparison.

Annex B- Suffolk Butterfly Species Earliest and Latest dates up to end 2019

Species	2019 Earliest	Earliest in Suffolk	Recorder	2019 Latest	Latest in Suffolk	Recorder
Swallowtail	23/08/19	28/05/97	Mervyn Bell	03/09/19	03/09/19	Cliff Waller
Dingy Skipper	15/05/19	25/04/90	W. E. Lemmon	03/06/19	12/07/17	Jenny & Gary Plank
Essex Skipper	03/06/19	29/05/83	Stuart Ling	21/08/19	14/09/16	George Millins
Small Skipper	25/05/19	05/05/17	Jenny Bradin	23/08/19	25/09/95	Stella Wolfe
Large Skipper	29/05/19	20/05/17	Mervyn Crawford	24/08/19	25/09/18	Debs Crawford
Orange-tip	24/03/19	09/03/14	Jamie McDonald	08/08/19	08/08/19	Debs Crawford
Large White	24/02/19	16/02/14	BTO Garden Survey	06/11/19	25/12/11	Dave Langlois
Small White	22/02/19	03/02/17	Graham Peck	03/11/19	19/11/06	Stuart Gough
Green-veined	21/03/19	11/03/00	Eileen Coe	14/10/19	05/11/06	Will Brame
White	01/06/19	16/04/18	Sue Cox	13/11/19	21/11/32	Mr Richardson
Clouded Yellow	14/02/19	02/01/14	SWT Lackford	30/09/19	28/12/15	Mick Saunt
Brimstone	12/05/19	01/04/09	Reg Etheridge	05/10/19	30/10/95	Betty Serjeant
Wall	27/03/19	10/03/15	David Dowding	19/10/19	18/11/18	Will Brame
Speckled Wood	26/04/19	22/04/17	Linda Hammond	30/09/19	10/11/11	Reg Etheridge
Small Heath	29/05/19	24/05/17	Twm Wade	29/08/19	27/09/18	Ray Hardinge
Ringlet	29/05/19	07/04/18	Meg Johnson	25/09/19	15/10/18	Lydia Calvesbert
Meadow Brown	05/06/19	20/03/14	Michael Dickens	15/09/19	06/10/05	Lydia Calvesbert
Gatekeeper	05/07/19	12/06/14	Terry Peake	18/09/19	01/10/06	Steve Goddard
Grayling	21/06/19	13/06/17	Mike Dean	25/08/19	03/10/14	David Dowding
Silver-w Fritillary	23/06/19	06/06/14	Brian Thompson	22/09/19	17/10/14	Paul Collins
White Admiral	02/07/19	23/06/14	Two records	11/08/19	26/08/12	Julian Dowding
Purple Emperor	08/01/19	1st Jan	Multiple records	30/12/19	31/12/06	Nick Dickson
Red Admiral	18/03/19	04/01/16	Ian Barthorpe	09/11/19	20/11/95	Colin Hawes
Painted Lady	16/01/19	1st Jan	Multiple records	30/12/19	31st Dec	Multiple records
Peacock	03/02/19	01/01/00	A & E Beaumont	29/10/19	28th Dec	Multiple records
Small Tortoiseshell	14/02/19	15/01/95	Stan Dumican	10/11/19	14/12/16	Melvyn Eke
Comma	09/04/19	20/03/10	Reg Etheridge	03/11/19	16/11/94	Richard Stewart
Small Copper	22/06/19	03/06/13	Tony Prichard	03/09/19	27/09/15	Dudley Sheppard
Purple Hairstreak	15/04/19	30/03/17	Mervyn Crawford	01/07/19	23/07/14	Richard Perryman
Green Hairstreak	18/05/19	18/05/19	Mervyn Crawford	12/08/19	11/09/17	Bill Stone
White- I Hairstreak	24/03/19	16/03/17	Rose Andrews	30/09/19	17/11/18	Bill Stone
Holly Blue	02/06/19	16/05/18	Reg Etheridge	27/08/19	30/09/07	Richard Havard
Silver-studded Blue	26/04/19	24/04/04	Mervyn Crawford	30/09/19	27/10/08	Nigel Odin
Brown Argus	22/04/19	06/04/17	Christine Williams	29/10/19	06/11/94	Two records
Common Blue	23/07/19	07/07/18	Twm Wade	03/08/19	28/09/15	Twm Wade

ANNEX B- Long term trends for residents and regular visitors 1995 to 2018

Survey from:
to:

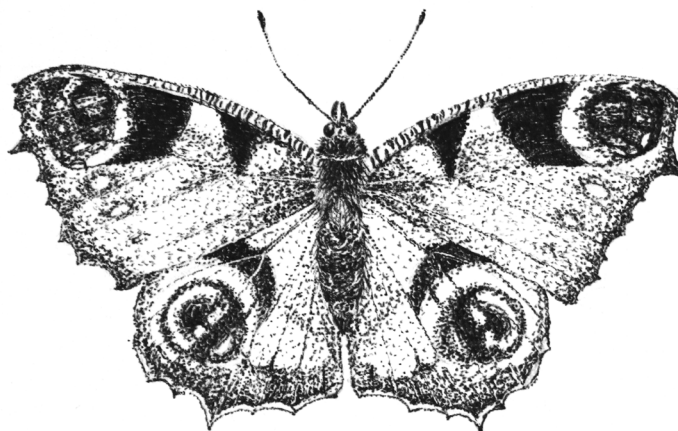
2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 Long Term

Period:	1yr	1yr	1yr	1yr	1yr	1yr	1yr	1yr	1yr	1yr	1yr	1yr	1yr	1yr	1yr	1yr	Trend
Tetrads:-	449	536	500	557	509	549	645	575	677	575	640	736	710	677	728	786	827
Species/Tetrad:	9.4	8.5	10	9.4	9.1	9	10.3	9.7	8.7	9	10.9	10.9	11	10.2	11.1	10.5	11.5
Tetrads from which recorded																	
Small Skipper	114	121	135	158	110	125	169	161	148	166	181	252	234	182	213	201	218
Essex Skipper	88	102	107	100	83	99	106	88	79	94	104	131	126	103	124	103	128
Large Skipper	90	90	121	161	124	131	199	176	188	168	240	268	269	204	236	174	190
Dingy Skipper	5	7	4	4	2	5	4	4	3	7	5	4	5	5	7	8	8
Clouded Yellow	40	36	13	55	29	5	57	8	11	131	95	32	49	57	38	31	
Brimstone	100	106	163	176	174	157	199	195	197	149	236	281	278	273	316	288	371
Large White	251	283	316	305	276	343	469	344	380	343	490	508	556	465	524	589	628
Small White	245	293	317	296	303	305	425	384	421	334	467	503	527	475	502	607	652
Green-veined White	203	257	302	212	248	307	392	392	366	260	363	388	348	359	352	433	404
Orange Tip	151	199	244	221	205	236	244	266	311	210	232	337	284	289	316	311	332
Green Hairstreak	29	31	43	36	49	35	41	51	62	30	27	58	58	39	57	67	75
Purple Hairstreak	40	37	46	44	30	33	56	66	72	61	83	62	66	65	79	150	104
White-letter Hairstreak	25	13	22	35	23	24	16	26	26	17	25	22	32	38	38	71	51
Small Copper	141	160	144	163	159	145	188	190	169	195	194	204	195	178	250	268	275
Silver-studded Blue	18	11	17	15	15	15	17	15	15	13	15	14	15	15	12	16	13
Brown Argus	82	65	53	86	90	38	128	111	121	57	84	109	96	84	100	174	184
Common Blue	156	164	188	203	128	128	249	222	194	145	273	285	267	188	311	395	334
Holly Blue	82	185	281	179	190	197	153	231	220	158	187	144	276	271	273	346	329
White Admiral	17	13	32	39	23	32	26	51	32	47	51	55	61	57	60	66	37
Red Admiral	288	225	285	369	338	289	283	320	452	369	290	500	450	469	550	469	631
Painted Lady	275	143	95	271	180	68	447	125	84	92	222	204	354	264	302	242	591
Small Tortoiseshell	289	332	334	269	197	241	398	282	276	220	476	574	471	375	448	356	431
Peacock	219	231	302	282	288	307	408	305	285	265	462	573	410	458	505	461	614
Silver-washed Frillfly	0	0	0	3	0	0	1	9	16	24	31	33	37	29	46	55	62
Comma	221	198	267	281	243	300	351	299	308	305	389	407	407	344	460	378	507
Speckled Wood	245	270	307	288	291	317	411	281	363	293	343	424	341	321	378	416	440
Wall	83	66	39	44	27	28	36	27	31	23	24	36	22	18	21	18	22
Grayling	52	34	38	52	32	37	54	42	48	48	59	70	59	61	53	58	46
Gatekeeper	194	248	249	261	236	281	354	326	323	321	414	465	478	384	477	475	545
Meadow Brown	235	291	294	335	294	361	434	353	360	385	451	502	498	430	487	492	575
Ringlet	150	161	179	210	171	246	268	250	226	288	338	354	357	350	378	354	418
Small Heath	93	93	94	95	87	84	100	100	118	126	131	142	122	104	154	200	215

NB: Rarities
excluded.

ANNEX B- Long term trends for residents and regular visitors (rarities excluded) 1995 to 2018

Survey from: to:	1995 1999	2000 2004	2001 2005	2002 2006	2003 2007	2004 2008	2005 2009	2006 2010	2007 2011	2008 2012	2009 2013	2010 2014	2011 2015	2012 2016	2013 2017	2014 2018	2015 2019
Period:	5 yrs	5yrs	5yrs	5yrs	5yrs	5yrs	5yrs	5yrs	5yrs	5yrs	5yrs	5yrs	5yrs	5yrs	5yrs	5yrs	5yrs
Tetrads:-	1089	878	865	868	879	918	994	1003	1003	993	998	1023	1025	1006	1008	1029	1075
Species/Tetrad:	15.4	11.9	11.8	12.1	12.6	12.7	13.1	13.4	13.6	13.8	14.3	14.2	14.6	14.8	15.3	15.6	15.7
Tetrads from which recorded																	
Small Skipper	639	261	290	322	349	362	390	411	405	422	425	468	491	486	508	513	520
Essex Skipper	714	240	253	267	281	296	296	292	278	283	280	293	317	324	336	334	331
Large Skipper	639	228	259	295	325	347	412	439	462	475	510	537	573	555	566	547	528
Dingy Skipper	5	7	7	8	8	8	8	8	7	7	10	9	9	9	9	10	11
Clouded Yellow	147	192	87	111	119	104	118	118	85	69	166	187	199	221	245	196	155
Brimstone	473	249	290	317	368	394	442	461	463	450	479	515	542	558	590	612	650
Large White	920	579	617	599	637	683	785	806	820	832	840	841	856	856	881	919	974
Small White	953	576	622	606	657	685	775	799	813	811	833	861	855	855	880	912	981
Green-veined White	973	520	572	552	594	632	718	731	765	765	761	762	750	718	737	759	786
Orange Tip	858	401	455	439	480	522	552	565	618	612	604	650	652	604	632	667	663
Green Hairstreak	151	83	85	88	103	108	113	119	134	119	109	128	139	117	130	148	154
Purple Hairstreak	216	109	112	120	123	116	128	147	159	178	213	215	209	209	216	248	266
White-letter Hairstreak	40	43	54	70	75	81	79	83	79	76	79	81	83	88	96	122	145
Small Copper	543	297	310	341	371	369	376	402	397	417	440	453	453	449	473	501	533
Silver-studded Blue	17	20	20	20	21	21	22	21	21	20	20	19	21	22	22	24	24
Brown Argus	320	160	169	193	230	215	260	292	297	279	296	290	276	243	263	319	354
Common Blue	635	327	367	383	402	404	475	505	499	513	556	557	557	539	591	641	666
Holly Blue	703	370	476	419	454	502	504	498	520	500	494	488	503	493	524	581	660
White Admiral	56	36	46	61	65	68	71	79	78	93	101	113	111	123	128	143	146
Red Admiral	809	538	571	577	640	655	699	720	751	750	738	789	802	799	837	868	923
Painted Lady	570	410	396	448	472	403	604	615	557	537	580	419	518	557	602	601	779
Small Tortoiseshell	982	538	615	621	655	644	698	701	689	687	762	812	829	821	847	851	817
Peacock	923	468	527	532	585	621	700	714	721	714	760	794	829	840	871	886	913
Silver-washed Fritillary	0	0	0	3	3	3	5	13	24	37	52	65	77	81	98	113	132
Comma	619	403	457	475	526	557	635	663	672	694	717	717	740	737	757	764	809
Speckled Wood	452	535	572	565	608	636	724	720	738	740	727	727	740	709	714	736	743
Wall	350	200	183	163	160	136	120	115	100	96	81	75	74	64	69	67	53
Grayling	182	107	107	107	100	95	104	108	104	104	106	117	124	131	132	139	127
Gatekeeper	937	495	524	504	558	593	663	701	725	732	763	782	801	791	811	831	864
Meadow Brown	1002	582	615	591	648	699	789	805	804	816	824	843	851	861	862	870	919
Ringlet	669	334	378	397	438	473	528	571	587	634	662	680	703	723	724	729	755
Small Heath	359	195	205	209	229	236	234	241	252	271	288	302	305	303	314	357	399

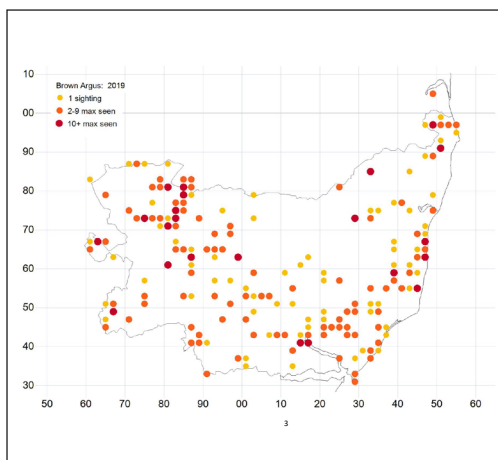
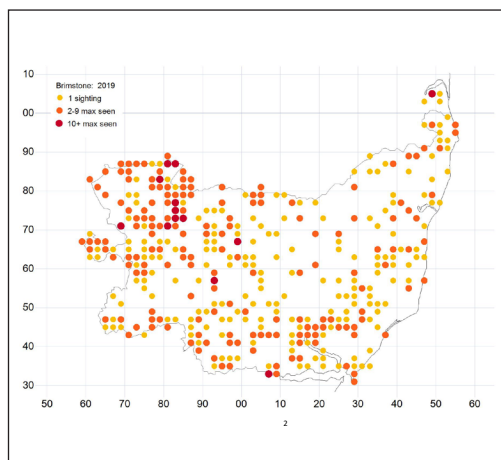


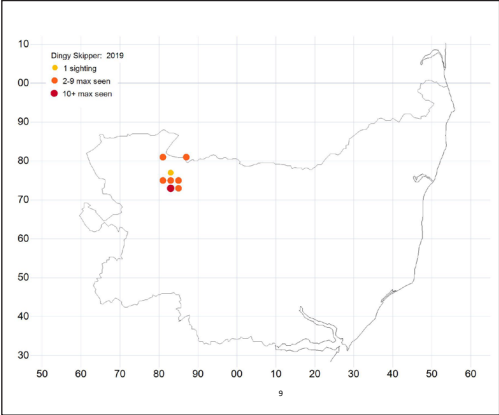
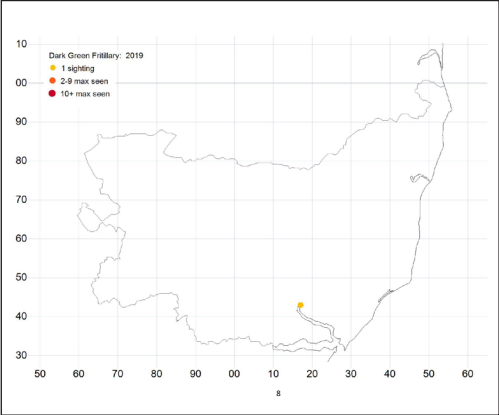
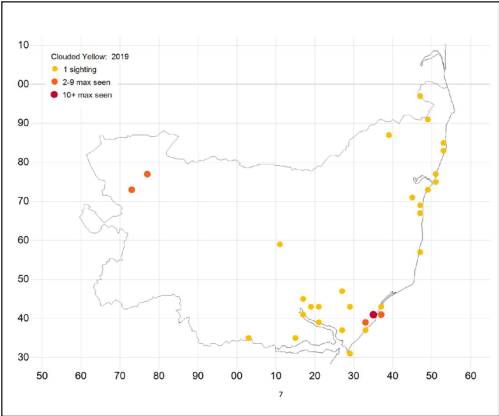
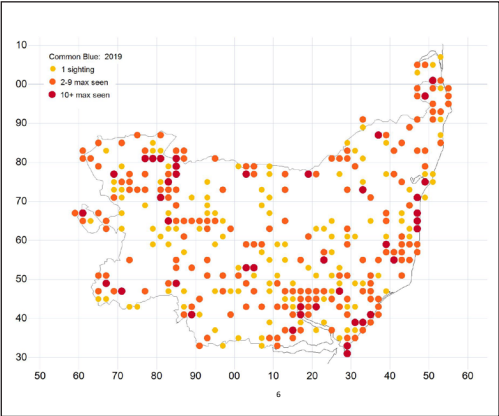
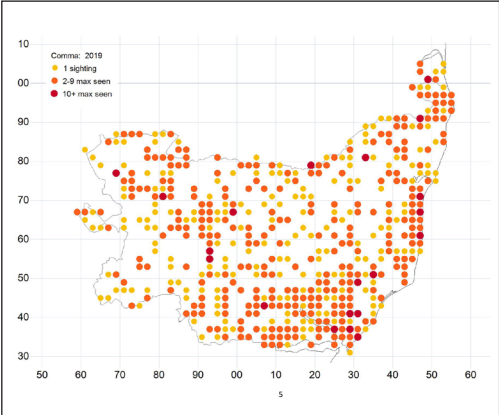
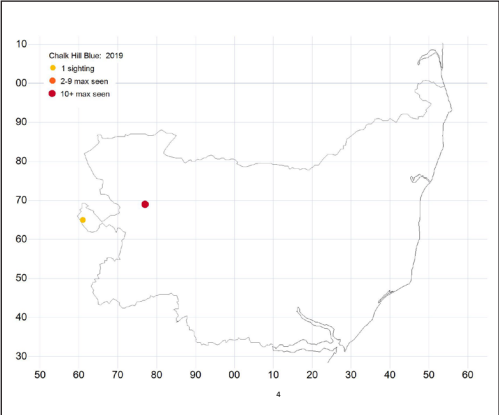
Peacock by Deborah Vass

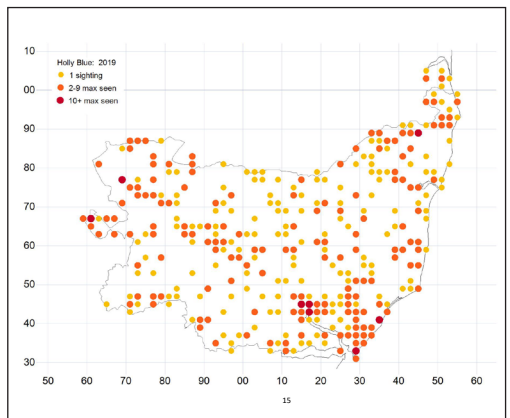
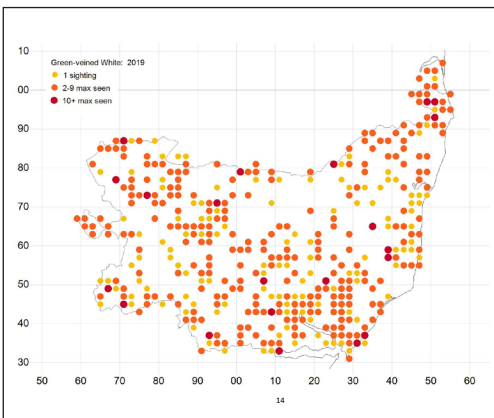
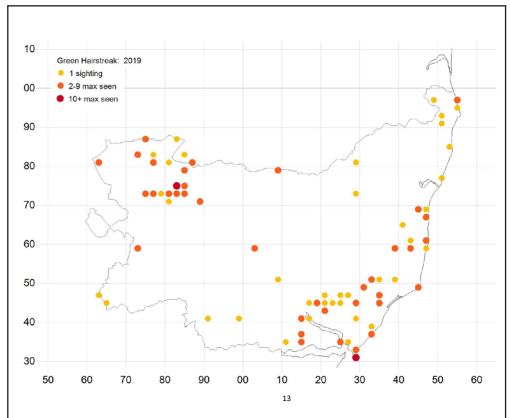
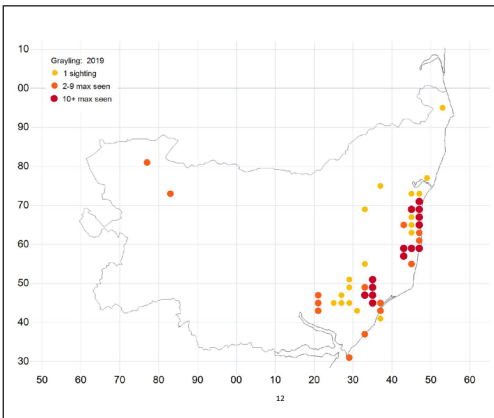
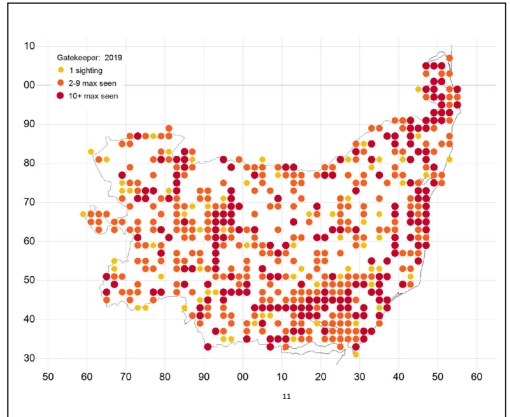
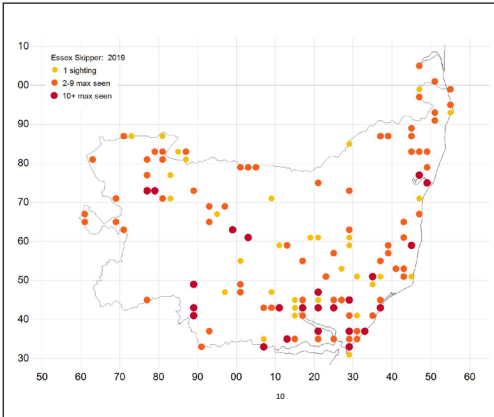
Annex D 1. Suffolk Butterfly Report 2019

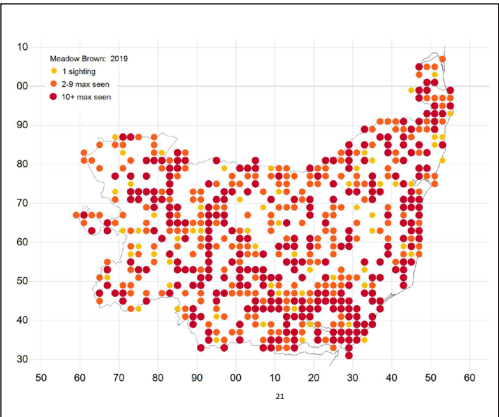
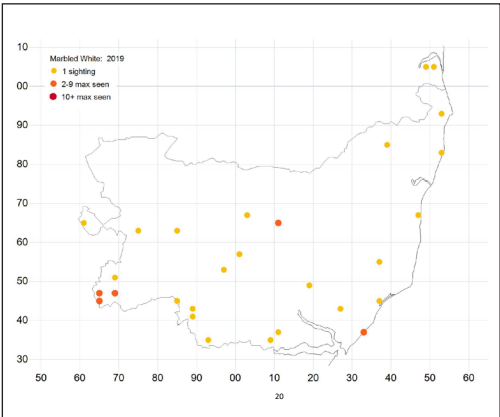
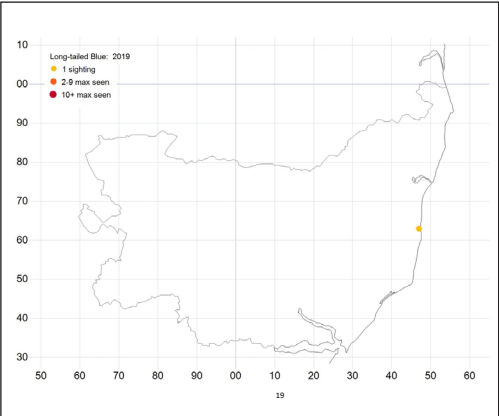
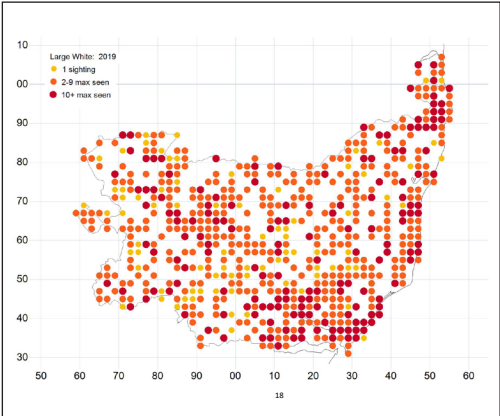
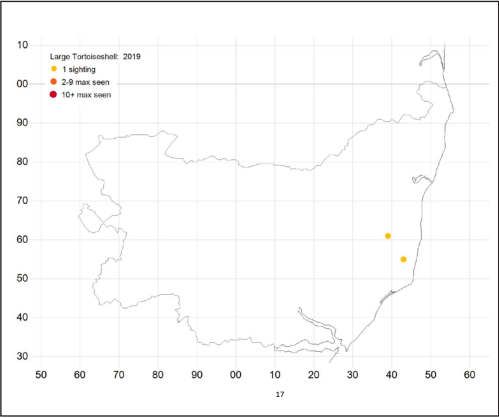
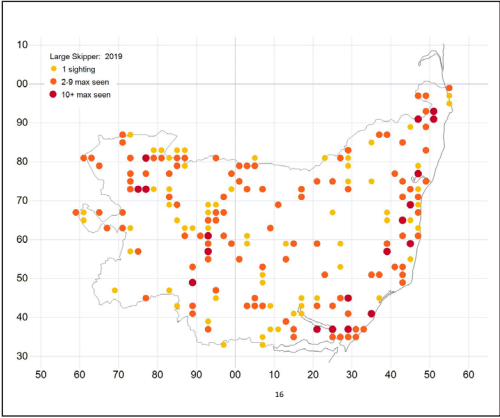
Distribution Maps 2019

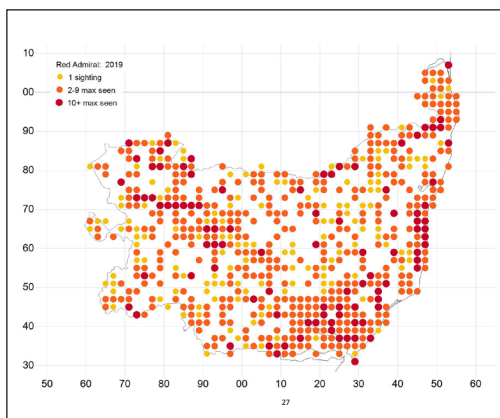
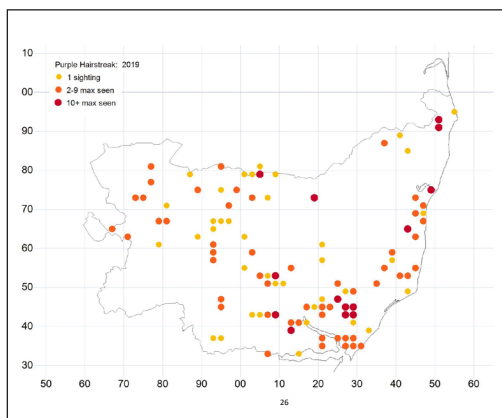
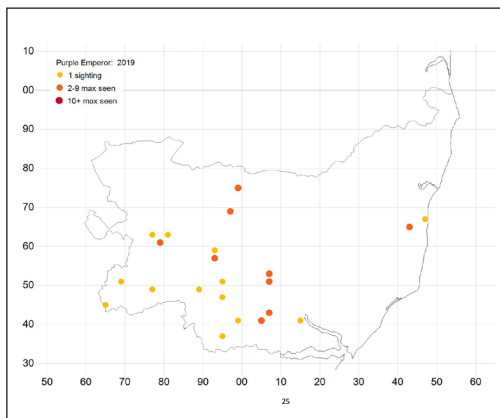
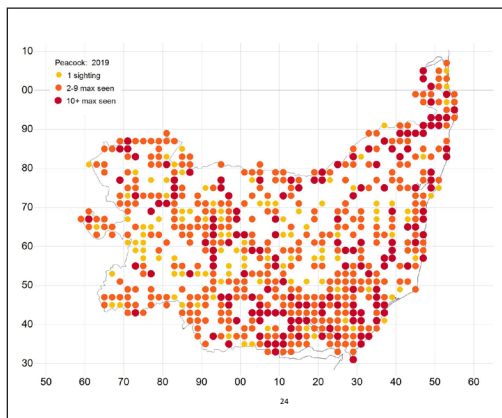
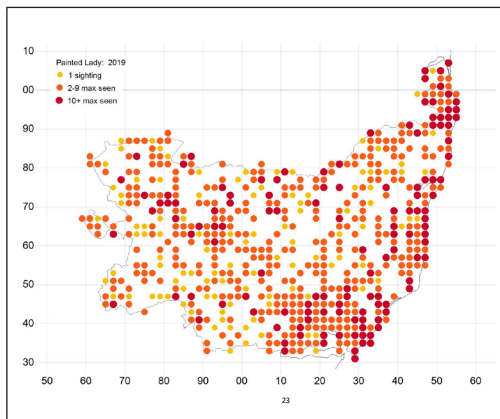
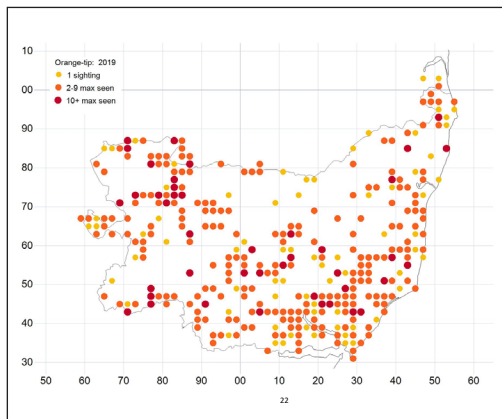
Map No.	Species	Map No.	Species
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3	Brown Argus	23	Painted Lady
4	Chalkhill Blue	24	Peacock
5	Comma	25	Purple Emperor
6	Common Blue	26	Purple Hairstreak
7	Clouded Yellow	27	Red Admiral
8	Dark-green Fritillary	28	Ringlet
9	Dingy Skipper	29	Silver-studded Blue
10	Essex Skipper	30	Silver- washed Fritillary
11	Gatekeeper	31	Small Blue
12	Grayling	32	Small Copper
13	Green Hairstreak	33	Small Heath
14	Green-veined White	34	Small Skipper
15	Holly Blue	35	Small Tortoiseshell
16	Large Skipper	36	Small White
17	Large Tortoiseshell	37	Speckled Wood
18	Large White	38	Swallowtail
19	Long-tailed Blue	39	Wall
20	Marbled White	40	White Admiral
21	Meadow Brown	41	White-letter Hairstreak

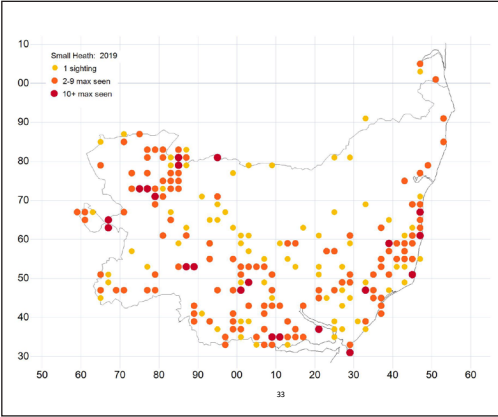
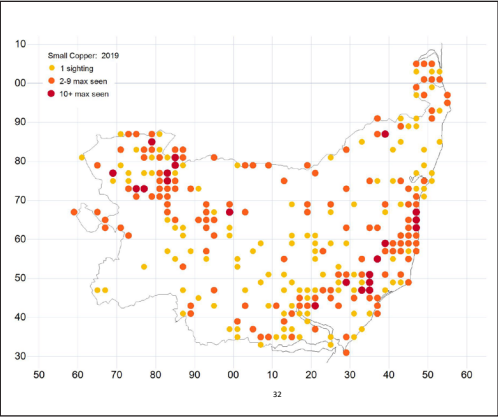
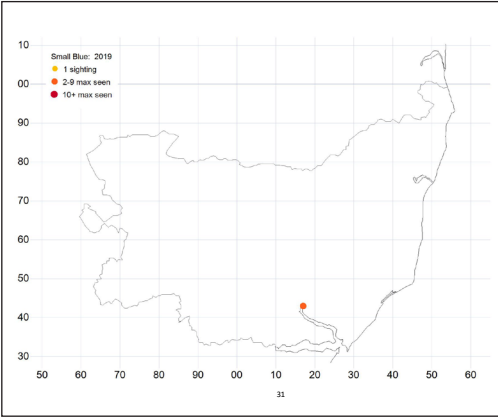
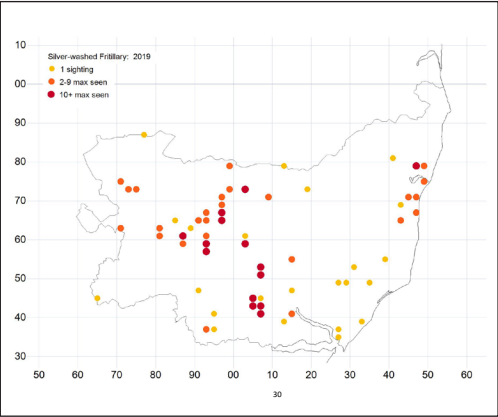
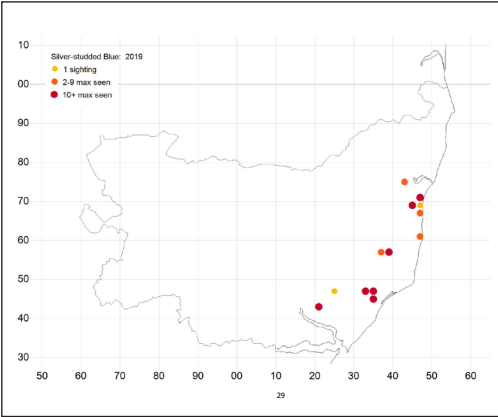
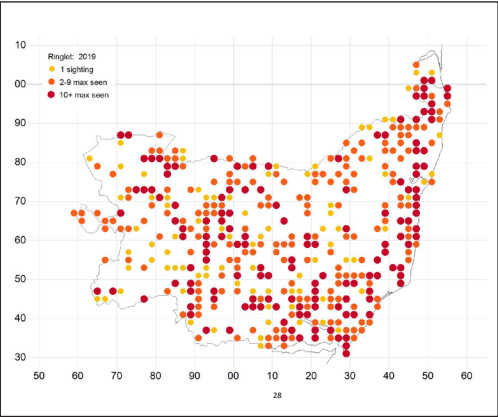


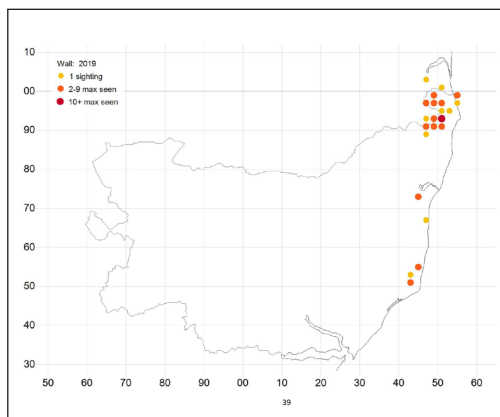
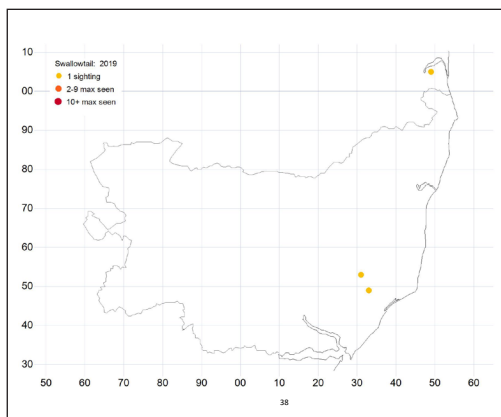
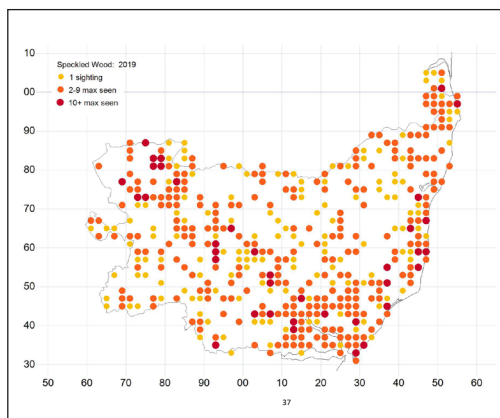
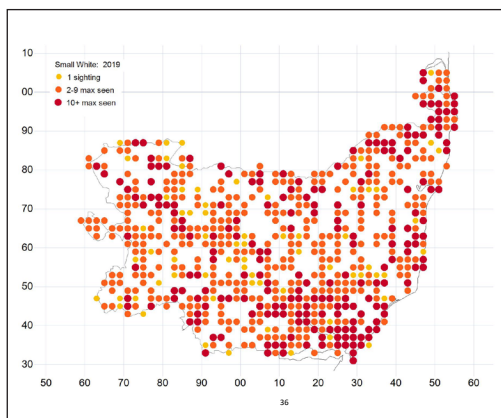
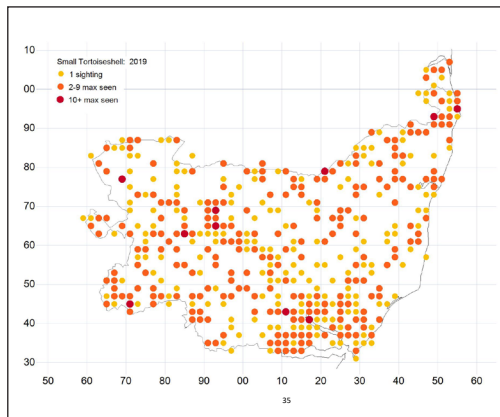
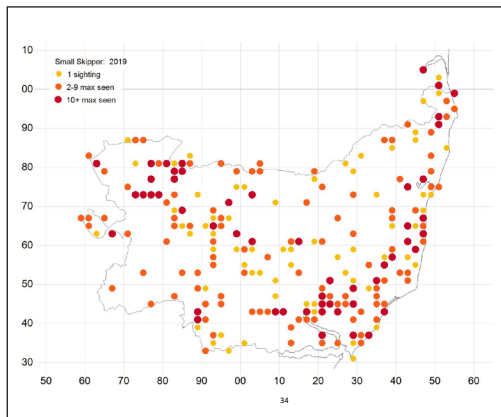


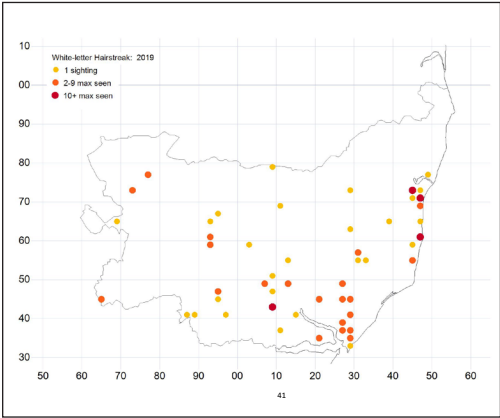
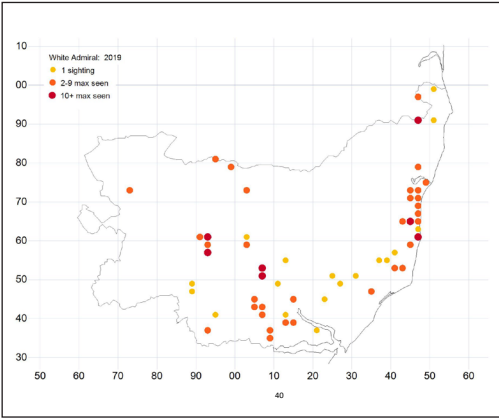






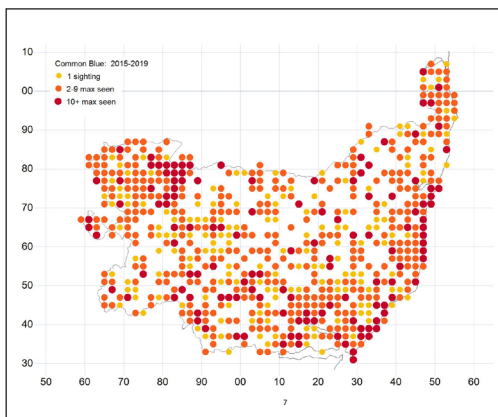
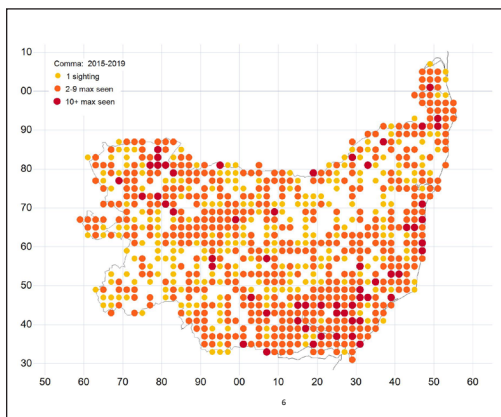
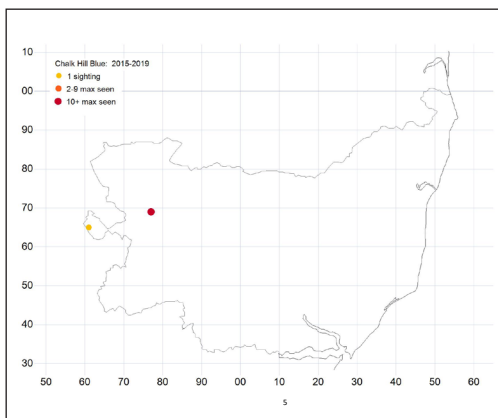
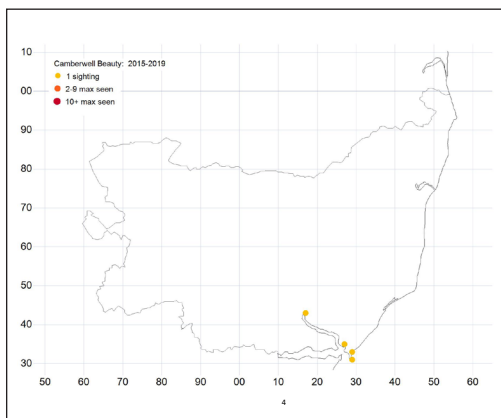
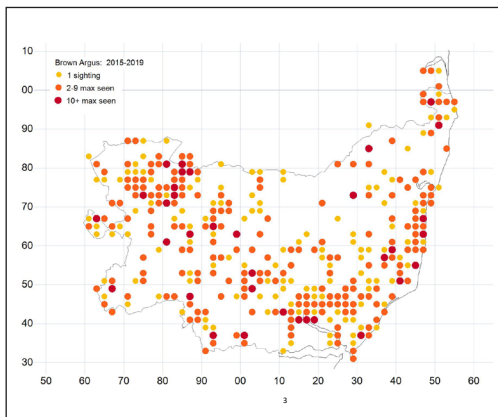
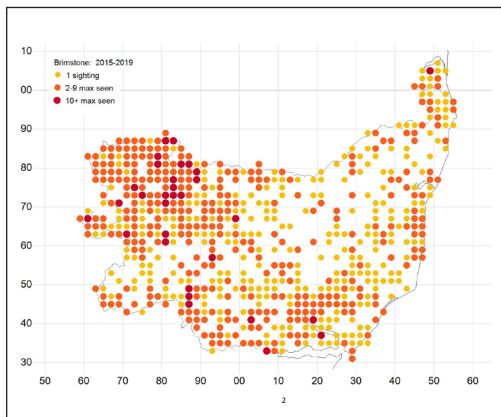


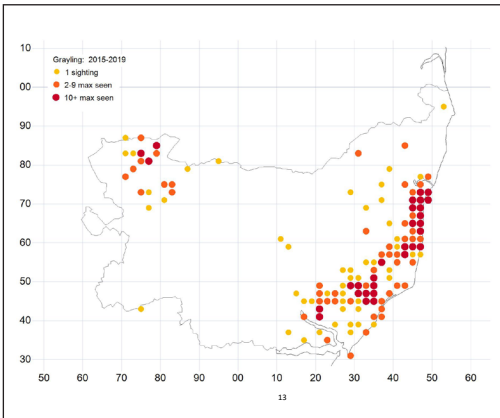
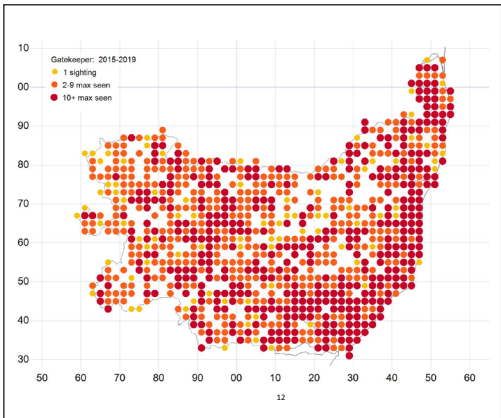
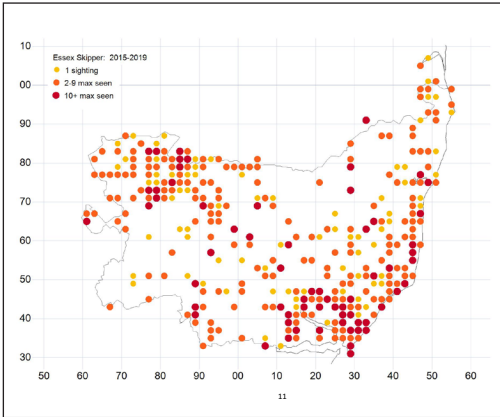
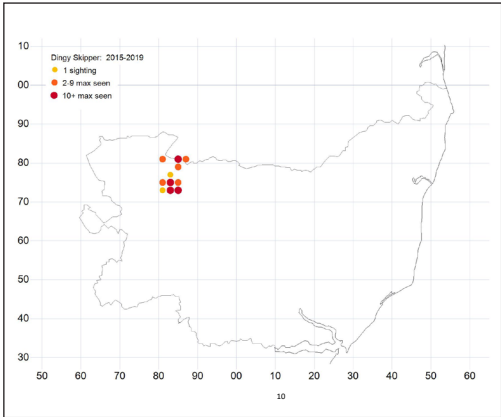
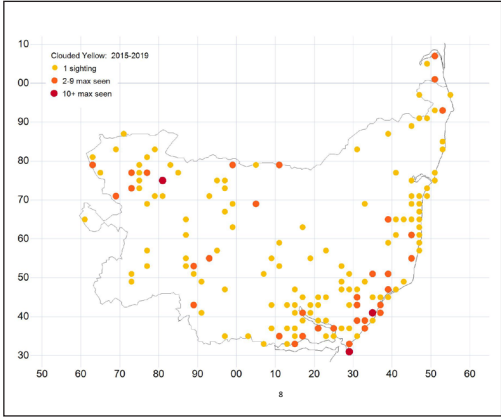


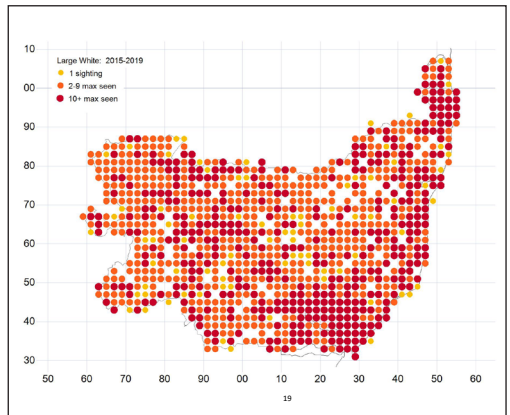
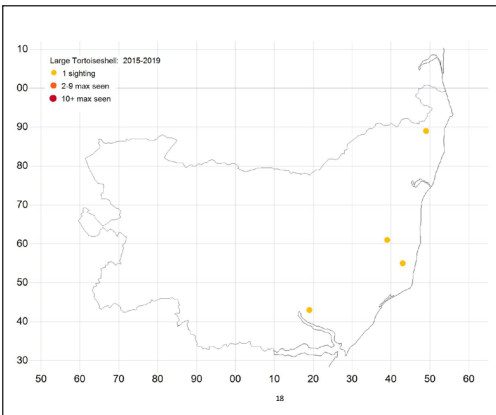
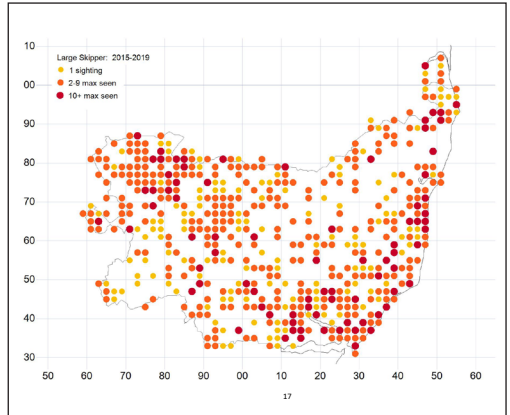
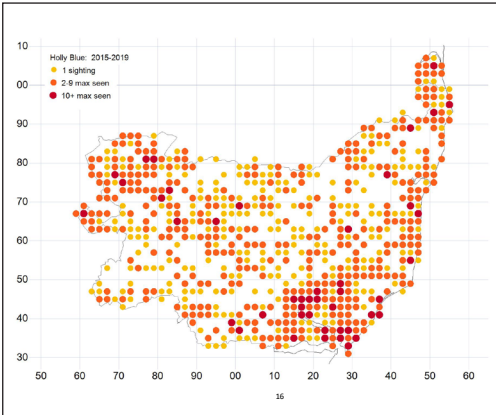
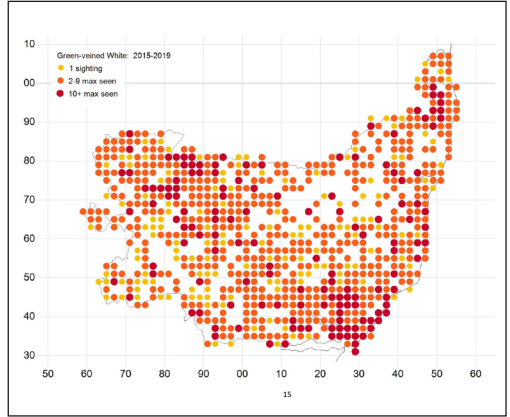
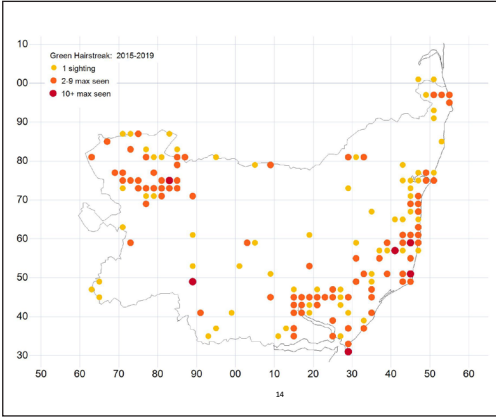


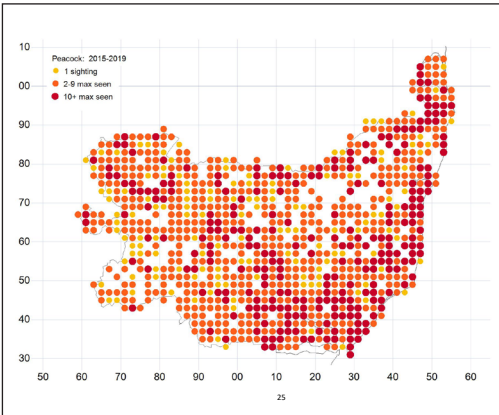
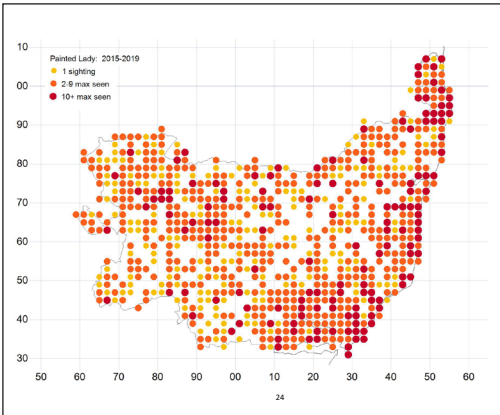
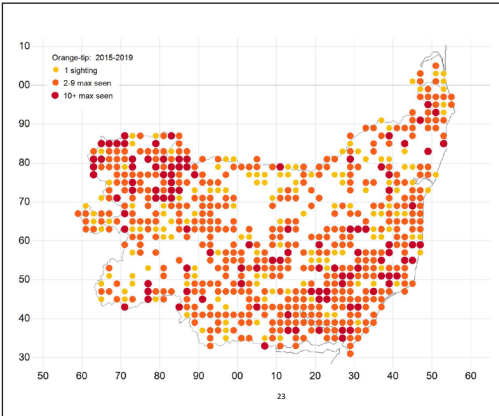
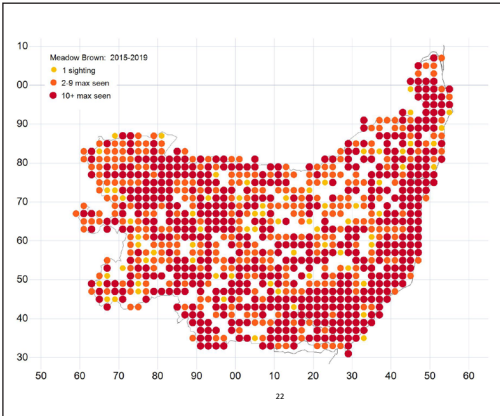
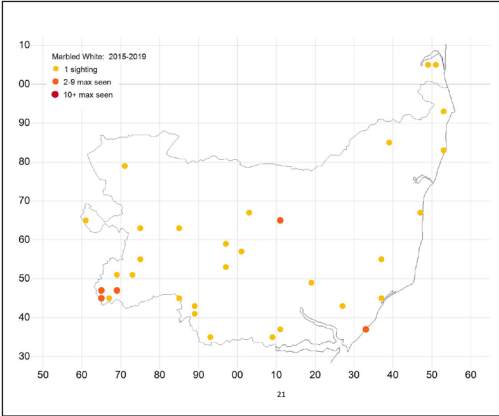
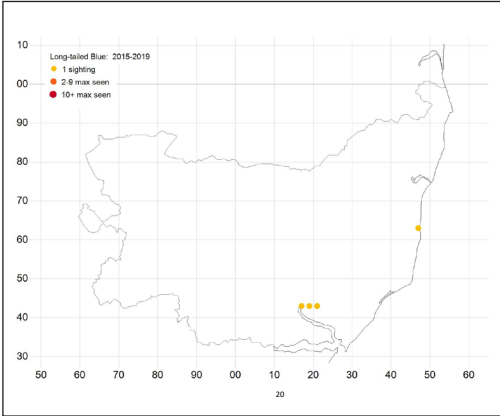
Annex D 2. Suffolk Butterfly Report 2019
Distribution Maps 2015-19

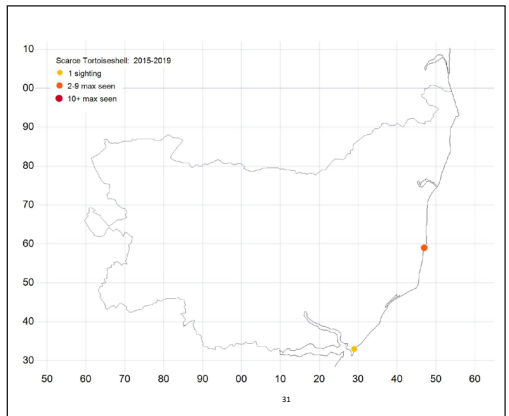
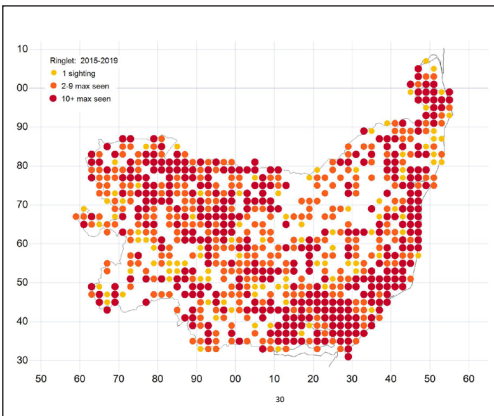
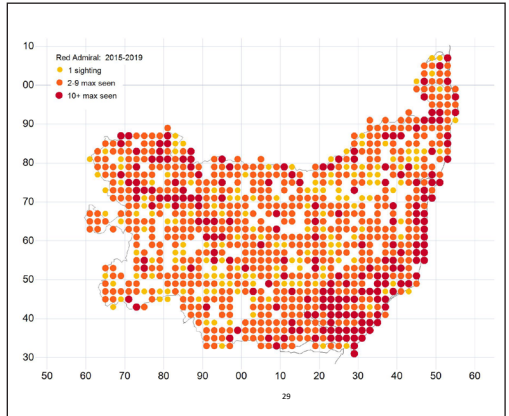
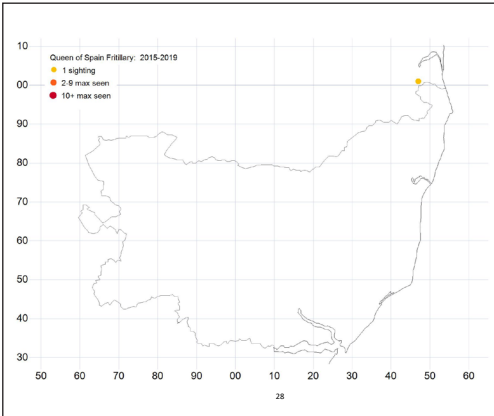
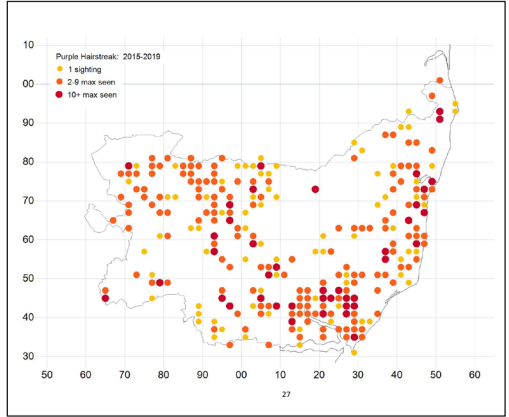
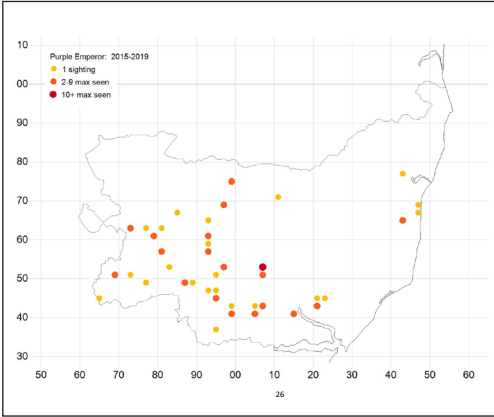
Map No.	Species	Map No.	Species
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3	Brown Argus	25	Peacock
4	Camberwell Beauty	26	Purple Emperor
5	Chalkhill Blue	27	Purple Hairstreak
6	Comma	28	Queen of Spain Fritillary
7	Common Blue	29	Red Admiral
8	Clouded Yellow	30	Ringlet
9	Dark-green Fritillary	31	Scarce Tortoiseshell
10	Dingy Skipper	32	Silver-studded Blue
11	Essex Skipper	33	Silver- washed Fritillary
12	Gatekeeper	34	Small Blue
13	Grayling	35	Small Copper
14	Green Hairstreak	36	Small Heath
15	Green-veined White	37	Small Skipper
16	Holly Blue	38	Small Tortoiseshell
17	Large Skipper	39	Small White
18	Large Tortoiseshell	40	Speckled Wood
19	Large White	41	Swallowtail
20	Long-tailed Blue	42	Wall
21	Marbled White	43	White Admiral
22	Meadow Brown	44	White-letter Hairstreak
23	Orange-tip		

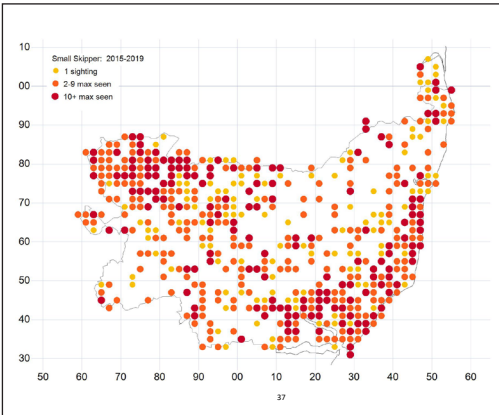
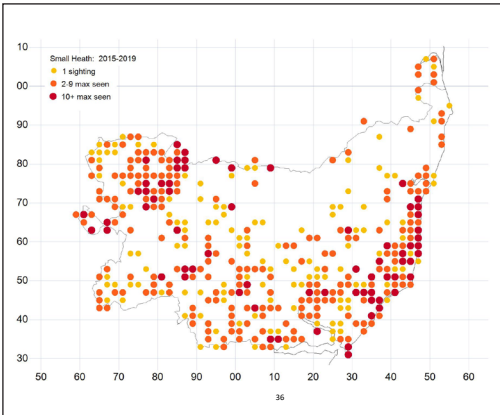
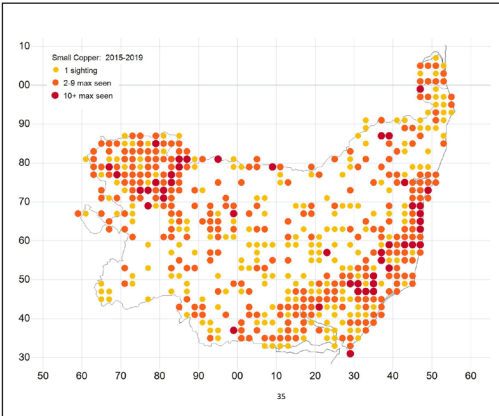
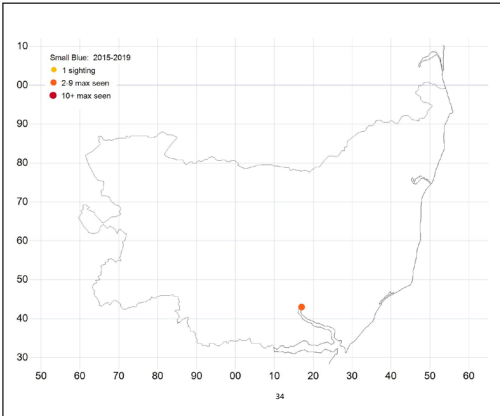
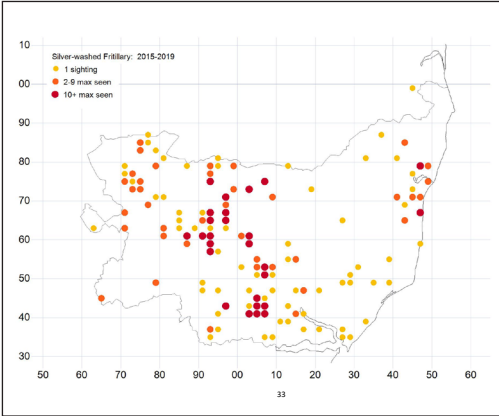
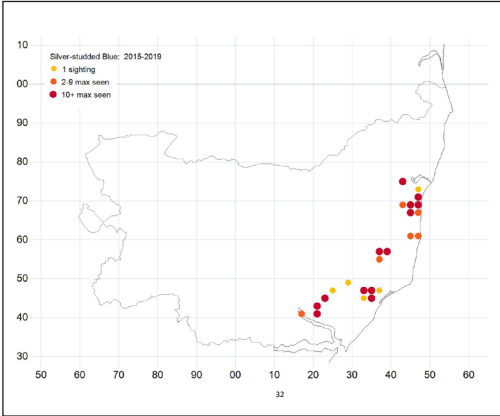


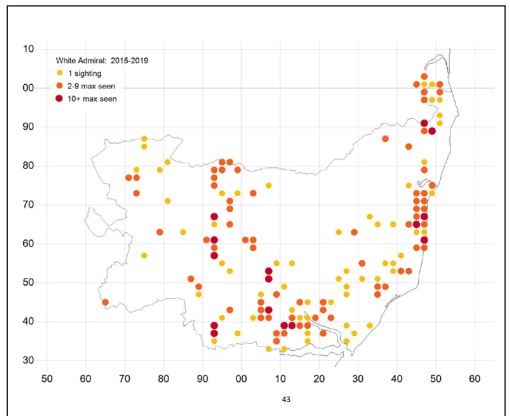
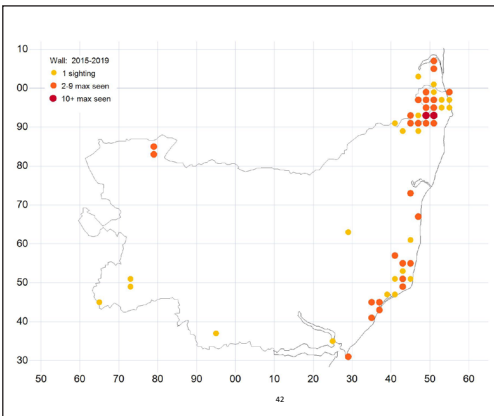
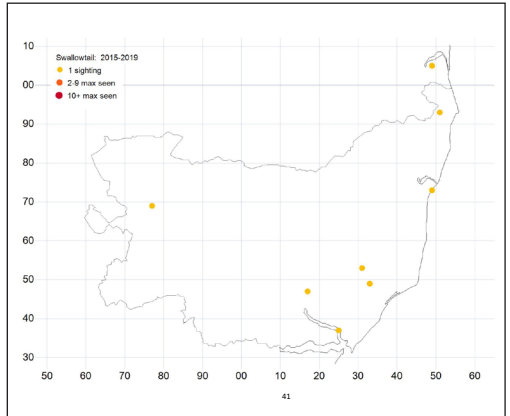
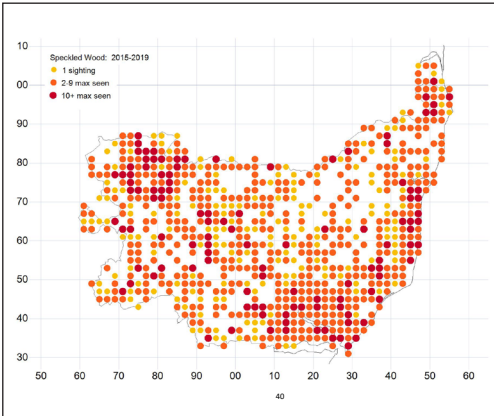
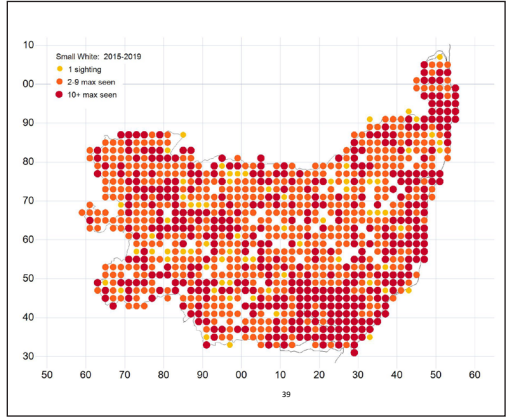
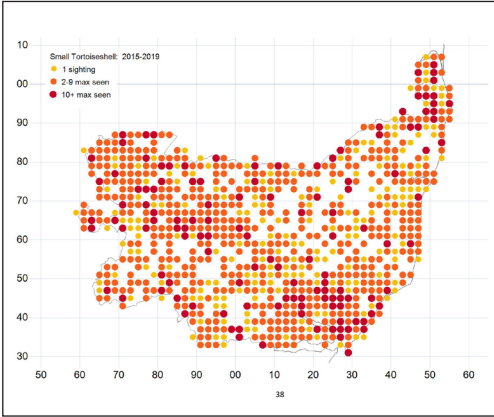


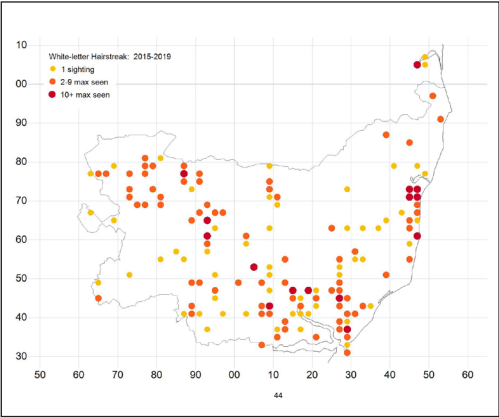












**Suffolk Butterfly Report 2019- BAP Species
Annex E-Dingy Skipper**

Dingy Skipper by Trevor Goodfellow

In 2019, the Dingy Skipper had been on the wing since 22nd April along the Devils Dyke in Cambridgeshire. Normally this butterfly flies in Suffolk some 7-10 days after the first Cambridgeshire sightings but any chances of an early appearance in Suffolk were reduced due to a fortnight of unsettled cool weather. The Dingy Skipper was, therefore, first seen in Suffolk in the Kings Forest on 15th May, the same date as in

2018. The butterfly was last recorded on 3rd June at Center Parcs, Elveden. The following is a summary of the survey work undertaken and sites visited. Surveys again focussed on the Kings Forest, NWT Thetford Heath, RAF Barnham and other key sites within the Suffolk Brecks. A good number of casual records were also received during the month on May to complement the planned surveying.

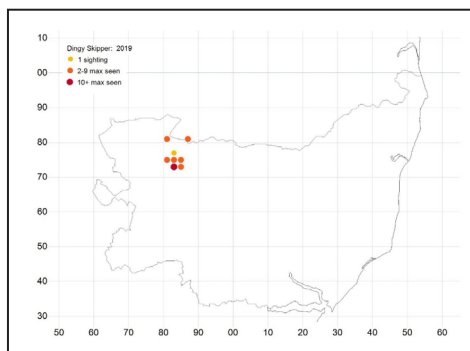
Summary of recording:

Location	Grid Reference	Date	Max No. of Dingy Skippers recorded
Kings Forest- Archery/ Wordwell	TL8272, TL8273, TL8372 and TL8473	15th to 23rd May	50
Kings Forest- Chalk Lane	TL8275, TL8375, TL8374 and TL8474	16th to 24th May	22
RAF Barnham, Thetford	TL8680	19th May	9
Center Parcs, Elveden	TL8080	21st May to 3rd June	3
Kings Forest- west of B1106	TL8174	21st May	5
Kings Forest- North	TL8275, TL8276	24th May	1

Disappointingly, and for the third year running this species was not recorded on or around NWT Thetford Heath but the butterfly was seen again in good numbers on adjacent MOD land at RAF Barnham with several copulating pairs observed. Importantly, Dingy Skippers were again seen during surveys of the Elveden Center Parcs wildlife mounds.

Given the casual records received and survey results, clearly, the butterfly flew in reasonable numbers throughout May in the Kings Forest. Additional effort was put into extending coverage north and west within the Kings Forest and this paid off with a few but important sightings being made.

Based on the records received in 2019 the distribution map below identifies the small area that the Dingy Skipper continues to cling on to in the Suffolk Brecks. In 2019, it was recorded in 8 tetrads, the same as recorded in 2018 but disappointing given the amount of additional targeted surveying undertaken.



Map: Distribution of Dingy Skipper, 2019

The Kings Forest clearly remains the stronghold for the species in the county and numbers seen this year were slightly above average. It is also significant that the butterfly appears to have spread, albeit in small numbers, to other parts of the forest away from the favoured Wordwell and Chalk Lane areas. The butterfly has demonstrated its robustness and its ability to move short distances within the forest to colonise newly cleared areas especially where birds-foot trefoil can be found. However, given the continuing and

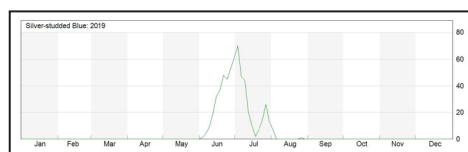
significant forestry activity the species' position continues to hang in the balance and requires constant monitoring.

As referred to in the main report, section 6.1 Central Ipswich sightings, two records of Dingy Skipper were received from Landseer Park, Ipswich at the end of May. One butterfly was reported as barely able to fly, a second was photographed on birds-foot trefoil. It is presumed that these are released specimens.

On a national basis the UKBMS Summary of Changes table show the Dingy Skipper was recorded as having an above average year with a 23% increase on 20187 records. That said, it remains of concern with a -22% decrease over the 10-year trend and -14% over the long-term series trend (43 years).

Annex F- Silver-studded blue

In 2019, the Silver-studded Blue was first seen on 9th June at Westleton Heath and last seen on 27th August at Black Heath. The graph below shows a strong peak at the end of June, and with a smaller second generation appearing towards the end of July.

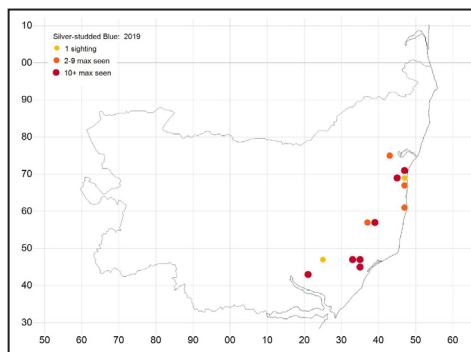


Overall, the season appeared to be a poor one and down on 2018. Of note, the butterfly was only reported from 13 tetrads, a worrying fall from the 16 in 2018. Nationally, the UKBMS Summary of Changes show a disappointing percentage change of -22% from 2018 to 2019.

The map below shows reported sightings for the county.



Silver Studded Blue, Purdis Heath by Kev Ling



Map: Distribution of Silver-studded Blue, 2019

This species remains vulnerable and suitable sites are few and far between. It is therefore incredibly concerning when a site is lost due to habitat change or damaged by fire. This happened at Martlesham SSSI in September when a heath fire ravaged the land leading to several important butterfly areas being lost.

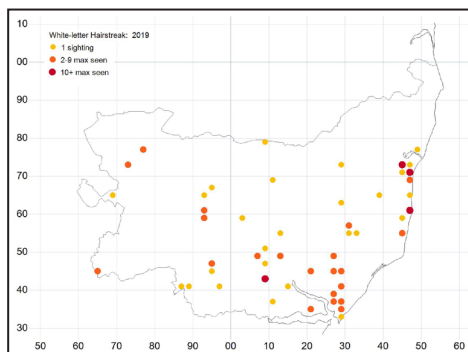
Annex G- White-letter Hairstreak

In 2019, the butterfly was first recorded on 18th May along the Icknield Way. This was significantly early, almost a month ahead of the main flight season and constituted a new earliest date for the county. The butterfly was last recorded on 12th August at Dunwich Forest. The maximum counts received were much lower than last year with several counts of 12 being the highest and all coming from the Dunwich Forest area.

The map below shows the recorded coverage for the year with the butterfly being recorded in 51 tetrads. This is down 20 tetrads on 2018 although it must be remembered that 2018 was a significant year for the species given the long hot summer. If you compare 2019 to 2017, where the butterfly was seen in 38 tetrads then it can be considered a reasonable year overall.

Within the county, the long-term trend (see Annex C) is still of concern with no real significant increases noted and I have described the White-Letter Hairstreak population as being “weak but stable.”

On a national level, the UKBMS Summary of Changes table reports the percentage change



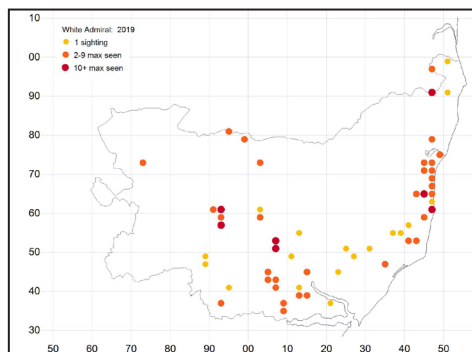
Map: Distribution of White-letter Hairstreak, 2019

between 2018 and 2019 as -39%, this is comparable to what we have seen in Suffolk. From a long-term position, this species is described as suffering from a “very highly significant” fall in abundance based on the UKBMS 1976- 2017 trend period which reveals a fall in White-letter Hairstreak abundance of -79%.

The White-letter Hairstreak remains a troublesome butterfly for recording purposes. Seeing the butterfly and accurately addressing the population of this species is difficult due to it invariably flying in the canopy of elms and neighbouring trees. It can also roam wide areas utilising elm hidden amongst roadside hedgerows. It is, therefore, difficult to count away from known sites where established viewing positions are normally used. As identified above, locating additional sites is important for the future assessment of this species. Looking for elms in the spring is a useful method as they often get lost amongst other more dominant trees as the canopy develops. These sites can then be recorded and returned to in the summer for accurate monitoring.



White-letter Hairstreak - Norton by Trevor Goodfellow

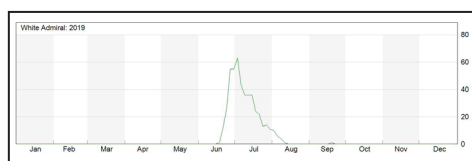


Map: Distribution of White Admiral, 2019

Annex H- White Admiral

The White Admiral was recorded in 57 tetrads as opposed to the 66 in 2018. The map below shows the distribution of the species in the county in 2019.

Overall, the White Admiral enjoyed only an average year in 2019. In recent years there has been a partial second generation, but this was not the case in 2019. The Summer generation flew from 23rd June (Rendlesham Forest) until 8th August (RSPB Minsmere). Only one late record was received outside of this period on 22nd September at Free Wood, Bradfield St George.

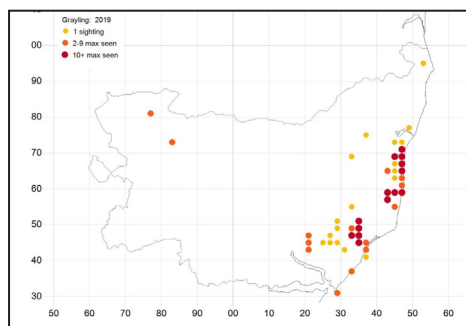


Graph: Occurrence of White Admiral, 2019

Despite the species appearing to be stable in the county, albeit, in low numbers the national position is very different. The UKBMS Summary of Changes table 10-year trends indicate a -29% fall in abundance. As with the White-letter Hairstreak, the White Admiral is also described as suffering from a “very highly significant” fall in abundance based on the UKBMS 1976-2017 trend period which reveals a general fall in abundance of -61%.

Annex I- Grayling

In 2019, despite an increase in recording coverage the Grayling was only seen in 46 tetrads, 8 less than in 2018. It was first seen on 5th July at Aldringham Walks and last seen on at 18th September at Hazelwood Marshes, Aldeburgh. The highest count reported was only 50 on 29th July at Rendlesham Forest. Most “high” counts were between 10 and 20, significantly down on previous years.



Map: Distribution of Grayling, 2019

The map above shows the distribution recorded in the year and clearly shows the county divide and is representative of the Breckland habitat in the west of the county and the Sandlings habitat in the east. This species is now struggling in the county and appears to be losing its foothold in the west. Loss of habitat and intensification of farming methods along with misuse of pesticides have no doubt had a major impact on this specialist of heathland.

Nationally, the Grayling also struggled and the UKBMS Summary of Changes table shows that it remains of concern with a -58% decrease over the 10-year trend and a highly significant -72% over the long-term series trend (43 years).

The map shows how restricted this species has become and that some focussed Grayling surveys will be required, particularly in the west of the county.

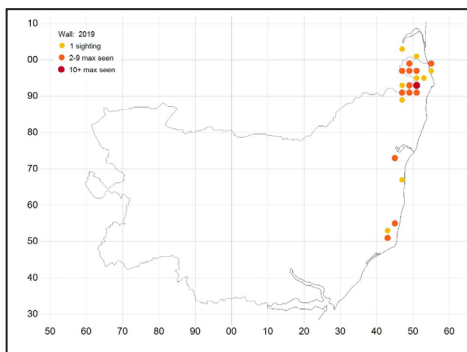


Wall brown by Robert Quadling

Annex J- Wall

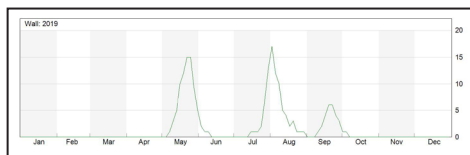
Over the last few years, we have seen the range of this beautiful butterfly diminish significantly in the county. It has continued its slide eastwards towards the coast and is now only recorded in two key locations: a small area around Orford/Sudbourne and various sites throughout the Waveney Valley, particularly SWT Carlton Marshes. In 2019, the Wall was seen in 22 tetrads, pleasingly up 4 tetrads on 2018. However, this good news is slightly tempered by the fact that maximum counts were in the main lower and most records of this species were of singletons. As in recent years, the vast majority of records are from the Waveney Valley area.

The Wall was first recorded in 2019 on 12th May at SWT Carlton Marshes and in Lowestoft. It was last seen on 5th October again at SWT Carlton Marshes. The best counts received were all from SWT Carlton Marshes with the highest being 11 on 8th August. Most records received away from SWT Carlton Marshes were of single butterflies. The map below highlights the accepted records received in 2019.



Map: Distribution of Wall, 2019

A review of all the records received helps to identify the generations seen within the county. The graph below helps to show the first (12th May to 11th June) and second (17th July to 31st August) generations. A third generation was again noted (11th September to 5th October), this being one week earlier than the 2018 3rd generation but finishing some two weeks earlier. The graph below clearly shows the three generations with the second being the stronger.



Graph: Generations of Wall, 2019

Sadly, the Wall continues its decline in Suffolk and this position is reflected throughout the UK and parts of Europe. The UKBMS Summary of Changes table shows the percentage change from 2018 to 2019 as -24% and the long-term series trend (1976-2019) as -87% decline. As such, this decline is classified as “very highly significant”. It is, therefore, essential that the county population is monitored very closely and both range and abundance recorded accurately.

Annex J- Small Heath

The Small Heath was recorded in 215 tetrads this year which represents a pleasant increase of 15 from the 200 in 2018. The first records came from several western sites on the 26th April which was relatively early and perhaps reflected the warm Spring. The maximum numbers recorded for the year was 51 at a site new Newmarket on 17th August. It was last reported on 30th September, finishing almost three weeks earlier than in 2018.

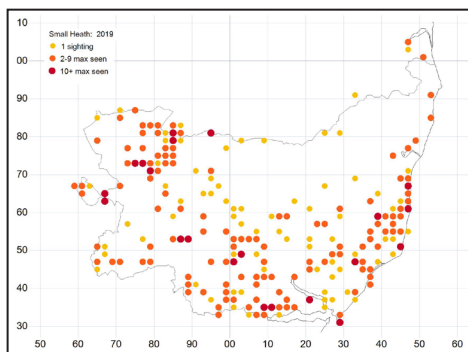


Red Admiral by Beryl Johnson

The Red Admiral

By R. Amor

‘A black smudge against a gilded green leaf
Frill of creamy-white concentric rings
Flutters of red stripes
The arrival of its fleet heralding late summer ‘



Map: Distribution of Small Heath, 2019

The distribution above clearly shows the strongholds of this butterfly as the heaths of the Sandlings in the east of the county and of the Brecklands to the west. However, the butterfly continues to be seen in many new areas including, parks and gardens reminding us that it is highly adaptive and can be found in a variety of grassy habitats.

The increase in the Suffolk population seen in 2018 appears to have had a continuing positive impact on 2019 with a slight increase in abundance again being seen. This position is reflected nationally in the UKBMS Summary of Changes Table for 2019 which shows a +5% change in abundance on 2018. However, we cannot be complacent as the long-term trend for Suffolk is still “weak and vulnerable” and the UKBMS series trend (1976-2016) shows -50% for the Small Heath population and this fall in abundance is classified as being “very highly significant”.



Small Heath by Trevor Goodfellow



Sketch by Beryl Johnson



Nemophora degeerella by Trevor Goodfellow



Suffolk BC stand at SNS Conference



Adela reumurella by Trevor Goodfellow



Esperia sulpherella by Trevor Goodfellow



Orange Tip by Kev Ling



Orange Tip by Kev Ling



Green Hairstreak by Kev Ling