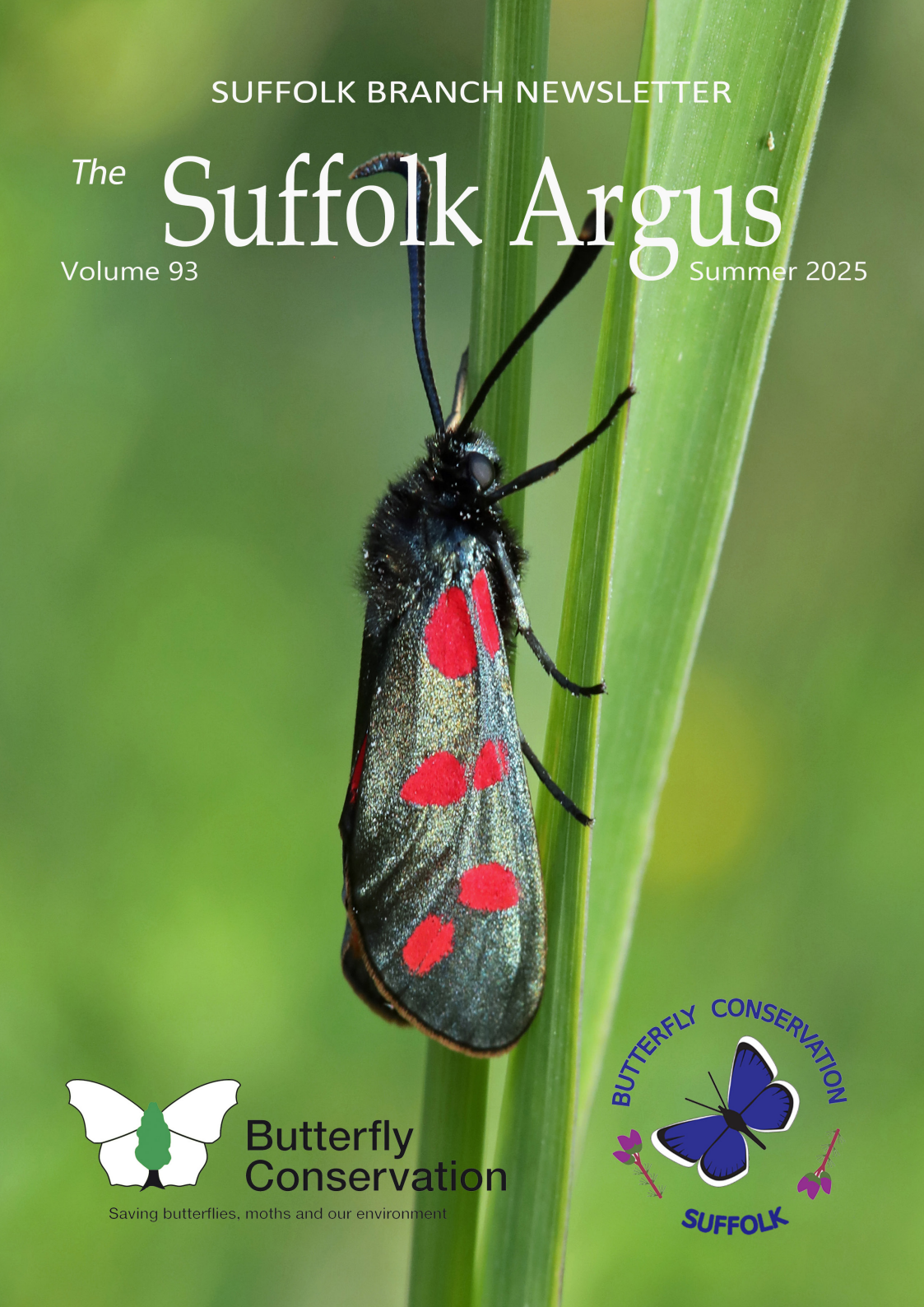
SUFFOLK BRANCH NEWSLETTER

The Suffolk Argus

Volume 93 Summer 2025



Butterfly Conservation

Saving butterflies, moths and our environment

BUTTERFLY CONSERVATION SUFFOLK

Members' Afternoon 2025

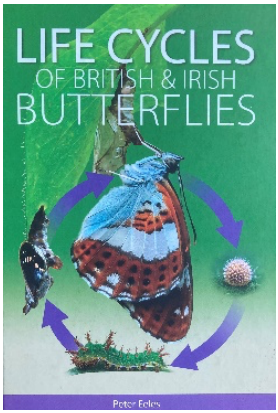
Saturday 11th October

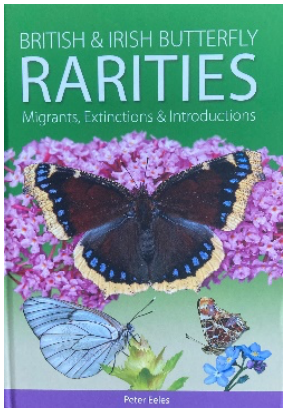
Earl Stonham Village Hall
IP14 5HJ

A short business meeting will precede a talk by

Peter Eeles

Pete spoke to us in 2019 when his book *Life Cycles of British and Irish Butterflies* had just been published. His most recent title is
British and Irish Butterfly RARITIES Migrants, Extinctions and Introductions
which will be the subject of this afternoon's talk.





There will be refreshments, our annual Photographic Competition and a Raffle

During the short business meeting, in which we hope to be able to welcome some new people to roles within the branch, there will be a review of the year and a financial report.

If you can spare some time to help with the running of the Branch, help with projects, be involved with 'meet the public' events or other branch tasks, please get in touch with me prior to the meeting.

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Contents

New opportunities

Newsletter Editor. Trevor Goodfellow has been our successful editor for about 10 years and plans to step down from the role after the Summer and Autumn editions. We are keen for someone to take on this creative role as soon as possible and Trevor will guide the new editor through the processes of receiving copy to the print stage. A knowledge of Microsoft Word is necessary, but further design skills, although helpful, are not essential.

If you would like to know more about this exciting opportunity, contact Trevor Goodfellow at trevor@greenfarm.org.uk or Peter Maddison prmaddison@yahoo.co.uk

County Butterfly Recorder. James Corton wishes to ease out of his role as the County Butterfly Recorder (CBR) later this year and would like to work with his successor during this summer butterfly season. The CBR has the responsibility for the collection and filing of butterfly data, and the writing of the annual report. The workload of the CBR has been shared by the appointment of Toby Tydeman as the Butterfly Verification Assistant.
For more information about this important role contact Peter Maddison prmaddison@yahoo.co.uk or James Corton suffolkbutterflyrecorder@gmail.com

Branch Chair. By the time of the Members' Afternoon in October I will have completed 10 enjoyable years as Chair of the Branch. But it's time for a change! The Branch needs new ideas and direction.

During the early spring I informed the Committee of my decision to retire in October. A new Chair might come from our present small, working committee, but not necessarily so – if you are enthused by:
the opportunity to have an overview of the running of the branch,
being involved in working with Chairs from other Branches
and you can bring new ideas to the fore, this role is made for you!

If you would like more information contact prmaddison@yahoo.co.uk

Editorial

Trevor Goodfellow

A bit of a slow start to the season from my perspective. And 'I wonder where all the butterflies have gone?' James Corton explains in the 2024 Butterfly Report on page 11 plus a number of other articles from our members. As I am writing this, I have not yet seen any Browns or golden Skippers and few of the other species.

I have been newsletter editor for several years and after some thought I have decided to step down after the Autumn 2025 issue. I considered a number of things, but the bottom line is my other commitments are consuming more of my time leaving me less spare time when I actually need more at my age.

A suitable replacement could rely on me to help smooth the transition over a few months.

It would be useful if the new editor could compile a pdf file of the Suffolk Argus edition which is currently done by our printers. The role is not too time consuming if spread over 3 months but a couple of hours may be needed at copy date.

Thanks to all the contributing members during my time as editor. I shall naturally continue to record and enjoy our butterflies.

Front cover: 6-spot Burnet by Trevor Goodfellow

Copy date for the Autumn issue is September 27th 2025

Gatekeeper - ab. excessa by Gail Hampshire

Ups and Downs of Butterfly Counts 2022-2024

Graham Jackson

January seems a good time to review one's butterfly records. I have now completed 3 years Butterfly Conservation (BC) Garden Survey at my Beccles home, and 2 years BC UKBMS Transect Survey at Berry Farm, Ilketshall St Andrew. The aim was to contribute the records to the national database but, additionally, I recognise the personal benefits such as the increase to my wellbeing. Although my interest in lepidoptera goes back to my young days in the 1950s, the demands of the intervening years have rarely favoured detailed observations. Covid lockdown changed that, and I have enjoyed the opportunity to study them more closely.

One delight is seeing something less usual. The least commonly sighted species at home included x1 Clouded Yellow (my BC Suffolk Branch Sightings, SBS, entries often including photographs, at https://www.suffolkbutterflies.org.uk/sightings.html: SBS 27 Sept 2023), x2 Speckled Wood, x3 Wall Brown (SBSs 27 May 2023, 28 Sept 2024), and x7 Green Hairstreak (SBSs 22 May 2022, 11 May 2024). Hopefully continued recording will highlight the pattern of these, and other, species through the 'corridor' from Suffolk Wildlife Trust (SWT) Carlton Marsh, to the new SWT Worlingham Reserve, the North Cove Reserve (Beccles Wildlife Group), my home on the eastern edge of Beccles, and Berry Farm edge of Beccles, Berry Farm, and other recorded sites on route.

An issue arises from totalling daily sightings. Recorded sightings of a species on one day are of different individuals but summing them for more days will frequently duplicate individuals. Thus, x37 Brimstone sightings over 3-years at home may reasonably reflect the local presence of this wide-ranging species where no buckthorn foodplants were previously identified. This may change thanks to the Suffolk BC Brimstone & Buckthorn Project as I have now observed larvae, a pupa and the emerging Brimstone on Purging Buckthorn in my garden (SBSs 4 & 22 July 2024).

I was surprised to record x190 Common Blue as the top number of one species' sightings at home in 2022. We are often reminded not to over-interpret limited records, but it seems reasonable to infer, supported by photographs and observations, that this species established territories in the adjacent neglected patch of land included in my designated Garden site. Individual adults were often recognisable over several days. Part of this patch was a former hardcore 'yard' abandoned in 2016 that was particularly impacted by the dry summer of 2023. Common Blue sightings reduced to x35 in 2023 and x73 in 2024.

Holly Blue pair mating on Hebe leaf at 16.54hrs on 13 May 2024

Common Blues mating at 18.09 on 26 July 2021

Male Brown Argus and pair at 14.15hrs on 13 Sept 2023

Green Hairstreak on alkanet at 14.01 on 11 May 2024

Small Tortoiseshells courting on thyme at 15.14 on 27 May 2022

The 2023 weather may have contributed to the decline in Ringlet sightings at home (x44 2022; x3 2023; nil 2024) where the dry spells had a greater impact than at Berry Farm. The Transect's Ringlet totals were steadier (x27 2023 including SBS 24 June 2023; x25 2024). Another decline at home of Small Tortoiseshell (x162 2022; x48 2023; x12 2024) sightings does, sadly, reflect the wider national downward trend for the species. One highlight in 2022 was to observe the lengthy courtship of a pair of Small Tortoiseshell before they flew over the back garden fence into the nearby nettle bed.

Annual earliest and latest sightings for each species are arguably more appropriate for interpretation at regional and national levels. However, I did record Suffolk's first sightings of Large Skipper in consecutive years (SBSs 24 May 2022, 12 June 2023, 24 May 2024) just beyond my garden fence in the same small patch of grass that includes Cock's-foot. I am not optimistic that this will recur in 2025 because of their decline (x47 2022; x10 2023; x2 2024). Sightings in 2024 also slumped for the Small [x19 2022, x26 2023, x6 2024] and Essex [x37, x40, x13] Skippers; observations probably attributable to the 2023 weather. Another observation at home in 2023 was delayed earliest sightings for many species within the range of one to six weeks. An exception was the Meadow Brown (total x252) sighted at home for identical periods in each year: 14/17/17 June to 5/4/4 August.

Though cautious of the value of each species' 'sum of daily sightings', they do reflect the local habitat. My Garden Survey 3-year total of x4030 sightings (24 species) results from x1440 2022, x1557 2023, and x1033 2024. The reduction last year may reflect a lag effect from the more adverse conditions in 2023; perhaps compounded by the fluctuating temperatures with more rain in May 2024. The highest 3-year total of x513 Gatekeeper is attributable to the nearby neglected mixed grassy areas, whereas the nettles and buddleias favoured the x462 Red Admiral and x453 Peacock; the three highest totals of daily sightings at home. The biggest single day's sighting of one species at home was x53 Peacock visiting buddleia flowers on 9 July 2023. However, at Berry Farm on 7 July 2023 x164 Meadow Brown were counted. More reminders that species vary in their response to environmental changes.

The highest totals for the Transect Survey's 2 years: x854 Meadow Brown and x614 Gatekeeper (20 species' total x2288) reflect the extent of grass and hay pastures at Berry Farm. Undoubtedly the x296 Small White and x142 Large White result from the brassica crops there (SBS 4 Oct 2024). The total of x87 Speckled Wood (SBS 26 May 2024), as the 5th highest species' total at the Farm, relates to the trackways through wooded areas.

A highlight for any recorder is to observe something 'new' whether for one's own experience or for a wider audience. My best examples relate to the Holly Blue. Home sightings totalled x147 (x13 2022; x55 2023; x79 2024). The species is notable as an extremely polyphagous butterfly

species (Clarke H.E, 2024; Henwood B, 2024). I added a non-indigenous foodplant (Jackson G, 2024) from observing Holly Blues laying eggs on a Ceanothus close to my front door in 2023 (SBSs late May & early June 2023). Five eggs and subsequent larvae resulted. In 2024 Holly Blue were particularly common in the area; total daily sightings at home were x11 in April, x61 in May, and x6 in June. I noted mating pairs on various plants and again observed egg laying on the Ceanothus resulting in x59 eggs (SBSs 1, 2, 11, 24 May 2024) and a few first instar larvae. Unfortunately, the fluctuating temperatures and rain killed off the florets and no further egg hatching nor larvae development were observed. Only one adult was sighted at home for the rest of the year (18 August). At Berry Farm I also saw one Holly Blue laying an egg on a Clustered Dock, *Rumex conglomeratus,* (SBS 26 May 2024); not only an apparently newly identified indigenous foodplant for the Holly Blue but one from a 'new' Order: Caryophyllales, and Family: Polygonaceae (Clarke H.E, 2024).

For the record the 3-year total daily sightings at home for the remaining species were Large White x417; Small White x395; Brown Argus x148; Orange Tip x146; Small Copper x97; Green-veined White x66; Painted Lady x65; and Comma x52. The 'home' species not sighted at Berry Farm were the Painted Lady, Green Hairstreak, Wall Brown, and Clouded Yellow. It remains to be seen if Purple Hairstreaks are present at Berry Farm given the many oaks present. I also just missed seeing a Silver-washed Fritillary there (SBS 7 July 2023).

In summary, I have thoroughly enjoyed observing, photographing and recording butterflies more intensively than previously. I am grateful to Phil Wilkins for accompanying me on one Transect Walk and for recording the subsequent week's Survey in my absence. Thank you also to Sam Brown for identification of the Clustered Dock. I have not included estimates for my absences and non-recording at home: 15-21 July 2022, 13-20 August 2023, 6-16 July 2024. I look forward to seeing what transpires in 2025.

All photos by Graham Jackson

References:

Clarke H.E. (2024) Ecology & Evolution. **14**: (1) https://doi.org/10.1002/ece3.10834

Henwood B. (2024) Entomologist's Rec. J. Var. **136**: 99 – 103.

Jackson G. (2024) Entomologist's Rec. J. Var. **136**: 103 – 104.

Suffolk Butterfly Report 2024

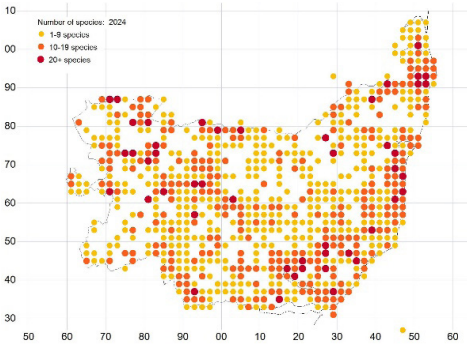
(Summary)

Where have all the butterflies gone?

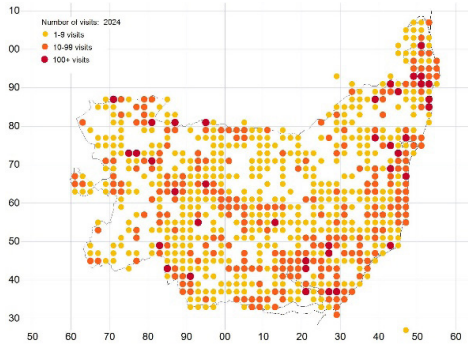
James Corton

Introduction

Welcome to this 2024 report which is my fourth report for Butterfly Conservation (Suffolk) and Suffolk Naturalists' Society. I am indebted to all the recorders who sent in their records and often went out recording in less than ideal weather. I would also like to thank the UKBMS and WCBS transect walkers. A total of 117,711 records were received and processed for the year compared to 181,993 for 2023. Sightings spanned almost the entire year - the first being a Red Admiral on 1st January and the last one a Peacock on 30th December.



Number of species recorded per 2km tetrad in 2024



Number of visits per 2km tetrad in 2024

Towards the end of the reporting year, I seriously considered my position as county recorder due to other commitments. The short story is that I now have the help of a verification assistant, Toby Tydeman. Toby is verifying 2025 online records through iRecord and the SBBC Sightings webpage. He will be the first port of call for most of you who have queries raised through iRecord (queries are raised whenever a record is deemed unusual - this could be a rare or migratory species but equally could be a record received of a common species prior to or after the normal flight season). Welcome aboard Toby!

Maps and charts will be made available in the full report published by Suffolk Naturalists' Society in the new year. Distribution maps covering the five-year period between 2019 and 2023 have now been published on our website at www.suffolkbutterflies.org.uk on the 'Suffolk Butterflies' side bar .

Thanks also to the editors, Trevor Goodfellow (The Suffolk Argus) and Martin Sanford (Transactions, Suffolk Naturalists' Society) whose trust in me and editorial abilities both amaze me. Now, a request from me - **please add a grid reference to your records,** it is so much more accurate and labour saving, particularly with Toby being inducted into the role.

I would like to encourage all of you to get out and see butterflies and not only to record them but to observe their behaviour and life cycle. Throughout this report I will occasionally add extra information to whet your appetite and encourage you to find out more about our butterflies. We may have only 59 or 60 breeding species left in the UK but they can be some of the most beautiful and fascinating of all butterfly species. Perhaps you have a favourite species, like the Peacock with their faux

eyes and jet black spiny caterpillars, or one of the hairstreak or blue butterflies with their iridescent wings and fascinating relationship with ants? Photography is a rewarding hobby and can be of scientific value but there are times when I like to put the camera down and just witness and enjoy the natural beauty of our butterflies. I do hope you enjoy reading this 2024 report.

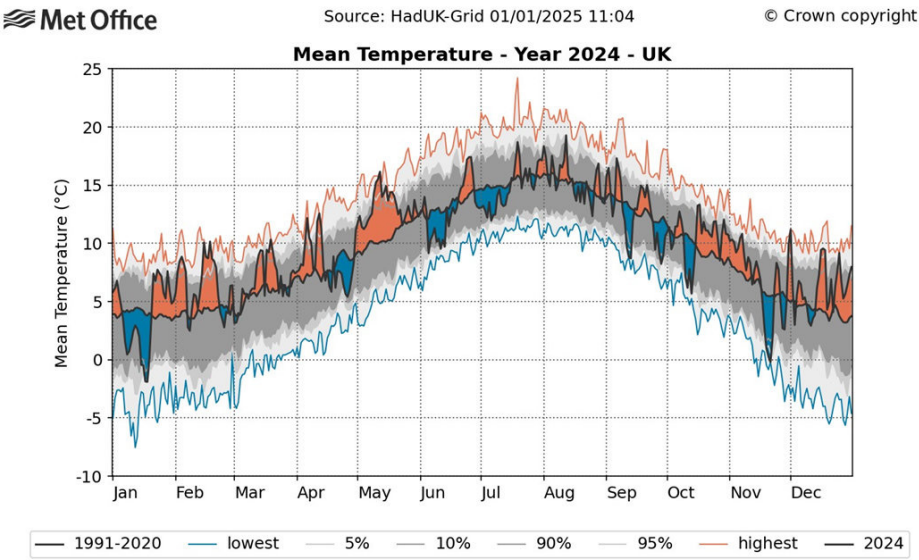
National Factors Including Weather

"Where have all the butterflies gone?" This headline first appeared in the national newspapers quite early on in the season, even in the spring. By the end of the season, I think we were all fed up of seeing the same headline repeating the gloomy reality but it summed up the season in one cheerless line. There were, I believe, several factors underlying this headline, including habitat loss and chemical use but weather is almost certainly one of the biggest factors in 2024. Butterfly Conservation declared a 'Butterfly Emergency' in September 2024, calling on the Government in an open letter to ban notorious pesticides, which amassed 42,601 signatures.

The Met Office reported 2024 as an average year for sunshine, rainfall and mean temperature. This global statistic can be misleading because of the underlying extreme variations. The maximum temperatures were quite low but averaged out by night time minimum temperatures which were elevated by increased cloud cover. Rainfall was also about average for the year but, again, there were periods of heavy rainfall which were averaged out by drier times. This rain was also localised, with some areas seeing 300% of average monthly rain. Timing is critical, cold snaps e.g. in late April, were sharp enough to have killed many pupae and adult butterflies. Winter was the eighth wettest and spring the sixth wettest since records began. In summary, a wet spring and a cool summer made for a miserable season for many butterfly species.

Neonicotinoid or neonic pesticides were once again authorised for use under 'emergency conditions' in the UK despite widespread protest. These are well known as 'bee killer pesticides' and are highly effective, even at very small doses. Being systemic, these nicotine-based chemicals are transferred to all parts of plants, including their nectar, which butterflies will then imbibe. This usually results in death but any survivors are neurologically damaged and unable to function normally and are unlikely to reproduce successfully. These chemicals will have been used during the flight season of our spring species, including the first generation of multi brooded species.

Nitrogen deposition is a continuing problem for our butterfly fauna and an often unsuspected cause of population declines. It has a two-fold impact upon butterflies. It causes more lush green growth of grasses which dominates out many nectar and food plants but the primary problem is that the increased growth of grasses shades out bare patches of soil. This affects microclimate negatively for butterflies. Without additional nitrogen deposition grasslands often have bare patches and the local temperature on sunny days can be 30 to 35°C but with nitrogen deposition the temperature can be as little as 10°C. Heat loving species such as Grayling, Small Heath, and Wall Brown all decline significantly in these environments. The females of all three species require elevated temperatures to induce them to lay eggs. Furthermore, the offspring may grow



faster initially on nitrogen rich foodplants but the mortality rate appears to be higher, sometimes double e.g. Small Copper.

Nationally, nine species had their worst year since records began in 1976. It was the fifth worst year and 51 species declined but only six increased. Over half our native species are in long term decline. 'Common species' had their second worst year on record. 'Red list' species which had their worst ever year include, Grizzled Skipper, Small Pearl-bordered Fritillary and Chalk Hill Blue. The Chalk Hill Blue was unrecorded from some of its smaller colonies and assumed to be locally extinct. In at least one case, the nearest population is several miles away and/or separated by urbanisation and cannot be expected to repopulate the site. The Small Tortoiseshell, which is not a red listed species yet, also had its worst ever year. Overall, across the UK, observers reported numbers down by about one third. This correlates well with our own Suffolk records, which also seemed to average 30 to 40% lower than in the previous season. Summer broods of multi brooded species were late emerging due to the wet and cool spring. The longer larval development times meant mortality rates were higher, partly due directly to weather but also indirectly to increased predation. Fungal diseases may also have claimed more victims from the immature stages in the cool and wet spring and summer. Although weather improved in midsummer, albeit intermittently, the single brooded spring species, including the first brood of multi brooded species, were greatly hampered by the poor conditions. It may take a year or even two for badly affected species to recover fully. In these days of climate change, or climate crisis as some prefer to call it now, we are dealing with an ever-increasing increase in mean temperature and also an increase in the frequency of extreme weather events. Each of these events has an adverse effect on our butterfly fauna and the increased frequency

of this may make it difficult for some species to bounce back before the next event. For example, the hot dry summer of 2022 caused many grassland dwelling Brown butterflies to move into shade providing woodland habitats and even to breed there. Most species survived well in this way for the season but damp loving species like the Ringlet struggled the most and have taken a couple of years to recover.

Whites and Yellows (Pieridae)

Most of our white and yellow butterflies had a poor season. **Large White** had a near normal year and the **Green-veined White** was actually above 2023 values. These two species are exceptions, the trend was for very poor first brood numbers in all of our multi brooded white species, including Large and Green-veined White. Large white females are sometimes targeted by a *Trichogramma* wasp. This is tiny and actually hitches a ride on her abdomen. Once she lays her eggs it crawls off and parasitises her eggs with its own. In 2024 I witnessed this in my own garden, in addition to the *Cotesia glomerata* parasitism of larvae.

A female Brimstone at Common Fleabane. ©James Corton

Orange-tip had a poor year, its entire flight period was covered by cloud and low temperatures. Hopefully, the few breaks in the cloud led to enough progeny to rebuild their numbers quickly. Arguably, **Small White** had the worst season among Pierids, apart from the migratory clouded yellow. Numbers reported were down by nearly a half and even in the second brood, numbers were depressed. **Brimstone** also had a poor season but this species is renowned for its longevity and the hope is that many females will have taken advantage of the sunny spells, however infrequent, and produced a good brood for the following year. It was not a **Clouded Yellow** year, only three butterflies were reported for the entire season - less than 10 per cent of the previous year. Glemsford, Blundeston and Landguard produced sightings. This is a species which is highly variable in abundance and dependent upon good weather conditions in late winter in southern Europe, as well as reliable southerly winds during mid-summer to bring them to us.

A rare view of a Clouded Yellow's upperwings. ©Robert Quadling

Browns, Fritillaries and Aristocrats (Nymphalidae)

If any family or sub-family of butterflies had a good year in Suffolk it was the Browns. Britain's most common butterfly, the **Meadow Brown**, was the worst performer though, one third down on 2023 numbers. **Gatekeeper** fared only slightly better. Since these two are very common grassland species, their losses were very noticeable and summer seemed almost as bereft of butterflies in places as spring had been. There were encouraging signs though. **Ringlet**, which had been so decimated following the 2022 drought, had a very good year, no doubt benefiting from the previous year's weather and 2024's higher humidity levels. **Speckled Wood** was slightly down on the previous year (-13%) but **Wall Brown** was encouragingly up by a similar amount (it is a Suffolk BAP species and nationally ranked as Endangered). It has been noted that the males of these species will either patrol or set up a territory. Temperature appears to be the factor here, when it is warm the males patrol but during cooler times they set up territories. During the cool summer of 2024 it is unlikely that these species will have dispersed much but would have remained territorial. These two species have certain things in common. Both have undergone a dramatic and, at first, an inexplicable retraction in their range. Both need to hibernate as third instar larvae in order to successfully pass through the winter (Speckled Wood is capable of hibernating as a pupa as well, hence the earlier emergence). The Speckled Wood has made quite a comeback in the second half of the 20th Century and we can only hope that the Wall Brown does a similar thing. Climate change appears to have reached a point where there is sufficient warmth in our autumns for more of the third brood larvae to reach the all-critical third instar stage before hibernation. The species is already increasing along southern coasts and in southwestern counties. It is, however, still largely restricted to two main populations in Suffolk, one along the Waveney Valley from Beccles to the coast and the other around the Sudborne Marshes area. It has also been seen more than once at Landgaurd and other places so please do keep an eye out.

An old Grayling nectaring at Dunwich Heath. ©James Corton

Small Heath and **Grayling** are another pair of butterflies with much in common and only a few differences in their life cycles and habitat preferences. Small Heath did slightly better than the previous year but Grayling was slightly down on the previous year. Both are Suffolk BAP species. Both species require well-drained grasslands which contain some sheltered areas, nectar plants, bare patches of soil (hot spots) and a fairly short sward. The larvae depend exclusively on fine grasses such as bents and fescues.

It is thought that higher CO_2 levels slow larval development and increase mortality rates and nitrogen deposition increases development rate but also mortality. These factors are responsible for population declines in the south east, particularly of the Small Heath. Their behaviour is well worth observing. Both Grayling and Small Heath land with their forewings raised high to expose their eyespots. This is assumed to deter birds from attacking their bodies. Once assured, the butterfly drops its forewings inside the hindwings to rest. Courtship is quite complex in both species, particularly the Grayling, and well worth observing. The Small Heath is our most orange of brown butterflies and this is best seen in flight. Females will occasionally treat observers when at rest by opening their wings. It is thought that this helps them to assess temperature and I would hesitatingly suggest that this is done mostly by ovipositing females. **Marbled White** had the best year of the Brown butterflies with 166% sightings compared with 2023 records. The established colony at Landseer Park, Ipswich, did well and is our biggest single population in the county. It continues to spread from the south and west towards the centre and north of Suffolk, albeit in small populations. The butterfly is very noticeable with its black and white appearance - a very deliberate choice to advertise its toxicity to would-be predators. It obtains its toxins as a larva by eating ergot mould which grows on its foodplants – fine grasses while small and coarser grasses as a full grown larva. This species is known to be attacked by red *Trombidium* mite larvae in a parasitic yet non-fatal way but I have never seen this in Suffolk (apparently, they also target Small Skipper, Meadow Brown and Common Blue).

An alert Small Heath in the Suffolk Sandlings. ©James Corton

Suffolk has a tale of two fritillaries with contrasting fortunes in 2024. The introduced **Marsh Fritillary** colony at Market Western Fen continued to grow and showed signs of expanding into a neighbouring site. This is a species known for its 'boom and bust' style populations and benefits best by living in metapopulations. If one local colony becomes extinct it can be repopulated within a season or two by nearby viable colonies. These extinctions can occur quite often, sometimes due to larvae consuming all available food plants in very successful seasons. Another reason is that it is parasitized by two species of *Cotesia,* each of which can have up to three generations a year. Conversely, the **Silver-washed Fritillary** had a terrible year, down by at least 70% on 2023 numbers.

Some sun brought out this male White Admiral. ©James Corton

A territorial Comma returns briefly to its perch. ©James Corton

Small Tortoiseshell and **Peacock** both had abysmal years, reduced by 60% on 2023 numbers. Peacock can enter hibernation soon after emergence in August but a number of fresh-looking individuals were seen in September and October. Furthermore, I received reports of larval webs in August and September, so I am happy to conclude that Peacock do have a second brood on occasion. This is already happening on a regular basis in the Netherlands and other European countries with similar climates and has been attributed to climate change. It is not yet known whether this will become a complete second brood or only a partial second brood, nor is it known what effect this will have on the butterflies' fate regarding parasites, such as *Sturmia bella*. **Comma** were down by approximately 25%. It is a double brooded species that was very much absent in the spring brood but bounced back well with a good showing in the second brood, which bodes well for 2025.

Red Admiral and **Painted Lady** both had poor seasons, particularly Red Admiral. Both of these species are primarily migratory and their numbers fluctuate from season to season, so our winter and spring weather was irrelevant, to a large extent. **White Admiral**, much like its woodland co-dweller, the Silver-washed Fritillary, had a poor year and was down to about half of the previous year's sightings. The larvae are known to be sensitive to temperature, they require warm spring and summer temperatures to grow quickly and thus avoid predation and mould diseases. High larval mortality is very likely the cause of their lower numbers. **Purple Emperor** appeared to be a success with 217% sightings compared to 2023. This could be due to more people looking for this enigmatic species but equally it could be due to other factors. Numbers do seem to go up and down from year to year. It has genuinely expanded its UK range in recent years, so I am also of the opinion that it is more common in Suffolk than before. It

appears to be one of the winners, at least for now, in the climate change story.

Coppers, Hairstreaks and Blues (Lycaenidae)

Silver-studded Blue had a relatively good season, it was reported at 97% of 2023 levels. As a Suffolk BAP species it is also closely monitored. Peak count was 469 butterflies by Peter Maddison at Purdis Heath, near Ipswich and other nearby counts produced 200-300 butterflies. Individual butterflies often live out their entire lives within a 20-metre radius. Silver-studded Blue are successional habitat specialists. Suitable habitat, however, is often some distance away and butterflies have been recorded dispersing three kilometres or more to find suitable habitat. Different races of the Silver-studded Blue are dependent on different species of black ant. Up to four species of ant are involved. On our Suffolk heathlands the two favoured species of black ant are *Lasius platythorax* and *Lasius niger*, although I do not know which is the preferred species. This myrmecophily is a complex symbiotic relationship and may still not be fully understood. Black ants have been observed taking larvae into their nest if the larvae are situated very close to a nest entrance, typically first or second instar. At all stages the larvae feed on fresh plant matter, which in the case of nest bound larvae will be brought to them by the ants. Worth thinking about if you are on the heaths and see ants taking tender shoots of heather or gorse back to their nest! Our tiny colony of **Chalk Hill Blue** had a disastrous year. Only two adults were spotted which is a mere 8% of 2023 sightings and genuine concern exists for the future of this small and isolated colony in the west of the county. **Common Blue** and **Brown Argus** both suffered greatly during the spring first brood but showed signs of a bounce back in the summer brood. **Holly Blue** numbers were down by 30% which is typical for other species that struggled with the cool and wet season. It is, of course, known for its wild fluctuations, cycling every five years or so due to its unfortunate relationship with the ichneumon parasitic wasp *Listrodomus nycthemerus*, which is entirely dependent upon the Holly Blue as its sole host. During years of scarcity the Holly Blue is able to avoid extinction by its ability to cover large distances in order to find a mate. This has helped to make it one of the most successful butterfly species in the world, endemic throughout the Palearctic region in its various subspecies.

A resplendent male Common Blue basking in head down position. ©James Corton

Small Copper had a very poor first brood but even in the cool, wet season it managed to produce at least a partial third brood and put itself in a good position for recovery in 2025 and beyond. It appeared to be

extinct from many sites in the first brood, reappearing in second and third generations as numbers built up progressively.

Four of the five species of hairstreak butterfly now reside in Suffolk, following the establishment of the Brown Hairstreak colony in south Ipswich. They are all elusive species by nature, either camouflaged as in the Green Hairstreak or else stubbornly remaining at canopy level in the case of the other species. The data suggests that they were equally affected by the poor season and numbers were down by approximately a third. Slow growth rate and resultant higher predation levels are the likely cause of this decline. The notable exception to this rule was the **Purple Hairstreak** which seemed to have a very good year. Compared to 2023, sightings were up 159%. Most hairstreak species also have a symbiotic relationship with ants, including during their pupal stage. For example, Purple Hairstreaks larvae descend to ground level to pupate in the vicinity of ant nests, where they are tendered to and protected by worker ants until they emerge. Newly eclosed males are stunning in their blue iridescent sheen from wingtip to wingtip. The females have less iridescent colour but more intensely so and of a purple hue. It is this that gives the species its name. Weather may have played a big part in the potential under-recording of **Green Hairstreak** and **White-letter Hairstreak**. Myself and other hairstreak lovers attempted to observe these species during their flight season but were frustrated by very cloudy and cool weather. These already elusive species are often seen when they take to the wing, often in late afternoon, but are unlikely to do so with such unfavourable temperatures. **Brown Hairstreak** was only reported on two days, the first and second of August. On both days, two adults were reported, from Belstead Park and from Piper's Vale. Overall, our blues, copper and hairstreak species fared the second worst amongst our butterfly families in Suffolk.

A Green Hairstreak camouflaged against Common Buckthorn ©James Corton

Skippers (Hesperiidae)

Skippers undoubtedly had the worst of years in a season where all of our butterfly families struggled. Our golden skippers (subfamily Hesperiinae) fared every bit as bad or even worse than our BAP species, Dingy Skipper (subfamily Pyrginae). Both **Small Skipper** and **Essex Skipper** were seen at half or less than half 2023 reported figures. The **Large Skipper** did slightly better but was still some 30% down on 2023. All of our 'golden skippers' larvae spin together a grass blade to shelter themselves while feeding. When they need to toilet, they back out and catapult their frass some distance. This has been supposed to be a predator avoidance tactic.

A Dingy Skipper rests momentarily in The King's Forest. ©James Corton

Large Skipper at Bramble in a sunny glade of Dunwich Forest. ©James Corton

Dingy Skipper is limited to one small area of the King's Forest near Wordwell village. Forestry England is undertaking forestry work in the areas where the Dingy Skipper clings on. This is a very mixed blessing - undoubtedly many Dingy Skipper larvae are lost during this forestry work but the habitat becomes more suitable for them once the work is finished. The species is quite mobile in this woodland habitat, moving with the forestry work. Currently they breed in the Chalk Lane area of the forest and their numbers are being closely monitored. This is our rarest butterfly, reported at times from only one 10-kilometre tetrad. A couple of thousand records are of indeterminate Skippers i.e. Small/Essex Skipper. It is impossible to state exact start and finish flight periods due to the difficulty identifying these species in the field. As a general rule, though, Essex Skipper emerges a week or two after Small Skipper.

Vagrants and Releases

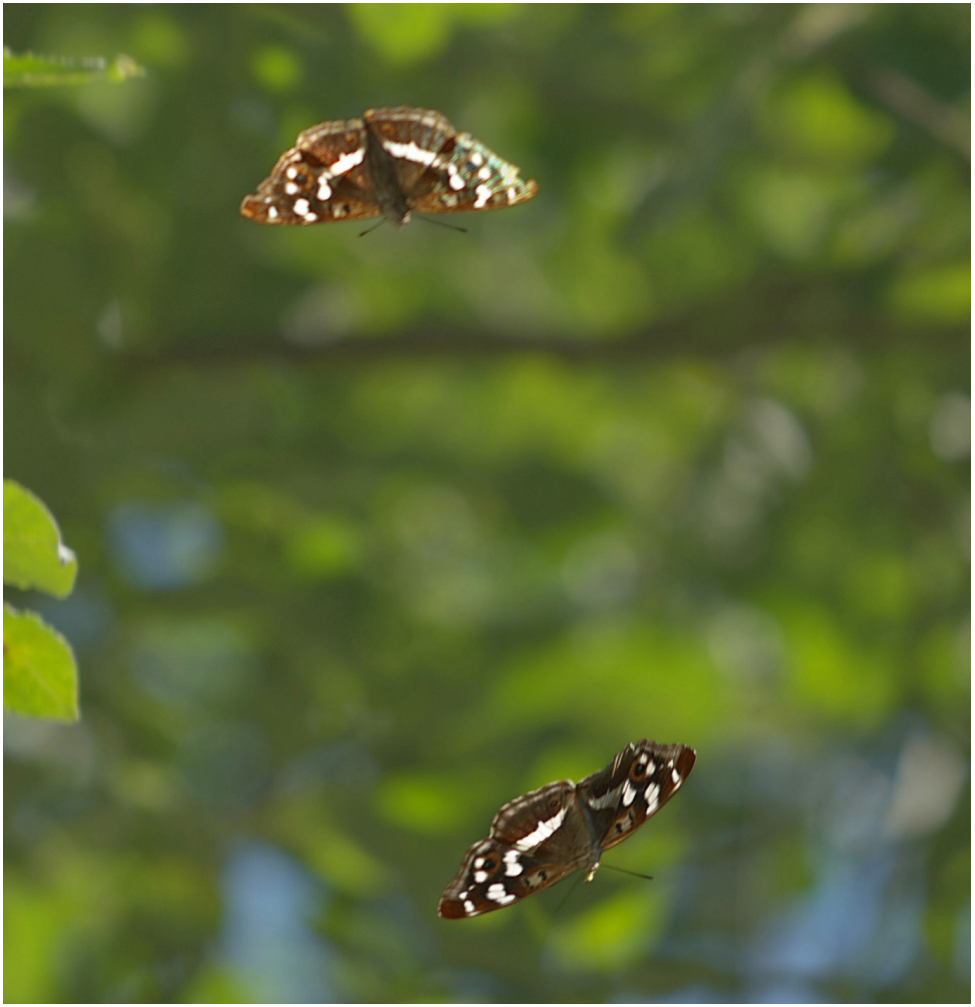
Even though the majority of records are from genuine migrants, Red Admiral, Painted Lady and Clouded Yellow are all known to overwinter some years, so I have discussed them in their family section. A fascinating element of their life cycle is the recently researched return migration. Red Admiral return migration was observed last year and is staggering (30,000 were counted heading east on the Netherlands coast, while hundreds were seen streaming down the coast of England from Yorkshire to Sussex). A **Wood White** or **Cryptic Wood White** – they are very hard to tell apart - was rather surprisingly reported from Kirkley Cemetery, south of Lowestoft. Even more surprising, it was reported right at the end of September, clearly outside its normal flight season which is a sign that it is a captive reared specimen. A photograph was supplied which confirms that it is one

of the two species. Neither Wood White species are migratory or have a naturally occurring colony within 100 miles of Lowestoft. No other sightings have been reported and it is not expected to reproduce and be seen in spring 2025. Wood White are unusual in that they are one of only four UK species which can be sexed as final instar larvae, the males having pale patches towards the end of their abdomen which are the developing testes showing through (Small White, Large Skipper and Purple Emperor are the other three). It was a fairly quiet year for vagrant species. Only one **Large Tortoiseshell** was reported in the year, seen at RSPB Hollesley Marshes on

Appendix: Percentage Change in Sightings From 2023 (Suffolk Only)

Family	Species	2023	2024	% of Previous Year
Whites and Sulphurs	Green-veined White	2,667	3,361	126%
	Small White	15,316	9,248	60%
	Large White	12,697	12,587	99%
	Orange-tip	2,758	2,247	81%
	Brimstone	2,215	1,571	71%
	Clouded Yellow	47	4	9%
Browns	Speckled Wood	4,330	3,752	87%
	Wall	214	240	112%
	Small Heath	3,523	3,956	112%
	Meadow Brown	30,953	19,962	64%
	Ringlet	4,722	6,579	139%
	Gatekeeper	25,727	17,694	69%
Fritillaries and Aristocrats	Marbled White	358	593	166%
	Grayling	1,364	1,249	92%
	Marsh Fritillary	96	150	156%
	Silver-washed Fritillary	2,053	591	29%
	Small Tortoiseshell	1,753	815	46%
	Peacock	15,303	6,247	41%
	Comma	4,344	3,268	75%
	Red Admiral	25,176	8,140	32%
	Painted Lady	604	364	60%
	Purple Emperor	35	76	217%
	White Admiral	543	264	49%
Coppers, Hairstreaks and Blues	Small Copper	4,551	3,012	66%
	Green Hairstreak	292	191	65%
	Purple Hairstreak	377	600	159%
	White-letter Hairstreak	192	145	76%
	Holly Blue	5,050	3,621	72%
	Brown Argus	3,376	734	22%
	Common Blue	2,277	1,103	48%
	Silver-studded Blue	1,947	1,889	97%
	Chalk Hill Blue	25	2	8%
Skippers	Dingy Skipper	80	49	61%
	Large Skipper	1,127	773	69%
	Small Skipper	2,316	1,127	49%
	Essex Skipper	2,133	769	36%
ALL	**TOTAL**	**180,541**	**116,973**	**65%**

6th April. It is hopeful that this species will be reported more often year by year. Our Large Tortoiseshell are migrants or vagrants from the continent, particularly from the Netherlands and Belgium, where they are increasing in number quite dramatically and are now regularly breeding in Flanders. **Queen of Spain Fritillary** was reported in the Martlesham area from late July through to mid-September, on nine days. Singletons only were seen and it is unlikely that this will become a viable colony. Rather, the remnant of an introduction which is dying out. A **Swallowtail**, presumably of the European race *gorganus*, was reported from the edge of Minsmere on 1st August. A confirmed ssp. *gorganus* was seen 18th August, nectaring in a garden in Bungay.



A Purple Emperor 'tumble down' at Theberton Wood. ©James Corton

Appendix 2: National Trends in The BNM Scheme (England)

ENGLAND Summary of changes table 2024. Summary of species abundance changes in England from 2023 to 2024 and long-term (over the entire time series; no. yrs max = 49) and short-term (last 10-years) changes. Significance of trends: * P < 0.05 (significant), ** P < 0.01 (highly significant), ***P < 0.001 (very highly significant). Red text has been used to highlight those species that had their worst year of the series in 2024, and blue text for those species that had their best year of the series in 2024.

Species	Start Year	No. years with Index in 2024	No. sites monitored in 2024	2024 rank	% change 2023-2024	Series trend (%)	10-year trend (%)
Swallowtail	1976	48	19	41	0	2	-2
Dingy Skipper	1976	49	726	47	-26	-5	-20
Grizzled Skipper	1976	49	431	49	-20	-49***	-5
Chequered Skipper	N/A	N/A	1	N/A	N/A	N/A	N/A
Essex Skipper	1977	48	1270	41	-48	-28	-29
Small Skipper	1976	49	2269	49	-54	-74***	-36
Lulworth Skipper	1992	33	25	10	-36	-59*	213
Silver-spotted Skipper	1979	46	71	40	-58	364***	-59
Large Skipper	1976	49	2273	49	-40	-28*	-37*
Wood White	1979	46	75	39	-42	-80***	8
Orange-tip	1976	49	2126	15	2	29*	6
Large White	1976	49	2719	45	-32	-34*	-19
Small White	1976	49	2724	46	-44	-16	-2
Green-veined White	1976	49	2551	48	-24	-30*	-34
Clouded Yellow	1979	46	945	40	-81	393	-79
Brimstone	1976	49	2302	4	-28	44**	20
Wall	1976	49	796	43	-16	-86***	50
Speckled Wood	1976	49	2638	36	-22	83***	-10
Large Heath	N/A	N/A	13	N/A	N/A	N/A	N/A
Small Heath	1976	49	1941	35	-15	-48**	36
Mountain Ringlet	N/A	N/A	1	N/A	N/A	N/A	N/A
Scotch Argus	1995	30	10	30	-40	-85***	-73
Ringlet	1976	49	2524	35	3	273***	-45*
Meadow Brown	1976	49	2736	34	-31	0	4
Gatekeeper	1976	49	2600	35	-40	-41**	36
Marbled White	1976	49	1680	25	-38	79***	-10
Grayling	1976	49	283	46	-15	-59***	33
Pearl-bordered Fritillary	1978	47	156	47	-24	-77***	-30
Small Pearl-bordered Fritillary	1978	47	166	47	-34	-70***	-53**
Silver-washed Fritillary	1976	49	1182	40	-61	249***	-43
Dark Green Fritillary	1976	49	741	38	-62	461***	-14
High Brown Fritillary	1978	47	51	43	-68	-65**	-20
White Admiral	1976	49	435	48	-44	-62***	-2
Purple Emperor	1979	46	150	19	-11	125**	25
Red Admiral	1976	49	2702	19	-70	321***	74
Painted Lady	1976	49	2233	40	-50	63	-51
Peacock	1976	49	2652	38	-30	1	11
Small Tortoiseshell	1976	49	2414	49	-65	-86***	-79*
Comma	1976	49	2491	36	-53	170***	-6
Marsh Fritillary	1982	43	133	15	5	-56*	15
Glanville Fritillary	1989	36	11	5	-15	275*	210
Heath Fritillary	1981	44	44	37	-61	-89***	177*
Duke of Burgundy	1979	46	117	19	-4	-35*	21
Small Copper	1976	49	2185	49	-56	-41*	-1
Brown Hairstreak	1983	42	213	8	25	1	15
Purple Hairstreak	1976	49	802	40	-45	-22	3
Green Hairstreak	1976	49	801	41	17	-39**	5
White-letter Hairstreak	1976	49	359	45	-40	-80***	-14
Black Hairstreak	1995	30	18	4	-7	647**	150
Small Blue	1979	46	368	30	-40	2	15
Holly Blue	1976	49	2281	24	-70	184*	24
Large Blue	1983	42	19	9	-41	2356***	29
Silver-studded Blue	1984	41	142	22	-22	26	54
Brown Argus	1976	49	1455	42	-76	25	7
Northern Brown Argus	1979	46	47	35	38	-62***	-25
Common Blue	1976	49	2408	48	-50	-27	-46
Adonis Blue	1979	46	202	44	-57	63	-40
Chalk Hill Blue	1976	49	326	49	-58	-14	-11

Musings of a Butterfly Recorder (amendment to issue 92)

James Corton

First, an amendment to the Butterfly Report. The Silver-studded Blue does indeed depend on species of black ant from the genus Lasius, but it would appear from distribution maps, that it is dependent primarily on Lasius psammophilus in the Suffolk Sandlings dry, sand and sometimes gravel based heathland soil.

The year is advancing quickly, following a cold and grey beginning. Species are emerging two or three weeks ahead of their 1990-2010 average. This will no doubt reduce back toward normal timescale by the time we get to our last species to emerge, the Brown Hairstreak. It's well worth getting out to known sites earlier than in most years for to see some early Browns, Admirals and Skippers.

So far, it's been ideal for migrant butterflies and good numbers of Red Admiral and Painted Lady have been noted across the UK. I haven't heard of any Suffolk Clouded Yellow yet but do wonder what exotics may turn up in this favourable year? Happy butterflying.

Suffolk Wall Brown Butterflies 2024

All information covers VC25 & VC26 for Suffolk

1st Generation

First report of a Wall Brown was on 5th May at SWT Carlton Marshes other reports for Wall Brown were from Somerleyton 2,Fritton Marshes 1,St Olaves 1,Beccles 2, Herringfleet Marshes 3,Herringfleet Hills 1,Sudbourne 2,Sudbourne Marshes 2, Sudbourne Church Yard 1,Orford Church Yard 1,SWT Castle Marshes/Northcove 5, SWT Lound Lakes 12,SWT Oulton Marshes 3,SWT Carlton Marshes 51. The first reported Wall Brown at SWT Carlton Marshes this year on the 5th May was 13 days earlier compared to first reported for 2023, also the total number of 1st Generation recorded for 2024 was 51 compared to number recorded in 2023 of 24.

2nd Generation

First report of Wall Brown was on the 24th July at Breydon (Great Yarmouth) also SWT Carlton Marshes and SWT Worlingham Marshes.

Other reports of Wall Brown were from Breydon South Wall 8,Burgh Castle 1, Herringfleet Hills (Marsh Lane) 3,Herringfleet Hills (Bullocks Carr) 7,Ashby (footpath) 1, Somerleyton Station 1, Somerleyton Brickworks 1, Somerleyton ST Marys Church yard 4,Blundeston Marshes 1,Flixton 1,Lowestoft North Denes 1, Hollesley 1,Shingle Street 1,Landguard (Felixstowe) 1,SWT Worlingham Marshes (river wall path) 2,SWT Lound Lakes 7,SWT Oulton Marshes 6, SWT Carlton Marshes 46.

Looking at SWT Carlton Marshes 1st Generation Wall Brown numbers recorded of 51, I was expecting to see more 2nd Generation butterflies but this did not happen so the wet weather must have been the cause as numbers of 2nd Generation were 46 just + 1 above 2023 total of 45.

3rd Generation

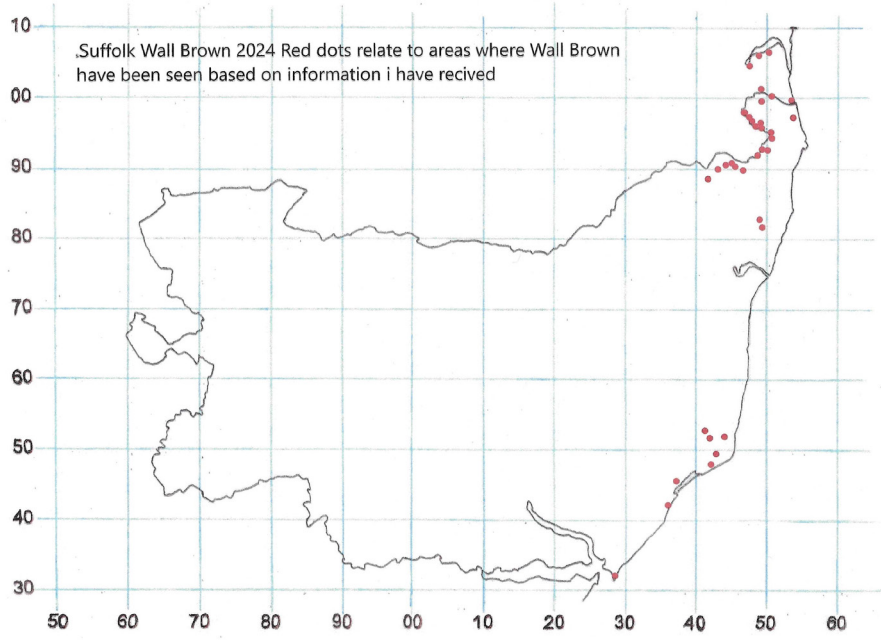
First report of Wall Brown was on the 18th September at Hopton Radar Lodge and SWT Carlton Marshes.

Other reports were from Breydon (Great Yarmouth) 2,Burgh Castle 2,Hopton Radar Lodge 6,Corton (Old Sewage Works) 1, Flixton 2, Blundeston Marshes 4, Blundeston SW 2, Somerleyton 2, Somerleyton (Wickerwell) 3, Browston (Browston Lane Garden) 1,

Beccles(old farm road) 1,North Cove (Moorings) 2,Wrentham (Old Cemetery) 1, Orford 2, Sudbourne (Ferry Road) 4, Sudboume (Church Yard) 1, SWT
Lound Lakes 17, SWT Oulton Marshes 10, SWT Carlton Marshes 35.

Summary
Wall Brown had a better year for sightings in 2024 compared to 2023 which is good to see. Looking at West Suffolk I received no reports of any sightings.
South East Suffolk sightings increased from 4 locations in 2023 to 8 locations for 2024, North East Suffolk sightings increased from 17 locations in 2023 to 27 locations for 2024.

Robert Quadling



Butterfly Gardens in Ipswich

Richard Stewart

The first of these was at Alexandra Park and created as part of the nationwide Millennium Survey, 1995-1999. As the County Butterfly recorder I gave planting advice, ending up with 51 nectar sources and a wild grass seed mix at one end, plus a full-colour identification board. Those with 'The Millennium Atlas of Suffolk Butterflies' will find a photo on page 23. This wasn't my choice of location as I had preferred a site within the Upper Arboretum of Christchurch Park. However, the policy at that time was to wherever possible introduce new features into the smaller parks. The butterfly total was good, with an unexpected sighting of a Green Hairstreak, but my meetings with the park ranger assigned to the garden seldom led to recommendations being implemented. This led to a further meeting, this time also including two park employees who complaining about how long it took to dig over and the fact that they only saw a few white butterflies. Just as that was said a Painted Lady flew over which I quickly pointed out to them. After that it was downhill and the site has now reverted to other uses.

I didn't have any direct influence in the one created in Christchurch Park, alongside the former croquet lawn. However, I did give a suggested plan of nectar sources to the then Chairman of The Friends of Christchurch Park. The planting went well, with two buddleias and a long bramble bush at one end. However, the planting of two trees in the same area was a retrograde step as was the presence of a new conifer close to the bramble bush. The central bed was replenished thanks to a generous donation from an anonymous source and the garden was at this stage attracting many species, including Silver-washed Fritillary, Green Hairstreak and Brown Argus. However, neglect then crept in over several years and I had to publicly intervene about wildlife conservation in the park. The friends of Christchurch Park then intervened and after the beds and borders were cleared, a complete new planting of nectar sources took place. I was also asked to look at a proposed full colour information board, leading to deletion of Swallowtail, Wall and Dingy Skipper plus the addition of several missing species. There is a photo of the original garden on page 65 of 'The Butterflies in Christchurch Park'.

Finally, looking to the future, my detailed butterfly survey in Holywells park in 2024 included the garden close to the Orangerie and bordered by a bowls lawn and a conservation area. The total of butterflies seen there was low but part of what almost everyone agreed was a very poor season. It is in a sunny spot and could easily become another butterfly garden with the addition of a few buddleias and early nectar sources-plus, of course, a full colour identification board.

An Incident in Wolves Wood

Richard Stewart

On visits to Wolves Wood over recent years I have been aware of the presence of Purple Emperors. These have always been seen 'tree topping' at one part of the wood, just off the main path and identified by flattened vegetation. Therefore, it was a surprise on 14th July last year to find one well away from this part of the wood, just past the largest clearing. With one more step I would have trodden on it as this was a butterfly struggling in the grass, with part of its wings torn. From what remained I assumed it was a female that had possibly been attacked by a bird. More optimistically it could have been a female at the end of its life after depositing all her eggs. There was plenty of Salix nearby. If breeding turned out to be successful, this would naturally expand territory into at least one other part of the wood.

Purple Hairstreaks at Broomheath, Woodbridge

Rob and Kerry Reeve

Back in 2018, on a visit to Theberton Wood, we saw Purple Hairstreaks coming down to the pond for water. One individual ended up in the water and we didn't think it would survive, but it pulled itself over to a leaf, hauled itself up and then raised its body on its wings and legs, like a tent, to dry. Since then, we've always had a fascination for this delicate yet tenacious little butterfly.

Fast forward to 2024 and, whilst visiting Broomheath with friends, Deb Broom and Steve and Anne Green, we noticed that, as well as Purple Hairstreaks on oaks at the railway bridge, there were also good numbers on Broomheath itself. Not only that, but the butterflies on the Broomheath oaks were coming down to branches at eye-level and lower.

From mid- July onwards we were able to observe these butterflies laying eggs at lower levels. We found four eggs on two different trees. At the end of July, we discreetly marked the branches so we could continue to monitor the eggs. So discreet was our marking that, at times, we had difficulty finding them on later visits especially as the branches would be higher with growth and the loss of leaves, but we found them eventually.

On our last visit of 2024 in August, we found another egg bringing the total to five.

February 2025 through to March we didn't see a great deal of change but in the second week of April it was obvious that the eggs had hatched. Our challenge then was to locate the caterpillars. After a false start (many thanks to Peter Eeles for guidance) we eventually found two caterpillars, there's no doubt they blend in with the oak buds incredibly well. Unfortunately, it's not going to be feasible to monitor pupation in such a public area, but it's been interesting to get this far, and we've all learned a lot.

Trapped in surface tension by Rob & Kerry Reeve

Purple Hairstreak by Rob & Kerry Reeve

Egg on oak buds by Rob & Kerry Reeve

Hatched eggs by Rob & Kerry Reeve

Purple Hairstreak larva by Rob & Kerry Reeve

The Brimstone

Kev Ling

By the time these words are read, I hope you will have enjoyed a feast of springtime butterflies. The unseasonably warm and dry March to May, has certainly been conducive to getting out and observing our wonderful early species. For me, the first sightings of overwintering species bring hope and promise to the new year. Peacock, Comma and Red Admiral are on the scene as early as January/February if warm winter sunshine prevails, but it is the first sight of Brimstone (*Gonepteryx rhamni*) that excites me. That flash of yellow, as a male Brimstone patrols the hedgerows in search of early nectar and of course a female. The much paler female tends to emerge a little later in the spring, once temperatures become more stable. When they do, they can often be mistaken for Large White when not at rest. However, when settled, the unmistakeable shape of their wings confirms identity. Both sexes have prominent veins and faint orangey-red circular markings and will always settle with their wings closed (see photo 32).

Early nectar plants favoured by Brimstone include Bluebell, Dandelions and Cowslip. They will quite often also be seen resting on the undersides of leaves, providing them great camouflage.

Once the females emerge from their winter slumber, courtship begins and it is a wonderful sight to see two Brimstone spiralling high above the hedgerows, before swooping back into the vegetation to mate. The mating process itself can take several hours, much longer than other species. Once ready, the female will then go in search of a suitable place to lay her eggs. This is limited to only two types of Buckthorn: Common and Alder. Being the only larval foodplant for the Brimstone, the adult female has an amazing knack for locating them, sometimes travelling some distance to do so. It is this particular choice of foodplant and where it naturally grows, that dictates the distribution of Brimstone in the British Isles. Present across all of England and large parts of Wales, it is less common in Ireland and very rare in Scotland. It's move further north being limited only to where strategic planting projects have been implemented.

The female lays her eggs singly to the undersides of buckthorn leaves. This process can be very quick. I have seen adults settle and before I can aim my camera, the deed is done, and she is off in search of other plants. Despite laying singly, the female will often return to the same plant to lay other eggs, in addition to separate plants. In the spring of 2018, I planted a single buckthorn whip in my garden (part of the Suffolk Branch Brimstone & Buckthorn project, in which we distributed thousands of plants to members on three separate occasions). When I returned from a late spring holiday, I was amazed to find over twenty eggs had been laid, evidence that they are not restricted to laying on established bushes. Such was the larva's ferocious appetite, it was not long before they had stripped the whip of leaves and had to be rehomed to a nearby park to continue their development.

After a fortnight, the larva will hatch and begin feeding on the leaves of the foodplant. During this process they are quite easy to spot, despite their camouflaged colour. The feeding damage to the leaves is another tell tale sign of their presence. They will enter a total of five instars on their journey to pupation. The larva will generally leave it's foodplant in search of a suitable place to pupate and once located will attach itself to the underside of a suitable leaf. In my garden, I observed the larva attach itself to the stem of a

plant (see larva photo), where it stayed for a few days prior to pupating (see pupa photo). Starting with a translucent green appearance, the pupa takes on a yellow-red colouration prior the adult emerging, with the wing markings clearly visible (See photo 'late stage pupa')

Newly emerged adults dedicate their time to feeding, primarily on Thistle, Knapweeds and Teasel. Once summer mating is complete, the life cycle begins once more, with adults emerging and surviving up to a year. This makes the adult Brimstone one of the most long lived of all species. In some instances, a previous year's adult can still be on the wing when the new year's one emerges.

The Brimstone is also widespread throughout Europe, where I have also seen a sub species Cleopatra (*Gonepteryx cleaopatra*). This is restricted mainly to southern Europe, particularly Spain, South of France and Italy. The distinct difference between them is that the male Cleopatra has prominent orange shading on the forewing.

The Brimstone is a fine species of Butterfly and numbers in Suffolk are stable. The Suffolk Branch are particularly interested in your records so that numbers and distribution can be monitored. Buckthorn whips are inexpensive and can offer a great addition to your planting, as well as within mixed hedging, for those with more room. They can be kept in shape by pruning in early spring, before they leaf out. Although it may be a year or two before Brimstone seek them out, we have received many records of early success. So, get planting and enjoy this beautiful spring butterfly in your garden too.

Brimstone larva ready to pupate

Brimstone Imago

Brimstone pupa in late stage

Brimstone pupa