

EAST MIDLANDS Butterfly

ISSUE 73 - AUTUMN 2023

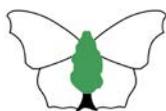
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**Butterfly
Conservation**

Saving butterflies, moths and our environment



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Cover Picture:
Peacock. Photo: Eliot Taylor

Welcome

To the Autumn 2023 issue of the East Midland Branch of Butterfly Conservation's Newsletter. Thanks to all those who have contributed articles for this issue.

I'm writing these notes while staying in my caravan in the village of Thornton, by co-incidence Dave Wright has written an article for this issue about the increasing numbers of Scarlet Tiger moths over recent years in his Thornton garden. Also Steve Mathers has written an article on migrant butterflies of the East Midlands. The Purple Emperor butterfly has been appearing increasingly in our region, and it seems only a matter of time before this iconic butterfly is seen in Derbyshire. Ken Orpe has started an initiative to help with the expansion of the butterfly's range with the 'Planting Sallows for Purple Emperors Scheme'. You can read about the proposals on page 18. Of course the Autumn newsletter wouldn't be complete without our Field Trip Reports and details of our Branch AGM and Members Day

Eliot Taylor

Branch Organiser's Notes

When the Big Butterfly Count details were released I was not surprised to see that the Red Admiral was top of the list. I had one wonderful day in mid August when I counted 37 butterflies in my central Nottinghamshire back garden with at least 20 of these being Red Admirals. Even into mid October Red Admirals are still in large numbers on the Asters.

It has been a very busy year for the Branch, we have attended 11 events in all four Counties and made numerous site visits throughout the region, along with our Midlands Regional Officer, Rhona Goddard. The good news is that The Severn Trent Water Funding will continue until March 2025 which gives more time to do work on selected sites throughout the East Midlands.

The latest project to emerge from Butterfly Conservation is Wild Spaces. These can be anything from planters or pots to small gardens, large gardens or new woodland. You can register your existing place or pledge to create a new one and inspire others to make more Wild Spaces. A Wild Space provides the three main things that butterflies and moths need in order to complete their life cycle. They would require Feed: nectar-rich plants, Breed: Caterpillar food plants and Shelter: a safe spot to make a cocoon or chrysalis. By providing all three of these you will have made a Wild Space. Visit butterfly-conservation.org/wild-spaces for more information and details of what to plant.

The 2023 AGM will be in Derby again this year where detailed booklets with information on Wild Spaces will be available. There will also be the very popular Butterfly related Tombola and sales table. We also welcome any photographs of butterflies or Moths from the UK or abroad. Please see details in this Newsletter.

Jane Broomhead
Branch Organiser



Below:
 The Wild Spaces booklet. 2023 has been a good year for Red Admirals.
 (Photos Eliot Taylor)

Grizzled Skipper Practical Conservation Tasks Winter 2023-24

Come along and join a group of like-minded people who are enthusiastic about the conservation of the Grizzled Skipper butterfly - a nationally important species which occurs at a number of sites in south Nottinghamshire. Many of the sites where the Grizzled Skipper occurs require regular management to keep them in a suitable condition for the butterfly, so we will be undertaking a series of practical workdays at some key sites, which will involve:

- Scrub clearance work to maintain open habitats required by the Grizzled Skipper and to help create corridors to link existing open habitats
- Creation of bare earth patches to increase the availability of suitable egg-laying habitat

What to bring:

- Lunch
- Warm clothing and stout footwear
- Work gloves (gloves will be provided if you don't have any)
- Tools (if you have any - bow saws/loppers/spades. Tools will be provided, along with instruction on their use)

- Sunday 19th November 2023 -**
Granby Disused Railway
- Tuesday 28th November 2023 -**
Saxondale Disused Railway
- Sunday 10th December 2023 -**
Grange Farm, Normanton on Soar
- Sunday 14th January 2024 -**
Great Central Railway, East Leake (Lime Sidings)
- Tuesday 23rd January 2024 -**
Flawborough Footpath & Triangle
- Sunday 4th February 2024 -**
Newstead & Annesley Country Park
- Tuesday 20th February 2024 -**
Great Central Railway, East Leake (Rushcliffe Halt)
- Sunday 3rd March 2024 -**
Flawborough Footpath & Triangle
- Tuesday 12th March 2024 -**
Grange Farm, Normanton on Soar

All 10am to 3pm, please contact Chris Jackson for details of the meeting points

For more information please contact Chris Jackson at the Nottinghamshire Biodiversity Action Group on 0115 993 2588 or email chris.jackson@nottsc.gov.uk

Butterfly Conservation East Midlands Branch Members' Day and AGM 2023



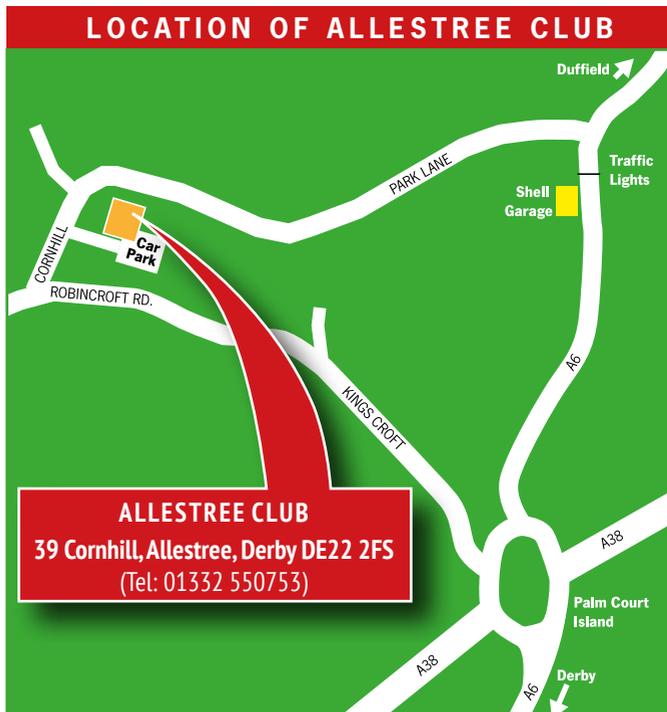
Silver-washed Fritillary
(Photo Derek Martin)

This year our branch AGM and Members' Day will be held on Sunday 26th November 2023 in the Allestree Club, at 39 Cornhill, Allestree, Derby. All members are welcome.

The hall will be open from 10am with the AGM at 10.15am.

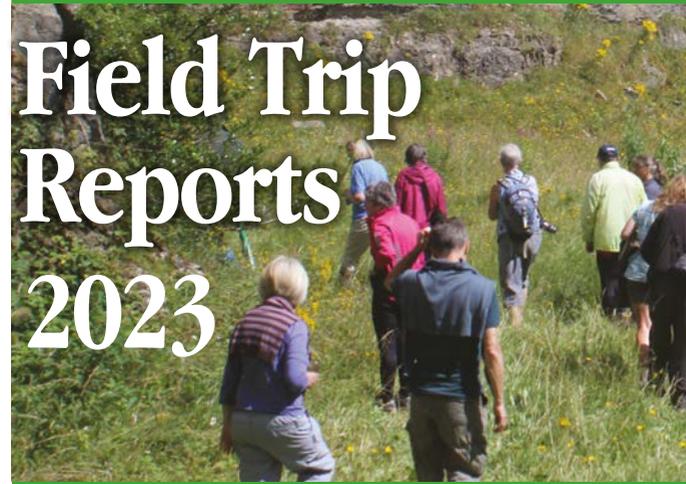
There will be a free buffet lunch. This will be preceded by an illustrated half hour talk by Melanie Penson "Alluring - A Season of Clearwings", then after lunch an illustrated hour talk by Ken Orpe "The Effects of Climate Change on the Distribution of Butterflies in the East Midlands Region".

There will also be stalls and a tombola. **Plus, it would be great to see members photographs of butterflies or moths seen in the UK or abroad, so bring your photos on a memory stick, we look forward to seeing them.**



ALLESTREE CLUB
39 Cornhill, Allestree, Derby DE22 2FS
(Tel: 01332 550753)

Field Trip Reports 2023



There were nine scheduled day trips this year. Plus the Open Day at Hoe Grange Quarry, Derbyshire.

Thanks to all the leaders who volunteered to run trips.

We would welcome anyone who would be prepared to lead a trip in 2024. Please contact Max Maughan (details on page 23)

Bingham Linear Park (Nottinghamshire) Sunday 21 May

The morning was sunny with a cool breeze. A group of us (8 in number) walked the length of the Linear looking for Grizzled Skippers but failed to see any. There were quite a few Brown Argus flying about which gave us false hope. Orange Tips were the most common species with a few small whites, green-veined whites, brimstone, small copper, small heath, red admiral. A few day flying moths were seen - Silver Y and Treble-bar.

Jenny Craig



Small Copper
(Photo John Green)

Longstone Edge (Derbyshire) Sunday 28 May

Twelve people arrived for the meet on a lovely morning with sunshine and a little breeze. We were having the usual briefing for safety etc in the large lay-by when Sylvia, my wife saw a Small Copper right next to us. Everyone went to have a look, and this was how the day went from then on. We saw 13 different butterflies: -

- 2 Large Skippers, 8 Dingy Skippers, 1 Brimstone, 1 Large White, 1 Small White, 4 Orange Tips, 4 Green Hairstreaks, 1 Small Copper, 4 Brown Argus, 7 Common Blues, 1 Holly Blue, 4 Wall Browns, 2 Small Heaths.

Everyone was very pleased with what was found and overall, it was a great success. After lunch some people stayed and we found more Walls further up the road, so the total for this species was more like 10 individuals. This is a very under rated site with easy access for those of limited mobility and must be in the top 5 sites in Derbyshire.

J. Green



Large Skipper
(Photo John Green)



Green Hairstreak
(Photo John Green)



Wall
(Photo John Green)

Ketton Quarry and The Valley

(Rutland)

Sunday 4 June

Ketton Quarry is a Leicestershire and Rutland Wildlife Trust Reserve.

Ketton Quarry is an active limestone quarry, but the reserve is a long worked-out part of the site. It consists of hills, holes and a few rocky outcrops. A group of fourteen people met at the reserve on a morning when the sun was beginning to shine and temperatures increasing.

Walking from the car park, our first butterflies were a couple of Brown Argus and as we explored the quarried areas we added Grizzled Skipper, Dingy Skipper, Green Hairstreak, Common Blue and Orange Tip to our list. Other butterflies seen in the morning were Brimstone, Small, Large and Green-veined White, Holly Blue and Small Heath. Moths were also spotted: lots of Burnet Companion,

singles of Mother Shipton, Yellow Shell, Common Wave, Purple and Gold and a main target which was a tiny but attractive micro-moth called a Liquorice Piercer Moth which lays its eggs on wild liquorice plants. This is a very rare moth for this area, having only been recorded for the first time in 2022 in Rutland. A very fresh Broad-bodied Chaser was also recorded.

After lunch, with the weather now sunny, we carried on to explore an area known as the Valley, but it was fairly quiet with the most common butterfly being Brimstone. A lure was put out for Orange-tailed Clearwing, but we only had a very brief view of one flying past the lure. A Hairy Dragonfly and a Brown Hawker were also seen flying and a Blue-tailed Damselfly was recorded.

It was a very rewarding day with a final total of 12 butterfly species and 7 moth species.

Max Maughan



Liquorice Piercer moth
(Photo Christine Maughan)



Grizzled Skipper
(Photo Christine Maughan)



Green Hairstreak
(Photo Christine Maughan)



Burnet Companion moth
(Photo Christine Maughan)



Hoe Grange Quarry
(Photo Gary Atkins)

Hoe Grange Quarry Nature Reserve

(Derbyshire)

5th Open Day

Sunday 2 July

Although the weather remained mainly overcast, it didn't prevent about 275 visitors from attending the 5th Open Day at Hoe Grange Quarry this year.

Yet again Longcliffe Quarries and their staff put on a great effort with free food and drinks and ice cream available. Committee Members of Butterfly Conservation East Midlands did a great job with the sales table and welcoming visitors, whilst others carried out guided walks around this special site at the southern end of the Peak District.

In addition to the guided walks, visitors had the opportunity to do some pond dipping in the main pond area with help from the DWT and some new species were added to the Inventory for the site.



Gatekeeper
(Photo Derek Martin)

During the afternoon as the temperature increased to 16c and some brightness appeared between the clouds, a total of 11 species of butterflies were sighted including **Large Skipper, Small Skipper, Small White, Common Blue, Red Admiral, Comma, Speckled Wood, Gatekeeper, Meadow Brown, Ringlet and Small Heath.**

As well as visitors from across the East Midlands, others came from Cheshire, Staffordshire, Yorkshire, Oxfordshire, Norfolk, Edinburgh and even the Philippines.

This site is being monitored by volunteers who have been carrying out a transect there since 2015 and to date a massive 32 species have been recorded at the site including a good colony of the endangered species of the Wall Brown.

Ken and Pat Orpe



Small Heath
(Photo Eliot Taylor)

Bagworth Heath Woods Country Park

(Leicestershire)

Wednesday 5 July

12 people attended plus the leaders. The weather was changeable warm sunshine one minute and cloudy with a cool breeze the next.

However, the butterflies weren't put off making an appearance, especially Meadow Brown, Ringlet and Marbled White, the later in quite spectacular numbers, this species is having a good year at Bagworth Heath.

We looked for Purple Emperor in the locality where it was seen in 2022 but unfortunately none were found. There is now a network of wide rides throughout the woodland and one can imagine that this site will become even better for butterflies in the years to come.

In total 14 butterfly species were seen:

- Meadow Brown
- Ringlet
- Gatekeeper
- Speckled Wood
- Marbled White
- Large Skipper
- Small Skipper
- Essex Skipper
- Comma
- Red Admiral
- Small Tortoiseshell
- Large White
- Small White
- Green Veined White

Plus day flying moths:
Silver Y
Shaded Broad Bar
Cinnabar moth larvae

Eliot Taylor

Aston Brickyards LNR
(Derbyshire)
Sunday 9 July

Amazingly at 11.00 am, the cloudy skies were quickly burnt away by the sunshine and the 14 BC members and their friends from across the East Midlands enjoyed a fully sunshine visit to this LNR with the temperature reaching 23°C.

The great work that has been carried out by FAB, (Friends of Aston Brickyards) over the years was really appreciated by the visitors and this included a butterfly bank, a wild life pond, the planting of Disease Resistant Elm (for the White Letter Hairstreak) also planting Alder Buckthorn (for the Brimstone) and probably one of the most important plants is the planting of Dog Violets for the Silver Washed Fritillary.

Over the winter of 2023/2024 we are hoping to plant Sallow for the important arrival of the Purple Emperor butterfly (we live in hope!)

On the day over 100 butterflies in 16 species were seen including Small Skipper, Brimstone, Large White, Small White, Green Veined White, Purple Hairstreak, White Letter Hairstreak, Red Admiral, Small Tortoiseshell, Comma, Silver Washed Fritillary (4no), Speckled Wood, Gatekeeper, Meadow Brown, Ringlet and a new species for the site, a Marbled White which brings the total site number to 27 species since the first transect was carried out in the year 2000.

Ken Orpe



Marbled White at Aston Brickyards
(Photo Christine Maughan)

Cloud Wood LRWT Reserve
(Leicestershire)
Tuesday 11 July

I had been closely watching the weather forecast for several days prior to this field trip and most of them predicted heavy rain and a thunderstorm. Up until the day before I had seriously considered cancelling a field trip for the first time ever. On the morning of the 11th, I decided to go along any way to meet up with anyone who may have turned up. As I drove to Cloud Wood I went through a torrential downpour and this dampened my spirits even more.

On arrival I noticed a potential gap in the weather and quickly nipped in to the reserve to check whether the conditions were not too wet and muddy. I met up with two attendees who had also arrived early. All was satisfactory and bode well for our visit, and, as if sent to raise my hopes, a Silver-washed Fritillary flew by us and posed for a photograph.

There were 12 attendees in total and we managed to enjoy a rain-free spell for the duration of our visit. A few gaps in the clouds encouraged some butterflies to venture out. We had targeted Silver-washed Fritillary, Purple Hairstreak, White-letter Hairstreak as the key species and added

His/Her Imperial Majesty the Purple Emperor to our wish-list.

A Fritillary was the first to visit us and settled long enough to allow for more photographs. In total we saw 6 SWF. I knew the key location where we were pretty much guaranteed to see White-letter Hairstreak. It took a brief sunny spell for a couple of WLH to leave their lofty perch in a tall Ash tree to engage in an aerial battle before settling back down on a visible branch. Identification was made using binoculars as they refused to come down to a lower level. One eagle eyed attendee spotted a Purple Hairstreak tucked up safely on a Oak branch. This time, identification was confirmed by

photograph. The Purple Emperor had so far eluded us until one attendee spotted a large dark butterfly flying high up around a canopy of Oak and Ash trees. The flight pattern, colour and size of this butterfly confirmed beyond doubt that it was a Purple Emperor, although we were unable to determine whether it was an Emperor or an Empress.

In total we recorded 10 species of butterfly and 2 day-flying moths. The species count was as follows:

Meadow Brown 7, Ringlet 13, Green-veined White 10, Silver-washed Fritillary 6, Purple Hairstreak 1, Gatekeeper 2, Red Admiral 2, Comma 3,

White-letter Hairstreak 2, Purple Emperor 1, Silver Y moth 3, Yellow Underwing moth 1

As the time approached 15.40pm we noticed some sinister dark clouds heading in our general direction. We decided at this point to call it a day and head back to the car park; it turned out to be a very wise decision as no sooner had we reached the cars, the heavens opened with a torrential downpour. We were, indeed, very fortunate to be able enjoy our field trip, and, for me, it's always a joy when attendees see a species for the very first time. An experience that will remain with them forever.

Richard M. Jeffery



Silver-washed Fritillary
(Photo Derek Martin)

Coombs Dale (Derbyshire) Wednesday 19 July

The weather was typical for this July as we drove to Coombs Dale, mist, cloud and rain. As we drove, we received a message from one of the participants bowing out of the walk. The car park was deserted but we received another message from a couple to say they would be delayed but they would catch us up so Al and I set off up the Dale.

The weather had improved and we began to spot numbers of butterflies. After the heat of June and the rain of July the vegetation was rich and dense with lots of flowers. In the early part of the walk there were large numbers of small teasels beside the path which attracted many hoverflies. We were overtaken by the latecomers and walked up the Dale and the number of species grew.

The meadow was full of flowers and Dark Green Fritillaries and one Silver-Washed. 147 butterflies of 16 species were seen.

John and Al Roberts



Dark Green Fritillary
(Photo Christine Maughan)

The Big Butterfly Count Event National Stone Centre, Wirksworth (Derbyshire) Sunday 23 July

This event involved Committee members and friends of Butterfly Conservation East Midlands to advise visitors to this Peak District attraction on the benefits of being part of the Big Butterfly Count in 2023.

Despite the 4th Test Match against the Australians at Old Trafford Manchester being rained off, this special site at the south end of the Peak District enjoyed some lengthy spells of sunshine which enabled visitors to see 14 species of butterflies including Large White, Small White, Green Veined White, Brown Argus, Small Skipper, Small Copper, Comma, Red Admiral, Small Tortoiseshell, Ringlet, Gatekeeper, Meadow Brown, Speckled Wood and close up views of the rare White Letter Hairstreak which was taking nectar from Marjoram plants.

There has been a butterfly transect carried out at this site since 2015 and to date 26 species of butterflies have been recorded there.

Ken and Pat Orpe

Misson Carr (North Nottinghamshire) Saturday 2 September

The purpose of this visit was to search for any Marsh Carpet moth larvae at it's only known East Midlands site on this Notts Wildlife Trust reserve. It is a very sensitive site so participant numbers had been capped at six to lessen the impacts on the fenland flora. To our dismay, the drain network was virtually dry and had been for some time, despite the wet winter. It was hard going finding any wetland plants and the Marsh Carpet larval host plant, Meadow-rue eluded us. I later found out from Trust staff that there had been a small stand in the eastern part of the reserve but it probably failed to flower this year. This is not good for the moth as the larvae feed on the seed-pods.

We saw a few mud-puddling Whites, imbibing mineral salts from a wet patch in one of the drains and there were plenty of Speckled Woods. A Lesser Yellow Underwing was a nice find and a male Brimstone butterfly graced us with his presence around the car park.

Marsh Carpet is one of our Regional Priority Moth species and it has been added to the Nottinghamshire Nature Recovery Strategy Priority Species List. Further survey work is planned for 2024 to include the drain network within the wider landscape surrounding Misson Carr to map any remaining areas of Meadow-rue and conduct further larval searches.

Melanie Penson

The Rise of the Scarlet Tiger Moth in a Thornton Garden

2019

It all started on a warm evening in July 2019 as a friend and I were having a beer in his garden, which is five doors away from mine, with a 'flyby'! We observed an unidentified Lepidoptera species flying rather high over the garden, but as we were in an elevated position we did get an eye level view as it came lower and we caught sight of bright red colours amongst the otherwise dark tones, before it was lost to view. Someone more switched-on to the spread of this species may have cottoned-on to what it was there and then, but at that point my moth books still had Scarlet Tiger described as predominantly a species of the south-west of the country so it certainly wasn't on my radar.

2020

The penny dropped as to what the previous summers' individual had been when I made my first confirmed sighting of Scarlet Tiger on 19th June. The adult moth was resting on a Comfrey plant at the bottom of the garden. I quickly looked up the food plants used and saw that Comfrey was listed as the favourite. I hoped they had bred in the garden but at that point I wasn't certain. Overall, I saw 3 or 4 adults during June 2020.



Scarlet Tiger adult June 2020

2021

In 2021 I saw my Scarlet Tiger first caterpillar, a single individual, climbing a window pane on the rear of my house on the 6th May. I assumed this large individual was looking for somewhere to pupate. I took it in, and it pupated attached to a twig under a comfrey



leaf and it hatched out on 8th June, perfectly formed after 25 days.

I counted around 10 adults over the flight period, between the 17th and 29th June 2021. At this point I decided to allow the Comfrey patch to expand, to around 4 square metres.

Scarlet Tiger larvae May 2021

2022

The adults from the previous year had clearly been successful and in April 2022 I counted 9 caterpillars on the Comfrey plants in my garden and my neighbour counted 57 on some plants on an adjacent piece of land that he and the owner are managing sympathetically for wildlife.

This total of 66 caterpillars translated into around 15 adults seen over the June flight period, from 10th June to 5th July, with the highest count being 8 on one evening.

Mating pairs were observed on two occasions.



Mating adult Scarlet Tigers June 2022

2023

The first indication of the amazing year that 2023 would prove to be was the number of caterpillars in the spring. My highest count was 228 in late March, on my small garden Comfrey patch alone.

It's hard to estimate the numbers of adults seen over the summer, but the total ran well into three figures. At least two major emergences occurred, around the 14th June (unfortunately whilst I was away on holiday, but a text from my neighbour said "swarms of tigers over your garden!"). There was another emergence on 21st with circa 40-50 adults flying around the garden and high over nearby trees on the latter occasion. The photo below provides an accurate time indication!



Scarlet Tiger adult 'jewellery' June 2023



Scarlet Tiger adult males in courtship frenzy June 2023

15 adults all fluttering and clambering around a single small evergreen bush on 24th June, were presumably males being drawn to the scent of a receptive female(s) hidden within the bush.

As I write this 1cm long caterpillars are feeding on the Comfrey. Fingers crossed for 2024!

Dave Wright,
Thornton, Leicestershire. August 2023

Sherwood Forest Trust Event 17 & 18 June

We had a stand at this event on both days, our first time at this venue. I seized the opportunity to monitor Welsh Clearwings and others, having gained permission from the RSPB and put out some lures at two sites; one of which being a historic location near one of their "traditional" larval host trees. The weather was perfect and it wasn't long before two came to the lure, both males. We were able to show these rare moths to a very appreciative audience. Another male came to a lure on the 18th from a random part of the forest and we also got our first Yellow-legged Clearwing of the year nearby. Two caterpillars were surprise visitors to our marquee; a Common Quaker moth and a Centre-barred Sallow. A major surprise on the 17th was a White Admiral which flew purposefully across the track right in front of me whilst I was walking to fetch a clearing lure back. There are drapes of Honeysuckle in this woodland, including at the location where I saw it. There had been no previous records from this site.

On my way out of the site on the 18th, I was shown one of the major larval host trees and I got a brief view of a female Welsh Clearwing egg-laying on the trunk.

Sherwood Forest RSPB Event 12 and 13 August

It wasn't long until we were back again for another event and this time, I stayed overnight with my moth trap near the Major Oak. It had been another sunny day and whilst waiting for dusk, I spent time gazing up at the oak canopy above our marquee where seven Purple Hairstreaks were flitting about in the last of the days sunshine. We got a total of 60 moths of 24 species, including multiples of Black Arches, Large Emerald, Maiden's Blush and Riband Wave; and singles of Pebble Hook-tip, Tawny-barred Angle and Canary-shouldered Thorn. A few wetland micro-moths turned up as well, including Ringed China-mark, which had probably come from the small pond near the visitor centre. I had the added bonus of a meteor over the Major Oak at 03:46 and two Noctule Bats heading back to roost at dawn.

A total of nine Yellow-legged Clearwings came to the lures in and around the mature oak trees.

Melanie Penson

Migrant Butterflies of the East Midlands

What is a migrant butterfly?

A migrant butterfly is a species which exhibits a regular, predictable movement of part, or all, of the population from one place to another, this being determined by the seasons and prevailing weather conditions. Migration occurs to avoid detrimental factors such as weather, shortage of food or pressure from population explosions. Substantial migrations are rarely achieved by a single generation due to the short life span of an adult butterfly. It is self-evident that migrant species need to be strong fast flyers and capable of continuous or fast brooding.

Migrant butterflies of the East Midlands

Here the term East Midlands refers to the Vice-counties of Leicestershire & Rutland (VC55), Nottinghamshire (VC56) and Derbyshire (VC57). Our Inland position means that the region generally gets fewer migrant butterflies than the coastal counties of southern and eastern England which are more accessible to butterflies migrating from Continental Europe and beyond. Five species are considered here, Clouded and Pale Clouded Yellow, Red Admiral, Painted Lady, and Camberwell Beauty.

Clouded Yellow *Colias croceus*, (Geoffroy, 1785)

An attractive medium-sized butterfly with deep yellow and black over-wings, but normally seen at rest with the wings tightly folded to reveal the pale-yellow under-wings (Figure 1). The females have several yellow dots within the black borders whereas the males are solid black (Figure 2). A variant in the female is the *helice* form in which the over-wings are white and black, so it superficially resembles the female Pale Clouded Yellow. However,



Figure 1 left Clouded Yellow, female form *helice* at Ironville, Derbyshire 2018, courtesy Paul Coombes, and right, Clouded Yellow male.

the *helice* form has a much more extensive black border to the hindwings enabling easy separation.

Clouded Yellow is an annual summer migrant to Britain from Southern Europe, and in exceptional years the first arrivals in Spring may breed to produce subsequent 'British' generations that can fly as late as November – such events have been regularly recorded along the south coast in recent years. It rarely manages to over-winter successfully.

In Notts there are over 400 records of Clouded Yellow and most of these are of sightings of individuals. However, in Victorian times there were large influxes of this species together with smaller numbers of Pale Clouded Yellow. Big Clouded Yellow years included 1877, 1892 and 1900. The latter included a large swarm present in August along the Fossway around Cotgrave and Owthorpe. This included a few Pale Clouded Yellows and examples of the *helice* form. I quote here from the account in Carr (1916) of this remarkable event.

"1900 when it (Clouded Yellow) reappeared in considerable numbers and in many localities, even penetrating into Nottingham gardens. On the Fosse Road near Cotgrave it was so abundant that one collector (Mr A. Simmons) captured 50 specimens in perfect condition in two hours on August 18, and it was still common there on September 6."



Figure 2 Two male Clouded Yellow from the Cotgrave swarm of August 1900 from the collection at Wollaton Hall.

Female Clouded Yellow specimen from 'Notts' in the collection at Wollaton Hall

It is swarms like the one at Cotgrave that give the butterfly the name Clouded as it can appear in dense clouds when migrating, there are historical accounts of clouds of the species coming ashore on the south coast. Big years for the Clouded Yellow in Derbyshire were 1877 and 1947 with the species being quite common in most years during the 19th and the early part of the 20th Century (Harrison & Sterling, 1985). In Leicestershire large numbers are reported for 1877, 1893 and 1900 (Bouskell, 1907) including examples of the *helice* form, corresponding with the evidence from Notts.

In more recent times in Derbyshire small numbers of Clouded Yellows were concentrated on the Blackwell Trail near South Normanton in the summer of 2014 (8 seen) and 2020 (6 seen) and at Ironville in 2018 (5 seen) including *helice* form females. These small populations may have bred locally over summer, although at neither location do they appear to have over-wintered. Similar concentrations have occurred in Notts with nine at Netherfield Lagoons in September 2006, six at Bestwood in August 2014, and six at Hoveringham as late as 4th November in 2014.

Overall, in recent years Clouded Yellow has been rather scarce. As the species is very twitch-able a single individual may be recorded many times from a single site, so the number of sites where the species was seen is almost certainly a better guide to the magnitude of the influx in any particular year. This is illustrated by the data from Notts covering the period 1995-2022 (Figure 3) showing that good years included 1996, 1998, 2000, 2013 and 2014 but the record numbers are very low when compared to those of many of the coastal counties of southern and eastern England.

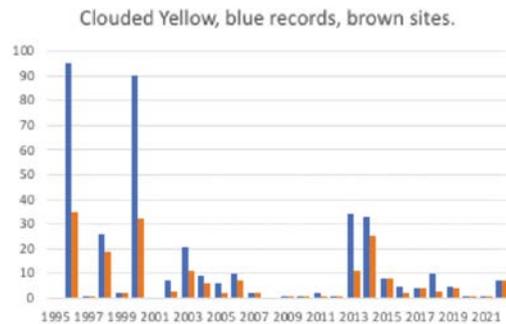


Figure 3 Notts Clouded Yellow data 1995-2022.

Pale Clouded Yellow *Colias hyale*, (Linnaeus, 1758)

The Pale Clouded Yellow was a rare migrant found mainly in association with Clouded Yellow swarms in Victorian times. The last record in the East Midlands is in 1901. The sexes are distinct the male being pale yellow and black whilst the female is white and black. At rest with the wings folded they closely resemble the Clouded Yellow.



Figure 4 Notts Pale Clouded Yellow specimens in the collection at Wollaton Hall, left are males from Southwell collected by the Rev Becher, and right, females labelled from 'Notts.'

Today it is an occasional migrant to southern England, and very rare elsewhere in Britain. On the Continent it is widespread across France, the Benelux countries and Germany, then eastwards to Russia, it is largely absent from the Iberian Peninsula where it seems to be replaced by the very similar Berger's Clouded Yellow.

In Notts there are 8 records of the species, the last being from Plumtree in 1901. Four individuals were noted in the swarm of Clouded Yellow near Cotgrave in August 1900 and 3 were taken at Normanton near Southwell in 1877 by the Rev. Becher (Figure 4). The two males pictured are labelled 1881 but were collected by Becher so it is likely they are two of the individuals he took in 1877, but perhaps not donated to the Museum until 1881, hence the date?

In Derbyshire there are only four records, three from the 19th Century, and as for Notts, 1901 is the last record, that coming from Calke (Harrison & Sterling, 1985). Whilst in Leicestershire it was recorded in the mid 19th Century, but apparently not since an individual in 1877.

Red Admiral *Vanessa atalanta*, (Linnaeus, 1758)

Arguably Britain's most iconic and beautiful butterfly. The markings of both sexes are very similar, with bold red and white markings on a black background. The underside of the hindwing is mottled brown and provides excellent camouflage (Figure 5). Present everywhere in Britain in large numbers each year this is a species that wanders widely. The main larval

food plant is the Stinging Nettle. Until recently it was thought that over-wintering individuals, mainly females according to old accounts, then died off in the spring rather than going on to breed successfully. This species has been recorded in every month of the year within the region, for example it was seen regularly in Mansfield in December 1900, the year that had seen a big influx of other migratory species.



Figure 5 Red Admiral (left) and underwing view (right).'

The excellent UK butterflies website updates things nicely: <https://www.ukbutterflies.co.uk/species.php?species=atalanta>

the sightings of individuals and immature stages in the first few months of the year, especially in the south of England, mean that this butterfly is now considered resident. This resident population is considered to only be a small fraction of the population seen in the British Isles, which gets topped up every year with migrants arriving in May and June that originate in central Europe. Unfortunately, most individuals are unable to survive our winter, especially in the cooler regions of the British Isles.

So, most individuals still perform a reverse migration in autumn and are a common site crossing the south and east English coast in large numbers at that time of year.

Painted Lady *Vanessa cardui*, (Linnaeus, 1758)

Our most famous migrant butterfly Painted Lady arrives in variable numbers each season via Continental Europe. The sexes are very similar with the predominantly orange over-wings with black tips with prominent white spots. The underside of the hindwing is marbled grey, brown and white with a sub-marginal row of ocelli (eye structures), it provides good camouflage, whereas the forewing underside reflects the orange, black and white pattern of the upper wing surface (Figure 6)



Figure 6 Painted Lady (left) and underwing view (right).'

Painted Lady arrives from late March onwards and breeds in Britain giving rise to one or two local broods each season. Larval food plants commonly used include most thistles, Common Mallow, Viper's Bugloss, and Stinging Nettle. The entire adult to adult lifecycle only takes about 6 weeks which is very rapid, but is typical, and necessary, for many migratory species. Many offspring reverse migrate to southern Europe and beyond in the autumn, any that stay, perish over-winter.

Recorded every year in the East Midlands the numbers vary considerably due to the size of each years' migratory influx and subsequent breeding success. Prior to 1985 big influxes were reported in Derbyshire in 1966, 1976, 1980 and 1982 (Harrison & Sterling 1985).

The graph shows the number of recorded sightings in Notts since 1995 in blue (Figure 7) It reveals that in some years the species only occurs in very small numbers. Normalising the totals by benchmarking against the level of recording in 2019 gives the totals shown in brown, indicating the best years for the species were in 1996, 2003, 2009 and 2019 (Figure 7).

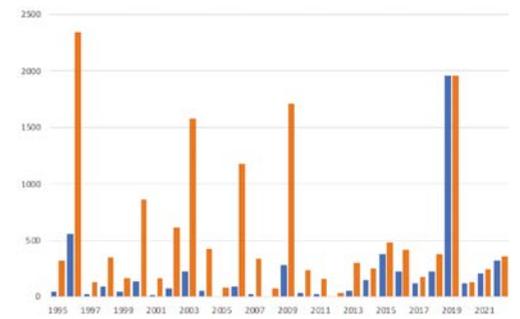


Figure 7 Notts Painted Lady records 1995-2022, blue are actual record numbers, brown are normalised values..

For many years scientists were unsure whether the Painted Lady population in Britain reverse migrated in the autumn or simply died off in the cooling autumn and winter conditions. This question was resolved by a study over a decade ago by NERC (CEH),

the University of York and Rothamsted Research, in collaboration with Butterfly Conservation. It is summarised on the Butterfly Conservation website; <https://butterfly-conservation.org/news-and-blog/painted-lady-migration-secrets-revealed>

This key study found that-

the Painted Lady did indeed migrate south each autumn but made this return journey at high altitude out of view of butterfly observers on the ground. Radar records revealed that Painted Ladies fly at an average altitude of over 500 metres on their southbound trip and can clock up speeds of 30 mph by selecting favourable conditions.

The findings also revealed that the species undertakes a phenomenal 9,000 mile round trip from tropical Africa to the Arctic Circle – almost double the length of the famous migrations undertaken by the Monarch butterflies in North America.

The whole journey is not undertaken by individual butterflies but is a series of steps by up to six successive generations so Painted Ladies returning to Africa in the autumn are several generations removed from their ancestors who left Africa earlier in the year. Radar in Hampshire operated by Rothamsted Research revealed that around 11 million high-flying Painted Ladies entered the UK in spring 2009 with 26 million departing in autumn!

Camberwell Beauty *Nymphalis antiopa*, (Linnaeus, 1758)

A scarce, distinctive, large migrant species from Northern Europe, where it is widespread, also present in North America. Sometimes termed 'The Grand Surprise', it was first described from Britain in the mid 18th Century from Camberwell, South London. It seems to have been much more common in the late 19th Century and has now become a rarity in the East Midlands, even in years when there are good influxes into Britain. With the wings open the deep purple inner parts pass through a narrow black band with a row of blue dots into a cream-coloured border.



Figure 8 Camberwell Beauty, the Annesley Pit individual from September 2011. Image courtesy of Chris Bradbury

Most individuals are seen in autumn following expansion of the range during hot weather when the populations increase markedly. They are not thought to hibernate successfully in Britain despite our milder climate and plentiful supply of Grey Willow, which is the preferred larval foodplant in Scandinavia.

Up to the end of the Victorian era the great influxes noticed nationwide were in 1789, 1793, 1820, 1846 and 1872 (Thomas & Lewington, 2016). Such years being termed the 'great antiopa years', following which a few individuals may have over-wintered successfully. In more recent times, 1947, 1976, 1995 and 2006 saw good influxes although small by comparison with the pre 20th Century events. About 12 Notts records can be inferred from the descriptions in Carr (1916), mainly from the Sherwood Forest area, and dated between 1846 and 1890. In Leicestershire 1873 saw several specimens collected but no other years are mentioned by Bouskell, (1907). In 1976, during a famous hot dry summer, there were ten records in Lincolnshire in August-October (Duddington & Johnson, 1983), and six in Derbyshire (Harrison & Sterling, 1985) but apparently none were recorded in Notts. This suggests a lack of recording effort, rather than the absence of the species.

Of more recent Notts records the Eakring Birds website reports, *there were at least three individuals recorded in the latter part of the 1990's, coming from Calverton and Chilwell in Spring 1996, with another at Chilwell in August of the same year. There was one recorded at Carlton (Cox, K.) in Spring 1997, but the most recent (and twitchable) Camberwell Beauty, was one found at Annesley Pit in September 2011* (Figure 8).

Most records in recent decades come from the eastern coastal counties of England. Caution should be taken in considering and accepting records of this species as it is popular with breeders and is sometimes released at funerals reflecting its American pseudonym 'the mourning cloak'. So, it is important to establish whether any seemingly isolated individual records are part of a noticeable influx and wider pattern.

Author's note

I should like to thank Dr Sheila Wright (Nottingham City Council) for access to the natural history collections held at Wollaton Hall, Nottingham and Jane Broomhead for access to the Pegler butterfly and moth collection at Bassetlaw Museum, Retford. Ken Orpe provided a gift of the hard to obtain Butterflies and Moths of Derbyshire and records of Derbyshire Clouded Yellow over the

last decade. Mark Skevington supplied a copy of the notes on historical publications about Leicestershire & Rutland butterflies compiled by the late Adrian Russell. I also thank Mark Searle for reviewing a draft of this article and Bill Bacon for several informative discussions about the butterflies of the East Midlands. Chris Bradbury gave permission for use of his image of the 2011 Camberwell Beauty at Annesley Pit, Notts whilst Paul Coombes supplied the image of a helice Clouded Yellow from Ironville in 2018. John Hopper re-confirmed his November 2014 sighting of Clouded Yellows at Hoveringham, Notts.

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Recommended Reading

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Steve Mathers,
Butterfly Recorder for Nottinghamshire

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The Tropical Butterfly House has three conservation sites in Yorkshire, Derbyshire and Nottinghamshire which cover 46.5 acres of land. The sole aim is to protect and manage native habitats and species – that's everything from butterflies and bees, flowers and insects, wild birds and owls to small mammals and red deer!

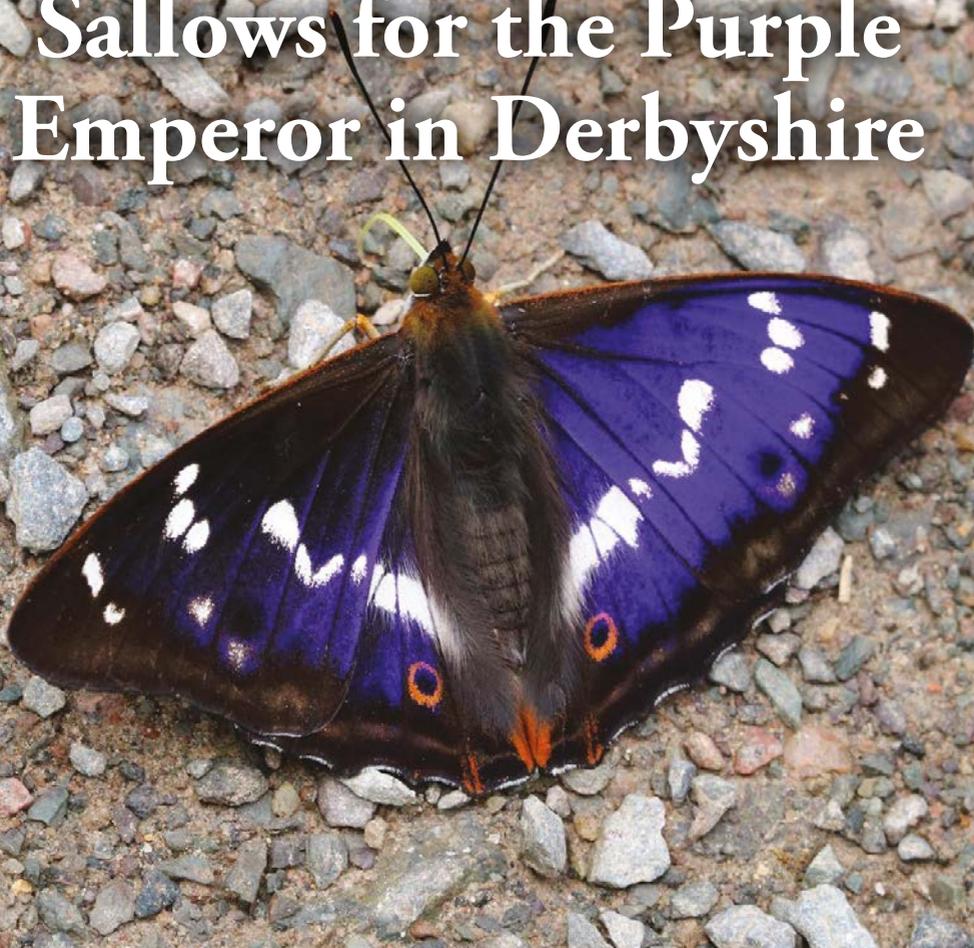
They partner with wildlife charities and organisations to help protect endangered species and since 2013, the amazing staff and visitors have helped raise over £60,00 for the fantastic charities that they support!

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www.butterflyhouse.co.uk/conservation/



butterflyhouse.co.uk

Sallows for the Purple Emperor in Derbyshire



Purple Emperor
(Photo Mark Searle)

I occasionally get a good idea (remember the planting of Disease Resistant Elms for the White Letter Hairstreak about ten years ago?) - well this Autumn I thought that I would ask local Organisations and Companies to purchase and plant Sallows for the Purple Emperor (Iris) butterfly on their land as the species is close to South Derbyshire (it is in Cloud Wood in N W Leics) - see the attached Distribution Maps for the species in the East Midlands together with the National Map. You will see that the butterfly species is colonising woods in the adjoining Counties, especially in

the Charnwood area of Leicestershire where Ian Surman has surveyed for the Purple Emperor in recent years and he is pleased to share his experiences and some photos with you all:-

‘That’s great news re Sallow planting! Iris will colonise South Derbyshire in no time at all (if it isn’t already there).

We haven’t found many examples of the early stages here in Leicestershire, as there are only a few of us out looking, and most of the work is done by myself. I can willingly share what I know with you though. Apologise in advance if much of this is familiar to you.

In terms of Sallow type, I’m of the opinion that this may be trumped by Sallow position. We have found early stages on large leaved Sallow (Goat Willow) and narrow leaved Sallow (Grey Willow). I can illustrate with a few examples why I think position is key.

The first pupae I found was on a stand of Sallow running north to south, or south to north, whichever way you look at it, and was open to the east and the west. The pupae was found on the east face of the bush, looking out on to the open heath area at Bardon Hill. This somewhat accords with prevailing orthodoxy that larvae and pupae are mainly found on the north-east sides of bushes. The bush was of the Grey Willow variety, not the Goat Willow, as is thought to be preferred.

The second pupa I found (this year) was in a less orthodox position, but it made sense nevertheless. It was found on a bush that actually had a south facing edge overlooking a path (unusual) but it was shaded to the south by a large Oak, opposite, and was shaded by smaller oaks to the West. Presumably, the smaller height oaks were deemed suitable for shading because the sun is lower in the sky when it’s in the West. They’re clever these empresses

An egg I saw being laid in 2022, was deposited on Goat Willow. The bush was north facing (also looking over the open heath area at Bardon Hill) and was heavily shaded from the midday and afternoon sun. According to most observations, this is a more typical aspect for laying, but as Matthew Oates mentions in his book, and my earlier examples have shown, if there is sufficient shading for a south-facing bush they will be used as well.

The Sallow is obviously the first part of the architecture that’s needed, but in addition they need a suitable territory area. A high point with trees of sufficient leaf density to provide protection from the wind seems to be required. Oaks and Pines feature often in the territory areas in Leicestershire, but at Beacon Hill and Coleorton Hall, Beeches and Lime are also used. At Bagworth Heath they use Pines and a rectangular block of dense Conifers. Canopy gaps and/or a small clearing that is used as a fighting arena are also required. They definitely seek calm airspace, that only trees with dense foliage can provide. Planting Sallows in a Birch wood isn’t going to work in my opinion because they simply won’t get enough protection.

Identifying what is suitable for a territory area is more of an art than a science, but it’s



Purple Emperor egg
(Photo Ian Surman)



Purple Emperor underside
(Photo Mark Searle)

something I've acquired a knack for. I've been able to predict exact trees (or at the very least a group of trees that I felt iris would use) a year in advance; make a confident prediction, then turn up the following year and discover them there. This year I scored absolute bullseyes at Coleorton Hall and Brown's Wood near Thornton Reservoir, and last year at Cademan Woods. I also successfully predicted territory areas at Billa Barra Hill and Old Hayes Wood nr Ratby. This brings my total discovery count to 5 new colonies in two seasons.

Last year I was also convinced I would find Iris at Calke Park in 2023, but I got that

wrong. The territory area I had identified was superb and contained all the usual suspects that tend to accompany H.I.M: Dragonflies; Red Admirals and Purple Hairstreaks etc., but I'd conveniently disregarded the fact that there wasn't enough Sallow there. Rookie mistake. This Autumn I will be assessing more possible locations for iris in NW Leicestershire and South Derbyshire, so there may be new colonies to come in 2024.

Anyway, in summary, I would say that Sallow type is possibly less important than Sallow position, although orthodoxy says they prefer Goat Willow, so maybe skew the ratio in favour of Goat Willow? And look for high

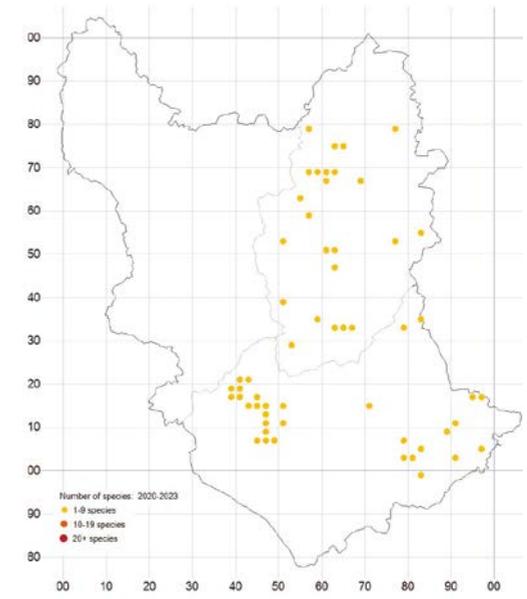
points in a 'Sallow landscape' with trees that provide good protection from the wind. I'll include shots of various NW Leics habitats and life stages in separate emails to follow'

For further information on the Purple Emperor, take a look at the Butterfly Conservation web page below :-

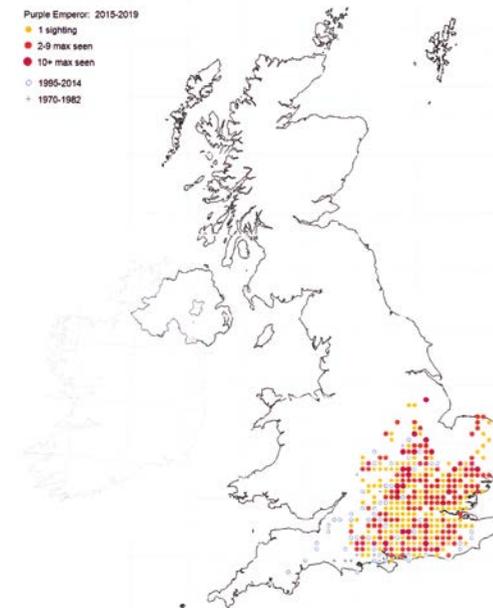
[https://butterfly-conservation.org/butterflies/purple-emperor,](https://butterfly-conservation.org/butterflies/purple-emperor)

Really good advice from Ian... a copy of the Distribution Maps for the Purple Emperor are attached which shows how close the species is to Derbyshire together with photos of this exceptional butterfly species.

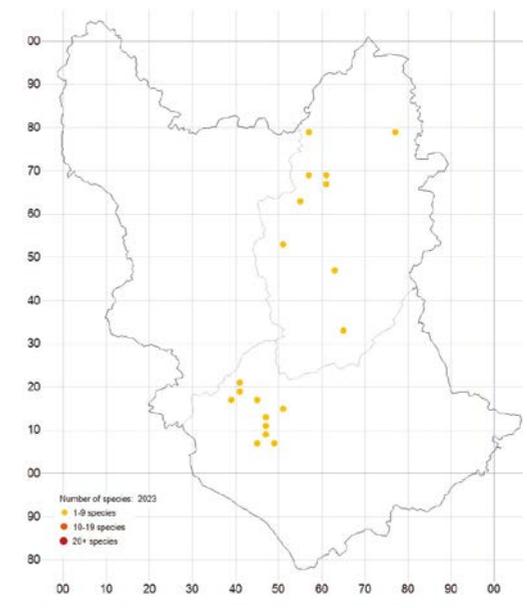
**Ken Orpe
Derbyshire Recorder
Butterfly Conservation**



Above Purple Emperor East Midlands records 2020-2023.



Above Purple Emperor national distribution 2015-2019.



Above Purple Emperor East Midlands records 2023.

 **Butterfly Conservation**
Saving butterflies, moths and our environment

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Wirksworth Youngsters Plant Dog Violets at the National Stone Centre

On a cool day in March, a group of 60 well wrapped-up Reception and Year 2 pupils from Wirksworth Church of England Infant School in Derbyshire attended the National Stone Centre (NSC) to plant dog violets.

It is hoped that the presence of these plants will encourage some scarce butterflies, notably Dark-Green and Silver-Washed Fritillaries, to populate an existing Butterfly Conservation transect that has already notched up an impressive list of butterflies.

Armed with trowels and guided by teachers, and volunteers from the NSC and the East Midlands branch of Butterfly Conservation (EMBC), the youngsters focused on two particular areas for the planting. The smiles on the faces of these Year 2 pupils showed they clearly enjoyed the experience.

Jo Poyser, Headteacher of Wirksworth Federation of Infant Schools, said: "Our involvement with the project came about after being approached by the Stone Centre to plant, nurture and grow dog violets which could be planted in the meadow space at the Stone Centre to attract endangered butterflies.

"Within school we already do a great deal to promote outdoor learning and this project fitted in perfectly with our curriculum to teach children about the importance of plants and wildlife in our local environment and the significant role children have to play in supporting this good cause. The children have all been encouraged to go and look at the dog violets we planted with their families and watch them grow and flourish over time."



Ken Orpe, who is Butterfly Recorder for Derbyshire and the Transect Co-ordinator for the East Midlands region, was at the planting event and was delighted to see the younger generation engage with this wildlife project.

Ken said: "EMBC volunteers have carried out a transect at the NSC for eight years and, in that time, 26 butterfly species have been recorded. One absentee, however, has been the Dark Green Fritillary. By planting the dog violets we hope to establish a breeding colony of this iconic Peak District species on site."

Gary Atkins



Dark Green Fritillary
(Photo Dave Gilbert)

Welcome To Our New Branch Members

The Committee extends a warm welcome to new members who have joined the branch since the last newsletter.

We look forward to meeting as many as possible at future Branch Events and Field Trips. At 19 September 2023 the Branch has 1347 Household members representing a figure of 1877 Individual members.



East Midlands Butterfly Conservation Committee Members

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If you would like to become a Committee Member please contact the Branch Organiser.

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PHOTOGRAPHY SHOWCASE



Orange-tailed Clearwing, Ketton Quarry, June 2023 (Photo Melanie Penson)



Large Red-belted Clearwing female, Sherwood, May 2023 (Photo Melanie Penson)



Common Blue at Longstone Edge (Photo John Green)



Chalk Hill Blue at Barnack (Photo Eliot Taylor)



Marsh Fritillary at Martin Down Hampshire (Photo Eliot Taylor)