

# Butterfly

EAST MIDLANDS

ISSUE 68 - SPRING 2021



**Butterfly  
Conservation**

Saving butterflies, moths and our environment



East  
Midlands  
**BUTTERFLY  
CONSERVATION**

Conservation for the whole of Derbyshire,  
Nottinghamshire, Leicestershire & Rutland

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Cover Picture: Silver-washed Fritillary aberration of the rare *nigricans* form.

Photo: Mark Searle

**T**o the Spring 2021 issue of the East Midlands Branch of Butterfly Conservation's Newsletter. Thanks to all those who have contributed articles for this issue.

I'm writing these note exactly one year after the first lockdown, but there is light at the end of the tunnel and hopefully we can start our field trip programme in July albiet with a few changes, see page 14.

Eliot Taylor

Following the sad news of the passing of Peter Gamble, which was reported in the Autumn issue, I have received these kind words from one of our members, Alan Taylor of Barwell:

*"Peter lived to a good age and I was sorry to learn he has now passed. I have extremely good memories of our times together out foraging for all sorts of interests. His knowledge was so wide. We met through Loughborough Nats and was not only butterflies and moths I shared with him, but water insects, birds, badgers and other wildlife. He will be greatly missed"*.

**M**y butterfly work started in about 2009 when I joined the Thorpe Acre Residents Association, a community group in Loughborough. We enter every year the Britain in Bloom competition and have, as a group, done very well. We look after the local green and also the small wood at the side which we now call 'The Spinney'

About three years ago I started developing the edge of the wood as a habitat for butterflies, nettles, docks, etc., this then started to attract butterflies so I decided to send in every month records to Richard Jeffery, which I continue to do. I hope these records help in some way to show what we have in a suburb in a town, which I think is very important.

We are extending 'The Spinney' with trees such as Silver Birch and Rowan, under-planted with Hazel, Holly and Blackthorn. I'm hoping to develop a flower bed on the edge of the wood, although Covid-19 has not helped us, we hope this situation improves later this year. Any pollinating flowers will do, (they don't have to be wild flowers in my eyes).

Long may all this work continue for the sake of butterflies.

Anthony Rose

## Branch Organiser's Notes

**T**he past year has changed how we live our lives, everything is now more local and journeys to even other Counties in our East Midlands Branch are rare. This only enhanced how much wildlife there is to be found within a few miles of our homes and especially how important our gardens and local Nature Reserves have become. Nearly all the requests I receive are connected with habitat improvement and the wish to help insects recover from falling numbers. This is happening not just with adults, but children who are very aware that they want to inherit a world where it is normal to see an abundance of wildlife. I recently did a talk to 5-11year olds and they all sat for an hour intently listening about what to plant in the school garden for all insect life stages. We then did an identification section where the Peacock and Brimstone came out as the most favourite butterflies, although one boy was totally obsessed with the Orange Tip. I asked the question 'what do you think is the biggest threat to butterflies and moths'? I was looking for climate change or habitat loss, but a very eager boy said it was definitely Birds. On reflection he could be right as Blue Tits eat an estimated 50,000 caterpillars every year. My view is it's important to capture interest in butterflies and moths when they are young as this interest can stay with them for life. I remember being given an Observer's book of Butterflies by my grandma and I spent many hours trying to identify as many as I could find.

A big welcome to new Committee Members, Mark Searle who has taken over from Bill Bacon as Grizzled Skipper Project Officer and Steve Mathers who has taken over from Suzanne Halfacre as the Nottinghamshire Recorder. The Branch is indebted to Bill for all of his hard work over many decades especially on Bingham Linear Park and in The Vale of Belvoir and also for all of his guidance through his time as Chairman of the Branch.

Max is hoping that some Field Trips can run this year although we have decided not to have any until after June in accordance with Government Restrictions. Please make sure you pre-book for these as numbers at limited.

Lastly don't forget to send your records to our County Recorders, all details can be found on the web site:

[www.eastmidlands-butterflies.org.uk](http://www.eastmidlands-butterflies.org.uk).

Jane Broomhead  
Branch Organiser

Below:  
Grizzled Skippers  
Photo: Mark Searle

## Butterflies in Bloom



Photos by Anthony Rose





# Butterfly Conservation East Midlands Branch AGM December 2020

## Chairman's Introduction – Adrian Russell

I am sure that I don't need to say that this has been a very difficult year for many of us and our thoughts go to those members and their families who may have been particularly affected by the Covid-19 epidemic. As with most other similar organisations, Butterfly Conservation has also struggled to deal with the many challenges that this has presented, and we are grateful for the ongoing support of our membership – thank you!

Normally, our AGM and Members' Day at this time of year is a special day when we can come together across our region and share our news and enthusiasm for butterflies and moths in the East Midlands. Obviously a coming together of this nature is not possible this year and we were left with the decision as to what to do with regards to our 2020 AGM. After careful consideration of the options, we have decided that whilst constitutionally an AGM is not an essential requirement, there is a need for us to complete some of the "business" aspects of the Branch, including providing members with some key information about activities over the last year. Naturally, there is less to report in a year where so many of our activities have been significantly constrained by Covid-19 measures. Therefore, we have decided to try and complete the business side of the AGM by way of this written report for your consideration and support. Unfortunately, it would be unduly costly to post this information out to all of our members and we are therefore emailing this report out to all those members who have opted-in to receiving emails as well as posting this information on our website. Please do not hesitate to contact me by email (adrianpaulrussell@btinternet.com) should you have any questions and/or for you to express your support (or otherwise!) for the Committee's proposals.

It is hoped that the situation with regards to Covid-19 will improve over the coming months and it would be really nice if we could hold some form of Members' Day in the spring of 2021. We will monitor the situation closely and let you know if this or other events will be possible next year. Once again, thank you for your continuing support.

**Minutes of the 2019 AGM:** These can be found on our website:

<https://www.eastmidlands-butterflies.org.uk/downloads/EMBCAGM&MembersDay171119.pdf>

It is proposed that these are accepted as a true record.

## BRANCH OFFICERS' REPORTS

### Branch Organiser & Treasurer's Report – Jane Broomhead

The EMBC Accounts for the Year Ending 31st March 2020 are appended to this report. The finances for all Branches of Butterfly Conservation are regulated and prepared by Head Office and checked by myself on a monthly basis. Although all Branches Accounts are now amalgamated into one large Head Office account, the Branch still has control over how our money is spent.

The Severn-Trent Water Funding Bid which we hope will be successful in early 2021, will provide for a part time local Regional Officer and the hope that more work can be done in the East Midlands for habitat

management especially for the Grizzled & Dingy Skipper's. These improvements, in conjunction with other

partner organisations, will also be of benefit to other Brownfield Butterflies such as Common

Blue, Small Heath and Brown Argus. We anticipate that the Bid will require some Match Pot Funding. The Branch is indebted to our BC Regional Officer, Rhona Goddard and Northern Area Officer, Dave Wainwright for all their hard work in putting the bid together.

The Income for the year up to the end of March 2020 was £11,213.37. This comprised of £7,044.00 from EMBC membership, £1,227.84 from Donations and talks, £2941.53 from the sale of stock and raffles. The Donations included a £608.22 cheque from Pete Clark (Derbyshire). £2,000 had been allocated for work parties for the Grizzled Skipper Project during the winter of 2019/20 which were carried out on our behalf by Notts CC in conjunction with Notts BAG, the Invoice for this work was not paid until after March 2020 so will not be shown in this year's accounts. The £1,000 allocated for contractors on the Leicestershire GS Project has been put on hold for the time being.

The Expenditure consists of £314.70 for committee member's mileage (mostly for 3 days at the Rutland Water Birdfair). £2,448.65 for Newsletter and Branch leaflet Printing, postage and stationery. £660 was the balance on the 2018 AGM. The 2019 AGM which was moved at the last minute due to flooding was not paid for until after the end of the financial year and will be shown in the 2020/21 Accounts. Other expenditure shown is £30 for the hire of the village hall for the 2 committee meetings, £123 for subscriptions to 3 Wildlife Trusts, the branch contribution to Head Office Insurance for events and Field Trips £34.73. Purchase of sales goods and donation for stands at events £1616.24.

During the 2019/20 year £1,356.63 was donated by the Branch. This included £467.69 towards the ongoing purchase and planting of disease resistant Elms by Jim Steele, the Derbyshire Conservation Officer for the White Letter Hairstreak, £428.50 towards enhancing the site for butterflies and moths at Little Eaton, Derbyshire and £310 to Nottinghamshire County Council to renew and upgrade existing tools (owned by the Branch) for work on the Grizzled Skipper Project. Total expenditure: £6553.31.

At the present time we have £15,114.06 in the bank up to the end of October 2020. £3,000 of this money has already been allocated and approved by Head Office towards the Grizzled Skipper Project. At the time of writing (December 2020) the work parties have been put on hold due to Government Covid restrictions. Please continue to check the web site [www.eastmidlands-butterflies.org.uk](http://www.eastmidlands-butterflies.org.uk) for updates.

Lastly, a big thank you to all the committee members for all their hard work over a really difficult year and to all those Branch members who continue to support us. We are all looking forward to being able to arrange Field Trips, Training and Events in 2021.

If there are any questions regarding the Branch Accounts please email me at [malcsmonkeys@hotmail.com](mailto:malcsmonkeys@hotmail.com).

## Membership Secretary's Report – Christine Maughan

The following information is based on statistics provided by Butterfly Conservation up to 1 November 2020.

For the organisation as a whole, membership has continued to rise quite dramatically. The national total now stands at over 42,000 individual members from over 30,000 households.

Since 1 November 2019, recruitment within the East Midlands Branch has again been positive with 192 new household members recruited. This represents a net gain of 57 households for the year after taking account of lapsed/cancelled memberships which continue to be quite significant. The overall increase in branch membership is slightly down on last year.

The total branch membership as of 1 November 2020 was 1355 households (an increase of 4.4% since the same time last year), representing 1942 individual members.

The branch has retained its ranking as 8th biggest within Butterfly Conservation by household membership.

These figures are again very encouraging, especially during the testing times we have all experienced during 2020. I have been heartened by some of the messages I have received

from new members this year. It is good to know that taking an interest in butterflies, and indeed all other forms of wildlife, has helped us to survive lockdown and the additional time we have spent in our gardens or local areas has rekindled old interests or developed new enjoyment in being close to nature.

At a local level, a breakdown of branch membership by county shows that numbers are fairly evenly split with 34% of our total membership from Derbyshire, 30% from Nottinghamshire, 32% from Leicestershire and Rutland, and the remaining 4% from other areas.

### **Field Trips Organiser's Report – Max Maughan**

Thirteen field trips were organised for this year. Unfortunately, all were cancelled due to Covid-19 and the government restrictions imposed.

I would like to express my thanks to all the people who had volunteered to lead the trips. Hopefully, they will be happy to lead the same trips next year if we are able to reschedule them. We hope an easing of restrictions will enable them to go ahead.

If anyone else fancies leading a walk next year either locally or further afield please contact me. It can be just for common species, or for more specialist ones. I also urge you to attend field trips - you don't have to be an expert - the leaders will help with identification.

### **CONSERVATION**

#### **Derbyshire Conservation Officer – Jim Steele**

#### East Midlands Regional Conservation Strategy

High Priority species in Derbyshire: Grizzled Skipper, Dingy Skipper, White-letter Hairstreak. The Mosaic Project still intended, to address brownfield sites for key butterfly species.

#### Planning issues

Many planning issues involve liaison with Derbyshire Wildlife Trust. I am grateful for the excellent support of Lesley Parker for her volunteering help in accessing the Derbyshire County Council planning website portal and filtering the applications for attention.

#### Planning Applications and Consultations:

Glapwell Void. Planning application withdrawn for this important site. Good!

Ashbourne, Lathkill Drive. Ongoing; Dingy Skipper site destroyed; remedial action still to be undertaken.

Woodville link road, Swadlincote. Wildflower meadow verges; liaison with County Council.

Langley Mill station site. Dingy Skipper site to be destroyed; mitigation proposed.

Asher Lane, Butterley, Ripley. Planning Application submission. Dingy Skipper.

Derby, Friar Gate. Large brownfield site. Planning Application submission. Dingy Skipper. Site now lost, unfortunately.

Manners, Ilkeston. Planning Application submission. Dingy Skipper.

Whitwell Pit (Holding Objection sustained). Important brownfield site with Open Mosaic Habitat.

Derbyshire Dales. Developer Consultation. Supplementary Planning Document submission.

#### Projects and Initiatives

Mosaic Project support. Major project to address brownfield sites for butterflies. Ongoing.

Hoe Grange Quarry NR, Aston Brickyards LNR, West Hallam Screens, Toyota –all courtesy Ken Orpe.

Pennywell Ponds. Ongoing work to try and re-establish Dingy Skipper.

Stanton Lagoons, Ilkeston. Liaison with Local Authority, Dingy Skipper.

Weleda, Shipley, Ilkeston. Liaison with company regarding management for key butterflies; first Dingy Skipper records this year.

Bennerley Viaduct, Ilkeston. Advice for creation of butterfly areas on large bank and ramp.

Shipley Eco-Action Group, Community Garden. Advice for improving wildflower meadow and creation of large butterfly bank, now built, and partially planted.

Lloist, Whitwell. Company Biodiversity Area advice. Creation of two, large butterfly banks.

Grizzled and Dingy Skipper extant Branch Project from original Regional Action Plan 2000 – ongoing.

#### Management Advice

DFS Warehouse, Somercotes, Industrial Estate verge. Ongoing.

Derbyshire Wildlife Trust Woodside NR. Stanton Lagoons. Management advice.

Coton Park Local Nature Reserve. Management advice; liaison with Local Authority. Dingy Skipper.

Langley - former pit site. Mowing regime. Dingy Skipper.

Mead (Woodland Trust, Shipley). Habitat creation and management advice.

The Forge, Ironville. Ongoing management advice for Dingy Skipper and other key species.

Waingroves Community Woodland. Planting suggestions for more DR Elms.

Broomfield, Derby College. More DR Elms provided and planted.

Overseal Community Orchard. Liaison with local community. Grassland plots. Provision of DR Elm.

Private Landowners: Ongoing support. Chris Ragg, Darley Dale; Nigel Davidson, Heage

#### White-letter Hairstreak – Disease-Resistant Elms Project

Continuation of planting at several sites in Lowland Derbyshire. 'Ademuz' native Spanish field elm, 'Sapporo Autumn Gold', 'Columella', LUTECE, FL493/'Wingham', White Elm *Ulmus laevis* Trees being monitored

#### Grizzled Skipper Derbyshire Re-introduction Project - ongoing

Ticknall Lime Yards, Calke Park, National Trust. Joint Project with local National Trust. Habitat Management. On-site meeting with Rhona Goddard (BC Midlands Conservation Manager). Continued consultation with Mike Slater, BC Warwickshire. First 'Derbyshire-bred' adults emerged in May.

#### **Nottingham/Leicestershire Conservation Officer – Melanie J. Penson**

Like the Lepidoptera I love, I am going through some massive changes in my life. I am, metaphorically speaking, in the chrysalis stage of my journey to somewhere I will be a lot happier.

Most of my activity this year has been in Nottinghamshire; providing management advice to Newark and Sherwood District Council on three of their sites to benefit dingy skipper, common blue, small copper and other grassland butterflies. I have also had input into the information boards at Sherwood Heath, Vicar Water and Sconce/Devon Park.

I have continued monitoring dingy and grizzled skippers throughout the region when possible. A visit to the Misson/Newington area in June enabled me to find two wall browns in an area of restored gravel pits. There had been no Notts records since 2017 but it seems they must have been there all along. I spread the word amongst the birdwatching community which will, hopefully, generate more records.

I now have a moth trap (thank you Paul Batty) which is battery operated and has a solar switch. I have teamed up with the Ranger Service in Newark and will be running regular moth traps at Sconce/Devon Park throughout the 2021 season. We had a practice run in early October and, although the equipment worked and we attracted a few insects, not one of them was a moth!

In my new career in adult social care, I had planned a suite of nature walks in our Region, raising awareness of butterflies and moths. We managed to do some of these over the summer and autumn before the second lockdown. I shall be running more moth trapping events in gardens through 2021 and beyond.

#### **Grizzled Skipper Project**

We would like to welcome Mark Searle as our new Grizzled Skipper Project Officer – see Election of Officers.

For details of the 2020 Dingy and Grizzled Skipper project, see Bill Bacon's report in the Autumn 2020 edition of the Branch Newsletter.

### Butterfly Distribution Maps Co-ordinator's Report – Christine Maughan

Species distribution maps have been produced up to and including 2018, and these have all been published on the branch website. Maps for 2019 will be added as soon as data is available.

### BUTTERFLY & MOTH RECORDERS

#### Derbyshire Butterfly Report – Ken & Pat Orpe

We were able to carry out 3 Transect Training Sessions (2 in Derbyshire and 1 in Nottinghamshire) before the Corona virus restrictions came into force during March 2020. Consequently, over 100 butterfly transects were carried out in Derbyshire during this year with volunteers maintaining social distancing and by using the time to get their daily exercise completed. However due to the different number of completed weeks at each site, comparisons with 2019 will not be easy to do. Fortunately, the remoteness of the first Butterfly Nature Reserve at Hoe Grange Quarry at the southern end of the Peak District did result in all 26 weeks of transects being walked and this resulted in the highest number of butterflies seen on transects there (over 2,500), since it was started in 2015. The four butterfly species that had their highest count in a single day were Small Copper, Gatekeeper, Small Heath and the Small Tortoiseshell. Interestingly the latter species has been very scarce in Southern England this year and the cut-off point appears to be around Warwickshire and Northamptonshire, so we have been very fortunate to be able to see good numbers of the Small Tortoiseshell here in the East Midlands. Again, Hoe Grange Quarry had a good number of Wall Browns present on site this year and it proved once again that compared to 7 other top sites for butterflies in the Peak District, Hoe Grange Quarry easily came out on top for this iconic species. With luck next year should prove to be more like normal so hopefully the new transect season will start in earnest on the 1st of April 2021 (Maundy Thursday).

With the Purple Emperor extending its range into nearby North West Leicestershire during 2020 it would be great if His Imperial Majesty should make an appearance for the first time here in Derbyshire – who will have the acclaim to be the first person to see this spectacular insect in the County – preferably with a photograph to prove it!

#### Leicestershire and Rutland Butterfly Report – Richard Jeffery

The restrictions imposed upon us by the Coronavirus pandemic somewhat curtailed our recording activities this year. Although the Transect recording season was foreshortened, with recording commencing in June, 15 out of the regular 16 transects were covered each to a greater or lesser degree dependent entirely on recorder availability. The proposed new transects at Bagworth Heath and New Lount Nature Reserve unfortunately had to be put on hold until the 2021 season.

With restrictions on movement under lockdown, it became apparent that more records were likely to be submitted this year via the Garden Butterfly Survey facility provided by Butterfly Conservation than from out in the field. The glorious weather early in the season also supported this theory. Only time will tell when the final GBS results are sent to me in the weeks ahead. Nevertheless, despite the constraints, many observers still managed to get out and about on their daily exercise walks, and further afield when restrictions were lifted, to record and submit records. Many, myself included, were witness to a magnificent display of Dark Green and Silver-washed Fritillaries at the LRWT reserve at Bloody Oaks Quarry, and at nearby Ketton Quarry, with numbers of the former reaching well over one hundred by the middle of June. This was also the year that the two counties well and truly declared themselves Purple, as His (and Her) Imperial Majesty ventured into pastures new. In total, the Purple Emperor was recorded in 15 different locations. How many of these sites are likely to hold a sustainable population is still open to debate, but sites such

as Bardon Hill Quarry and Rutland Water are already producing year-on-year results. It is hoped that something resembling normality will have returned by the start of the 2021 'butterfly season' but that awaits to be seen. Whatever happens, even if we still have a few restrictions in place, I'm sure that we will be able to get out and about to some extent and record our local butterflies. I, for one, wait with eager anticipation to find out what surprises we have in store.

My thanks go out to all those who have recorded and submitted butterfly data throughout this year, and wish each and every one all the very best for the season ahead.

#### Nottinghamshire Butterfly Report – Suzanne Halfacre

##### Casual Recordings

I am still getting in the odd record coming in and am furiously trying to add the ones I have got to the master list as HQ are on the ball this year and wishing to analyse results earlier than they have in previous years due to the production of the new Atlas book.

I have had ninety odd spreadsheets submitted to me, most of them regulars as people made the most of their half hour walks at the beginning of restrictions and their gardens. Once allowed to roam free the sites became more varied. I have managed to put 38 odd onto the master list which has yielded 1000 records (give or take a handful) revealing twenty-nine species.

Meadow Brown has so far done well with 1,917 entries. Green Hairstreak was seen at Skylarks again this year and purple hairstreak at Blidworth, Cotgrave and Newstead. There has been single silver-washed fritillary reported as singletons in places they have not been recorded before such as East Leake. A single White Admiral was seen at Blidworth. Next year there is going to be an effort to look for Purple Emperor in areas that have the right habitat. One individual was seen Edwinstowe way this year and there is evidence of breeding, so fingers crossed. It would seem they are moving north.

### Transect Recordings

At the beginning of the season there were not many forays from transecters through no fault of their own. Some who could walk to their transect carried on but overall, there is a big dent in the records. Once restrictions eased off a lot of people managed to resume their route. Understandably some were shielding and the transect will have to resume next year. Twenty-six sites were visited and 21,109 butterfly recordings submitted. As with casual records, the Gatekeeper seems to have done well. Meadow Brown, Ringlet and the whites had high numbers as expected. Marbled White (312) were seen at five sites, the best being Freckland Wood along with Silver-washed fritillary and white admiral. Purple Hairstreak was seen at Beeston Sidings transect which was good to see. It would seem certain woods are the best places to go to see the less common species in Nottinghamshire.

### Big Butterfly Count

There are 8,583 records to sift through reflecting 17 species which will be a job over the festive period. Not all of these will make the grade, though that said there are no out of place ones yet. So far, the Small White and Large White are topping the polls. Again, Gatekeeper is in the top five. Red Admiral has fared much better than the casual records, coming in at seventh. There were concerns as it was noticeable absent this year for some local recorders. There were 33 marbled whites from 13 sites, not all gardens, which was interesting.

### Roundup

If you go down to the woods you are sure of a good find especially Blidworth, Freckland and Sherwood.

It will be fascinating to see how the Marbled White, Gatekeeper, Red Admiral and Silver-washed Fritillary map out once all the records are filtered and finalized.



### Leicestershire & Rutland Moth Report – Adrian Russell

It is a real shame that Covid-19 restrictions proved a major obstacle to moth recording in the wider countryside. On the other hand, garden moth trapping was largely unaffected by these constraints and in Leicestershire & Rutland we now have over 70 people regularly running garden moths traps and submitting records, which really helps improve out knowledge and status of moths in the county. This year has seen at least three new species for the county (details of which I hope to share with members at the next Member's Day), but other highlights include a number of *Convolvulus Hawk*-moth records (including one in my garden trap!) and a fair number of *Clifden Nonpareil* (Blue Underwing) building on the flurry of records in 2019 – I strongly suspect that this is now resident in the East Midlands.

### Derbyshire & Nottinghamshire Moth Report – Mick Ball

With help from Ken, who has passed on my email address to many BC members, I have been doing something different this year. I have set up an identification service, via email, for any unidentified species members find whilst doing their transects or moth trapping. The response has been greater than I thought but it has kept me busy during the lockdowns. Since late March I have received 221 requests for moth ID's and have identified 242 species. I look forward to being able to provide more details at a future Members' Day, as I am still going through the hundreds of records I have been sent. I have also received 107 requests for other insect ID's and have identified 56 species.

### PUBLICITY & PROMOTIONS

#### Sales & Promotional Displays – Jane Broomhead

I was all set to begin my 2020 season with a full programme of events and a wonderful new array of Butterfly related sales items when the coronavirus struck. I really hope that in 2021 we can get back to some form of normality.

### Newsletter Editor's Report – Eliot Taylor

Both issues of the branch newsletter were affected by Covid-19 this year.

The Spring edition was different to normal, as there was no field trip programme. However, we were still able to provide interesting content, with articles on the Fritillary butterflies of Derbyshire and the conservation partnership with Weleda (UK) Ltd., as well as the minutes of the 2019 AGM.

Due to lockdown distribution of the Spring issue was carried out by email (as was also the case with the national magazine).

We wanted the Autumn issue to be posted out in the normal way, to engage better with our membership, unfortunately head office were not able to provide volunteers to help with the mailing out this year, but were able to facilitated this through one of their printers. Again, the content was a change from the usual format, with no Field Trip Reports or AGM / Members Day notice. But once more I received some good articles, including: 25 years Survey of the Wall Brown in Derbyshire, The Purple Emperor in Leicestershire and The Dinky and Grizzled Skipper Project. Although the Hoe Grange Quarry Open Day had to be cancelled, we were able to report on a visit to the site by Derbyshire's High Sheriff. There was also an article by Jim Steele, about butterflies in members gardens. This has prompted gentleman to contact me with the promise of an article for the next issue about his recording experience. It's always nice get content for the newsletter from the wider membership.

One sad note in a difficult year was the passing of Peter Gamble, a past Chairman of the Branch. An obituary of this well-respected naturalist can be found in the Autumn newsletter.

### Publicity Officer's Report – Gary Atkins

The Covid-19 pandemic ensured there was less activity – and, so, fewer publicity opportunities – which was reflected at both the national and local media level.

BC HQ did put out a few releases, most of which were picked up by a handful of national newspapers, and one or two of which received coverage from local media as well, but generally the volume and apparent media interest was lower than last year.

Those national releases covered the early emergence of species due to the sunniest May ever (in June), a slightly more downbeat story on the Big Butterfly Count: lowest numbers in 11 years (in August), and a 'taster' for the Moth Night at the end of August.

Earlier in the year, there has also been a release quoting Richard Fox that urged the general public to help plug the gap in scientific data generated during the lockdown (with casual sightings in gardens and local sites, in the absence of formal transects) as part of the need to measure accurately the impact of climate change on wildlife.

Locally, Hoe Grange Quarry continues to be a 'jewel in the crown' for EMBC and it was disappointing that the popular annual open day could not take place, but the site did still get its moment in the spotlight during 2020 with a visit by Derbyshire's High Sheriff. The site was also the subject of a calendar by its owner, Longcliffe Group, which featured some

brilliant wildlife photos, including a number of butterflies, and some taken by EMBC members.

### ELECTION OF OFFICERS

In accordance with branch rules, the following committee members are due to stand down but are willing to stand for re-election:

Jane Broomhead Branch Organiser, Treasurer & Sales & Promotional Displays Organiser

Melanie Penson Conservation Officer for Nottingham & Leicestershire

Richard Jeffery Leicestershire Butterfly Recorder

Ken Orpe Derbyshire Butterfly Recorder

Mick Ball Moth Recorder for Nottinghamshire & Derbyshire

Eliot Taylor Newsletter Editor

Bill Bacon has, after many years of excellent service, has stood down from the Committee and it is proposed that Mark Searle takes over as Grizzled Skipper Project Officer

Members are asked to support these proposals

Proposed by Christine Maughan and seconded by Gary Atkins.

**Adrian Russell**  
Branch Chairman



Left: A print by illustrator Richard Lewington showing the life-cycle of the Grizzled Skipper was presented to Bill Bacon from the committee, in recognition for all his hard work for the branch over many years. Photo Jane Broomhead.

# The Changing Face of Butterfly Recording.

**B**utterfly and moth recording is one of the keystones of Butterfly Conservation's (BC) existence. Quality recording is fundamental in helping BC to deliver its conservation objectives and to formulate strategy for both short-term and long-term plans, and these records are supplied by an army of BC members and volunteers, and by members of the general public in what has now been called 'Citizen Science'.

Butterflies and moths have traditionally been recorded in their natural habitat for many decades, and the vast amount of data now held gives us an insight to how their status has changed on a local and national level. Lepidoptera have long been regarded as indicator species as they are highly sensitive to Climate Change, habitat loss and changes in agricultural practice. Comparisons can be made for all butterfly species, and the gains and losses made by each species has been the basis for past, present and future conservation plans. In recent times, greater attention has been paid to the Lepidoptera that frequent our gardens and local spaces. The total area of garden space in the UK is greater than that of all of our nature reserves combined and it's only right that we should survey 'closer to home' too. The Covid 19 pandemic has enabled us to do exactly that in the last year.

Initiatives like the Big Butterfly Count (BBC) carried out in the summer and the Garden Butterfly Survey have turned our focus inward to the patch that we call home. The BBC is the Lepidopteran equivalent to the RSPB's highly successful Big Garden Birdwatch and has produced similar results with increased numbers of records submitted year on year. Over the last three years, numbers of records submitted via the BBC in the county have risen from 4471 in

2018 to 11092 in 2020. An increase of 148%. This trend was echoed on a national basis too with a 25% increase in records received. The true value of the results submitted in 2020 was highlighted when the data was processed. Alarming, the average number of butterflies recorded per recorder nationally was down 34% on the previous year. More recorders counting fewer butterflies is a stark reminder of how fragile our butterfly populations can be, and also emphasises how important butterfly recording is.

With many of us having to stay at home during the lock-down period last spring and early summer, I anticipated an increase in the amount of garden butterfly records being sent in to BC too. 2019 produced 2506 records from our county gardens. 2020 saw that figure rise to 3908, an increase of nearly 56% year on year. I have now switched from recording my garden butterfly sightings manually to recording them directly on the BC Garden Butterfly Survey website. I can record them as and when I spot them, and I'm less likely to forget what I actually saw.

The way that records are submitted has shown a significant shift from manual records sent directly to the County Recorder (CR) to digital records using Apps now freely available for use on mobile devices. Many recorders still prefer to collate their data and submit it to the CR at the end of the year, usually in the form of an Excel spreadsheet. I still use this format myself as I am relatively comfortable using Excel. There are still a few recorders who continue to submit paper records too. Butterfly Conservation are continually looking at ways of making the submission of records easier, and, at the same time, to encourage new recorders, especially younger recorders, to participate. The use of Apps to submit

records digitally has continued to grow year on year, and will no doubt continue to do so.

The i-Record Butterflies App has proved to be very successful, with 2020 showing a massive 602% increase on data submitted in 2018, with 470 records rising to 3300. Having the facility to spot, identify, record and submit a butterfly almost instantaneously to hand has proved hugely popular. Modifications to the App have been made over the winter months and it should be ready for use when the new season starts this spring.

The chart below shows how the number of digital records submitted has increased in the last three years, and how the number of manual records has decreased.



## Leicestershire & Rutland Butterfly Records

| Year | Records Direct to County Recorder | Big Butterfly Count | Garden Butterfly Survey | i-Record | Total |
|------|-----------------------------------|---------------------|-------------------------|----------|-------|
| 2018 | 9152                              | 4471                | 1805                    | 470      | 15898 |
| 2019 | 7788                              | 8698                | 2506                    | 700      | 19692 |
| 2020 | 7255                              | 11092               | 3908                    | 3300     | 25555 |

Whether you prefer to send in your records in the traditional manner, or whether you have chosen to adopt the digital format, ALL records should be submitted using the same basic principles. The headers below show how an Excel spreadsheet should be set out, as this helps the CR to transfer the data to the main county, and ultimately the national, database. Please pay particular attention to the Ordnance Survey Grid Reference as an incorrect letter (in our case SK or SP) will result in your record being placed in either the wrong place, or at worse, the wrong county. Records submitted using digital Apps and via webpages use the same information.

We naturalists in Leicestershire and Rutland can also consider ourselves extremely lucky to have the database of all things flora and fauna that has been painstakingly compiled over many years, and continually updated by the team at NatureSpot. Whatever your interest, you'll find details of sightings, locations and distribution maps of your chosen species, backed up with copious photographs to aid identification. Many butterfly and moth records are submitted via this channel too, and the CR's receive a detailed spreadsheet of all sightings reported at the end of each calendar year.

| Date       | Site         | O.S. Grid Ref | Species | Qty. | Recorder        | Notes |
|------------|--------------|---------------|---------|------|-----------------|-------|
| 12/06/2021 | Altar Stones | SK484109      | Peacock | 6    | Richard Jeffery | Notes |



Year on year the total number of butterfly records submitted in the county continues to grow (an increase of over 60% in the last three years) and signs are that this trend will continue as people are becoming increasingly aware of the fragile nature of our planet and the flora and fauna that we share it with. Every record submitted is important and is of use. As previously mentioned, future conservation plans rely on our efforts to monitor and record our local Lepidoptera.

N.B. At this point could I please ask that once you have decided on how you will submit your records that you stick to the same format throughout the season. Please feel free to use either Excel, i-Record, the Garden Butterfly Survey or NatureSpot, but, to avoid duplication, please do not record the same details on two different platforms.

Whichever method you choose to submit your records, please remember that you will be playing your part in helping to conserve not only butterflies and moths, but whole ecosystems too, and for that, I truly thank you.

**Richard M. Jeffery**

### Some useful links:

#### iRecord Butterflies App.

<https://butterfly-conservation.org/our-work/record-ing-and-monitoring/irecord-butterflies>

#### Garden Butterfly Survey.

<https://www.gardenbutterflysurvey.org/>

#### Big Butterfly Count.

<https://bigbutterflycount.butterfly-conservation.org/>

#### NatureSpot

<https://www.naturespot.org.uk/>

#### Richard Jeffery – Butterfly Recorder for Leicestershire & Rutland.

[winrich168@btinternet.com](mailto:winrich168@btinternet.com)

# Field Trip Programme 2021



**Silver-washed Fritillary**  
(Photo Eliot Taylor)

**These field trips are a great way to learn about butterflies and their habitat, there will be help with identification available and there will also be photographic opportunities. Walks are open to anyone to attend. Please check weather conditions and come suitably prepared.**

**Unfortunately, due to the COVID pandemic we have made the decision to delay the start of trips until July.**

## IMPORTANT

**As from this year all walks must be pre-booked with the leader of the walk. This is essential so the leader can inform you if the walk is cancelled for any reason. Also, all walks will be limited to a maximum of 12 participants. If you arrive at a venue without booking, you could be turned away if the number of participants has reached its maximum.**



**Marbled White** (Photo Derek Martin)

### Bagworth Heath Woods Country Park (Leicestershire) Wednesday 7 July

Meet: 11.00am in the car park.  
Location: Grid ref: SK 457 068

Bagworth Heath Woods is located off Heath Road, approximately 0.6 miles south of Bagworth towards Merry Lees and Desford, in West Leicestershire.

This 75 hectare (185 acre) Country Park has been transformed from scarred industrial landscape of Desford Colliery into a valuable recreational resource. Owned and managed by Leicestershire County Council, Bagworth Heath Woods is made up of woodland, grassland, heathland, lakes and ponds. There is a network of grass and surfaced paths through varied habitats. We hope to set up a transect here this year.

There is a free car park at Heath Road Bagworth, LE67 1DL but no toilet facilities.

**Target Species:** Marbled White and other summer butterflies.

**Contact: Eliot Taylor**  
**0116 2871677**

### Cloud Wood (LRWT) Nature Reserve (Leicestershire) Tuesday 13 July

Meet: 2pm in the lay-by opposite the reserve.

Location: SK417214. Cloud Wood lies in the N.W. of Leicestershire, 1.5km S.E. of Breedon-on-the-Hill on the road between Tonge and Griffydham.

It is part of the site of an ancient woodland that was originally coppiced in the traditional way. Parts of the wood are still coppiced by the Wildlife Trust in rotation, and other areas are left to grow naturally. There is a diverse range of flora and fauna present.

Nearest toilets and facilities (lovely cafe) are in Breedon village at the antique and craft centre.

**Target Species:** Silver-washed Fritillary and White-letter Hairstreak.

**Contact: Richard Jeffery**  
**07803 599247**

**White-letter Hairstreak at Cloud Wood**  
(Photo Derek Martin)

### Aston Brickyards (LNR) (Derbyshire) Sunday 18 July

Meet at 11am at the site entrance which is on Derby Road, Aston at Grid Reference SK413303 – ample parking is available just inside the site gates.

This 'brownfield' site of 3.5 hectares is the flagship Community Project for the site owners (Derbyshire County Council) and a local group known as FAB (Friends of Aston Brickyards) was set up in 2013 and subsequently the site has been designated as a Local Nature Reserve (LNR). Pat and I have been carrying out a butterfly transect on site since the year 2000 and to date we have recorded 25 species on site, many of which are breeding there.

**Target species:** White-letter Hairstreak (present), Purple Hairstreak (not yet recorded on the oaks), Silver-washed Fritillary (seen during the last 2 summers) and Essex Skipper (present).

Visitors will be able to see the conservation work that has been carried out including the butterfly bank, disease resistant elms and the creation of a new pond.

The visit should finish by 1.00pm.

**Contact: Ken Orpe**  
**ken@malaga.plus.com**





**Coombs Dale**

(Derbyshire)

**Thursday 29 July**

Meet at 10am at the bottom of the Dale by the playing field where there is a parking area SK 236751. It is on the A623 towards Stoney Middleton. There is also parking around Calver Crossroads.

**Target species:** Dark-Green Fritillary, Brown Argus and other summer butterflies

Morning walk finishes around 12.30pm. Facilities available in nearby pub and cafe.

**Contact: John and Al Roberts**  
**01142 306487,**  
**07752 675363**

**Poulter Park, Langwith**

(Derbyshire)

**Sunday 1 August**

Meet at 11.00am in the car park, grid reference SK 52499 70447; post code NG20 9HS.

There are no facilities on site, although the Gate Inn and Jug & Glass are within easy driving distance. The site is Bolsover District's largest Country Park so the walk will last at least two hours, that said it is fairly easy walking terrain.

Directions: from Chesterfield take the A632 to Bolsover, continue on the A632 to Nether Langwith. As you enter Nether Langwith go under a bridge with traffic lights, and immediately after the lights turn left onto Whaley Road (if you go past the Gate Inn you've missed the turning). After a quarter of a mile turn right into Poulter Park car park. When you enter the car park there is a pond

**Dark Green Fritillary** (Photo Christine Maughan)

immediately on your left with a Dragonfly sculpture in it – check this is the case in case you missed this turning and parked in another car park further along.

From the M1 junction 29, take the A617 to Mansfield. At Glapwell just after The Young Vanish pub turn left towards Bolsover, and at the traffic lights at the Water Tower at Hillstown turn left onto the A632 and stay on that road until you reach Nether Langwith, then follow directions as above.

There is also a Railway Station at Langwith-Whaley Thorns which is part of the Robin Hood line. It is quite a walk however, so if you do decide to take the train give me a call and I will pop round and pick you up.

**Target species:** Countryside Butterflies although Marbled White & Dark Green Fritillary have been recorded on site.

Morning walk finishes around 12.30pm. Facilities available in nearby pub and cafe.

**Contact: Willy Lane**  
**Mobile: 07790 000770**  
**Email: doeleaboy@gmail.com**

**Aston Rowant**

(Oxfordshire)

**Sunday 8 August**

Meet at the Natural England car park (grid ref SU 731966) on the north side of the M40 motorway at 10.00am. Access is signposted from the A40 which can be joined from either Junction 5 or 6 of the M40.

**Target species** are Silver-spotted Skipper, Chalkhill Blue and Brown Argus. Plants include Chiltern Gentian.

Bring a packed lunch, and stout shoes are recommended as there are several steep slopes.

In the afternoon, if time permits, we will visit the nearby reserve of Whitecross Green Wood.

**Target species:** Brown Hairstreak.

There are no facilities at either of the sites visited today.

**Contact: Max Maughan**  
**01332 511825,**  
**07484 881502.**

**Butterfly Opportunities at the Young People's Forest, Mead, near Heanor, Derbyshire.**

**T**he Woodland Trust now owns this extensive site, located between the village of Smalley and Shipley Country Park, and the Trust holds the stewardship of the site for nature and quiet amenity now that the opencast mining has been completed and the land made available for conservation. The site covers some 161 hectares, with the plan to plant 250,000 native trees, many of which are already planted, with the emphasis of the whole project being to involve young people in the design, creation and management of the forest and indeed to appreciate and enjoy the land and its biodiversity for posterity.

Butterfly Conversation is in liaison with the Trust, investigating the opportunities for butterfly habitat, including the woodlands, woodland edge, rides, and also the considerable amount of open field areas, broad tracks and hedgerows. An interesting section of the site has been retained with bare earth mounds and rough grassland, and plans are



**Left:** Earth bank, lower part of which is under consideration for a butterfly bank.

under consideration for some new wildflower meadows, marshy areas and a large, south-facing bank, all of which we hope will benefit our butterflies - we will continue to offer advice and work with the Woodland Trust as matters progress. In addition, the first of what could well be up to three Butterfly Transects is being defined and the team set up to undertake the transect walks. We are grateful for this opportunity to work with the Woodland Trust on this exciting project in Derbyshire.

**Jim Steele,**  
**Derbyshire Conservation Officer**

**The new Environment Bill - slow progress, but it could help our butterflies**

**Y**ou may be aware that a new Environment Bill is slowly progressing through Parliament, and if it succeeds, it has the potential to make a significant difference for nature conservation in England, although there are some concerns being expressed by conservation organisations about the details. The main thrust of the legislation is to provide policies, plans and targets for nature conservation, the adoption of a Nature Recovery Strategy and the creation of a new Office for Environmental Protection. In terms of sites of wildlife importance, the aim would be to ensure that a site's biodiversity value was measured in a defined way, should development of the site be proposed, with a

requirement to ensure a 'net gain of biodiversity', either on the site through mitigation or off-site through compensation – one argument might be that most if not all of the site shouldn't be developed in the first place, of course. This has particular relevance for our so-called 'brownfield sites', some of which are really important for our key butterflies, such as the Dingy Skipper. Butterfly Conservation retains a watching brief, but with some parts of the legislation not now likely to be enacted before 2023, there is quite a wait to see how the Bill progresses and just how beneficial it could be for butterfly conservation.



**Jim Steele,**  
**Derbyshire Conservation Officer**

# Aberrations in British Butterflies: a brief historical context (by Melanie Penson)

British butterfly enthusiasts have been fascinated by aberrations or 'vars' (variations) probably before the founding of the Aurelian Society; the exact date of which is obscure but somewhere between 1720 and 1740. This was a Golden Age in lepidopteran discovery, before all known British native species had been discovered. A time when a keen naturalist could wander into their local wood and make original discoveries: a new species or aberration before lunch.

Caught up in the Zeitgeist, a kind of mania for butterfly aberrations swept through British entomologists and the amassing of vast private collections was not only socially acceptable but almost to be expected. The Aurelian Society provided a venue for enthusiasts, be they duke or dustman, to meet and converse on equal terms. It must be said that the former did more 'collecting' with their cheque books than they would ever do with their butterfly nets!

Sites where aberrations abounded were often jealously guarded; such as armed game keepers postes at the entrances to some of the New Forest inclosures; but on more open sites, such as Therfield Heath in Hertfordshire, it was more of a free-for-all. This site was famous for producing some extreme variants of the chalk-hill blue. It still occurs there but not in its former numbers and it is understood that the incidences of aberrations has also fallen.

So popular had the amassing of 'vars' become that a few unscrupulous dealers resorted to painting extra markings on otherwise ordinary butterflies, gave them a fake name and sell them at astronomical prices to an incredulous clientele, eager for novelty. Such fraud was possible because there were no guide books and the often verbose descriptions in the available literature was often inaccessible to all but the wealthiest collectors. To make

matters worse, equally eminent collectors, working and publishing independently, were giving different names to the same aberrations. No wonder confusion reigned.

Little attempt was made to classify the aberrations of our butterflies until comparatively late in the 19th Century and it was only with the founding of Ecological Genetics as a distinct science that some semblance of order was brought forth. E.B Ford's seminal publication *Butterflies in the New Naturalist* series in 1945 was the first book to examine the whys and wherefores of aberrations and examine the question: Genetics or Environmental Conditions?

Although Ford had a huge personal collection of aberrations (mostly marsh fritillaries, meadow browns and common blues: his most important objects of genetic study), his book was not a field guide and the few aberrations that are pictured serve to illustrate his scientific opinions.

F.W Frowhawk published a book on aberrations in 1936. It wasn't until 1978 that *Aberrations in British Butterflies* by A.D.A Russwurm was published that provided 40 colour plates of paintings, featuring all British species. Even this publication was far from comprehensive and it only illustrated the more extreme aberrations; for example 3 of the Comma and 4 of the Ringlet (see review below).

Another book entitled *Variations in British Butterflies* appeared in 2000 by A.S. Harmer and illustrated by Russwurm. This book includes a few photographs as well as the paintings. Both books include lengthy chapters on genetics and how the aberrations have arisen. Both also cover the entire British butterfly fauna, which doesn't leave much room to cover the entire range of aberrations and again only the most striking examples are illustrated.

Step forward Paul Dunn.

## A Review of *Aberrations of the Comma and Ringlet*, by Paul Dunn, Countryman Publications (2016 and 2020 respectively).

Review by Melanie Penson.

The laudable aim of this series is to cover the aberrations of all of our butterfly species in individual publications. Some groups are less prone to aberration than others; the skippers and hairstreaks for example, and these will be covered collectively.

Both books provide very intimate pictures of the early life stages as well as a comprehensive series of excellent quality photographs of both upper and under sides of virtually all the known aberrations.

I say virtually because, in a few cases, only the one individual aberrant butterfly exists or existed and which has proved impossible to track down. It is clear that the author has carried out a very thorough examination of museum specimens and private collections all over the country; some of which are historic whilst others are more recent. I note that some Ringlets were provided by Mr. M.C. White from South Yorkshire.



Some aberrations are very striking: a Comma ab 'castanea' or Ringlet ab 'ochracea' won't escape notice for long. The majority are far more subtle, especially the Ringlet where most of the aberrations involve the spotting (or lack of it) on the underwings, shape and number of spots as well as background colour. There is also a wide variation in the shape of the eponymous Comma, some of which form a complete circle.

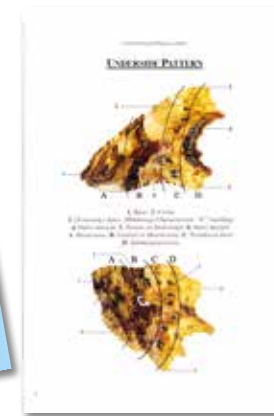
Neither book covers genetics or other reasons for aberration; this is amply dealt with in Russwurm and Harmer and there is no need to repeat this information here.

These two books provide the best and most complete series of aberrations that exists in our butterfly literature. It will certainly inspire me to look more closely at the butterflies I see.

The *Aberrations of the Orange-tip* is the next publication in the pipeline, although the current restrictions have hampered the author's research through lack of access to museums and other collections.

I heartily recommend these two books to anyone with an interest in the aberrations of our butterflies. It certainly promises to be a very informative and exciting series.

Both books *Abberations of the Comma* and the *Ringlet* are available to BC members at a reduced rate of £12 each plus p&p, please contact Paul Dunn at: [ctmpublications@gmail.com](mailto:ctmpublications@gmail.com)





## Hunting for Hairstreak ova – the antidote to the Winter butterfly blues!

The down side of living at Northern European latitudes is that butterfly activity virtually grinds to a halt as we endure 4-5 months of Winter weather (Nov-Feb) with limited sunshine and low temperatures – anathema for sun-loving insects! So, what does a keen butterfly enthusiast do during this frustrating period of inactivity on the home front?

It is generally agreed that some of our more elusive butterflies, which spend most of their time out of sight in the tree canopy, are likely to be significantly under-recorded, so alternative approaches are required. This group includes several of our woodland Hairstreaks, notably the Brown, White-letter and Purple varieties. The Purple Hairstreak is probably the most common inhabitant of mature woodland. Indeed, its latin name *Favonius quercus* is derived from the oak genus *quercus*, making it quintessentially the 'Oak Hairstreak'. The spectacle of the frenzied activity of Purple Hairstreaks is one of the true delights of a warm, summer evening and if you have a stand of mature oaks close by, then it is entirely possible to see them flitting around like a silvery, grey confetti high-up amongst the sunlit branches late in to the evening (6-8 pm is a good time to go looking, neck-strain not withstanding!).

However, large numbers of mature trees are not required to support this species and small colonies can be found in a single tree along a sheltered hedgerow, and frequently it is these colonies that go under-recorded. However, the other phases of the butterfly life cycle necessarily continue throughout the year, come rain or shine, with the emergence of the short-lived imago and summer evening gala performances representing just one relatively short punctuation mark in this repeating cycle!

Purple Hairstreak ova are laid on oak buds throughout July, followed by a long period of

dormancy until the larvae emerge in the early Spring to coincide with the oak bud-burst in late March. So, this is really where the story begins! The search for Purple Hairstreak ova began back in November 2019, after the leaves have been shed, in order to monitor the activity of this species on a few local sites within the Nottingham suburbs. Apart from the spectacular annual displays seen in hot-spots in Wollaton Park, occasional sightings are reported elsewhere, but rather sporadically. So, are the numbers significant and where do you look? This started as a process of trial and error with very little initial success. Reports suggested that ova are laid at all heights, but searching is inevitably limited to accessible branches below head-height. After a few positive outcomes, some clear rules started to emerge and success rates began to increase as I got my eye-in! Start looking on low-hanging south-facing branches in sheltered spots which receive full sunshine. Although generally laid singly, several groups of two have been spotted, and these are invariably on the underside and at the base of plump oak buds, and occasionally close-by on a stem. Many were found on relatively immature trees on the edge of woodland, or within a hedgerow, a number as low as knee height in one patch of oak saplings. Eventually, over a dozen were identified over a few hundred metres of tree-line, notably in places where butterflies had never previously been observed!

In late Autumn, the eggs are a relatively clean, white bun-shape, measuring less than a 1mm in diameter with a delicate sea urchin like pattern of spines over the surface with a central dimple. As the Winter progresses, spotting gets more difficult as they become discoloured by algal growth and encrusted with other organic materials. Predation rates seemed to be quite high over the Winter months, although the exact origin remained elusive. Some may simply have been washed away and others eaten by

other insects and birds. By February about two thirds could still be located. The most surprising observation occurred in early February after a week of milder weather. In front of my eyes, one larva ate its way out of its shell and then wandered around on the adjacent oak bud (see picture), well before there were any signs of the bud opening. With no food source to hand, it unexpectedly retreated to its vacated egg shell and crawled back in side, its black head visible through the opening! (see picture).



We can speculate that this behaviour possibly reflects the impact of climate change on the synchronisation of larval emergence and oak bud-burst! I returned to the spot several days later to find that the shell was empty, but could not find the tiny larva close by. Subsequent examination revealed that several other ova on adjacent stems had also hatched during this early February period, but the larva could not be located. It remains possible that they had either perished, or found a resting place in which to enter 'suspended animation' (or a diapause) until the tree buds opened later in the month, as other recent studies have suggested.

Fortunately, most of the remaining ova hatched about 6 weeks later and could feed on the bursting tender oak buds. A characteristic of the tiny 1st instar PH larva is to drill into the soft tissue then becoming extremely difficult to spot. A couple of weeks later, and after much perseverance, two 2nd instar larvae (now 3mm in length) were identified feeding on developing oak buds (late April), their pale markings providing the perfect camouflage. The entire life cycle was recorded as they grew and transformed ultimately in to the stunning rich brown and red colours of the final (4th instar) in early May, at each stage adapting to the colour scheme of its surroundings. I should say at this

point, that this entire process was recorded in situ. However, at the end-point one of the final instar larva (now 15mm in length) was removed from its original oak bud and the final act of pupation observed on some dried oak leaf litter. After a further two weeks the pupa began to 'colour-up' showing clear signs of the encased butterfly, before hatching to a beautiful female on the morning of 9th June. That afternoon the stunning imago female was released within a metre of where the original ovum had been laid. It happily fluttered high up to rest in the oak from where it had all begun the previous year!

Where did all of this get us? Well, on this particular site over a dozen ova were identified along a stretch of hedgerow and treeline in many spots where butterflies had not previously been identified, suggesting that although elusive, there appears to be an active population in this area. Winding the clock forward 12 months to Autumn 2020, I began the same hunt in November and over the following 3 months identified approx. 10 ova in very similar locations, some within centimetres of the previous year's sites! The numbers were smaller and certainly much more localised, with key outliers absent. Overall, it was gratifying to see a good level of activity given that I had completely failed to spot a single butterfly on the wing at any of these spots during the summer of 2020. It was also re-assuring that none of the ova identified appeared to have prematurely hatched in early February, indicating that the unusual weather pattern from Feb 2020 had not been repeated in 2021. So, Winter egg hunting has provided valuable insights regarding the local population of one of our woodland Hairstreaks and a valuable off-season 'butterfly activity'! Although Purple Hairstreak egg counts are not yet used by the UKBMS for data gathering, this is now (since 2016) standard practice for Brown Hairstreaks and is indicating that this rare butterfly may be more numerous and widespread than previously recognised! Alas, it may be some while before this rarity becomes a regular sighting in the East Midlands, but we always live in hope!

Photographs on page 22

Mark Searle



Figure 1: Purple Hairstreak ova located on or close to healthy oak buds (a-c).



Figure 2: Egg laying sites (circled) found low down amongst oak saplings on a local nature reserve (a); a 2nd instar larva (3mm) found roaming on an opening oak bud (b); the same larva at the 4th instar stage (10mm) beautifully camouflaged against its surroundings (c) (early May, 2020).

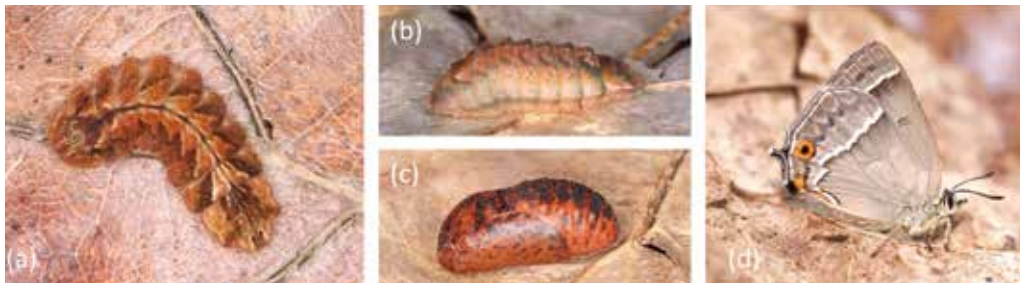


Figure 3: The stunning rich colours of the 4th instar larva on a dried oak leaf (a); the larva begins to pupate becoming paler and pinker in colour with green/purple bands beginning to show through (b); the pupa stage with wing formation evident (late May 2020) (c); a stunning female imago emerges from the dried leaf litter in early June (d).

All photographs were taken by the author: marksearle1959@outlook.com

Mark Searle

## East Midlands Butterfly Conservation Committee Members

|  |   |  |
|--|---|--|
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The views expressed within this newsletter are not necessarily those of the Editor, the Branch or of Butterfly Conservation nationally.

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## 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 **XX April 2021** the Branch has **XXXX** Household members representing a figure of **XXXX** Individual members.





## Derbyshire Transect Summary

Transect Sites in the Summer of 2020

| BUTTERFLY SPECIES                    | Butterfly Numbers | Total sites seen | Average per site | Highest total count per species/ per site                             |
|--------------------------------------|-------------------|------------------|------------------|---|
| 1. Small Skipper                     | 4267              | 95               | 45               | 272 no - Pleasley Pit/ 248 no - The Forge (Site 2), Ironville         |
| 2. Essex Skipper                     | 617               | 44               | 14               | 157 no - Pleasley Pit/ 130 no - Manor Farm, Long Eaton                |
| 3. Large Skipper                     | 1699              | 86               | 20               | 122 no - Markham Pit South/ 91 no - Cuningdale                        |
| 4. Dingy Skipper (BAP)               | 621               | 41               | 15               | 104 no - Tansley Dale/ 72 no - Hoe Grange Quarry                      |
| 5. Clouded Yellow                    | 18                | 5                | 4                | 8 no - Blackwell Trail/ 6 no - Woodside NR, Shipley                   |
| 6. Brimstone                         | 732               | 66               | 11               | 120 no - Tansley Dale/ 73 no - Pleasley Pit                           |
| 7. Large White                       | 5836              | 102              | 57               | 195 no - Doe Lea/ 185 no - Broomfield College                         |
| 8. Small White                       | 9589              | 104              | 92               | 265 no - Markham Pit North/ 227 no - Linton Paradise Wood             |
| 9. Green Veined White                | 6335              | 101              | 63               | 296 no - Manor Farm, Long Eaton/ 261 no - Lathkill Dale NNR           |
| 10. Orange-tip                       | 1798              | 77               | 23               | 131 no - Tansley Dale/ 129 no - Mapleton                              |
| 11. Green Hairstreak                 | 257               | 10               | 26               | 140 no - Tansley Dale/ 46 no - Cuningdale                             |
| 12. Purple Hairstreak (BAP)          | 45                | 9                | 5                | 26 no - Williamthorpe NR/ 5 no - Cromford Canal Central               |
| 13. White Letter Hairstreak (BAP)    | 37                | 8                | 5                | 26 no - Markham Pit North/ 3 no - Tansley Dale                        |
| 14. Small Copper                     | 659               | 77               | 9                | 72 no - Clover Close, Elvaston C P/ 45 no - Tansley Dale              |
| 15. Brown Argus (Migrating)          | 49                | 17               | 3                | 10 no - Aston Brickyards LNR/ 8 no - Pleasley Pit                     |
| 16. Brown Argus (Peak District Race) | 145               | 9                | 16               | 48 no - Lathkill Dale NNR/ 41 no - Cuningdale                         |
| 17. Common Blue                      | 2892              | 82               | 35               | 238 no - Hoe Grange Quarry/ 215 no - Markham Pit South                |
| 18. Holly Blue                       | 126               | 39               | 3                | 20 no - Creswell Crags/ 8 no - Findern Footpaths                      |
| 19. Red Admiral                      | 1200              | 99               | 12               | 122 no - Lathkill Dale NNR/ 61 no - Hoe Grange Quarry                 |
| 20. Painted Lady                     | 69                | 38               | 2                | 7 no - Hoe Grange Quarry/ 6 no - Hardwick Hall Gardens                |
| 21. Small Tortoiseshell              | 6685              | 103              | 65               | 569 no - Ferneydale/ 381 no - Hoe Grange Quarry                       |
| 22. Peacock                          | 4667              | 102              | 46               | 237 no - Bottom Moor Wood, Matlock Moor/ 195 no - Ferneydale          |
| 23. Comma                            | 947               | 94               | 10               | 52 no - Aston Brickyards LNR/ 47 no - Carr Vale NR                    |
| 24. Dark Green Fritillary            | 530               | 15               | 35               | 131 no - Tansley Dale/ 93 no - Millers Dale Quarry                    |
| 25. Silver Washed Fritillary         | 80                | 10               | 8                | 54 no - Whitwell Wood/ 7 no - Hilton Gravel Pit NR                    |
| 26. Speckled Wood                    | 4428              | 44               | 100              | 273 no - Manor Farm, Long Eaton/ 231 no - Whitwell Wood               |
| 27. Wall Brown (BAP)                 | 153               | 25               | 6                | 51 no - Hoe Grange Quarry/ 15 no - Horseshoe Quarry, Eyam             |
| 28. Marbled White                    | 37                | 6                | 6                | 12 no - Clough Wood; 9 no - Pleasley Pit                              |
| 29. Gatekeeper                       | 5676              | 97               | 59               | 288 no - Pleasley Pit; 282 no - The Forge (Site 2), Ironville         |
| 30. Meadow Brown                     | 23978             | 104              | 231              | 1406 no - Clover Close, Elvaston CP/ 1200 no - Cinderhill, Shipley CP |
| 31. Ringlet                          | 13500             | 102              | 132              | 1117 no - Ferneydale; 1015 no - Pleasley Pit                          |
| 32. Small Heath (BAP)                | 4943              | 56               | 90               | 482 no - Tansley Dale; 377 no - Hoe Grange Quarry                     |
| <b>Total Numbers Seen</b>            | <b>102615</b>     |                  |                  |   |

|                               |             |
|-------------------------------|-------------|
| <b>Total Transects Walked</b> | <b>1962</b> |
|-------------------------------|-------------|

|   |           |
|---|-----------|
| <b>Av no of butterflies seen per transect</b> | <b>52</b> |
|---|-----------|

|   |            |
|---|------------|
| <b>No of sites monitored (30 in Peak)</b> | <b>104</b> |
|---|------------|

|   |                     |
|---|---------------------|
| <b>Most Common Species on transects</b> | <b>Meadow Brown</b> |
|---|---------------------|

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| <b>Changes to sites during 2020 compared to 2019</b> |
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| 24 Sites had increases in butterfly numbers recorded |
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| 65 sites had decreases in butterfly numbers recorded |
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| 4 sites had no change in butterfly numbers |
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|                                     |
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| 11 sites were new transects in 2020 |
|-------------------------------------|