

# *the* Comma

No.111 Winter 2021/2022

Regional Magazine of West Midlands  
Butterfly Conservation



## **Butterfly behaviour:**

*Its impact on conservation*

## **Branch AGM:**

*Guest speaker Dave Goulson*

*Bringing butterflies and moths back to Britain • [www.westmidlandsbutterflyconservation.wordpress.com](http://www.westmidlandsbutterflyconservation.wordpress.com)*



# Chairman's Address



Michael Southall

former West Midlands Branch Chair, has now kindly taken on the role, for which we are very grateful. Thanks are again due to **Peter Seal** for his ongoing help with financial matters.

It has been decided to hold the Branch AGM online again, following the success of last year's meeting. The date has been set as 14 May 2022, from 11am until 1pm. Professor Dave Goulson, author of many environmental books including *Silent Earth*, is due to be the main guest speaker (see pages 4-5). Originally from rural Shropshire, he is now Professor of Biology at Sussex University.

## Staff and projects

Butterfly Conservation has appointed a full-time Midlands Landscape Officer to work alongside **Rhona Goddard**. We welcome **Natalie Norton**, who has moved from her previous job as Senior Conservation Officer for Birmingham and Black Country Wildlife Trust. Her main tasks are to support our volunteers to manage BC's regional reserves and implement the Severn Trent Butterfly Mosaics project (see Comma 110), with an overall



**Butterfly Conservation**

**Company limited by guarantee, registered in England (2206468)**

Registered office: Manor Yard, East Lulworth, Wareham, Dorset BH20 5QP.

**Charity registered in England & Wales (254937) and in Scotland (SC039268)**

## Five-year strategy

As I mentioned in my previous address, Butterfly Conservation has recently announced its 2026 strategy. The Vision is: a world where butterflies and moths thrive and can be enjoyed by everyone everywhere.

The three goals are to:

- Halve the number of threatened species among the UK's butterflies and moths
- Improve the condition of 100 of the most important landscapes for butterflies and moths
- Transform 100,000 wild spaces in the UK for people, butterflies, and moths.

The challenge is to turn these ambitious goals into reality by contributing in any way we can. Our Committee will be looking closely at what this may mean for our work in the West Midlands.

## Committee meetings

The Committee has arranged to meet in January for the first time since March 2020. Unfortunately, **Peta Sams** was unable to take up the role of Treasurer as had been hoped but continues to strongly support our work at a local level in Shropshire. **Ian Duncan**, a

## Cover story

*Lasius niger* ants on Silver-studded Blue, by **Nigel A Ball** (see pages 20-21)

## Contributions

Please send articles and images to the Editor. Photographs should be as high-resolution as possible and sent as separate files (not embedded in a document).

Our copy deadlines are  
Spring - 28 February  
Autumn - 31 August  
Winter - 30 November  
(early submissions are welcome).  
Contact the Editor for more information.

Editor: Marian Newell,  
comma.editor@newellporter.co.uk

## Publisher

Butterfly Conservation West Midlands Branch. The opinions expressed in this magazine are not necessarily those of the Branch or of Butterfly Conservation.

 BC West Midlands Butterflies and Moths

 Butterfly Conservation West Midlands

 @BC\_WestMids

 westmidlandsbutterflyconservation.wordpress.com

focus in the West Midlands.

There are many ongoing projects in the region, including the **Pearl-bordered Fritillary** project in the Malverns. Countryfile's **Matt Baker** filmed with **Mel Mason** on the Malverns recently, for an episode broadcast on 12 December. With viewing figures of 4.5 million, that's really reaching out! Well done to Mel and the violet volunteers, not forgetting the stars of the show – the caterpillars! Good progress has also been made on the Scarlet Tiger project on Roman Road Stourbridge, with support from the Ibstock Enovert Trust (see pages 6–7).

### *Moth recording*

Peter Hall, the Herefordshire County Moth Recorder (CMR), is due to speak about the West Midlands online moth atlas at the annual moth recorders' meeting. This event is being held online again, as it was last year, on 29 January.

The verified moth records for 2020 have recently been added to the atlas – thanks to the CMRs for helping to keep it as up to date as possible. The website continues to be both useful and inspirational. Please consider becoming a Golden Cinnabar Member to contribute to the ongoing running costs and to gain access to more detail. The suggested donation is £20 a year; find out more at [westmidlands.moths.co.uk/login\\_recorder.php](http://westmidlands.moths.co.uk/login_recorder.php)

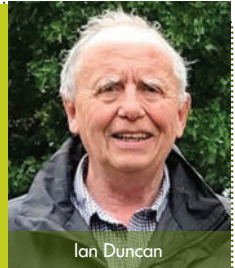
If you fancy some fresh air and exercise to counteract the effects of Christmas, then look out for work party information in the event calendar.

I hope that you enjoy this edition of the *Comma*, and that it brightens up some winter days.

.....  
**Michael Southall** Branch Chair

## New Branch Treasurer

I was chair of our Branch from 1998 to 2005 and a member of BC's National Council from 2003 to 2005. In the past five years, I've helped edit *The Butterflies of the West Midlands*, *The Moths of the West Midlands* and *The Nature of the Malverns*.



Ian Duncan

As well as being an enthusiastic butterfly recorder, I'm heavily involved with moth recording and in 20 years have noted over 650 moth species in my garden.

Since 2020, I've been helping Mel Mason with the reintroduction of the Pearl-bordered Fritillary to the Malverns. Currently, I'm over-wintering 20 caterpillars that hopefully will be released on the hills next spring.

Another of my passions is helping conserve the rapidly declining breeding Curlew population in Worcestershire.

Ian Duncan. [erebia13@gmail.com](mailto:erebia13@gmail.com)

## New Landscape Officer for the Midlands

I'm thrilled to have taken flight in my new role of Midlands Landscape Officer with Butterfly Conservation. My role will involve supporting and leading volunteer work parties on BC nature reserves in the Midlands region, overseeing site contractors on habitat management works and, of course, monitoring key species in the survey season (fingers crossed for good weather conditions).



Natalie Norton

Natalie Norton. [nnorton@butterfly-conservation.org](mailto:nnorton@butterfly-conservation.org)

**Editor's correction** Comma 110, page 24: I apologise to **Martin Harrison** for an ambiguity introduced in editing. The alpine meadows heaving with butterflies were 18 miles south of the location described in the first paragraph.

# Branch AGM Saturday 14 May 2022 • 11am to 1pm

With Guest Speaker **Dave Goulson**

**The Plight of Insects, and what we can do to help them**

Highlight the date in your diary and don't miss this opportunity to hear our excellent speaker and his timely message.

Given the large geographical area covered by West Midlands Butterfly Conservation and the success of Martin Warren's talk at last year's AGM, the Committee has decided to hold our 2022 AGM and Members' Day via Zoom again. One advantage of holding our meeting online in this way is that it avoids members having to travel some distance and enables them to take part from the comfort of their own homes. In this way, we hope that more of our members will be able to take part and hear at first-hand about some of the exciting activities we have planned for the year ahead. Last year's AGM attracted at least twice the average attendance of when we've held meetings in the normal way.

Another advantage is that it means that we can attract top speakers such as Dave Goulson, who live some distance away from our region and would not

easily be able to attend a meeting in person. In these times, when we need to think about both climate change and the welfare of our members, online is a much more environmentally friendly and healthy way of running our meetings. We'll be sending out joining details nearer the time, and also further publicising the event on social media, but do make a note of the date and we look forward to seeing you.

## The Branch Committee

**Dave Goulson** is Professor at the School of Life Sciences, University of Sussex. He is also founder of the Bumblebee Conservation Trust, and a much sought-after speaker on insect behaviour, environmental issues and climate change. He is the author of six popular wildlife books – three about bees, two on insects and his most recent, *Silent Earth*, is an extremely well researched description of the plight of insects and 'the simple steps we can all take to encourage insects and counter their destruction'.



Dave Goulson

# Silent Earth - Averting the Insect Apocalypse

- **ISBN:** 9781787333345 • **Author:** Dave Goulson • **Publisher:** Jonathan Cape
- **Publication date:** August 2021 • **Cost:** £20 • **Format:** Hardback, 336 pages (paperback and ebook also available)



This book is a thought-provoking read, filled with fascinating and in some cases mind-blowing information about insects... 'the overall weight of ants on the planet is roughly similar to the total weight of humans'. Insects play a crucial role in the world's ecosystems and food chains. Not only does Dave Goulson point out that we cannot live without them, he also highlights the devastating ignorance of most people (present company excepted) with regard to their importance, graphically illustrated by an Australian radio presenter: 'So insects are disappearing... that's a good thing, isn't it?' Even worse, Lord Winston's remark about global declines: 'There are quite a lot of insects we don't really need on the planet.' Some people seem to see insects simply as pests and irritations, just as with media interpretation of every moth as a clothes moth!

The author goes on to explore all the evidence and reasons for insect losses and the effects. Among a wealth of information, salutary facts jump out at you, especially about pesticides: 'each field or orchard in the UK is now, on average, treated sixteen times annually... this could be the same pesticide... or sixteen different pesticides each applied once.' The effects of herbicides, fungicides, monocultures and many other man-made interventions are detailed, as well as the effect of climate change.

This is not a comforting read, but it is a gripping one. The author intersperses and lightens his main theme with snapshots of particularly fascinating insect species and their behaviour. The final part looks at what actions we can take to change the situation; this is where we all come in and it's going to be the hard part, but we need to back people like Dave Goulson to fight the insects' corner before it's too late.

**Liz Lloyd** Branch Volunteer



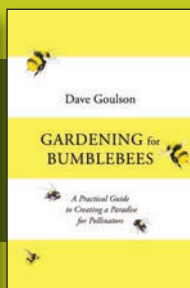
**Sting in the Tail...**  
'Enormously informative, hugely entertaining, this is essential reading.'  
*The Independent*



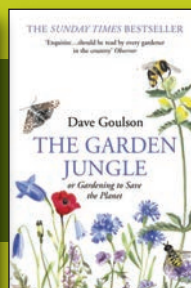
**A Buzz in the Meadow...**  
'Wonderfully entertaining... engages with the reader as much as with the eloquence of its argument as with the charm of its humour.'  
*Mark Cocker, Mail on Sunday*



**Bee Quest...**  
'Going on Bee Quest with him puts the natural world within our reach – to enjoy but also to protect...this is a truly positive and empowering read.'  
*Laline Paull, The Observer*



**Gardening For Bumblebees...**  
'Go on, have a flutter! Take a few tips from the new book by biologist Dave Goulson and it's a safe bet that beautiful butterflies will start gathering in your garden.'  
*Daily Mail*



**The Garden Jungle...**  
'This book will teach you a great deal about the creatures that live right outside your door and are waiting for you to get to know them. It is a constant revelation.'  
*John Carey, The Sunday Times*

# An Autumn

News from two projects working hard to achieve transformation in both habitats and outlooks.

Wild About Stourbridge  
A butterfly made from leaves

## Wild about Stourbridge

This Autumn term, Wild About Stourbridge has taken our nature engagement directly to young people at a Stourbridge secondary school. Thanks to support from Butterfly Conservation and Creative Black Country, we've worked with local professional artists to provide creative workshops, including painting, photography, craft and music.

All of the artists have explored the theme of Metamorphosis, using the inspiration of the journey from caterpillar to butterfly, and looking more generally into how we all transform and change throughout our lives. We started the project by planting a new wildflower border with the students at Redhill School, transforming an unloved patch by the visitor car park and adjoining train line into what will be an abundant display of flowers

for pollinators by spring.

The students got really stuck in; digging, finding worms, picking which plants went where, and learning the names of them too! We'll be working with the same group of students throughout the project, allowing us to track and reflect on their individual journeys along the way. We'll be sharing updates and pictures on our Facebook page, so do head there to see what we've been up to!

Meanwhile, you can see here some of the artworks being created by the students. I think that perhaps you can only really appreciate the true natural beauty of a butterfly after you've painted one of your own.

---

Article by **Hayley Guest**

Photographs by **Wild About Stourbridge**

Find out more at [facebook.com/wildaboutstourbridge](https://facebook.com/wildaboutstourbridge)

# of Change

## Scarlet Tiger Project at Roman Road

Volunteers on our **Scarlet Tiger Project** in Stourbridge have been working hard preparing the groundwork and planting wild flowers and hedgerow trees, as part of a grant received from Ibstock-Enovert. Through their Green Care Team, Dudley Metropolitan Borough Council provides a vital partnership in our endeavours to improve this much-loved green corridor for all wildlife. It's been a challenge to plan expenditure and work to meet the very tight time constraints of the grant but we're nearing our goal. The latest major



Scarlet Tiger Project: clearing verges

target was the installation of two information boards, one at a busy intersection with the track leading to Bunkers Hill Wood and the second at an area where we eradicated the invasive Russian vine which was threatening to destroy the hedgerow.

A most exciting development running in tandem with the project is the Wild about Stourbridge initiative, which offers a different kind of connection across Stourbridge generally. The approach from Wild about Stourbridge focuses on creativity and aims to excite the imagination

of the younger generation. Its theme of metamorphosis and change is inspired by the wonder of the life cycle of Lepidoptera. Practical efforts such as planting pollinator friendly wild flowers at local schools run in parallel with the artistic approach – but I'll let one of the leaders, Hayley Guest, tell you more about what they've been doing (see opposite).

Article by **Joy Stevens**  
Photographs by **Scarlet Tiger Project**

Find out more at  
[scarlettigerproject.wordpress.com](http://scarlettigerproject.wordpress.com)



Wild About Stourbridge painting a butterfly



Scarlet Tiger Project: newly installed information board



Feathered Gothic moth: how apt is that?

# Beautiful Burial Grounds

A churchyard or old burial ground may be the most ancient enclosed land in a parish, town or city, making these sites really special for wildlife as well as for people.

The grassland will have been relatively undisturbed, growing and re-seeding naturally for hundreds if not thousands of years. It will have been both scythed for hay and grazed by animals during this time, and won't have been ploughed or treated with chemicals or pesticides. A benefit of this unchanging management is a rich diversity of grasses, flowers and fungi. If managed correctly, these sites can be fabulous for butterflies and moths. With over 20,000 such sites across England and Wales, they have the potential of being a significant haven for many species!

When we are advising groups how to manage their sites, we encourage a

mosaic of grass heights, cut at different times of year. This ensures a continuing source of flowers, and enables some areas to be kept long later into the season (or over winter) to preserve the eggs and caterpillars that are still there. On our website, we have a handout specifically about managing burial grounds for butterflies, moths and other insects (see panel at left).

## *Beautiful Burial Ground Atlas*

As part of our current project funded by the National Lottery Heritage Fund, we have been working with the National Biodiversity Network (NBN) to create a Beautiful Burial Ground Atlas. This enables anyone to find out which species have been recorded



Caring for God's Acre was established in 2000 as a national charity, promoting the conservation of burial sites and supporting the volunteers who look after and maintain them.

[caringforgodsacre.org.uk](http://caringforgodsacre.org.uk)

Monitoring and handout  
[caringforgodsacre.org.uk/15295-2](http://caringforgodsacre.org.uk/15295-2)

Beautiful Burial Ground Atlas  
[burialgrounds.nbnatlas.org](http://burialgrounds.nbnatlas.org)



The photographs show a session held at St Bartholomew's Church, which is part of the National Trust's Benthall Hall property near Much Wenlock. The tutors of the session were Charlie Bell and Tom Hayek.



and verified via iRecord for a particular burial ground. Having this source of publicly accessible, site-specific information can help inform management decisions and inspire more people to get involved in recording.

### Monitoring

What is particularly useful for determining if changes in management are having an impact on the number and variety of butterfly and moths species is to compare the results of transects undertaken at a particular burial ground with all the other monitored sites in an area. **Mike Slater** from Warwickshire Butterfly

Conservation has been trialling a method of monitoring where just four visits to selected churchyards and burial grounds are undertaken (May, June, July and August). Mike has found that, even at this reduced frequency, these transects are still providing useful information and feedback to site managers. There is more information on the results of this method on our website.

We would love to know if you see any butterflies or moths in your local burial ground. Please let us know either by sending an e-mail to [wildlife@cfga.org.uk](mailto:wildlife@cfga.org.uk) or by uploading your sightings into iRecord via our

website.

Alternatively, if you are interested in doing a transect, we would be eager to find out how you get on.

.....

Article by

**Andrea Gilpin**

[andrea@cfga.org.uk](mailto:andrea@cfga.org.uk)

Photographs by

**Caring for God's Acre**

# Finding new ways to help

Llanymynech Golf Club has taken the lead to conserve rare species on its course



Dexter cattle grazing an enclosure (Isobelle Griffiths)

A grant of £91,000 was awarded to the Llanymynech Golf Club by Wales' Nature Networks Fund in order to safeguard rare species of butterfly and limestone grassland. The Llanymynech and Llyncllys Hills Site of Special Scientific Interest (SSSI) includes the golf course which, since grazing by sheep stopped in the 1970s, has become overrun with scrub, dense bracken and brambles.

It was probably a first for a golf club to be the lead partner in a conservation project for butterflies. The SSSI is home to several rare species and

one of the best sites in Wales and West Midlands for butterflies, having currently:

**Dingy Skipper, Grizzled Skipper, Wall, Green Hairstreak, White-letter Hairstreak and Grayling. Pearl-bordered Fritillary and Small Pearl-bordered Fritillary** have been

recorded not long ago on the golf course and are still found locally. Visitors come from far and wide to see the range of butterflies at this special site.

Sadly, thick scrub overwhelms the food plants of the butterflies – mosses and plants adapted to open sunny



Pearl-bordered Fritillary  
(Simon Spencer)



Grizzled Skipper  
(Roger Littleover)



Dingy Skipper  
(Roger Littleover)



Aerial view of Llanymynech Golf Course

# butterflies

conditions – leading to a decline in these rare species and a loss of biodiversity. The project will help restore the unique limestone grassland.

The grant was awarded to the golf club to carry out habitat management work, to cut back the scrub and to introduce some grazing where possible. Annual mowing will also occur in autumn to control bramble and maintain grassland, as well as actions to control the spread of Himalayan Balsam, an invasive non-native weed.

Llanymynech Golf Club should be congratulated in taking steps to improve conditions for the rare plants and butterflies of Llanymynech Hill.

Along with myself, **Isabelle Griffiths**, Environment Team Officer for Natural Resources Wales, is advising on the project. In the spring, we hope to organise walks on the golf course and the nearby Wildlife Trust reserves (details in the next *Comma*). Meanwhile, I'm interested in receiving butterfly records from the site, especially if accompanied by good photographs.

---

Article by **Simon Spencer (Dr)**



## Golf courses as habitats

Golf courses generally have huge potential for butterflies and moths, and West Midlands Butterfly Conservation has worked with a number of golf clubs in our region to improve habitat.



Cleobury Mortimer - planting Devil's-bit Scabious (Mike Williams)

One example is Cleobury Mortimer golf course, which is adjacent to the Wyre Forest. A couple of years ago, we supported the club in planting a range of nectar and larval plants to encourage butterflies, including bugle and wild strawberry. A copy of our Wyre Forest ID chart is displayed in the clubhouse and we have

encouraged golfers to look out for butterflies as they walk the course and record what they see.

Little Lakes golf course, also close to the Wyre Forest, is the location of a wildflower meadow that was developed as part of our Places for Pollinators project. The golf club also planted trees and hedges as part of the BC-led Wyre Forest Facilitation Group.

Another example is a former golf course in Stourport that has been taken over by Wyre Forest Council and is now managed as a local nature reserve known as Burlish Meadows. Some really diverse grassland is developing, which has already attracted several species of Clearwing moths and butterflies including **Brown Argus**, **Marbled White** and **White-letter Hairstreak**.

There is no doubt that many golfers enjoy watching the wildlife they see as they walk the course and we were delighted earlier this year to receive a generous donation from Druids Heath Golf Club in Aldridge towards our work.



Druids Heath Golf Club

If any of our members play golf and think that their local club might be interested in doing more to encourage butterflies and moths, do get in touch by emailing [wmbutterflies@gmail.com](mailto:wmbutterflies@gmail.com)

Silver-studded Blue  
(Nigel A Ball)



# Butterfly of the Year and other awards

## *Off to a bad start*

2021 was a poor year for butterflies overall. A mild winter followed by a spring with above average rainfall and overnight frosts right into May was bad news for many species. While early emergence was a feature of last year, this year saw more typical emergence dates but, for some species, a protracted emergence and flight season. This proved frustrating for members involved in counts of key target species such as **Pearl-bordered Fritillary**, **Wood White** and **Dingy Skipper**; it was difficult to predict when numbers had peaked.

**Green Hairstreak** is a species we've become used to seeing earlier – a sighting in mid-March in 2007 – but this year the first sighting was in late April. It was still on the wing into June and, remarkably, recorded on 28 August on Castlemorton Common; I suspect this is the latest date ever recorded in our region. **Pearl-bordered Fritillary** was also first reported in late April but had a disappointing season, with low counts across the region.



Gatekeeper aberration at Prees Heath  
(Steven Croft)



Common Blue, female (Iain Leach)

The weather continued to frustrate throughout early spring and it seemed easier to find **Orange-tip** eggs than it was to see the adults. Other garden species like **Large**, **Small** and **Green-veined White** and **Holly Blue** emerged late and numbers were low. Away from gardens, the same was sadly true of **Common Blue**, **Brown Argus** and **Small Copper**.

## *Late sightings*

Improved weather at the end of May undoubtedly helped and there was a late flush of some species. Several species were recorded in June that normally disappear before the end of May, such as **Peacock** and **Grizzled Skipper**; there was even a late June sighting of **Dingy Skipper**.

Often these late butterflies looked in surprisingly good nick. With some double-brooded species, it was difficult to distinguish very late specimens from early new generations. For example, a **Brimstone** was recorded on 2 July and, the same week, several **Wood Whites** were still on the wing in Worcestershire. On a more positive note, there was again evidence of **Wood White** dispersing from its newly established populations at Grafton Wood and Monkwood, an encouraging sign that it has colonised our third Worcestershire reserve at Trench Wood, completing the hat-trick.



Purple Emperor *ab. isolata* at Oversley Wood  
(John Devries)



Wall *ab. brandanfelda* at All Stretton  
(Ian Henderson)



Purple Emperor, female (Bob Eade)

## The Awards

Unsurprisingly, we received hugely varying nominations for each category, with little agreement in any category. Some species were nominated for both best and worst performance! Combining members' votes with information derived from transect data and casual recording, the winners (and losers) are:

### Butterfly of the Year

**Silver-studded Blue**

Other nominees: Wall, Speckled Wood, Comma, Brown Hairstreak, Large Skipper, Small Tortoiseshell and Wood White

### Most Improved Performance

**Purple Emperor**

Other nominees: Speckled Wood, Brown Argus, Dingy Skipper, Red Admiral, Small Copper, Orange-tip and Wall

### Wooden Spoon for Worst Performance

**Common Blue** (second year running)

Other nominees: Painted Lady, Brown Argus, Small Copper, Small Tortoiseshell, Grizzled Skipper, Small Pearl-bordered Frillfly and White-letter Hairstreak.

### Most Remarkable Aberration

Wall *ab. brandanfelda*

## Increasing counts at Prees Heath



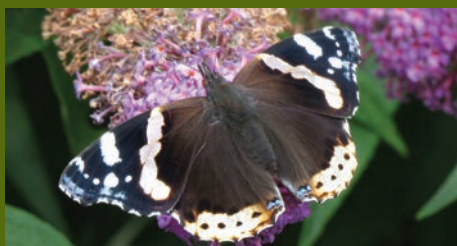
## Better news from Shropshire

The season was excellent for **Silver-studded Blue** and fairly good for **Large Heath**, although many photographers found the latter extremely challenging. At Prees Heath Common Reserve, **Silver-studded Blue** counts on the transect, which was established in 2009, were at a record high. It was particularly pleasing to see counts increasing year by year on the former arable fields (see graph above) – a testament to the outstanding work done by contractors and our volunteers over the last 15 years in recreating heathland where it had been totally destroyed by cultivation.

**Graying** numbers were generally down and, despite huge efforts by volunteers, this species is teetering on the brink of extinction on the Malverns. It will be receiving renewed attention over the next three years, as it is one of the target species for the new Shropshire Commons project in which the Branch is a partner (see *Comma* 110). Already, over the summer, a new population has been confirmed on the Long Mynd – good news indeed.

Finally, better news for **Wall**, with increases at some of its sites.

CONTINUED ON PAGE 14 ►



Red Admiral aberration at Norchard  
(Mike Southall)



Small Pearl-bordered Fritillary ab flavipunctata  
at Cannock Chase (Ray Hurd)

CONTINUED FROM PAGE 13 ►

### Excitement at last

Mid-summer brought reports of **Purple Emperor** at three separate locations in the region. This species appears to be in an expansion phase, although one can never rule out the hand of a breeder (see *Comma* 110). As well as woodland sites, there were also widely dispersed garden records and even one spotted from a car on Fish Hill outside Broadway. Intriguingly, after *Comma* 110's publication, we were contacted by a member who used to live in the Pershore area and recalled seeing a **Purple Emperor** in Tiddesley Wood in the mid-nineties.

One of the most remarkable aberrations of the year, although outside our region was **Purple Emperor** ab *iolata* photographed at Oversley Wood. Other aberrations included a heavily marked **Pearl-bordered Fritillary** at Wyre Forest, a **Gatekeeper** at Prees Heath very similar to the one seen the previous year (see *Comma* 108), a **Red Admiral** with a yellow rather than red band at Norchard, a **Wall** ab *brandanfelda* seen at All Stretton and a **Small Pearl-bordered Fritillary** ab *flavipunctata*. For more about butterfly aberrations, see [ukbutterflies.co.uk/aberrations.php](http://ukbutterflies.co.uk/aberrations.php)

Another species on an upward trend is **Dark Green**

**Fritillary**, which increased at several sites and appeared at others that have had few, if any, recent records. Species like **Silver-washed Fritillary** and **White Admiral** had, at best, an average year.

### Big Butterfly Count hits a new low

The Big Butterfly Count took place in the second half of July and first week of August, as usual. The overall number of butterflies recorded during each count was the lowest since the survey began 12 years ago. This is in spite of there being over 150,000 counts (the most in the survey's history), representing 38,000 hours of counting. Nationally, on average, people counted nine butterflies or moths per count, down from 11 in 2020 and 16 in 2019.

Of the commoner species, only **Meadow Brown**, **Ringlet** and **Marbled White** increased significantly over the previous year. The worst decline was experienced by the **Common Blue**.

To find out more about the Big Butterfly Count results, visit <https://tinyurl.com/2s3bfckz>

### Mixed fortunes in autumn

Some double-brooded species tend to do better in their second generation but, with the possible exception of the 'Whites', this was not the case in 2021. More noticeable was the way that some of them lingered into the autumn: a **Small Copper** was recorded in Hereford in the first week of November.

Another lingerer was **Brown Hairstreak**, seen at Grafton Wood well into October. This species seemed to have a good season, with several sightings away from its hot spots around our reserve. For the first time, eggs were found west of the M5 at Smite Farm, headquarters of the Worcestershire Wildlife Trust, which has plenty of suitable habitat. The species is now established around Redditch and, again for the first time, several adults were spotted in Morton Stanley Park (only eggs have been recorded there before).

Migrant species had another fairly poor year. Numbers of both **Red Admiral** and **Painted Lady** were low, although the former picked up a little and there were late records into November. **Red Admiral** is fast becoming both the first and last species of the year, with a first report this year in mid-February. **Clouded Yellows** were seen in small numbers along the south coast but few appeared to penetrate inland.

Article by Mike Williams

As we prepared this issue, the Omicron variant of Covid-19 threatened to disrupt activities once again. We hope management work can continue, and value every hour you can spare, but please check with organisers before attending events.

## Branch AGM Saturday 14 May 2022 • 11am to 1pm

With Guest Speaker **Dave Goulson**

**The Plight of Insects, and what we can do to help them**

We're holding our annual meeting online again this year, having found the format worked well last year and enabled members from all over our region to hear a very interesting presentation by **Martin Warren**.

The AGM itself will run from 11am to noon, and this year's guest presentation from noon to 1pm. We're delighted to be able to welcome another high-profile speaker and hope you'll all join us if you possibly can. We'll send out joining instructions nearer the time. Meanwhile, see pages 4-5 for more information about **Dave Goulson** and his writing.



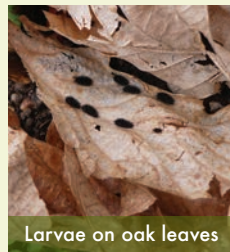
David Goulson



Mel Mason with Matt Baker

### Lost Fritillaries project features on Countryfile

In an episode aired on 12 December, **Mel Mason** (Branch Vice Chair) told **Matt Baker** what we're doing to bring **Pearl-bordered Fritillary** back to the Malvern Hills. He showed dog-violets growing under the protection of uncut bracken on the hillside and how this environment is being simulated in pots to raise larvae for release as adults. Mel did a fantastic job of explaining the work in progress and, with luck, perhaps Countryfile will one day be able to report a stable population in the Malverns.



Larvae on oak leaves

**IMPORTANT: Always contact the organiser before attending an event.**

## Worcestershire

### Ankerdine Hill

Sun: 16 Jan – in partnership with  
Worcestershire County Council  
Contact Mike Williams (07802 274552 ,  
wmbutterflies@gmail.com) or Trevor Bucknall  
(01905 755757, trevor.bucknall@outlook.com)  
10am in a small lay-by on A44 close to the turn  
off to Martley (SO736557)

### Grafton Wood Work Parties

Every Wed to the end of March 2022  
Contact John Tilt: 01386 792458,  
john.tilt2@btopenworld.com  
10am at Grafton Flyford Church; tools  
provided; bring heavy gardening gloves, wear  
appropriate clothing

### Grafton Wood Brown Hairstreak Egg Searches

Sat: 29 Jan  
Contact Simon Primrose: 07952 260153,  
simonjprimrose@aol.com  
10am at Grafton Flyford Church  
Note: There are usually weekly egg searches on  
Thursdays as well.

### Malvern Grayling Work Parties

Tue: 8 Feb, 15 Feb  
Contact Mel Mason: 01684 565700,  
mbg.records@btinternet.com  
10am in North Hill Quarry car park, WR14 4LT  
(SO771469); bring own refreshments  
Note: Booking by email is essential for  
further details or in the event of cancellation

### Monkwood Work Parties

1st Sun: 6 Feb, 6 Mar  
3rd Thu: 21 Oct, 18 Nov, 16 Dec, 20 Jan,  
17 Feb, 17 Mar  
Contact Phil Adams: 01905 610830,  
pdadamsrainbow@gmail.com  
10am in the reserve car park (SO803603), usually  
finished by 3pm

### Penny Hill Landfill Site Work Parties

Sun: 23 Jan, 30 Jan, 13 Feb, 20 Feb  
Contact Mike Williams (07802 274552 ,  
wmbutterflies@gmail.com) or Trevor Bucknall  
(01905 755757, trevor.bucknall@outlook.com)  
10am at the site entrance off Pudford Lane,  
Hillside, Martley (SO752613)

### Trench Wood Work Parties

Sun 23 Jan, 27 Feb, 27 Mar  
Contact Matthew Bridger: 07801 568334,  
bridge1805@btinternet.com  
10am in the reserve car park (SO930588)

### Wyre Forest Work Parties

Sun: 20 Feb  
Wed: 12 Jan, 9 Feb, 9 Mar  
Contact Mike Williams: 07802 274552 ,  
wmbutterflies@gmail.com  
Wednesdays are joint events with Natural England  
10am in Earnwood Copse car park on the B4194  
Bewdley to Kinlet road (SO744784)  
Bring your own gloves and refreshments – tools  
and hand sanitiser will be provided  
Work is mainly removing ride-side coppice to  
benefit Pearl-bordered Fritillary and sometimes  
Wood White.

## Don't forget to check Butterfly Conservation's websites and groups for other events:

- [westmidlandsbutterflyconservation.wordpress.com/events-and-work-parties](http://westmidlandsbutterflyconservation.wordpress.com/events-and-work-parties)
- [www.facebook.com/groups/westmidlandsbutterflyconservation](https://www.facebook.com/groups/westmidlandsbutterflyconservation)
- [www.facebook.com/groups/250738579030862](https://www.facebook.com/groups/250738579030862) (Malvern Butterfly Group)
- [butterfly-conservation.org/events](http://butterfly-conservation.org/events)

**IMPORTANT: Always contact the organiser before attending an event.**

## Herefordshire

### Ewyas Harold Work Parties

Sat: 22 Jan, 19 Feb, 19 Mar

Contact Ian Hart: [yellowrattle4@aol.com](mailto:yellowrattle4@aol.com)

10am at the northern Cwm Hill end of Ewyas Harold Common, adjacent to the top cattle grid (SO382302). Approach from Abbey Dore off the B4347 (SO384306). Bring gloves, hand tools, lunch and a drink.

Tue: 11 Jan, 1 Feb, 1 Mar

Contact Natalie Norton at [nnnorton@butterfly-conservation.org](mailto:nnnorton@butterfly-conservation.org)

11am, other details as above

### UK Butterfly Recorders' Meeting

Saturday, 26 March 2022

[butterfly-conservation.org/butterflies/uk-butterfly-recorders-meeting](http://butterfly-conservation.org/butterflies/uk-butterfly-recorders-meeting)

### Haugh Wood Work Parties

Sat: 5 Mar

Contact Kate Wollen (07786 526280,

[kate.wollen@forestryengland.uk](mailto:kate.wollen@forestryengland.uk)) or

Robin Hemming (07501 020605,

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

9.30am in the reserve car park on minor road from Mordiford to Woolhope (SO592365)

## Shropshire

Work to benefit **Small Pearl-bordered Fritillary** has been done in the Shropshire Hills this year as part of the Stepping Stones project, funded by People's Postcode Lottery. Guided walks were run for the project in the summer.

### Prees Heath Common Work Parties

Wed: 19 Jan, 16 Feb and 16 Mar

Contact Natalie Norton: [NNorton@butterfly-conservation.org](mailto:NNorton@butterfly-conservation.org)

10.30am on the access track opposite the Steel Heath turning off the A49 (SJ557363) – 3.30pm finish.

### Telford Millennium Nature Reserve Work Parties

Weekly work parties on Tuesdays and Thursdays, depending on people's availability.

Please contact Peter Mcnee for details if you would like to help: 07730688924 or [Peter.Mcnee@groundwork.org.uk](mailto:Peter.Mcnee@groundwork.org.uk)



Norbury Hill Guided Walk



Black Rhadley Work Party



Corndon Work Party



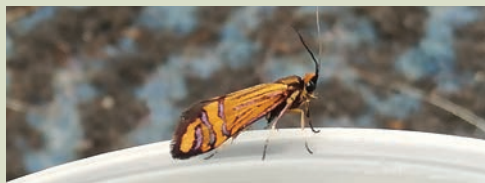
Stiperstones Guided Walk

## A new moth for the UK!

County Moth Recorders expect a few new species for their county to be reported each year. For example, we had five in Staffordshire last year. However, to have one new to the British Isles in the county is a rare occurrence indeed, yet we've had two in the past eighteen months! The first was a species of *Eris* that was reported in *Comma* 107. Then, in October 2021, I received an email from **Paul Humphries** of Abbey Hulton in North Staffordshire, together with this photograph. It was a moth that he found in a terrarium that he was using to house Poison Dart Frogs!

I knew that it was a species of *Nemophora* or longhorn moth but couldn't place it. **Patrick Clement** thought that it looked like *Nemophora ochsenheimerella* but said that it wasn't on the British list. I sent the photograph to **Colin Plant** who confirmed the identification, and that it was new to the UK, and offered a couple of contacts for me to follow up.

The moth is a species found across the Palaearctic region, reaching as far west as The Netherlands, Denmark and Eastern France. It is associated with Silver Fir (*Abies alba*) in mountain and lowland forests,



***Nemophora ochsenheimerella* (Paul Humphries)**

where it spends two years as a larva. The first year is spent inside a pine needle before the larva drops to the leaf litter, where it feeds for the next year, emerging as an adult from May to July.

The intriguing question is how it found its way to a terrarium in North Staffordshire and, also, why was it flying in October? One possibility is that the larva came in with the oak leaves that Paul gathers for his frogs and emerged prematurely because of the temperature and humidity controls in place. If that's the case, there must be a small population in the area but where did they come from – on imported trees perhaps? I guess we will never know.

Paul, a non-entomologist, is to be congratulated for having the presence of mind to take a photograph.

Article by **Dave Emley**

Emley, D.W. 2021. *Nemophora ochsenheimerella* (Lepidoptera: Adelidae) new to the British Isles *Entomologist's Rec. J. Var.*, 133: 264 266

## Birmingham and Black Country

### Scarlet Tiger Project Work Parties, Stourbridge

Every 3rd Fri: 21 Jan, 18 Feb, 18 Mar

Contact **Joy Stevens**: 01384 372397, [joystevens@blueyonder.co.uk](mailto:joystevens@blueyonder.co.uk)

10am at a location posted on the notice board at the northern (crematorium) end of Roman Road (SO885834)



## UK Moth Recorders' Meeting

Saturday, 29 January 2022 via Zoom

[butterfly-conservation.org/moths/](https://butterfly-conservation.org/moths/uk-moth-recorders-meeting)

[uk-moth-recorders-meeting](https://butterfly-conservation.org/moths/uk-moth-recorders-meeting)

Advance registration required

## Staffordshire

### Cannock Chase Work Parties – Dingy Skipper

Sun: 30 Jan, in partnership with Staffordshire County Council

Contact **Rob Taylor**, Countryside Ranger: 07817 122760, [robert.taylor@staffordshire.gov.uk](mailto:robert.taylor@staffordshire.gov.uk)

10.30am outside Rangers Bungalow, Marquis's Drive, Cannock, WS12 4PW (SK005153) – 3pm finish

**IMPORTANT: Always contact the organiser before attending an event.**

# A Year Chasing Butterflies

## PART TWO

In Comma 109 we challenged members to see if they could locate all 40 butterfly species that occur in the West Midlands region. Kidderminster member Craig Jones achieved this and more.

### July

01 Jul. Trip with **Dave Williams** to Glaphthorn Cow Pastures, Northamptonshire for **Black Hairstreak**. A successful trip, but only just with a mere three individuals seen. **Small Skipper** was also added to the year list when we made a quick visit to the nearby Dowhaws Wood Nature Reserve.

02 Jul. **Dark Green Fritillary** at Harbury Spoilbank, Warwickshire and **Purple Emperor** at Oversley Wood, Warwickshire (another introduced population)

09 Jul. Another trip to Oversley. The previous evening I'd seen a twitter post which simply said 'Purple Emperor ab at Oversley Wood'. I could see straightaway from the photograph this was no ordinary specimen. Butterflies sometimes produce forms, called aberrations, which differ considerably from the norm; this was definitely such a beast.

I arrived at the wood at about 10am. A retired GP from Devon was already there, armed with a one-litre plastic bottle filled with some light-brown goo. This turned out to be liquefied tinned tuna in brine. He proceeded to splash this about along the paths in order to lure Emperors from the canopy. Whether this actually worked I have no idea but it seemed to me the butterflies we saw that day were nowhere near the fishy deposits. A small band had assembled, including Dave's brother

Black Hairstreak



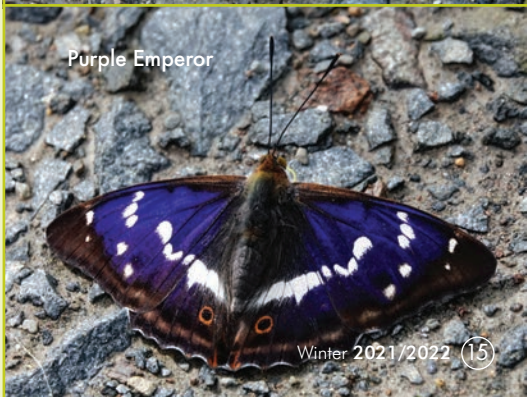
Dark Green Fritillary



Purple Emperor aberration



Purple Emperor



CONTINUED ON PAGE 16 ►

Essex Skipper



High Brown Fritillary



Chalkhill Blue



**Steve Williams**, another WMBC member, plus several other familiar faces. Then, nothing happened... for about an hour. Finally, an Emperor was seen on the path, a pristine male but with the usual markings. A little later another male descended, and this was indeed the aberrant form – cameras went into overdrive. I posted my photo on Twitter that evening and **Matthew Oates**, the Purple Emperor expert-in-chief, pronounced it somewhere between the named aberrations *afflicta* and *lugenda*. I shall probably never see its like again.

13 Jul. A walk around Trench Wood with birder, butterflyer and all-round top amateur naturalist, **Lloyd Evans** produced my first **Purple Hairstreak** and **Gatekeeper** of the year.

14 Jul. **Essex Skipper**. Hartlebury Common, Worcestershire.

15 Jul. Trip to Arnside Knott, Cumbria, with Steve and Dave W: the main target perhaps the UK's rarest butterfly, the **High Brown Fritillary**. We arrived at about 9.30am and took a path down to a small area of bracken. Almost immediately a fritillary was seen whizzing around but it turned out to be a Dark Green. Both species are on the wing at the same time and are notoriously difficult to tell apart in flight. However, some did settle, albeit briefly, for ID and photographs. A walk over the Knott also gave us a handful of **Northern Brown Argus** and numerous **Grayling**.

21 Jul. The UK had entered a heatwave and temperatures soared to over 30°C. Only an idiot would go butterflying in such weather, so off I went to Baggeridge Country Park, Staffordshire, to meet **Dave Martin**, who had kindly offered to help me find one of my bugbear butterflies, the **White-letter Hairstreak**. I always struggle to see this species but Dave assured me he'd seen them there for the past

Arnside Knott



three years and knew the hotspot (literally, as it turned out). We met at 3pm, walked to the location and waited, and waited, and then waited a bit more. The contents of my double-insulated water bottle had nearly evaporated when a single White-letter came down to a thistle for about three minutes. Butterfly seen, I returned home to recover from sunstroke.

26 Jul. **Chalkhill Blue**. Nottingham Hill, Gloucestershire.

## AUGUST

01 Aug. Trip to Trench Wood. Excellent views of female Silver-washed Fritillary form *valezina*.

12 Aug. After failing on the 4th during a solo trip, I visited Grafton Wood with Dave W looking for the elusive **Brown Hairstreak**. During the four hours we were there, we managed to see one male (spotted by Hawkeye Dave) nectaring on Hemp Agrimony. Brown Hairstreaks are always a challenge at Grafton, so seeing one after only two visits is good going.

13 Aug. Trip to Aston Rowant, Oxfordshire, with Dave W for the **Silver-spotted Skipper**. The weather was warm enough but overcast, which actually helped as the skippers were more approachable. By lunchtime, the weather began to close in and the wind picked up: mission accomplished, we beat a hasty retreat back up the M40.

At the time of writing, I've seen 52 of the UK's 59 species of butterfly – my best-ever annual total. In past years, I've seen Swallowtail and Clouded Yellow, bringing my total list to 54. Five species elude me, but not for long – bring on the summer!

.....  
Article and photographs by **Craig Jones**

**Valezina**



**Brown Hairstreak**



**Silver-spotted Skipper**



# Understanding butterfly

Peter Eeles, author of *Life Cycles of British & Irish Butterflies*, provides an introduction to a group of articles about behaviours seen in particular species.



Orange-tip egg at Woolhampton Gravel Pits



Swallowtail larva at Thatcham (reared)

A love of butterflies often starts with an interest in the Adult creatures, and usually in childhood. The sight of tens of **Red Admirals** feeding on rotting plums under a particularly productive tree on my uncle's allotment has remained with me for over 50 years!

That interest can then lead you in all sorts of directions. For some, the pleasure of photographing these beautiful creatures is sufficiently fulfilling; for others, really getting to know their subjects in detail is equally rewarding. For myself, undertaking a detailed study of the immature stages of all our resident and regular migrant species was the most challenging, time-consuming, and rewarding 'project' I've ever undertaken. I emerged with a much better understanding of the butterflies with which I was so enamoured.

The articles that follow this one will take you on a similarly detailed path by examining the behaviours of a selection of species.

## Eggs

Somewhat surprisingly, there are behaviours (in the

loosest sense) associated with all the different stages of the butterfly life cycle. Many readers will be familiar with the change in colour of an **Orange-tip** egg as it matures, from a rather inconspicuous greenish white to bright orange. The orange colour is thought to alert a female to the presence of an egg so that another is not laid on the same plant. This characteristic is thought to ensure better survival rates, given that the young larvae are highly cannibalistic, and also means the food plant is not stripped bare before any larvae make it to maturity.

I simply put the camera to one side and enjoyed the miracle that was unfolding before my eyes

## Larvae

Many larvae exhibit interesting behaviours – the fleshy orange osmeterium\* that is exposed by a Swallowtail caterpillar when threatened is among the strangest. But the most complex must surely be the adaptations present in many of the *Lycaenidae* family (blues, coppers and hairstreaks) that form a relationship with ants, as discussed in **Stephen Lewis's** article about observations related to the **Silver-studded Blue**.

# behaviour



Silver-studded Blue larva, 4th instar,  
at Thatcham (reared)



Adonis Blue adult near Firsdown

## Pupae

Even relatively immobile pupae may behave in unexpected ways. The violent wriggling of a **Purple Emperor** pupa when touched is almost certainly a mechanism to ward off unwanted predators.

## Adults

But it is, of course, the adult butterflies with which most behaviours are associated, and this stage is usually where most enthusiasts start to develop their deeper interest in 'all things butterflies'. I remember one moment that made me realise just how deeply I had fallen – I was photographing a female **Adonis Blue** as she emerged from her pupa before climbing a grass stem to inflate her wings. Rather than taking more photos, I simply put the camera to one side and enjoyed the miracle that was unfolding before my eyes, with a male soon taking a close interest in my new friend.

While taking a deeper interest can be extremely rewarding, our observations can also help us understand what makes each species 'tick'. This understanding can then be applied to practical conservation action by

ensuring that each species' needs are met. I hope the articles that follow encourage you to dig deeper and share your insights – I guarantee that you will not be disappointed!

Article and photographs by **Peter Eeles**

\*A defensive organ found in all of the Papilionidae family

## Look out for...

- ISBN: 9781874357889
- Author: Peter Eeles
- Publisher: Pisces Publications
- Cost: £34.99
- Publication date: September 2019
- Format: Hardback, 394 pages, 1300+ colour photos, colour distribution maps



# The Mysterious Life of a Silver-studded Blue Caterpillar

Our dramatic front cover image illuminates the relationship between this species and its ant attendants, photographed at Prees Heath Common Reserve.



Third instar caterpillar with tentacle organs exposed (Lucy Lewis)

So much is known, so much remains to be discovered. It is well known that the **Silver-studded Blue** (*Plebejus argus*) has a remarkable association with ants over all four stages of its life cycle, but it is the relationship with the ants in its second stage that is the most astonishing and most significant, and which is still not fully understood.

## *The natural world is a fearsome place*

As **Martin Warren** writes in his book *Butterflies*: 'The caterpillar is the most critical stage in the butterfly life-cycle... To really understand a butterfly, you need to know about its caterpillar.' Inside a disc-shaped Silver-studded Blue egg is a tiny curled-up caterpillar. When it hatches in the spring, it is picked up by *Lasius niger* ants and taken into their nest. Why? It is likely that the caterpillar tricks the ants into thinking that it is



Fourth instar caterpillar with tentacle organs exposed (Lucy Lewis)

an ant grub in need of protection.

As the caterpillar feeds outside the nest and grows, it develops another mechanism in relation to the ants. We all know that the natural world is a fearsome place and you have to be able to defend yourself if you are to survive. Caterpillars are very vulnerable to being eaten by other species, such as birds, but the Silver-studded Blue caterpillar has a fascinating solution when it comes out of the ants' nest to feed: it employs the ants to defend it from attack by predators, such as spiders, or parasitoids, such as small wasps. But the caterpillar has to pay the ants' wages for carrying out this task, and cash would not be much use to them. So how do they do it?

## *Payment in kind*

The caterpillar has four instars, growing and shedding its skin at each stage. By its second or third instar, it has a honey gland on its seventh abdominal segment. From this gland it emits sugary fluids that are irresistible to the ants, which in turn tap the area around the honey gland to stimulate the caterpillar into producing more



Pair of adults (female left, male right) (Nigel A Ball)

...it employs the ants to defend it from attack by predators, such as spiders, or parasitoids, such as small wasps

of the fluid. But the story does not end there. Just behind the honey gland, on the eighth abdominal segment, the caterpillar develops strange tentacle organs; these are normally hidden inside its body but will emerge and then disappear back inside. What is their purpose? It's not entirely certain. They may be an extra stimulant to the ants, but more recent research suggests they may help the caterpillar to detect the presence of ants and thus emit the sugary fluids.

And it does not end there. The caterpillar also has a series of pores around its honey gland, head and body that also produce secretions rich in amino acids, which are attractive to the ants. And the caterpillars of some Blue butterflies, although it is not known if this is the case with the Silver-studded Blue, can produce a hissing sound by rubbing together plates along part of their abdomen, which makes the ants go into a frenzy. And why are some of the third and fourth instar caterpillars brown and some green?

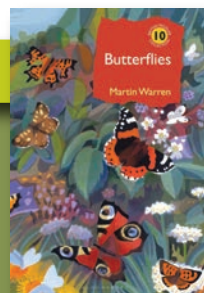
Altogether fairly mind-blowing behaviour, and not yet

fully understood. I am indebted to Martin Warren's highly recommended book, *Butterflies*, for much of the material for this article. You can visit Prees Heath in the spring, get down on your hands and knees in the heather, and see if you can find the caterpillar with its attendant ants.

Article by **Stephen Lewis**

## Look out for...

- **ISBN:** 9781472975225
- **Author:** Martin Warren
- **Publisher:** Bloomsbury Wildlife
- **Cost:** £31.50
- **Publication date:** April 2021
- **Format:** Hardback or ebook, 384 pages, 300 colour photos and illustrations



# Staying close to home

Some butterflies spend their lives near to where they emerged as adults, such as the **Pearl-bordered Fritillary** in the Wyre Forest, which creates special challenges for their conservation.



Pearl-bordered Fritillary (Andrew Porter)

In late spring, there's nothing that gets me more excited than the emergence of the **Pearl-bordered Fritillary** butterfly (*Boloria euphrosyne*). Its striking colours (orange and black on its upperwing) and beautiful underwing pattern (seven pearls on the outer edge of the wing and two extra pearls in the middle) cannot, in my view, be beaten by any other species

In the Wyre Forest, my first sighting is frequently of one resting on the arched stem of a bluebell, where they will often roost. Both males and females spend a lot of time nectaring at all times of day and, while bugle is certainly a favourite, they can use whatever else is available, such as buttercups and speedwell.

## *The search for mates and egg-laying sites*

As soon as the day warms up, the males start patrolling for females by flying low and swiftly across the main colony area, turning round at its edge then flying back across the habitat area again and again. I've followed

the males on numerous occasions, as this is one of the best ways of finding the more elusive females or a mating pair, which easily take flight if disturbed.

The egg-laying females, once located, are much easier to follow than the males, as they flutter around slowly, low down in the vegetation searching for suitable places in which to lay their eggs. While I've normally seen most eggs carefully laid on or near dog-violet leaves, very occasionally they have just been ejected in an area where dog-violets occur. Possible explanations for this unusual behaviour include disturbance, low energy levels or an abnormal egg.

most  
Pearl-bordered  
Fritillaries fly no  
more than a few  
hundred metres  
from where  
they emerged

## *Factors that influence population dispersal*

Most Pearl-bordered Fritillary colonies are small and consist of a few dozen adults. However, if the extent of available habitat suddenly increases, under the right emergence conditions in the following spring, adults can be seen in their hundreds. In those years in the



Pearl borders on underwings (Andrew Porter)



Pearl-bordered Fritillary mating pair  
(Mike Williams)

## Lekking

Wyre Forest, the Pearl-bordered Fritillary can be the commonest springtime butterfly. Unfortunately, as most Pearl-bordered Fritillaries fly no more than a few hundred metres from where they emerged, if the network of sites (or metapopulation structure) starts to break down then population decline can be self-perpetuating. In this situation, they do not seem able to move to areas of new habitat and can easily get 'stuck' in areas of deteriorating habitat.

In poor weather years, there is no doubt that they will become restricted to a few favoured warm sites; they can easily disappear from sites that must be more marginal for them. The dispersal of this species across a wider landscape seems to occur only occasionally. I tend to think of it as being like a 'mast' year for seeds: most years they do not disperse widely but there must be some key triggers, such as warmth and high adult abundance, which can make them do this. We must, therefore, ensure that there is habitat available in the wider landscape to accommodate this behaviour.

Article by **Jenny Joy**

I thought I knew all there was to know about the **Pearl-bordered Fritillary**, so it came as a great surprise a few years ago when I first saw what appears to be 'lekking' behaviour by this butterfly in the Wyre Forest. Lekking is an aggregation behaviour that can be critical for mating. When I have observed what appears to be this sort of behaviour, there are many more butterflies (both male and female) than you would expect to see in one area and none in any of the surrounding sites that are usually occupied.

As I have now witnessed this on three occasions (always early in the flight season), I think it may be an adaptation to ensure that the early emergers increase their chances of finding a mate. In each year when this has happened, when I've gone back later in the season, the butterflies have dispersed and are once again present in all the places where I would normally expect to see them.

# Cooling down when it's hot

Species that live in challenging environments, such as the Grayling high in the Malvern Hills, have adapted their behaviours.



Grayling casting maximum shadow  
(air 22°C, surface 38.7°C)



Laying eggs is hot work at the height of summer



Grayling casting minimum shadow  
(air 31°C, surface 54.2°C)



Grayling egg on stem (Jon Moore)

**Grayling** (*Hipparchia semele*) feed, defend territory, court, mate and lay eggs around the many boulders and crags along rocky ridges on the eastern slopes of North Hill at heights between 250–350m, and on several sites around Shropshire, especially at The Bog and Earl's Hill. However, the weather at these higher

altitudes can be much cooler and, therefore, temperature regulation is especially important for this species.

Graylings need to maintain a body temperature of 32°C to be active. Our summer temperatures rarely exceed the low twenties, but the rocky surfaces readily absorb radiant heat from the sun to reach over 40°C. Many of the rocks are covered in a black lichen that absorbs and radiates more of the sun's energy.

The adult Grayling is the only UK species to align its wings at an angle, like a sail. This exposes the maximum surface area of its hind wing to the sun,



A hot summer day on Grayling Ridge, north Hill  
(surface 63.2°C)



Grayling fifth instar (nocturnal)  
on North Hill at 11pm



I found one!

while hiding its forewing to remain in perfect camouflage, as it perches with its body low to the ground on the warmer rocky surface. Conversely, in very hot weather, it stands higher on its legs to raise its body above the hot rocky surface, while facing into the sun to minimise the area of body and wing

CONTINUED ON PAGE 26 ►



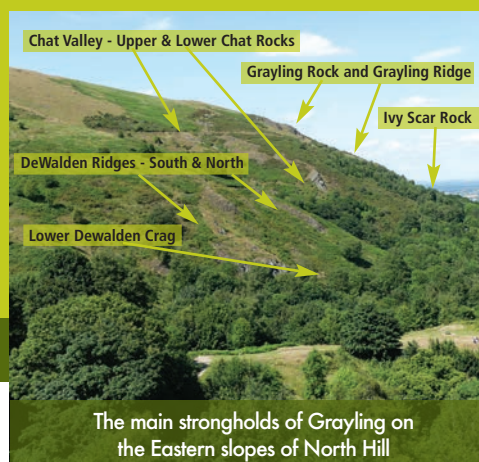
Basking on bracken litter at Ewyas Harold (air 14°C,  
surface 40°C)

## Warming up when it's cold

The Pearl-bordered Fritillary is the master of temperature regulation. It emerges in spring as a fourth instar caterpillar as early as March and as an adult as early as April, when the weather can be cold, dull and wet. By using a mosaic of dark bracken piles surrounding violet-rich sites on south-facing slopes, this early species can shelter against cold winds and take advantage of the heat energy absorbed and radiated by the dark bracken litter.

A warming climate is affecting our weather patterns and causing more frequent extreme weather events. 2021's exceptionally cold and frosty April and dull and wet May significantly reduced populations of Pearl-bordered Fritillary on many sites. These will only recover on more connected sites with healthy metapopulations, such as Wyre Forest, which provides a large and well-connected mosaic of bracken and woodland habitats in different orientations in different temperature zones.

We've noted before that specialist species can be more vulnerable than generalists. Both species featured in this article are specialists, in that they've developed special behaviours to occupy a particular niche. The **Grayling** is declining in many areas, particularly inland, and the **Pearl-bordered Fritillary** has declined rapidly in recent decades, and is now highly threatened in England and Wales.



CONTINUED FROM PAGE 25 ►

exposed to the sun and casting as little shadow as possible.

Females often lay eggs on or near withered tufts of Sheep's Fescue that cling inside the smallest of crevices on the many exposed boulders on the warmer southern sides of the rocky ridges. However, at the height of summer when the air temperature exceeds 30°C, surface temperatures can exceed 60°C; a female may then choose a less exposed site to lay her eggs.

The larval activity is also dependent on the temperature. A wet and cool August can affect the survival rate for the following year, while a cold May is a disadvantage for the nocturnal fifth instar. The winter diapause may be disrupted by a warming climate, causing third instars to temporarily emerge to a lack of food and changing weather conditions, which may lead to a lower survival rate.

Article and photographs (except egg) by **Mel Mason**

## Other species

Other butterflies – including **Small Copper** and **Small Tortoiseshell** – use the lichen and rocks to gain warmth on cooler days. **Hummingbird Hawkmoth** (*Macroglossum stellatarum*) and **Annulet moth** (*Charissa obscurata*) use the higher crags with wings spread out, but this may be for camouflage as well as warmth.



Annulet



Hummingbird Hawkmoth

# Branch contacts

## Officers

Chairman	Mike Southall*	michael_southall58@hotmail.co.uk	01299 251467
Vice Chair and Malvern Hills	Mel Mason*	mbg.records@btinternet.com	01684 565700
Secretary	Martin Harrison*	martinh1236@yahoo.com	01743 351929
Treasurer	Ian Duncan*	erebia13@gmail.com	01684 891446
Recording, Transects, Website	John Tilt*	john.tilt2@btopenworld.com	01386 792458
Publicity, Marketing	Mike Williams*	wmbutterflies@gmail.com	01299 824860
Conservation – Herefordshire	Ian Hart*	yellowrattle4@aol.com	01981 510259
Conservation – Worcestershire	Trevor Bucknall*	trevor.bucknall@outlook.com	01905 755757
Moths – Birmingham, Black Country	David Jackson*	jacksongrus@talktalk.net	01902 344716
Moths – Herefordshire	Robin Hemming*	robinhemming@btinternet.com	01568 797351
Moths – Worcestershire	Mike Southall*	michael_southall58@hotmail.co.uk	01299 251467
Brown Hairstreak Champion	Simon Primrose*	simonjprimrose@aol.com	07952 260153
Herefordshire Newsletter Editor	Martyn Davies*	martyn.davies808@gmail.com	01432 266703
Twitter manager	Richard Clifford	info@ricplumbingandheating.co.uk	
Wider Countryside Butterfly Count	Philip Nunn	philip-nunn@hotmail.co.uk	07931 488624
Regional Conservation Manager (BC)	Rhona Goddard	rgoddard@butterfly-conservation.org	01746 762364
Midlands Landscape Officer (BC)	Natalie Norton	nnorton@butterfly-conservation.org	

## Reserve Managers

Ewys Harold	Ian Hart*	yellowrattle4@aol.com	01981 510259
Grafton Wood	John Tilt*	john.tilt2@btopenworld.com	01386 792458
Monkwood	Phil Adams	pdadamsrainbow@gmail.com	07725 622342
Prees Heath	Stephen Lewis*	phwarden@sky.com	07900 886809
Trench Wood	Matthew Bridger	bridge1805@btinternet.com	07801 568334

## County Records Coordinators – butterflies

Birmingham, Black Country	Richard Southwell	richard_southwell@hotmail.co.uk	01384 397066
Herefordshire	Bob Hall	randphall@gmail.com	01432 850623
	Ian Draycott	idraycott@yahoo.co.uk	01600 891123
Shropshire	Jason Kernohan	jasonkernohan@blueyonder.co.uk	07856 276512
	Peta Sams	peta.sams@gmail.com	
Staffordshire	John Bryan	johnpbryan15@aol.com	
Worcestershire	Mike Williams*	wmbutterflies@gmail.com	01299 824860
	Mel Mason*	meljmason@btinternet.com	01684 565700

## County Moth Recorders

Herefordshire	Peter Hall*	peter.herefordcmr@gmail.com	01886 822135
Shropshire – macro	Tony Jacques	rec-vc40@vc40tj.plus.com	
Shropshire – micro	Mike Shurmer	mpshurmer@gmail.com	
	Graham Wenman	gjwenman@yahoo.co.uk	07565 802480
Staffordshire	David Emley	recorder@staffsmoths.org.uk	07484 185039
Worcestershire	Tony Simpson	Tonysimpson.1945@hotmail.co.uk	

## Other committee members

Jenny Joy*	jenny.joy17@outlook.com	01952 249325
Lucy Morton*	hlucymorton@yahoo.co.uk	07503 220191
Peter Seal*	peterseal3@btinternet.com	01905 426398
Joy Stevens*	joystevens@blueyonder.co.uk	01384 372397
Sarah Wager*	s.wager01@btinternet.com	
Steven Williams*	williams0yq@btinternet.com	07974 152081



• ISBN: 9781838446741 • Author: Andrew Fusek Peters • Publisher: Yew Tree Press • Publication date: October 2021 • Cost: £20 • Format: Soft back, 128 pages

showing clearly the shape of the Butterfly's head, complete with an uncoiling tongue and the spiked outline of an antennae, it is indeed a magical image.

More poems continue in attendance with the photographs throughout the volume. Some of the images have appeared in national newspapers, even on front covers such as *The Times*, and are a testament to the standard that he has achieved. Andrew's dedication, hard work, love and respect for the natural world are mirrored in these photographs, and in the word pictures framed within his poems.

Many more wonderful photographic flights and poems follow, and can be seen throughout this lovely work. It is an album that you can just drop into, peep into, or view from cover to cover. This delightful book is yet another great example of Andrew's flair and creativity, and one that I can highly recommend.

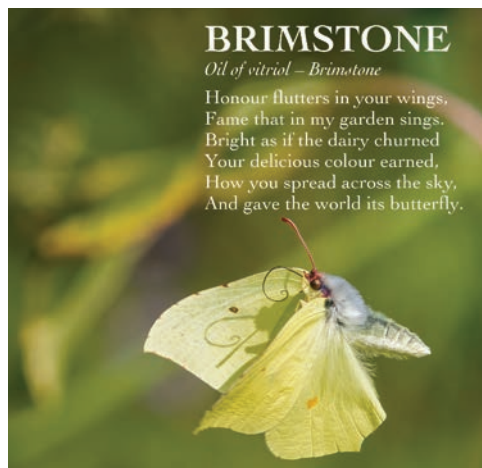
Review by Melvyn Lambert

Many of you will already be familiar with the wonderful in-flight butterfly photographs that Andrew posts on the Branch's Facebook group. I know of several people who wished that they could be published to enjoy again in a book form. Well, their wishes have finally come true. Andrew's new book *Flight* is ready to find its way onto bookshelves.

This volume takes on the style of an aerial compendium, with butterflies, birds and mammals in hasty flight, and leaping salmon, all transported up before us and into the thinness of the air. Vast skies, with soaring spinning starriness, are time-lapsed and pictured here in their night flight. Starry heavens are shown as traced points of light, scribing out their circled pathways onto the blackness of space, appearing like some vast multi-coloured vinyl disc that has spun its way across and through the night. Birds are the main predominating theme in this work, but a good selection of wonderful butterflies are captured airborne, and in detail, for us to enjoy.

Accompanying each of the photographs in tandem is an original poem by Andrew. He has a long history of creative poetry and prose works.

A nice example of this pairing is detailed here. This one is of Andrew's delightful photograph of a **Brimstone** butterfly. The wings of this glorious insect are caught and shown on the bottom of a downward stroke. The sun gazing down casts a shadow across an underside wing



We carry a book review in each issue of *The Comma*. Newly published titles are ideal but particularly interesting or useful books from the past are also worth highlighting. See page 2 for contribution details.