



Cover story

Pearl-bordered Fritillary caterpillar by Rosemary Winnall, feeding on Common Dog-violets (see pages 6-8)

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

Branch website address www.westmidlands-butterflies.ora.uk



Chairman's Address

Firstly, I would like to thank Peter Seal for his six-year tenure of the Chair, his ongoing contribution as the new Treasurer, and his help and advice to me during the changeover. Also, thanks to the committee for promoting me to Chair and Mel Mason to Vice-Chair



Branch's new book

Although the launch event for Moths of the West Midlands could not take place, the book was still published and is available for purchase. It's a success on many levels, easy on the eye with stunning photographs and full of up-to-date information on the region's species and their study.

Congratulations are due to all involved, notably the three editors (Tony Simpson, Ian Duncan and Mike Williams) and also all the contributors (including county moth recorders and photographers). Finally, we mustn't forget the initial sponsors who made the publication possible.

The book makes a perfect companion to Butterflies of the West Midlands, published in 2016 and still available. It's a great snapshot of the region's moths; we're now looking at ways of producing an online moth atlas to keep the everchanging distribution details up to date (the recent new arrival of a Dark Crimson Underwing moth to the region highlights this point). To complete the national picture, I'd also recommend the Atlas of Britain and Ireland's Larger Moths, published last year and reviewed in the Spring 2020 Comma.



Branch project news

Two exciting new projects, both at an early stage, are being considered. The first, led by Mel Mason, is the Malvern Hills Lost Fritillaries project (see pages 6-8); the aim is to reintroduce these, or some of these, recently lost species back

to the hills. The second project focuses on moths of the Wyre Forest, one of the best sites for moths in the UK; the hope is to restore the Kentish Glory moth. The reintroduction of this species last seen in England in the Wyre Forest in the 1970s, combined with the return of the Malvern Fritillaries, would be an incredible achievement.



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 (SCO39268)



Before they can proceed, both projects involve habitat assessments, species ecology studies and recommendations from experts. Irrespective of the outcomes, we will be raising awareness and improving the areas for other species.

Ongoing projects include the Wood White project (with work planned at Blakeridge, Bury Ditches and Mortimer Forest), Plants for Pollinators, new display boards, and continuing scrub and ride-edge management at a variety of sites including our wonderful reserves.

Member engagement

Work parties have already begun and will continue through the autumn and winter. Following the appeal for younger helpers in the Spring 2020 Comma, it struck me that anyone interested in wildlife, or a range of other topics for that matter, would enjoy sitting in our beautiful reserves listening to and learning from our experienced elder statesmen during the frequent tea breaks. Absolutely priceless!

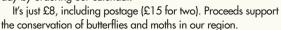
Our Facebook page has now exceeded a thousand members and is a great way of keeping up to date. It attracts superb photography, comments and identification requests. I'm told you can Twitter too! (Ed. see panel at left.) Please remember to put your sightings onto iRecord to contribute to the growing database (www.brc.ac.uk/irecord).

During this difficult spring and summer of lockdown, I'm sure I'm not alone in taking great solace from watching our wonderful butterflies and moths. If you've done the same, then maybe it's time to give a little extra back. With some imagination, this can be achieved in many forms, depending on your circumstances. I hope you enjoy the rest of the Comma.

Michael Southall Branch Chair

2021 calendar

A newcomer to our Facebook group recently expressed surprised at the stunning photos being posted there. They really are a tonic and you can see one every day by ordering our calendar.



To order, send a cheque made out to Butterfly Conservation West Midlands Branch, with your name and address, to

BCWM, Annesbrook, 2 Dewberry Close, Stourport-on-Severn, DY13 8TB.

To pay for calendar and/or badges by bank transfer, contact Peter Seal at peterseal3@btinternet.com



promote moths

To celebrate the launch of Moths of the West Midlands. the Branch has produced two badges, for sale at £3 each or £5 for both (including postage). One shows the Peach Blossom, which features on the front cover of the book. and the other shows the Scarlet Tiger, which is one of our most striking moths and enjoyed a fantastic year in 2020. If you'd like a badge, send a cheque made out to **Butterfly Conservation West** Midlands Branch, with your name and address, to BCWM. Annesbrook, 2 Dewberry Close, Stourport-on-Severn, DY13 8TB.

We find out how the Branch's first Place for Pollinators is encouraging visitors to help wildlife

Backaround

Not too many years ago, it was the ambition of most small-scale gardeners to have neat, regular rows of bedding plants in their front garden, and perhaps a few neatly pruned rose bushes in the back. If you were a little better off and had the space, you might have an herbaceous border. Beware any slug, whitefly or caterpillar that dared venture onto these well-watered. fastidiously weeded gardens.

Recently, we've been warned about loss of biodiversity and encouraged to do something to help. Usually, this is to grow plants that help bees and other pollinators.

Even large garden centres often have a small area where they display plants that are supposedly loved by butterflies and bees. Quite often, though, the caterpillar-killing spray is placed next to the scabious on which a Small Tortoiseshell butterfly is nectaring, and the slug pellets next to the hedgehog houses.

If you have space, you may now be planting a 'wildflower meadow' to grow where once was your manicured lawn. Perhaps you leave an area

Secret Hills Pollinator Garden at Craven Arms



where nettles are allowed to thrive or even a wild corner with log piles and, of course, there should be a pond.

To persuade any non-believers, the Branch has placed pollinator gardens at various sites throughout the West Midlands. The aim is to show what can be achieved when creating a wildlife friendly garden, attracting beneficial insects, while still having a colourful space to enjoy

Our aarden

The Secret Hills Pollinator Garden at Craven Arms was the first to be started and has been going for four years now. Thanks to C.J Wildlife for donating many of the plants and the Discovery Centre for providing the site. Situated in a very sheltered

Self-seeded Goat's-beard

area, the garden is in full sun and protected from the wind; the soil is stony and dry.

In the first instance, the ground (consisting of amenity grass) was rotovated and, unfortunately, a lot of the grass roots were buried. Then the plants were sown. This was followed by a few weeks of dry weather. Of course, as soon as it rained, the grass grew back but, thankfully, so did the plants. By late summer, the garden was looking quite good.

That first autumn, we purchased some organic mulch to discourage rough grasses and improve the soil structure. We haven't needed to apply any since.

The aim is to have colour throughout the year, both for the insects and for visitors to enjoy.

Sloe Bug (Hairy Shieldbug)

Early spring sees pulmonaria and crocus species followed by thyme and lavender, echinacea, bergamot and verbena bonariensis. As summer advances, the buddleia. scabious and sunflowers start to bloom, and then the Japanese aster and sedums give colour right into late autumn. Apart from the Erysimum 'Bowles Mauve', which is fantastic for butterflies but seems to struggle in this garden's conditions, all the other plants have survived.

Volunteers and centre staff put in plants from their own gardens and also sowed packets of seeds. These provided ground cover. A few plants seem to have found their own way into the garden.

It is surrounded by meadows, so dandelions, daisies and buttercups are removed, being abundant nearby. It is not always easy to decide what should stay. Some



intruders have been allowed to remain, such as the impressive fennels, hairy tare, dove's-foot crane's-bill and white clover. Last year, a particularly fine goat's-beard appeared and, as the seed heads looked so splendid and were much admired, it had to stay.

at Craven Arms was the first to be This year, the black plastic edging was replaced by a beautiful new woven willow fence, made and installed by the Friday Volunteers of the Discovery

Centre. It's a real improvement.

Pollinator Garden

The impact

The garden is very popular with visitors to The Discovery Centre. In the summer, we had a timed bug count that was enjoyed by families - l'm not sure if we got all the names correct though. Visitors to the centre really enjoy having their lunch while watching the butterflies and admiring the plants. The Painted Lady year was amazing, eliciting many favourable comments.

Hopefully the garden is inspiring visitors to plant their own gardens in a wildlife-friendly way and – thanks to Peta Sam's posters advising not to cut back as soon as the nights draw in - to leave tidying up until spring to provide shelter for overwintering mini-beasts.

It's still a work in progress, as are all gardens, but fortunately there are some keen volunteers with good horticultural skills eager to promote this garden. They all enjoy lunch and a chat afterwards too.

It would be wonderful if we could inspire everyone, on every estate in the country, to have a beautiful flowery patch, full of colour and pollinators.

Article and photographs by Carol Wood and the Secret Hills Garden Volunteers



NEW the Malvern Hills Lost Fritillary Project

These are the **High Brown** (Argynnis adippe), Pearl-bordered (Boloria euphrosyne) and Small Pearl-bordered Fritillary (Boloria selene), which were all largely lost from the area by the end of the twentieth

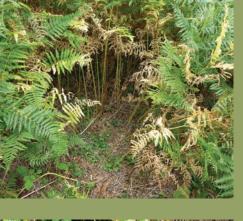
During the past 20 years Branch volunteers have regularly surveyed the species' former strongholds for Common Dog-violets, the larval host-plant. Meanwhile, habitat management continued in an ad-hoc fashion linked to occasional sightings, giving hope that a new colony might re-establish. However, it's now clear this cannot happen without a carefully planned reintroduction alongside the better understood modification of habitat management now employed at successful fritillary sites, including the Wyre Forest (see pages 9–11) and Ewyas Harold in Herefordshire –

sites equidistant north and west of the Malverns.

Setting up the project

In February 2020, the Branch made the reintroduction of one of our lost fritillaries a priority for the next five years. In March, Covid-19 threatened to scupper our plans, but in April we set up a local group to steer the project. We investigated potential receptor sites, probable donor sites, recommended habitat management practices, recent surveys, and historic data to help identify which fritillary to reintroduce. Then, in May, we visited our proposed receptor sites - Chase End Hill, Swinyard Hill and Eastnor - all ready for a reintroduction with modified habitat management.

Following on from the previous encouraging survey of these sites by Natural England in 2016, we needed









Tall bracken in summer suppressing grasses but encouraging violets and providing shelter for the hibernating caterpillars, Malvern Hills (July 2020)

an up-to-date and focussed survey to inform and give confidence to our prospective partners who manage the sites - Malvern Hills AONB, Malvern Hills Trust. Bromesberrow Estate and Fastnor Estate.

Selecting the species

While High Brown Fritillary is the most vulnerable of all the UK butterflies with only a handful of sites remaining in the UK, it's highly unlikely that permission would be given to remove stock from any existing UK sites. Small Pearl-bordered Fritillary is a possible candidate and its habitat management is closely linked to that of Pearl-bordered Fritillary (PBF).

At the end of May, I accompanied Consultant Nick Williams to complete a two-day survey of the sites. His final report concluded:

'If a reintroduction is to take place, I believe that it should be of Pearl-bordered Fritillary. The habitat on the Malverns is not very different from that at Ewyas Harold, where appropriate management of the bracken and scrub has yielded spectacular increases in butterfly numbers, especially of the target PBF. That site and the Wyre Forest where similar success has followed carefully targeted management are relatively nearby and thus similar in climatic terms."

In June and July, we visited the two donor sites at Wyre Forest and Ewyas Harold and also met with the land managers at the three receptor sites to discuss habitat management this winter, rather than wait another year.

CONTINUED ON PAGE 8

CONTINUED FROM PAGE 7 ►

Bracken is not the enemy

Appropriate management of bracken habitat for fritillaries was much less understood in the late twentieth century. It was either unmanaged or regularly cut or rolled regardless of the state of the habitat. Bracken should be allowed to grow tall in the summer to suppress the growth of grasses and encourage the growth of violets; in winter, it provides a mosaic of dead clumps for hibernating caterpillars; by spring, it forms a thin layer of sheltered litter for basking adults and caterpillars.

The cost of managing the habitat may be no more, or even less, than other regimes. The key is to prevent frequent over-management of bracken sites. Good bracken habitat management is clearly practised at Wyre Forest and Ewyas Harold, and both have increasing populations of PBF.

The next step

Our partner organisations have provided letters of support, a commitment to maintain the habitat for PBF

in the long term, and some additional funding. Modified habitat management on the three receptor sites can begin this winter, with the prospect of reintroducing adult butterflies next spring or the vear after.

By the time you read this, I'll have given an online talk to the Worcestershire Wildlife Trust about the project. If you'd like to know more, contact me at melimason@btinternet.com

Article and photographs by Mel Mason

How you can help

This is the most exciting wildlife project around the Malverns for over a generation but to succeed we need your help. You can support this project by giving a donation of £30 or whatever you can afford to Butterfly Conservation at Just Giving online at www.justgiving.com/ fundraising/mel-mason4



South Malvern -Fritillary Transect Data (1987-2004) 120 High Brown Fritillary Pearl-bordered Fritillary Small Pearl-bordered Fritillary

Five Years On: Wyre Forest Narrow-bordered Bee Hawk-moth (Adam Gor) A project that demonstrates the value of collaboration to create connected landscapes. Wyre Forest Facilitation Group Five years ago, Jenny Joy and Mike Williams through Butterfly Conservation (BC) Head Office successfully obtained five years of funding from Defra/Natural England to establish the Wyre Forest Facilitation Group. The objective of the group was to bring together Small Pearl-bordered Fritillary egg (Peter Eeles) owners of farmland and woodland in the Wyre to make landscape-scale changes to benefit the environment. The scale of changes individually need not be great: it is the connectivity achieved by neighbours working together that delivers on a landscape scale. The Wyre landscape area covers nine parishes: Neen Savage, Cleobury Mortimer, Kinlet, Bayton, Rock, Bewdley, Ribbesford, Upper Arley and Kidderminster Foreign. The group also has members outside these areas, where their objectives match

ours and especially where their land abuts them. The group had a wide remit, due to the area's fantastic and varied habitats and species.

The mechanism for change through the Facilitation Group was advice, events and encouragement of peer support. This concept was new to many and a lot of hard work saw the

CONTINUED ON PAGE 10 >

Pearl-bordered Fritillary pupa (Rosemary Winnall)









CONTINUED FROM PAGE 9 ▶

group's numbers gradually rise from 10 to nearly 80. Their holdings vary widely: half an acre of orchard or meadow, small and medium-sized farms, large agri-businesses, nature reserves, commercial pleasure woodlands. now know one broadleaved and coniferous timber another better, plantations, and two golf courses.

communicate better Action on the ground was initially and help each limited, as the funding could only be used for generic advice and events. This didn't give enough confidence to implement many changes.

Farming and forestry businesses were cautious, concerned that environmental changes would be at the expense of commercial value. However, these special habitats need not be pickled in aspic – they should be a dynamic environment. To be sustainable, their value must be financial, commercial, aesthetic and anthropomorphic, as well as environmental.

Wyre Landscape Farming and Woodland Adviser

In 2018, more funding and support from BC, Woodland Trust and Natural England saw the threeyear appointment of a Wyre Landscape Farming and Woodland Adviser. That's me!

My role was (and is) to assist land managers to implement changes through one-to-one advice, helping with funding applications, networking, and identifying

opportunities. I came with 18 years' experience of grant schemes and working with farmers and land owners and, after a while, a few gave me a chance to prove myself!

What were the outcomes?

Of the 80 members, 56 have actively engaged with the project and I've visited 53 of those. I offered advice or suggestions at each visit and 45 members (three of whom I haven't visited) have implemented at least one positive environmental action on the ground. Actions taken include:

- Implementing pest control in woodlands
- Commissioning wildlife audits to understand which species and habitats are present and how to help them
- Hosting events to showcase beneficial management
- · Managing habitats better, including slowing the flow of water through the landscape
- Creating new habitats, including 34ha of flowerrich hav meadow, 4.3km of hedgerows, 5ha

orchard and 5ha of woodland, plus 5500 trees planted outside woodland.

Neighbours now know one another better, communicate better and help each other with advice and practical tasks.

And specifically for butterflies and moths, you ask? Well the 'wider environment' is fundamental to all wildlife, including butterflies and moths, meaning much of the work is not necessarily targeted at particular species. It is more about ensuring the landscape maintains robust habitats providing for a wide variety of species.

However, species-specific advice has resulted in better timing of woodland ride management, and more sustainable mosaic habitats for Pearl-bordered Fritillary and Narrow-bordered Bee Hawk-moth.

Collaboration with Worcestershire County Council's Natural Flood Management Project ('slow the flow') has resulted in several projects on Severn tributaries flowing through Wyre woodlands. We're

> looking forward to learning that this has resulted in fringe benefits for the Small Pearl-bordered Fritillary by creating pockets of wet woodland.

Finally, we've undertaken bespoke management to extend this species' habitat by creating scrapes on farmland adjacent to a known population and transplanting marsh violets, a favourite larval food plant, from another local habitat. This has involved three landowners working together. It's early days yet but I hope it will be the subject of a future article in its own right!

Wyre Forest Facilitation Area

Article and site photographs by Charlotte Vincent



Observations in Eccleshall show the first generation going into aestivation,

In both 2018 and 2019 I reported that, at the height of summer, quantities of **Small Tortoiseshells** (STs) had gone into hibernation in the Church Tower of Holy Trinity, Eccleshall, This occurrence in hot weather I have learnt is known as aestivation. Those butterflies then stayed through the late summer and winter months to re-emerge in the spring, so long as they escaped the attention of bats and spiders. As a result of my reports, I was asked to write a more detailed account.

Fluctuations

There was a fear a few years ago that the ST was becoming endangered. In Eccleshall between 2016 and 2018, numbers seen were particularly low and so it's encouraging that there's been a huge Small Tortoiseshell caterpillar (Dean Morley)

improvement in 2019 and 2020.

Going back over the last twelve years, by far the best years were 2013 and 2019. More were seen in the area in 2019 but in fact nothing compared with the numbers seen in our garden in 2013 (we have several Buddleia plants to attract butterflies).

There is a normal pattern for this butterfly locally. In the Spring, the butterfly emerges from hibernation. First sightings may be as early as February (2016, 2017 and 2019) and as late as April (12th in 2013 and 20th

in 2018, with the very cold 'Beast from the East'). In most years, the summer broad appears in July. In 2013, the late start was followed by a good summer but, in 2018, the numbers seen on the wing on one day never exceeded six (compared with 123 in 2019). Although numbers decline as Autumn progresses, in five of the last eleven years, the ST has been the last butterfly of the year to be seen on the wing.

This year has followed a very different pattern. The mild Spring brought a good number of sightings and was followed by the usual fallow period. However, suddenly, right at the end of May and weeks earlier than usual, we had an explosion of STs; good numbers were seen right up to the last week in July. This was very odd, since that's usually when the summer brood is in evidence. One cannot forecast anything natural with certainty, but I wonder if there might be a significant third brood later in the year.

Aestivation

I'm fortunate in that I know the Bell Tower Captain in Holy Trinity Parish Church, Warren Griffiths. It is he

What is aestivation?

Butterflies cannot fly if it's too cold and they die from dehydration if it's too hot and dry. As a defence against extreme heat, cold or drought, they can enter a state called diapause; their metabolism falls extremely low and they do not fly, feed or breed. Aestivation describes a prolonged period of such torpor or dormancy during a hot or dry period. Strictly speaking, butterflies do not hibernate, as this process involves lowering the body temperature, which they cannot do. However, the term is often applied to their winter diapause.



who drew my attention to the number of STs in the Tower during the hot summer of 2018. I'd been concerned at the ST's worryingly poor showing in what I thought were ideal weather conditions but I was clearly wrong. Warren counted 54 STs in aestivation in the Church Tower in July; by Christmas Eve, this number had only increased by two to 56; by 20 March 2019, it had fallen to 32 (a few were on the wing by then).

Whereas the summer of 2018 was fairly consistently good, the summer of 2019 was more variable. This

CONTINUED ON PAGE 14 >

the Comma



on the wing

CONTINUED FROM PAGE 13 ▶

seemed to suit some species, including the ST: from the end of August through to mid-September, exceptional numbers were seen locally. When Warren did a count in the Church Tower at the end of July 2019, he found 48 STs; amazingly, by 31 October, this number had more than doubled to 105 (keeping company with eight Peacocks and a moth). Of course, these additional butterflies were there for normal hibernation.

Current situation

The large numbers seen in 2019 were reflected in 2020's Spring sightings. On e ST has been the 28 March, no fewer than 28 were last butterfly of the counted - our previous highest one-day year to be seen Spring total was 18 on 1 April 2012 (we've been in Eccleshall since 2005). So, it seems clear that many of the STs survived aestivation and hibernation.

Although Spring and early Summer this year were excellent, July was a disappointing month with a lot of cloud and only the odd hot day. The best numbers noted locally were just 40 on 12 July, which is still quite good after recent poor years. I'm pleased to say that a brood appeared in August as usual and, although not as good as in 2019, we saw more than 70 on two days in the middle of the month.

Warren went up the Tower on 9 August and found 19 STs and two **Peacocks**, way down on the last two at www.hertsmiddx-butterflies.org.uk. Anyone interested in contributing to more systematic monitoring of this species can reach him at malcolmhull@icloud.com.

years. However, after a couple of hot and humid days, Warren needed to go up the Tower again on 13 August. Much to our astonishment, in those four days, the number of STs had increased to 48, with one more Peacock in aestivation. Later that evening, we had an enormous storm with thunder and lightning. The town centre was flooded and my rain gauge, which

holds about 2.25 inches, overflowed. Despite this, on 15 August I saw 69 STs on the wing, so they'd avoided being flooded out.

As I write in late August, substantial numbers of ST are on the wing in Eccleshall (177 on 20th, 118 on 24th and 102 on 31st), plus 84 in the Church Tower on the 27th. For

comparison, in 2019 we saw over 100 STs in a day three times: 113 on 23 August, 123 on 25 August, and 107 on 13 September.

The conclusion must be that this year's August brood of STs in Eccleshall has again been good. Perhaps concerns for this species' declining prospects may be behind us. We can now look forward to next Spring, when the butterflies in the Church Tower take to the wing again.

Article by Thomas Knowles



Event Calendar

IMPORTANT: Coronavirus update

Sadly, the coronavirus situation was once again worsening when we went to print. The Branch will continue to do as much practical conservation work as possible but will always comply with Government guidance. Below are typical rules, based on those developed for Trench Wood, but please be

prepared for restrictions to change or vary between locations. Marian Newell, Editor

organiser before attending

Coronavirus Work Party Rules

1. Before attending your first work party, assess your risk category (as explained on the NHS website*) - take into account the vulnerability of those you live with as well.

- If you are low-risk (under 70 with no relevant health issues), you can volunteer under the Coronavirus Volunteer Code of Conduct.
- If you are moderate-risk (over 70 and/or with relevant health conditions), tell the organiser when you book so that they can put mitigation measures in place – these may include wearing a mask or working with more social distancing.
- If you are high-risk (including serious health conditions), we regret that you cannot volunteer.
- 2. Contact the organiser in advance to book onto a work party. If we have one leader, we can have up to five volunteers. If we have two leaders available, we can operate two separate groups of up to five volunteers – this is only likely to apply for large and essential tasks (such as coppicing). You may be asked to complete a risk assessment.
- 3. During the work party, you must follow the Coronavirus Volunteer Code of Conduct. Anyone who refuses to comply will be asked to leave.
- * www.nhs.uk/conditions/coronavirus-covid-19/people-at-higher-risk/whos-at-higher-risk-from-coronavirus



Coronavirus Volunteer Code of Conduct

- Maintain minimum 2m social distancing at all times
- Sanitise hands before entering and leaving site
- Maintain hygiene standards as defined by activity coordinator
- Strictly adhere to the basic rules
- Support work party leaders by notifying them of any issues that arise
- No sharing of vehicles, tools, equipment and refreshments
- Do not attend if you or anyone in your household is displaying symptoms of COVID-19

Birmingham and Black Country

Scarlet Tiger Project Work Parties, Stourbridge Every 3rd Fri: 16 Oct, 20 Nov, 18 Dec, 15 Jan,

19 Feb, 19 Mar

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

Contact Joy Stevens: 01384 372397, joystevens@blueyonder.co.uk



Herefordshire

Ewyas Harold Reserve and Common Work Parties

Sat: 17 Oct, 21 Nov, 19 Dec, 16 Jan,

20 Feb, 20 Mar

Contact Ian Hart: yellowrattle4@aol.com
Tue: 13 Oct, 10 Nov, 8 Dec, 12 Jan
Contact Lucy Morton: 07503 220191,
Imorton@butterfly-conservation.org
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.

Haugh Wood Work Parties

Sat: 7 Nov, 5 Dec, 9 Jan, 6 Feb, 6 Mar 10am in the reserve car park on minor road from Mordiford to Woolhope (SO592365) May run a second team if enough volunteers book Contact Kate Wollen (07786 526280, kate.wollen@forestryengland.uk) or Robin Hemming (07501 020605, robinhemming@btinternet.com)



Shropshire

Prees Heath Common Work Parties

Wed: 21 Oct, 2 Dec, 16 Dec (half-day only), 13 Jan

10.30am on the access track opposite the Steel Heath turning off the A49 (SJ557363) Contact Stephen Lewis: 07900 886809, phwarden@sky.com

Stepping Stones Work Parties

Volunteer work parties for the benefit of the Small Pearl-bordered Fritillary are due to be held over the autumn and winter, as part of the Stepping Stones project in South Shropshire. At the time of writing, venues and dates are still being arranged. Please contact Stephen Lewis for details if you would like to help: 07900 886809 or phwarden@sky.com

Telford Millennium Nature Reserve Work Parties

Volunteer work parties are due to be held over the autumn and winter.

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

Staffordshire

Cannock Chase Work Parties - Dingy Skipper

Dates to be confirmed (possibly 29 Nov or 24 Jan), in partnership with Staffordshire County Council 11 am outside Rangers Bungalow, Marquis's Drive, Staffordshire, WS12 4PW (SK005153) Creating glades in birch woodland to provide cover and protection Contact Rob Taylor, Countryside Ranger: 01543 370737, 07817 122760, robert.taylor@staffordshire.gov.uk



Moths of the West Midlands



The first-ever book on the moths of the West Midlands, this covers all of the region's macro moths (over 600 species, including newly recorded ones) and many of the micro moths that are regularly recorded. The book is lavishly illustrated with over 700 photographs, from local photographers wherever possible, plus up-to-date distribution maps, habitat information, adult flight periods and larval food plants. As well as



species pages, chapters cover the area's special moths and moth hot-spots, attracting moths, gardening for moths, and recording techniques.

This major new title has been produced by members of the West Midlands branch and all profits from the sale of the book will help conserve moths and butterflies in the region.

Ian Duncan, project manager for the book, said 'Our aim is to produce a companion volume to the hugely successful *Butterflies of the West Midlands*. It will appeal to enthusiasts of all levels but particularly to beginners keen to get involved in this fascinating subject.'

• ISBN: 978-1-874357-92-6, Flexibound, Jun 2020

• Edited by: Tony Simpson, Ian Duncan and Mike Williams

• Cost: £23.50 + £4 p&p from www.naturebureau.co.uk

 Format: 234 pages, 1000+ colour photos, colour distribution maps Alternatively,
you can send a cheque
to Nature Bureau,
Unit 2c, The Votec
Centre, Hambridge
Lane, Newbury
RG14 5TN

66 Thanks to the Moths of the West Midlands book, I have been able to identify all the moths I have caught so far this year. There are still a lot of species in our area but so far this excellent book has had everything that I have caught in it. It's a much smaller task searching through just the species in our area than a tome covering the whole country.]]

John Devries

Worcestershire

Ankerdine Hill Dingy Skipper work party

Sun: 17 Jan

10am in lay-by on A44 close to the Martley turnoff (SO736557).

Contact Mike Williams: 01299 824860.

wmbutterflies@amail.com

Grafton Wood Work Parties

Every Wed

10am at Grafton Flyford Church Running two distanced groups of six to tackle two coppice plots and extensive ride work Contact John Tilt: 01386 792458. john.tilt2@btopenworld.com

Grafton Wood Brown Hairstreak Egg Searches

Sat: 5 Dec, 2 Jan, 30 Jan 10am at Grafton Flyford church Contact Simon Primrose: 07952 260153.

simoniprimrose@aol.com



Malvern Grayling Work Parties

Mon: 19 Oct, 26 Oct

10am in North Hill Quarry car park, WR14 4LT

(SO771469)

Contact Mel Mason: 01684 565700. mbg.records@btinternet.com

Monkwood Work Parties

1st Sun: 1 Nov, 6 Dec, 3 Jan, 7 Feb, 7 Mar 3rd Thu: 15 Oct, 19 Nov, 17 Dec, 21 Jan, 18 Feb, 18 Mar

10am in the reserve car park (SO803603), usually finished by 3pm. May run a second team if enough volunteers book

Contact Phil Adams: 01905 610830, pdadamsrainbow@gmail.com

Penny Hill Landfill Site Work Parties

Sun: 14 Feb, 21 Feb

10am at the site entrance off Pudford Lane, Hillside, Martley (SO752613) Contact Mike Williams (01299 824860) or Trevor Bucknall (01905 755757)



Purple Hairstreak, photographed in Ironbridge and present at Trench Wood (Steve Dalton)

Trench Wood Work Parties

Sun: 25 Oct, 29 Nov, 27 Dec, 31 Jan, 28 Feb, 28 Mar

10am in the reserve car park (SO930588) Contact Matthew Bridger 07801 568334, bridge 1805@btinternet.com

Wyre Forest Work Parties

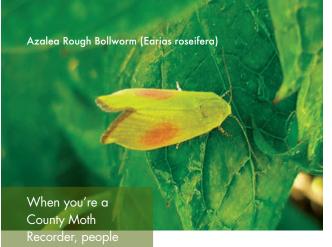
Sun: 8 Nov, 10 Jan, 14 Mar Wed: 21 Oct, 18 Nov, 16 Dec, 20 Jan, 17 Feb,

17 Mar

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 Contact Mike Williams: 01299 824860. wmbutterflies@gmail.com



New to the UK, no less!



(especially other moth hunters) expect you to know what everything is.

 \bigwedge fter 40 years of looking at Amoths. I have a pretty good idea of our moth fauna and so it was a shock when I received a photograph from Roy Gillibrand, a casual recorder, to realise that I had no idea what it was!

I sent the photograph to several other leading moth recorders and they, too, had no idea. This was getting serious. I then sent the photograph to an old friend, Colin Plant, who moves in elevated lepidopteran circles. Other than it being a member of the Nolidae family, he didn't know it either ... but he knew a man who would.

And so, we have **Azalea Rough**

Bollworm (Earias roseifera), or do we? Things are not that simple: Mark Sterling said that there's another, very similar species, Earias roseiviridis, and did we have the specimen? Sadly, we didn't so we'll never know for certain what it was, but we're 99% sure it was E. roseifera and. regardless of which of the two species it was, it's new to the UK.

Where did it come from?

Both species come from Korea, Japan, Thailand and southern Russia. In Japan, E. roseifera is a pest of some Rhododendron species and, in particular, several Azalea hybrids. It was first noticed in Europe in the Como province of Italy, when damage to Azalea flowers was seen in 2016. Earias roseifera was identified as the culprit and added to the European fauna in 2019. Italy, it appears, is the largest European importer of Azaleas from Japan and Eastern Asia, and it's also a major exporter. The most likely way this insect was introduced into Italy was on imported potted Azalea plants harbouring some pupae, which would easily pass unnoticed in their cocoons.

How did it get here?

Now, Roy found the moth in his garden, just outside Newcastle-under-Lyme, when he was pruning some Geraniums. These happened to be beneath an Azalea that he'd recently bought from a local plant nursery. The nursery told him that their stock of Azaleas came from Tuscany in Italy. Bingo!

That our moth was found on a plant recently imported from Italy is of potential concern, especially given the problems of damage associated with the Box Moth (Cydalima perspectalis) that has spread so rapidly across the country. The Centre for International Trade (Foss House) Animal and Plant Health Agency (APHA) has been informed, as has the Royal Horticultural Society.

Article by Dave Emley County Moth Recorder, Staffordshire Photograph by Roy Gillibrand

Reference: Emley, D.W. and Gillibrand, R. A new species of Earias (Lep.: Nolidae: Chloephorinae) in the British Isles, Entomologist's Rec. J. Var. 132 (2020)



usual range in the south of England.

A Dewick's Plusia (Macdunnoughia confusa) in Birmingham, Hall Green, on 4 October (A. Prior) is another migrant species that's been seen more often in the UK in recent years; there may now be a resident population in south-east England.

New micromoths

The moss-feeding Bryotropha basaltinella in Berkeley-Pendesham, Worcester, on 3 August (S.Whitehouse) was probably an overlooked resident. However, a Eudonia delunella that came to light in Trench Wood on 12 July (O. Wadsworth) may represent a lichen-feeding moth spreading from Wales.

Five new moths in Worcestershire

Tive new moth species were recorded in the county Flast year, three macros and two micros. In addition, although not strictly new, there was an influx of Blue **Underwings** (Catocala fraxini) in the autumn, also known as **Clifden Nonpareil** and selected as Moth of the Year in the Spring 2020 Comma.

Worcestershire during 2019.

New macromoths

A Dotted Fan-foot (Macrochilo cribumalis) that came to a light trap at Avon Meadows, Pershore, on 5 July (R. Stott & S. Whitehouse) would usually be a resident of wet habitats in south and east England. Probably a migrant, it was in the right habitat. The nearest previous records are in Northamptonshire.

A Light Crimson Underwing (Catocala promissa) in Stourbridge (A. Gardner) on 10 August was also probably a migrant, as no resident population is known in the West Midlands. The species may be spreading, with growing numbers being recorded away from its





Other sightings

Eight more **Box-worm moths** (Cydalima perspectalis) were seen, in Birmingham, Redditch, Worcester and Evesham, so this invasive species is clearly spreading rapidly and there have been further sightings this year.

The larva of a Death's-head Hawk-moth (Acherontia Atropos) seen crossing a track in Badsey on 29 August (R. McCotter) was probably dispersing to pupate. Three **Bedstraw Hawk-moths** (Hyles gallii) were recorded, two on 2 August in Malvern (N. Rowberry) and Eastham (K. Willets), and another in Malvern on 5 August (R. Comont).

There were few other migrants of note but 14 Delicate (Mythimna vitellina) were recorded in September and October across the county.

Article by Tony Simpson County Moth Recorder, Worcestershire





Clifden Nonpareil – resident!

Earlier this year, a caterpillar of this species was discovered in Uffmoor Wood near Halesowen in Worcestershire. This represented the firstever breeding record of the moth in the West Midlands



In mid-September, Patrick Clement, Mike Southall, Steve Whitehouse and Mike Williams met to follow up the record. We were joined by two Woodland Trust volunteer wardens, one of whom, Beverley Challinor,

made the original discovery.

The first and only Clifden Nonpareil arrived at the trap at 9pm to great excitement. It did not enter the trap at first, settling in nearby vegetation from where we were able to carefully capture it and take some photos. In pristine condition, it was clearly freshly emerged and that suggests local breeding.



Article and photographs by Mike Williams

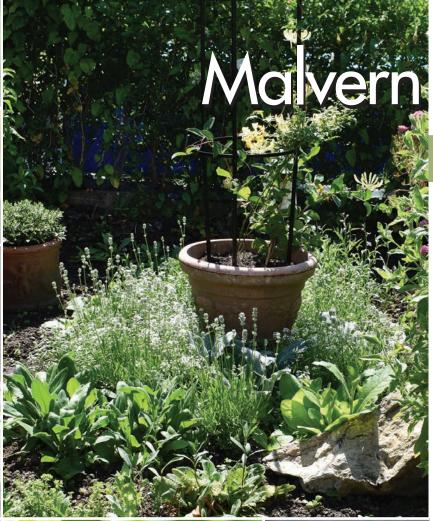








For more ideas on choosing plants to attract moths, the Branch's new book, Moths of the West Midlands, contains a section on 'Gardening for Moths' written by our Chair, Mike Southall.







Malvern moon garden

Planting an area to attract

always enjoy reading the latest e-newsletter from Conservation, but an article* in October last year really grabbed my attention - a suggestion to make a moon garden. A moon garden is planted specifically to attract moths, with a mixture of night-scented and generally palecoloured flowers that are visible by moonlight. This seemed like a great way of increasing the number of moths that I, a keen moth-er, could see in my garden.

So I pretty much bought seeds and/or plants for all the flowers listed in the article: tobacco plant, evening primrose, night-scented stock, white lavender, honeysuckle and so on. Our garden is generally a weed's paradise, but for this I had an area cleared and in went the new plants. It took a while for them to get established, but by midsummer I had an area glowing with white, cream and yellow flowers. The fragrance in the evenings is really lovely in that part of the garden now - if I were a moth I would certainly head there.

So I'd planted it, but would they come? The answer seems to be generally yes. I run my moth trap regularly next to the moon garden for the Garden Moth Scheme and keep a running tally of the species I have seen in the garden over the years. Since the beginning of the year I have recorded 37 species of moth that are new to the garden, bringing my garden total to 404 species. Hopefully, this number will continue to rise through the late summer. Even species that I've trapped before were turning up in larger numbers than I'd seen previously. Elephant Hawk-moths in particular were arriving in herds rather than the singletons I've been

Although I think the moon garden is attracting more moths, I don't often see them actually in there. So it was Check out nice when I spotted our badge of the a Poplar Hawk-Peach Blossom Moth on

moth roosting during the day on one of the tobacco plant flowers.

The new species have included micro and macro moths: some I'd heard of and some completely new to me. Species like the Peach Blossom had been much longed for, but equally exciting is to discover something like Coleophora mayrella, which I'd never even heard of. Star of the show undoubtedly had to be the Dark Crimson Underwing, which appeared in mid-August. Not only was this new to my garden, but it was a first for Worcestershire and for the whole of the West Midlands.

I can't of course be sure it is the moon garden attracting these new species; it could just be







coincidence. But since that page 3 area of the garden now looks so lovely and smells so heavenly at night, it's a bit of a win-win. I shall probably try to expand the moon garden next year - more flowers will hopefully mean even more moths and who wouldn't want that? I'm still waiting for the elusive Convolvulus Hawk-moth that the tobacco plant flowers are supposed to lure in - maybe next

Article by Nicky Rowberry Photographs by Nicky Rowberry and Chris Leonard

* butterfly-conservation.org/news-andblog/dig-it-october-tips-from-the-secretgardener-2

Peccells from caterpillar to butterfly











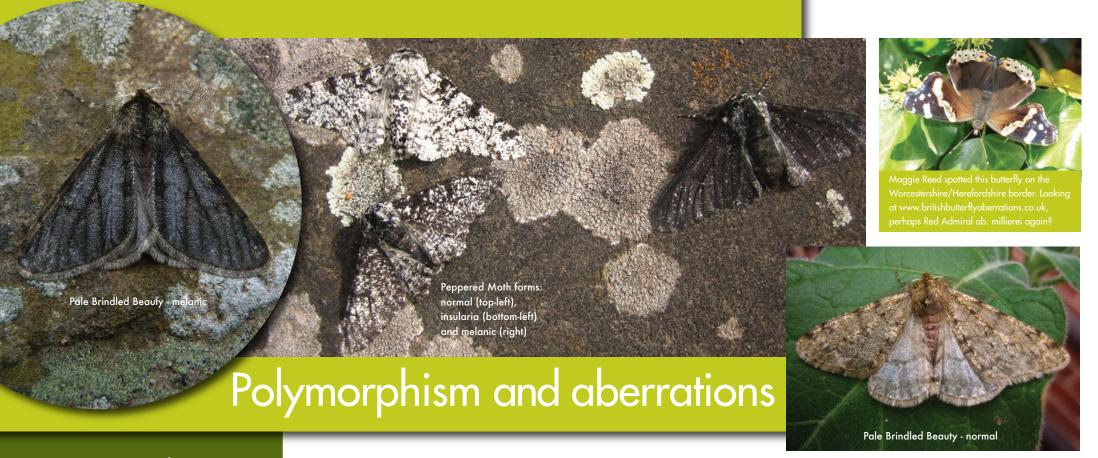












Part 1 – Melanism

Drompted by the editor's note adjacent to the beautiful photo of the 'white' **Red Admiral** (ab. millierei) in the Autumn 2019 Comma, I thought it would be interesting to write two articles on polymorphism and aberrations – this first on melanism and a second on other variations in the next Comma.

Melanin is a blackish-brown pigment found throughout much of the animal kingdom and responsible for the dark colour of skin and hair. It is almost universally found to some extent in Lepidoptera.

Melanic species

Many moths have forms [morphs] that are almost completely black, knowns as 'melanics'. The most famous of these is the **Peppered Moth**. This has three main forms, the now common 'peppery' one, the black [melanic] and an intermediate form called 'insularia'.

Insularia is genetically quite distinct from the other two forms. The rest of this article refers to the normal and melanic forms

There are many other common melanic moths, including Pale Brindled Beauty and Green-brindled Crescent. Melanic butterflies occur but are very uncommon.

Scientific studies

The Peppered Moth became widely known because its normal (pale) form was almost universal until the 19th century when the melanic (black) one came to replace the pale form in industrial areas, particularly in the North of England. In many areas, the pale form became extremely rare and the melanic form even spread into much of the countryside around the industrial towns.

In 1952 Dr Kettlewell, an eminent entomologist, carried out field experiments to demonstrate natural selection. He did this by showing that the melanic form had a protective advantage over the pale form from bird predation (mainly by robins and sparrows) on sooty tree

Since the Clean Air Act of 1956, there has been a rapid reversal to such an extent that the melanic form is now rare and the pale form common.

Dr Kettlewell's findings were challenged by some zoologists, and those who didn't believe in Darwin's theory of evolution by natural selection. However, in 2012, Harvard University published the results of field studies carried out, over six years, by Professor Majerus of Cambridge University involving 4864 Peppered Moths. His studies clearly showed that the peppery form now had a marked selective advantage over the melanic form on tree trunks, which are no longer blackened by soot. This strongly supported Kettlewell's work, and Darwin's theory of evolution.

To find out more, search the internet for 'Peppered Moth Kettlewell' and 'Peppered Moth Majerus'.

Alternatively, obtain a copy of The New Naturalist: Moths by E B Ford.

Geographical melanism – latitude and altitude

The Green-veined White, our most widespread butterfly, has much darker markings in Scotland or high up on mountains. The darker colour - caused by melanin pigmentation of the scales that give the 'green' veins – is thought to help in absorbing the sun's energy. This raises the body temperature, which is critical to successful adaptation in a colder environment. The increase in dark scales is partially due to the colder temperature prolonging the stage of pupal development when melanin is deposited in the scales and partially due to genetic factors. This further demonstrates adaptation due to natural selection. To find out more, search the internet for 'Linnean Society Pieris napi Maria Tuomaala'

Article and photographs by Paddy Matthews



close inspection, positively heaving with butterflies.

Any patch of roadside waste ground, where slowmoving trucks pull over to allow a dozen or so cars (and probably a couple of cyclists) to pass, is as good as another to stop and explore. The first Satyr sighting, a Great Sooty, is not so much about its size as the attention-grabbing velvet blackness. In the rough ground, tyre tracks that, all too rarely, collect some rainwater are oases, attracting species too numerous to name. Fritillaries, skippers, heaths, ringlets, graylings, coppers, blues, browns and whites all come in multiple guises. Here is where we get to thrill at our first Titania's **Fritillary**, or wonder if the flash of bright orange that is a male Scarce Copper will ever come to land.

The broad, flat valleys are only two or three thousand feet above sea level (only!) but lesser roads lead off to the left and the right, winding and climbing, until we find a patch of ground big enough to park the car. As we get ever closer to being a mile high, this is indeed

C tanding at the top of Col de Rousset, admiring the Obreathtaking view in the company of a few hundred other tourists, it's difficult to believe that the Vercors has some of Europe's least-known scenery. Down in the bottom right corner of France, on the edge of the Alps, this is famous in winter as the Val d'Isère region. In

The hills are alive ...

scenically zig-zag our way up the steep escarpments, in the company of cyclists whose idea of pleasure is not the same as mine. The escarpment walls are steep so,

another world to anyone living in the kept and, on close West Midlands. What we have come to see (let's be honest about this) is the Apollo. Our first sighting is a cause for excitement, because - you never know it might be the only one we see. Or, by lunchtime, we might have taken so many Apollo photographs that the sight of yet another white dinner plate lazily fluttering up to us ... well, maybe And no shortage of burnets or Scarlet Tigers, as Great Sooty and friend well as what my wife assures me was Mythimna conigera* (is that good?). The loveliest wildflowers everywhere, beautiful demoiselles flutter over streams and there are a few birds we don't see every day, such as Rock Buntings and Alpine Choughs - but mostly the ubiquitous Black Redstarts. It was an easy, relaxed 1800-mile drive there and back on France's autoroutes péages, despite all today's Covid-19 restrictions. I'd been home for a week, most of my photos were identified - but already I longed to be back there. Problem: flights to Grenoble are only for skiing holidays. Article and photographs by Martin Harrison * Brown-line Bright-eye



A sting in the tale (or not?)

Lunar Hornet Moth

The launch this summer of a new pheromone

lure designed specifically for Lunar Hornet

has led to the discovery of many new

locations for this moth but it's still very

unusual to encounter one without such a lure.

We have an article on using clearwing lures

scheduled for the Spring 2021 Comma.

It's the middle of summer, the sun's shining and you're sitting on the lawn reading your latest e-book from the library on your phone when a hornet lands next to you.

What do you do?

- 1. Try to remember where the epi-pen is.
- 2. Squash it on the arm of the chair with your phone.
- 3. Turn on your phone camera and take its picture?

Well, it was almost like that. Catherine and I were sitting on the lawn, with Mike and Jo (socially distancing of course), who had called in to help us

put the world right in these difficult times!

And, indeed, lo suddenly announced that a hornet had just landed on the small willow tree behind me. 'It's a funny looking hornet', said Mike, picking up a pot and popping the beast into it.

Discussing moths

What I haven't explained is that Mike's the County Micro-moth Recorder and I'm the Assistant Recorder and we were (as usual) discussing moths - hence the handy pot. And, possibly of more interest, neither of us 'experts' had noticed the visitor!

But now, with the 'beast' in the pot, it was identification time. Yes, it was a hornet of sorts - a Lunar Hornet Moth (Sesia bembeciformis). It's a wonderful example of Batesian mimicry, a form of mimicry described by English naturalist Henry Walter Bates,

where a harmless species has evolved to imitate a more dangerous species to deter potential predators.

It's also quite harmless, so the epi-pen was not needed!

Facts and figures

So what? Well, here are a few facts and figures. This was only the 20th record ever for this moth in Shropshire, and only the third this century. It was also only the fourth record ever for Church Stretton; the other three were in 1901, 1908 (F.B. Newnham) and

> 1938 (H.G. Burkhill). The last record for Shropshire was four years ago at Oswestry. So, squashing our visitor would have been a very bad move.

> Hornet Moth lays her eggs on Goat Willow and Common Osier trees (and some sallows) that are at least 6cm in diameter. The larva (caterpillar) eats the wood and remains there for up to two years before becoming an adult moth. It makes one wonder how this moth manages to find a mate to ensure the survival of the species.

So, taking a photo

Article and photograph by Graham Wenman and Mike Shurmer County Micro-moth Recorders

The female Lunar

was a very good idea - as you can see.

Branch contacts

	Officers			
	Chairman Vice Chair Treasurer Secretary Recording, Transects, Website Publicity, Marketing Regional Conservation Manager (BC) Reserves Officer (BC) Conservation – Herefordshire Conservation – Worcestershire Moths – Birmingham, Black Country Moths – Herefordshire Moths – Worcestershire	Mike Southall* Mel Mason* Peter Seal* Martin Harrison* John Tilt* Mike Williams* Rhona Goddard Lucy Morton Ian Hart* Trevor Bucknall* David Jackson* Robin Hemming* Mike Southall* Mel Mason* Simon Primrose* Philip Nunn	michael_southall58@hotmail.co.uk melimason@btinternet.com peterseal3@btinternet.com martinh1236@yahoo.com john.tilt2@btopenworld.com wmbutterflies@gmail.com rgoddard@butterfly-conservation.org lmorton@butterfly-conservation.org yellowrattle4@aol.com trevor.bucknall@outlook.com jacksongrus@talktalk.net robinhemming@btinternet.com michael_southall58@hotmail.co.uk melimason@btinternet.com simonjprimrose@aol.com philip-nun@hotmail.co.uk	01299 251467 01684 565700 01905 426398 01743 351929 01386 792458 01299 824860 01746 762364 07503 220191 01981 510259 01905 755757 01902 344716 01568 797351 01299 251467 01684 565700 07952 260153 07931 488624
		1 milp 1 40mi	primp from whom and a co.ok	07701 100021
	Reserve Managers Ewyas Harold Grafton Wood Monkwood Prees Heath Trench Wood	lan Hart* John Tilt* Phil Adams Stephen Lewis* Matthew Bridger	yellowrattle4@aol.com john.tilt2@btopenworld.com pdadamsrainbow@gmail.com phwarden@sky.com bridge1805@btinternet.com	01981 510259 01386 792458 07725 622342 07900 886809 07801 568334
	County Records Coordinators – but	tterflies		
	Birmingham, Black Country Herefordshire Shropshire Staffordshire Worcestershire	Richard Southwell Bob Hall Ian Draycott Tony Jacques John Bryan Mike Williams* Mel Mason*	richard_southwell@hotmail.co.uk randphall@gmail.com idraycott@yahoo.co.uk rec-vc40@vc40tj.plus.com johnpbryan15@aol.com wmbutterflies@gmail.com meljmason@btinternet.com	01384 397066 01432 850623 01600 891123 01952 882096 01299 824860 01684 565700
	County Moth Recorders			
	Herefordshire Shropshire – macro Shropshire – micro Staffordshire Worcestershire	Peter Hall* Tony Jacques Mike Shurmer Graham Wenman David Emley Tony Simpson	peter.herefordcmr@btinternet.com rec-vc40@vc40tj.plus.com mpshurmer@gmail.com gjwenman@yahoo.co.uk recorder@staffsmoths.org.uk Tonysimpson.1945@hotmail.co.uk	01886 822135 07565 802480 07484 185039
	Other committee members			
		Martyn Davies* Jenny Joy* Joy Stevens* Sarah Wager* Steven Williams*	martyn.davies808@gmail.com jenny.joy17@outlook.com joystevens@blueyonder.co.uk s.wager01@btinternet.com s.williams@yescomputers.co.uk	01432 266703 01952 249325 01384 372397 07974 152081
_				

^{*} Committee members • For more information, see www.westmidlands-butterflies.ora.uk/contacts

Book Review Field Guide to the Caterpillars of Great Britain and Ireland

Field Guide to the Caterpillars of Great Britain and Ireland

- ISBN: 9781472933560 Authors: Barry Henwood, Phil Sterling
- Illustrator: Richard Lewington Publisher: Bloomsbury Publishing
- Cost: £34.99 Publication date: March 2020 Format: Paperback, 448 pages, 64 plates with 900+ colour illustrations; 199 colour photos, 828 colour distribution maps



This field guide has long been awaited by the

many students and followers of butterfly and moth natural history; there is available a large reference library devoted to the adult imago, but comprehensive and up-to-date caterpillar field guides are much scarcer. This publication sets out to put that right, so that a caterpillar can now be correctly identified in the field or photographed and compared to the illustrations and text back home.

First and foremost for me are Richard Lewington's illustrations. More than 900 superb colour artworks are displayed, separated into species and family groups. They are just magnificent: the caterpillar body details, colouration and the all-round physical appearance are breath-taking. He is a master painter of insects, featured in a series of modern classic field guides, and so it is here.

Scrutinising more closely, I compared three illustrations: a larger image of the Elephant Hawk Moth, a smaller image of a Looper species, and lastly a hairy Garden Tiger. In all three images, the publishers have ensured that Lewington's work is faithfully reproduced. This continues throughout all of the plates, a fitting testament to the meticulous mastery of the originals, and results in the best set of images one could wish to have for the reliable identification of caterpillars.

With a few exceptions, the illustrations show the final caterpillar instar. It was not possible to include all instars (up to five) for each species, with 900 artworks required just for the final and largest stage. It is also important to

Barry Henwood, a member of the British Entomological and Natural History Society, has written and contributed to papers and journals, and now volunteers for Butterfly Conservation. Interested in butterflies, moths and caterpillars since boyhood, he has reared and photographed the caterpillars of several hundreds of macro-moths and butterflies.

Phil Sterling, a Fellow of the Royal Entomological Society, currently works for Butterfly Conservation on a UK-wide project to improve wildlife habitat in the built environment. Phil has written books and papers, and speaks on the environment and wildlife.

note that micro-moths are not included. A number of volumes would be needed to cover them all.

The text is written in an accessible but informative style, which will appeal to both newcomers and seasoned caterpillar enthusiasts. The introduction gives details of lifecycle, rearing, how to find larvae, generations and other useful information. The distribution maps are easily cross-referenced to the illustrations and show the up-to-date status of species. Field characteristics, similar species, habitats, food plants and field notes are concisely included below the maps. Towards the end of the guide, there's a separate checklist of Great Britain's macro-moths and butterflies and a helpful section on scientific names of plants and their associated butterfly and moth species.

Most highly recommended, this publication works as an invaluable guide to aid and advise on correct caterpillar identification, all presented in a clear, comprehensive and concise format. Get this book and you get a classic – the illustrations alone are worth the entrance fee!

Review by Melvyn Lambert

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. Designed by morgar