Cornwall Butterfly Observer



THE RED ADMIRAL: A CORNISH LIFE

Jerry Dennis discusses the lifecycle and migration of this remarkable butterfly (page 23)

BUTTERFLIES OF CORNWALL: ATLAS FOR THE TWENTY-FIRST CENTURY

A big thank you for contributions so far, and the next big push (page 8)

PARKING 4 POLLINATORS: FEEDING BUTTERFLIES

A project that could inspire other local businesses to do their bit for pollinators (page 10)



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Background image this page: Orange-tip (photo: Shaun Poland) Front cover: Marbled White (photo: Steve Batt)

Chairman's report

Dear reader.

I hope you have been keeping safe and well, as each of us has had to adapt to living with coronavirus. Faith and I know that we're luckier than most, enjoying Lethytep as spring and summer transformed our meadows, woods and lakes. Inevitably, all our fundraising events here were cancelled, including the annual Open Day that raises funds for CBC. That disappointment was mitigated to some extent by our being relieved of the weeks of preparation to open our grounds to the public. And, of course, I was really disappointed to miss out on our weekly shopping trip to the supermarket! Much thanks to the younger members of our family whose first-class delivery service kept us going.

Cornwall's Lepidoptera know nothing of the pandemic, and have presumably continued their annual cycles uninterrupted by people observing, counting, photographing and generally enjoying them. The warm, sunny spring, quieter roads and empty skies during lockdown might have had a beneficial impact on wildlife and certainly seem to have made more people aware of the countryside and their connection to nature. Whose spirits could fail to be lifted by the sight of Orange-tips nectaring on wayside bluebells?



Orange-tip on Bluebell at Lamellion Mill, Liskeard, April 2020 (photo: Tristram Besterman)

As the year progressed,
Government restrictions eased,
allowing us to get out and about
more; your valuable records are
showing healthy populations of
most species. For the past ten
years or so, your butterfly records
have been diligently processed by
Committee member, Dick Goodere.
As County Butterfly Recorder, Dick
has checked and forwarded
Cornwall butterfly records to the
ERICA database, managed by Colin
French and supervised by the

Cornish Biodiversity Network. ERICA holds by far the largest number of Lepidoptera records for Cornwall. It is a huge task for the County Recorder,

which calls for care, accuracy, knowledge and enormous commitment. Dick's input as County Recorder, with the support of his wife, Maggie, has been crucial to the species pages in the new *Butterflies of Cornwall: Atlas for the Twenty-first Century*, to be published in 2021.

Dick has now decided to retire from this role, and we all owe him a huge debt of gratitude for his years of unstinting dedication to Cornwall's butterflies. I'm delighted to report that Dick's successor as County Recorder is Cerin Poland, a member of the CBC Committee, who has already distinguished himself by spotting rare Lepidoptera in the County. In June last year, he shot to national prominence for finding the larva of the Narrow-bordered Bee Hawk-moth on Goss Moor, thought to be locally extinct. He knew what to look for and where to look. Cerin can now add to his achievements the distinction of being currently one of the youngest County Butterfly Recorders within Butterfly Conservation nationwide.

Having joined CBC some twelve years ago, I have had the privilege to serve as your Chairman for the last ten years. I have now reluctantly decided that the time has come for me to pass on the Chair's baton. Dick has generously agreed to take on the responsibilities of Acting Chair until he retires from Committee next spring, by which time I hope that a new Chair will have been found.

I am proud to have seen our Branch go from strength to strength during my term of office, with a three-fold increase in membership in Cornwall, now close to 900. An extremely effective team of volunteers on the CBC Committee has worked immensely hard to deliver this and many projects to increase our knowledge of butterflies in the County and to manage habitats to conserve them. I wish to thank my fellow Committee members for their support and professionalism during my tenure. I am immensely proud of them. The Committee meetings are but a fraction of the ensuing workload and organisation that follows. I feel so very privileged to have had their experience, loyalty and friendship during my term of office.

I will continue to be involved in CBC in other ways and look forward to meeting up with you in the future. Thank you for your support. My best wishes and good luck to you and to everyone who supports the Cornwall Branch.

PS. We are always looking for people to join our Committee. To find out more, please contact our Hon. Secretary, Emily Fraser, on 07736274477, or by email at secretary@cornwall-butterfly-conservation.org.uk

Philip Hambly CBC Chairman

Thank you, Philip!

Two of our Committee members pay tribute to the retiring Chairman

Dick Goodere, Acting Chair

On behalf of CBC Committee, as Vice-Chair and now Acting Chair, I would like to thank Philip for his exceptional contribution to the Committee and the Branch over the last decade. He recruited me to the Committee in 2013, and throughout the last seven years I couldn't have wished for a better leader!



Philip with Kevin Austin, advocate and practitioner of nature-friendly mowing, who has mowed some of the areas at Lethytep (photo: Tristram Besterman)

Philip joined the Committee in January 2011 and took over as Chair in 2012 at a time when there were some very difficult issues which the Committee had to contend with. Philip, in his characteristically fair but



Philip chats at the 2017 AGM with Cornwallbased documentary maker, Nina Constable, who made Cornwall's Butterflies Back from the Brink

firm way dealt with these matters with considerable tact and perseverance. After the departure of some Committee members in 2013/14, Philip oversaw what can only be described as the halcyon days for both the Committee and the Branch. Philip's strong support for the appointment of the Volunteer Coordinator was crucial in seeing a dramatic increase in the number of volunteers involved in both monitoring and conservation work as well as a rise in membership which has continued to grow year on year ever since.

Our relationship with a variety of partner organisations has been notable, with Philip always acting as a truly effective ambassador. This has resulted in the Branch's involvement in a whole series of projects, and in forming excellent working relationships with other agencies and organisations. Philip, you will be such a hard act to follow!



Philip with fellow Committee member, Jo Poland (photo: Cerin Poland)

Tristram Besterman, Chair of Finance Committee and Atlas Working Group

I first met Philip Hambly and his wife, Faith, in July 2011, when I found myself swaying gently in the canopy of a large oak at Lethytep, their home near Looe. I was riding atop a cherry-picker that Philip had hired for CBC members to get up-close and personal with some Purple Hairstreak butterflies. There was something of a carnival atmosphere. while Philip quietly made sure that everyone had the chance of a ride to the treetops. This first encounter with Philip epitomises some of the unique qualities he brought to CBC: a deep engagement with the natural world, a passion for butterflies and his joy in sharing with others all that Lethytep had to offer.

Great generosity of spirit is but one of Philip's personality defects. Very soon after I joined CBC's Committee about five years ago, we each realised that we could pull the other's leg mercilessly. Innuendo was taken to hitherto unplumbed depths. In the Committee chair, Philip presided with

a gentle, self-effacing but steely determination that we should get through a challenging agenda by 10pm, when he would ease himself behind the steering wheel and give me a lift home. The erstwhile owner of Hambly's Coaches was a consummate driver, who could not abide being driven (by anyone, I hasten to add). I was more than happy to entrust myself to his chauffeuring skills, which saw us safely through countless journeys between Allet and East Taphouse, occasionally though torrent, blizzard and ice.

"He has farmed locally for many years, and understands the turning of the year in meadow, hedge and wood."

Philip brought authenticity to CBC. Born and bred in Pelynt Parish, Philip's voice embodies the values of the Cornishman, of a man who knows the land. Alongside the coach business, he has farmed locally for many years, and understands the turning of the year in meadow, hedge and wood. These qualities are captured in *Cornwall's Butterflies Back from the Brink*, Nina Constable's wonderful video on the CBC website, and entirely his idea.

Selling the coach business gave Philip the opportunity to transform his farm at Lethytep. Sustainably farmed pasture became rolling acres of wildflower meadows, yielding an abundant crop of insects, birds, mammals and highly nutritious hay. Abundant purple swathes of orchids moved in alongside many other rare



Philip leads a group of happy visitors around his wonderful, wildlife-friendly farm, Lethytep (photo: Tristram Besterman)

plant species. The lakes he created became home to kingfishers, dragonflies and, most recently, Yellow Loosestrife, known in only a handful of other locations in Cornwall. Every year, Philip and Faith have opened Lethytep to the public, to raise funds for good causes. The CBC Open Day has raised significant funds for the branch every July.

Faith's cooking is legendary. The main reason I turn up for the AGM in April is the thought of Faith's mouthwatering gingerbread and cheese straws. All baked at home and integral to the Philip-and-Faith offer, contributing mightily to fundraising and general happiness.

Philip's leadership style brings out the best in everyone with whom he works. He motivates and brings people together. It is entirely unsurprising that, during his chairmanship, Cornwall Butterfly Conservation has gone from strength to strength. We will miss him, but he goes like a good steward of the land, leaving us in far better shape than he found us. In his specially created role as Emeritus Chairman. I know that Philip will continue to support CBC in other ways, so we have the compensation of knowing that we probably haven't tasted the last of Faith's baking.



A funding update on Butterflies of Cornwall: Atlas for the Twenty-first Century

The story so far...

A big, big THANK YOU to all of you who have dug deep and contributed so generously to the cost of publishing our new Cornwall butterfly atlas, due out in 2021. Your donations and species sponsorship have raised a stonking £6,800 towards our target of £10,000. And you did that despite coronavirus and all the challenges that has brought into our lives. Your support has given us a real boost and the project a huge vote of confidence at a difficult time.

If you'd like to check out the new butterfly atlas, please visit the Cornwall Butterfly Conservation website and click on the Atlas tab, where the publication is described at http://www.cornwall-butterfly-conservation.org.uk/atlas.html

The next big push...

So the good news is, we're on track and have just £3,200 still to raise. We now need to enlist the support of businesses and organisations in Cornwall, and maybe some generous benefactors to take this over the line. If you know of, or buy from, an organisation, company, local business or individual, who you think might support and promote

nature conservation in the county, your contacts and suggestions could unlock that last bit of crucial funding.

We need your help to suggest...

...Major Donors invited to give at least £150. In return, their name (business or individual) will be credited in the book and they will receive a complimentary copy of the new atlas (RRP £29.95).

...Premium Sponsors invited to donate £500 or more. In return they will credited at the beginning of the atlas and receive three free copies.

If you know of anyone or any business that we can approach, please get in touch. Jim Cooper and Jo Poland would welcome your suggestions either by email or by phone, if you'd like to chat about your ideas and contacts. Or, if you prefer, you can point them to the online details of how to support Butterflies of Cornwall: Atlas for the Twenty-first Century detailed on the 'Atlas' tab on the CBC website.

Our contact details:

Jo Poland:

publicity@cornwall-butterfly-conservation.org.uk; 01872 540 371

Jim Cooper:

fundraising@cornwall-butterfly-conservation.org.uk; 01872 560 710

Please get in touch: we'd love to hear from you.

THANK YOU.



CBC members check an ID at South Crofty (photo: Tristram Besterman)

Good with numbers?

We are seeking a Treasurer to join the CBC Committee as we plan for our exciting Atlas publication and navigate the challenge of coronavirus. The role is to ensure we live within our means when we plan and deliver our programmes. Cornwall Branch is in a healthy financial position and the new Treasurer will take over a budget structure in good order.

The Treasurer is the link between the Branch and Head Office for all financial matters. Accounting records and bank transactions are done by Head Office, so no formal qualifications are needed - just a good head for numbers and ideally handy with a spreadsheet. Committee meetings are currently held online quarterly. Advice and support will be provided by Helen Barlow, our current Treasurer.

If you are interested and would like to find out more (no commitment assumed!), please contact Tristram Besterman on 07796 660057 or t.besterman@gmail.com. **THANK YOU!**

Parking 4 Pollinators

Jeremy Roberts is a very busy man. He has a business to run, is co-owner of a large car park in Mevagissey, Chair of the *Three Bays Wildlife* group, and a valued CBC member and volunteer. Read on to see the amazing things he is doing to help pollinators in Cornwall



Planters full of pollinator-friendly plants (photo: Jeremy Roberts)

The bumblebees and butterflies used to fly straight past Willow Car and Coach Park in Mevagissey, but not any more, thanks to the launch of an exciting new initiative *Parking 4 Pollinators*.

The concept was developed by coowner of the car park, Jeremy Roberts, who, as chairman of local group *Three Bays Wildlife*, was growing frustrated at not being able to identify pollinators as they flew past, and by their decline nationally. Jeremy said:

"In recent years I have developed an interest in pollinators, particularly

butterflies and bumblebees, and I was frustrated that when at work I could not identify them, as they flew past too quickly. So I thought, why not just create parking for them as well in the form of wildflowers which they could stop and feed on?

"The Parking 4 Pollinators project will not only provide a food source for local pollinators but hopefully send a message to visitors and other businesses that they can also create their own parking for pollinators and help address their national decline".

The initiative was in part made possible with a grant from *Tevi* (Cornish for *grow*) which is a source of European Regional Development funding (https://tevi.co.uk/). The funding allowed for the creation of planters of different shapes and sizes, with specific planting in borders of the car park, to provide food sources throughout the year by Penryn-based company Muddie Wellies Ltd, and also a showstopping mural created by local artist Aza Adlam in which visitors can take a selfie as a butterfly.

It is hoped that this is just the beginning of the *Parking 4 Pollinators* initiative, with a pop-up shop at the car park selling the goods needed to create your own parking for pollinators, and hopefully a phase two in the autumn that will see further planting and the development of the concept with other businesses.

If you are interested in the initiative please contact Jeremy: info@parkingforpollinators.co.uk



Aza Adlam's beautiful mural for the Parking 4 Pollinators project (photo: Jeremy Roberts)

Volunteering update

Jo Poland, CBC's Volunteer Coordinator, explains the latest on when we may be able to get out volunteering with CBC again

The CBC Committee have asked me to update you all on the current position regarding volunteering for the Branch. At the time of writing, a new update to the current COVID 19 guidance has just been received from Butterfly Conservation Head Office. It looks as if it may be possible to resume some volunteering activities but, in order to decide this, the Committee are going

to fully consider all aspects of the guidance at a 'virtual' meeting soon.

We will update you on the results of this when we can, and everyone on our volunteer list will be individually contacted by email.

Thank you for your patience and support during these most challenging of times. The safety and welfare of our volunteers and the general public continues to remain our overriding concern.



DIY moth trapping for beginners!

Kaitlyn Elverson, CBC's Volunteer Education and Social Media Officer, explains how to get started with moth trapping

Why do moth trapping? As many moths are nocturnal, and there are a lot more of them than butterflies in the UK, they can sometimes be hard to spot and identify, especially if you're a beginner. That's where moth trapping comes in handy. Professionals have fancy traps that use light, food, or pheromones to help draw moths in to a collection area where they can be observed and/or photographed to identify them. Information gathered can be very useful for monitoring local species and their populations.

How to do it!

To trap something might sound cruel. However, you can make a 'trap' at home that isn't harmful at all to your flying friends. Here is your simple step-by-step guide to a DIY moth trap from home:

- Grab your equipment and head outside when the sun has gone down. Find a spot where you can either lay down or hang your sheet.
- 2. Lay or peg up your sheet.
- 3. Stand back and shine your torch at the sheet.
- 4. Wait and let the moths come to you. You can either watch or try and identify the moths that land on the sheet. Taking photographs that you can come back to later is useful.



Top tips for moth trapping

- Choose a dry, warm and still night to set up your trap, avoiding a full moon: these are perfect conditions for moths.
- Invest in an ID guide so that you can ID on the go! A good one is Concise Guide to the Moths of Great Britain and Ireland by: Martin Townsend, Paul Waring and Richard Lewington (ISBN: 9781472957283).
- If you don't have a spare sheet or anywhere to hang one up but still have a torch, shine it at your home's windows, walls, fences or outside plants instead. You are still more than likely to spot some moths!
- Be careful not the shine your light into other people's gardens or windows; we don't want to annoy our neighbours!

We'd love to see your DIY moth traps and any moths you find! You can send any photos addressed to Kaitlyn via the Butterfly Conservation Cornwall Facebook page with your name and what you've found! We can always help you identify any moths you're stuck on. You might just get your pics featured in a future Cornish Social Butterfly Quiz! (See next page for a special newsletter edition of the Quiz.)

Perhaps you'll find a beautiful Angle Shades moth in your DIY moth trap (photo: Shaun Poland)

Buzz words

Moth trapping: a way of temporarily trapping or attracting moths to better observe, identify and record species

Nocturnal: only comes out at night

Pheromone: chemicals released into the air by animals that influence others of the same species

Species: a group of organisms of the same kind, capable of breeding to produce young



Welcome to our Cornish Social Butterfly Quiz: The Newsletter Edition!

Thank you to everyone who has followed along with the quizzes on our Facebook page. Since the first newsletter edition is such a special occasion, we thought we'd give you 10 questions with 10 fluttering points up for grabs! Happy quizzing! The answers are on page 22.

Questions 1, 2 and 3 are about ID. Can you identify the following butterflies?



- 4. Teeny tiny moths are categorised in a group. What is the name of that group?
 - A. Micro-moths
 - B. Nano-Lepidoptera
 - C. Micro-Lepidoptera
- 5. Some butterflies and moths are very good at avoiding predators as they have evolved to look like another species. What is this called?
 - A. Camouflage
 - B. Blending
 - C. Mimicry
- 6. True or False: You can see all butterflies all year round.
- 7. True or False: You can only get big butterflies, not big moths.

The last three questions are pairs of images that, when put together, will give the name of a moth species. For example, if you had pictures of July and a bluebell flower, you can put them together and get a July Bell.



How did you find those questions? We'd love to know your scores, so let us know how you did on our Facebook page. Thanks again for playing along: we'll catch you next time! Don't forget the answers are on page 22 - but don't cheat!

Membership news

Branch Membership Secretary Kathy Wood brings us the latest Branch membership information

First, I'd like to welcome the new members for whom this is their first edition of Cornwall Butterfly Observer. I hope you enjoy it and that you will find it informative. Previous editions can be downloaded from the Cornwall Butterfly Conservation website http://www.cornwall-butterfly-conservation.org.uk, and will show you what an active organisation CBC normally is.

Due to Covid-19 we have not been able to put on our usual events (Butterfly Fair and AGM, Open Day, field trips, conservation work, stalls at public events for the purposes of publicity, fund-raising, recruitment and public education). The details of many of the events and conservation opportunities planned for 2020, which had been arranged before the crisis began and later had to be cancelled, have been deliberately left on our website so that you can see the kind of thing we usually do and hope to do next year. We usually carry out habitat improvement work during the autumn and winter but at the moment we do not know when.

or whether, we will be able to start this year's work.

Once lockdown had eased a little, individuals or family groups were able to carry out some of the planned surveys but we were still not able to meet in groups for the purpose. Fortunately, the members of the Atlas Working Group have been able to carry on their work online, so the new Butterflies of Cornwall: Atlas for the Twenty-first Century is still scheduled to be launched in spring 2021. The Branch Committee has also met, more frequently than usual, via Zoom. The Poland family have kept our website, Facebook page and Twitter account (links on the Home page of our website) going, and these have helped draw in more new members. Many thanks to new volunteer Kaitlyn, who produced a series of 12 weekly guizzes for all the family, which appeared on our Facebook page at the height of the lockdown and were very popular. All answers can be found on the national **Butterfly Conservation** website, so participants could hunt for the answers they didn't already know, and probably learn more in the process.

We have not been able to recruit new members in person as we usually do, but membership has continued to rise, though more slowly than usual. Branch membership is now 586 households (846 individuals) Please do all you can to help us increase that.

The more members we have, the more we can do for the benefit of butterflies and moths.

To ensure that you always receive our magazines and secure group emails, please inform me of any change to your contact details and put the following address in your contacts: butterfly.conservation@cm p.dotmailer.co.uk. This address does not receive emails, only sends them, so to contact me please use my official email address (see the Contacts information). Thank you and I look forward to meeting you when something approaching normal activities can resume.

A poem for butterflies as autumn approaches, by Kelly Uren

Jewels of Summer

Stay a while my special friends,
Though autumn's nigh, summer not yet ends;
The joy you bring is without compare,
For when you're gone days seem so bare;
Like precious jewels you flutter by,
Jauntily roaming the balmy sky;
Resting for a moment's pause,
Then off you go on with your cause;
Too soon are you quickly out of view,
Heading off into skies of blue.

Background photo of Holly Blue (Shaun Poland)

What I did in 2020

Sue Allen muses on a strange year

My diary for spring and summer was brimming with wildlife-related activities and events. Then came the lockdown. Volunteering cancelled. Field trips cancelled. Recording cancelled. Surveying cancelled.

For the first few weeks I walked every day if I could, and the weather was amazing. I got to know places in my local patch that I didn't know existed. I walked obsessively, and if I saw butterflies, I recorded them. Truro has probably never featured so frequently in the records.

"I got to know places in my local patch that I didn't know existed."

When restrictions were lifted, I met up with Steve Batt (socially distanced, of course!) to survey sites for the new *Butterflies of Cornwall*: *Atlas for the Twenty-first Century*, to be published in 2021. The plan is to include a chapter on where to see butterflies in Cornwall. We have a list of places to visit and less time than expected to check them out. It has been a whirlwind tour from Seaton to Port Quin to Godolphin and Gwennap Head (I roped in some help from Jerry Dennis here), and a dozen places in between.

This year has been completely different (including meetings with CBC colleagues on Zoom!) and difficult for us all, but I hope you might like to see a few of our favourite spots.









Poppy fields at West Pentire

Breney Common

Rocky Valley, nr. Tintagel

Poldice



Recording

The latest updates from our County Recorders

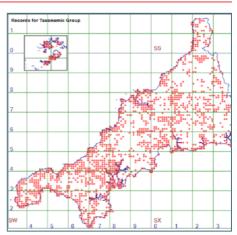
Butterflies, 2019

Dick Goodere brings us his last report as County Butterfly Recorder before handing the baton to Cerin Poland

Once again the Meadow Brown was the top butterfly in terms of records and abundance. However, apart from this regular achievement, 2019 was full of surprises and also a bit perplexing! After such an excellent year in 2018, we didn't expect to report such high numbers in the following years. In fact, last year, 37,147 records were received. which is the highest ever compared with 34,316 in 2018, although there was a drop in abundance. A total of 119,418 butterflies were counted, which was down on the previous year's figure of 136,270. The Painted Lady invasion produced 3.000 records with over 11.500 butterflies counted and therefore contributed somewhat to the totals. Between 2014 and 2017, the average records and numbers were c. 20,000 and 60,000, respectively, so the dramatic increase reported in 2018 has been broadly maintained.

ERICA, the database used by CBC, which contains over 4 million records of flora and fauna in Cornwall, has the ability to provide, at a touch of the keys, detailed distribution maps of all the species and their abundance that even technophobes, like myself, have learnt to do with ease!

Records continue to be received from an ever increasing number of individual recorders. The final total includes the data from the transects, which have



Distribution of all Cornwall and Isles of Scilly butterfly records for 2019 (inset shows Isles of Scilly, not in actual location). Source: ERICA database

expanded to a magnificent 48, and are verified by the two Transect Coordinators. The numbers on our database have been significantly boosted since 2010 by figures from the Big Butterfly Count. The number of people taking part in this has increased each year and contributed over 5,100 records in 2019. In addition, the use of ibutterfly apps has also increased significantly in the last three years. This data, together with the Wider Countryside Butterfly Survey, the Garden Butterfly Survey and Migrant Watch figures are collated and validated by Butterfly Conservation. All these records, which have to be verified by the County Recorder, are then entered into ERICA by Dr Colin French who owns and manages the database. This is a Herculean task for which, as County Recorder, I am extremely grateful.

The ups and downs of the 37 species are shown at the end of this report. A total of 17 species were "up" and 17 down and, amongst the "up" species, 10 showed the highest numbers ever recorded.



Orange-tips were among those species that had the best results in 30 years (photo: Mike Scawen)

Three of the 17 species which have done well were Section 41 species, which are designated as the most threatened butterflies. The increase in reported numbers for two of these, the Grizzled Skipper and Grayling, probably reflects the diligence of the two respective Species Champions who have been monitoring and recording them closely, and encouraging other recorders to

report the butterfly. The Grizzled Skipper, nevertheless, remains the species in Cornwall most vulnerable to extinction as it is now only recorded on one site. The numbers of the third species, the Pearl-bordered Fritillary, are also very impressive, which must be partly attributable to the intensive monitoring and conservation undertaken by volunteers and the team from the three-year All The Moor Butterfly Project (ATMB) which finished in April 2020. As always, the Marsland Reserve also boosts Pearl-bordered Fritillary numbers considerably.

Unfortunately the Marbled White had its worst year ever, although it is a mystery as to why this should be so, especially as our statistics appear to be completely out of step with the latest information from the UKBMS (transect) scheme, which reported that this butterfly had done particularly well elsewhere in the UK in 2019. Please could members be sure to report any Marbled Whites they see in 2020!

How did 2019 species compare with 2018?				
Up	Down	Similar		
Brimstone Brown Argus Clouded Yellow Gatekeeper* Grayling* Grizzled Skipper* Green Hairstreak* Holly Blue Large Skipper Meadow Brown* Orange-tip* Painted Lady* Peacock* Pearl-bordered Fritillary* Red Admiral* Small Skipper Small Tortoiseshell	Common Blue Comma Dingy Skipper Green-veined White Heath Fritillary Large White Marbled White Marsh Fritillary Ringlet Silver-studded Blue Silver-washed Fritillary Small Copper Small Heath Small Pearl-bordered Fritillary Small White Speckled Wood Wall	Dark Green Fritillary Purple Hairstreak White-letter Hairstreak		
*Best results in last 30 years Italicised names are Section 41 species of principal importance (NERC Act 2006)				

What did come as a huge surprise was the very significant drop in abundance exhibited by the Silver-studded Blue. Although records were up, showing that the butterfly was being monitored just as closely, numbers per record were significantly down. This requires further analysis by the Species Champion. Similarly, there was a big drop in numbers of both webs and adults recorded for the Marsh Fritillary compared with the fantastic results in 2018. This came as a bit of a shock since this was the last year of the ATMB project, when it might have been expected that all the conservation work and extensive monitoring would yield good results. There was a downward trend also for the Heath Fritillary, where records trebled this year but total numbers seen were reduced.

Although there have been very few sightings of the White-letter Hairstreak (about one a year for the last five years), this year it was seen on four occasions in the same garden in East Cornwall where it was seen in 2014.

Migrant visitors included two sightings of the Monarch, two sightings of a Longtailed Blue and at least three sightings of the Large Tortoiseshell, backed up by photographs. There have always been concerns that this latter butterfly is being captive-bred, and this is particularly frustrating as we try to monitor the effects of climate change. Butterfly Conservation has reported that this year there has been more than the usual number of sightings of this butterfly around the country so it is possible that the ones in Cornwall were genuine migrants.

Finally, after nine years as County Recorder, I feel it is time for me to step down. Thank you to everyone who has contributed records over this period. I will be particularly sad to lose contact with all those regular contributors who I feel I have got to know as friends over the years, despite not having met all of you in the flesh. I will miss those interesting emails and I do hope at least some of you will keep in touch. I am, however pleased to say that the baton is being passed to another committee member, Cerin Poland, in whom I have total confidence. I know he will do a great job! Please send any emails to records@cornwall-butterfly-conservation.org.uk

I am afraid that, because of the current crisis, records will be depleted considerably this coming year, so it is even more important that people submit what they do manage to see in their gardens, daily walks and further afield. Stay safe, and hopefully the butterflies you see will lift your spirits!

Moths, autumn 2020

Leon Truscott, County Moth Recorder, brings us the latest moth report

The first half of 2020 was rather quiet for moth recording, probably because of reduced field activity during the lockdown. Still, records were received for 624 species up to the end of July.

Trachypepla contritella was added to the British list from records in eastern England in 2012 and 2018. It has now been added to the Cornish list by Chris Vincent with Karen Debbie May, with one at Hayle on 5 July. This was followed by further records on 6, 7 (Qty 5!) And 13 July at the same site. Rhigognostis annulatella is a nationally scarce, mainly coastal species. George Davis (GD) recorded one at Maenporth on 2 June, the first Cornish record since 2011. Mick Scott (MS) recorded Neosphaleroptera nubilana on St Mary's, IOS on 23 June. It

is new to Scilly, and only previously known in Cornwall from Mt Edgcumbe in the 19th century and Falmouth in 1946. The nationally scarce Acleris umbrana was found to be established in Cornwall from 2006 in Downderry and the surrounding area, and has since been recorded there annually. Although there have been single records from two other sites, the only other established site is at Maenporth, where it has been almost annual since 2011. GD recorded two from Maenporth on 7 and 31 January (as well as one in December 2019) and John Nicholls (JCN) trapped one at Downderry on 12 July.

Acleris logiana is another species recently established in Cornwall. All but 3 of its 33 records since 2009 have been from Menheniot by JCN, who found singles there on 25 and 26 January. Cochvlis nana is a scarce moth in Cornwall, with only seven records before 2020. John Cook (JC) trapped one at Glasshouse Wood, near Herodsfoot on 8 June. Cydia amplana is a scarce immigrant not recorded in Cornwall since 2016. JCN found one at Menheniot on 24 July. Another nationally scarce moth is Grapholita lobarzewskii. Mary Atkinson recorded one at Higher Downgate on 27 May, only the second for Cornwall.

A rare (RDB3) Triangle Heterogenea asella was trapped at Cabilla Wood on 30 June by JC, the sixth Cornish record. It was previously recorded there in 2013. One of Britain's rarest resident species is Agrotera nemoralis. Chris Vincent trapped one at Penlee Point on 30 May. This species was found to be breeding at Mt Edgcumbe in recent years, so this individual might well have been a wanderer from there. Calamotropha paludella is a scarce moth in Cornwall. MS recorded one on St Mary's on 24 June - new to Scilly and only the seventh record for Cornwall, GD recorded Pediasia aridella on 1 June at Maenporth, the fourth record from this site following three in 2019 from GD. The

only previous Cornish record was one from nearby Mawnan Smith in 1978.

A Death's Head Hawkmoth Acherontia Atropos was trapped on St Mary's, Scilly, on the early date of 26 May by MS, who also recorded a Channel Islands Pug Eupithecia ultimaria there on 29 June. There are six previous records of the latter: all from the same recorder and site since 2004. Lead-coloured Pug Eupithecia plumbeolata is a scarce and local moth both nationally and in Cornwall, JC found two at Luckett on 27 May. Scarce Merveille du Jour Moma alpium, nationally rare, occurs occasionally in Cornwall mostly in the woodlands in the West Looe valley. One was trapped by JC in Glasshouse Wood, Herodsfoot on 9 June.

Small Mottled Willow Spodoptera exigua is a regular migrant occurring in variable numbers year to year. One quite early one trapped at Maenporth on 30 July (GD). There have been 22 records of the rare migrant Splendid Brocade Lacanobia splendens in Cornwall since 2003. Three more have been recorded this year: from St Mary's, Scilly on 19 and 23 June (MS) and from Maenporth on 25 June (GD). The nationally scarce Devonshire Wainscot Leucania putrescens is fairly regular around the Cornish coast, but not recorded annually. There were records from Veryan on 30 July (G. Webb) and Maenporth on 31 July (GD).

Wider Country Butterfly Survey

Kelly Uren invites you to take part in the WBCS

Would you like to become involved with monitoring butterflies but are not quite sure where to begin? Perhaps you have thought about setting up a transect but

are worried it might be too much of a commitment? If this sounds familiar, then perhaps the *Wider Countryside Butterfly Survey (WCBS)* might be for you.

Many people have turned to nature during this most challenging of years; it is incredibly heartening to see how nature has touched so many lives, many for the first time. The natural world is also struggling for survival due to immense environmental pressures and, in turn, now needs us more than ever, too. Butterflies are very sensitive to environmental change and are widely regarded as important environmental indicators, for their own populations and for nature as a whole, so monitoring of butterflies is very valuable. The WCBS is a countrywide initiative comprising a network of randomly selected 1-km squares monitored at least twice a year during peak butterfly flight periods. Recorders count the number of butterflies seen along two parallel 1-km long survey lines within the square.

We are currently looking for further volunteers to help us gather data for the WCBS squares in Cornwall. No monitoring experience is required. This survey provides a fascinating introduction to butterfly recording and assists with honing identification skills. During 2019, recorders across the UK counted 129,866 butterflies of 46 species, whilst carrying out 1,957 surveys and walking a combined length of almost 4.000 km.

Unfortunately, due to COVID 19, it has not been possible for all our volunteers to get out monitoring, and data sets for 2020 will be markedly down compared to previous years. It would therefore be fantastic if we could plan ahead for next year to allow us to be ready for the next monitoring season. If you would like to become involved please take a look at our vacant squares below, and get in touch if you would like any further details.

	i	
Square	Location	Nearest town/
Oquaro	Location	Village
SS2311	Stribb	Kilkhampton
SW784 4	Threemile- stone	Truro
SW795 6	Rejerrah	nr. Cubert, Newquay
SW935 8	Gaverigan Manor	nr. St Dennis
SX1382	Roughtor Farm	Crowdy Reservoir, Camelford
SX1673	Blacktor Downs	Colliford Lake, Bolventor
SX2683	Trenault	Trewen, Launceston
SX3486	Dustin	Lanstephan, Launceston

Quiz answers:

- 1. **Common Blue** *Polyommatus icarus*; image by Peter Withers
- 2. **Pearl-bordered Fritillary** (female) *Boloria euphrosyne*; image by Bob Eade
- 3. **Speckled Wood** *Pararge aegeria*; image by Bob Eade
- 4. C. Micro-Lepidoptera
- 5. C. Mimicry
- False. Butterflies can't usually fly in the winter months as it's simply too cold for them (with the odd exception on a mild day)
- 7. **False**. Some moths can be just as large as some of the largest butterflies, most of which however, you won't see in the UK. Tropical climates around the world host most of the larger species
- 8. Lichen Button Acleris literana
- 9. Poplar Hawk-moth Laothoe populi
- 10. Dark Arches Apamea monoglypha

The Red Admiral: a Cornish life

Jerry Dennis introduces us to this remarkable butterfly



An autumn Red Admiral feeding on Ivy (photo: Jerry Dennis)

When researching the Red Admiral, I was fortunate enough to have a copy of ERICA, an amazing database of Cornish wildlife. I spent happy hours analysing some 100,000 Red Admiral sightings and the name of the late Roger Lane came up many, many times. I discovered that in the years between 1998 and 2011, this intrepid 'argus' single-handedly recorded 34,228 Red Admirals on 1,669 separate days. Although I never met him, I recognise someone who lived for butterflies and who, like me, was fascinated by the Red Admiral. This article is therefore dedicated to his memory.

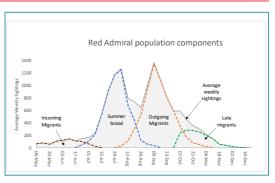
The Red Admiral *Vanessa atalanta* is aptly named after a mythological fleet-footed Greek huntress. It is a phenomenal insect by any standard. An international traveller, it flies and navigates huge distances from North Africa and southern Europe each year to breed in Britain. It raises a summer brood that in turn, in a two-generational cycle, migrates back southwards in the autumn. When we see it in our gardens, there is no way of telling just how far it has travelled to be with us.

In Cornwall, it can be seen anywhere and on just about any day of the year, although it is most commonly seen during summer and autumn, regularly visiting our gardens and hedgerows. The butterfly seems to like being with us, it has an air of confidence around us, and will often allow us to get close to enjoy its impressive colouration and alert facial expression.

By analysing the historical records of the butterfly in Cornwall, we can learn a lot about its habits and its remarkable migrations. Yearly numbers vary considerably, but on average about 4,000 are recorded by you.

A simple plot of average weekly sightings of the Red Admiral between 1990 and 2019 shows the major events in the Red Admiral's Cornish life. This is shown in the grey shaded area of the graph at the top of the next page, which is, of course, a smoothing of many distinctive individual years. With a bit of simple analysis, the grey shaded area can be deconvolved into four overlapping population components as shown by the dotted lines (the sum of the areas under the dotted lines equals the grey shaded area).

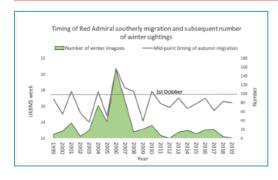
The brown curve, starting in March but shown from early May, is the modest population of incoming migrants that arrive each year, and we tend to see them in ones and twos. Numbers build up gradually to peak in mid-June but then tail off in early July.



- The blue curve is the summer Red Admiral brood. The model suggests that the earliest emergent butterflies may appear as early as late June, although numbers become significant from early July, building quickly to peak in early August and then tailing off equally quickly into September. We often see large numbers of Red Admirals at this time and may mistakenly think that they are migrants.
- The orange curve that overlaps significantly with the blue curve represents
 a major influx and concentration of in-transit migrants, building rapidly in
 numbers to peak in mid-September in Cornwall. Their numbers can
 include Cornish bred butterflies, those from neighbouring counties and
 true international migrants. They can be seen in high numbers feeding up
 on autumnal flowers and fruit in preparation for their major southerly
 migration.
- The green curve is a smaller plume of late Red Admirals seen in October and November in a few exceptional years such as 2006, confirming late southerly migration can take place.

But what of the winter imagoes that we see? Numerically, they are too few to register on the above plot, and are individuals that for some reason did not make the autumnal southerly migration. There has been plenty of debate about whether they have chosen not to migrate, whether they can breed in the autumn and raise a winter brood, or indeed whether they can survive the winter as adults and breed in the spring. Numerical analysis can shed a bit of light on these issues.

The next plot shows the timing of the mid-point (median) of the autumn migration population as a grey zig-zag line. Each point for each year is the first day on which at least half of the cumulative migration population between September and November was recorded. These days are expressed in UKBMS weeks (left-hand y-axis), a butterfly transect convention. A significant day, 1st October in week 27, is highlighted.



The total number of winter imagoes that were recorded in that year in December and through January and February of the next year is shown by the green area (right-hand y-axis). The number of winter imagoes is seen to be elevated when the autumn migration was later, and markedly in those years where the median population occurred later than 1st October. Clearly,

more winter imagoes are left behind when migration is late. The stand-out winter is 2006–7 when the autumn migration extended into late November. Whatever it was that was causing later migration between 2000 and 2010 has now stopped, and since then there has been earlier migration and fewer winter Red Admirals.

Evidence of winter breeding in Cornwall was discovered by Roger Lane at a special site at Trenarren, 2 km south of St Austell, where he found yearly populations of winter Red Admirals surviving in a sheltered place with garden nectar sources nearby. He visited the site over 200 times through 12 winters to 2011, recording over 1,500 Red Admirals. He wrote about this in the Autumn 2009 edition of the Observer in an article entitled *Winter Breeding of the Red Admiral in South Central Cornwall (2006/08)* that can be viewed on the CBC



A 'pristine' Red Admiral seen in May 2020 - freshly emerged or perfect migration conditions? (photo: Jerry Dennis)

website. His invaluable observations confirmed egg-laying in November and emergence of pristine imagoes in late January and February in 2007 and 2008.

This evidence demonstrates that the Red Admiral is extremely resourceful and flexible, successfully breeding in Cornwall during mild winters like 2006/07 and surviving as an imago in most winters in sheltered places such as Trenarren. Just how widespread and long-lived is this behaviour, however, is not known. Unfortunately, since Roger hung up his well-worn walking boots in 2011, this special site has no winter records for the Red Admiral.

I hope you have been enjoying this year's Red Admirals and that this short article helps you decide what sort of Red Admiral you

have been seeing! The next time you see one, as always please enjoy it and then notify us at countyrecordercbc@gmail.com.

Silken webs in north Cornwall: very hungry caterpillars

Tristram Besterman tells us about two species of blackthorn-loving caterpillars

Lackey moth: Every year, as regular as clockwork, on the scrub of the Porthcothan cliffs, the caterpillars of the Lackey moth Malacosoma neustria hatch from eggs laid on blackthorn twigs by the adult moth the previous summer.

From April into May, they secrete a kind of gossamer that creates a tight, opaque, protective larval web. The caterpillars feed on the leaves of the blackthorn, stripping the twigs bare, first within the web, then outside it.

The caterpillars are distinguished by their colourful, longitudinal stripes and fine, golden hairs. After pupation, the adult moth, emerges to complete the cycle between July and August. As with just about all Lepidoptera, the adult moth looks nothing like its larval stage. It is a furry, ginger colour.

Although relatively abundant locally, the Lackey is largely confined to the southern half of Britain and is a BAP (Biodiversity Action Plan) species. In every sense, it is quite special!

Images from top to bottom: Lackey moth caterpillars on larval web; individual caterpillar; adult moth (photos: Tristram Besterman)







Orchard Ermine moth: Anyone walking the coast path down into Porthcothan Bay from the north this year in late May cannot fail to have noticed one of nature's occasional spectacular shows. Spread across large swathes of blackthorn are sheets of white gossamer. Unlike the tight, opaque larval web of the Lackey, these shimmering webs are transparent, and are made by the caterpillars of the Orchard Ermine moth *Yponomeuta padella*.

The caterpillar is quite different from the Lackey, too. The segmented body is hairless, with a pair of black spots on each segment. In the final instar stage, the caterpillars let out long vertical strands of gossamer, down which they abseil, presumably to increase their feeding range. The caterpillars return to the web, where they congregate, hanging in groups, motionless and vertical as they pupate, the yellow and brown pupae suspended inside the web.

The adult – about 10 mm long – emerges from its pupa in June in Porthcothan, although in the rest of the British Isles, July to August is the usual flight period. When you see this tiny day-flying moth, pure white, with black spots, you realise why it earned the name, Ermine.

Unlike the annual appearance of the Lackey moth caterpillars, the Orchard Ermine population explosion seems to happen every two to four years. 2020 was one of the bumper years.









Images from top to bottom: Orchard Ermine caterpillars; abseiling caterpillars; pupating caterpillars in larval web; adult moths (photos: Tristram Besterman)

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Background image this page: Meadow Brown (photo: Shaun Poland)