ISSUE 76 AUTUMN 2024

Cornwall Butterfly Observer



Featured Articles

CORNWALL BUTTERFLY CONSERVATION DAY

Saturday 27th September

For more information on our annual event please read the back cover.

THE SALMON, THE BUTTERFLY, AND THE MOOR

Sally Foster discusses the key role Bodmin Moor plays in our ecosystem and conservation effort, from the rivers to the soil.
(page 15)

CREATE YOUR OWN WILD SPACE

A quick and easy guide to help you create a home for all our lovely wildlife.

(Page 10)

Butterfly Conservation
Saving butterflies, moths and our environment

Cornwall Branch
www.cornwall-butterfly-conservation.org.uk

Editor's Note

Cornwall Butterfly Observer welcomes contributions from members and supporters of Cornwall Butterfly Conservation. We are keen to publish information relevant to butterflies or moths in Cornwall, whether it's news of an event or development, or an in-depth article.

Cornwall Butterfly Observer is careful to check the information that it publishes. Whilst content attributed to a named individual will normally have been reviewed by fellow volunteers, the information and its interpretation, together with any views expressed, are those of the author and do not necessarily represent the settled position of Cornwall Butterfly Conservation.

If you would like to contribute to the Cornwall Butterfly Observer, please get in touch via email at chair@cornwall-butterfly-conservation.org.uk

Images: Front and Back Covers:

Front cover: Grayling (Steve Batt)

This Page: Large White (Steve Batt)

Back cover: Field Trip (Tristram Besterman)



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Post From The Editors

Dear Readers,

We are delighted to bring you this edition of the Cornwall Butterfly Observer, filled with exciting news and fascinating insights into our local butterfly species.

In this issue, Jerry Dennis delves into the captivating world of our common Cornish Skippers. His detailed account of the Large and Small Skippers, along with their unique characteristics and habitats, is a must-read for all butterfly enthusiasts. Jerry's insights remind us of the delicate balance required to maintain these species and the importance of preserving their natural habitats.

We also feature a practical guide by Steve Batt on creating your own wild space. Steve's tips on encouraging biodiversity in your garden are timely and inspiring.

Whether you're a seasoned gardener or just starting out, there's something for everyone to learn and enjoy.

Additionally, Tristram Besterman shares his experiences from CBC public field events, highlighting the joy and camaraderie found in our community's conservation efforts. His journey from a novice to a knowledgeable advocate is a testament to the welcoming and educational spirit of CBC.

We are excited to report on the recent Moth Event held on the 22nd-23rd of June near Helston. With 160 moths of 41 different species recorded, including highlights like the Eyed Hawk moth and the Cream-bordered Green Pea, it was a fantastic success. Thanks to everyone who participated and to our experts, Sarah Board and Frank Johns, for their invaluable assistance.

Lastly, we provide updates on the Bodmin Moor Landscape project, an initiative aimed at protecting and enhancing habitats for endangered species. Sally Foster's piece on the unique qualities of Bodmin Moor underscores the critical need for ongoing conservation work.

We would also like to take this opportunity to acknowledge and thank our newest volunteer, Sophie, for her invaluable assistance in co-editing this issue. Her dedication and fresh perspective, especially given at such short notice, have been instrumental in bringing this edition to life.

Thank you for your continued support and dedication to butterfly conservation. Together, we can make a significant impact on preserving our natural heritage.

Golden Skippers in Cornwall

Jerry Dennis describes the fascinating natural history of our common Cornish Skippers.

There are 5 British skippers that are affectionately and collectively known as ‘Golden Skippers’ because of their striking golden-coloured wings. Of these, 2 common species occurs in Cornwall; the Large Skipper (*Ochlodes Sylvanus)* and the Small Skipper *(Thymelicus Sylvestris)*. There are occasional reports of another ‘Golden Skipper’, the Essex Skipper *(T. lineola)*, in the county, and this species is very similar in appearance to the Small Skipper. Although there is a viable mechanism for humans to transport hay containing Essex Skipper eggs into Cornwall during the winter, very few verifiable records have been presented along with photographic evidence showing the subtleties of the Essex Skipper, i.e. the angle of male sex brands to the wing edge or the detail of the antennae tips. We do not have the rare and localised Lulworth Skipper or Silver-Spotted Skipper, so two breeding ‘Golden Skippers’ are there for us to enjoy.



A male Large Skipper showing prominent sex brands and characteristic mottled wing patterns.
Photo courtesy of Jerry Dennis.



A perching male Small Skipper showing plainly coloured wings with black striations.
Photo courtesy of Jerry Dennis.

They have many similarities. They are both common throughout the county – see the summary map of their distribution, and they are often found at the same sites at the same time.

Their larvae eat common and widely distributed coarse grasses, with the Large Skipper preferring Cock’s-foot and the Small Skipper preferring Yorkshire-fog. Both species thrive where the grass that their larvae use is allowed to grow naturally without being mown, and small amounts of such grasses can sustain colonies. Typical numbers are a few dozen per colony, although the Small Skipper can sustain much larger colonies where habitats are suitable.

Both species pause their larval development to hibernate through the winter months and then go on to have a single brood during the following summer. There are some differences here. The Small Skipper larvae hibernate shortly after hatching in the first of five instars. The Large Skipper larvae feed and develop during the late summer and autumn, protecting themselves by constructing a leaf tube from the host grass, and their hibernation is in the fifth of its seven instars This difference offers an explanation as to why the Large Skipper summer brood is earlier than that of the Small Skipper.

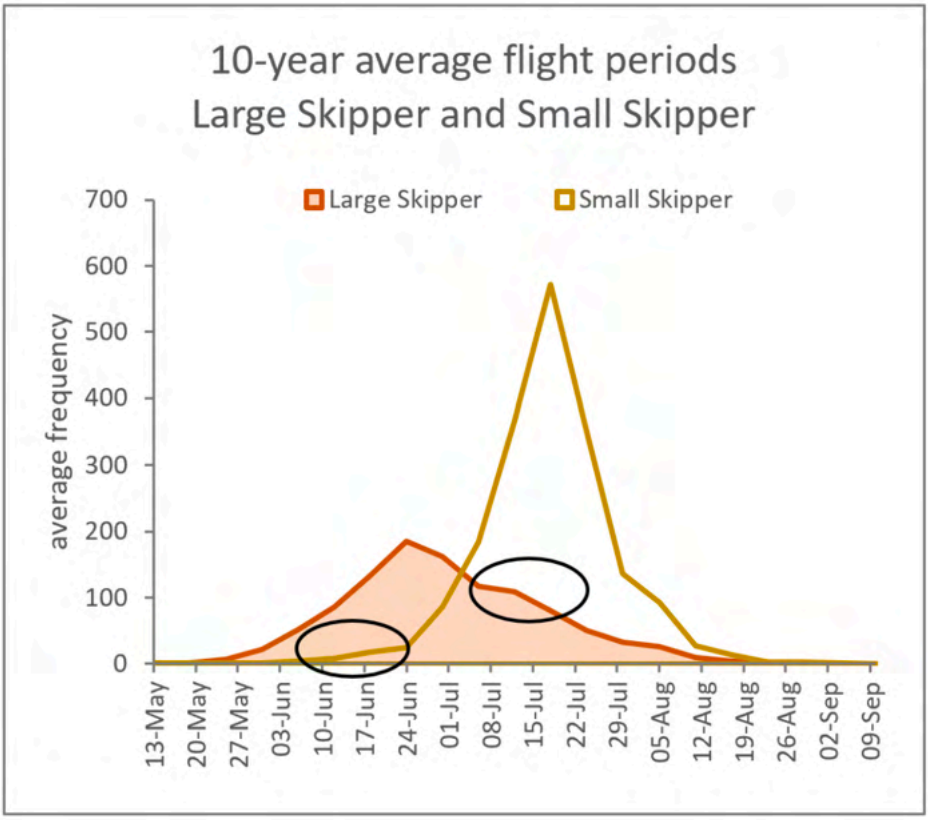


Paired Large Skippers, displaying chequered underwing patterns.
Photo courtesy of Jerry Dennis.

Identifying these species in the field can be surprisingly tricky, with both being fast flying and busy. If you are patient, you can keep still and wait for a disturbed skipper to land so that you can take a close look at the wings. Both species can perch with wings open or closed. When they are sun-basking, the wings are open and both species hold their pairs of wings at different angles in a characteristic V-shape. The markings on the upper side of the wings can be used to confirm the species. The Large Skipper's wings have mottled markings with patches of dark and light brown with a creamy wing margin, whereas the Small Skipper has no mottling at all and has plain golden wings with black striations and dark margins. When perching with wings closed, the underside markings have very clear differences. The Large Skipper has prominent chequering with greenish and brown patches and the Small Skipper has a plain light brown underwing.

Another distinguishing feature that also helps with identification is that the Large Skipper emerges first, in May, some 2 – 3 weeks before the Small Skipper. It is therefore very likely that any golden skipper that you see in May and early June will be a Large Skipper. Its brood is quite long-lived, through into late July/early August.

Small Skippers begin to emerge in mid-late June and the yearly population is shorter and 'peakier' than that of the Large Skipper. Its brood comes to an end at about the same time as the Large Skippers in early August.

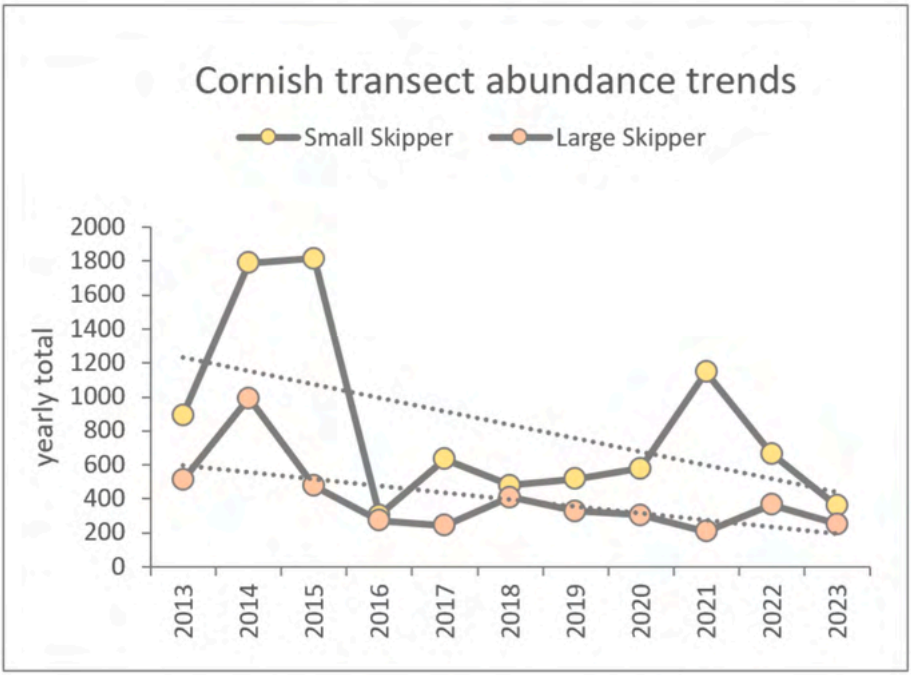


Graph 1

Graph 1 shows the 10-year average flight curve for Large and Small Skippers using Cornish records. Overall yearly numbers of Large Skipper are usually around 40% lower than those of the Small Skipper and they are stretched across a longer flight period.

I have highlighted an area of each species' flight curve that is likely to be affected by a small number of misidentifications. The first is the anomalous numbers of Small Skippers recorded in late May to mid-June, some of which may have been Large Skippers. The second is a bump up of Large Skipper numbers at or around the peak of Small Skippers, when both species are flying in good numbers. Be on your guard in 2025 to make sure that you take the time to identify the correct golden skipper! It is a good idea to take photos if you are not sure.

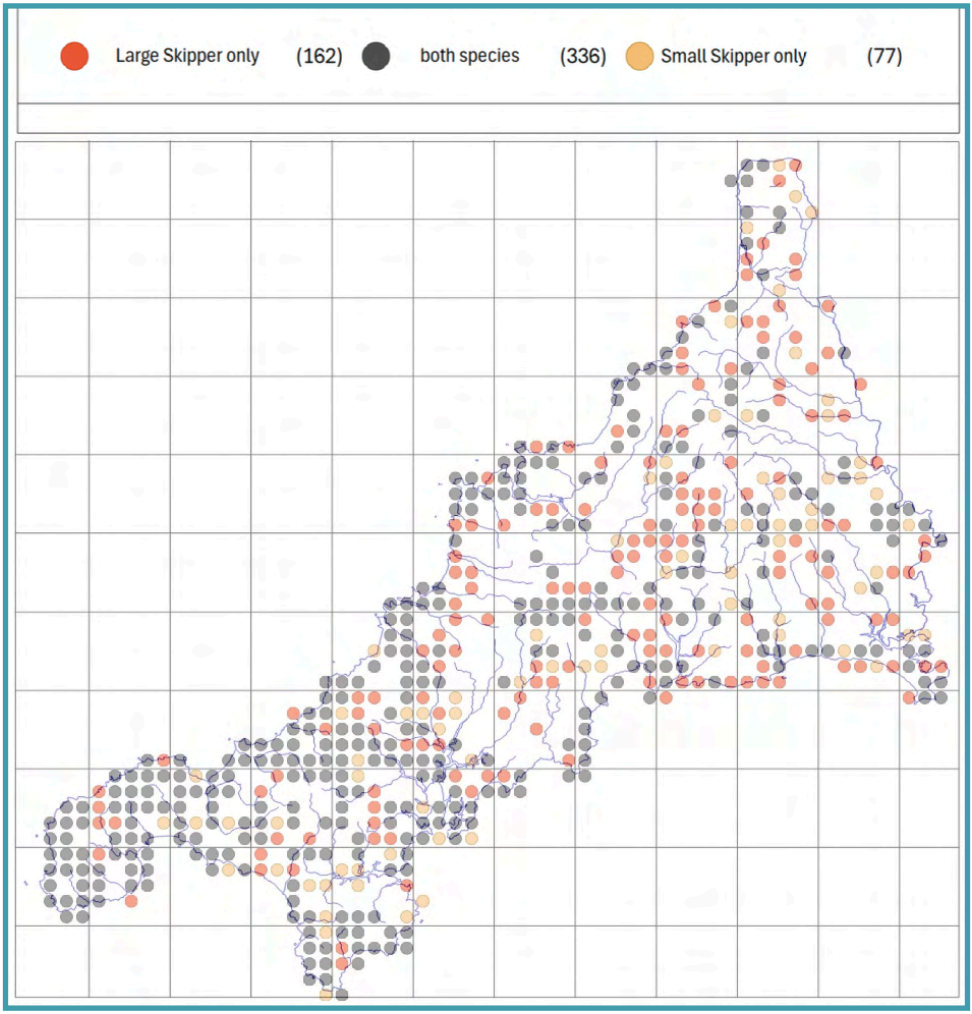
How are these species faring in Cornwall? Using data gathered on UKBMS transects in Cornwall, an estimate of c. 10% annual decline in abundance has been detected in both species since 2013. I've plotted the yearly numbers and linear trends below. Unfortunately, there is not enough transect data to analyse further back than this and these are medium term trends only. Both species had bumper years in 2014 when warmer-than-average April to July temperatures clearly suited their life cycles, after which yearly numbers have been much lower. Abundance trends for other grassland species such as the Gatekeeper and Meadow Brown have been increasing on transects as the skippers have declined and it is not obvious why this is. With 2024 likely to be a poor year for both species, we must hope for higher numbers next year.



Graph 2

In the longer term, and in future, destruction of suitable habitats for golden skippers occurs when their larval host grasses, Cock's-foot and Yorkshire-fog, are cut during spring and summer, often repeatedly, or removed entirely. One cut of a perfect grassy habitat in one year can completely eradicate a colony that may take several years to return. Tidying of field margins and wholesale mowing of roadside verges, roundabouts and slopes also removes viable habitats. Golden skippers are known to visit gardens if their larval grasses are uncut, so please consider having a wild space in your garden where grasses can grow naturally.

I would like to create a special recording focus on skippers in 2025 for our many volunteer recorders and I will have more information on this in the spring bulletin.

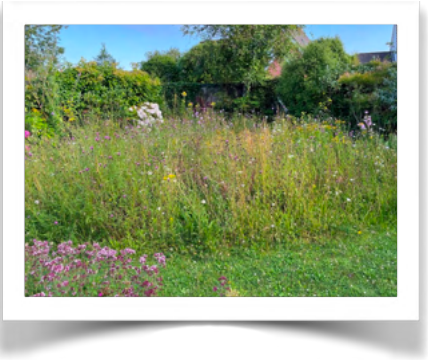


Create Your Own Wild-Space

A quick and easy guide to help you create your own wild-space, photos and article by Steve Batt.

Butterfly Conservation
WILD SPACES

Well at last it seems summer might be here; my meadow is finally starting to buzz. Everything from bees to Hover-Flies, beetles, birds, spiders, and moths.



I even had a stick insect last year! The Goldfinches are absolutely loving the Knapweed seeds; it's almost comical the way they land on the seed head and the stem bends and makes for great viewing.



Butterfly numbers are improving but we all know it has been a slow start for most species this year.

So, how do you make your own space? The best tip is to see what grows easily nearby and to plant seeds and plug plants to get started. I may have gone slightly farther than most, but adore my meadow and spend hours watching what is there. Also having butterfly friendly plants in the flowerbeds and pots. Great starters are Buddleia (Humming Bird Hawk-Moths love it as well as butterflies), Wild Marjoram (bee super highway),



Honeysuckle, and Rudbeckia (Black-Eyed Suzie) for later in the season.

For the meadow itself, add as much or as little as you like. After 7 years I now have over 60 species of wildflower, including some orchids which have just appeared.



Great easy starters to get you going are:

Birds Foot Trefoil (attracts over 150 insects in their various phases), Knapweed, St John's Wort, Oxeye Daisy, various Scabious species, Fleabane. Yarrow, Celandine, Snakes Head Fritillaries, Oxslip, Cowslip, Primrose and many more. As I said earlier, see what thrives. You can obtain seeds and plug plants quite easily online with some local nurseries providing a good variety these days too. I personally steer away from the 'starter packs' and stick to one species seeds. Websites such as Emmorsgate or Naturescape sell seeds, just make sure they are native seeds.

Register your Wild Space today and start having fun!

You can register your wild space however large or small, by visiting *https://butterfly-conservation.org/wild-spaces/register* or by scanning the QR Code.

On the Butterfly Conservation website after you have registered you can access an interactive map and see your space, and those across Cornwall and more.

Open To The Public

Countryside conversations article and photos by Tristram Besterman.

Caterpillars believe in karma: keep your head down, eat your greens, and you may come back as a butterfly. Or if you're really hairy, more likely as a moth.

The idea that 'what goes round, comes round', resonates with my experience of public field events run by Cornwall Butterfly Conservation (CBC) and my own incidental metamorphosis. For me, it began about thirteen years ago.



Greenscoombe Wood, July 2011. CBC public field trip getting close up and personal with the rare Heath Fritillary butterfly.

Not long retired and living in Cornwall, where my wife Perry was born and raised, I was looking to get involved with wildlife conservation, worried that biodiversity was disappearing all around me.



Silver-studded Blue

The first field trip I attended as a member of the public, knowing precious little about butterflies and moths, was in July 2011 at Greenscoombe Wood, Cornwall's only stronghold for the 'woodman's follower', the Heath Fritillary Melitaea athalia. The people I found myself with were friendly, kindred spirits and led by Richard Vulliamy, a fount of local knowledge. What struck me then and on all subsequent field trips was the generosity and enthusiasm with which knowledge was shared with an ignorant stranger like me, for ever asking rookie questions.

As a trained natural scientist, I was also struck by the keen interest shown in everything we saw, from damsel flies to orchids and larval food plants. The message came through loud and clear: to understand the butterfly, you must understand its ecology.



Practical conservation was all about habitat management; and data collection informed conservation strategies. Friendly folk, evidence-based science and doing stuff to help these beautiful environmental indicator species: I was hooked.

That same month, I visited Lethytep with a CBC group invited by the site owner and creator, Chairman, Philip Hambly, who had hired a cherry-picker to get us up to the canopy of oak trees to see the Purple Hairstreak butterfly.

(I went up, saw no butterflies, but had a Hairstreak's view of my fellow visitors!)

It was on a CBC field trip at Upton Towans in 2014, led by Dick Goodere, that I was recruited into the Firm. I was innocently enjoying the sight of an impressive showing of Silver-studded Blue and Dark Green Fritillary butterflies, when a chance conversation drew me in. I made the mistake of asking if there was any way that I could help.



Penlee Point, July 2018. Marbled White butterfly and Plymouth Sound, on a CBC public field trip.

Next thing I knew, I was on CBC committee, having my leg pulled and giving as good as I got. After a couple of years of attending CBC field trips all over Cornwall, I was asked to lead some in the east of the County, not too far from Liskeard where we then lived. Greenscoombe Wood, Cardinham Wood and Penlee Point (assisted by mothing supremo, Leon Truscott) became regular commitments.



Marbled White

Remembering the kindness shown to me, it was always a pleasure to chat with those who turned up – new faces or familiar. Every sort and condition of person, from medics and financiers on holiday to local carers and carpenters.

Every individual had a story to tell, brought something to the party, and I hope took something useful away.

Looking for rarities, time and again it was a pair of young, untrained eyes that would spot the first specimen.



Small Tortoiseshell

My own metamorphosis from tyro to slightly more savvy imago took about eight years, with several developmental stages on the way. I ended up as Branch Chair and – where I spread my wings - as co-editor and co-author of CBC's Butterflies of Cornwall. I still cannot quite believe how that happened, and am to this day humbled and grateful for the trust placed in me by more knowledgeable friends in CBC.



Upton Towans, July 2017. CBC public field trip in pursuit of the Silver-studded Blue butterfly.

To anyone thinking about joining a CBC field trip, my advice is, don't hesitate: just turn up, look, listen and learn. You'll have enormous fun and meet some great people. Oh, and you'll probably see some amazing butterflies, too!

A Vision For Bodmin Moor

By Sue Allen

Our Bodmin Moor Landscape project is slowly building on previous studies and conservation work. We have reached out to other organisations and individuals so together we can protect the ecosystem and the species that rely on it.

This summer has been challenging for our butterflies and we are continuing to monitor our two endangered species. In October we will resume conservation work to enhance the habitat for Pearl-bordered Fritillary and improve connectivity for Marsh Fritillary

Sally Foster has a deep love of the Moor having first experienced the beauty of the rivers and surrounds whilst, as a child, fishing with her father for the elusive Salmon. This early experience has raised her awareness of the importance of safeguarding the ecosystem as a whole. She has been involved with work on The Moor for years and is very appreciative of those farmers/landowners who care so much for their land. She has written a piece about its special qualities.

The Salmon, The Butterfly, And The Moor

By Sally Foster, Biological Surveyor

Bodmin Moor is the largest area of semi-natural habitat in Cornwall and the only upland massif. The granite outcrop gives rise to features such as tors and clitter slopes, minerals and pristine streams and rivers. The high moor is characterised by extensive areas of unimproved acid grassland, separated by shallow valleys with mires and bogs, scattered heathlands and rocky outcrops. The valley mires form the headwaters to a number of major river systems. Trout and salmon spawn in the moorland upper reaches of these rivers. Scrub and bracken occur on the moorland fringe whilst valleys on the edges of the granite support broad-leaved woodland. Most of these habitats are of national importance and some of the Commons are designated as Sites of Special Scientific Interest (SSSI) and some of the wetlands are even of international significance and are home to many rare plants and animals. Insect-eating plants such as the Sundew and Pale Butterwort can be found in the sphagnum bogs. Snipe, Curlew and Grasshopper Warbler are often seen or heard on the Moor and rare invertebrates such as the Small Red Damselfly are found in the many marshy pools. Five species of the Fritillary family of butterflies can be encountered in the different habitats. The Moor is designated as an Area of Outstanding Natural Beauty (AONB), retitled National Landscapes, and is rich with ancient remains from prehistoric times.

The river systems of Bodmin Moor are some of Cornwall's key ecosystems. The Moor is the source of the River Camel (and tributaries such as Davidstow Stream, Stannon Stream and De Lank River), River Fowey (including the various tributaries such as Warleggan River, St Neot River and Northwood Brook), the river Lynher (and tributary Withey Brook) and the River Inny (and tributaries such as Penpont which drain into the Tamar). It cannot be over emphasized the importance of maintaining the wetlands surrounding



Upper reaches of the De Lank River upstream of the Ivey Water Works. Marsh Fritillary is found in peat bog that helps filter run-off before entering the river.

and bordering the headwaters and their related ecosystems in reducing the impact of storms on towns downstream, alleviating drought conditions, reducing large amounts of sediment entering the river systems and enabling carbon sequestration.



An example of good peat soil

Soils are the key component of the Moor and both mineral and organic soil types have formed over thousands of years and each soil type results in different habitats such as the beautiful sphagnum peat bogs which are found on the deep rich peat soils. All these soils are fragile and can be destroyed in an instant. Healthy soils are fundamental to insect life and natural fertility. Good soil health and effective management of soils is vital to our economic future; if we continue to degrade nature through damaging practices, we will be less able to grow food, source clean drinking water and protect nature.



Soil scientist and Cornwall's Marsh Fritillary Species Champion, Alan Stapleton, with volunteers searching for webs on a beautiful peat bog bordering the Withey Brook

Peat is the most efficient carbon sink on the planet and a beautiful peat bog built up over the millennia can be drained and destroyed in a matter of days by the destructive use of those dangerous mechanical yellow beasts. This causes immediate release of methane and carbon into the atmosphere and severe damage to the gravels of the pristine upper reaches of the rivers. Sediment is released and smothers the gravels where the Atlantic Salmon creates 'redds' in which the female lays her eggs.

Soil Compaction is another cause of damage to the soils. There have been two recent surveys of the soils of Bodmin moor. In 2005 the Environment Agency commissioned a survey of soil structural conditions across the Camel catchment (Palmer 2005). Palmer's work indicated that overstocking of much of the moorland had resulted in soil structural degradation sufficient to seriously reduce infiltration of rainwater and increase surface run-off. Depending on the site, degradation affects between 50 and 100% of the land inspected. In 2006 as part of an ecological study of South Penquite Farm a soil survey was undertaken (T. Harrod 2006). Dr Harrod notes that the consequences of stocking and trafficking other than in the safe grazing period are soil compaction and poaching. From this comes a resultant reduction in infiltration of rain and commensurate increases in overland flow, which is more likely to be sediment charged. Dr Harrod noted that Bodmin Moor compaction was greater than Dartmoor. Maintaining large areas of healthy wetlands on moors can seriously reduce run-off into the rivers and associated watercourses.

We are in the middle of a climate and nature emergency, and the two are inextricably linked. Climate change is driving nature's decline, and the loss of wildlife and wild places leaves us ill-equipped to reduce carbon emissions and adapt to change. One cannot be solved without the other.



Marsh Fritillary

The Butterfly

Some of Cornwall's best populations of the rare Marsh Fritillary butterfly are found on the peatlands of Bodmin Moor which in turn are associated with the river systems. This butterfly's survival is dependent on these well-functioning ecosystems that give rise to the precious river systems that provide home to the Atlantic Salmon and other important aquatic life. The importance of conserving the Marsh Fritillary cannot be over emphasised. This species is not only a very important species that is suffering severe decline but is a flagship species for healthy and well-maintained wetlands including mires, bogs and Molinia dominated habitats. It has, like all invertebrates, a life cycle that is fraught with danger, and some have commented that it survives despite Man's activities!

The Salmon

Atlantic salmon (Salmo salar) are found in the temperate and arctic regions of the northern hemisphere. They occur in the rivers of the countries that border both sides of the North Atlantic Ocean, and the Baltic Sea. As an anadromous species, Atlantic salmon live in freshwater as juveniles but migrate to sea as adults before returning up river to spawn. Atlantic salmon return to their native river, and even the same stretch of the river from which they were born, with amazing accuracy. This means that many 'populations' of Atlantic salmon may exist within the same river.Both the Salmon and the Marsh fritillary face much adversity in their amazing life cycles.

Surely it is not too much to ask that Man can at least protect the fragile moorland ecosystem on which they both depend.

Responsibility that our ecosystems are maintained in the best possible condition is ultimately the duty of the various statutory bodies such as Natural England, the Environment Agency and various arms of Cornwall Council. High time that a holistic approach is adopted, and various NGOs are not allowed to struggle to safeguard our rare and disappearing species and habitat.



Atlantic Salmon

Educational Outreach

Do you work in a school, college, or university? Or perhaps you work with young people for weekend activities? We can offer you a free student learning day out in the field, teaching your students all about conserving butterflies. Not only will they learn about butterfly conservation but simply being outdoors and connecting with nature has been found to be good for our physical, mental, and emotional health. Studies have shown that time spent in nature can also be an antidote for stress. It can lower blood pressure and stress hormone levels, as well as enhance immune system function, reduce anxiety, and improve our moods.

The activities involved for a student learning day could be a butterfly flight survey, Marsh Fritillary larval web survey, or habitat management for a range of

threatened butterfly species. It depends on the time of year which activity can take place. In spring and summer, the learning day involves surveying butterflies in flight. This includes learning survey techniques, gaining identification skills, learning about all the butterfly species present, their habitat requirements, lifecycles, and population changes. In autumn, the learning day would involve surveying for Marsh Fritillary larval webs, gaining caterpillar identification skills, learning survey techniques, habitat requirements, lifecycles, and population changes. In winter, the learning day would involve habitat management for a threatened butterfly species. This would include using hand tools, learning how to safely use them, learning about the habitat requirements of the threatened species, how to create or improve the habitat, why we need to, lifecycles, and population changes.

Flight survey learning days are suitable for students of any age. Larval web surveys are only suitable for students aged 16+. Habitat management student learning days are only suitable for students aged 13+.

If you would like to discuss more about our student learning days, please email *gpaul@butterfly-conservation.org*.



Photo by Steve Batt

Moth Event 22nd—23rd June 2024

This event was held in a garden near Helston, with 3 Skinner Moth traps being set on the night of 22nd June, in various parts of the garden. The weather was mild and very foggy with the bonus of almost still conditions which is very unusual in this location. The moth traps were covered at dawn and a small group of moth enthusiasts, some experienced and some new to mothing, arrived at 9.0am on Sunday and we nervously opened the first trap hoping that it wasn't empty. We needn't have worried.

We had a great variety of moths, some of which hadn't been seen at this location before and everyone enjoyed seeing what had been caught and having a go at identification, with the aid of various books and the excellent website What's flying tonight. (https://butterfly-conservation.org/moths/whats-flying-tonight) Some lively discussions were had over tea, coffee and biscuits.

160 moths were counted of 41 different species. A great result. All moths were recorded, photographed and released back into the garden.





Eyed Hawk-moth

Highlights were a spectacular Eyed Hawk moth, (Smerinthus ocellata) 11 Elephant Hawk moths,(Deilephila elpenor), a Green Arches, (Anaplectoides prasina), a Lobster moth (Stauropus fagi), and the delightfully named Cream-bordered Green Pea (Earias clorana)!



Elephant Hawk-moth

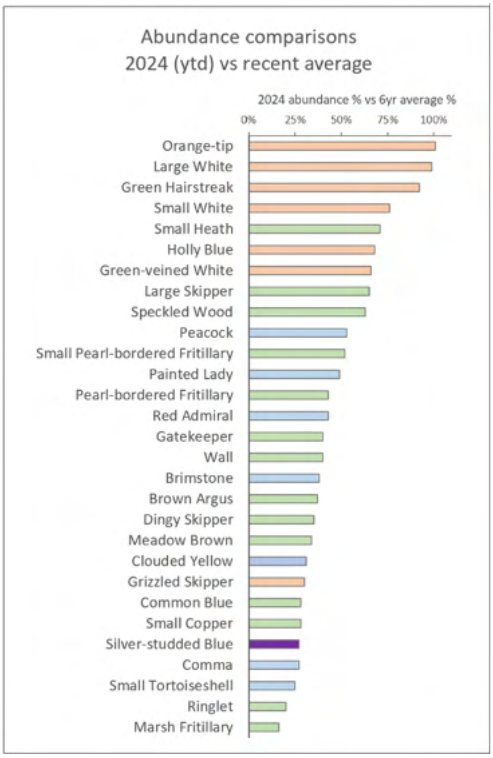
Thanks to everyone who came and made the morning a very enjoyable one and especially to our hard working experts Sarah Board and Frank Johns for help with the identifications.

Butterfly Records Report 2024

Jerry Dennis, our county butterfly recorder, reports on a difficult year for butterflies. Please email him at records@cornwall-butterfly-conservation.org.uk

Occasionally, we experience a year when butterfly numbers just do not materialise, when our favourite species have clearly struggled during their immature stages to make it into adulthood and to be on the wing when we pass by. This is such a year, and I cannot report that numbers of any species have been significantly higher than average so far this year.

Firstly, let's look at the provisional numbers. I have compared this year's totals for each species with their averages from the previous six years over the same period. This comparison uses data recorded up to the end of June for species with two or more broods per year to avoid complications of second brood records. For univoltine species (those with one brood per year) I have used all available data into July. Only one species, the Orange-tip, has numbers above the recent average, and for the rest it is just a question of by how much abundance in 2024 has been lower than in recent times. I have excluded those species such as Dark Green Fritillary and Silver-washed Fritillary that have not yet had significant sightings.

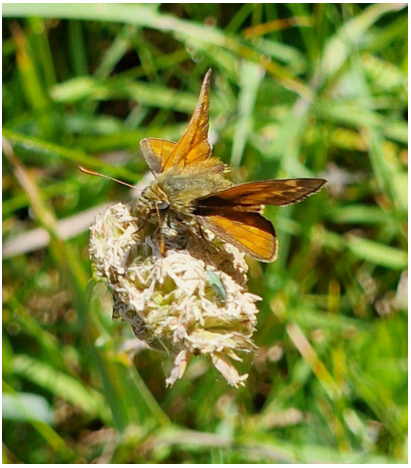


A clear picture has emerged of the pattern of relative abundance in 2024.



The Orange-tip has had the best relative abundance so far in 2024, *photo courtesy of J. Dennis*

By sorting the data in order of relative abundance and colour-coding the species to reflect in which stage they spend winter months, these things are seen to be related. Species spending winter as pupae are shown with orange bars and they have fared the least worst. All but one species had at least 65% comparative abundance. Orange-tip numbers (101%) may have been buoyed by additional surveying that I requested in my monthly butterfly notes (these you might find interesting and can be found on our website and social media).



The Large Skipper was a relatively successful species using larval hibernation, *photo courtesy of J. Dennis*



The Peacock was the most successful species that spends winter as an adult, *photo courtesy of J. Dennis*

This year's Grizzled Skipper total was lower than usual due to lack of recording; our species champion was unable to monitor the butterfly this year, and its comparative trend is therefore not indicative.

The species that spend winter in larval stage are shown with green bars. They have had mixed fortunes in 2024. Most successful so far are the Small Heath at just over 70% and the Large Skipper above 60%, and these species have relatively late first

broods in this group. Species that emerge earlier include Wall, Pearl-bordered Fritillary and Small Pearl-bordered Fritillary, and these have comparative abundance in the 40%-50% range. Species faring worse in the group are the Common Blue, Small Copper and Marsh Fritillary, all with relative abundance less than 30%. The common summer browns, Meadow Brown, Gatekeeper and Ringlet are not doing particularly well either, although their broods have not yet hit peak numbers and things may change as the Big Butterfly Count data comes in.

Those species either spending winter as adults or migrating (blue bars) had poor to very poor numbers. The two principal migrant species, Painted Lady and Red Admiral plus the Peacock and Brimstone had numbers between 35% and 55%; the Comma and Small Tortoiseshell had very poor relative abundance at less than 25%. The one species spending winter in an egg that has an early summer brood is the Silver-studded Blue, shown with a purple bar. This has relative abundance a little over 25%. Totals counted at the Upton Towans transect this year may turn out to be the lowest since monitoring began in 2010.

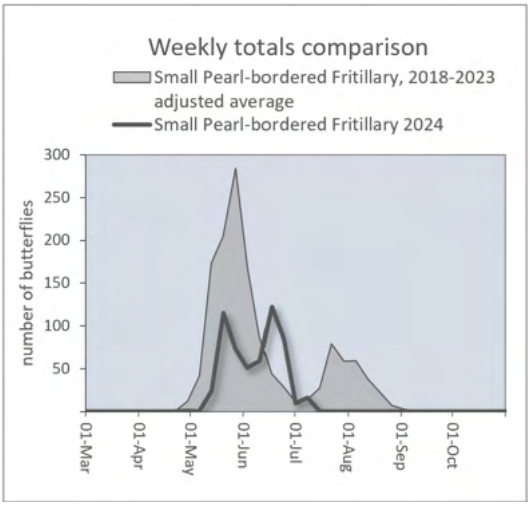


The Small Tortoiseshell had a very poor spring showing this year, *photo courtesy of J. Dennis*



The Small Heath is most successful species so far that uses larval hibernation, *photo courtesy of J. Dennis*

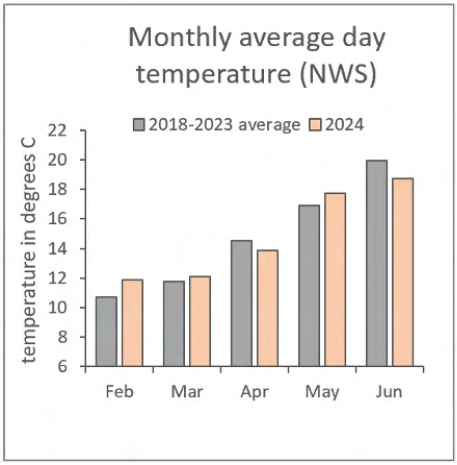
The flight curve of the Small Pearl-bordered Fritillary was interesting. The start of the brood was relatively late and characterised by small numbers in May. Significant numbers were then seen unexpectedly in June and early July, particularly in west Lizard north of Kynance Cove, and a second peak occurred (see flight curve plot with weekly totals comparison). It is not clear why this was, but weather conditions were certainly a factor. Perhaps the butterfly's known ability to spend winter in both third and fourth of its five instars may have contributed to this bimodal flight curve.

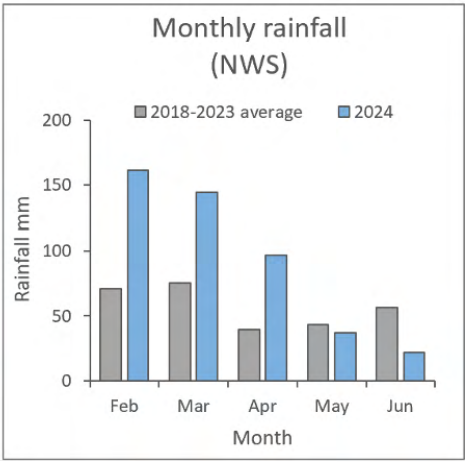




A worn first brood Small Pearl-bordered Fritillary seen on 11th July at Goonhilly Downs, *photo courtesy of J. Dennis*

Lastly, and importantly, we come to the speculation of what has caused the low relative abundance this year. We need enquire no further than the usual culprit, the weather, to explain this. Below are graphs showing 2024 monthly day temperatures and rainfall recorded at Newquay Weather Station, comparing these to the recent average. In terms of temperature, February was warmer than average, but then slightly lower than average between March and June. Nothing remarkable there. The rainfall, however, shows what an exceptionally wet winter and spring it was with more than double the usual rainfall in February, March and April. There were only 18 days without rain in these three months.





How might this explain the 2024 abundance patterns? Several negative effects on butterfly numbers are likely to be at play when we have this type of weather early in the year.

- Higher mortality in wet weather during February to April. Adult butterflies and larvae that were active during this time may have been unable to avoid becoming wet and cold on several, even many, occasions. This will have decreased their chances of survival. Larvae may not have been able to feed often enough to survive. Those butterflies in pupal stage will have benefitted from the protection of the waxy waterproofing of the chrysalis and this perhaps explains why they were less affected by wet weather.

- Lower numbers of butterflies were seen in poor weather during April to June. We have had fewer days that were warm and sunny this year, hence recorders made fewer surveys. When surveys were made in suboptimal weather conditions, fewer of the butterflies that were present will have been on the wing. Recorded numbers, due to both factors, may therefore represent a comparatively low percentage of the total that were present this year.

At the time of writing this article, the summer broods of the overwinter adults have barely started, the broods of the prolific summer browns have not reached their peaks, and the second broods have only just begun, and so the full year situation could change as the summer progresses. I will be able to provide you with a full report of how things played out in next year's spring edition.

Feedback Wanted

What do you think of our field trips?

We run a varied programme throughout the "butterfly months" from Gwennap Head to Saltash. Some are week days some weekends.

Before we start planning for next year we would like to hear your thoughts and suggestions. Do you have any ideas for a different trip? Would you like to lead or support one of our walk leaders?

Please contact Sue Allen on events@cornwall-butterfly-conservation.org.uk

Committee Reports

Treasurer's Report

Branch Treasurer Sarah Board's report from 1st April 2023

To date, I have yet to receive final audited accounts for Cornwall branch from Butterfly Conservation finance department relating to the last financial year. I am therefore reporting here on the accounts as agreed with BC's finance department for the year end.

Our **General Fund** (relating to the day-to-day management of Cornwall branch) started the year at £14,301. At the year end, it stands at a healthy £9,013, having spent £11,485 employing our wonderful Volunteer Co-ordinator, producing the branch newsletters, training volunteers, as well as paying volunteer expenses, and running events. Our income for the year totalled £6,197, received as members subscriptions, donations and sales at various events.

Our **Restricted Fund**, which relates solely to our *Butterflies of Cornwall: Atlas for the Twenty-first Century*, started the year with a balance of £7,251. We continued to sell atlases throughout the year, generating £1,598, with only £8 spent on postage. This fund therefore stands at £8,841. The Restricted Fund is used to directly support the branch in its butterfly conservation work.

We therefore start the current financial in a good position to deliver our various conservation projects and have been able to employ our Volunteer Co-ordinator, Georgie Paul, for a further year.

So far this financial year, we have spent £2,102 from our General Funds (including Georgie's salary, website costs and volunteer expenses) and have received £4,222 (including membership subscriptions, sales and payment for Georgie's work on a Cornwall Wildlife Trust project).

Regarding our Restricted Fund, we have already sold a number of B*utterflies of Cornwall*, generating an income of £225.

Sarah Board
Branch Treasurer
treasurer@cornwall-butterfly-conservation.org.uk

Membership Secretary's Report

By Branch Membership Secretary Kathy Wood

At the end of May, the most recent figures available, Cornwall Branch membership was 594 households, 814 individuals. This is a slight decrease from earlier in the year, but still more than I could have dreamed of when I became membership secretary nine years ago, when membership was around 200 households nearly all with only one individual member. Now, we just need more of the members to take an active part in our activities. Why not come along to our annual indoor meeting on Saturday 28th September, listen to our three interesting speakers and find out what we are doing and how you could help? Keep an eye on our website and social media for more details nearer the time.

Volunteer Coordinator's Report

By Volunteer Coordinator Georgina Paul

You may have been wondering why we haven't been advertising as many butterfly flight surveys this Spring and Summer. This is because I have been busy doing a contract for Cornwall Wildlife Trust, conducting habitat condition assessments at Breney Common and Redmoor for the Marsh Fritillary and the Small Pearl Bordered Fritillary. As my time working for CBC is so limited, we decided to skew my CBC work programme towards habitat management days in the winter. With the terrible weather we have had this summer this was a good decision, or we would have been inundated with event cancellations and rescheduling. We will be organising around 15 days of habitat management from October to March, so keep a look out for these being advertised soon!

You may have seen that I managed to lead one Marsh Fritillary flight survey in June at Carkeet. Thank you to everyone who joined us and the landowners who care so much about these fritillaries. We had to reschedule and postpone the event many times due to the weather, at significant risk of missing the flight period entirely… but our risk paid off! We surveyed 3 weeks after the usual expected peak flight period. The weather was glorious, and we saw almost as many Marsh Frits as we normally would in the peak. This mirrors similar experiences throughout the country with many butterflies emerging 2–4 weeks later than usual due to the bad weather, which has pushed peak flight periods later.

We don't yet know how this is going to affect populations so it will be interesting to see how many larval webs we find on our survey at Carkeet on the 30th of August.

If you are interested in volunteering, please email *gpaul@butterfly-conservation.org* or sign up as a volunteer directly on Assemble, our new volunteer management portal via the QR Code or by visiting *https://volunteer.butterfly-conservation.org/signup/nbmbbgk* . By the end of the year, all our volunteers will need to be registered on Assemble so if you haven't already signed up, please go ahead. It's very straightforward and we will begin using the portal more frequently as the year goes on. If you have any difficulties signing up, please email me.

Vacancy for Volunteer Branch Chair

At Butterfly Conservation we want to create a world where butterflies and moths are enjoyed by everyone, forever. We are looking for a Branch Chair to lead the local Branch in making a local contribution to our organisational goals. Together, we will halve the number of threatened species of butterflies and months, improve the condition of the UK's most important landscapes and transform 100,000 wild spaces in the UK for butterflies, moths and people.

This influential role involves working with local partners, volunteers and staff to lead the Branch activities for the year, helping us to create the world we strive for. You will use your passion for butterflies and moths to make a tangible difference and help increase the impact of our work. You can do this role from home and in your local area, but sometimes you may need to travel longer distances – for example to other branches or Butterfly Conservation offices.

Why we want you
To lead and direct the Branch and its activities (delegating tasks to other Branch committee members and post-holders as needed) in accordance with the organisational strategy, Branch guidelines and Butterfly Conservation's policies. To facilitate regular communication between Branches and BC staff to strengthen relationships within the Branch and across the organisation.

Disclaimer
This role is active throughout the year. There is flexibility on which days and times you volunteer, however you may occasionally be asked to attend meetings or visit sites at specific times. You must be able to access the internet as required, including during the evenings and at weekends. We ask for a minimum commitment of 1 year. You will be asked to participate in an induction session and essential training for the role, which will be carried out online where possible.

What you will be doing

- Work with local partners, BC staff and other branch volunteers to deliver the organisational strategy in The Branch area.
- Chair regular Branch Committee meetings.
- Share best practice and constructively challenge anything which prevents The Branch from delivering the organisational strategy.
- Represent Butterfly Conservation at functions and meetings as appropriate.
- Ensure that The Branch is operating legally and in accordance with the Branch Guidelines, Health and Safety policies and General Data Protection Regulation (GDPR).

The skills you need

- Good communication skills
- Able to work with a wide range of people in a personable and professional manner.
- Able to use basic IT systems, such as the internet, video calls, word processing software etc., - and a willingness to learn how to use new systems as required.
- A broad understanding of butterflies, moths and their habitats in the UK

What's in it for you

- Discover new sites, partnerships and communities.
- A platform to have a voice, build your profile and connections in conservation.
- Develop, use or evidence key leadership skills.
- Increase your social circle with like minded people, boosting your wellbeing.

Vacancy for Volunteer Branch Fundraiser

Purpose of role:

- To identify local sources of funding for activities which deliver the 2026 Strategy
- Working with the Fundraising team at Head Office to apply for funding as identified above.

Duties:

- To research local funding opportunities which align to Butterfly Conservations goals and notify the Head Office Fundraising team when opportunities arise.
- In agreement with Head Office, prepare applications to local funds.
- Support other committee members with funding applications where required.
- Ensure that the Branch are meeting the reporting requirements of any local funds.

Dates, times, commitment and frequency:

This role is active year-round. There is flexibility on the days and times which you volunteer. We ask for a minimum commitment of 6 months.

Skills and abilities needed:

- You do not need to know about butterflies or moths to help in this role.
- Your behaviour will support Butterfly Conservation's values
- Own transport will be required.

Benefits and support provided:

- The opportunity to make a difference to butterflies, moths and people in your local area; this key role helps bring in vital funds and supports conservation action in your area.
- Training will be provided for the role and you will also gain access to other volunteer training opportunities at Butterfly Conservation.
- The opportunity to gain fundraising experience, working with staff to develop your skills.
- The opportunity to work with other members of your local Butterfly Conservation branch and find out more about our work.
- The opportunity to develop transferable skills such as: written and verbal communication, working with other people, organisational, planning and problem solving.
- Expenses incurred while performing your duties as a Branch Fundraiser will be reimbursed.

Butterfly Pins

Article and photos by Katie Alice Reynolds



Top: Orange Tip. Top left: Comma. Middle left: Painted Lady. Middle right: Pearl Bordered Fritillary. Top right: Common Blue. Bottom left: Large Skipper. Bottom: Speckled Wood. Bottom right: Red Admiral.

Georgie very kindly asked if I would write something for CBO about my butterfly pins as I've worn them on a few of the field trips.

Butterflies are fascinating creatures and I wanted to find a way to fill our home with them, so I decided to use and adapt traditional needlework methods to create my own 3D stumpwork pins, and so my embroidered butterfly challenge began, I think in total I'm going to be making about 130-ish of them including the differences between male and female and some of the amazing underside patterns.

Starting by drawing out an illustration, I then transfer the design onto calico and 'colour it' with the closest matching threads I have. There's actually a very thin wire concealed in the stitches around the edge of each wing which gives them form - this particular stitch stops them fraying when they are cut out.

The wings are backed with vintage lace to hide the stitches on the underside, each wing is then sewn onto a body complete with antennae, which is backed with eco-friendly felt and finished with a stainless steel pin fastening.



Large Skipper

All of my finished butterflies are twice life-size and I'm trying to keep them as near the real thing as possible, mainly to keep them in scale with each other and add variety, but I suppose it's a way I can keep a record with more than just photographs.

I think it's fascinating that this is something people did thousands of years ago (maybe not butterflies) in a romantic way it sort of connects me to them.



Common Blue

The wonderful thing about needlework is its one of those hobbies that builds over time, the more butterflies I create the better they become - and it means I've gained enough skill to make something a little bit magical with basically just a needle and thread.

Committee Members and Contacts

Cornwall Branch Committee of Butterfly Conservation

Chair:
Vacant
chair@cornwall-butterfly-conservation.org.uk

Species Champion Coordinator:
Jerry Dennis
records@cornwall-butterfly-conservation.org.uk

Secretary:
Mac Mcleod
malcolmmcleod9@gmail.com

Treasurer:
Sarah Board
treasurer@cornwall-butterfly-conservation.org.uk

Membership Secretary:
Kathy Wood
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Branch Fundraiser:
Vacant

Engagement and Education Volunteer:
Vacant

County Butterfly Recorder:
Jerry Dennis
records@cornwall-butterfly-conservation.org.uk

Wider Countryside Butterfly Survey Champion and Joint Transect Coordinator:
Kelly Uren
transect@cornwall-butterfly-conservation.org.uk

Health and Safety Officer and Social Media:
Beth Giles
handsofficer@cornwall-butterfly-conservation.org.uk

Sue Allen
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Steve Batt
battsmail@gmail.com

Alan Stapleton
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Miriam Christine
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Other key contacts

County Moth Recorder:
Leon Truscott
leon.truscott47@gmail.com

Volunteer Coordinator:
Georgie Paul
gpaul@butterfly-conservation.org

Joint Transect Coordinator:
Jim Barker
jimfrances@talktalk.net

Social media

Website: http://www.cornwall-butterfly-conservation.org.uk

Like us on Facebook: https://www.facebook.com/ButterflyConservationCornwall/

Follow us on X: @Cornwall_BC

Cornwall Butterfly Conservation Day



St Erme Community Centre, Castle Field
Trispen, Truro TR4 9BD

Butterfly Conservation
Saving butterflies, moths and their habitats

For more information email:
events@cornwall-butterfly-conservation.org.uk

cornwall-butterfly-conservation.org.uk

- Free Entry
- Informative Talks
- Learn about our Local Butterflies
- Wildlife Stalls
- Cakes and Drinks
- BYO Lunch
- Donations Welcome