

**Butterfly Conservation Dorset Branch
Newsletter No 97**

Branch Newsletter Autumn 2021



**Butterfly
Conservation**

Saving butterflies, moths and our environment



www.dorsetbutterflies.com

Editor's Note

Many thanks to all our contributors to this issue, and special thanks to Lyn Pullen for preparing the edition for print. It has taken longer than anticipated to put this newsletter together, so apologies for it not arriving until early 2022. However, I hope you find it varied and interesting to read, and that it brightens our dim January days. We will be following it with a Spring newsletter.

Jane Smith, Newsletter Editor

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Front cover: Silver Y Moth. Photo: Brian Arnold

Branch Matters

Events

We will not be printing an Events List as the situation is currently very uncertain because of Covid, but we are aiming to run our usual range of walks and talks as well as conservation work.

All events will be posted on www.dorsetbutterflies.com - the Dorset Branch website, which will be kept up to date with any changes. If you do not have access to the internet, and wish to find out about any upcoming events, please phone Nigel Spring on 07981 776767.

Branch Members' Meeting (was called "AGM")



We are re-naming our AGM as a "Members' Meeting", as Headquarters have informed us we do not have to have a full formal AGM any more.

We will still be using the day to elect committee members and to present our accounts to our members but business will be kept to a minimum so we can have our usual interesting speaker, tea and cakes. **The proposed date is 23 April 2022 at the Dorford Centre in Dorchester at 2.00pm.** Consult our website nearer the date for confirmation.

View from the Chair

From Nigel Spring, Dorset Branch Chair

This period of cold short days (writing in December 2021) seems a good time to take stock and make plans for the coming year. In spite of the recent spells of wintry weather, we are still getting many reports of Red Admirals on the wing – almost every day at the moment, although I suspect no self-respecting butterfly will be flying in Storm Barra today! And there are regular reports (and some nice photos sent into the branch website) of Small Tortoiseshells tempted out of hibernation by the regular, unseasonably warm periods (or forced to wake up by domestic central heating systems being turned up!) Last month, several Peacocks and a Brimstone were seen at one of the sites we were working on but those were probably disturbed by our activities, along with a cold looking toad!

Driving through the lanes in these dark evenings, there are still many moths of a few species, fluttering through the headlights – December moths, Winter moths, Feathered Thorns and perhaps some of the Chestnut species that hibernate.



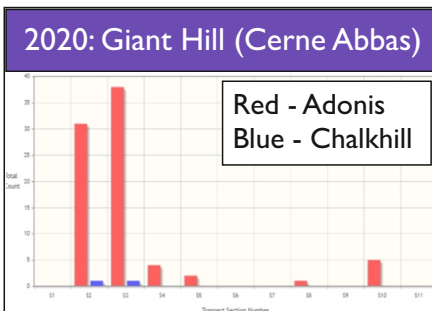
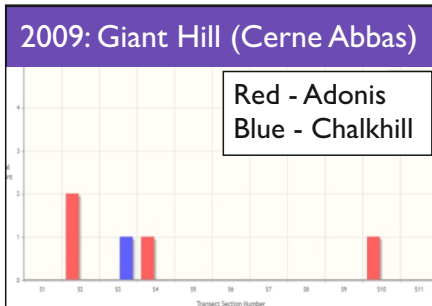
Winter Moth. Photo: Donald Simcock



Winter Moth. Photo: Mark Pike

Taking stock at the end of the season involves pulling together all the thousands of records sent in by our many loyal recorders and the transect coordinators, and analysing trends for the different species.

We are as ever hugely indebted to Robin George, Adrian Neil, Lyn Pullen, Martin Raper, all the transect coordinators and of course Bill Shreeves, for the phenomenal effort that goes into this work. The 2020 Dorset Butterfly Report was based on over 76,500 records!



This analysis is particularly important for the scarcer species that are the targets of our conservation actions. Our transect coordinator for the Giant and Black Hill transects at Cerne Abbas, Rebecca Porter, has recently analysed the records for four important species on Giant Hill going back to the 90's. These are the Chalkhill and Adonis Blues, and the Marsh Fritillary and Duke of Burgundy. We have been particularly concerned about the crash in the numbers of Chalkhill Blues, and her analysis shows that both species of

blues had a very poor year in 2009 but whereas the Chalkhill Blues never recovered from this, the Adonis Blues did.

The next step will be to see whether this pattern was repeated on other sites like Fontmell Down, and then to wonder why! The comparison of the Marsh Fritillaries and the Dukes shows how the numbers have varied in the different sections of the transect walk, the early years showing abundance in one area of the site but in the later years, the peak areas were in a different part of the Down. So can these changes be linked to practical management of the site or to grazing patterns perhaps?

Butterfly Conservation has published a very ambitious five year strategy which has amongst its aims the transformation of 100,000

wild spaces for the benefit of butterflies and moths. BC is certainly aiming high! It seems that we are all going to have to be involved in this as individuals and through the organisations we belong to, as it is becoming increasingly clear that the vast area of the UK that is farmland is unlikely to benefit from the present Government's plans to replace the agri-environment schemes, whatever fine words they are couched in. Our countryside is already one of the most nature-deficient in Europe. I awoke the other morning to the news that the UK now has 57 of its native bird species on the red (most threatened) list, including the Greenfinch. That's about one third of the more common species! At this time of year, we have the almost constant background sound of the hedgecutters working their way endlessly round the field boundaries. The local hedges on the Sherborne Castle Estate land bear virtually no autumn fruit for the visiting flocks of winter birds – if any of next year's flower-bearing twigs survive this year's flailing, it is unlikely that the fruits they produce will last until the birds arrive next autumn.

So as an organisation and as individuals, we will need to be even more proactive in the coming year in the defence of wildlife and nature. Wouldn't it be wonderful if all our members and supporters made a New Year's resolution to do something positive for nature through our branch of Butterfly Conservation - once a week or even once every month! Robin George writes on page 13 about our need for more people to assist with our monitoring programmes



Chalkhill Blue. Photo: Lawrie de Whalley

(due to retirements), so get in touch with her if you would like to help, or let us know through the website contact form what you are doing in your garden or on your local patch. We have over 1,000 members in the Dorset Branch – that would be a lot of positive resolutions!

Nigel Spring

Seeking Large Tortoiseshells

Will Langdon returns to Portland to check on the Large Tortoiseshells. From an article by Peter Eeles

Will visited Portland in the company of Matthew Oates, who has spent 40 years working in nature conservation, and Peter Eeles, another ardent conservationist who created the UK Butterflies website. They arranged to meet on Portland on 8 June. After several reports in early Spring 2021 of overwintered Large Tortoiseshell adults, they were looking for evidence of larval damage.

They started in areas where adults had been seen earlier in the year, but after seven hours of searching they had drawn a blank. They began packing up their cars, but Will decided to take a last look at some nearby elms that they had already surveyed from below.

Amazingly, the different viewing angle enabled Will to see two groups of orange-spined larvae resting on the upper surface of the elms. Through their binoculars and long lenses, they could see that these were late fourth instar, with a few that had already moulted into their fifth and final instar. They were also able to see the major larval webs that had been created by each instar, using these to trace back to the position of the egg batch, which appeared almost white as the light reflected on the uneaten egg shells.

They then found another group of larvae just a few metres away that had developed from a completely different egg batch. They could get much closer to this group, and see



Larvae from the second egg batch.
Photo: Peter Eeles

clearly that the majority were in their late fourth instar and preparing to moult, with a few that were already in their fifth instar. The position of these groups was similar to that found in 2020, with the butterfly preferring sheltered foliage in a particularly warm spot facing south-west. The foliage itself was relatively vigorous with young growth, showing no “browning” of the leaves from salt spray, which affects elms growing near the shoreline.

Will and Peter returned to the site on 17 June to investigate further. They looked for pre-pupation larvae, but as expected, there were none left, having moved off to pupate in a suitable location. They removed the branches with larval feeding damage, and were able to create an extensive set of images. The majority of larval damage had taken place since their last visit, the final instar having stripped bare several sprigs of elm.



Fourth instar larval skins

Photo: Peter Eeles

Given the close proximity of the two egg batches, with no batches found elsewhere on the island, they concluded that this was the work of a single female that might have been disturbed while feeding, or rested between batches.

On the basis of when Will found the empty eggshells last year (14th June), and of a finding of a solitary final instar in a garden in Weymouth on 2nd June 2020 they concluded that 2021 was about two weeks behind 2020. The window for conducting a search for larvae is quite narrow, to coincide with when the size of the larvae and their feeding damage is ‘optimal’, and is very dependant on the spring weather.

Will Langdon’s article about his search for this butterfly in 2020 can be found in Newsletter 95 (available on our website).

Monitoring Marsh Fritillaries

Martin Warren writes about training he ran at Lankham Bottom to count Marsh Fritillary larval webs

The Marsh Fritillary is one of the few butterfly species that is feasible to count in the caterpillar stage. The reason is that it lays unusually big batches of eggs (up to 350) and the caterpillars spin conspicuous whitish webs (also known as nests) as they develop during the summer. The webs are spun to protect themselves from predators as well as a parasitic wasp (*Apanteles bignellii*) that can cause huge mortality. The best time to count the webs is during mid to late August when they can be spotted trailing over the food-plant, Devil's-bit Scabious. The optimum window for counting lasts about a few weeks before the caterpillars go into hibernation deep in a grass tussock during late August or mid September (depending on the season).

On 16 August, the Dorset Branch held an extremely successful training event at Lankham Bottom, where 10 people learnt how to count these webs in a systematic way to help assess the population. The idea was that they could then go on to monitor other sites that are being managed for this rare and declining butterfly.

On larger sites such as Lankham, it is not realistic to try to count

every nest, so the survey method involves recording a sample of the site and extrapolating this up to the whole site. The method is very simple and involves walking a zig-zag route of known length (for example by drawing on a detailed map) and counting all the nests found within a two metre width (One metre either side). This is about as far away as you can reliably see all the nests on a slow walk.



View of Lankham Bottom

Photo: Martin Warren

So, for example, if you do a count along 1 km, you will have surveyed an area of $1,000 \times 2\text{m}$ ($2,000\text{m}^2$ or 0.2ha). This can be multiplied up according to the total area of the site to give an estimate of the number of nests on the whole site. At Lankham, to save us walking up and down the steep slopes, we each walked a wavy line, 10m apart, counting webs as we went.

The Marsh Fritillary breeds in two distinct types of habitat, damp grassland and chalk downland. In the former (such as Alners Gorse reserve), Devil's-bit Scabious grows as large plants with big leaves on which the caterpillars feed. However, on chalk grassland they can



Larval webs at Alners Gorse

Photo: Martin Warren

breed in shorter vegetation provided there is a good density of Devil's-bit Scabious. At Lankham, the chalk grassland is grazed not only by cattle but also by numerous rabbits, so the Devil's-bit Scabious grows as rather short plants, often in dense patches. As a result the caterpillars have to move often as they consume each small leaf, leaving quite a long trail of webs over several plants.

When surveying, it is important to count only the webs occupied by the caterpillars and not all the old ones. The occupied webs can be identified from a few small caterpillars crawling around the outside. In contrast the old webs are full of frass and sometimes the old shed skins as the caterpillars

have moulted. It is also important not to mistake Marsh Fritillary webs with spider webs, especially funnel-web spiders that can also spin extensive webs amongst the grass. Obviously spiders' webs usually contain a spider if you look carefully inside, but the easiest



Marsh Fritillary third instar larvae

Photo: Martin Warren

way to tell them apart is that spiders' webs are usually brilliant white, whereas Marsh Fritillary webs are brownish and full of either old frass or caterpillars.

After one hour of training, the volunteers were ready to survey in earnest. So we split into three groups. Three surveyors stayed and counted webs at Lankham, while two other groups of four each went to survey nearby Hog Cliff and Southfield Down, both National Nature Reserves managed by Natural England. The Marsh Fritillary used to be found on both these downland reserves but had only been seen in ones or twos in recent years. It was important to know whether they were still breeding.

At Lankham, the three surveyors found 11 Marsh Fritillary webs in their survey covering 1.2 hectares of the best areas of site. Scaling this up to around 10ha of suitable habitat on the slopes gives an estimate of around 90 nests on the whole site. This shows that a healthy population still survives. No webs were found after two



Spot the Marsh Fritillary web surveyor at Hog Cliff NNR! Photo: Martin Warren

hours of surveying at the other two sites, but some good potential habitat was found, suggesting that they might be suitable. The Marsh Fritillary is famous for its boom and bust life cycle, being numerous for a few years and rare the next. In the bust years colonies can even become extinct on a site, only to recolonise a few years later. The good news is that John Davis found several nests at Southfield Down a few days later, so they are still definitely resident on this downland.

Habitat quality is also a factor that determines Marsh Fritillary success and the Branch is now advising Natural England on the best types of grazing regime. The Marsh Fritillary likes some moderate grazing, especially by cattle, which create a diverse sward with tussocks where the food-plant can grow into a reasonable size and where there are tussocks for the caterpillars to overwinter. It does not usually do well on sheep grazed sites as these often preferentially graze Scabious areas and lead to smaller plants. They also remove flower-heads and potential nectar sources. Consequently, rotational grazing by sheep is usually the only suitable option, but hard to put into practice.

Many of the best Marsh Fritillary sites in Dorset are already being monitored through nest counts by staff at BC Head Office (co-ordinated by Rachel Jones). Now, Branch volunteers can add sites to the monitoring network so that we can gain a better understanding of the complex population dynamics of this rare butterfly.

This article is reproduced on our website: see the species page for the Marsh Fritillary; it includes a link to further information on the web counting method on the UK BMS website.

Help needed in 2022

Robin George is asking for your help with next year's butterfly monitoring programmes

In Dorset we organise about 80 transect walks each year, some for the full 26-week season from April to September, and some which are walked for a reduced number of weeks. The results from these walks are stored in the national database and are used locally and nationally. We also monitor between 60 and 80 Wider Countryside "squares", one kilometre squares, selected at random, and walked at least twice a year, in July and August.

As you can imagine, this requires a lot of organisation, and we are very grateful to our network of walk organisers and walkers who make sure the data is collected, checked and stored properly. Due to the retirement of some of our team, we are looking for more volunteers who would like to help with this next year. The walk organisers manage a team of transect walkers, ensuring that the weekly rota is filled as much as possible and the results are correctly entered in the system. Many of our walk organisers are already transect walkers, and carry out the transect walk themselves some weeks or even every week. Ideally, walk organisers live fairly near their walk and can step in if it looks as if a week will be missed, but this is not essential. Some organisers manage one walk, others look after seven or eight. At the moment we are particularly looking for people to co-ordinate walks in the Kingcombe and Powerstock area, and at Lulworth, but there are other vacancies, so if you feel you could help I would love to hear from you.

Transect walkers and Wider Countryside recorders are always needed across the county. In Dorset you are not committed to walking a transect every week, you can sign up for as many or as few weeks as suits you, and can even walk several different transects if you want—we are very flexible!

For the Wider Countryside Survey you need to be able to carry out the walk once in July, and once in August, and be able to identify the butterflies you see. For many of the walks it helps to be reasonably fit, as many of the chosen sites are steep and uneven.

If you are interested in helping, we'd love to hear from you. Please contact Robin George - rab.george@btinternet.com, or give me a ring on 01747 824215 to discuss the options.

Dorset Branch online

As well as our superb website, do remember you can find us on Facebook and Twitter. You should be able to find us by searching, but our account names are:



Small Tortoiseshells on Buddleia Weyeriana. Photo: Dave Law

- **Twitter:** [bc_dorset](#)
- **Facebook:** [Dorsetbutterflies](#)

We also have a **Flickr** site: search on Butterfly Conservation Dorset.

If you want to enjoy some gorgeous pictures to brighten these dull winter days, have a look at our website Gallery of photos (www.dorsetbutterflies.com/gallery)

Please note that photos sent in to our website or our Flickr site may be used for our publicity, newsletter etc, always with acknowledgement of the photographer.

My Butterfly Year - Part I

Shona Refoy starts telling us about seeking more butterfly species in 2021 than she had seen in 2020

The story of my butterfly year for 2021, begins in 2020. During that year, as I submitted my butterfly photos to the Gallery, John East was keeping track of my progress. When I had seen and photographed 50 species by the end of that year, John said that he didn't think I would see more species than that the next year. I don't think that his comment was intended as a challenge, but I decided to see what I could do...

Spring

My butterfly year started slowly, due to the inclement weather. At last, on 26 February, I saw male Brimstones flying in my Broadstone garden (a very welcome sight), followed by more Brimstones and several Peacocks at Badbury Rings later that day. It was over three more weeks until I saw my first Comma and Small Tortoiseshell, again near Badbury Rings.

I often look at the Gallery and Recent Sightings on our website, to see which butterflies have been spotted where. I had seen reports of Large Tortoiseshells in the Church Ope Cove area on Portland. As soon as travel restrictions were eased I went there, following directions kindly supplied by Brian Arnold. I spent several hours walking around the Cove and the nearby ruined church; I saw a Small White and twice I saw flying Large Tortoiseshells, but no photos. I decided to move on and was nearly at the top of the steps when one landed on the path right next to me!



Large Tortoiseshell on the path
Photo: Shona Refoy

The next day I saw my first male Orange Tip on Fontmell Down, a sure sign that Spring had finally arrived, followed by a Red Admiral at Ulwell (near Swanage) the day after - the last of our overwintering (as adults) species.

April began with my first sightings, locally, of a Speckled Wood and Large White. A wonderful walk on Hod Hill yielded my first Dingy and Grizzled Skippers, Green Hairstreak and Green-veined White. The Dingy Skippers were the greatest surprise, as they were the first reported in Dorset!

I was delighted to see a Painted Lady, the first of many sightings this year, at Stour Valley LNR. (Last year I only saw two Painted Ladies, the first wasn't until 20 August, my last species of last year). April drew to a close with my first Holly Blue, a male, posing on a leaf in my parents' Child Okeford garden (in between jinking around in true Holly Blue fashion). And back on my beloved Fontmell Down, another surprise - the first Small Heath reported in Dorset, hunkered down in the undergrowth, not looking very impressed with the weather!

I first went to Ballard Down in November 2018, to see the Clouded Yellows which had been reported there, and had a wonderful picnic with Clouded Yellows zooming around. A visit in early May of 2021 yielded my first Brown Argus, Wall Brown, Common Blue and the first Adonis Blue to be reported in Dorset - another great day on this lovely site near Swanage.



Adonis Blue on Ballard Down
Photo: Shona Refoy

In the middle of May I went to Giant Hill, Cerne Abbas, on a rather cool and dreary day. Eventually there were some glimmers of sunshine and several Duke of Burgundy appeared, much to my

delight. On a return trip to Hod Hill I saw a Marsh Fritillary, the only one I saw there this year, which is rather worrying.

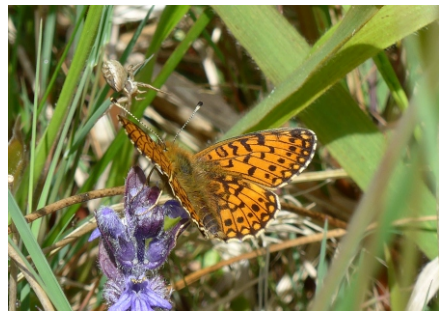
In late May I went to Martin Down NNR for a walk with my daughter, on another cool, dull day. We saw several Small Blues, one of which walked along her finger and licked her - I think he enjoyed the warmth! I first went to Martin Down in 2019, following walk 19 in 'Hampshire and Isle of Wight Butterfly Walks', a Butterfly Conservation publication. Walk 11 in the same book took me to Cowley's Copse (Eastern Clearing), Bentley Wood, to see the Pearl-Bordered Fritillaries again. While there I was lucky enough to see a Small Pearl-Bordered Fritillary, which, according to Ashley Whitlock, was probably the last SPBF to ever be seen there. It's very sad that, in my few years of butterflying, I have witnessed the demise of two colonies of these beautiful butterflies. On the 29th May, on a small area of scrubby ground by High Wood (near Badbury Rings) I saw a Large Skipper, which turned out to be the first reported in the UK!



Duke of Burgundy on Giant Hill
Photo: Shona Refoy



Small Blue on Martin Down
Photo: Shona Refoy



Small Pearl-bordered Fritillary on Martin Down in 2019. Photo: Shona Refoy

I thought this was a great end to Spring 2021: 28 species seen and photographed so far this year - what would Summer bring? I will tell you in the next issue.

A Week with Dorset Branch

As part of his zoology degree, William Stazicker spent a week's placement with Dorset Branch

As an avid lepidopterist, when I learnt that my zoology degree required a work placement my immediate thought was Butterfly Conservation. My first encounter with the Dorset Branch had been a moth trapping event at my primary school with Nigel Spring which helped spark my love for insects and it felt only right to return to Butterfly Conservation. Nigel was kind enough to respond to my plea by creating a week long programme which aimed to give me a taste of the varied and important work that goes on in order to conserve our declining butterflies.

Due to the distinct lack of butterflies in April, my tasks mainly focused on surveying the habitats of three of Dorset's most threatened species. Many of our butterfly habitats are heavily reliant on human influence, such as grazing and coppicing, and as a result of the intensification of farming practices these specific habitats have become increasingly rare. For example, since the 1950s calcareous grassland has disappeared by 80% in the UK. This grassland is particularly significant as it is home to many of our vulnerable butterflies such as 80% of known Duke of Burgundy colonies. Therefore, these habitats require continued maintenance by Butterfly Conservation.

My first day involved assessing the suitability of a site at Sutton Waldron in north Dorset for the Duke of Burgundy with Arthur Bryant. Having suffered a 46% population decline in the UK from 1999- 2009 this species is a



Duke of Burgundy
Photo; William Stazicker

conservation priority. The assessment consisted of looking at Cowslip abundance (its larval foodplant), sward height and scrub coverage which must be sufficient to provide shade for Cowslip and provide perching points for territorial male leks. These requirements are particularly important due to the Duke of Burgundy originally being a woodland species. As a result of the decline in coppicing and loss of woodland glades grasslands were colonised. This transitional scrub habitat favoured by the species requires constant management. Indeed, 57% of colony extinctions in the UK resulted from a lack of targeted management, and this highlights the importance of landscape-level conservation. Through conducting surveys such as this one, we can gather information to help direct conservation action.



Site at Sutton Waldron
Photo: William Stazicker

Another important part of landscape-level conservation is increasing connectivity between populations to combat habitat fragmentation. This is most evident in the Marsh Fritillary. During the placement I spent a day at Alners Gorse Butterfly Reserve with Dr Martin Warren learning about the ecology of this species. Additionally, I also spent a day surveying Devil's-bit scabious (the larval foodplant) at a newly identified colony in Milborne Port with Nigel where I was lucky enough to see some of the species' striking black caterpillars. The Marsh Fritillary colonies act as a single metapopulation, a network of populations which undergo extinctions and recolonisations. These extinctions result from the butterfly being prone to *Apanteles* (*Cotesia*) wasp parasitoids and the loss of foodplants when there is a population boom and poor weather. Much to my excitement I saw evidence of the parasitoids at Alners Gorse in the shape of wasp cocoons and the grisly husk of a caterpillar. Fragmentation of suitable habitat means that it is less

likely for populations to recover from declines and local extinctions. As a result, it is a priority of Butterfly Conservation to reduce isolation by improving and creating new habitat. For example, the removal of scrub at the new site in Milborne Port which helps to increase the connectivity of colonies.

Perhaps the most eventful day was spent within walking distance from my house. I was asked to conduct a survey of some potential Chalkhill Blue sites in west Dorset for Horseshoe vetch (the larval foodplant), so I decided to look at the Litton Downs where I live. However, I wasn't quite prepared for the challenge. I set off for the day armed with an ambitious list of fields to cover but quickly I



Horseshoe Vetch plant in April
Photo: William Stazicker

realised how difficult it was to locate these plants due to their diminutive size and lack of flowers at that time of the year. Finding one plant was difficult let alone figuring out abundance. I also had



Litton Downs. Photo: William Stazicker

the rather amusing misfortune of getting heatstroke on a hill and briefly fearing that I would become another statistic passing out on a hillside. Nevertheless, hopefully my results could be handy in future attempts at looking for this butterfly and contributing to assessing its status in Dorset after seeing worrying declines in the county, a 47% reduction in distribution since 2000.

I also had a fantastic time at the magical Ryewater Nursery, squeezing as much information as possible out of Wren Franklin. This semi-natural SSSI is home to an incredible diversity of fauna and flora, such as the Brown Hairstreak which is a declining hedgerow specialist that requires extensive management. I ended the day with a newly found appreciation of plants and a long list of recommended books that have severely damaged my bank account.

I thoroughly enjoyed my placement and would like to thank everyone for their time and support.

Report on Britain's Moths

2021 saw the publication of “The State of Britain’s Larger Moths” by Butterfly Conservation. It is available at www.butterfly-conservation.org under the “Moths” tab.

- Four times as many moth species have decreased in abundance than have increased.
- More moth species increased in distribution than declined.
- “In Britain, expanding, restoring, connecting and creating habitats that support rich arrays of moths and other wildlife, that improve human wellbeing and that deliver ecosystem services such as carbon storage, flood prevention and cleaner air, is the key to reversing moth declines and confronting the biodiversity and climate crises.”

Colin Nunn and Ballard Down

Jon Bellamy writes about Colin Nunn who has stepped back (but not away) from walking the Ballard Down transect after 28 seasons

Many of us know Colin Nunn as a widely informed naturalist and butterfly enthusiast who used to bring us together for the South Dorset annual recorders' meetings. Among other activities, he monitored Small Pearl Bordered Fritillaries long before the current Viewpoint transect was set up. He was also deeply involved with Dorset Wildlife Trust, where he arranged many meetings and, for a time, chaired the local branch. A visit to see the adders in his garden is an experience never forgotten.

The story behind Colin and Ballard Down really began at school in West Sussex in the middle of the last century. Here, Colin and his friend Mike Morris (who features later), both keen young naturalists, collected, bred and released butterflies in the local countryside. A new, younger boy, Bill Shreeves, joined the same house, and was exposed to the delights of lepidoptery. He also features later – for all of us. Schooldays came to an end. Colin and his friends moved on to university and careers, Colin as a chemist with Shell.

On retirement Colin settled in Purbeck because of its range of rich natural history. He was looking for an opportunity to immerse himself in a specific area of ecology. He met up with his old school friend, Mike Morris, by this time Chief Scientist for the Nature Conservancy Station at Furzebrook. A butterfly specialist happened to be working there – Jeremy Thomas of Large Blue fame. He had helped set up the National Butterfly Transects, including Ballard Down, and needed volunteers to take over the recording. This was a near perfect fit for Colin, who became the Organiser for the walk in 1976.

He was almost immediately joined by Peggy Taylor and her husband George and between them they took on walking Ballard Down. It is

long (5km) and like most chalk downland sites, includes some challenging terrain. In the early days Jeremy sometimes accompanied the recorders to quality control their work. All went well. At the end of every season Colin took a sheaf of data sheets and went through these with Jeremy. After a few years Jeremy left for Oxford and much wider fame.

Colin and Peggy shared the recording for many years but sadly George died in their early years of recording. Finally Peggy was forced to retire, but not before training me - I was lucky enough to succeed her on Ballard. Colin continued and proved a role model, mentor and good friend.

Now, finally after nearly three decades, he has decided to stop clambering up steep chalk slopes. There is a small team of recorders now – Colin acts as a roving observer for us, always turning up interesting finds (a colony of Small Blues last year – the first for decades) and is now free to linger and look without the need to “move on and record”.

Long may Colin enjoy Ballard as much as we do having him alongside us. On behalf of the Ballard team and all Purbeck recorders, thank you Colin!



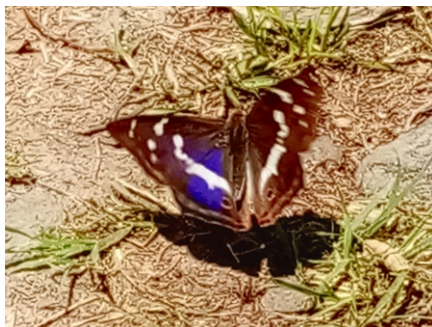
Ballard Down - Sector 4. Photo: Jon Bellamy

Field Trip Reports for 2021

1. Tom and Jean Smith led trips to Chase Woods (with Wiltshire Branch), and to Winfrith Heath

Chase Woods 11 July

For this year we decided to concentrate on the eastern side of the wood, so met at Shermel Gate, just north of the hamlet of Deanland. On last year's pre-walk we'd found a Purple Emperor in the Foxbury Lower Hedge area along the main east west ride, so had hopes of seeing another one with fellow BC members in 2021.



Purple Emperor at Chase Woods in 2020. Photo: Tom and Jean Smith

However, this year's walk was preceded by unsettled, rather cool and damp weather, so quite understandably a number of participants gave their apologies ahead of the walk. Four of us (all Dorset Branch members) met for this walk and we headed off to see if there was anything of interest on a cloudy cool day (ahead of an important football match for England!).

In Foxbury Lower Hedge it brightened a little and we began seeing Ringlets, who seem to be quite happy flying in cloudy conditions. Eventually we added a Meadow Brown and a Silver-washed Fritillary in this section of the wood. At a junction of paths, we headed west in to Great Shaftesbury Coppice, walking along the Shire Rack, noting butterflies to the north as Wiltshire records and those to the south as Dorset records. Part-way along we headed in a north-westerly direction further in to Wiltshire and this ride provided the right micro-climate for the day and we saw more butterflies including

Large Skipper, Ringlets and further Silver-washed Fritillaries.

We reached Chase Avenue and then headed south on to Bridmore Ride with its good grassland and flora and we added to our species tally with Marbled White and Green-veined White in this area. Unfortunately, there was a rather cool wind blowing here so numbers of butterflies in flight were low along this ride. We lunched at the junction with Shire Rack here, just out of the wind. By now the little bit of warmth and brightness had disappeared so we took a slow walk back to the cars via Shire Rack. As ever it was an enjoyable walk (and a relief for it to be able to go ahead this year) in tranquil surroundings and we are grateful to those who attended and hope to be able to offer another walk in Chase Woods next year, perhaps covering some different areas in better weather.

Butterfly list: Small Skipper, Large Skipper, Small White, Green-veined White, Silver-washed Fritillary, Marbled White, Meadow Brown, Ringlet.

Winfrith Heath 23 July

In complete contrast to the Chase Woods event, we had very warm weather albeit with a breeze for this trip, so our hopes were high for what we might find. This was the first time we'd led a butterfly event at this site (thanks to DWT for their kind permission). We also billed this walk as an opportunity to see dragonflies and some interesting plants. Six of us met for this walk which was mainly through the DWT reserve, but also included the part of the heath to the eastern side of the road outside the Magnox site.

From the reserve entrance, just beyond the noticeboards we soon saw our first butterflies (Gatekeeper and Meadow Brown) in this sheltered area with large Gorse bushes. Shortly after the heathland opens out, we saw a Clouded Yellow, the first of this species for most of us in 2021. Further along the path we were able to look at the

tiny Lesser Centaury and compare this to the much more obvious Common Centaury.

We took a left fork and along this section of path also saw a Speckled Wood and a Wall Brown, both being the first of the new broods for us. This part of the heathland is interspersed with acid grassland and we added Small Skipper and Large Skipper to our list. Adrian and I were a few yards ahead of the rest of the group and had to stop abruptly as a beautiful Adder slithered across the path in front of us but too quickly to take a picture. Instead of progressing on to the bird hide we turned right and crossed an area with standing water below where we could see Keeled Skimmers, Common Darters and various damselflies. This area leads on to a small, sheltered field with some brambles in full flower and attracting more Gatekeepers, Meadow Browns and Large Skippers.

As we crossed in to the next grid square SY8087 we started to see Silver-studded Blues and counted a total of 24 (more females than males) during the afternoon. We also saw a Golden-ringed Dragonfly, which proved to be our only one on this visit. We turned right and walked towards Whitcombe Hill (the higher ground in the northern part of the reserve) and along here we saw our first Grayling of the day on the track, wings closed and angled towards the sun. Heading east we found some Dodder flowering, growing on heather (parasitic plant, just red threads and no chlorophyll!) and then a Hobby flying above, no doubt eyeing up the many dragonflies!

We crossed over the road in to the heathland and conifer plantations outside the Magnox site. This area has much Bristle Bent, one of the food plants of the Grayling. We started seeing Grayling at regular intervals and added 13 more to the one we'd seen on the DWT reserve. Marbled Whites were seen in this area too. There are areas here of acid grassland and occasional Bird's foot Trefoil so perhaps it wasn't completely surprising that we saw a singleton Common Blue, a male and noticeably larger than the Silver-studded Blues also present here. As we passed the entrance to the Magnox site, we found a very large insect. None of us knew what this was at



Hornet Robber Fly
Photo: Paul Davidson

the time, but fortunately Paul Davidson took some good photos which showed it was a Hornet Robber Fly, the largest fly in Britain. We made our way back to the cars walking on a track between the conifer plantation and the road. This was a very enjoyable walk, as ever with good company and we'd seen a pleasing range of 18 species.

Butterfly list: Small Skipper, Large Skipper, Large White, Clouded Yellow, Brimstone, Red Admiral, Small Tortoiseshell, Peacock, Grayling, Marbled White, Meadow Brown, Small Heath, Gatekeeper, Wall Brown, Speckled Wood, Small Copper, Common Blue, Silver-studded Blue.

2. Adrian Neil led a field trip to the Weymouth Relief Road in August



Photo collage: Donald Simcock

Kathy Henderson

Nigel Spring has written about his wife Kathy, who passed away on 12 July 2021

Kathy passed away peacefully in July after a three year battle with cancer. Many friends have told me that they hadn't realised she was ill - such was her determination not to let the disease defeat her.

Her spirit and enthusiasm for the natural world was irrepressible, as the many participants on the EuCAN conservation trips to Europe, and visitors to Alners Gorse Butterfly Reserve will bear witness.

Kathy took her zoology degree at Exeter University and was subsequently involved in water vole and otter survey work in Somerset before attending Wye College to do an MSc. She ended up living on a smallholding in Kent until she moved to Dorset in the late 90's with her two children, Helen and Peter. She spent several years working as a furniture restorer and gardener but after Alners Gorse Reserve was established in 2005, she became closely involved in the management there using her tough little pony 'Small' to haul logs while the forest clearance work was taking place, and regularly doing the transect walks on Alners and adjacent Rooksmoor. Her transects used to take twice as long as everyone else's as she was determined to identify and count all the bumble bees as well as the butterflies.

Our EuCAN conservation visits to our partner organisations in Europe between 2006 and 2016 brought us into contact with well over 300 different people from the UK, amateurs and professionals, young and old, and a great range of naturalists in many countries of the EU. Apart from her growing botanical and entomological skills, Kathy's picnics were legendary. Perhaps the most memorable were the lunches on the way back to the ferry from La Brenne in central France when she always organised an amazing tarte aux fruits

bought from the bakery in Mézières early on the final morning - not to mention the cheeses, pates and locally grown smoked carp!

Kathy was a great believer in working in harmony with nature and using the products of the countryside to the full – this principle was the basis of the crafts she developed and the horticultural activities she involved herself in – she was closely involved in the woodland crafts courses that we ran for BC Dorset on Alners Gorse in 2006/07 and the vegetable dyeing, yurt

building, charcoal making and fungi courses there funded by the AONB. She purchased a small patch of land with stables near Bishops Caundle. Here she developed a workshop for her spinning and dyeing courses, and wood-turning activities. We also put up a polytunnel for her to bring on wildflower plants from locally sourced seed to help to increase the diversity of the parcels of grassland that we were trying to improve.

Throughout her life, Kathy was never far from her beloved equines and in 2012 was able to acquire four elderly Dartmoor mares for BC Dorset to graze our Butterfly reserves and the land on Rooksmoor adjacent to Alners Gorse. The care of these four animals was undertaken entirely by Kathy with the help of her daughter Helen. When old Holly died in 2014, Kathy arranged to



Kathy and her beloved Dartmoor pony, Vanity
Photo: Nigel Spring

adopt two coloured ponies found abandoned (with many other ponies, cattle and sheep) on Bodmin Moor. When they arrived at Alners, these two, Blaze and Star, were in a terrible state but after a short time they were in rude health! Blaze is now a very fine healthy riding pony and Star is well known on Alners for being the leader of the herd and is now trained to take a head collar and is used to lead the other three, Blackberry, Scarface and Clara, when they have to be moved.

Two stories to end on which illustrate very different aspects of her spirited attitude to life and the world around her. A few years ago, a family a few doors down from us replaced their kitchen units and set fire to the old ones in their garden, creating a great pall of black smoke from the burning plastic-coated chipboard. Kathy was round there in a flash, calmly asking the owner whether she had any care for the future of her children; this nearly led to fisticuffs (and the fire wasn't put out!).

And she has left behind in her polytunnel where she tended her wildflower seedlings and a bed full of flowers to attract pollinators, some wooden staging and wooden plant supports carefully drilled with holes and labelled in pencil, where the solitary bees have made their nests – *Osmia rufa*, the Mason Bee, and one of the Leafcutter bees, *Megachile sp.* and possibly others. They will emerge next spring!

Butterfly Conservation has 32 branches throughout the UK as well as hosting the European Butterflies Group (to which UK members can belong for an extra fee).

Please think about leaving us something in your will. If you prefer it to go to Dorset Branch you need to stipulate this or it will go to the national organisation.



How can moths fly in winter?

This is shortened version of an article by David Tomlinson published in the Cheshire and Wirral Branch newsletter

In the UK, eleven species of macro-moths are regularly on the wing in December and January; these are the December Moth, two species of Winter Moth, Pale Brindled Beauty, Scarce Umber, Mottled Umber, Plumed Prominent, Satellite, Chestnut, Dark Chestnut and Oak Nycteoline. Some of these moths also fly in warmer months and their appearance in midwinter may be simply a break from hibernation.

But why and how do they fly in the winter?

Regarding the why, there must be some benefits to these species of flying at the most inhospitable time of year. These might include an absence of predators: there are no bats and fewer parasitic insects about, and these moths are all nocturnal, thus evading predating birds.

The how is more complex and different moths have different strategies.

In Europe and North America, winter-flying moths are either from the Geometridae family or the Noctuidae. The females of some of the Geometrids are flightless, so the males locate females by pheromone tracking, which does not require much flight. The males have large wings, which flap slowly at about 2 beats per second, requiring minimal energy. They have no digestive tract, so do not waste energy searching for food.

The Noctuids and the larger-bodied Geometrids have greater energy demands, as both sexes fly generating around 60 beats per

second. They can feed on sap from damaged trees or on winter flowering plants. However, they need to increase their thoracic temperature to 30°C in order to start flying after daytime rest. During resting, (perhaps under leaf litter for insulation) their metabolism drops and heat production is minimal. Those of you who run light traps to capture moths will have witnessed the phenomenon called 'shivering'. When moths are taken from traps on a cool morning many remain passive and immobile, but others begin to vibrate their wings rapidly for some minutes before taking flight. These vibrations are caused by simultaneous activation of the muscles responsible for both the up-stroke and the down-stroke of the wings to generate heat. Such activity is an essential precursor to flight in winter flying moths, in order to reach the required thoracic temperature of 30°C or more.

The ways in which these moths have evolved to cope with extreme temperatures and take advantage of reduced predation is highly complex. It has been researched extensively by Bernd Heinrich, Emeritus Professor of Biology at the University of Vermont.



Pale Brindled Beauty. Photo: Gillian Nash

Keith Howland 1950 to 2020

Nigel Spring writes about Keith Howland, who died of cancer in July 2020

We were very sad to hear of our friend and colleague Keith's passing in July 2020, yet another person whose life was cut short by the cancer epidemic and whose life we were not able to celebrate because of the Covid funeral restrictions.

Keith started teaching in Blandford Upper School in 1973, the same year as I started in the lower tier of the system. He taught Rural Science, a subject now long gone (and perhaps forgotten), before moving to work in a variety of roles at County Hall in Dorchester. He had a lovely calm, rather reserved and very genuine manner, something to do with his northern roots!

He became involved in the workparties at Alners Gorse after BC acquired the site in 2005 and enjoyed helping with the woodland work with his chainsaw, particularly as part of the woodland skills courses which were targeted at young people referred through the local mental health agencies. He took part in the EuCAN visit to the Aggtelek National Park in northern Hungary in March 2010, a visit that was highly memorable for the amount of snow we experienced and consequently for the amount of time spent animal tracking! He was always good company and was very supportive of the participants with mental health issues.

He became a member of our Dorset Branch Committee in 2013 and undertook to be the Branch Health and Safety Officer which fortunately did not make many calls on his time, but his contributions to the business of the branch were always extremely wise and well thought out! He coordinated the Duncliffe and Hambledon transect teams and helped with the transects on at least six sites.

Keith was diagnosed with cancer of the bile duct in 2018 and went through several phases of very unpleasant chemotherapy. He had resigned from our committee and all his transect commitments by April 2018, but continued to fight his disease with huge courage, supported by his wife Ann and his children Claire and Peter and their families. Keith contributed a lot to Butterfly Conservation, and we shall miss him.

Plundering for nectar: sequel

Paul Browning has sent this in as a follow-up to Shona Refoy's article in Newsletter No 95

I was interested to read about Shona's observations on Holly Blues feeding on Bluebells. I wonder if this is not so much a new phenomenon, as one that has largely gone unnoticed or under-reported. There is a small copse in West Cornwall where I've been watching these butterflies for nearly 30 years and their access to the nectar has always been through the "back door". I've made the same observations at a site on the Cornish coast involving Green Hairstreaks. I believe Shona is right in suspecting this behaviour is the consequence of a relatively short proboscis. I don't have any photos of other Lycaenids nectaring on Bluebells, but if I did, I strongly suspect that they would all be feeding from the base of the flowers.



Holly Blue and Green Hairstreak. Photos: Paul Browning

Treasurer's Report 2020-2021

From Georgie Laing, September 2021

The year saw the impact of two big events on branches. On 1 April 2020 all branch bank accounts were closed and Head Office became responsible for all the book-keeping functions, reporting to Branch Treasurers monthly. Branches are still responsible for their own funds and budgets. They are no longer accountable for any input VAT (on expenditure) but still responsible for all output VAT (on sales items etc). This change of procedure resulted in a one-off balance adjustment at the start of the year of £142. There are some changes in the layout of the figures. Balance sheet items (eg debtors, sales stock) are no longer disclosed – only the total balances figures.

The pandemic has taken its toll on some of our activities. Both reserve maintenance costs and sales income are well below previous years. On the other hand income from grants, membership subscriptions and donations has remained buoyant. During the year there was some discussion with Head Office over whether the Branch would receive the Environmental Stewardship Scheme grant for its two reserves but we were pleasantly surprised to see the £10k come through. However, for subsequent years this may be reduced. The Branch had agreed to set up a designated fund to cover for such an eventuality – and this fund stands at £10k (included within the closing balance figure). During the pandemic Head Office appealed to branches for help with their own financial deficit. The Branch transferred a fund of £829 after this request. The branch is still today awaiting Gift Aid for personal donors for 2020-21. The outstanding gift aid for the year before did come through.

With thanks to the following companies for supporting the branch:
Waitrose £333, The Hardown Society £250, EuCAN £275,
Groundworks (Tesco Bags of Help) £1,000

Dorset Branch Income & Expenditure

EXPENDITURE		2020-21		2019-20	
Conservation	Travel & Subsistence	290		648	
	Training	165		365	
	Field equipment	846		198	
	Water rates	46		48	
	Reserve maintenance	4,879		12,960	
	Sub-total		6,226		14,219
Education	Printing	-		194	
	Workshops/ training days	(25)		289	
	Sub-total		(25)		483
Fund-raising	Events	1		-	
	Cost of sales	2		457	
	Sub-total		3		457
Membership	Newsletters	2,880		2,835	
	Website	1,134		1,305	
	AGM costs	-		30	
	Sub-total		4,014		4,170
Adminis- tration	(eg stationery, postage, meeting costs)	-		103	
	Insurance	199		194	
	Sub-total		199		298
Total expenditure			10,416		19,627

April 2020 to March 2021

INCOME		-2020-21		2019-20	
Receipts from Head Office					
	Grants	10,103		10,515	
	Membership subscriptions	5,811		5,655	
	Other (Gift Aid, interest)	325		136	
	Sub-total		16,239		16,305
Donations & grants			2,828		1,229
Legacy			-		500
Fundraising					
	Sales stall	11		883	
	Other (sale of yurt)	833		245	
	Sub-total		845		1,128
Contract income			575		575
Total income			20,486		19,738
Transfers	(To)/from Head Office		(829)		-
Excess income over expenditure			9,241		111

BALANCES STATEMENT	
Opening balance brought forward	37,069
Opening balance adjustment	142
Revised opening balance	37,211
Surplus (deficit) in year as above	9,241
Closing balance	46,452

Fundraising

From Lyn Pullen

You may remember that in Newsletter 93 (available via the News page of the website) we looked at the Branch's likely financial situation over the next few years and found it worrying, in that the situation regarding continuing to receive government grants is very uncertain, especially with Covid to pay for. Lots of words are being spoken at government level about a "multi million pound boost for nature recovery", but what this will translate to on the ground remains to be seen.

The Covid pandemic prevented the Dorset Branch committee from pursuing the implications of this further, but we need to pick the topic up again and consider our options. We are a very active branch, trying to undertake a lot of conservation work and other work, and though we seek the best value in all we do, we still need money to keep us going.

Our income from your subscriptions is only £6 per member. We do get some bequests and we obtain small amounts of money from local businesses and the like, as Georgie tells us on page 35, but this sort of income cannot be relied upon: we need some steady income which can be spent how we need to spend it.

One option we have talked about is to ask for donations from the people who attend our walks and talks; feelings on this are very varied and we'd welcome input from our members: you can use the contact form on our website or email Lyn Pullen on cobblers@btinternet.com.

We would also welcome any ideas or offers of fundraising help. There was a list of ideas for raising money in newsletter 93.

Back cover: Silver-washed Fritillary. Photo: Kevin Denham.

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