

NORTH EAST ENGLAND BRANCH

# Newsletter

Issue 43: SPRING 2021



**Butterfly  
Conservation**

Saving butterflies, moths and our environment

North East England



Butterfly Conservation

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Front cover picture: Red Admiral pupa on nettle leaf. Graham Beckwith  
Rear cover: Marbled White: Daria Wallace

# Spring 2021 Newsletter

Welcome to the Spring 2021 issue of the Branch newsletter. In the twelve months since the Spring 2020 issue was published we have been subject to a global pandemic which has left over 125,000 people dead in the UK and has completely disrupted all aspects of life in this country and around the World. Of course, butterfly recording was not spared from this disruption and because the various lockdowns restricted the possibilities for people to get out into the field it will be very difficult to make meaningful comparisons of the numbers of butterflies recorded in 2020 with other years' totals. Hopefully 2021 will allow us a more normal recording season!

Fortunately we were not completely locked up for the duration and people did manage to get outside to some extent whilst observing the rules, and Steve Kirtley and Graham Beckwith both used their opportunities to observe the young stages of various species. Steve recorded the breeding of the Brimstone (a species that normally occurs in our region as a non breeding vagrant) in Darlington whilst Graham used his lockdown walks to search for eggs and larvae of a number of species. Their results are included in the newsletter and hopefully will encourage others to investigate the immature stages of butterflies - which play such an important part in their overall ecology.

Like much of our wildlife, butterflies and moths are declining. This newsletter includes a number of suggestions for things you can potentially do to help address this problem. Individually none of us can make much difference but collectively we can bring about change. One area where we are specifically looking for volunteers is on the committee (see page 4) which now includes a number of vacancies. Several of the existing committee have resigned recently and we gratefully thank them for their contributions (some over many years) whilst looking forward to welcoming new members!

As usual, I am grateful to all of the contributors who have provided the articles in this edition which I hope you will find interesting and enjoyable. I would like to stress that all contributions are welcome and encourage all readers to make submissions (text or pictures) in relation to butterflies and moths of the region. It is a good idea to contact me first, though, as this helps planning and the avoidance of occasional clashes where two people submit very similar articles on the same subject. Please see contact details on the back page for where to send any submissions.

Because of ongoing covid restrictions (which affect the use of volunteers to stuff envelopes) this newsletter is once again being produced in electronic format only. We apologise for this and hope to resume producing a printed edition in the Autumn.

Jonathan Wallace, Editor

Please note that submission deadlines for the newsletter are:

Spring issue: 1st February      Autumn issue: 1st September

**[www.northeast-butterflies.org.uk](http://www.northeast-butterflies.org.uk)**

**Facebook: [www.facebook.com/BCNorthEastEngland/](https://www.facebook.com/BCNorthEastEngland/)**

## Committee Vacancies

As we have reported since the Autumn 2018 newsletter we are looking for someone to take on the role of Branch Chair.

The Branch Chair's role is to lead and manage the Branch and its activities (delegating tasks to other Branch committee members and post-holders as needed) in accordance with the Branch Rules and Butterfly Conservation's policies etc. The role includes chairing regular Branch Committee meetings and the Chair leads the committee and Branch post-holders in planning and reviewing the work and activities of the Branch. BC's Head Office can provide full information on BC's policies as well as guidance on running a Branch and Branch activities, and further information is available in the Branch Handbook via the BC website and in regular newsletters and other communications from BC's Head Office and Regional Offices. The Chair also has an important role in maintaining good relationships and communication within the Branch between committee members and post-holders, and between the Branch and BC Regional and Head Office staff, to further the work of the Branch and BC. More detailed information about the role of Branch Chair is available on request from [info@butterfly-conservation.org](mailto:info@butterfly-conservation.org).

As a result of illness, relocation and other engagements and responsibilities we have recently lost several other members of the committee including our butterfly recorders and the editor of our annual butterfly summary. The role of the recorder is to receive butterfly records from within the county, to verify that they are valid (if necessary by requesting supporting evidence from the observer) and generally to ensure that the data-base of records is robust and well managed. We have a single e-mail address for the reception of records from both Northumberland and Durham which channels the records to the relevant county recorder. The two county recorders work in close cooperation and we also have a records sub-committee who support with decisions on 'tricky' records. The county recorders also work together with the editor to produce the Annual Butterfly Summary report which is our principal means of communicating back to members and individual recorders the results of each year's recording effort.

If you are interested in taking on any of these roles or would like to know more please contact Peter Webb ([apwebb546@gmail.com](mailto:apwebb546@gmail.com)). We would also welcome anyone wishing to join the committee as an ordinary member.

# Wider Countryside Butterfly Survey 2021

## Val Standen

There is growing acknowledgement of the importance of biodiversity in the wider countryside. Butterfly populations are an excellent way to monitor the health of an environment. However, the focus has been on nature reserves and butterfly-rich places. This has led to a lack of monitoring in vast areas of the wider countryside such as farmland, plantation woodland, uplands and urban green spaces. Butterfly Conservation's Wider Countryside Butterfly Survey (WCBS) seeks to remedy this lack.

The method involves making a minimum of two visits to a square chosen from the list below between May and August. At each visit butterflies are counted along two 1km survey lines running roughly north-south through the square. The survey will be co-ordinated centrally by Butterfly Conservation but with the help of a WCBS Champion in each Branch. If you would like to take part, please get in touch with Val Standen - [valerie.standen@hotmail.co.uk](mailto:valerie.standen@hotmail.co.uk). The link below gives a summary of the 2019 records and how each species compares with the previous year.

[https://butterfly-conservation.org/sites/default/files/2020-04/wcbs\\_2019\\_final.pdf](https://butterfly-conservation.org/sites/default/files/2020-04/wcbs_2019_final.pdf)

Coronavirus: Butterfly Conservation policy is that butterfly and moth recorders must, at all times, continue to observe the appropriate social distancing requirements specified by the government. At the time of writing, national lockdown rules severely limit all outdoor activity. We hope that by the time we reach the survey season for the WCBS, the lockdown rules will have been relaxed sufficiently to permit recorders to visit their squares. However, government guidelines in force at the time must be consulted prior to undertaking any field work and complied with. For England, these guidelines can be found at <https://www.gov.uk/coronavirus>.

NT9145	7.5km NE of Coldstream	NZ0825	Nr. Copley
NT9935	7km. N of Wooler	NZ0919	4km NE of Barnard Castle
NU2404	2.5km W of Amble	NZ0953	Nr. Shottley Bridge
NY6662	4.2km. SW of Haltwhistle	NZ1030	2km SW of Hamsterley
NY6849	5km NW of Alston	NZ1070	3.5km NW of Heddon on the Wall
NY6859	5.5km. SSW of Haltwhistle	NZ1427	4km NW of West Auckland
NY6869	6km. NNW of Haltwhistle	NZ1579	5km East of Belsay
NY7189	Nr. Hawkope nr. Kielder Water	NZ2075	Nr. Dinnington off A1
NY7352	5.7km. North of Alston	NZ2327	1km NE of Shildon ctr.
NY7482	5.8km. SW of Lanehead nr. Kielder Water	NZ2425	2km SE of Shildon ctr.
NY7691	11.5km West of Otterburn - Kielder Forest	NZ3934	Nr. Hurworth Burn
NY8525	5km SW of High Force	NZ4048	0.5km North of Murton off A19
NY8961	5km SE of Haydon Bridge	NZ4234	Nr. Hurworth Burn
NY9796	4.5km NW of Elsdon on B6341		
NZ0480	15km NW of Ponteland off A696		
NZ0510	4.5km SW of Greta Bridge off A66		
NZ0630	0.5km NW of Hamsterley Forest Grove car park		

## Sallowing

Peter Webb

Spring is one of the best times of the year to find moths on a natural food source. Any mild night when there is little or no wind is the time to go “sallowing”, one of the classic techniques used before the advent of “light traps”.

Sallow is the name given to certain species of willow, notably Goat (*Salix caprea*) and Grey (*Salix cinerea*) Willows, which have short erect catkins. Male and female flowers are borne on separate trees with the male ones being the classic well-known pussy willow catkins. Depending on the year, they can come into flower from as early as late February but March is probably the best month in the North East. This early blossoming makes them an important

source of nectar and pollen for all sorts of insects and the birds which feed on them. On a sunny spring day plenty of flies are attracted to the flowers as well as bumble and solitary bees, but also overwintering butterflies. Peacock butterflies seem particularly fond of willow blossoms. It is during a mild spring night that the catkins attract many of the overwintering and recently emerged moth species sometimes in large numbers.

“Sallowing” was one of my first and most exciting “mothing” experiences. Choosing a mild and still spring night, we spread a white sheet under a large flowering willow bush and shook the bush so that anything feeding on the catkins fell onto the sheet. Hundreds of moths covered the sheet, mostly “quakers” (*Orthosia* spp.) species such as Hebrew Character, Clouded Drab, Common and Small Quaker. I have never been able to repeat that experience but still look forward to a spring walk around a flowering willow with a torch picking out the moths by the light reflecting from their eyes.



**Hebrew Character feeding on willow blossom. Photo: P Webb**



**Although species of the genus *Orthosia* are most frequently encountered on willow blossom, other species may also be found such as this Pale Pinion. This species flies in the Autumn and then, after hibernation, reappears in the Spring. Photo: P Webb**



***Orthosia* species feeding on willow catkins. Common Quaker (left photo) and Hebrew Character and Clouded Drab (right photo). Photos: P webb**

Sallow catkins are also an important early spring food source for the caterpillars of several moth species. Sallow and Pink-barred Sallow lay their eggs on the willow bush in the autumn. When the caterpillars hatch in the spring they first feed on the catkins and when these fall to the ground on low growing plants. For anyone interested in breeding moths it can be a worthwhile exercise to collect willow catkins which have fallen on the ground, some of which will contain larvae. To identify which catkins have caterpillars feeding on them one suggested way is to spread the catkins onto white kitchen roll in a seed tray or similar and keep checking for “droppings” (frass) which will appear under occupied catkins. Move these to a lidded container and feed them on Sallow leaves. If all goes well “Sallow” moths will emerge in the Autumn.



**Pink-barred Sallow (left) and Sallow (right). Moths that fly in Autumn and lay their eggs on willow bushes. The caterpillars hatch in Spring and initially feed on the catkins. Photos: J Wallace.**



**Adult male Brimstone. Photo: Graham Beckwith**

In recent years, there have been records scattered across our region for the Brimstone, mainly of wandering individuals. However, there has been a growing number of records from the West Park area of Darlington with many of these coming from the transect there by Pippa Smalling.

In March 2020 with the onset of the virus pandemic and the first

lockdown, I determined to spend more time looking for the butterfly at West Park as it is within walking distance of my home. I had seen the butterfly there myself on a few occasions in 2019 and also had sporadic sightings over the years in the Cockerton area of Darlington as well as on my garden Buddleia on one occasion.

The Brimstone over-winters as an adult butterfly and is often seen (further south) during milder days in the winter months and is one of the first butterflies seen in the spring. So, on the 20th March I set out for West Park! It was a warm early spring day and I was amazed and delighted to see a male Brimstone almost as I entered the reserve area. He was busy patrolling up and down the rides looking for a female. I watched and followed him for a while but it's difficult to do that effectively there as the butterfly often flew high over large areas of scrub where I could not quickly follow. On the 25th March, I visited again and this time saw at least 2 males again patrolling up and down the footpaths along the edge of the woodland/scrub areas.

I first saw a female Brimstone on 11th April. I did try very hard to follow her as she flew around the reserve but met similar difficulties as before as she flew effortlessly over areas where I could not follow. Sadly, I soon lost her and was unable to re-locate her – however I did see a couple more patrolling males.



**View of West Park, Darlington with Buckthorn. Photo: Steve Kirtley**



On the 19th April, I had rather more success! In total, I saw at least 9 Brimstones of which 5 were females. I saw 2 male Brimstones pursuing one female relentlessly but she rejected their advances. At one point the males were spiralling around her before she dropped to the ground raising her abdomen until they got the message.... I managed to follow all of this despite some strange looks from onlookers wondering what on earth I was doing. One lady with her young daughter eventually asked me what I was doing and I explained – they seemed interested but I'm sure they still think I'm slightly mad! One of the hazards of trying to study butterfly behaviour in a popular spot for people to walk and exercise their dogs especially during lockdown.

I spent quite a bit of time looking around and finally hit the jackpot – a female fluttering around a Buckthorn bush! Buckthorn is the foodplant for the Brimstone caterpillars. When West Park Nature reserve was created (on a Brownfield site) in the early 2000s then Buckthorn was either planted there or established itself there. As Buckthorn is not a common plant in the region, it was probably the former. The reserve was in part established as a translocation site for the Dingy Skipper when the former Darchem site was redeveloped for housing, however, sadly, that butterfly is no longer there.

At first the eggs were laid well above head height but eventually I did see one laid lower down where I could see it. Over the course of the next couple of weeks, I managed to find a dozen eggs across a number of Buckthorns – mainly these were in sunny sheltered locations. I discreetly marked the locations using green garden twine fastened to the branches - this proved very handy in finding the exact spots again later. When the eggs were laid, the bushes were largely just coming into leaf & the sites looked very different later when the leaves were fully out.



**Brimstone egg on midrib of fresh buckthorn leaf. Photo: S Kirtley**

I visited regularly over the coming weeks & saw several caterpillars as they grew. As they grew larger, the caterpillars have a curious resting posture where they sit along the central rib of the leaf & raise the front part of their bodies. This is believed to be a technique to cast a smaller shadow & therefore evade detection by prying birds, especially when they are underneath the caterpillar.

By late June/early July, I was struggling to still find the caterpillars and eventually they all disappeared (hopefully to pupate rather than as a result of predation). I did look around the areas where I had seen caterpillars but could not find any pupae – hardly surprising as they are very well camouflaged and they can wander away to pupate.

I revisited West Park on a couple of occasions in August but sadly (and slightly surprisingly) didn't see any adult butterflies. Having said that, they are great wanderers (as the past sightings in our

region show) and they may well have been in the general area seeking out nectar sources as they prepared for hibernation.

In conclusion, it has been very good to prove that Brimstone is breeding in County Durham and it was good to be able to study them in the first lockdown as they were close to my home. I'll continue to watch them at West Park. I now feel that I have a better understanding of the life cycle of this butterfly and its behaviour at West Park but there is always more to discover....

My experiences in 2020 lead me to believe that it is the scarcity of the foodplant, Buckthorn, in the region that is stopping the Brimstone from having a much stronger presence here. The Brimstone has found it at West Park & I'm sure would do so in other locations especially in the south of the region.

For anyone wanting to know more about the life cycle of the Brimstone (and any other British Butterflies) then I would recommend the book "Life Cycles of British & Irish Butterflies" by Peter Eeles.



**Actively feeding Brimstone caterpillar on buckthorn. Photo: S Kirtley**



**Brimstone caterpillar showing the characteristic restic posture. Photo: S Kirtley**

# Butterfly Recording - the past, present and future

## Roger Norman

Along with probably all other natural history recording, butterfly recording has previously involved pencil and paper, or perhaps paint and brushes. Even now, in a more digital era, a lot of field recording still involves a notebook. Back in the office or at home, permanent recording involved pen and ink and an organised filing system, perhaps using record cards that could be subsequently retrieved and studied. Indeed this was how the records at the Natural History Society of Northumbria's records were stored. The major butterfly and moth publication by Dunn and Parrack<sup>1</sup> was based on the then available record cards, stored in a long green metal box, along with their own field studies.

However, in 1995 Butterfly Conservation, aware that there were apparent declines in butterflies in the UK, launched their new recording project, *Butterflies for the New Millennium*. This was a nationwide recording drive and culminated in the publication of their Atlas<sup>2</sup>. At the time, the far-sighted decision was made to record all records electronically. A bespoke database recording system was written by Jim Asher, (who has just stepped down from being National Chair of Butterfly Conservation). County recorders then received paper records from observers and entered them by hand into the database. Over the years, the number of records contributed continued to grow and by 2005, the recording load for the Branch was split by having separate County Recorders for each of the two counties. Fortunately in 2006 an updated version of the database was available, which allowed automatic loading of records from spreadsheets. As a result the Branch made a push for all observers to submit their records in this form. Today nearly everyone sends their casual records in electronically and there are very few observers still using paper forms. Without this move to digital we would not be able to cope with the number of records, typically around 18,000 but 24,000 after the hot summer of 2019. A parallel recording system handles online entries for transect walkers.

Over the last few years, with the spread of smart phones, the *iRecord* app has been launched by Headquarters so observers can submit records from the field. *Initially*, *iRecord* entries could only be seen by the observer entering them or by the County Recorder. County Recorders could then look at these contributions on line and accept, or reject them. In the spring of this year, following a review by headquarters of the whole recording approach by the organisation, a new part of their national website has been written and gone live. This enables everyone to look at all records everywhere in the UK that anyone has entered into the system.

I urge you to have a look at the site, see what everyone else is seeing and to add your own contributions if you wish. This is how:

- 1) In your browser, type in **[www.butterflyrecording.org](http://www.butterflyrecording.org)**
- 2) Click on Create a new account
- 3) You need to register which is easy – you need to provide a user name, password

and, strangely, a picture of something/anything (don't know why), max size 30kB which is very small.

Once you are registered and logged on to the site:

- 1) Choose 'Explore all records;' then you really need to apply a filter
- 2) Click on 'Create a filter' (this is on the right hand edge of the page)
- 3) Click on 'Where'; we suggest 'Butterfly Conservation Branc'h
- 4) Click on 'Choose an existing site or location'; we suggest you type in North East England
- 5) Click on 'add' and then
- 6) Click on 'apply' and the map should then home in on the northeast and the region's records should appear underneath. Apply appears below the map on the screen on the left hand edge.

By default only the last month's records appear but previous ones are available for you to browse. The site can take a little time if there are a lot of records to retrieve from the server.

To enter your own sightings to let everyone else see them this is how:

Click on 'Enter Records' and follow the instructions on the screen to enter your details. There is an excellent map on the screen which will generate your grid reference. If your records are at your house or garden or if you want to keep the site private, be careful about what you record as site name and the resolution of the grid reference, (six numbers e.g. NZ123456 has a resolution of 100m)

This is a new part of the national website so new features may appear as time and effort permit, e.g. the Garden Butterfly Survey and WCBS are not, or not yet, part of the site.

Please note: this is an alternative way of recording your sightings. If you already send your records in on a spreadsheet at the end of the season, please do NOT enter your records on the website. Otherwise your records will get logged twice on our database!

## **References**

1: Dunn, T, C, & Parrack, J, D, *The Moths and Butterflies of Northumberland and Durham*, Part One, Macrolepidoptera, The Vasculum Supplement No. 2. Pub. The Northern Naturalists Union 1986.

2: Asher, J, Warren, M, Fox, R, Harding, P, Jeffcoate, G and Jeffcoate, S, (2001). *The millennium atlas of butterflies in Britain and Ireland*. Oxford

## ***iRecord Butterflies* App**

**Steve Austin**

Making a record of the butterflies you see when you are out and about has always been a fundamental part of butterfly conservation. Whether it is a casual sighting in your garde, a new species that you have been looking for or a new site you have visited making a list with dates and numbers is always important.

At first there were just written records. The notes were written on paper with pen and ink or pencil and these were posted to the local recorder at the end of the season. Next came printed record sheets, which were filled in and posted complete, at the end of the season. After record sheets computers came along and recorders were encouraged to use an online record sheet, by completing the details with all the relevant facts and then emailing the completed sheet to the relevant recorder, again at the end of the season. This is what most recorders still do and there is nothing wrong with this.

So we move with the times and in today's modern age there is now the mobile or smart phone. Take a walk along any street or visit a shop or any public place and you can't help but notice folk with their heads down typing and texting, so engrossed that they are walking into lamp posts or bumping into passing strangers. Or they may be clutching the phone to their ear and talking loudly to everyone within earshot. Or they have an earpiece in place and appear to be talking to themselves. Smart phones are everywhere and here to stay. How did we ever live without them? The good news is that if you have a smart phone Butterfly Conservation is using a recording app that is a totally free download and it is called "*iRecord Butterflies*" and you can download it from your app store.

Once downloaded and registered the app is very easy to use, with easy to follow steps that allow you to record the details of the location and the species seen. When finished, press 'send' - Done! The app has good photos of all the British species which helps to ensure correct identification.

Once you have used this app a few times it becomes easier to use and has a few major advantages. It is instant – once sent you can forget about your records, although you can still access them for viewing on the irecord website, they are not lost. The GPS takes the sting out of working out grid refs on an OS Map. Whichever county you are in you don't have to search for a county recorder to send your records to. You will get an email back once the records you sent have been verified to say that they have been accepted.

Excel spread sheets can be a bit challenging if they become corrupted; try changing the date format or font. Nothing ever fits in the spaces and you can never find "wrap text". I will be honest in saying that like everything else that is new and untried it may sound a bit daunting, but it is totally free and if you are now the owner of a Smart phone please give it a try – as I was once told if you can do it once, then you can do it ten times. If you can do it ten times you are an expert and it is designed to be easy to use. If all else fails you can go back to the excel sheet.

# Lockdown Life Stages

# Graham Beckwith

The decision was made! It was well into June and well into this awful pandemic. Travel outside of our local area to see some of the rarer butterfly species that we (myself and my 2 butterflying colleagues) had gotten used to over the last few years was prohibited and, with the exception of one or two later emerging species, I had all but exhausted seeing our local butterfly species.

The decision? To do something that I hadn't really thought alot about in previous years; to look for what are arguably the more interesting (if not the most attractive) stages in the lives of butterflies; from egg to larva to pupa. I had no idea how easy this task would be or indeed how difficult so I thought it common sense to start looking for the more obvious species. I had already seen in previous years stinging nettles covered in masses of Small Tortoiseshell larvae, seemingly the most obvious larvae to find and on 22nd June on the roadside at Waldrige Park I came upon a female Small Tortoiseshell laying tens of eggs on the underside of a nettle leaf. Fascinated, I watched and photographed it until it had completed this vitally important duty.

Two days prior to that delightful observation, at Aykley Wood Grasslands on the outskirts of Durham, I had my first real success in finding Peacock larvae. A row of stinging nettles was alive with black clumps of the larvae. Readily distinguished from those of the Small Tortoiseshell by being largely black without the distinct yellow markings and stripe, these Peacock larvae were at various instars – the developmental stages within the larval life cycle, usually consisting of 4 or 5 but up to 6 or 7 instars depending upon species.



**White-letter hairstreak pupa.**

The best of that day was to come on searching some rather shrubby elms close to Durham Police Headquarters. After only a few minutes of examining the underside of leaves, I was rewarded with a White-letter Hairstreak pupa secured on a leaf in the fork of a twig by a silken girdle. To say I was very pleased would be an understatement however it was the only one I found and only a stone's throw from where a couple of weeks later I watched a Speckled Wood lay a single egg on a blade of grass before flying off.

The longest day of the year came and went and by this time I was spending most of my time searching the length of an ivy and nettle clad lane beside Waldrige Hall on the Waldrige Park Estate but it wasn't until early August that this lane came into its own. On 5th August I watched a female Holly Blue laying eggs on ivy flower buds but time was against me that day so I returned on 7th and located several eggs which I photographed and marked with coloured thread in the hope I could locate larvae a few weeks afterwards. This



**Left: Holly Blue larva with remnant of Holly Blue egg on an ivy flower bud. Right: Pink/purple marked larval form of the Holly Blue.**

strategy paid off and from 26th August into September I found several larvae also at various instars, one being the variety with red stripes. Great stuff! That's a strategy I'll use in the future.

From mid-August the stinging nettles yielded larvae of all of our common Vanessa butterflies, the first being a couple of Red Admiral larvae within their larval feeding tents; leaves loosely rolled up and secured with silk threads. Hard to believe these were the first of this species I'd ever encountered. On 12th September I saw an



**Red admiral. (Left) inside larval tent and (right) pupa 41 days after pupation.**

exposed, plump final instar larva scurrying atop a stone wall so I placed it on a stinging nettle. Two days later I returned to find a tent of nettle leaves fastened together with silk. Underneath this neat tent and attached to the roof of the tent was a fresh Red Admiral pupa which had successfully emerged by 25th October, a seemingly long pupal stage compared to the usual 2-3 weeks.

Small Tortoiseshell larvae were extremely abundant,

Peacock less so and during August a total of 5 Small Tortoiseshell larvae had pupated on a garden fence. Sadly, 2 of them had been hijacked by small Chalcid wasps, a group of small wasps that parasitise butterfly and moth pupae, eventually emerging from the host pupae as tens of adult wasps.

I had also struggled to find Comma larvae in past years with only a handful found but there was no struggle along this lane with several larvae of varying instars seemingly on every nettle plant. On 29th August I had found 19 Comma larvae,

including several in the process of pupating and during September I had located 10 Comma pupae (one suspended from a stone wall); four successfully emerged, one was also hijacked by Chalcid wasps which emerged on the same day as those from the Small Tortoiseshell pupae. The remaining 5 are still there (now late January), suspended from live ivy twigs and dead nettle plants. Although it is known that Comma overwinter as hibernating adults, is it possible that Comma pupae can survive through our winter to emerge in spring? I will watch these 5 pupae for the answer.



**Comma caterpillar preparing to pupate (left) and a completed pupa (right).**

On 22nd and 23rd August I had a change of scenery with short trips to Colliery Wood, a local nature reserve behind the Chester Moor pub on the A167 to spot some late summer butterfly species. Outside one of the allotments beside Chester-le-Street Football Club's ground I watched both Large and Small White larvae on nasturtiums. As the days rolled into September, I could only find one pupa, a Small White attached to the fence of the allotment, now overwintering in that pupal stage. A Green-veined White larva was to come to my attention towards the end of the season with a single specimen found on a single, small (unknown) plant beside a path on the Waldrige Park Estate.



**Pupa of a Small White on a fence post at Chester Moor.**

The end of the year was fast approaching and I was determined to find a larva of the Small Copper. I had searched on countless Sorrel and Dock leaves to no avail. I knew this species overwintered as a larva, usually in small groups underneath Sorrel/Dock leaves but my hopes were low, mainly because I struggle to see this



charming little butterfly in any given year and I had only seen 3 individual butterflies all through 2020. Although I didn't know it, my luck was to change when walking along the woodland footpath by South Burn, Waldrige Park towards Waldrige Fell on 19th October. It seems that I had forgotten how much Sorrel/Dock (I'm not 100% which) there was on both sides of the first 100 metres or so of this footpath and it surprised me in all honesty when I actually noticed it although I hadn't yet seen any Small Copper along this stretch.

I remember it was late in the day, certainly after 5pm and I also remember it was rather chilly but I decided from the off I was determined to search the undersides of as many leaves as was possible until such a point that it was too dark to see and believe me when I tell you, there was a heck of a lot of leaves. After more than twenty minutes of searching I turned to the next Sorrel/Dock plant; first leaf, nothing. Second leaf, nothing. Third leaf, nothing. The sun had dipped well below the tree-line but, although I could still see sufficiently it was a case of should I come back tomorrow or should I continue another few minutes? I looked down at the plant, paused, then turned the fourth leaf over, nothing. Only a couple more leaves to look at then I'm off for my dinner. I turned over the fifth leaf furtively as it was a little twisted and stuck under another leaf. I seemed to stare at the underside of this leaf for an eternity. There, attached to the leaf by a few silk threads was a green, bristly slug-shaped caterpillar; unmistakably the larva of a Small Copper butterfly. I'm sure I did a jig around the path before taking numerous photos. I'd achieved my aim of finding a Small Copper larva before winter ensued although it was the only one I could find despite searching a little longer. Interestingly, I returned the next day but there was no sign of it. How pleased I was that I continued looking that little bit longer.

Another pleasant surprise came on 21st November. Walking along Waldrige Lane I noticed a patch of dead Garlic Mustard plants beside West Farm. I stepped off the path and immediately I spotted the distinctive thorn-like structure of an Orange Tip pupa. Another one under my belt and another first for me.

What a season; even without mentioning the numerous moth larvae I had also seen during the year. I can only urge anyone interested in butterflies and moths to take a little more time to search for other life stages. It is very rewarding and records are equally as important as records of adults. I certainly will be continuing to do so this coming year and I wish those that take my advice the best of luck. I'm off to look for Purple Hairstreak eggs next. Cheerio!



**A Small Copper caterpillar on the underside of a sorrel leaf.**

**All photos in this article by Graham Beckwith**

## What can I do to help butterflies and moths?

It is probably fair to assume, if you are reading this, that you care about butterflies and moths and value their presence in our countryside. You are probably also aware that monitoring over the past half century has shown that many species are declining significantly, along with various other taxonomic groups. It can seem that as individuals we are powerless to make any difference to these trends, many of whose causes, such as agricultural intensification, climate change, pollution and so on, seem so huge that only governments can be expected to wrestle with them. However, there are a variety of things we can each do which collectively can make a difference for the better. A few ideas of what you can do are given below.

- **Recording.** Effective conservation requires that we know how the abundance and distribution of wildlife is changing over time so we can respond when species appear to be in trouble. Much of the data available for this is produced by amateur volunteers. You can contribute to this effort by submitting records of the butterflies you see. See the inside back page for details of how to do this.
- **Gardening.** Concreted-over gardens and astro-turf are not great for wildlife, but you can make your garden attractive to butterflies, moths and other insects by planting a range of nectar producing plants. If you have a lawn let it (or part of it) become a wildflower meadow. Log-piles can provide hibernation sites for butterflies such as small tortoiseshell and peacock. Avoid the use of pesticides. Tips on how to make your garden more butterfly and moth friendly can be found here: <https://butterfly-conservation.org/how-you-can-help/get-involved/gardening>.
- **Volunteer.** In the winter we sometimes run work parties to help manage habitats so that they remain favourable for butterflies. Taking part does not require particular skills, just a willingness to give up a few hours on a weekend. Details of work parties are announced on our website [www.northeast-butterflies.org.uk](http://www.northeast-butterflies.org.uk). Alternatively, you may have particular skills that can be of benefit to conservation of butterflies such as fund-raising or awareness-raising; if you have ideas of how you can help, please contact us (see also page 4).
- **Be an advocate for butterflies, moths and other wildlife.** There are lots of things you can do. Share your love of butterflies with friends, neighbours and relatives (including those who profess to be disgusted by or frightened of insects). If you are concerned about the effects of government policies, planning decisions and such like on our wildlife, write to your MP and councillors about it! You don't necessarily have to lie down in front of a bulldozer or take up residence in a tree house to protest against things that are harmful to nature but if we say and do nothing as sites and species are threatened and lost how will politicians know we care?
- **Become a member of Butterfly Conservation.** By doing this you help to fund important conservation work carried out on behalf of some of our rarest butterfly and moth species up and down the country. You also add weight to Butterfly Conservation's voice when it seeks to influence government into adopting and implementing wildlife friendly policies. Details of how to join are given here: <https://butterfly-conservation.org/how-you-can-help/join>.

## Issues with Recording Brown Argus and Northern Brown Argus

Two articles in the last Newsletter by Martin Partridge and David Phillips respectively, highlighted the spread northwards of the Brown Argus butterfly into southern parts of County Durham. They also pointed out that this meant the range of the Brown Argus now overlaps with the range of the Northern Brown Argus in County Durham. This presents us with a problem of correctly identifying the two species, as in the field it is almost impossible to tell the difference between the two.

Brown Argus in southern Britain has two generations a year, one flying in May to June and a second in August and September. It is reasonable to assume, although by no means certain, this will be the case here. Martin Partridge's observations of Brown Argus at the JM Biodiversity site on Teesside do show two generations. The Northern Brown Argus on the other hand has one generation a year, flying in June and July. So it is likely individuals flying in May or after mid-August are Brown Argus.

Habitat is also helpful for identification. The Northern Brown Argus uses only Common Rock-rose as a caterpillar food plant. This plant grows on the alkaline soils of the magnesian limestone hills of east Durham and the Durham coast. This restricts the distribution of Northern Brown Argus to sites on this soil type with Common Rock-rose present. Whereas the Brown Argus, as well as using Common Rock-rose, also uses other plants of the geranium family, particularly Dove's-foot Crane's-bill. This means the Brown Argus's habitat requirements are less restricted and it can be much more widely distributed in the general countryside. So it is likely to be a Brown Argus if it is found in a habitat without Common Rock-rose present, such as the JM Biodiversity site and other sites on Teesside.

The biggest problem is on sites where Common Rock-rose is present, there are known Northern Brown Argus colonies and where Brown Argus is now also being seen. This scenario was described by David Phillips in his article where he highlights the difficulty of distinguishing between the two species at Bishop Middleham Quarry in 2020.

The last thing we want is for people to guess at identification if they are unsure, and this is likely to be happening now. One way around this is to report Brown Argus and Northern Brown Argus as an aggregate sighting if you are unsure of which species you are seeing. In other words, you know it's either a Northern Brown Argus or Brown Argus but not sure which. This method is used in moth recording where aggregate figures are recorded for species pairs (or trios) which cannot be readily distinguished from external characters, such as the Common Rustic and Lesser Common Rustic.

In previous annual reports we have asked people to provide evidence such as good quality photographs if they are recording Brown Argus. This has not changed and firm evidence is still needed to validate Brown Argus records. So in future please, if you are sending in records of these two species, use 'BA/NBA agg.' if you are unsure of which species you are seeing. This is not a reflection on anyone's id skills but a genuine problem of identification which may become even more difficult in the future if the Brown Argus continues its northward march.

## The State of Britain's Larger Moths 2021



**Spinach, *Eulithis mellinata*, one of the thirty species showing the highest rate of decrease in abundance. Photo: J Wallace**

On 3rd March Butterfly Conservation released *The State of Britain's Larger Moths*, which updated the information published in similarly named reports published in 2013 and 2006. The report summarises data derived from the Rothamsted Insect Survey (RIS) and the National Moth Recording Scheme (NMRS) which, together permit changes in both abundance (RIS) and distribution (NMRS) to be assessed.

The report records a 33% overall decline in moth

abundance in the UK since 1968 and, of the species analysed, four times as many decreased in abundance than increased. Changes in distribution showed a different picture with slightly more species increasing their range compared to those that showed a contraction. The report also notes an average northward shift in the northern range limit of 5 km per year. The patterns of change and their possible causes are discussed in the report. The report can be downloaded from this link <https://butterfly-conservation.org/moths/the-state-of-britains-moths>.

### **Petition: Call for Nature's recovery by 2030**

The latest State of Nature report showed that much of the UK's wildlife is in long-term decline. Monitoring shows that butterflies and moths (see item above) are no exceptions to this decline.

The government has promised to reverse this decline but such promises are meaningless unless they are written into law. Butterfly Conservation is part of a coalition of over 50 wildlife conservation organisations that has launched a petition to persuade the government to strengthen the Environment Bill by including legally binding targets to reverse the loss of nature in England by 2030. You can help butterflies, moths and all other wildlife by adding your name to this petition.

The petition can be found at:

<https://e-activist.com/page/76784/petition/1?ea.tracking.id=WCL>

# Tick Guidance

Butterfly Conservation has updated its guidance on Ticks:

## What are ticks?

Ticks are small, spider-like creatures that feed on the blood of animals, including humans. They can vary in size with larvae being as small as freckle, to adults being similar in size to a baked bean.

## Where do you find ticks?

Ticks live in many habitats but are particularly found in long grass and leaf litter in woodlands, grassland, moorlands, heathland and some urban parks and gardens. They attach to skin when a host passes by and will feed for several days before dropping off. Ticks are found throughout the year but are most active between spring and autumn.

## What are the risks?

Ticks can transmit diseases such as Lyme disease. It is important that you remain aware, even if you are not aware that you have bitten. Symptoms of Lyme disease can include:

- A red "bullseye" rash
- Flu-like symptoms
- Fatigue
- Muscle and joint pain
- Migraines

If you have been bitten or have any concerns that you may have been bitten, it is important to seek medical advice from NHS 111 or your GP.

## What can I do to avoid being bitten?

To avoid being bitten, you should try to stick to clear paths and avoid brushing against vegetation.

Ensure you have fine tipped tweezers or a tick removal tool on you whilst you are out. You should try to wear long, light coloured clothing so that you are able to see any ticks that may get onto your clothing. In particularly high risk areas consider wearing protective clothing such as full body overalls.

Repellents containing DEET will minimise the risk of any ticks biting your skin and you should always carry out a full check of your clothes and body after your outdoors activity.

## What should I do if I have been bitten?

If you notice that you have been bitten, remove the tick as soon as possible using fine tipped tweezers or a tick removal tool. You should pull the tick from as close to the skin as possible, ensuring you remove the head. After removal, clean and monitor the area for any redness or swelling.

Seek medical advice immediately if you are unable to remove the tick or the head.

## More information

More information can be found:

- On the NHS website <https://www.nhs.uk/conditions/lyme-disease/>
- Lyme Disease Action UK <https://www.lymediseaseaction.org.uk/>

Updated March 2021

# Pocket Guide to the Butterflies of NE England

The late Harry Eales, a north-east entomologist who made significant contributions to our knowledge of the region's butterflies and their distribution, left a bequest to the branch in his will. Part of this money has been spent on conservation measures for the Small Pearl-bordered Fritillary at Black Plantation. With additional financial support from Northumbrian Water, the balance has been used to fund the production of a small pocket guide to the butterflies (and a few day-flying moths) of North-East England. It is hoped this guide will help encourage more people to get to know and enjoy these lovely insects. The plan had been to make the guide available, free of charge, at nature reserves and similar locations but it returned from the printers just as the covid lockdown began and so this has so far not been possible.

Whilst we still intend to distribute the guide in this way once the restrictions permit, anyone who would be interested in receiving a copy by post is invited to send a stamped addressed envelope (DL size: 220 mm x 110 mm; standard letter rate) to:

Jonathan Wallace  
50 Cherryburn Gardens  
Fenham  
Newcastle upon Tyne  
NE4 9UQ



**Dingy Skipper, one of 42 species featured in the guide. Photo: J Wallace**



# New Butterfly Atlas for Lancashire and Cheshire

## Peter Hardy



In case any of your members are interested in butterflies in other parts of the country, I should like to bring to your notice a book "*Thirty Years of Butterflies in traditional Lancashire and Cheshire*" which has been published this year.

It is a regional butterfly atlas but with a difference as it has maps for each butterfly species for three different periods (1990-9, 2001-9 and 2010-9), covering the whole of Lancashire and Cheshire at tetrad scale, and also maps covering Merseyside and Greater Manchester at 1 km scale, and 6 X 5 km zones around the centres of Manchester and Liverpool at 10 m scale – thus up to 15 maps per species. There are chapters

on the geography of the region and how this has affected butterfly distributions; n recording, weather & climate, detailed descriptions of the environments especially of the Mersey Valley and the inner cities, also the nectar flowers used by the butterflies. The final two sections are case studies on the Speckled Wood in Sale and the White-letter Hairstreak in Oldham.

The book is currently for sale on Amazon, The Great British Bookshop and <https://www.fast-print.net/bookshop> – search for ISBN: 9781784567071. The price of £45 is rather high but please bear in mind that the book is a 404-page hardback; containing a vast amount of information and lavishly illustrated in colour.

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**Orange-tip.** After the long months of winter these charming butterflies are a sign of Spring and should be appearing soon. Photo: Graham Beckwith

## Book Review

Jonathan Wallace

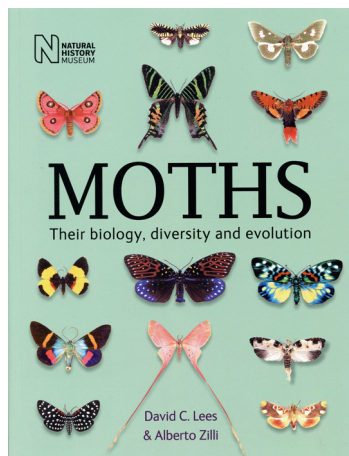
**Moths: Their biology, diversity and evolution.** David Lees & Alberto Zilli. **Natural History Museum.** The Lepidoptera are one of the big four insect orders along with the Coleoptera (beetles), Hymenoptera (bees, wasps and ants) and Diptera (true flies) which together comprise approximately 800,000 described species world-wide. This book looks at the biology of moths (which constitute the bulk of the Lepidoptera), describing and explaining some of the features that make them so spectacularly successful.

The diversity of moths is breath-taking. They range in size from the truly minuscule, such as some of the Nepticulidae with a wingspan of less than three millimetres, to huge species that rival many bats or birds in size, such as the Atlas Moth with a 27 centimetre wingspan! They have colonized every continent with the exception of Antarctica and may be found from the high Arctic in Greenland where they may endure temperatures down to  $-70^{\circ}\text{C}$  to the hottest and driest places on Earth such as Death Valley, California where temperatures regularly exceed  $50^{\circ}\text{C}$ , but a number of moth species are recorded, including the Hawk Moth *Euproserpinus phaeton*. They are most diverse in the wet tropics but are important components of the invertebrate fauna at all latitudes. Most moths feed on plant leaves in their larval phase but there are many exceptions: wood, lichens, bird and mammalian nest detritus (or woollen carpets!) and bees wax are some of the alternatives and one species *Ceratophaga vastella* even feeds on the horns and hooves of dead antelopes and buffalo on the African savannahs. In the Hawaiian Islands the larvae of various species of pug moth *Eupithecia* spp have become ambush predators, sitting motionless and then suddenly snapping backwards to snatch small flies and other insects that land within range.

Lees and Zilli explore all of this diversity and the adaptations that lie behind it. As curators of Lepidoptera at the Natural History Museum they know their subject very well and the book is packed with fascinating information about how these wonderful insects feed, find mates and avoid predation. They conclude with a chapter on the relationships between moths and people; as well as being pests in some cases, moths are important pollinators, and are also exploited for silk, food and other resources. Moths are also a rich source of inspiration in art and literature and even, we learn, technology.

Although the book draws on examples of moth biology from all over the World, species that will be familiar to British moth enthusiasts are well represented. The book is richly illustrated throughout with dozens of great photographs.

A small irritation is that the book could have benefitted from more careful copy editing. My copy came with a page of errata inserted, correcting a variety of miscaptioned figures, typos and other errors and I encountered a few more that were not picked up on the errata sheet. This is a minor quibble however, and I would thoroughly recommend this book to anyone with an interest in butterflies and moths.





# Coronavirus Guidelines

Butterfly Conservation's updated guidance for butterfly and moth recorders relating to Coronavirus Covid-19. Last reviewed January 2021

Further significant changes and clarification relating to outdoor activities have been made to the government restrictions that were brought in March to reduce the spread of coronavirus. Across the UK, the key message remains to stay at home as much as possible and to follow social distancing rules.

Recorders in all four nations must, at all times, continue to observe the appropriate social distancing guidelines for their country. If you have coronavirus symptoms, or if you or any of your household are self-isolating, you should stay at home. Restrictions on the number of people from other households that you can meet vary across the UK so check the current guidance from the websites below.

**Please check for and comply with any local restrictions when planning or undertaking recording activities.**

You should also be aware that nature reserves and other sites, their car parks and toilet facilities may not be open to the public. Further advice on staying safe outdoors is available.

We will continue to monitor advice from the UK Government and the devolved administrations, and will produce revised guidance when the time is right. Please check for any updates at **[www.butterfly-conservation.org](http://www.butterfly-conservation.org)**. If you have any queries regarding this advice, please contact the recording team at **[recording@butterfly-conservation.org](mailto:recording@butterfly-conservation.org)**

Thank you for your continued co-operation.

Please continue to follow the latest guidance from your appropriate administration:

England: **<https://www.gov.uk/coronavirus>**

Scotland: **<https://www.gov.scot/coronavirus-covid-19>**

Wales: **<https://gov.wales/coronavirus>**

Northern Ireland: **<https://www.nidirect.gov.uk/campaigns/coronavirus-covid-19>**



**Comma. Photo: J Wallace**

# Submitting butterfly & moth records 2020

Records are the bedrock of conservation and observers are encouraged to send in their records of moths and butterflies seen or trapped within the region to the relevant recorders. Different arrangements are in place for butterflies and moths.

## Moths

Separate databases are maintained for Durham and Northumberland and records should be submitted to the appropriate recorder depending on where they are made. Recorders are encouraged to use Mapmate recording software ([www.mapmate.co.uk](http://www.mapmate.co.uk)) to file and submit their records but an excel spreadsheet, suitable for use in both counties, can be downloaded from [www.northumberlandmoths.org.uk/submit\\_records.php](http://www.northumberlandmoths.org.uk/submit_records.php). This also gives guidelines on the information to be recorded. The county recorders in both counties request that moth records should NOT be submitted via iRecord or other recording apps.

### Durham (Vice County 66)

Records should be sent to the Moth Recorder for Durham.

Tim Barker  
26 Farrier Close  
Pity Me, Durham, DH1 5XY

e-mail: [timvc66@uwclub.net](mailto:timvc66@uwclub.net)

### Northumberland (Vice Counties 67 and 68)

Records should be sent to the Moth Recorder for Northumberland

Tom Tams  
191 Links Road,  
Tynemouth, NE30 3TQ

e-mail: [tom-tams@blueyonder.co.uk](mailto:tom-tams@blueyonder.co.uk) or [recorder@northumberlandmoths.org.uk](mailto:recorder@northumberlandmoths.org.uk)

## Butterflies

Irrespective of which county they relate to, all butterfly records should be e-mailed to: [\*\*records@northeast-butterflies.org.uk\*\*](mailto:records@northeast-butterflies.org.uk)

Electronic records are preferred but any paper records should be sent to:

Roger Norman  
1, Prestwick Gardens,  
Kenton,  
Newcastle upon Tyne  
NE3 3DN.

If you have submitted butterfly records using iRecord please do not submit again as this results in duplicate records.

Records will be reviewed by the Recorders prior to being added to the data-base.

A spreadsheet is available for the submission of records and this can be downloaded from [www.northeast-butterflies.org.uk/downloads.html](http://www.northeast-butterflies.org.uk/downloads.html).

Records should be submitted by 30 November in order that they may be considered in the Annual Butterfly Report for the year in question. Valid records received after this will still be added to the data-base but may not be included or credited in the Annual Report.

## Validation

It is important that records are accurate and based on correct identifications. It is the responsibility of the Recorders to scrutinise submitted records to ensure that this is the case. Where records concern rare species, species that are outside their known range or flight periods or species that are easily confused they may ask for supporting evidence to be supplied. This may include good quality photographs or, in the case of moths, sight of the actual specimen (moths can be kept alive without harm for a day or two in a pot stored in a cool place).

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