CONTENTS

4. BC’s Work in North Wales
   Local conservation results.
8. Bloxworth Snout on Bardsey
   A new species for Wales!
9. Butterflies and Buzzards!
   A transect full of variety.
13. Mystery Solved!
    A look into the past.
14. Blaenau Ffestiniog Moths 2018
    Now 5 sites around town.
16. The 5-bar gate system
    An enhanced way of counting.
17. The Weaver’s Wave
    It’s worth checking those Pugs!
18. A Beauty in Poland!
    From a London Suburb!
20. North Wales Branch Events
    A look back and a look forward.
21. Butterfly and Moth Events
    Plan your summer!
25. Common Names can be Marvellous...
    What’s in a name?
33. Butterfly Population Trends
    Monitoring of N Wales’ numbers.
39. Munching Caterpillars
    Inspiring the next generation.
41. Ochreous Pearl Causes Devastation
    - or does it?

Cover photograph of a White-letter Hairstreak by Paul Board

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Please note that the opinions expressed in this newsletter are not necessarily those of the Society or the Branch

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Gwarchod Glöynnodd Byw Cymru
Saving butterflies, moths and our environment Yn achub glöynnodd byw, gwyfynod a’n hamgylchedd ni

Swyddfa Gofrestredig: Manor Yard, East Lulworth, Wareham, Dorset, BH20 5QP. Elusen wedi’i chofrestru yng Nghymru a Lloegr (254937) ac yn Yr Alban (SCO39268). Rhif TAW GB 991 2771 89
MESSAGE FROM THE CHAIR

Many of you will know that, as well as being North Wales Branch Chairman, I am also a Trustee of Butterfly Conservation. Some of you may also recall that I stood for re-election last year as one of a group of twelve candidates competing for six vacant Trustee positions. Standing for election was a new experience for me and, I have to admit, I found the process a little daunting. However, I need not have worried and was safely returned with the third highest vote out of the twelve candidates. During the election, I received much encouragement from Branch Members and I would like to take this opportunity to thank you warmly for both your support and your votes!

In its last full year Butterfly Conservation raised and spent four million pounds. Our membership continues to increase and now stands at over 37,000. The 2018 Big Butterfly Count was the largest ever with over 100,000 people taking part making it one of the UK’s largest citizen science projects. Landscape scale conservation projects continue to be implemented and delivered. The changing fortunes of our butterflies and moths are recorded and monitored. The Chequered Skipper was reintroduced to Rockingham Forest and a new programme, Building Sites For Butterflies, was launched to help improve the management of green spaces in our towns and cities. And all this in our fiftieth anniversary year! You are an important part of a remarkable charity whose performance is the envy of the conservation sector in these politically uncertain and financially straightened times.

In this Newsletter, you will find a programme of events that include field trips and moth trapping at locations which afford the opportunity to see rare and local species. There are training events and transects for those who wish to take part. Our AGM/Members’ Day will be held on Saturday 5th October at Pensychnant Conservation Centre and we have an excellent group of speakers lined up. Do join us whenever you can and I look forward to meeting you over the coming season.

Ilija Vukomanovic  
Branch Chairman
BC’s WORK IN NORTH WALES…
… a survey-packed 2018
by Clare Williams, Senior Conservation Officer.

It’s the emergence of the Pearl-bordered Fritillary that heralds the start of the field season for Butterfly Conservation’s fieldwork in mid & north Wales. The 2018 season began in the second week of May, undertaking the annual adult, timed count monitoring of the remaining six Montgomeryshire populations, with the Montgomeryshire Wildlife Trust. The weather was kind, with numbers much improved on most sites compared to 2017; the highest count of 38 adults per hour was recorded at Y Golfa, Wales’ largest site near Welshpool. Moving north to BC’s Eyarth Rocks reserve near Ruthin, a fantastic peak count of 72 per hour on 19th May was the second highest count in the twelve years of monitoring.

Focus then turned to a tiny butterfly trying to hold its own on one of Europe’s largest industrial estates in Wrexham. The Grizzled Skipper is Butterfly Conservation’s priority species in the partnership project ‘Biodiversity Means Business’, led by the North Wales Wildlife Trust, on the industrial estate and surrounding area. The butterfly is surviving on a handful of sites spread across the
estate, many small with extant planning permissions. BC visited known populations including the core one occupying the mitigation area of HM Prison Berwyn, to identify how favourable management for the butterfly can be secured, as well as opportunities for nearby habitat creation to allow the butterfly to spread.

It was then into marshy grasslands and coastal dune slacks to keep check of Wales’ Marsh Fritillary via the rolling programme of five-yearly site visits. Only two north Wales populations, Cors Gyfelog and Cors Graianog, on the eastern Lleyn required visits. A BC volunteer confirmed adults flying at both – welcome news, keeping the current population tally for north Wales at twelve.

Marsh Fritillary at Llwyn-iarth (Credit: Clare Williams).

At Llwyn-iarth in the Dolgellau area, the Marsh Fritillary shares its home with the stunning micro-moth *Anania funebris*. It is one of only two known sites in north Wales and with records restricted to one particular location, survey concentrated on mapping the density and extent of Goldenrod (the larval food plant) to inform subsequent searches for the moth to get a better handle on its population size and extent.
Goldenrod growing within the bracken covered rocky outcrops at Llwyn-iarth (Clare Williams). Inset: Anania funebris (Credit: George Tordoff).

The sunny June weather brought the Large Heath out early on a new transect adjacent to Llyn Celyn near Bala, set up with the help of two BC volunteers as a

Cattle grazing the Large Heath site at Rhyd-y-Fen, Snowdonia (Credit: Clare Williams). Inset: Large Heath butterfly (Credit: George Tordoff).
step towards a robust surveillance scheme for this butterfly. Large Heath populations in the area crashed in 2017, but with a peak transect count of 40 adults on 26th June (cf 2 in 2017) as well as records from the surrounding area, the butterfly seems to have recovered in 2018.

Heading north to the Great Orme, Silky Wave numbers on the monitoring transects were low. The good weather meant that peak flight likely occurred prior to monitoring commencement but the knock-on impact of wet summer weather in 2017 could also be responsible. The 2018 heatwave resulted in severely droughted vegetation, turning the Great Orme brown, including the larval food plant Rock-rose – the impact of this will become clearer in 2019.

Wrapping up the 2018 field season, Wales’ Marsh Fritillary larval web monitoring started early in mid-August. The monitoring scheme now includes 23 populations (four in North Wales) covering our core Welsh sites. Compared to 2017’s web indices, 15 populations showed increases, five decreases, one no change and two had no monitoring in 2018. The hot summer weather certainly benefitted this butterfly with it making an appearance on many previously unoccupied sites throughout Wales – a good note to end the 2018 field season on.
BLOXWORTH SNOUT ON BARDSEY
by Steffan Walton

During my three years working for Bardsey Bird and Field Observatory on Bardsey Island I had many highlights. From monitoring Risso's Dolphins with their calves offshore, censusing thousands of breeding seabirds on steep cliff faces, having a Cretzschmar's Bunting singing away at the Lighthouse, and being part of a fantastic island community. One of my many daily tasks was the emptying of the moth traps which I always did with much excitement. With little mature woodland, the diversity of species was a lot lower than the mainland. However, 'common mainland species' were beginning to colonise the island as the habitats developed. Species such as Oak Beauty, Powdered Quaker, Water Carpet, and Light Emerald were just some new for the island during my tenure. Some excellent coastal species can be found in abundance though, I thoroughly recommend getting down on hands and knees watching Thrift Clearwings doing their thing! However, perhaps my most noteworthy find was this Bloxworth Snout discovered by day, hiding in the gift shop on 23rd July 2016. Adding a new species to Wales is always a momentous occasion - testament to all the hard work going on at the Observatory. For those wishing to visit and see for themselves please go to Bardsey’s website at www.bbfo.org.uk.

Photograph by Sue North
BUTTERFLIES AND BUZZARDS
by Paul Board

Bryn Euryn, (‘Hill of Gold’), our unofficial back garden behind Squirrel Cottage. It’s October 1st and the main meadows have had their annual trim so it’s time to bid goodbye to the butterfly monitoring for another year. Having done some voluntary gardening on Bryn Euryn (including weeding the walls of the ruins of Llys Euryn and clearing of invasive Spanish bluebells) with Alun Jones, Countryside Warden for Conwy County Council (who manage the reserve), with the expert tuition of Dr Victor Hitchings, I was very easily persuaded to give it a go and start monitoring the ‘skyflakes’ on a 9-section transect of the limestone hill, Bryn Euryn, covering meadows, woodland and limestone crags, often accompanied by family and friends.

I picked a lunchtime slot so I could have lunch at the summit, the halfway point, sitting against the trig point and admiring the views and listening to the mewling of the local buzzards. What a way to commune with nature! One day a week, April to September, when the sun is shining and 1-2 hours of your time. Hardly a job to turn down! With every day, a school day fortunately, starting in spring with a handful of species to ID and not the height of summer and its riot of colour on little wings (and LBJs-Little Brown Jobs to the birder, but also Little Blue Jobs to the lepidopterist). And not only butterflies-dragonflies and day-flying moths and many other insects (and the odd bit of botany).

When I started, I would have been hard-pressed to name 10 British butterflies off-the-cuff. I have now been lucky enough to log 23 species on Bryn Euryn (plus one subspecies).
So, here’s the roll-call for 2018 in descending order of occurrence:

<table>
<thead>
<tr>
<th>Species</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meadow Brown</td>
<td>312</td>
<td>22.6</td>
</tr>
<tr>
<td>Speckled Wood</td>
<td>260</td>
<td>18.9</td>
</tr>
<tr>
<td>Gatekeeper</td>
<td>192</td>
<td>13.9</td>
</tr>
<tr>
<td>Large White</td>
<td>180</td>
<td>13.1</td>
</tr>
<tr>
<td>Brown Argus</td>
<td>134</td>
<td>9.7</td>
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<tr>
<td>Common Blue</td>
<td>79</td>
<td>5.7</td>
</tr>
<tr>
<td>Butterfly</td>
<td>Count</td>
<td>Flutter Rate</td>
</tr>
<tr>
<td>--------------------</td>
<td>-------</td>
<td>--------------</td>
</tr>
<tr>
<td>Ringlet</td>
<td>62</td>
<td>4.5</td>
</tr>
<tr>
<td>Small Heath</td>
<td>55</td>
<td>4.0</td>
</tr>
<tr>
<td>Small White</td>
<td>27</td>
<td>2.0</td>
</tr>
<tr>
<td>Grayling</td>
<td>11</td>
<td>0.8</td>
</tr>
<tr>
<td>Holly Blue</td>
<td>11</td>
<td>0.8</td>
</tr>
<tr>
<td>Painted Lady</td>
<td>10</td>
<td>0.7</td>
</tr>
<tr>
<td>Dark Green Fritillary</td>
<td>8</td>
<td>0.6</td>
</tr>
<tr>
<td>Small Copper</td>
<td>8</td>
<td>0.6</td>
</tr>
<tr>
<td>Butterfly</td>
<td>Count</td>
<td>Ratio</td>
</tr>
<tr>
<td>----------------------------</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>Large Skipper</td>
<td>5</td>
<td>0.4</td>
</tr>
<tr>
<td>Orange-Tip</td>
<td>5</td>
<td>0.4</td>
</tr>
<tr>
<td>Small Skipper</td>
<td>5</td>
<td>0.4</td>
</tr>
<tr>
<td>Dingy Skipper</td>
<td>3</td>
<td>0.2</td>
</tr>
<tr>
<td>Red Admiral</td>
<td>3</td>
<td>0.2</td>
</tr>
<tr>
<td>Green-veined White</td>
<td>2</td>
<td>0.1</td>
</tr>
<tr>
<td>Small Pearl-Bordered Fritillary</td>
<td>2</td>
<td>0.1</td>
</tr>
<tr>
<td>Wall Brown</td>
<td>2</td>
<td>0.1</td>
</tr>
<tr>
<td>Brimstone</td>
<td>1</td>
<td>0.1</td>
</tr>
</tbody>
</table>
One little beauty that appeared on my lawn but, sadly, didn’t make further up the hill was the White-Letter Hairstreak, another first for me.

Maybe see you next year on the Bryn!

**MYSTERY SOLVED!**

Many thanks to Julian Thompson for this interesting clipping!
BLAENAU FFESTINIOG MOTHs 2018
by Malcolm Watling

My moth trapping was somewhat less in 2018, owing to the usual factors of the weather and a busy life. This year I had the privilege of an extra site at Bryn Elltyd. Here is the list for those who didn’t see last year’s report:

1. Home, my back garden in the High Street, with a lot of street lighting.
2. Oakeley Square, completely rural, on the western edge of town.
3. Bryn Egryn, next to open mountain terrain south of the Diffwys Casson Mine area.
4. Tanygrisiau, below open mountain terrain at the northern end of the village.
5. Bryn Elltyd, the Eco- guesthouse at the north end of Llyn Tanygrisiau.

I’ve listed the data in date order this time, with numbers of species (and individual moths) for each occasion:

21 Jan Home, 0. 22 Jan Oakeley Sq., 1(1). 19 Feb Oakeley Sq., 4(6).
14 Mar Oakeley Sq., 2(2). 5 April Bryn Elltyd, 5(10). 10 April Tanygrisiau, 11(43)

There were 35 new species this year, adding to the 154 last year. Particularly interesting ones were Ringed Carpet, Large Ear, Crinian Ear and Oak Lutestring. I was also shown a Lobster Moth, resting on a friend’s garden wall.
The heat wave shows up well on the data, in my catches for 4\textsuperscript{th} s of June and July. To get such numbers in my back garden was a rare treat! The more abundant species were noticeable; on 10\textsuperscript{th} April half of the moths were Hebrew Character and Common Quaker. On the 13\textsuperscript{th} August nearly half were 35 Large Yellow Underwings and lots of Small Phoenix, Flame Carpet and Antler. The total is estimated because some individuals sitting around the trap escaped! Christmas day had a “mothable” evening, and I got some Mottled Umbers, Winter Moths and a Mottled Grey.

As well as the moths, butterfly recording was good, with some more nearby locations for Small Pearl-bordered Fritillary and Green Hairstreak. Best of all were a couple of Dark Green Fritillaries, just below town in Cwm Bowydd.
THE 5-BAR GATE SYSTEM – enhanced for butterfly recording by Vic Hitchings

The five-bar gate method (Figure 1) is a tried and tested field method in recording butterfly numbers. There may, however, be occasions where additional information would be useful to record, such as the gender of the butterflies seen. This may be useful when comparing the changing numbers of males and females (or females and males) throughout a flight season.

![Figure 1: Five-bar gate system](image)

In the course of recording butterflies in Brunei and, more recently in the U.K, an improved method of the five-bar gate system has been developed (Figure 2). Males are recorded by adding an acute accent over the vertical lines and females by adding a ‘cross-bar’ near the base of the line. These have been based on the arrow of the Mars symbol and the horizontal bar from the Venus symbol. A curved or straight line above a pair of lines indicated a mating pair is being recorded. An individual that has not been clearly identified by gender (indeterminate) is recorded with a plain line. Not-with-standing the difficulty of adding notations to the fifth, diagonal bar on the gate, this has proved a practical method in the field.

![Figure 2: Principles of the modified five-bar gate method](image)

**Example for records of Orange Tips**

*Interpretation: Section 7 – 3 males, 1 female; Section 9 – 3 males, 1 female, 1 undifferentiated; Section 10 – 1 female, 1 male; Section 11 – 1 male, 1 mated pair*

These can also be found in the Symbols character set in Microsoft Word should they be used in a digital text. Male = Ñ and female = ·. The fifth bar can be added by using the Strikethrough option for text.

An example of the digital version is ÑÑÑÑ = female, male, male, indeterminate, (5th bar) indeterminate.

The system has been successfully used recording butterflies on Mynydd Marian and has been especially useful in recording Orange Tips, Common Blues, Silver Studded Blues, Brown Argus and Wall Butterflies.
THE WEAVER’S WAVE

by Bruce Hurst

I decided to have a night off from mothing, it was the 4th of June 2018. I had been using a synergetic light, at the back window of my house in Rhyd Ddu, for the last 6 months. I had caught several Brindled Pugs and other species around this time. On this specific night, I was just about to turn in, it being 12 midnight, when, I noticed what looked like a pug resting on the window of the kitchen door. I groaned! ‘Not another worn Brindled Pug! - this was really taking the Eupithecia, (if you can pardon my abbreviata!’) - it waited like a persistent cat for me to let it in. I unlocked the door and the moth entered. This wasn’t a pug though, more like a wave. It was small, but had a slow, purposeful flight. When the moth had landed on the wall, it seemed to wait sedately to be potted. It didn’t try to evade capture. It had a blurred, zigzag and linear stigma on its forewing. I trawled, through the moth field guide in the Sterrhinae section of geometrids. My moth resembled a Mullien Wave, but I quickly ruled that out.

My eyes kept being drawn to the Weaver’s Wave. Could it be Idaea contiguaria britannae? The Welsh name is Ton Gwynedd. It is certainly a target moth in North Wales for all of us amateurs and experts alike! It is not a species that frequents moth traps. The next day, I took several photos, then gingerly sent them to the County Moth Recorder. Thankfully, he both confirmed and congratulated me on my find.

The larval food-plants of the Weaver’s Wave, as far as textbooks are concerned, is said to be Heather and Crowberry. The certainty of this is being questioned by some moth experts. The North Wales Database, mentions that rearing Weaver’s Wave caterpillars from the wild, would be ‘the Holy Grail of Welsh
Lepidoptology! My Weaver’s didn’t lay eggs though. When I released it, it vanished like a wraith, I wondered if it had just been a moth-er’s dream! I’ll certainly be looking for the species again in 2019. It seemed to be drawn to an ordinary fluorescent kitchen light. The surroundings in Rhyd Ddu tend to be quite marshy, there are some species of heather and moss-covered rocks, which are, described, as being a suitable habitat. It suggests it can be found in damp areas.

I may never see one again - who knows? Both amateur and experts alike, traipse through heathered upland terrain to trap in the field, searching for the Nationally Scarce Weaver’s Wave. I was blessed possibly by the old Welsh gods and faeries, by having one literally knocking on my door! It was certainly my real mothing highlight of 2018. An old friend once called me a ‘jammy person’!

Mind you, I could mention that I also have had the other scarce local treasure - the Ashworth’s Rustic! It was resting on my front door last July....

....but that’s another story!

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**A BEAUTY IN POLAND!**

by *Ian Gorton*

During a visit to the Gdansk region of Poland during April 2019 with my son Paul, we were treated to a sought after and much wanted species.......

‘CAMBERWELL BEAUTY!!’, I shouted in excitement.

The result is his photo here.

You just never know what might turn up!
Welcome to all our new members who have joined during the past year. We look forward to meeting you at an outdoor event or our AGM.

Many thanks to everyone who has contributed to this newsletter.
If you, too, would like to see your article in print, the next newsletter deadline will be 28th February 2020. I look forward to hearing from you with your contribution!

Mark Sheridan
Membership Secretary and Newsletter Editor
NORTH WALES BRANCH EVENTS

Looking back on a successful 2018......

During 2018 we had a varied programme with mostly well-attended events. Highlights were a follow up transect recording workshop, led by Vic Hitchings. Vic went through the various transect recording methods indoors, but unfortunately, inclement weather meant we couldn’t search for any butterflies. Vic also led a walk to Cors Eddreinniog at the end of May 2018 where 20 people saw up to 4 Marsh Fritillary.

We had our 50th Anniversary Open Day at Eyrath Rocks where Russel Hobson from BC led a well-supported visit to BC’s own reserve on a glorious May Saturday. Several Pearl-bordered Fritillaries put on a show for us.

We also held a joint event during May at Llanymynech Rocks with the local Wildlife Trust. Over 30 people attended. We had good views of Grizzled Skipper and Green Hairstreaks.

Once again the AGM was very successful, with 25 people being treated to some very interesting talks. Andy Banthorpe gave an introduction to micro moths; Lucy Morton told us about work being done to secure the Wood White in the Midlands; Martin Davies provided a unique look at rare and local species across Europe.

......and looking forward to 2019

For 2019, we revisit some old haunts. Andrew Graham will be leading a visit to Newborough Warren on Anglesey during early July to coincide with the Fritillaries this site is known for. At the end of June, we visit Rhydymwyn for the first time in many years - a reserve not accessible to the public. Brian and Sue Roberts will be our leaders. Numbers are limited for this and booking is essential. We will also be having our annual visit to Llanymynech Rocks in early May and Vic Hitchings will lead a transect walk at Mynydd Marian during June.

Ian Gorton
Events and Publicity Officer
Butterfly and Moth Events 2019

Saturday 4th May 2pm  
Butterfly Walk at Llanymynech Rocks
A joint event with Shropshire Branch of NWWT. Simon Spencer leads us in the search for Grizzled Skippers, Green Hairstreaks and Pearl-bordered Fritillaries. No dogs.
Meet at car park at end of Underhill Lane, SY22 6HD (GR: SJ 270 219)
Contact Simon Spencer 01691 648339 to book / check event is going ahead.

Monday 6th May 8pm North Wales Moth Group Meeting at Pensychnant

Tuesday 7th May 2pm Ashworth's Rustic Caterpillar Search
We’ll search for caterpillars of this N Wales endemic as they bask in the spring sunshine, noting their micro habitat and food-plant. The more eyes the better.
Meet at Pensychnant  Contact Julian Thompson on 01492 592595 for info.

Sunday 19th May 2pm  
Eyarth Rocks
A joint event with North Wales Wildlife Trust, Dan Rose will be leading a walk targeting the Pearl-bordered Fritillary. Strong footwear, lunch, drinks and warm clothing. No dogs.
Meet at SJ127 553 a lay-by near Eyarth Bridge and the entrance to reserve.

Monday 3rd June 8pm North Wales Moth Group Meeting at Pensychnant

Friday 7th June 8.30pm-11.30pm  
Nightjars and Nightlife
Primarily, to see / hear Nightjars but Julian Thompson will have light traps, too, to attract moths both common and local. Boots and midge protection essential! No dogs.
Meet at Gwydyr Forest, Cyffty Mine Car Park (GR: SH 773 588)
Booking essential with Mark at 07505214073 / mark.sheridan.mgc@gmail.com

Sun 9th June 11am-3pm  
BIOBLITZ-GLYNDWR UNIVERSITY NORTHOP CAMPUS
Following a night’s moth-trapping we will have a ‘show and tell’ as part of Wrexham University’s project to record all the wildlife at its Northop Campus.
N Wales Expy, Northop, Mold CH7 6AA
Contact Julian Thompson on 01492 592595 for more info.

Saturday 15th June 1.30pm  
Transect Walk at Mynydd Marian
Vic Hitchings will lead a transect walk around Mynydd Marian nature reserve.
Silver studded blue should be at a peak then. No dogs.
Meet at reserve car park: Dolwen Road, Llysfaen, Colwyn Bay, Clwyd, LL29 8SS
Booking essential Contact Vic Hitchings on 07716 172406

Friday 21st June 10pm-11.30pm  
Glow-worms and Moths
Essentially an event to see these glowing beetles on the Great Orme but come to see the variety of moths attracted to the moth traps, set up by Julian Thompson. Bring torch. No dogs. Long sleeved clothing and trousers strongly advised as this area is bad for ticks.
Meet at Pump House Shelter, West Shore, Llandudno (GR: SH 770 822)
Booking essential with Mark at 07505214073 / mark.sheridan.mgc@gmail.com
Sunday 23rd June 10.30am-3pm The Great Orme ‘Kaleidoscope’
A 3m walk for butterflies (Orme’s Silver-studded Blue and Grayling) + other wildlife
Long trousers and long sleeved clothing strongly advised as ticks are prevalent on the Orme.

Meet at West Shore Toll House (GR: SH 768 823) at 10:30am
Booking essential with Mark at 07505214073/mark.sheridan.mgc@gmail.com

Sunday 30th June 11am Moths for the Glaslyn Ospreys
Overnight, moth traps will be set at the Hide, at Pont Croesor SH593413. On Sunday morning
we will have a ‘show-&-tell’ session in the Centre. All welcome with donations to Bywyd
Gwynl Glaslyn Wildlife. Saw the Death’s-head Hawk-moth in 2016. No promises!

Sunday 30th June 1.30pm Butterfly Walk at Rhydymwyn
A visit to this non-publicly accessible site lying off the A541 Mold to Denbigh road. As you
enter the village of Rhydymwyn from Mold, you will see a garage on your right and opposite it
there is NANT ALYN ROAD. Turn left into it and the entrance to the site is on the left-hand
side, 200 yards from the main road. The car-park is on the right. Postcode is CH7 5HQ.
Booking is essential as numbers are strictly limited to 14 in total due to access restrictions.
Booking essential Ian Gorton 07966154608 / iangorton180969@btinternet.com

Monday 1st July 8pm North Wales Moth Group Meeting at Pensychnant

Saturday 6th July 11am Newborough Warren: Moths and Butterflies
Andrew Graham will lead a visit to Newborough Warren, in search of butterflies and moths in
one of the best sites in Wales for Dark Green and Small Pearl-bordered Fritillaries.

Newborough Warren Nature Reserve Car Park (GR: SH 426 647)
Meet at end of Maesyffynnon Road, LL11 3DE
Contact Andrew Graham 01678 540370 angrhm@globalnet.com for more info.

Weekend 13th-14th July Ashworth’s Rustic Weekend
Our annual search for Pensychnant’s rarest moths the Ashworth’s Rustic and Weaver’s Wave.
Traps set at 9pm - stay all night!! Or come at 11am on Sunday to see the catch over a cuppa.
1000s of moths of over 100s species (weather permitting). Photo opps.
Held at Pensychnant Contact Julian Thompson on 01492 592595 for info.

Monday 5th August 8pm North Wales Moth Group Meeting at Pensychnant

Sunday 1st September 11am Moths for the Glaslyn Ospreys
(Details as for 30th June entry)

Monday 2nd Sept 8pm North Wales Moth Group Meeting at Pensychnant

Weekend 28th-29th September National Moth Night
We will try duskings, 9pm on Saturday, before setting the traps. On Sunday morning, 11am, we
will examine the catch with a cuppa. Moths are not just boring and brown (some are brown,
but none are boring!). Theme - Migrants so we will hope for something exotic. Good photo opps
Held at Pensychnant Contact Julian Thompson on 01492 592595 for info.

Monday 7th October / 4th November / 2nd December 8pm
North Wales Moth Group Meetings at Pensychnant
North Wales Branch AGM/Members’ Day
Saturday 5th October 2019

Once again we have three fascinating speakers lined up who will cover a wide range of subjects. Many of you will know Nigel Brown through his association with Bangor University and Treborth Gardens where he lectured in botany and ran a moth trap nightly for over twenty-six years! Steve Benner will share his experience of mothing in the Arnside and Silverdale AONB and Douglas Boyes will tell us about his role as County Butterfly Recorder and his undergraduate and postgraduate research on a variety of Lepidoptera related topics.

Programme

10.30am Arrival and Tea/Coffee

11.00am Brief AGM and election of officers

11.30am Understanding Plants
– The Key to Saving Our Butterflies and Moths Nigel Brown
Nigel will examine the profound relationships that exist between butterflies and moths and their food plants, and explain why understanding this is critical to their conservation.

12.30 – 2.00pm Lunch Please bring a packed lunch.

2.00 pm Mothing in Arnside & Silverdale AONB Steve Benner
A personal year of moths in this beautiful and varied part of South Cumbria. Steve explains how he has gone from being a relative newcomer to mothing to becoming a total convert. He also admits that mothing can become addictive. You have been warned!

3.00 – 3.15pm Tea and coffee

3.15 pm Illuminating Lepidoptera Douglas Boyes
As well as covering his role as County Butterfly Recorder, Douglas will introduce us to his research into Lepidoptera at Oxford University and elsewhere. This will highlight the winners and losers among macro-moths, look into the micro-moths of bird nests and shine a light on the recently discovered dark side of street lighting.

4.15pm (approx.) Close

VENUE: Pensychnant Conservation Centre, Sychnant Pass, Conwy, LL32 8BJ

Directions: Pensychnant is on the Sychnant Pass, 2½ miles from Conwy or Penmaenmawr on the North Wales coast. GR: (SH:752 770)

Ilija Vukomanovic Branch Chairman
STATEMENT OF INCOME AND EXPENDITURE FOR THE YEAR ENDING 31\textsuperscript{st} MARCH 2019
Compiled by Bob Lee (Treasurer) (with no expectation of change before publication).

<table>
<thead>
<tr>
<th>Description</th>
<th>Actual Budget</th>
<th>Actual to date</th>
<th>Still to raise/spend</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Funds</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opening balances (cashbook)</td>
<td>3,489.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Branch VAT Control</td>
<td>1.68</td>
<td></td>
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</tr>
<tr>
<td><strong>Income</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Subscriptions - branch</td>
<td>1,754.00</td>
<td>1,754.00</td>
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</tr>
<tr>
<td>Donations - individual - unrestricted</td>
<td>50.00</td>
<td>50.00</td>
<td></td>
</tr>
<tr>
<td>Donations - corporate-unrestricted</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales - post &amp; packing</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Sales - primary - brought-in</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales - own publications U</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grants - unrestricted</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Events charges (fundraising)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Total income</strong></td>
<td>1,824.00</td>
<td>1,824.00</td>
<td></td>
</tr>
<tr>
<td><strong>Expenditure</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T &amp; S - consv volunteers</td>
<td>(254.93)</td>
<td>(254.93)</td>
<td></td>
</tr>
<tr>
<td>Consultants (conservation)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field equipment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Printing (conservation)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Rents and rates - Nature reserves</td>
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<td></td>
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<tr>
<td>Reserve maintenance</td>
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<td>Branch newsletters</td>
<td>(442.00)</td>
<td>(442.00)</td>
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<tr>
<td>E-mail newsletters</td>
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<tr>
<td>Purchase of stock for resale</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Stationery &amp; other office consumables</td>
<td>(20.00)</td>
<td>(20.00)</td>
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<tr>
<td>Postage</td>
<td>(218.82)</td>
<td>(218.82)</td>
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<tr>
<td>Committee expenses</td>
<td>(70.00)</td>
<td>(70.00)</td>
<td></td>
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<tr>
<td>AGM expenses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other expenditure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total expenditure</strong></td>
<td>(1,005.75)</td>
<td>(1,005.75)</td>
<td></td>
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<tr>
<td><strong>Transfers</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Fund transfers (normal)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fund transfers (HQ/Branch) (reim ZR exps)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Transfers</strong></td>
<td>(2,000.00)</td>
<td>(2,000.00)</td>
<td></td>
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<tr>
<td><strong>Recharges</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recharges - Office</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Recharges - vehicles</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recharges -non-conservation staff</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recharges - conservation staff</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recharges - Support</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total recharges</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Closing balance</strong></td>
<td>2,308.97</td>
<td>2,308.97</td>
<td></td>
</tr>
</tbody>
</table>

2018/19 VAT on sales
2018/19 VAT on purchases

**Bank reconciliation**

Closing bank balance @ 31 January 2019

2,307.90
COMMON NAMES CAN BE MARVELLOUS…
BUT DO ALL SPECIES NEED THEM?
by Douglas Boyes

Chimney Sweeper, Maiden’s Blush, Peach Blossom. British moths have some fantastic English names. There’s also the Drinker, the Conformist, the Sprawler, the Phoenix, and the Saxon.

Such enchanting names are at the root of the ever-growing popularity of moth trapping. They capture our imagination and stick in our minds. Who wouldn’t be fascinated by creatures with names like Brindled Beauty, Plumed Prominent, Feathered Footman, or Marbled Minor?

But not all are blessed with a common name. The majority of British Lepidoptera are known only by their scientific denomination. Many of these don’t exactly roll off the tongue (try Schrekensteinia festaliella or Ptycholomoides aeriferanus). Some are even longer than the insect itself. So why do so many species lack an English name? Is this something we should rush to rectify?
It’s usually easy to see how our moths got their names. Many conjure up colourful imagery. Others are wonderfully descriptive. The wing markings of the Heart & Dart, Silver Y, and Figure of Eight are exactly as it says on the tin.

Sometimes the resemblance is more fanciful. In its sombre markings, you may be able to make out the shawl that gave the Old Lady its name (squinting helps). Whitish scales give the impression that the Miller’s wings are dusted in flour. The Mouse Moth? Well, not only is it small and brown, but it also has a habit of scurrying to safety when disturbed (despite perfectly functional wings).

In some species, the caterpillar was deemed most remarkable. For instance, the crustacean-like larva of the Lobster Moth. Or the Goat Moth, named after its pungent odour. Life histories are frequently embodied in common names, perhaps revealing the foodplant (Oak Hook-tip, the Campion) or its favoured habitat (Sandhill Rustic, Marsh Dagger).

But the best names are the most whimsical. The Uncertain, the Confused, and the Suspected – each tricky to identify, the names of these moths never fail to raise a smile.

**Centuries in the making**

The names of British moths are drawn from an unfamiliar vocabulary. Brocades, daggers, wainscots, lutestrings, footmen – curious remnants of a bygone era. It’s easy to picture the lavish rooms that inspired these names. Delicately-patterned fabrics featured heavily, no doubt. It’s a fascinating insight into the grandeur of early entomologists, waited on by their footmen and lackeys.

I had assumed it was eccentric Victorian entomologists who had dreamt up this menagerie of moth names. In fact, many were christened much earlier. In a fascinating article (British Wildlife, October 1998), Peter Marren revealed that most of the names were first used in Georgian times.

Some of the earliest ones he uncovered include Ragwort Moth (now the Cinnabar), London Royal Leopard (Scarlet Tiger) and my absolute favourite, Tilman Bobart’s Straw Moth (Brimstone Moth). All coined by James Petiver in the late 1600s and early 1700s.

By 1767, a rather familiar lexicon had emerged. In ‘The Aurelian’, Moses Harris speaks of Large Yellow Underwing, Mottled Umber, Burnished Brass, Angle Shades, Spring Usher and Scarlet Tigers. Interestingly, Petiver’s Ragwort Moth had now become the Pink Underwing. Other quirks include The Snout, known then by the somewhat less catchy The Snout-Egger Likeness. And – wait for it –
what we call a Convolvulus Hawk-moth was simply the Unicorn (on account of its horned caterpillar, of course).

**Ermine fur**

The White Ermine has both the pattern and texture of ermine fur.

L: *Syllosoma lubricipeda*, personal library.
R: King George III. Portrait by Allan Ramsay, 1761/2. Public domain.

**Pugs**

The moths have a large forewing, compared to the hindwing – just as the dog (which became fashionable during the 1800s) has an overhanging upper lip.

L: *Eupithecia valerianata*, personal library.
R: Carl Reichert, 1835–1918. Public domain.

**Shuttle shapes**

The marking in the centre of each wing of the Shuttle-shaped Dart resembles a loom shuttle.

L: *Agrotis puta*, Ben Sale / Flickr (CC 2.0).
R: Kristo Robert / Alamy (RF).

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**The clue is in the name: the English names of most macro-moths were coined centuries ago.**

**A parallel nomenclature**

Just as the rich vocabulary of English names was developing, a more formal naming system emerged. During the 18th century, Carl Linnaeus attempted to describe the known natural world, assigning an informative two-part name to thousands of species (including hundreds of European moths).

His system was widely adopted as it helped remove ambiguity: the scientific name is both specific and unique. It is also hierarchical (each species is within a genus, which is within a family, and so on) – useful for efficient taxonomic classification. At the time, Latin and Greek were used by scholars across the world. These ancient languages continue to represent a neutral ground, free from the political issues that would arise from using a modern language as a basis for universal communication.

It’s a great system. But one that’s maybe not that relevant for ordinary folk. Most of us have little need to converse with people from other countries about a certain species. The descriptions contained within scientific names are also inaccessible to many of us. Appreciating these requires knowledge of dead languages – something few people still have.
Thankfully, there’s a handy cheat sheet for British Lepidoptera. Maitland Emmet’s 1991 book is invaluable for explaining the meaning of their scientific names.

Once translated, scientific names can be just as evocative as common names.

But there are more fundamental problems than the need to translate the meanings of scientific names.

Long. Impenetrable. Intimidating. Unpronounceable. Impossible to remember. These are the typical complaints made by beginners about ‘Latin names’ when they first peer into the realm of Britain’s smaller moths (been there, got the t-shirt).

Such reactions are understandable. Some names are just a convoluted orgy of consonants. *Roeslerstammia erxlebella, Diloba caeruleocephala, Oegoconia deauratella*: just a few that I still haven’t quite got my head around saying out loud.

However, with those few exceptions aside, I’ve actually found myself becoming quite fond of scientific names. They were a struggle at first, sure. Took some getting used to. But I think most of the barrier is psychological.

Get past it and they’re usually not too bad. Some are rather charming, dare I say. *Hofmannophila pseudospretella* sounds vastly more interesting than Brown House-moth. Said aloud, the specific epithet of *Elachista apicipunctella* has a delightful bounce. *Calliteara pudibunda* is another of my favourites (aka Pale Tussock).
Now, the most important thing to remember about scientific names: there is no single correct way to pronounce them. Scientific names are a jumble of different languages (mostly dead ones at that). As such, attempting to attach pronunciation rules simply doesn’t add up. Just say them in a way that makes sense to you (this will also make it easier to reproduce the correct spelling).

A moth by any other name...

“What’s in a name?” – one of Shakespeare’s most famous lines. Spoken by a naïve Juliet in Act 2, deluding herself that names are just a meaningless convention. And we all know how that turned out. There’s no question. Names are extremely influential.

The 800 or so larger moths in Britain have both English and scientific names. But it’s exceptionally rare to find moth-ers who have plumped for using just the binomial names.

Unlike most scientific names, common names are easily etched in our minds. Who wouldn’t remember finding sharks, leopards, or tigers living in their garden? The joyous vocabulary is also sprinkled with curious anachronisms. An unexpected source of charm; vital for a group that’s all too often plagued by poor PR. I have little doubt that if it weren’t for their common names, Britain’s moths would be worse off. Fewer people would record them and they would be the focus of less conservation action.

There is one other advantage of English names. Stability. In theory, common names are more dynamic than scientific names. But in practice, field guides and checklists tend to remain faithful to previous publications. Once established, English names can be remarkably static.

In contrast, scientific names can be irritatingly unstable. Taxonomists frequently decide that a species actually belongs in a different genus, or that a group of species should now be spread across several new genera. Important work, of course. But annoying nevertheless. The law of priority means even the specific epithet is not sacrosanct. This states that if an earlier name for a species is uncovered, this should now be used.

When I started trapping, I learnt a species under the name *Depressaria pastinacella*. It later became *D. heraclei*. Now it’s *D. radiella*. Its common name – Parsnip Moth – has remained unchanged throughout.
Micro-moths: unnamed, unknown, unloved?

Only around 10% of the 1600 species of micro-moth found in the UK have an English name. With a bit of determination, this lack of common names shouldn’t be an insurmountable barrier. But it is a barrier nonetheless. And one that tempers enthusiasm for micro-moths.

If we want as many people to care about wildlife, then surely, we want to eliminate barriers that prevent people from engaging with it?

So then. Should more micro-moths be given common names?

Alright, I might have lied. The fact is all micro-moths already have common names. Ian Heslop gave all the British Lepidoptera an English name in his 1947 work. This was loosely used as the basis for Jim Porter’s checklist in 2002. Further refinements were made by Jim Wheeler in 2017.

They might as well have not bothered. Proudly proclaim to an experienced lepidopterist that you’ve discovered a Brown-spot Flat-body or an Ash-coloured Sober and you’ll be met with a blank face.

Is there something inherently wrong with these recently invented names? No, not really. Some of them are apt. The genus Coleophora are ‘case-bearers’. The first part of the name tends to relate to the foodplant or habitat (Woundwort Case-bearer, Downland Case-bearer, etc). Intuitive and useful.

Others I find less agreeable. The Caloptilias are termed ‘slenders’. So, ok, the wings are thin but that’s true for lots of micros. Surely giving a nod to the distinctive resting position of the adults would be better (tripods?), or perhaps the feeding habits of the larvae (leaf-rollers?). The tineids are all ‘clothes moths’. Nonsensical. Only a couple might chew through your favourite jumper (the vast majority wouldn’t survive indoors; many only eat fungi and decaying wood).

Perhaps I’m being a tad unfair. I am very glad these efforts have been made. It’s an important starting point, if nothing else.

But I think there are a couple of reasons why they haven’t really been adopted. It is early days. The names of the macros were quite literally hundreds of years in the making. Often they were known by several (rather different) names before a favourite emerged. In my view, modern efforts to name the micros have been flawed by remaining overly faithful to the previous suggestions. This has stifled creativity.
The other issue is the sheer number of species. One and a half thousand is an awful lot of new names. Even more for those who have known the species by their scientific names for a lifetime. So, what’s the way forward?

**Common names should be achieved, not assigned**

I think we need an informal, open dialogue. The best way to get the ball rolling would be to start inventing our own nicknames – and then sharing them with others. If they resonate, they might just stick.

Interest in micro-moths has only taken off in the last decade or so. Now is the perfect time.

Collectively, it will be much easier to dream up imaginative common names. Vernacular names will probably only materialise for the more charismatic families. That’s ok. Maybe only some micros really need a second name.

Previously suggested names might be a useful starting point, but a clean slate is also fine. It doesn’t matter if there are lots of common names floating around for each species at first. That’s how the macros got their marvellous names.
Those who are fond of the scientific names will always be understandably reluctant to embrace any new-fangled English names. That’s completely fine. The established scientific names should continue to be used alongside any newly conceived names (vital when submitting records, for instance).

Change is possible. People only began using English names for the pterophorids (plume moths) fairly recently, after Colin Hart included them in his authoritative book on the family back in 2011. The c.40 new names have subsequently been adopted in checklists and field guides.

Progress is always going to be gradual.

Nom de plume: Pterophorus pentadactyla, aka White Plume Moth. I also like fairy plume or white feather plume. Image: Sarah2 / Shutterstock (RF)

So yes, more micro-moths should have common names. But they deserve sublime poetic names, just like their larger cousins. This isn’t something that can be rushed. The scientific name of each species gets assigned by one person. Common names really ought to be the opposite: an honour bestowed by the people.

Inventing our own creative nicknames is the first step.

This article was originally posted on Douglas’ website at http://www.douglasboyes.co.uk/index.html
BUTTERFLY POPULATION TRENDS IN NORTH WALES
by Andrew Graham

One of the main aims of butterfly recording is to monitor how well each species is faring. However, to extract meaningful data on population trends from the large number of records made each year is anything but straight-forward. This article will briefly cover the various methods available for butterfly monitoring and will present results derived from one approach.

Butterfly transects
The transect method, whereby the same route is walked once a week, in favourable weather conditions, with all butterflies counted within a certain distance of the recorder, is usually held up as the ‘gold standard’ for monitoring population trends. However, over a period of ten years or more the habitat along the transect is unlikely to remain unchanged so one is no longer comparing like with like thus diminishing the value of the data obtained. For example, a butterfly that was common along the transect route initially might still be common nearby 20 years later, but the actual transect might have become too shady as trees will have grown substantially over the period. Thus, an incorrect trend would be inferred from the data. Another problem with the transect method is that most transect walks are undertaken on protected sites, e.g. nature reserves, which are unrepresentative of the wider countryside. With enough transects being walked such problems should even out but this is certainly not the situation at present in North Wales.

Wider Countryside Butterfly Scheme
This is a worthy and promising initiative, partly run by Butterfly Conservation, which should, in time, provide meaningful data on long-term population trends for the commoner species. The great advantage of the methodology is that 1-Km squares are assigned randomly thus ensuring that the coverage is representative of the ‘wider countryside’. Recorders are required to pick two transect lines traversing their 1-Km square and count all butterflies seen as they walk steadily along. Ideally, the two transect lines would also be chosen randomly but in practice they are likely to follow footpaths and lanes thus slightly negating the aim of avoiding habitat bias.
Big Butterfly Count, BTO Garden bird survey etc.
These popular schemes are designed to introduce an element of consistency to butterfly recording, thus, in principle, allowing for meaningful comparison of results over time. The disadvantage of this approach is that the very popularity of the counts, with substantial publicity being given to them, means that the quality of the data is far lower than for other methods of recording. Basically, it is just too easy to take part and all manner of nonsense gets submitted. Arguably, the real benefit comes from the publicity and interest aroused rather than from the data collected.

Mark-Recapture
For the sake of completeness this should be mentioned as this method probably provides the best way of estimating a colony size. Basically, a sample is caught and marked and then released. Some time later another sample is taken, and the proportion of marked individuals can then be used to infer the overall population size. Clearly, there are inherent assumptions involved, implying that there are limitations as to the sort of situation that is suitable for the method to be applicable. In addition, the time-consuming nature of the work means that such methods are inappropriate for long-term monitoring.

General recording
We have a substantial number of butterfly records (>140,000) going back in time over many decades, mostly garnered by butterfly enthusiasts and thus mostly reliable. Some records are associated with specific surveys but mostly they just represent what people saw on their perambulations through North Wales. Clearly, if a butterfly becomes more common or less common, we can expect this to show up as an increase or decrease in sightings. Thus, we can expect any significant trends to show up in the data, provided that some attempt is made to compensate for the variable amount of recording effort from year to year. If the number of butterfly recorders doubles over a period of time, then we would expect to receive twice as many records for each species even if the population levels were static. This concept allows us to, at least partially, correct for recording effort and to plot trends for each species. However, this is a simple approach and there are caveats. In particular, the results can be skewed by any change in recording effort by individual recorders, for example, if a particular species becomes the focus of increased attention. Another significant defect with this approach, as with others, is that butterfly recorders tend to be selective in where they go, so declines in unpopular habitats, such as farmland, may go unnoticed.
This latter point is probably the biggest difficulty with this approach as the area of biologically barren farmland has undoubtedly increased, concentrating butterfly recorders on smaller and smaller areas. Thus, the trends derived from analysis of the general records are biased towards better quality sites and may not accurately reflect the overall situation. However, biased or not, it is still of interest to know how well the various species are coping and this is the approach that is discussed below.

**Butterfly trends**

Analysis of the records to tease out the trends represents a huge computational effort. However, this is what computers are good at and I have added a facility to the North Wales Lepidoptera website, [www.trawsgoed.com/nwleps.aspx](http://www.trawsgoed.com/nwleps.aspx), to make this possible in real time. (Go to ‘More / Butterfly abundance trends’). What this means is that the trends can be produced as required, based on the current contents of the database. The computation for each species takes up to about 20 seconds to implement and will produce different results on different occasions as more records get added to the database. Further details of the analytical methods are given online under ‘Further discussion’. (Be warned that the page takes a minute or so to compute so considerable patience is needed). A representative few of the more interesting trend charts are reproduced here. (At the time of writing the 2018 data is ignored as not all records will yet have been entered).

![Common Blue trend chart](image)

Surprisingly, the Common Blue seems to be getting commoner. It is hard to explain this finding.
The Grizzled Skipper is, regrettably, a good example of a declining species.

This is an interesting one as, contrary to expectations, there appears to be little evidence for any periodicity in population size. There were huge numbers in the last few years of the 20th Century, followed by a decline, but nothing much has happened since then.

As is well-known, this species is an erratic immigrant. Judging from the chart it does seem to be high time that we have another Clouded Yellow summer and when that happens the trend line will come back up.
The following table summarises the results of these trend calculations.

<table>
<thead>
<tr>
<th>Butterfly</th>
<th>Notes/Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brimstone</td>
<td>Stable.</td>
</tr>
<tr>
<td>Brown Argus</td>
<td>Appears to be increasing but this may be due to better recording on the Great Orme butterfly transect. Certainly, no hint of any decline.</td>
</tr>
<tr>
<td>Brown Hairstreak</td>
<td>Not present.</td>
</tr>
<tr>
<td>Camberwell Beauty</td>
<td>We’d be so lucky.</td>
</tr>
<tr>
<td>Clouded Yellow</td>
<td>Low numbers seen in recent years. 2006 saw the last significant immigration event. The trend line should be ignored as another good year will bring it back again.</td>
</tr>
<tr>
<td>Comma</td>
<td>Stable.</td>
</tr>
<tr>
<td>Common Blue</td>
<td>Surprisingly, this butterfly does seem to be increasing.</td>
</tr>
<tr>
<td>Dark Green Fritillary</td>
<td>Stable? A worrying drop in numbers reported in the last few years.</td>
</tr>
<tr>
<td>Dingy Skipper</td>
<td>Increasing.</td>
</tr>
<tr>
<td>Duke of Burgundy</td>
<td>Extinct.</td>
</tr>
<tr>
<td>Essex Skipper</td>
<td>Not yet present?</td>
</tr>
<tr>
<td>Gatekeeper</td>
<td>Stable or possibly increasing.</td>
</tr>
<tr>
<td>Grayling</td>
<td>Stable.</td>
</tr>
<tr>
<td>Green Hairstreak</td>
<td>Stable.</td>
</tr>
<tr>
<td>Green-veined White</td>
<td>Stable.</td>
</tr>
<tr>
<td>Grizzled Skipper</td>
<td>Drastically declined.</td>
</tr>
<tr>
<td>High Brown Fritillary</td>
<td>Extinct.</td>
</tr>
<tr>
<td>Holly Blue</td>
<td>Probably stable. Very high numbers in the late 1990s followed by a smaller peak in 2004. Since then there has been no evidence for any periodicity in population size - contrary to conventional wisdom.</td>
</tr>
<tr>
<td>Large Blue</td>
<td>Extinct.</td>
</tr>
<tr>
<td>Large Heath</td>
<td>Stable? The chart mostly reflects recording effort. A genuine decline in 2017 for unknown reasons. Very few seen despite intensive searching of known sites.</td>
</tr>
<tr>
<td>Large Skipper</td>
<td>Stable.</td>
</tr>
<tr>
<td>Large Tortoiseshell</td>
<td>Extinct.</td>
</tr>
<tr>
<td>Large White</td>
<td>Stable. Exceptional numbers seen in 2013.</td>
</tr>
<tr>
<td>Long-tailed Blue</td>
<td>Not present.</td>
</tr>
<tr>
<td>Marbled White</td>
<td>Not present. The few sightings are thought to be of releases.</td>
</tr>
<tr>
<td>Marsh Fritillary</td>
<td>Was increasing but drastically declined in the last few years due to mismanagement of the principal sites.</td>
</tr>
<tr>
<td>Mazarine Blue</td>
<td>Extinct.</td>
</tr>
<tr>
<td>Meadow Brown</td>
<td>Stable or even slightly increasing.</td>
</tr>
<tr>
<td>Monarch</td>
<td>Very occasional.</td>
</tr>
<tr>
<td>Orange-tip</td>
<td>Stable.</td>
</tr>
<tr>
<td>Painted Lady</td>
<td>No significant trend. Huge numbers in 2009.</td>
</tr>
</tbody>
</table>

2019
<table>
<thead>
<tr>
<th>Butterfly Type</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pale Clouded Yellow</td>
<td>Of doubtful occurrence.</td>
</tr>
<tr>
<td>Peacock</td>
<td>Stable</td>
</tr>
<tr>
<td>Pearl-bordered Fritillary</td>
<td>Thanks to serious conservation efforts the population appears stable over recent decades. Huge losses in the last century.</td>
</tr>
<tr>
<td>Purple Emperor</td>
<td>Not present.</td>
</tr>
<tr>
<td>Purple Hairstreak</td>
<td>Probably stable. Numbers do seem down a bit in recent years.</td>
</tr>
<tr>
<td>Red Admiral</td>
<td>Variable numbers each year. Appears stable overall.</td>
</tr>
<tr>
<td>Ringlet</td>
<td>Increasing more rapidly than any other species.</td>
</tr>
<tr>
<td>Silver-studded Blue</td>
<td>Stable at its few sites.</td>
</tr>
<tr>
<td>Silver-washed Fritillary</td>
<td>Waxes and wanes. Recent expansion into NE Wales.</td>
</tr>
<tr>
<td>Small Copper</td>
<td>This appears to be a declining species.</td>
</tr>
<tr>
<td>Small Heath</td>
<td>Stable.</td>
</tr>
<tr>
<td>Small Pearl-bordered Fritillary</td>
<td>Stable.</td>
</tr>
<tr>
<td>Small Skipper</td>
<td>Stable. Was rare or absent in the 20th C.</td>
</tr>
<tr>
<td>Small Tortoiseshell</td>
<td>Stable or slightly declining.</td>
</tr>
<tr>
<td>Small White</td>
<td>Stable. Exceptional numbers in 2013.</td>
</tr>
<tr>
<td>Speckled Wood</td>
<td>Stable or slightly increasing.</td>
</tr>
<tr>
<td>Wall Brown</td>
<td>Still common but there does seem to be some evidence that it is declining.</td>
</tr>
<tr>
<td>White-letter Hairstreak</td>
<td>Reported in very small numbers. Appears stable.</td>
</tr>
</tbody>
</table>

**Conclusions**

As can be seen from the charts and summary table, a remarkable number of species appear to be stable in North Wales, at least within the limitations of this method of analysis. Some other species are increasing, and others are decreasing. All the other butterfly population trends can be examined online, where more detail is also given on the analysis along with its inherent assumptions and limitations.

It will be interesting to see how the unusually hot, dry summer of 2018 affects the trend plots as the records for the year get added to the database. The graphs will automatically update to include data from 2018 next January.
MUNCHING CATERPILLARS –
an update on Butterfly Conservation’s flagship education project
by Kate Merry

The Munching Caterpillars Project was launched in 2012 and ran until the end of 2015. Covering Dorset and Somerset, the Heritage Lottery funded Project was a fantastic opportunity for Butterfly Conservation to stretch its wings in the field of environmental education. Three years on from the project’s close, Senior Education officer Kate Merry gives an update on what has happened to Munching Caterpillars since, and what the future might hold.

Munching Caterpillars was a fantastic project to work on – fun, varied, often frantically busy, demanding but very, very satisfying. The immediate months following the project’s close felt very quiet by comparison as I sat, desk bound, completing the end of project review and report for the Heritage Lottery Fund.

I felt proud of the finished report and it was good to reflect on all that the project had achieved; 233 primary school workshops delivered, 99 community events, 16 training workshops – 14,000 children reached in total. The feedback from those taking part in the project gave us confidence that the simple, engaging activities and workshops we devised had certainly enabled us to meet our main aim of enthusing young people in the fascinating world of butterflies, moths and their caterpillars – and importantly, of inspiring them to take action to help them.

Fast forward to 2018 and there are new Munching Caterpillars projects underway. The first to get started put an urban spin on the original project. ‘Munching Caterpillars Goes to Town’ was delivered in Bristol by Project Officer Matt Brierley. Working on behalf of the Somerset and Bristol Branch, who have part-funded and instigated the project, Matt has been visiting schools in the most
urban parts of the city where his work to connect children with nature has had a huge impact.

Part of Matt’s workshops with the children involve planting nectar and food plants in the school grounds and for many of them it is their first experience of holding a trowel and digging the soil. Not surprising then, that their reactions to coming face to face with a hairy Garden Tiger caterpillar are of extreme excitement! This project has benefitted from a fantastic partnership with the University of West England (UWE). Student volunteers have worked with Matt in the classrooms and out at events, and in return for their help have enjoyed their time with us and gained some useful experience.

While the project came to a close at the end of 2018, the work continues albeit on a smaller scale thanks to the local Branch who are funding an environmental education contractor to continue delivering sessions in schools with the help of a new intake of UWE students.

Over in Hampshire, Project Officer Kate Barrett is in to her second year of Munching Caterpillars – Wild in Winchester. This project shifts the focus away from the classroom and instead aims to encourage schools from Winchester and beyond to visit our reserve at Magdalen Hill Down. We are thinking of it as a giant, outdoor classroom! Kate uses this wonderful natural resource as a living illustration of many elements of the national curriculum. An important part of Kate’s work is to establish a partnership with the Winchester Science Centre, which sits right on the edge of the reserve. Kate has trained staff to use the reserve as an opportunity to cover more ecological topics with the hundreds of thousands of schoolchildren that visit each year.

Our third project, Munching Caterpillars Scotland, is off to a flying start. Thanks to further HLF funding, the two-year project will be delivered across Scotland’s Central Belt with Polly Philpot based at our Stirling Office. Polly has adjusted our resources for use in Scotland and has brought our workshop content in line with the Curriculum for Excellence. She is already out visiting schools, planning their spring and summer workshops and activities. At the time of writing, we have just begun our fourth project, The Butterfly Effect, in Gloucestershire. Busy times ahead!
The great challenge has been funding these projects. We have had fantastic support from our Branches but fundraising to cover the full costs of these projects has been tough. We will continue to work hard to ensure that our Munching Caterpillars campaign marches steadily on, and we have some new projects in the pipeline that we hope to be able to share soon. We will keep striving to ensure that there is a new generation of butterfly and moth enthusiasts and that we continue to offer opportunities for them to become captivated by these beautiful insects – just as we have.

Feeling inspired? To find out more about education work at Butterfly Conservation please get in touch with Kate Merry, kmerry@butterfly-conservation.org. For more information on Munching Caterpillars projects past and present and for our education resources visit www.munchingcaterpillars.org

And talking of ‘munching caterpillars’…! (Ed)

OCHREOUS PEARL CAUSES DEVASTATION – or does it?

by Jill Tattershall

Noticing that the young shoots of our *Inula hookerii* were being eaten, I decided to find the ‘culprit’. Unfurling a group of leaves which were held together by silken webs, I discovered a small, green caterpillar with a shiny black head.

Popping it in a jar along with its food-plant I decided to rear it on. Following pupation, the micro-moth *Anania crocealis* (Ochreous Pearl) emerged. Looking back at Mark’s Moth Trapping Records we discovered the first adult had been trapped two years earlier in 2014.
Why had *Inula hookerii*, a ‘garden’ plant been selected as its foodplant? In the wild, *Anania crocealis* feeds on two plants, Fleabane (*Pulicaria dysenterica*) and Ploughman’s Spikenard (*Inula conyzae*). So, I guess it’s found my Inula to be an acceptable substitute.

![Image of Inula hookerii flowers and moth](image)

*The Inula hookerii flowers just as profusely albeit a little later and we have the added-bonus of an attractive little moth! (Spot the Crab Spider on the flower head!)*

More recently (16th April) I was having a last walk around the garden and field edge, when my eyes were drawn to signs of feeding damage on Common Knapweed (*Centaurea nigra*). Bending down to have a closer look, I turned the leaf over and there to my amazement was a Coleophora – one of the ‘case-bearers’. In the fading light, I rushed inside for my camera...not a particularly brilliant one for macro shots, so I improvised with a torch and large hand lens! I had this fear that I might lose it! Next thing was to give it a name. A quick ‘google’, and there it was, *Coleoeophora paripennella*. A name and it looked just like mine! The case is formed almost entirely of silk. Apparently, it’s common (in fact we have found several more since) but like a lot of micro-moths under recorded. As well as Knapweed, it also feeds on Creeping Thistle (*Cirsium arvense*) – hence it’s common name, Dark Thistle Case-bearer.
**County Butterfly and Moth Recorders**

Send records by e-mail to the appropriate recorders’ e-mail below.

To check which Vice County (VC) you’re in go to herbariaunited.org/gridrefVC/
Find more at butterfly-conservation.org/110/recording-and-monitoring.html
See records of N. Wales butterflies and moths at trawsgoed.com/NWLeps.aspx

**Butterfly Recorders**

*Montgomeryshire VC47*
Douglas Boyes  
douglasboyes@gmail.com
Bridge Cottage, Middletown, Welshpool, Powys, SY21 8DG.  01938 570418

*Merionethshire VC48, Caernarvonshire VC49 and Anglesey VC52*
Andrew Graham,  
angrhm@globalnet.co.uk
Trawscoed, Llanuwchllyn, Bala, Gwynedd LL23 7TD.  01678 540370

*Denbighshire VC50 and Flintshire VC51*
David Hinde  
butterflyrecorder13@gmail.com
28 Fender Way, Pensby, Wirral CH61 9NR.  0151 648 3887

**Moth Recorders**

*Montgomeryshire VC47 (All species)*
Peter Williams  
peterwilliams526@btinternet.com
"Pandy", Commins Coch, Machynlleth, Powys SY20 8LG.  01650 511583

*Merionethshire VC48 (All species)*
Andrew Graham  
angrhm@globalnet.co.uk
Trawscoed, Llanuwchllyn, Bala, Gwynedd LL23 7TD.  01678 540370

*Caernarvonshire VC49 (All species)*
Julian Thompson  
julian.pensychnant@btinternet.com
Pensychnant, Sychnant Pass, Conwy, LL32 8BJ.  01492 592595

*Denbighshire VC50 and Flintshire VC51 (Macro-moths)*
Justin Williams  
northwalesmoths@hotmail.co.uk
The Old Orchard, Sunnyridge Ave, Marford, Wrexham LL12 8TE.  01978 851381

*Denbighshire VC50 (Micro-moths)*
Bryan Formstone  
bryanformstone@dsl.pipex.com
15 Beech Avenue, Gresford, Wrexham LL12 8EL.  01978 855174

*Flintshire VC51 (Micro-moths)*
Helen Bantock  
hbantock@yahoo.co.uk
101 Crouch Hill, London, N8 9RD

*Anglesey VC52 (All species)*
Charles Aron  
aronmycology@aol.com
4, Refail Fields, Pentraeth, Anglesey, LL75 8YF.  01248 450129 / 07766613417
North Wales Branch

You can find the North Wales Branch web page here
butterfly-conservation.org/304/north-wales-branch.html

Visit the site to find out about your local branch and to……

• learn more about our North Wales reserve at Eyarth Rocks
• view previous branch newsletters
• discover recommended places for seeing butterflies
• read the latest news from Butterfly Conservation

And - if you have any questions to ask or information to pass on - use the contact option there.

Another way to contact the branch and other members, is through our Facebook group at...
www.facebook.com/groups/277847912412601/

The Facebook group is a good place to -

• post your sightings of butterflies and moths
• ask for help with species identification
• keep up-to-date with your local events
• share interesting Lepidoptera-related news

Look out for our Twitter Account... coming soon!

Check the website for details.