

E-moth

Moths Count Update November 2020

It's been an interesting year for us all with lockdowns limiting mothing opportunities outside of our gardens and social distancing rules making gathering around moth traps challenging or indeed illegal! To overcome these restrictions Butterfly Conservation's Phil Sterling ran weekly live and interactive Zoom sessions showcasing moths from around the UK. Initially set up to train Butterfly Conservation staff during lockdown, these online gatherings were incredibly popular and provided useful identification hints and tips along with a social lifeline to staff who were furloughed or working from home. We're now considering how we might roll this out in 2021 so the wider moth recording community can be involved.



Phil Sterling in action (Carol Sterling)

UK Moth Recorders' Meeting – goes virtual

A date has been set for the 2021 UK Moth Recorders' Meeting - Saturday 30th January. Due to the ongoing Covid-19 situation the event will, for the first time, be held virtually via Zoom. This meeting normally attracts around 220 people, we're really hoping that we can reach a much larger audience this year as there are no time, distance or travel costs for attendees. You can watch and listen from the comfort of your own home. The programme for the day is being devised and will include the usual update on the National Moth Recording Scheme, recording/data flow issues, followed by two or three talks by guest speakers. Advance booking is essential via www.butterfly-conservation.org/ukmrm and there is a limit to the number of attendees so book early to avoid disappointment. As this is a virtual event there isn't a charge for attending, although there will be the option to make a donation when booking.

NMRS Update

Since returning from furlough Les Evans-Hill has been busy checking and importing datasets into the National Moth Recording Scheme (NMRS) database. This is quite a task; data importation was on hold whilst work on the Moth Atlas was completed and thus Les is processing and importing three years of data (2017-2019) per vice-county at a time.

To-date 21 macro-moth and 7 micro-moth datasets have been checked and imported into the NMRS adding 1,258,861 macro-moth records and 83,625 micro-moth records. There are a further 50 macro-moth and 43 micro-moth datasets booked in awaiting data validation or validated and ready to import. Many thanks to all of the County Recorders who have submitted their 2017-2019 records to the NMRS so far. For those County Recorders who've not yet sent a data update to the

NMRS since 2016, please can you do this as soon as possible so that we can get the recording scheme back up to date.

The coming months are traditionally busy ones for County Moth Recorders who are collating, checking and verifying their datasets, so please do get your records in to your County Moth Recorder as soon as possible. County Moth Recorder contact details can be found on the Butterfly Conservation website, simply follow this [link](#).

Data Review work update

After a long period of exploratory conversations, mapping out data flows, finding areas for improvement and implementing some changes along the way, we are formally moving into the delivery phase of the data review work.

The last two years have helped us to understand the scope and scale of problems within BC's data ecosystem and now is the time to start making change.

A caveat to this statement is that the review of data flows doesn't ever stop, and the processes and tools used by the recording community and our staff need to be under constant review. The digital world changes very rapidly and it's our job to make sure that the data continue to flow into the national datasets to be available for an ever-increasing number of uses in the fight to protect nature.

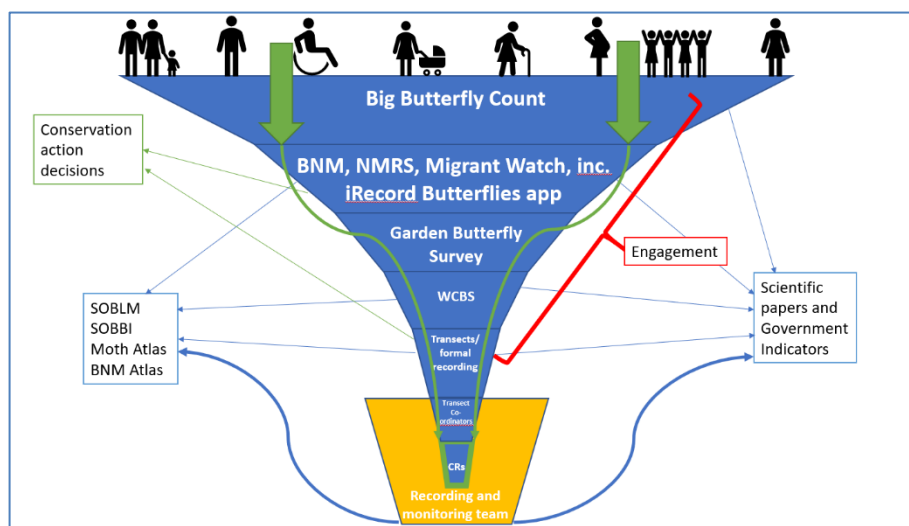
The main focus for the next 12-18 months will be to better support the county recorders in terms of the different types of data they receive locally, online and repatriated from BC, and also how they manage their local datasets and carry out verification. We will be using the findings from the County Moth Recorder questionnaire to focus our efforts. A dual approach will be required:

1. Fixing dataflows and tools: We will be looking at the existing data sources (location, timing, formatting) that County Recorders use to compile local datasets and the tools available to access and manage them to see where we can make improvements e.g. improvements to iRecord.
2. Supporting and training: We will be rewriting the County Recorder guidance documents with help from County Recorders and launching a forum so that County Recorders can share solutions. We want everyone to know where to access data, what needs to be done with it in terms of verification and how to share it with BC and others.

Work has already started on both areas. Through the program of iRecord training, we are speaking to more County Recorders about how they do their job and what help they need. In addition, Patrick Cook is running a series of training events on QGIS to help arm County Recorders with GIS skills that could help them visualise, analyse and communicate with their data.

Thank you for being patient with us. Rome wasn't built in a day. We are heading in the right direction and hope to secure some funding to underpin the training, support and tools needed to make life easier for all.

Contributed by Katie Cruickshanks, Senior Data Ecologist, Butterfly Conservation



Simplification of dataflows and outputs

A fond farewell to Mark Parsons

It was with great sadness that Butterfly Conservation said goodbye to Mark Parsons during the summer, when he took voluntary redundancy due to the impact of COVID-19 on Butterfly Conservation's finances. Mark had worked for Butterfly Conservation since 1999, when he joined from the Natural History Museum in London and was a crucial appointment in realising BC's aspiration to undertake much more moth conservation. Twenty years on and few, if any, complain that we don't take moths seriously, a fact that is down in no small way to Mark's expertise, persistence and an inability to say no when dealing with the many requests for his knowledge and wisdom where all things moth are concerned.

Mark has worked closely with many colleagues, nurturing interest and understanding over the years and helping to develop and deliver extensive conservation programmes including managing BC's moth conservation work under Natural England's Species Recovery Programme. His achievements are many, both in terms of species recovery, but also in project development.



Mark Parsons beating for Dingy Mocha (Phil Sterling)

In 2006 his technical expertise and support helped us develop the Moths Count project; the largest single Heritage Lottery project on biological recording awarded at the time. The resulting National Moth Recording Scheme is now one of the largest of its type in the world and recently resulted in the recently published Moth Atlas, which along with his other books, reports, articles and papers are a lasting testament to his massive contribution to moths, their conservation and to Butterfly Conservation.

It is extremely sad that BC has lost Mark, but we are confident that he will continue to contribute hugely!

Contributed by Nigel Bourn, Chief Scientist, Butterfly Conservation

iRecord – why bother?

You will have noticed an increase in BC staff raising the profile of iRecord by talking about it and indeed, offering training. I want to let you know our reasons behind this. Butterfly Conservation sees iRecord as one location where recorders can submit their records and once verification has taken place, they can receive confirmation that their record has been useful. We are supporting more widespread use of iRecord by working to route more of our schemes through it, to smooth the flow of data and attempt to make County Recorders' lives easier.

iRecord is essentially a one-stop shop for people to enter their biological records. It provides a data entry, storage and back-up facility for recorders. We appreciate that iRecord is not perfect and has some quirks as every system does, but Butterfly Conservation do not have the resources to develop our own bespoke recording system. By engaging with iRecord, we have a voice and the ability to help shape future developments and improvements in the system. Over the course of this year, I've spoken to many County Moth Recorders about iRecord and the polarisation of views is stark. Some County Recorders love it, but for others, the mere utterance of "iRecord" is enough to cause steam to come out of their ears! At times, I feel like I am trying to promote Christmas to turkeys!

I wonder if we can look at iRecord from a different perspective. This year, in particular, there are likely to be many people who have come across a moth or butterfly and been blown away by the magnificence of the creature. They may well enter their record into iRecord hoping for a response and someone to share their excitement with. If the County Recorder for their area (or another volunteer working with the County Recorder) doesn't interact with iRecord, this record disappears into a black hole, along with the enthusiasm and passion that the recorder had for their new interest. This untapped potential has knock-on effects for the future of recording and conservation. Recorders and the County Recorder network are the voice for Lepidoptera, who will be the voice in the future? I am not for one minute suggesting that iRecord be a replacement to the County Recorder network, it is simply an additional thread and a useful tool.

Many younger people use online recording in preference to spreadsheets and databases, it's what they know, and it is natural to them to interact with an innate system and less boring than an excel spreadsheet! County Recorders have a huge amount to offer these newcomers to the world of moths, through sharing their valuable skills and expertise, mentoring, explaining the key identification features of similar species and guiding with best practice. There is a serious taxonomic skills gap in the younger generation, and this is where the expertise and enthusiasm of County Recorders and other experienced moth recorders are absolutely vital to bring on the next generation of recorders and future County Recorders. It is perhaps more important than ever to harness this enthusiasm and passion, to help sustain the recording community of the future. The moths and butterflies will need these people to be their voice, to help conserve and protect them in a world that is becoming more and more biologically sterile year on year. By engaging with iRecord and verifying the records in iRecord County Recorders can reach these people, take them under their wings and help them to fly too.



Moth recorder of the future? (Kate Merry)

Having read this plea for solidarity, County Moth Recorders may still not be convinced that engaging with iRecord is for them. However, perhaps there is a skilled recorder or two on their patch, who would be willing to help the County Recorder by interacting with people on iRecord and undertaking the first line of verification. Such an approach has been adopted in several counties as a way of sharing the workload and is proving successful. The County Recorder still retains the ultimate say over verification, of course, because all records flow to the NMRS through the County Recorder.

County Moth Recorders are fantastically dedicated and super busy, and I am concerned that with the growth in recording, the existing systems will become unsustainable, stress levels will rise and the passion they had for the role will dwindle and it may become unmanageable. I feel that sharing the burden will help us all and the future of recording.

Contributed by Zoë Randle, Senior Surveys Officer, Butterfly Conservation

Ant nest guest

Myrmecozela ochraceella (or the Wood Ants Clothes Moth), is a member of the Tineidae family, restricted to the Highlands of Scotland. I first heard about this moth when Tom Prescott and David Hill were pulling together the Scottish Conservation Strategy. When looking into the species ecology I found it has a fascinating association with wood ants. The larva live within the nests of two species of wood ant, the Scottish Wood Ant, *Formica aquilona* and the Hairy Wood Ant,

Formica lugubris. Their life-cycle is extremely glamorous, feeding on the detritus of the nest, effectively recycling the waste material of the forests largest recycling agent, ants.

Intrigued by the ecology of the species, in 2019 I decided to try searching for it near to home on Deeside, Aberdeenshire. This involved systematically searching around nests at dusk, looking for moths sitting on and around the nests. Despite several attempts in late June I didn't have any luck. Apparently, it has become very hard to find in recent years, last being recorded in 2007. Unperturbed, I tried again in 2020 at a site near Braemar where I see lots of wood ants' nests in an open bit of pinewood, where juniper and birch are also common components of the forest. Whilst walking at dusk on the 26/7/20, I finally struck lucky and found one moth making short flights around the nest just as it was getting dark. I was absolutely delighted to find the moth. It looks exactly like a common clothes moth but has a silky appearance and quite a gingery head, a true Scottish moth then! The moth would settle on the nest and surrounding vegetation and clearly has some sort of trick to avoid being attacked by the ants.



Myrmecozela ochraceella on a wood ant nest (Patrick Cook)

I subsequently returned to map more wood ant nests in the area and hope to head back next year and to other sites to learn more about its ecology, distribution and phenology to help inform future research projects.

Contributed by Patrick Cook, Ecologist, Butterfly Conservation

iRecord Training dates

As part of our supporting County Moth Recorders package we have teamed up with Martin Harvey from the UK Centre for Ecology & Hydrology's Biological Records Centre to deliver verification training in iRecord. We've held five virtual webinar events so far with 67 people attending. The majority of these have been County Recorders or their close associates. We have set dates for future *verification in iRecord* training sessions they are as follows:

Wednesday 2nd Dec 2pm – 4:30pm

Wednesday 13th Jan 10am – 12:30pm

Saturday 13th February 10am – 12:30pm

Saturday 13th March 10am – 12:30pm



If you are interested attending please contact recording@butterfly-conservation.org stating the date of the session you wish to register for. Please note each session will cover the same content.

Here is some of the feedback we've received so far:

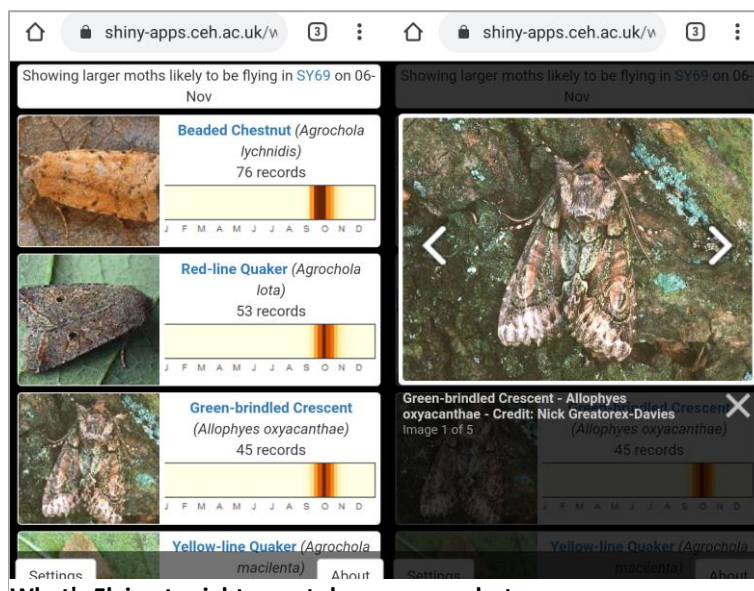
It's taken me awhile to say how impressed I was with the webinar introducing iRecord. I've registered with iRecord and sent an email asking to become a verifier. I feel I've a HUGE amount to learn but I'll get there and thank you for the support."

"I enjoyed the webinar very much. Well organised and informative."

"Many thanks for your presentation on iRecord yesterday, I found it a very productive and worthwhile afternoon and nice to meet you as

What's flying tonight

Last month, Tom August from the UK Centre for Ecology & Hydrology published a [blog](#) about the What's flying tonight app. This app, which is based on data from the NMRS, was launched in 2018 and its use has been growing in popularity. Indeed, use of the app increased greatly this spring and summer as a result of the increased interest in nature during the pandemic. The moth images, flight charts and the frequency that each species has been recorded (based on your location and date) makes this a great resource for beginners and for moth recorders recording in new areas.



What's Flying tonight smartphone screenshot

What's Flying Tonight is designed to work like an app from a smartphone or tablet but will also work from a computer. It can automatically use the GPS in your device to locate the correct moth records, but you can also manually change the date and location. If you haven't already discovered or tried out What's flying tonight you can give it a go here https://shiny-apps.ceh.ac.uk/whats_flying_tonight/.

DECIDE Project – 'square bashing' for the 21st century

In the UK, we have a fantastic and large community of recorders, providing over 2 million records each year and making a vital contribution to our understanding of the state of our Lepidoptera. Despite this tremendous effort, there are gaps in recording, at both national and local scales. These need to be addressed, not by simply gathering more records but by targeting some recording effort to places where it is most needed.

Additionally, the requirements of data-users, such as planners and policy makers, are changing. They have a growing need for accessible, high-quality, fine-scale information to make good decisions at country, regional, local and site-based levels to protect nature. To meet this, we need to move from basing decisions on species records alone to instead using comprehensive models that show how species distribution and habitat quality are linked.

Butterfly Conservation is a partner in an exciting new research project (called DECIDE) which aims to develop, in collaboration with the recording community, an online tool that will match gaps in species distribution data with recorders who may be willing to help. A high-tech approach to targeted recording for scarce species or filling in under-recorded areas by 'square bashing'. By targeting visits and recording effort in these places, the data gathered will have a greater impact on our understanding of species and their distributions. This in turn, will enable data-users, such as planners and policymakers, to make better decisions, to benefit nature and people.

Focusing initially on butterflies, moths and grasshoppers, this pioneering project will use existing data (e.g. from our NMRS and BNM recording schemes) to map 1,000 species at fine resolution, identify the gaps and then prioritise place where new records will bring the greatest improvements. Recorders will be able to access information about where and when to make undertake records in their region, so that their sightings have the biggest impact - a process called 'adaptive sampling'.

The DECIDE team, which also includes UKCEH, universities and local environmental records centres, will also be working with recorders and data-users from local NGOs to national government to understand motivations and needs so as to produce an intuitive system that provides engaging, useful information to improve recording coverage and data use. We will be

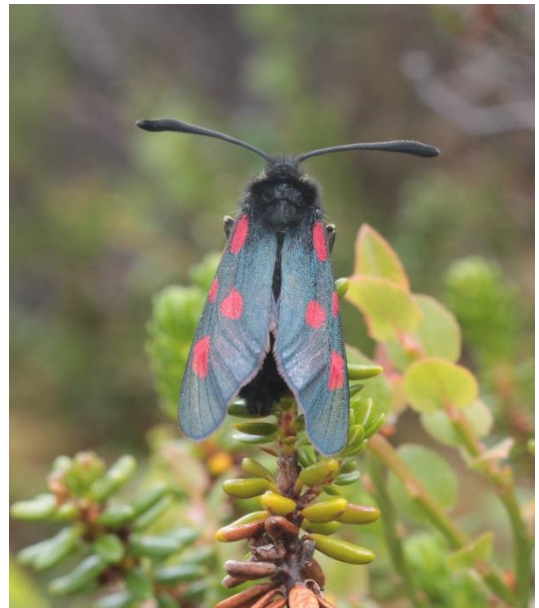
approaching a small number of Butterfly Conservation volunteers in the coming weeks to see if they would be willing to help develop this new approach to recording. For further information please visit the project [website](#).

Mountain Burnet survey 2020

Mountain Burnet (often referred to as Scotch Burnet), is the Dennis the Menace look alike of the high tops of the Cairngorms. This wonderful moth is restricted to just three 10 km squares, all centred around the village of Braemar on Deeside. Indeed, all the known colonies can be seen in one mountain vista.

Mountain Burnets are associated with their foodplant crowberry, growing on wind clipped moorland and the edges of bogs, at elevations of 600m and above. Incredibly, the caterpillars survive the cold and harsh winters, emerging again to bask in the spring on rocks. Later in the year, the adults begin to emerge from mid-June and are on the wing until mid-July. The females have distinctive yellow shoulder patches, making them look like an American football player. The adults fly in sunny conditions, zig zagging just above vegetation, on relatively warm days, although, as you can imagine, sunny days are not very common high in the mountains.

Mountain Burnet caterpillars can overwinter multiple times, a clever strategy to avoid the vagaries of a poor Scottish summer. This means that in good years they can appear in abundance, bringing life and a spot of colour to their mountain haunts.



Mountain Burnet (Patrick Cook)

Monitoring this species can be a challenge due to the location of sites and, particularly, the changeable weather. This year with the help of local volunteers, estates and partner organisations, we ran a test to monitor the species across the majority of known sites. This involved long walks into the hills and counting the number of burnets in a standard manner, similar to butterfly monitoring methods. The peak occurred early this year certainly before the end of June and while we were still under lockdown restrictions in Scotland. Despite this, we got a much better idea of what conditions the species flies in, which sites are feasible to monitor and timings of when to monitor the species too.



Mountain Burnet Habitat (Patrick Cook)

In 2021 our plans are to monitor a small selection of these sites on an annual basis to begin to understand how the population changes over time. Given the habitat and small-scale distribution, it is important to understand these population trends, particularly given the potential risk of climate change to the species. The more people to help the better as we will be able to collect better data to protect the future of this iconic species. If you're interested in taking part next year please contact Patrick Cook at pcook@butterfly-conservation.org.

Contributed by Patrick Cook, Ecologist, Butterfly Conservation



RIS light-trap in-situ (RIS)

Rothamsted Insect Survey volunteer identifiers

In the [May 2020](#) edition of E-moth, the Rothamsted Insect Survey (RIS) appealed for volunteers to help identify the moths caught in the RIS network of light-traps from around the UK. No one responded to this appeal, hence, a reminder that this opportunity is available for anyone who is interested in taking advantage of it. In order for RIS to be confident of continuing their work in the future there is an urgent need to recruit some fresh faces. If you are a confident and competent moth identifier, have time to spare and would be interested in joining the RIS team please contact Chris Shortall at chris.shortall@rothamsted.ac.uk for more information.

National Moth Recording Scheme contacts

General enquiries recording@butterfly-conservation.org 01929 400209

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Les Evans-Hill levans-hill@butterfly-conservation.org 01929 507015 @LesEvansHillBC

Zoë Randle zrandle@butterfly-conservation.org 01929 406006 @Moth_Lady



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