

# E-moth Update May 2021

It has been a relatively slow start to the season, catches are low due to the unseasonably chilly, frost producing nights. Despite this, there are some stunning looking moths around at the moment, albeit in fairly low numbers. My favourites, in no particular order are Brimstone Moth, Lunar Marbled Brown, Garden Carpet, Nut-tree Tussock, Great Prominent and Muslin Moth. The warmer summer nights are not far away and, all being well, our trap catches will be bountiful with striking species that we can show to our friends, families, and local communities to promote the wonders of these fabulous insects.



Brimstone Moth (Robert Thompson)

One of the most impressive moths to be encountered at this time of year is Emperor Moth. There are currently many reports of this breathtaking species from across the UK. The males can be seen zipping around heathland, moorland, fens, hedgerows, grasslands and woodland rides, seeking out receptive females that are resting amongst the vegetation. Female Emperor Moths are occasionally attracted to light traps, whereas the males are day flying. Emperor Moths are very fast fliers and the best way to catch more than a fleeting glimpse of one is to use pheromone lures to attract the males. Responsible use of pheromone lures is a great way to see and record Clearwing Moths too and further details about this activity and the species to target can be found later in this edition of E-moth.



Great Prominent (Les Evans-Hill)

## UK Moth Recorders' Meeting 2021

Our first ever virtual UK Moth Recorders' Meeting (UKMRM) was held via Zoom on Saturday 30<sup>th</sup> January 2021. The event was a great success and the technology worked seamlessly for us – such a relief! Over 375 people logged on to view the UKMRM live. The elimination of travel time and cost, due to the virtual nature of the UKMRM, enabled many people to attend for the first time. Butterfly Conservation's (BC) Chief Executive, Julie Williams, welcomed us all and paid tribute to the work of Mark Parsons, who left BC last summer. She also talked about importance of the moth recording community and thanked them for the valuable data that they collect which informs BC's conservation, research, policy and engagement activities. Zoë Randle provided an update on the National Moth Recording Scheme, Katie Cruickshanks brought us up to speed on BC's recording work and data flows. Richard Fox then presented the key findings from the State of Britain's Larger Moths 2021 report. Luke Phillips provided an inspiring pre-recorded video on his Dorset spring lock-down 2020 mothing highlights. The final talk of the morning was presented by David Wagner from the University of Connecticut who gave a superb, yet sobering talk about insect and moth declines at a global scale. The meeting was recorded so if you missed it on the day, or if you'd like to watch it again, you can watch it [here](#).

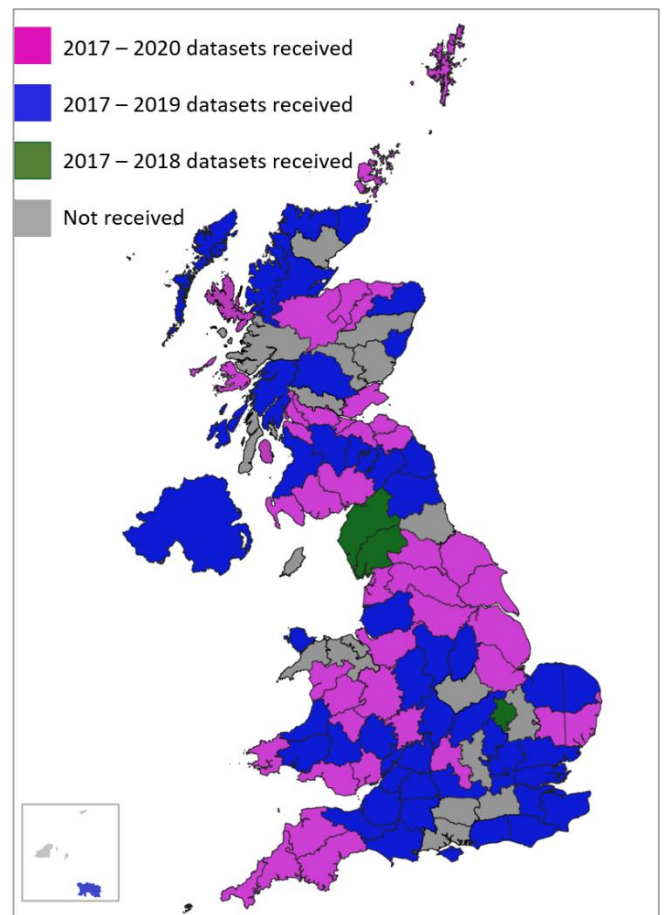


The date for the 2022 UK Moth Recorders' Meeting has been set for **Saturday 29<sup>th</sup> January**. Further details will be announced in due course.

## National Moth Recording Scheme Update

Importation of vice-county datasets into the National Moth Recording Scheme (NMRS) is continuing. Les Evans-Hill is working hard to process and import the datasets to get the NMRS up to date. Over the past year, a total of 4,391,019 verified macro-moth records have been received from 96 vice-counties, (see map right). As of 18 May 2021, the total number of macro-moth records held by the NMRS now stands at 29,659,674. This is a superb achievement, many thanks to the moth recording community and all the County Moth Recorders who have submitted their datasets so far. We are aware that the field season is rapidly approaching, and traditionally this detracts from data management work. If you are a County Recorder and haven't yet sent us your 2017–2019 or 2017–2020 dataset please do so as soon as possible, so that we can endeavour to catch up.

The NMRS holds 3.3 million micro-moth records and we have received 63 vice-county micro-moth datasets over the past year. These data will be processed and imported in to the NMRS as soon as possible, but our current focus and priority are the macro-moth datasets.



NMRS macro-moth dataset submission as of 18 May 2021

## State of Britain's Larger Moths Report 2021

After several months of intense input, and years of volunteer effort from the moth recording community who collect and submit their records *The State of Britain's Larger Moths Report 2021* was published at the end of February. The report, produced by Butterfly Conservation, Rothamsted Research and the UK Centre for Ecology & Hydrology, summarises the current knowledge of c.900 species of macro-moths. Millions of records from the Rothamsted Insect Survey (RIS) light-trap network and the National Moth Recording Scheme (NMRS) were analysed to produce long-term abundance and distribution trends. You can download the report [here](#).



The report shows some concerning results. For example, the overall abundance of larger-moths caught in the RIS light-traps has decreased by 33% over the 50-year study period (1968–2017). These losses were greater in the southern half of Britain where overall abundance was down by 39%. In the northern half of Britain, overall larger-moth abundance was down by 22%. This figure is particularly worrying as previous analyses over 35 and 40 years showed no overall decline for this region. In contrast to this, a multi-species indicator based on NMRS data showed that larger moth species in Britain increased their distribution by 9% on average from 1970–2016. These apparently contradictory patterns have also been seen in Finland and make the development of effective biodiversity crisis tackling policies very challenging.

Long-term (1968–2017) abundance trends were calculated for 427 species: 41% of species declined significantly, 10% of species increased significantly and the remainder 49% showed non-significant changes in abundance. Results from the long-term (1970–2016) distribution trend analyses show that 32% of species experienced significant distribution declines, 37% of species

showed significant increases and 31% of species had non-significant distribution trends. These summary results show that there is great variation in the fortunes of different species.

Multi-species distribution indicators were produced based on habitat preferences, woodland, grassland, moorland, and heathland. These showed that moths that breed in woodland, including species associated with open clearings and rides, increased in distribution significantly by 12% on average. Open grassland breeding species also increased significantly by 8% on average. However, moorland species significantly declined on average by 13% and heathland species showed no significant change.

The report details the suspected impact of climate change on species trends. Both Grey Mountain Carpet and Brindled Ochre are species that are adapted to cooler climates in northern and western Britain, these species have declined in distribution by 81% and 76% respectively. Climate change has also had a beneficial effect on many species and has been a contributory factor in northwards range expansions. Over the period of 1995—2016, 71% of the 487 larger moth species evaluated had spread north, at an average rate of 5km per year.

The total number of species (including micro-moths) that have gone extinct in Britain since 1900 is 51. This figure is lower than reported in previous assessments and this is due to the re-discovery of species that were considered to be extinct in Britain and the re-colonisation of others, e.g. Clifden Nonpareil. In contrast with this, since 1900, 137 moth species (including micro-moths) have become established. These arrivals have occurred naturally, through European range expansion due to climate change, whereas others have been accidentally imported through the horticultural trade.

Unlike previous State of Britain's Larger Moths reports, the latest one includes conservation case-studies which detail the varied approaches that have been successful in conserving Britain's moths. These include landscape-scale conservation for the Barberry Carpet and agri-environment scheme funding for the Black-veined Moth in Kent. The results of this work are heartening and provide valuable evidence that we can reverse the declines of our rare and threatened moths. However, further work is required to address the declines in widespread species, and this is where the challenge lies. This will require the creation, expansion and restoration of habitats that support wildlife, deliver ecosystem services and improve human wellbeing.

### **Supporting Science project**

We are excited to announce that we have been awarded funding from the National Lottery's Digital Skills for Heritage fund to run a Supporting Science project. The purpose of this two-year project is to increase the flow and quality of butterfly and moth records by nurturing public engagement (including from under-represented audiences) via a suite of improved and new digital tools, promotion, training, feedback and support for the County Recorder network.

County Moth Recorders are becoming over-burdened as a result of the growth in recording as well as getting concerned about succession planning. A County Recorder 'tool-kit' will be developed in collaboration with County Recorders which

will help improve local data management to enable the long-term sustainability of this vital network of local experts. Additionally, supporting the County Recorder network with advanced tools and skills will ensure that valuable records will be accessible and usable more quickly for conservation decisions, influencing land management policy and scientific research.



**Inviting new young people into the recording community (Megan Lowe)**

We will be continuing and expanding our iRecord training programme by working with the Field Studies Council (FSC), who have had great success in reaching minority groups for their BioLinks courses. The FSC will design a bespoke entry level 'Discovering iRecord' course (incorporating online training, assignments, live sessions and feedback), for 'new entrants' and novices which will take participants through everything that they need to know about biological recording of Lepidoptera in iRecord. Butterfly Conservation will encourage involvement of young people between the ages of 20-25 from as many backgrounds as possible to bolster budding scientific and conservation careers. We have the support of and will be working with the Black Environment Network, Black2Nature and A Focus on Nature (AFON). We are looking forward to working with these different groups and organisations.

The Supporting Science project also involves the redevelopment of the Garden Butterfly Survey website and provision of much more feedback and engagement with participants. This will enable people to take the next logical step from the Big Butterfly Count to go on to learn more about Lepidoptera. There is a growing body of evidence that shows that spending time in nature is beneficial to our well-being. The Garden Butterfly Survey will be promoted as a way of improving people's mental health. We will also be working with several community groups across the UK, who provide positive mental health services or opportunities, to encourage engagement in the project.

These are exciting times and this project will make a huge difference to, and enhance many people's lives, from new recorders from diverse backgrounds, existing recorders and last but not least the dedicated expert network of County Recorders. We hope that you are as enthusiastic as we are about this new project. We will be recruiting a Project Officer to lead on this ground-breaking work in the coming weeks.



The  
National Lottery  
Heritage Fund

Historic  
England



Department for  
Digital, Culture,  
Media & Sport



### **Update: DECIDE Project – 'square bashing' for the 21<sup>st</sup> century**

In the [previous](#) edition of E-moth we announced Butterfly Conservation's involvement in the DECIDE project, which in a nutshell is 'square bashing' for the 21<sup>st</sup> century. The purpose of DECIDE is to fill gaps in recording at national and local scales and generate records in places where they are needed most. This will be achieved by developing an online tool that will match gaps in species distribution data with recorders who may be willing to help.

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 more-informed decisions.

Over the past few months members of the DECIDE team have approached a small number of Butterfly Conservation volunteers to better appreciate people's motivations and the way that they record, so we can better support them in their recording. A wide range of 'types' of recorder have been interviewed from casual through to dedicated recorders, beginners to experts and local patch recorders through to roaming recorders. Additionally, a range of data end users have also been interviewed to understand how they use and interpret data, and what form of data would best meet their needs. This information will help inform the design of the tool that will provide recommendations for recorders so that the records they make can be used more effectively for biodiversity monitoring. Many thanks to all of you who have been involved in this process.

For further information please visit the DECIDE project [website](#).



### Forester moth volunteer effort in Northern Ireland (NI)

Conservation staff in NI recently held an online session focusing on the Forester moth, a species on the NI Priority Species List and BC's Conservation Strategy. Over the last decade, the only site at which the species has been regularly recorded is Peatlands Park, Co. Antrim, albeit survey efforts have been sporadic and limited. BC are hoping that with support from partner organisations and recorders, we can gather and update essential data on the distribution of the species.



Forester moth (Keith Tailby)

BC along with NI Moth Committee members believe that the places we are most likely to re-discover the species are across counties Fermanagh and Tyrone, in landscapes, or indeed pockets, where flower-rich grasslands persist.

In addition to records, we're keen to see some monitoring of the species so if you think you can help, please get in touch with the Senior Conservation Officer in NI, Rose Cremin, at [rcremin@butterfly-conservation.org](mailto:rcremin@butterfly-conservation.org)

### Moth Night 2021

Moth Night, the annual celebration of moths and moth recording, organised by Atropos, Butterfly Conservation and the UK Centre for Ecology & Hydrology, takes place on the nights and days of **8th - 10th July** this year. The theme for this year's event is Reedbeds and Wetlands, which are important habitats for many moth species that are on the wing at this time of year. These include scarce moths such as Reed Leopard, Dotted Footman, Fenn's Wainscot and White-mantled Wainscot, as well as many widespread species including moths that can be found during the day such as Scarlet Tiger and Beautiful China-mark.



Beautiful China-mark (Iain H Leach)

Moth Night provides the perfect opportunity and excuse to venture out somewhere new and different to go mothing. However, as always, you don't have to follow the suggested wetland theme and can take part in Moth Night in any way you wish - simply go out, record moths and enjoy yourself. For further details about Moth Night and how to submit records please visit [www.mothnight.info](http://www.mothnight.info)

We are hoping that coronavirus restrictions will have eased sufficiently across the UK to allow public events to be organised for Moth Night 2021. If you do organise a public event, please promote it through the Moth Night website by submitting the details [here](#)

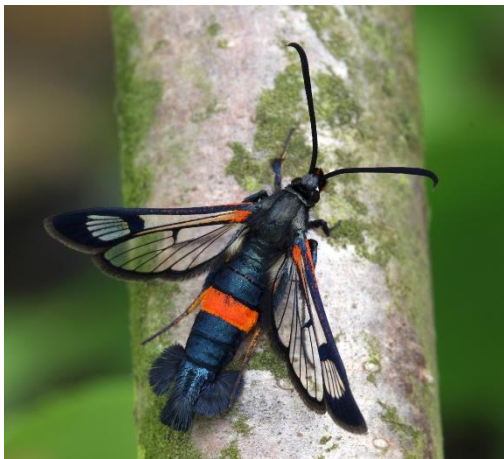
### Scarce clearwing moths – a plea for help

In 2020 Butterfly Conservation re-evaluated the conservation and threat status of the UK’s macro-moths, based on records in the National Moth Recording Scheme (NMRS) and population trend analysis carried out for the [Atlas of Britain and Ireland’s Larger Moths](#). This was the first time in many years that our priorities had been reassessed and will enable us to ensure we are targeting our efforts at the species most in need of our help.

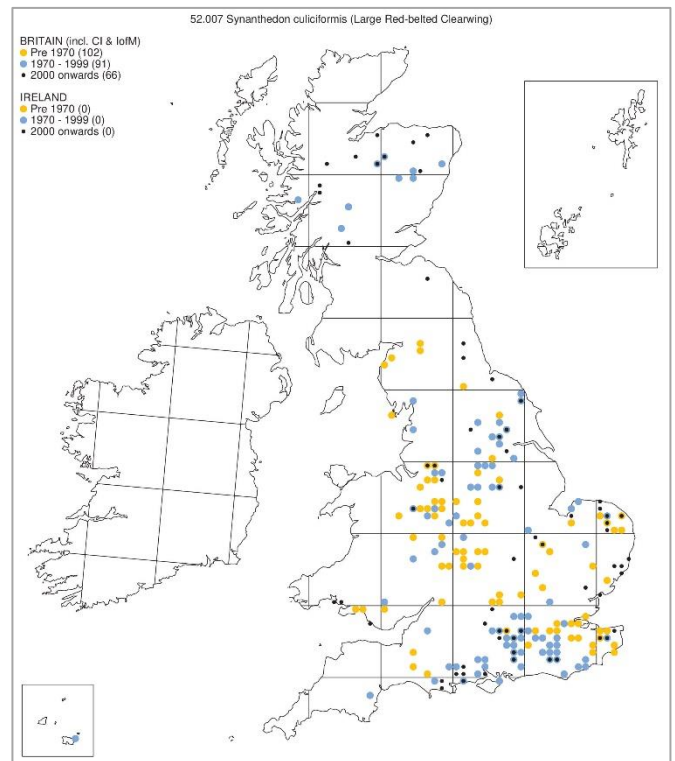
Several species were given High Priority conservation status for the first time, based on data that showed significant declines since 2000. Three of these are clearwing species: Large Red-belted, White-barred and Sallow Clearwing. A quick glance at the Atlas map for each of these species sets alarm bells ringing – all three have fewer recorded 10km squares post-2000 than historically, even though moth recording has increased rapidly since 2000 and artificial pheromone lures have been developed to make the recording of clearwings easier.

There may, however, be an element of under-recording which makes these maps look worse than the true picture. The vast majority of records in the NMRS come from light traps, which are of no value in recording diurnal clearwings. It is likely that not all of the pre-2000 10km squares shown in the Atlas for these species will have been targeted with pheromone lures. We would therefore like to encourage you to get your pheromone lures out and to target these species in the late spring and summer of 2021. The first thing to do is contact your County Moth Recorder to find out the latest information in your local area – there will be some new records of these clearwings since the Atlas recording period ended in 2016. If you don’t already own a set of lures, you can arm yourself with these (usually at short notice) by ordering from Anglian Lepidopterist Supplies, whose website also provides tips on using lures and guidance on their responsible use (<https://www.angleps.com/pheromones.php>).

Large Red-belted Clearwing is generally the first to emerge, flying from late April through to early July with a peak in May and June. In Scotland the season will be later than in southern England and Wales. It inhabits open woodlands, heaths, moors and bogs where birch is present, and favours cut stumps for breeding.

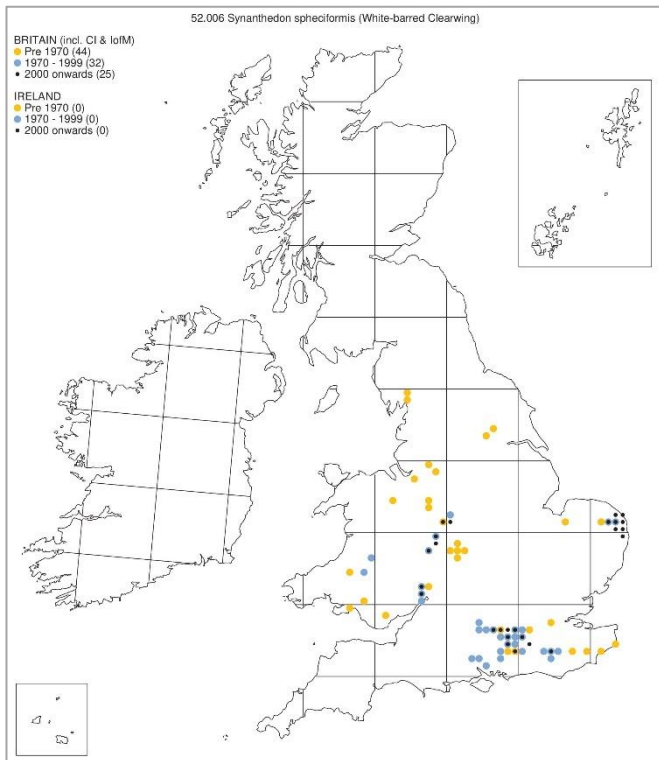


Large Red-belted Clearwing (Keith Tailby)



Large Red-belted Clearwing distribution map at 10km resolution up to end 2016. Reproduced from the Atlas of Britain and Ireland’s Larger Moths

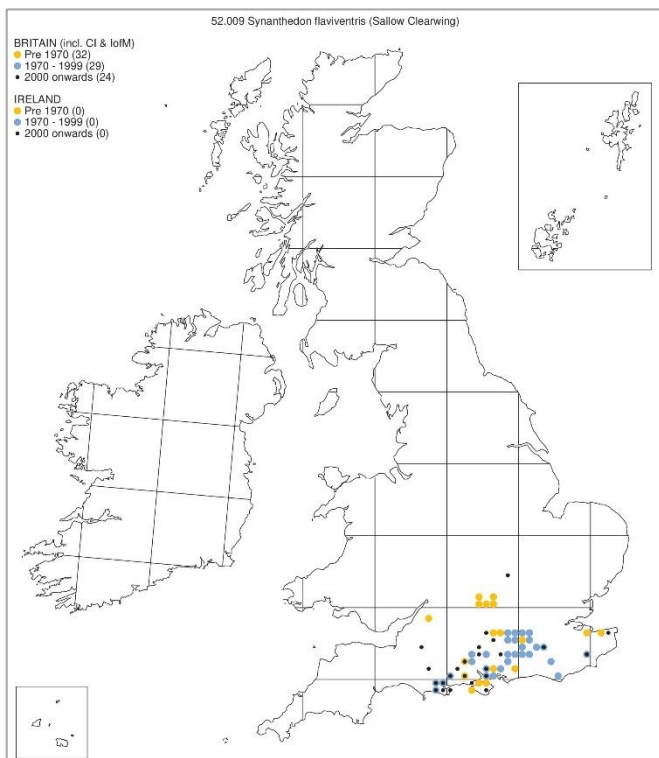
White-barred Clearwing is primarily a June species, though it begins to emerge in late May. Its larvae feed on birch in similar habitats to Large-Red-belted Clearwing, and also on Alder in wetlands and on streambanks. It appears to have declined markedly in distribution with recent records confined to the Norfolk Broads, the Thames basin and the Welsh borders/West Midlands.



White-barred Clearwing (Keith Tailby)

Sallow Clearwing is the most restricted of the three, being confined to central southern and south-east England. Larvae feed on sallows (Grey and Goat Willow) growing in damp, open situations, such as on bogs and wet heaths. It is the latest flying of the three target species, being on the wing during June and especially July. It has a two-year lifecycle with the adults mainly appearing in even-numbered years, so it might be better to wait until 2022 to target this one!

White-barred Clearwing distribution map at 10km resolution up to end 2016. Reproduced from the Atlas of Britain and Ireland's Larger Moths



Sallow Clearwing (Keith Tailby)

If you do any targeted recording of these species, we will be very interested to hear how you get on, and please remember to submit your records to the NMRS via your County Recorder.

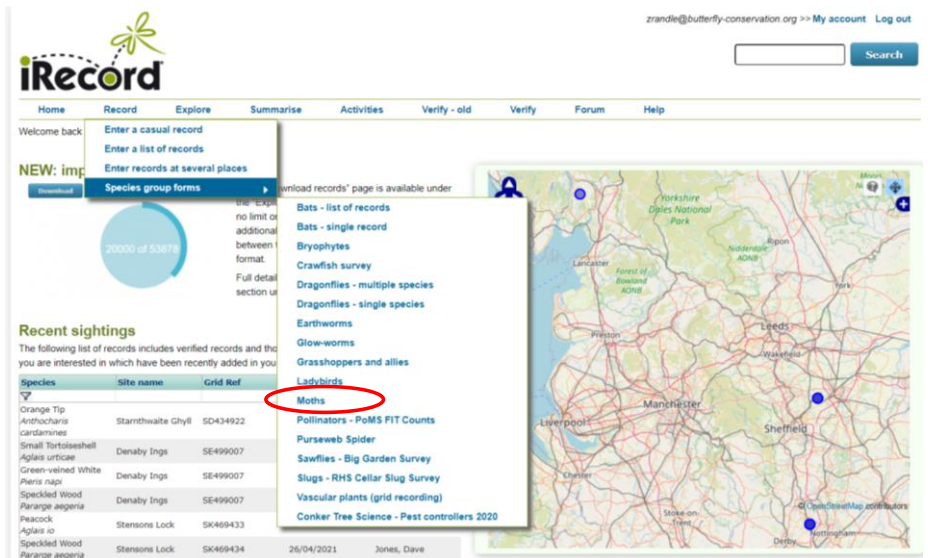
By [George Tordoff](#) & Tony Davis, Senior Ecologists

Sallow Clearwing distribution map at 10km resolution up to end 2016. Reproduced from the Atlas of Britain and Ireland's Larger Moths

## iRecord and best practice

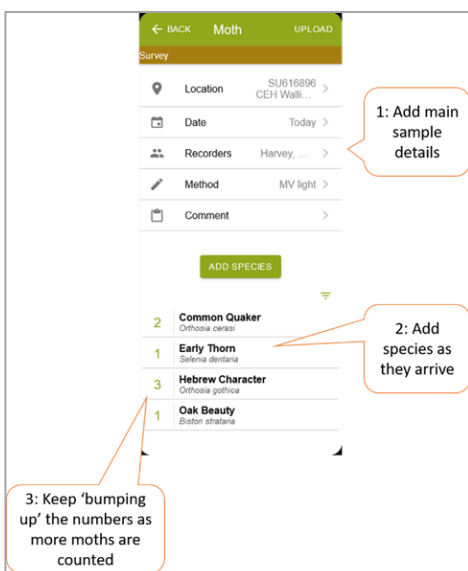
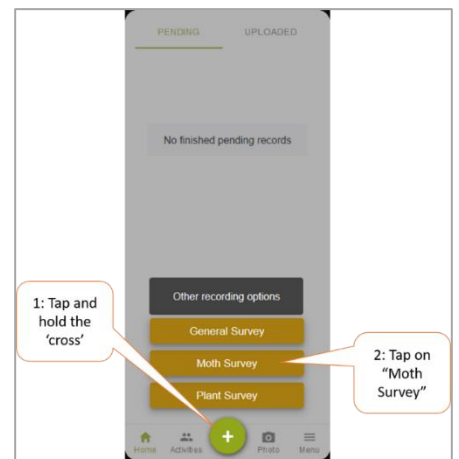
More and more recorders are turning to iRecord as a way to submit and store their biological records. This has many benefits to recorders, County Recorders and Butterfly Conservation alike, but also raises issues and challenges. One problem for moth recording is that the general iRecord data entry form doesn't differentiate between the relevant non-adult life stages, there are only two options: adult and sub-adult, which creates problems for County Moth Recorders and data users. To overcome this problem we recommend and promote the use of iRecord's dedicated [moth recording form](#). This form has the option to record relevant and informative life stages of moths: egg, egg batch, pupa, mine, larval case, larval web, larva and adult and can be used to record either a single species or a list of species.

It is easy to locate the moth recording form on the iRecord website, simply login, navigate to Record, then to species group forms in the drop down list and choose Moths – the screen shot (right) shows the path to find the moth form.



The main iRecord smart phone app has had some new features added, including an option for moth recording. On the home page of the iRecord app, tap and hold the plus '+' symbol, then select "Moth survey". You can enter a single species record or a list of species. This method includes the option of selecting a recording/sampling method.

You can enter a single species record from the home page just by tapping the '+' symbol; however, **we do not recommend you use this for entering a single moth record as this form doesn't include the option of choosing a recording/sampling method.**



Next, add all the main sample details: location, date, recorder, method. You can then add each new species as it arrives (or as you find it in the trap), initially with a count of "1". As you count further individuals of the same species you can simply tap on the number to 'bump it up' to 2, 3, 4 etc.

We hope this 'best practice' note will go some way in improving the quality of records that County Moth Recorders receive from iRecord.



## Endangered Kent moths set to be celebrated in new, three-year project

It's exciting times for Kent as the UK's first large-scale moth conservation project has just been launched. Kent's Magnificent Moths (KMM) will delve into celebrating and conserving the colourful and fascinating moths throughout East Kent, including some of the UK's rarest and most threatened moth species. This three-year project will lead to a long-term and sustained boost to wildlife conservation. Studies have found the overall number of moths has decreased in southern Britain by 39% since 1968.

This project aims to target a wide array of moths but will use eight of the most fascinating, spectacular, and threatened Section 41 moths, across six important and diverse landscapes to stimulate initial interest. The conservation plan will cover a variety of important priority habitats - grassland, woodland, cliffs, shingle, and marsh.

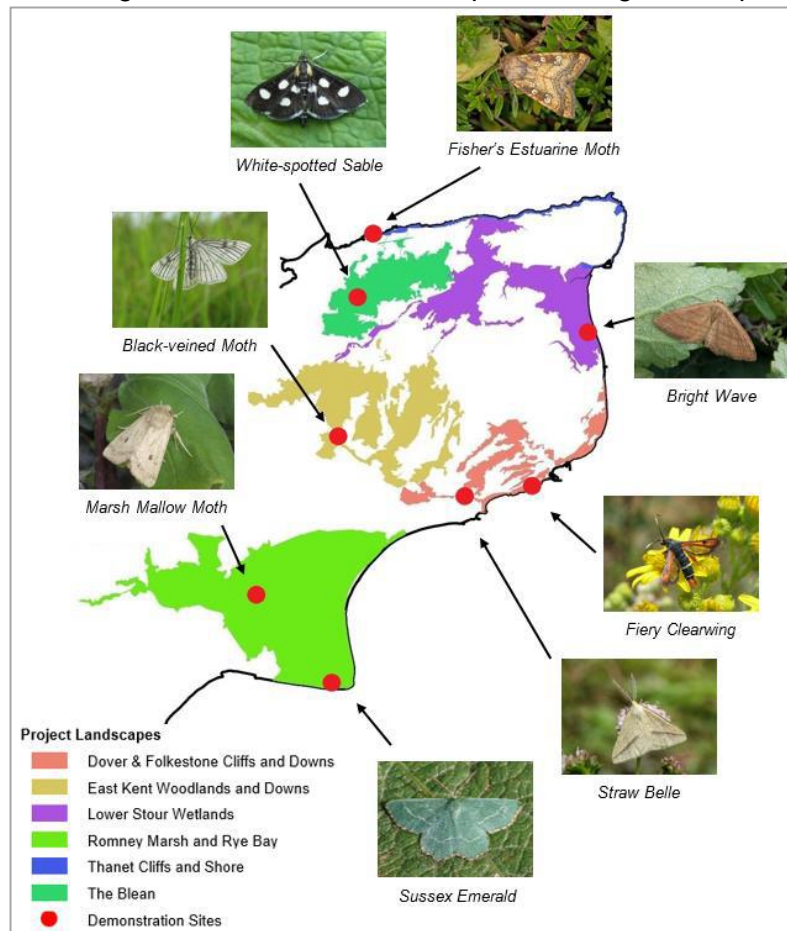
By the completion of Kent's Magnificent Moth project, the team anticipates that threatened species and landscapes across South East England will be better, more sympathetically and more sustainably managed, and will be appreciated and enjoyed by many more people.

Through workshops and bespoke tailored advice, land managers and conservation groups will be better informed, equipped and experienced to manage and effectively help deliver conservation benefits for a wide range of rare and threatened species. Fragmented patches of existing suitable habitat will be joined

up by providing targeted management for the priority species but at a landscape scale. For five of the priority species this will involve increasing their larval foodplant's distribution, for the other three, more sensitive cutting/grazing management is required.

We aim to engage with the wider public of East Kent to ensure they gain a greater appreciation and understanding of the unique fauna of their county and in their local area. One of our main goals is to expand our community engagement work into social groups not previously reached, for example mental health referral groups and youth projects. KMM will focus on regular and long-term engagement with the same individuals, to offer a more meaningful, deeper, and hopefully a longer-lasting impact.

Ambitiously, the KMM team hope to involve many more people in wildlife conservation activities, both practical management and surveys and monitoring for priority species. The increase in active volunteer groups will help produce a greater more detailed understanding of wildlife distribution, threats and change



Map showing the priority landscapes for Kent's Magnificent Moths

over the coming decades, and helping local and national organisations to make the right decisions to help our environment.

KMM will provide training and resources to offer an accessible gateway to raise people's awareness and enjoyment and help them get outside and active in their local environment.

The involvement of people is critical if we are to achieve these aims, and we strive to encourage the public's enjoyment of these species. Please let us know if you would like to get involved with the amazing conservation work happening in East Kent by emailing: [epestridge@butterfly-conservation.org](mailto:epestridge@butterfly-conservation.org).

## Magnificent Moths Under the Microscope

The first of Kent's Magnificent Moth's priority species that we are going to highlight to E-moth readers is the White-spotted Sable.

This moth is a striking, day-flying moth that will fly predominantly in sunny weather and appears to have a peculiar spinning motion when in flight.

Adults are seen in May, June and into July. The caterpillar feeds from July until autumn on the leaves and flowers of the foodplant, Goldenrod, inhabiting a slight silken web under the lower leaves. Goldenrod requires an open sward for seed germination and does not persist in tall herb communities but is often found in association with bare or sparsely vegetated ground.



White-spotted Sable (Pete Withers)

We chose this particular moth as it represents a range of priority moths and other species that feed upon Goldenrod and, as such, can be considered a flagship species. Around 40 species of moth have been reported as feeding on Goldenrod. Nine species feed solely or almost entirely on Goldenrod, with species eating different parts of the plant. Goldenrod is declining in lowland Britain, probably more so in woodland and scrubby areas where it disappears as conditions become too shady. One species of moth associated with Goldenrod, the Cudweed, is already now extinct in the UK, being last recorded in 1979 from the Kent/Sussex border.

By Rebecca Levey, Conservation Officer & Emma Petridge, Engagement Officer, Kent's Magnificent Moths

## West Midlands Moth Atlas

At the same time as the Moths of the West Midlands book was being mooted, Peter Seal (then Chairman of BC West Midlands) was keen to showcase moths in our area more. He felt that butterflies took too much of the centre stage. Initial discussions were held, then a more formal meeting, with attending county moth recorders, at the Wildlife Trust office at the Wolseley Centre in Staffordshire back in 2018. This was with the IT specialist Craig Slawson, who had developed an on-line mapping website for Staffordshire. The idea was to incorporate all of the West Midlands counties as one and yet have the ability to look at individual counties too. After a further follow up meeting Craig started work on the project when time allowed in between his regular work. Four counties opted in.

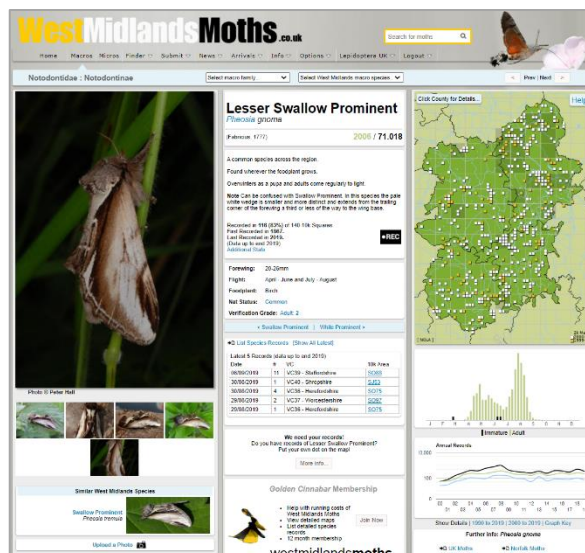
Year	Records	Species	Recorders	Sites
2018	66610	1304	457	2151
2019	60563	1299	439	2263

Screenshot of West Midlands Moths website home page

Work was just about completed on the project and the next stage was to populate the West Midlands Butterfly Conservation website with a link to the new atlas, when very sadly Craig died, and all the work went with him. This was in early 2020, so almost 2 years after work started on it. So, we had to start again. We contacted Jim Wheeler who I know very well through the development and management of the Moth Dissection website, and he agreed to produce an atlas for a fixed fee and said any upkeep

costs would be paid for by Golden Cinnabar membership of the website. He modelled it on the Norfolk Moths website and the similarities are very apparent, although the [West Midlands Moth Atlas](#) has a lot of subtle differences. We decided early on that we didn't want the site to include data entry facilities and it was to be a purely mapping and existing records facility. The basics were up and ready in very early January 2021 and the team started to populate the species with photos and background information. This took quite a while to complete and will be tweaked for some time to come I'm sure.

However, we were very keen that this website offers recorders a chance to see their records incorporated with everyone else's. Up until now, records get submitted and the recorders see very little back for their efforts. Now they can see the bigger picture and also, we have allowed them to upload photos onto the site to help with identifications and also make the recorders feel more involved in the grand scheme of things. We are, after all, simply displaying their records.



Screenshot of species page

The current dataset includes all records for micro and macro moths up to the end of 2019. Originally we planned to include 2020 for the launch, but this would have delayed things too much and now the plan is to update the website with 2020 records when they are all ready and from that point perform an annual update to keep the website current. The system is simple, records verified and submitted to the NMRS from the CMRs get repatriated to provide the mapping.

If you look over the website, the layout is pretty clear and obvious. Becoming a member allows better access to maps and the data within, although we have been very careful to protect peoples' privacy.

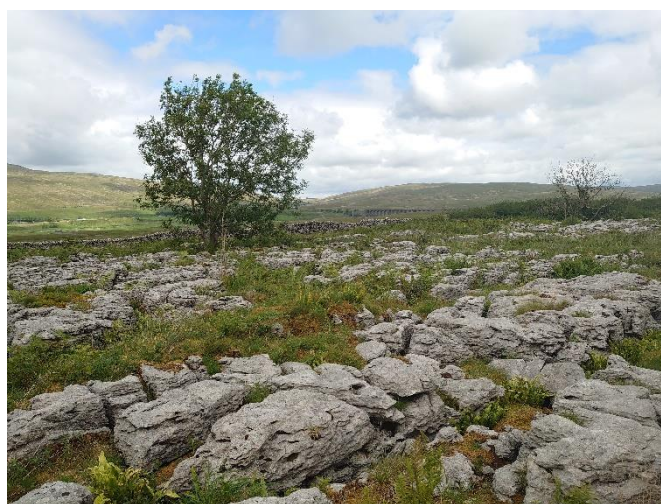
The website has a huge number of weblinks to all sorts of information and websites and if you are a member you can click on a record dot and pull up the records data for that area. We have carefully minimised how much detail you can see for a number of reasons, which means very few sensitive species have been obscured and peoples' privacy respected.

By Peter Hall, Herefordshire County Moth Recorder

## Limestone Lepidoptera

The Limestone Lepidoptera Project based across the Yorkshire Dales National Park, aims to raise awareness and surveying and monitoring of eight target species with the help of volunteers. These species are all listed as high priority in Butterfly Conservation's Regional Strategy and include the following moths; Barred Tooth-striped, Chestnut-coloured Carpet, Forester, Heath Rivulet, Least Minor and Yellow-ringed Carpet.

All data gathered will be mapped and shared with project partners and land managers to aid in delivering management advice to landowners whose holdings host the most important populations of these species.



Scar Close limestone pavement (Kay Andrews)

A range of training workshops on these species will be taking place throughout this year either online or in person, keep an eye out on the [Yorkshire Branch website](#) for details: you can also learn more about the project and see project updates [here](#).



Preparation of Wild Privet cuttings for growing on and planting out

As a side project myself and volunteers have been carrying out cultivation of Wild Privet (*Ligustrum vulgare*) for the Barred Tooth-striped moth. Barred Tooth-striped larvae largely feed on young Ash trees except for two locations in the Yorkshire Dales where the species also feeds on Wild Privet. Due to the potential impact of Ash Dieback (*Chalara*) on this species, it was identified as a priority for the Limestone Lepidoptera Project to research and have a go at cultivating Wild Privet. They will be planted across the Yorkshire Dales where Barred Tooth-striped are found to be present. Results will be shared with land managers across the country to aid in the conservation of this species. Two-hundred cuttings have been taken and seedlings are currently being looked after by volunteers, once the plants get to repotting stage, we will be needing more space/volunteers to care for the plants. If you have a space in your garden and would like to be involved in hosting some plants, please get in touch.

Should you wish to get involved in the project by surveying for these species please contact Project Officer Kay Andrews at: [kandrews@butterfly-conservation.org](mailto:kandrews@butterfly-conservation.org).

By Kay Andrews, Limestone Lepidoptera Project Officer

### **Sloe Carpet: The challenge of monitoring and conserving a very elusive moth**

This spring has seen a drive to encourage Sloe Carpet searches in South East England. Sloe Carpet is a Section 41 (former UKBAP) species and is included in Butterfly Conservation's UK Conservation Strategy as one of the priority species for conservation action.

At least 33 searches involving 19 people were undertaken across 6 different vice-counties in southern and eastern England. The searches focussed on landscapes where the moth has previously been recorded and specifically at sites with an abundance of wild, unmanaged Blackthorn.

As a result, Sloe Carpet was recorded at four sites already known to support the moth. It was not found at any of the additional search sites or former sites. Former sites included two sites in Sussex where the moth was resident at the start of the 20<sup>th</sup> century and one site on the Isle of Wight where Sloe Carpet was regularly recorded in the 1950's.



Sloe Carpet (David G. Green)

At the RSPB's Old Hall Marshes (a known stronghold site in Essex) seven Sloe Carpet moths were netted. None entered the eight light traps that were also running. In West Sussex, a Sloe Carpet was netted and released but then did not enter an adjacent light trap that was left running all night.

Two were recorded at the Knepp Estate in West Sussex where a large re-wilding project is taking place. However, the moth was also recorded here in 1995, before the re-wilding project began. Interestingly, there has not yet been an explosion in Sloe Carpet numbers on the estate to match the massive increase in unmanaged Blackthorn.



**Blackthorn at RSPB's Old Hall Marshes (Sharon Hearle)**

Waring & Townsend (2003) suggest Sloe Carpet is "probably under-recorded" and this would seem to be a reasonable assumption, given spatial and temporal irregularity in sightings. The early flight season of Sloe Carpet (late March through April) could be contributing to the relatively low number of records. Fewer recorders might be active during these cool months. However, results from all the search effort this spring does not provide any evidence to support such an assumption.



**Dusking for Sloe Carpet (Dave Green)**

Another survey issue is that Sloe Carpet is only weakly attracted to light. Our surveys this year seem to confirm this. Dusking with a torch and net has been found to be just as effective and productive, if not more so. This does therefore put greater emphasis on active, targeted survey, rather than more passive light trapping.

Sloe Carpet exemplifies the challenge of monitoring and conserving a highly localised species that feeds on an extremely common and widespread plant – in this case, Blackthorn. Similar challenges exist in the south-east with Heart Moth (which feeds on Oak) and Silvery Arches (which feeds on young Birch). Progressing our understanding and conservation effectiveness could be achieved by undertaking research at the known sites. The Knepp Rewilding Project could also provide an interesting test case in the study of the population in response to changes in the landscape and foodplant.

Sloe Carpet searches will continue in the hope that we can gather more useful information about the status and requirements of this elusive moth.

Thank you to the volunteers that ventured out to look for the moth and gather these valuable observations: Michael Blencowe, David Bridges, Peter Cuss, Jim & Ben Dale, Tracy Dove, Graham Ekins, Dave & Penny Green, Colin Hart, Graeme Hawker, Dougal Urquhart, Paul Wheeler and Chris Wilkinson.

By Steve Wheatley, Regional Conservation Manager, South East England

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