

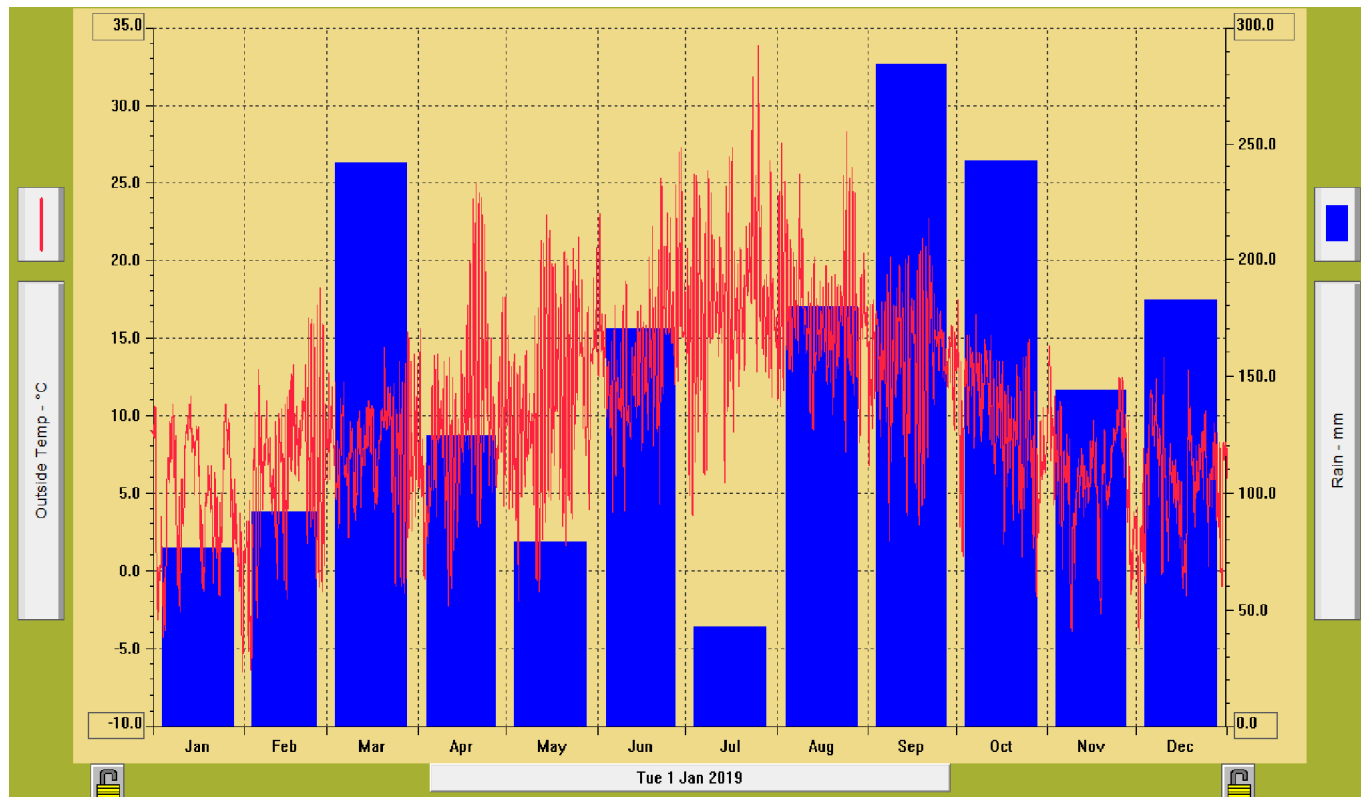
# Mothing in Montgomeryshire – 2019 Annual Report

## Weather Conditions and the Mothing Year

The weather conditions play a big part where mothing is concerned, so below I have given a rundown of our temperature and rainfall in Montgomeryshire throughout the year. Readings were taken at Commins Coch (in the west of the county) and may not fully represent the county as a whole.

As can be seen in the graphic below, the months of March, September and October were very wet indeed with each of these months giving us more than 200mm of rain, (200mm in old money is about 8 inches) and September was the wettest month with 282.2mm, so this may well have affected the numbers of some of our moth species which emerge during these months (if not the moths, then it probably stopped a lot of us from doing normal trapping). The other nine moths of the year gave us more or less the average amount of rainfall apart from July which was quite dry with only 42.9mm, which is less than half the normal amount for that month.

Once again, like 2018, it wasn't a particularly cold year, with the coldest night time temperature falling to -6.4 on Jan 31<sup>st</sup>, in fact the temperature only dipped below freezing on 56 days of the year, which again (as 2018) is a quite low figure. There one small heat wave from the 23<sup>rd</sup> to the 25<sup>th</sup> of July where the temperature peaked on the 25<sup>th</sup> at 33.8c. which is actually the hottest day I've recorded at Commins Coch since we moved there in 2003, during this spell I'm sure our moth traps were very busy indeed. I should also mention the incredible warm spell we had during the second half of February where the temperature peaked at 18.2 on the 26<sup>th</sup>. This also was the warmest daytime temperature recorded in February since 2003. In fact, the top six all time warmest February temperatures were all recorded in 2019.



Red trace denotes temperature in C. Blue columns denote monthly rainfall.

Main points of particular interest of the weather year were: -

Hottest day – July 25<sup>th</sup> – the temp. reached 33.8c – the hottest day since 2003.

Coldest night – January 31<sup>st</sup>. – the temp dipped to -6.4c, the coldest night of the year.

Highest mean temperature (daily) – July 23<sup>rd</sup>. with 22.6c.

Coldest mean temperature (daily) – January 31<sup>st</sup>. with -1.8c.

Highest mean temperature (month) was July with 17.0c.  
 Coldest mean temperature (month) was January with 4.3c.  
 Wettest day – April 27th. - the wettest day of the year with 50.00mm.  
 Wettest month – September had the wettest month with 284.2mm.  
 In general, the yearly rainfall of 1862.3mm was well above the normal yearly average.  
 Driest month - July had the driest month with 42.9mm.  
 The mean temperature for the year was 10.0c, slightly above average.  
 July 25<sup>th</sup> - was the hottest day I've recorded since 2003 – the temp. reached 33.8c.

The chart below shows the temperature and rainfall extremes for each month at Commins Coch.

| Month | High temp. | Date | Low temp. | Date | Mean temp. month | Max. daily rain in mm | Date | Monthly rain in mm |
|-------|------------|------|-----------|------|------------------|-----------------------|------|--------------------|
| Jan   | 11.3       | 13   | -6.4      | 31   | 4.3              | 13.0                  | 26   | 76.7               |
| Feb   | 18.2       | 26   | -6.3      | 3    | 6.2              | 16.3                  | 10   | 92.5               |
| Mar   | 15.4       | 28   | -1.4      | 27   | 7.7              | 40.9                  | 14   | 241.6              |
| Apr   | 24.9       | 24   | -2.2      | 11   | 9.3              | 50.0                  | 27   | 124.7              |
| May   | 22.9       | 14   | -1.9      | 5    | 11.1             | 15.0                  | 26   | 79.5               |
| Jun   | 27.3       | 29   | 3.8       | 6    | 13.9             | 23.9                  | 23   | 170.4              |
| Jul   | 33.8       | 25   | 3.6       | 3    | 17.0             | 11.2                  | 30   | 42.9               |
| Aug   | 28.3       | 24   | 7.7       | 24   | 16.3             | 28.2                  | 14   | 179.8              |
| Sep   | 22.7       | 21   | 2.0       | 8    | 13.3             | 47.5                  | 28   | 284.2              |
| Oct   | 17.5       | 1    | -1.6      | 28   | 9.3              | 35.6                  | 25   | 242.3              |
| Nov   | 14.5       | 1    | -3.8      | 9    | 6.1              | 15.2                  | 2    | 144.5              |
| Dec   | 13.7       | 10   | -4.6      | 2    | 5.6              | 24.9                  | 12   | 183.1              |

## The Moths - New Species Recorded in Montgomeryshire During 2019

There weren't any new macro species, but we did manage to get eight new micro species recorded in the county during 2019.

### Details of new micro species recorded

0073 *Stigmella trimaculella* - Vacated leaf mines found on black poplar near Llanfyllin (DHB).01/09/19

0159 *Antispila treitschkiella* - mines on dogwood found at Llanymynech Rocks (MGB & AMB) represent the first record for north Wales.01/08/19



0185 *Luffia ferchaultella* - many larval cases of this bagworm species were found feeding on lichens growing on a dead larch at Middletown (CBo). This moth is remarkable as the male has not been observed and the females reproduce by parthenogenesis. 15/07/19



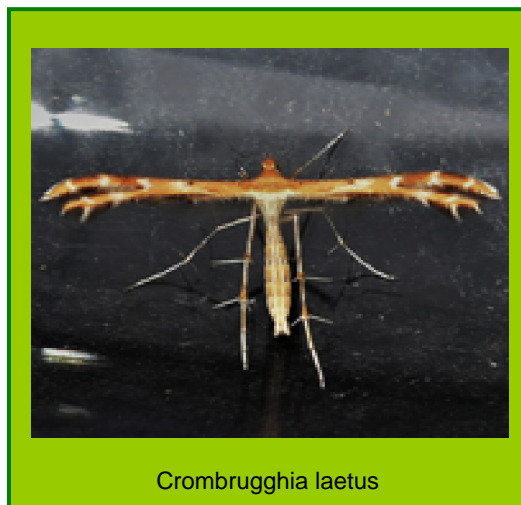
0280 *Caloptilia cuculipennella* - leaf mines found on ash leaves at Llanymynech Rocks (MGB & AMB). A 'national scarce A' species and the fourth record for north Wales. The larval feeding signs resemble those of *C. syringella* 28/07/19

0592 *Stephensia brunnichella* - leaf mine found on wild basil at Llanymynech Rocks (MGB & AMB). This is the first time this scarce species has been recorded in north Wales. 28/07/19.

1368 *Loxostege sticticalis* - This migrant species was formerly very rare but seems to be becoming more frequent. Came to light at Middletown (DHB). 03/08/19

1276 *Dichrorampha plumbagana* - Found by day at Llanymynech Rocks (ANG & JEG) and confirmed by dissection. An uncommon species in north Wales, favouring rough grassy habitats. 10/05/19

1492 *Crombrughia laetus* - This uncommon migrant species was recorded by day at Llanymynech Rocks (PRW et al.) during an MMG event (see event report [here](#)). A second individual came to light at Commins Coch in late July (PRW). 06/07/19



#### Other notable micro species recorded during the year

0116 *Stigmella lapponica* First county record since 2007; probably much over-looked. Vacated mine on birch recorded during daytime MMG event at Wern Claypits 31/08/19.

0125 *Coptotriche marginea* 1 from Pentre Llifor (TimW) 12/09/2019.

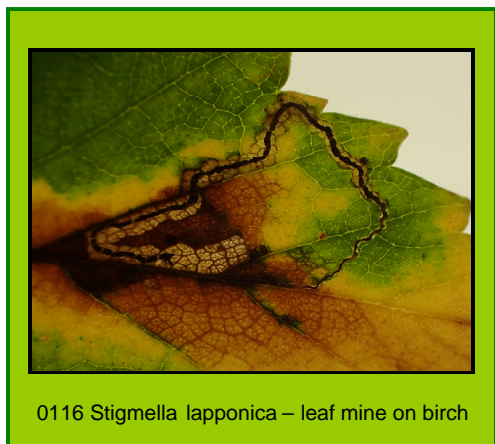
0478 *Phaulernis fulvigguttella* Seen by day at Lake Vyrnwy (GBC). The first county record since the 1960s. 12/08/19.

0965 *Cochylis hybridella* 1 to light, Middletown (DHB) 03/08/2019.

0991 *Clepsis senecionana* daytime observation, Llanymynech Rocks (CBo) 24/04/2019.

1014 *Isotrias rectifasciana* 1 to light Guilsfield (SOS) 24/05/2019.

1035 *Acleris bergmanniana* one to light from Guilsfield (SOS) 24/06/2019.  
 1108 *Lobesia abscisana* 1 to light Middletown (DHB) 03/08/2019.  
 1284 *Dichrorampha vancouverana* adult seen at Powis Castle (DRS) 07/2019.  
 1384 *Anania stachydalis* one to light Commins Coch (PRW) 09/07/2019.  
 1424 *Endotricha flammealis* 3 records to light, 2 from Derwenlas (AT) 24/07/2019 & 25/07/19 & 1 from an MMG event at Cors Dyfi 03/08/2019.



0116 *Stigmella lapponica* – leaf mine on birch



1276 *Dichrorampha plumbagana*

#### Notable macro species recorded during the year

0376 Welsh Clearwing 2 records from Lake Vyrnwy (GBC) 12/07/2019 & 16/07/19.  
 0382 Six-belted Clearwing 3 records; Llanymynech Rocks, 8 recorded (CSB) 18/07/2019; Llanymynech Rocks (CSB, PR & SOS) 18/07/2019 & Llanymynech Rocks (PR) 20/07/2019.  
 1633 Small Eggar 4 Larval nests at a daytime MMG event, Llanymynech Rocks 06/07/2019.  
 1634 Lackey 2 records to light, both from Derwenlas (AT) 02/07/19 & 03/07/2019.  
 1661 Orange Underwing daytime observation, Lyn Coed y Dinas (CBo) 23/03/2019.  
 1667 Blotched Emerald 2 came to light at Middletown (CBo) 28/06/2019.  
 1716 Vestal 2 records, both from light; 1 from Middletown (CBo) 28/06/2019 & 1 from Guilsfield (SOS) 02/09/2019.  
 1753s1 Striped Twin-spot Carpet 1 to light, Derwenlas (AT) 16/08/2019.  
 1771 Juniper Carpet 2 came to light Turnstone (CSB) 20/10/2019.  
 1807 Grass Rivulet 1 to light from Llwynderw Farm (RB) 13/07/2019.  
 1821 Valerian Pug 4 records, all from Commins Coch (PRW) 29/05/2019, 31/05/10, 01/06/19 & 28/06/19.  
 1859 Sloe Pug 3 records, all from Commins Coch (PRW) 29/06/2019, 30/06/19 & 15/07/19.  
 1873 Welsh Wave 2 records, both from Commins Coch (PRW) 22/06/2019 & 08/07/19.  
 1942 Dotted Carpet three records all to light; 2 at Llanwddyn (GBC) 31/07/2019 & 05/08/19; & 1 from an MMG event on the 03/08/19.  
 1870 Chimney Sweeper 2 daytime records; 1 from Aberbechan (JP & MTT) 28/06/2019; & 1 from Corndon North (TS) 29/06/2019.  
 2031 White Satin Moth, 1 to light, Meifod (IM) 14/07/2019.  
 2051 Four-spotted footman, one to light Bryntyrnol (BJP) 11/07/2019.  
 2114 Double Dart 3 records all to light; 1 from Glandernol (LW) 30/06/2019; 1 from Llwynderw Farm (RB) 09/07/2019; & 1 from Commins Coch (PRW) 26/06/2019.  
 2115 Rosy Marsh Moth 1 to light at an MMG event, Cors Dyfi 03/08/2019.  
 2129 Ashworth's Rustic one to light Lake Vyrnwy (GBC) 13/07/2019.  
 2132 Neglected Rustic 1 to light, Llwynderw Farm (RB) 25/08/2019.  
 2156 Beautiful Brocade one to light Glandernol (LW) 26/07/2019.  
 2183 Blossom Underwing three records, all to light, Commins Coch (PRW) 01/04/2019, 07/04/19 & 22/04/19.  
 2299 Mouse Moth 1 to light, Middletown, (DHB) 03/08/2019.  
 2301 Bird's Wing 1 to light, Rhoslan (SS) 03/06/2019.  
 2341 Cloaked Minor 1 to light at an MMG event Cors Dyfi 03/08/2019.  
 2373 Webb's Wainscot 1 record from an MMG even at Cors Dyfi 03/08/2019.  
 2463 Burnet Companion 1 to light at Aberbechan (JP & MTT) 25/05/2019.

2367 Haworth's Minor 1 to light from Lake Vyrnwy (GBC) 12/08/2019.  
2368 Crescent 1 to light at an MMG event, Cors Dyfi 03/08/2019.  
2470 Small Purple-barred daytime observation, Llanymynech (GBC) 09/06/2019.



1859 Sloe Pua



1771 Juniper Carpet

#### Key to the above recorders

MGB & AMB – Andy & Mellissa Banthorpe, PRW – Peter Williams, DHB - Douglas Boyes, CBo – Clare Boyes, SOS – Sue Southam, GBC – Gavin Chambers, RB - Richard Becker, PR – Paul Roughley, ANG & JEG – Andrew & Janet Graham, TimW – Tim Ward, DRS - Dave Skingsley, AT – Alan Tadman, CSB - Clare Backshall, JP & MTT – Julie Pearce & Mark Thomas, - TS Tammy Stretton, LW – Les Wilkins,

#### End of Year Statistics for 2019

Summary of end of year statistics; figures in parenthesis show 2018 totals.

- Numbers of records were mixed for the year, macro records were down by over 2,000, but the micros were about the same as 2018, which was encouraging.
- The breakdown is: - we added a total of 14,567 (16,580) of records to our database. The share between macro and micro was; 12,275 (15,449) macro and 2,292 (2,779) micro. We now have 220,393 (208,120) macro records and 37,988 (35,689) micro records, giving us a grand total of 258,381 (243,809) records in the database.
- Total number of species now held in our database is 528 (528) macro species and 660 (652) micro species giving us a total of 1188 species recorded in the county.
- Total species recorded in 2019 was 406 (429) macro species, 23 species down on 2018 and 272 (288) micro species, 16 species down on 2018, giving a grand total of 678 (717) species for the year – a drop of 39 species on the previous year.

The following charts show the 2019 rank of the top five species in various categories recorded in Montgomeryshire. Please note the previous year's totals are shown in parenthesis, BF Log numbers shown in brackets and a dash indicates that the species was not in top five the previous year. As usual I have separated the macro (left hand charts) from the micro moths (right hand charts) so that you get a better overview of how both groups are doing.

The two charts below show the top five most numerous records (species) for the year.

| Rank  | Log No.       | Macro Species          | Records   |
|-------|---------------|------------------------|-----------|
| 1 (-) | 73.249 (2190) | Hebrew Character       | 219 (-)   |
| 2 (1) | 73.342 (2107) | Large Yellow Underwing | 208 (274) |
| 3 (2) | 73.329 (2102) | Flame Shoulder         | 200 (239) |
| 4 (4) | 73.317 (2089) | Heart & Dart           | 199 (239) |
| 5 (-) | 73.162 (2321) | Dark Arches            | 196 (-)   |

| Rank  | Log No.       | Micro Species          | Records |
|-------|---------------|------------------------|---------|
| 1 (2) | 63.038 (1405) | Pleuroptya ruralis     | 92 (92) |
| 2 (-) | 63.08 (1293)  | Chrysoteuchia culmella | 78 (-)  |
| 3 (3) | 63.089 (1305) | Agriphila tristella    | 75 (83) |
| 4 (-) | 63.067 (1338) | Eudonia lacustrata     | 73 (-)  |
| 5 (5) | 63.064 (1334) | Scoparia ambigualis    | 72 (79) |

In the macro moths the Hebrew Character took over the top spot, but it was the only spring species to do well in this category, while the Large Yellow Underwing dropped to second and the Flame Shoulder was pushed into third. It was a good year for the Heart & Dart who retained fourth place and the Dark Arches moved into the fifth spot.

In the micros *Pleuroptya ruralis* moved up to the top spot and it was a good year for the grass moths as *Chrysoteuchia culmella* moved into the top five to second place and *Eudonia lacustrata* was a new entry into fourth place. *Scoparia ambigualis* retained the fifth place.

The next two charts show the top five species by the quantities trapped.

| Rank  | Log No.       | Macro Species          | Counts      |
|-------|---------------|------------------------|-------------|
| 1 (-) | 72.043 (2049) | Buff Footman           | 2581 (-)    |
| 2 (1) | 73.342 (2107) | Large Yellow Underwing | 2415 (2499) |
| 3 (2) | 73.249 (2190) | Hebrew Character       | 2358 (1531) |
| 4 (-) | 73.317 (2089) | Heart & Dart           | 1965 (-)    |
| 5 (-) | 73.244 (2187) | Common Quaker          | 1276 (-)    |

| Rank  | Log No.       | Micro Species          | Counts     |
|-------|---------------|------------------------|------------|
| 1 (4) | 63.080 (1293) | Chrysoteuchia culmella | 1037 (313) |
| 2 (1) | 63.093 (1304) | Agriphila straminella  | 572 (838)  |
| 3 (-) | 63.067 (1338) | Eudonia lacustrata     | 563 (-)    |
| 4 (-) | 41.002 (873)  | Blastobasis adustella  | 496 (-)    |
| 5 (2) | 63.089 (1305) | Agriphila tristella    | 471 (353)  |

Quantities trapped for the macro moths were rather mixed when viewed against 2018 figures. The Buff Footman moved into the top five to take over top spot from the Large Yellow Underwing, who was pushed into second place, while the Hebrew Character was pushed into third place. Heart & Dart and the Common Quaker moved into the top five into fourth and fifth places respectively.

Again, quantities were mixed for the micros. The grass moth *Chrysoteuchia culmella* had an excellent year coming into the top five, straight to the number one spot, pushing *Agriphila straminella* down to number two. *Eudonia lacustrata* and *Blastobasis adustella* moved directly into third and fourth spots respectfully.

The last two charts show the top five all time records in our database.

| Rank  | Log No.       | Macro Species          | All records |
|-------|---------------|------------------------|-------------|
| 1 (1) | 73.342 (2107) | Large Yellow Underwing | 3427 (3158) |
| 2 (2) | 73.329 (2102) | Flame Shoulder         | 3190 (2923) |
| 3 (3) | 70.226 (1906) | Brimstone Moth         | 2870 (2634) |
| 4 (4) | 73.249 (2190) | Hebrew Character       | 2756 (2581) |
| 5 (5) | 70.097 (1764) | Common Marbled Carpet  | 2728 (2533) |

| Rank  | Log No.       | Micro Species       | All records |
|-------|---------------|---------------------|-------------|
| 1 (2) | 63.038 (1405) | Pleuroptya ruralis  | 1095 (1003) |
| 2 (1) | 63.064 (1334) | Scoparia ambigualis | 1078 (1004) |
| 3 (3) | 63.067 (1338) | Eudonia lacustrata  | 983 (917)   |
| 4 (4) | 63.089 (1305) | Agriphila tristella | 978 (895)   |
| 5 (5) | 49.166 (1076) | Celypha lacunana    | 934 (856)   |

The top five macro species were unchanged.

The top two in the micro species *Pleuroptya ruralis* and *Scoparia ambigualis* switched places, apart from that the other species kept their places.

## The 2019 Moth Group Events – MMG

During the year we held 8 events throughout the county, all of which were well attended. Full reports for 2018 can be seen on web site blog.

## News as regards the 'Events team'

Julie Pearce (our events coordinator) had constructed a great programme of events for 2020, but as of writing this report covid 19 has spread across the UK and all public events have either been put on hold or cancelled and therefore, we can't hold any events until further notice. As soon as anything changes you will all be contacted with any details. And please give a thought to Julie who has put a lot of hard work into our 2020 events programme, only to see it all cancelled.

Current members of the 'events team' are Julie Pearce, Mark Thomas, Douglas Boyes, Paul Roughley, Gavin Chambers and Phil McGregor.

## MMG Fundraising

I would like to thank all those who have helped to put some funds in our kitty during the last year via donations and 'Easyfundraising'. Running a website, updating reference books and the upkeep of the mothing kit has to be paid from somewhere, so every bit of funding raised is very much appreciated.

To all those who sometimes shop on the internet but have not yet used 'Easyfundraising', please do so, as it costs you nothing extra to go via 'Easyfundraising' and you may be able to purchase your goods even cheaper with some of the deals on offer. If you use the Montgomeryshire Moths link at the bottom of our home page, you can contribute to our funds - every little bit helps!

## MMG cash flow from 01/01/19 to 31/12/19

Cash in bank - Start Balance 01/01/2019.....£189.78

### Outgoings

|  |                |
|--|----------------|
| Anglian Lepidoptera.....               | £71.00         |
| LCN (web domain payment).....          | £19.14         |
| CWCS (managed web hosting) .....       | £47.98         |
| Paid in error (to be reimbursed) ..... | £68.99         |
| Total expenditure during the year..... | <u>£207.11</u> |

### Income

|  |                |
|--|----------------|
| Donations.....                         | £60.00         |
| Easy fundraising.....                  | £87.73         |
| Refund from Anglian Lepidoptera.....   | £4.00          |
| Total income + cash in bank.....       | £333.51        |
| Total expenditure during the year..... | - 207.11       |
| End balance at 31/12/18.....           | <u>£130.40</u> |
| Outstanding refund.....                | -£68.99        |

## The Website

There haven't been any major changes to the website during the year, but it carries on being an excellent tool for id and for keeping an eye on events, the Blog, and the Stop Press for any interesting and new species as they are recorded, and, just generally, promoting everything 'mothy' the best way we can. Finally, I would, again, like to say a big thank you to Mike Haigh for all his hard work during the year with the website, and for updating and maintaining our database. Also, many thanks to Douglas Boyes for his sterling work in maintaining our blog and the Stop Press, to Julie Pearce for taking on the duties of 'events coordinator' and thanks also goes to all the other members of the 'Events Team', who help out at all the events.

Thanks to those members of the MMG (and out of the county moth-ers) who have brought along their traps to boost our trapping potential at events and to those who have helped with setting up and packing away the kit. Of course, a final note of thanks to anyone who brought along cake and other goodies to the events which we all very much enjoy.

Lastly, thanks to all you moth-ers out there for using the MMG facilities, when all said and done, that's what makes it work.

I hope we all have a great mothing year in 2020.

Peter.