# GMS News

# Late Summer 2021

# Weeks 19-27

## Contents



## Editorial

This quarter has been easily the most productive so far in terms of the number of moths trapped and it seems likely that as a result 2021 will be better than last year. But although we concentrate on the GMS nights, moths are to be found on other nights too. Not only that, other species stray in to our traps and yet more fly during the day. These extras add to our garden species lists and are often of especial interest. The edition of GMS News takes a look at some of these species.

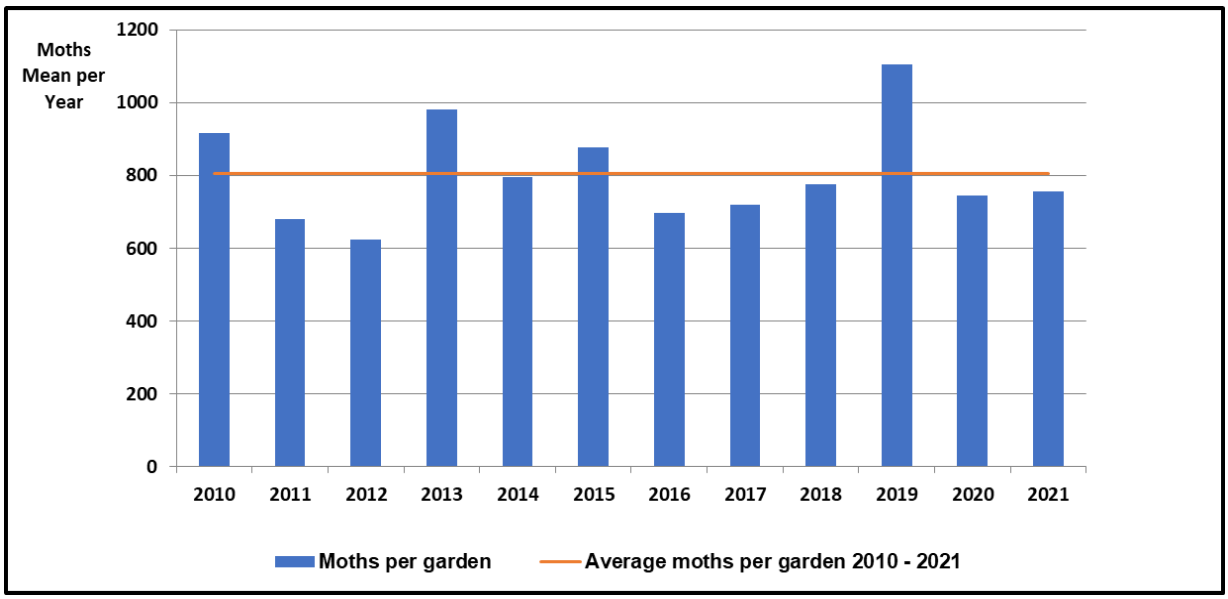
So Evan, along with his usual analysis of the quarter, lists the moths most frequently recorded that are not on the main system. Top of the list is *Eudonia lacustrata*. Remember we have selected the Garden Moths on three criteria: is it common, is it widespread and is it easily identifiable by non-experts. *Eudonia lacustrata* sails through the first two but comprehensively fails on ease of identification. Evan also looks briefly at two other frequently-recorded micros, Bird-cherry Ermine and Water Veneer, that little moth that sometimes occurs in large numbers at the bottom of our moth traps. A more detailed account is then given of the Flounced Rustic.

Next, Roger Freestone tells us about his success in attracting 5 species of clearwing to his garden and illustrates his article with photos of all 5, showing how attractive these elusive (until now) species are. Keith Noble tells us that a cypress hedge needn't be all bad and in fact can yield some interesting species, including a new county record. Finally, Robin Griffiths actually found a county-first in his GMS moth trap, then two nights later another individual of the same species. It all goes to show – "seek and ye shall find".

## *Overview GMS 2021 3rd Quarter*

With most of the available results in it would appear that the moth numbers have reversed their decline for this year and figure 1 shows a minute improvement over last year's third quarter.

Fig 1. GMS 2010 - 2021 Q3. Mean Quarterly Moth Numbers



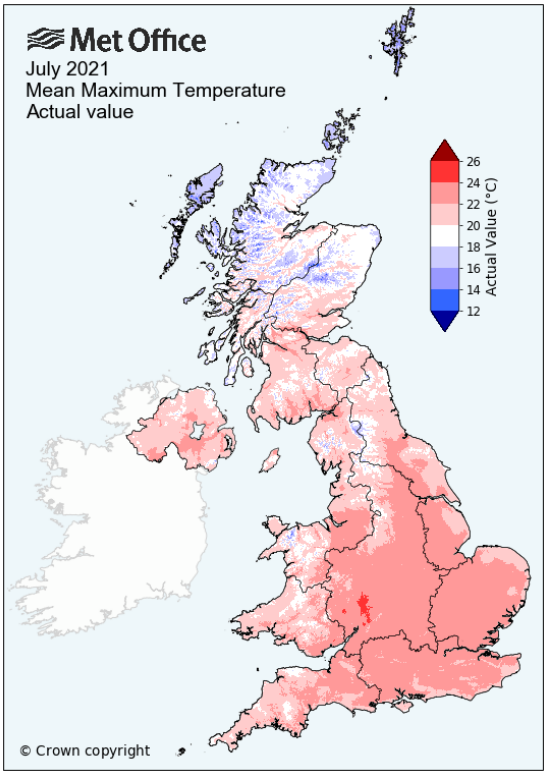

This of course holds the caveat that some regions did not always come out with the best results as the weather, being a strong controlling factor, was not in a benevolent mood right across the whole region.

Although mid-July experienced a mini-heat wave with maximum temperatures exceeding 30°C, this month will be remembered for its thunderstorms with flooding in some areas and hail damage in Leicestershire. Despite rainfall for England being 125% of normal, overall, for the whole country it was only 93% of normal. The month was ushered out by storm Evert wreaking havoc with strong winds and flooding, especially in Leicestershire and Derbyshire.

August continued with low pressure in charge feeding in heavy showers and thunderstorms leading to numerous flooding incidents. In Wales, Capel Curig received 53 mm of rain on the 5th and Spadeadam, near Carlisle in Cumbria, on the 9th endured 74.2 mm. The weather gradually settled in the latter half of the month but with lower temperatures leading to some unwanted cold nights.

Some of this sequence is shown in the following charts depicting maximum temperature, hours of sunshine, rainfall and distribution of lightning strikes which in a sense show the areas that experienced the heavy rain showers described above.

Fig 2. Max Temperature for July & August 2021 (with permission of the Met Office)



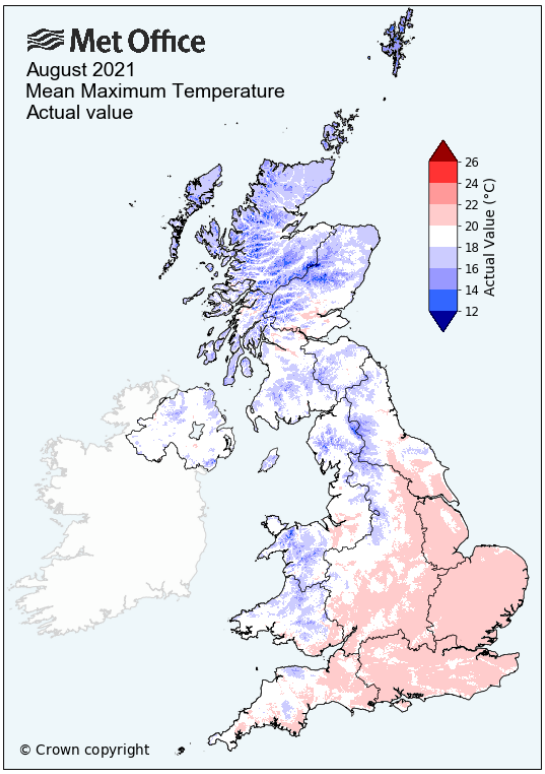
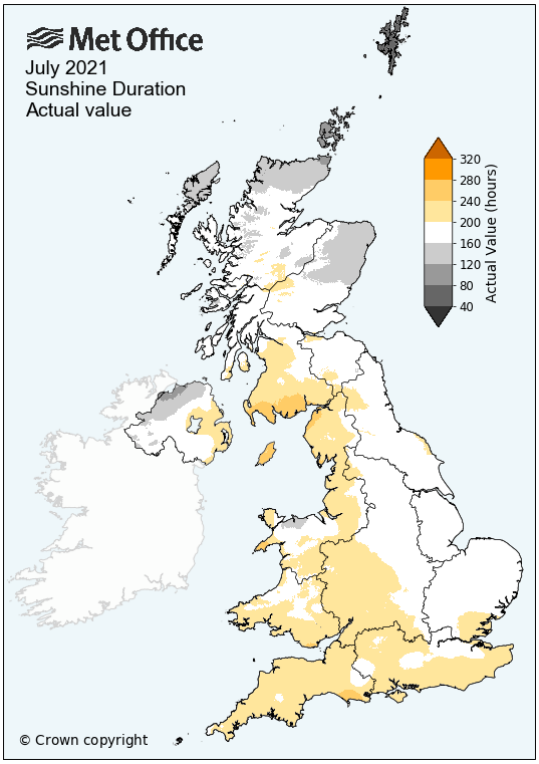




Fig 3. Hours of Sunshine for July & August 2021 (with permission of the Met Office)



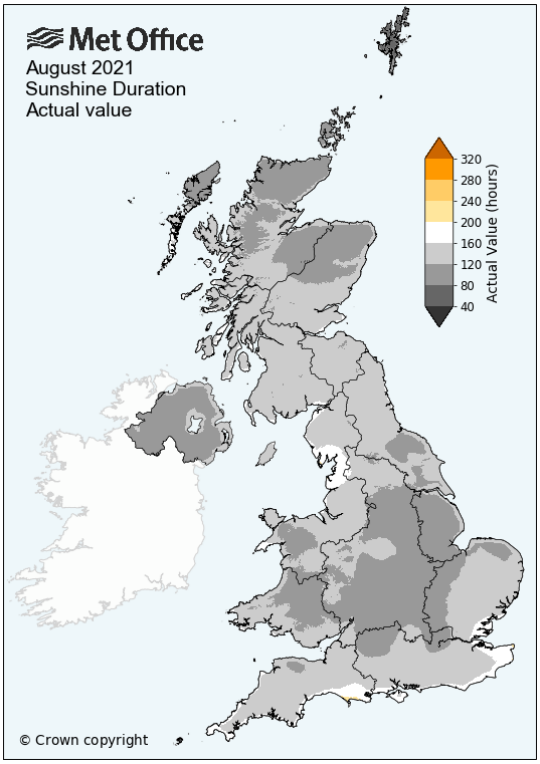
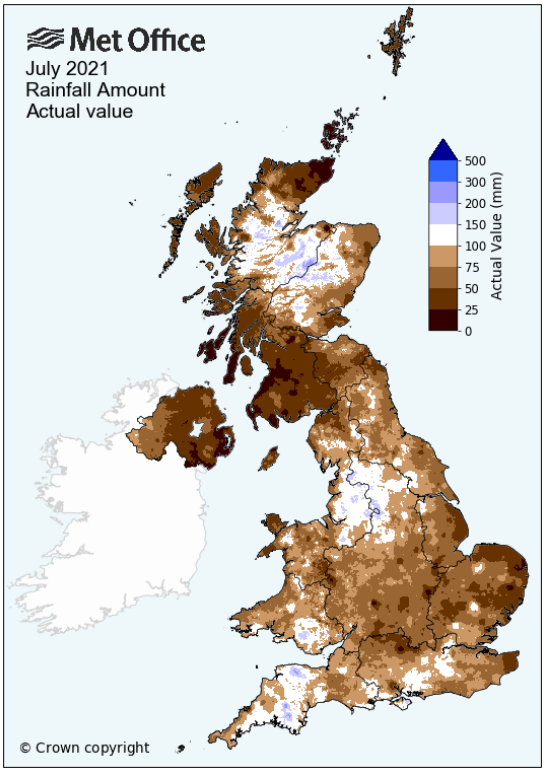



Fig 4. Rainfall in mm for July & August 2021 (with permission of the Met Office)



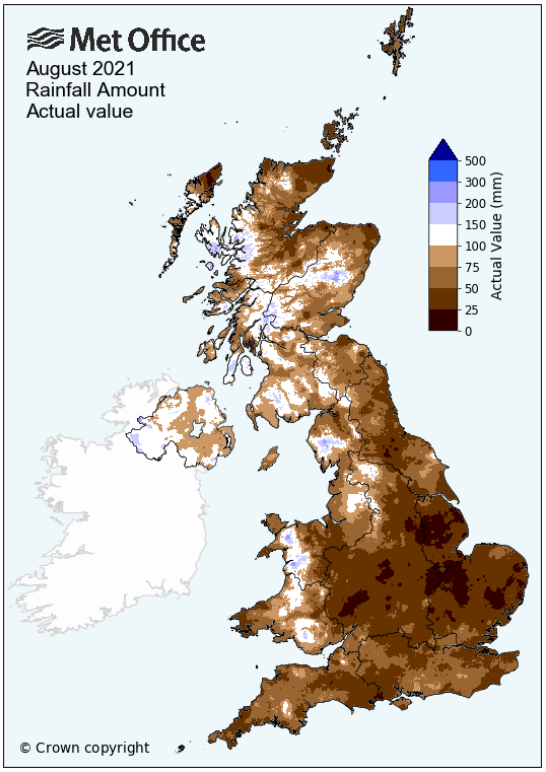
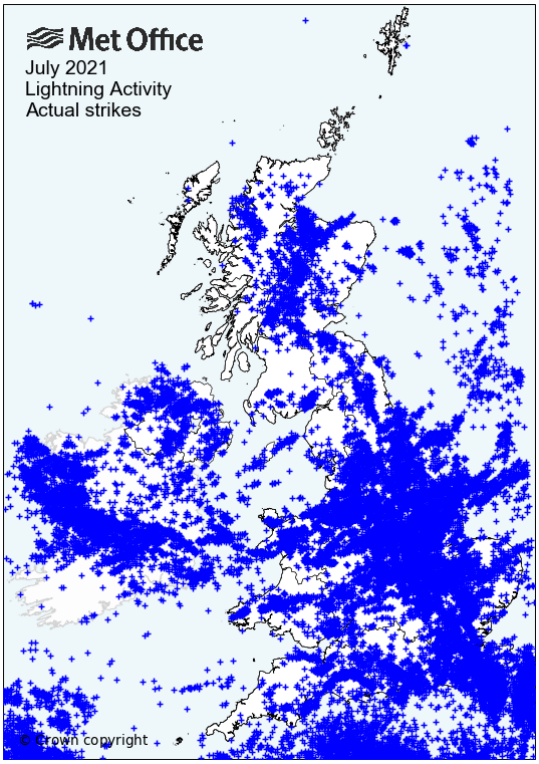
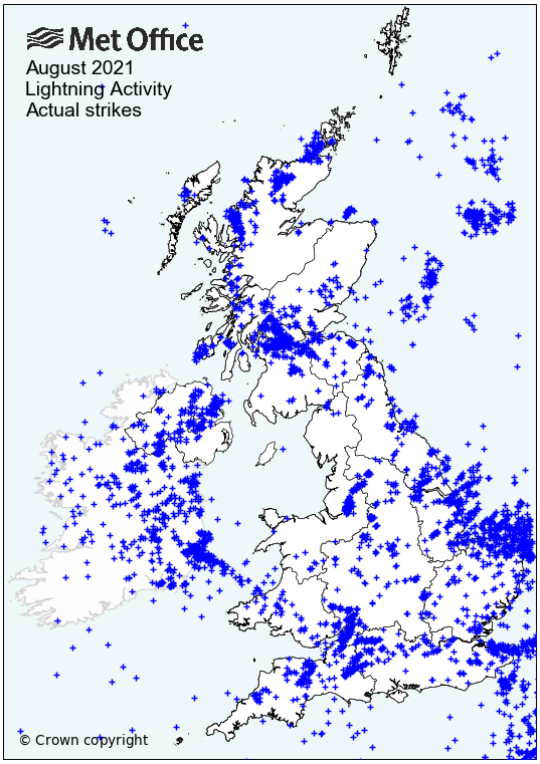



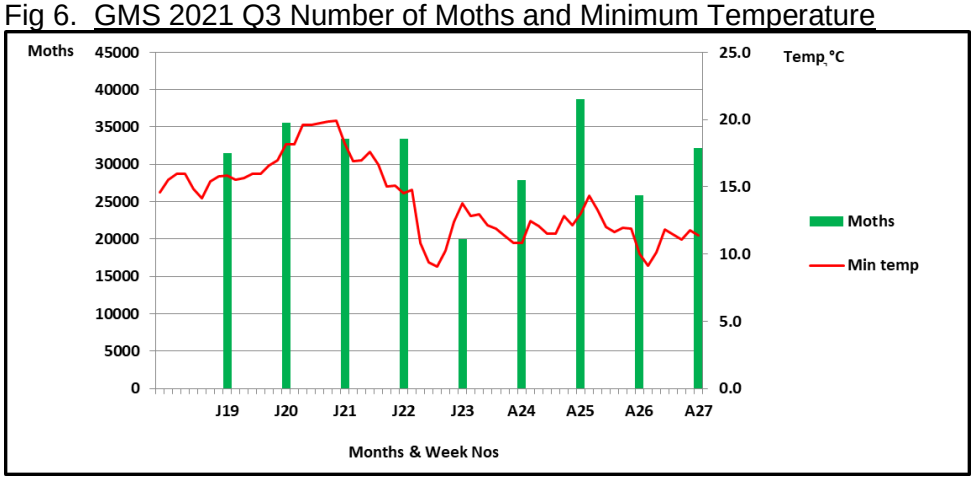

Fig 5. Lightning Strikes for July & August 2021 (with permission of the Met Office)



In addition to the general weather, night-time temperatures are also important as a drop in temperature often results in a corresponding reduction in moth numbers. (fig. 6)

Fig 6. GMS 2021 Q3 Number of Moths and Minimum Temperature




The average number of moths per region is shown in figure 7 and although the South West has the highest number it doesn't necessarily mean that every recorder there did well (Fig 8)

Fig 7. GMS 2021 Q3 Regional Average No. of Moths

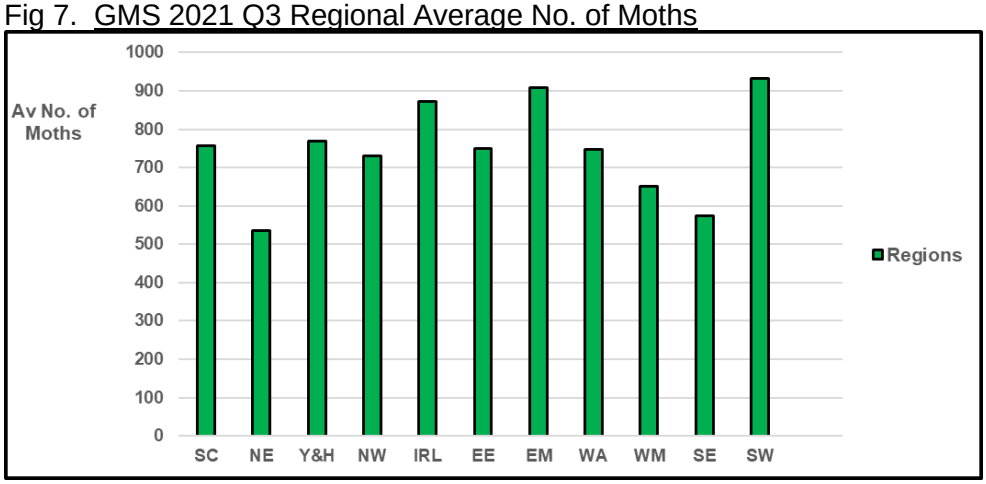
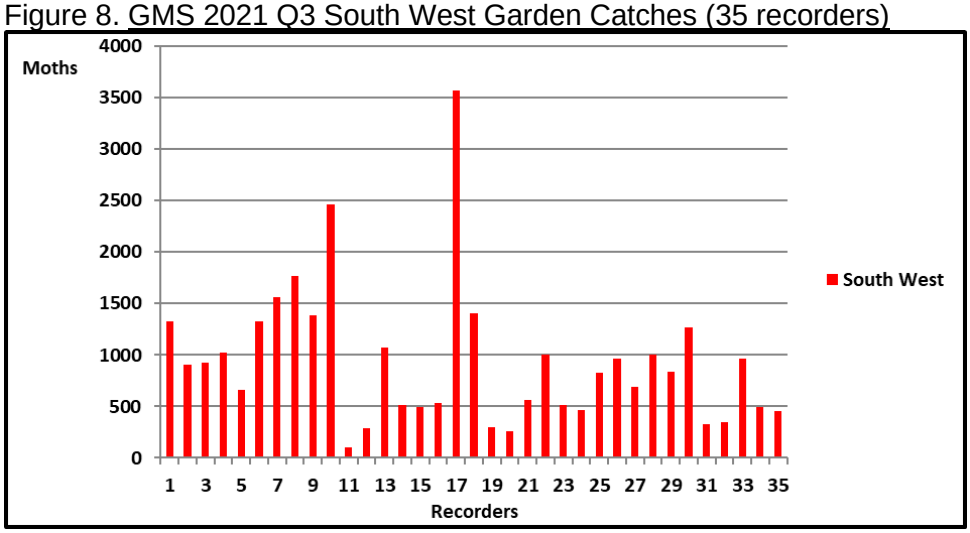



Figure 8. GMS 2021 Q3 South West Garden Catches (35 recorders)



Although weather often is given the blame for poor results there are other factors to take into account. This quarter has seen streetlights being blamed in the national news for a reduction in moth numbers. A new one to me cropped up this quarter when one recorder said she may have to miss a week or two due to wasps plaguing the trap and eating the captive moths. A bit of research revealed a few ways of trapping them, which proved to be of interest to our beekeeper neighbour who has wasp traps scattered around the garden like solar lights.

As in previous quarterly reports I have compared average minimum temperatures (fig 9) and this quarter's catches with that of last year (fig 10). Although this may portray a simple overall increase in moth numbers, figure 10 shows a more complicated picture; a real roller coaster ride with five weeks of 2020 having more moths and then four weeks with reduced numbers. To some extent the differences follow the minimum temperatures for the first month at least but then the opposite becomes apparent.

Fig 9. GMS 2021 Q3. Average Minimum Temperatures 2020 & 2021

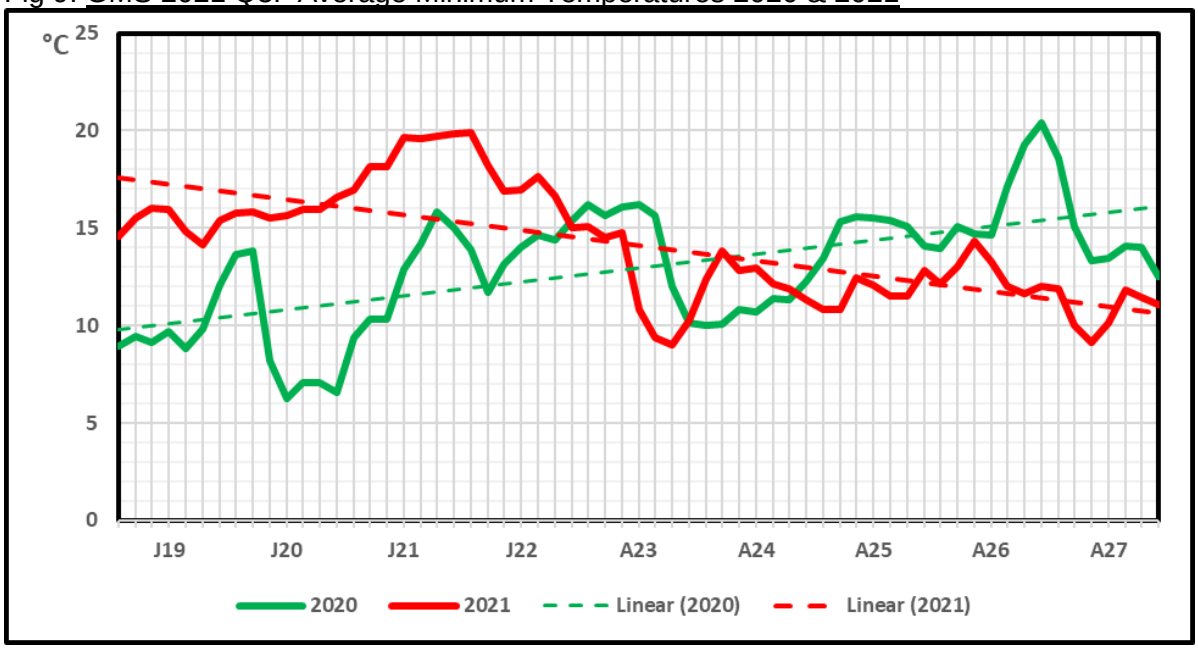
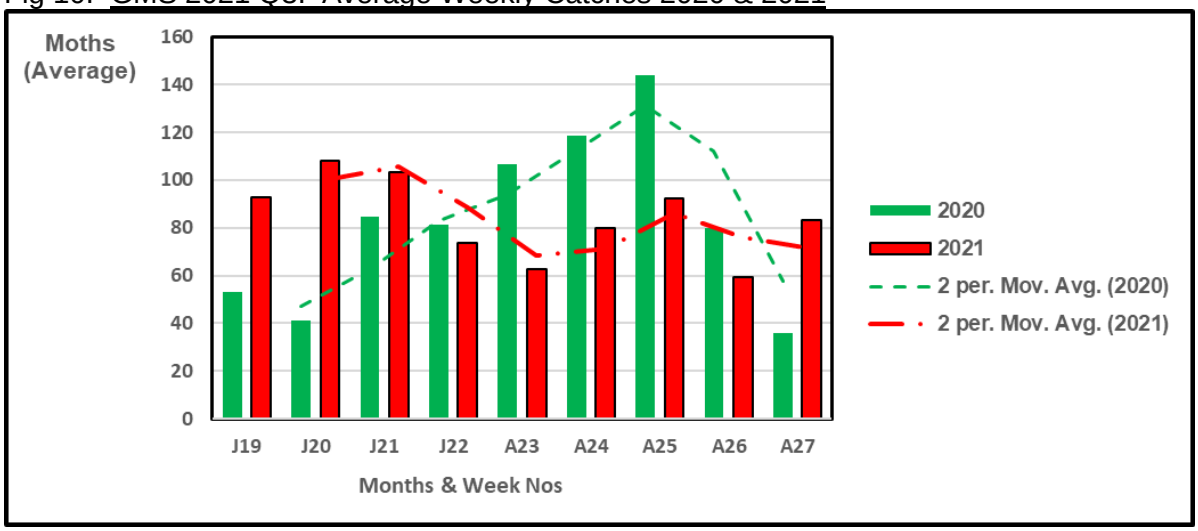
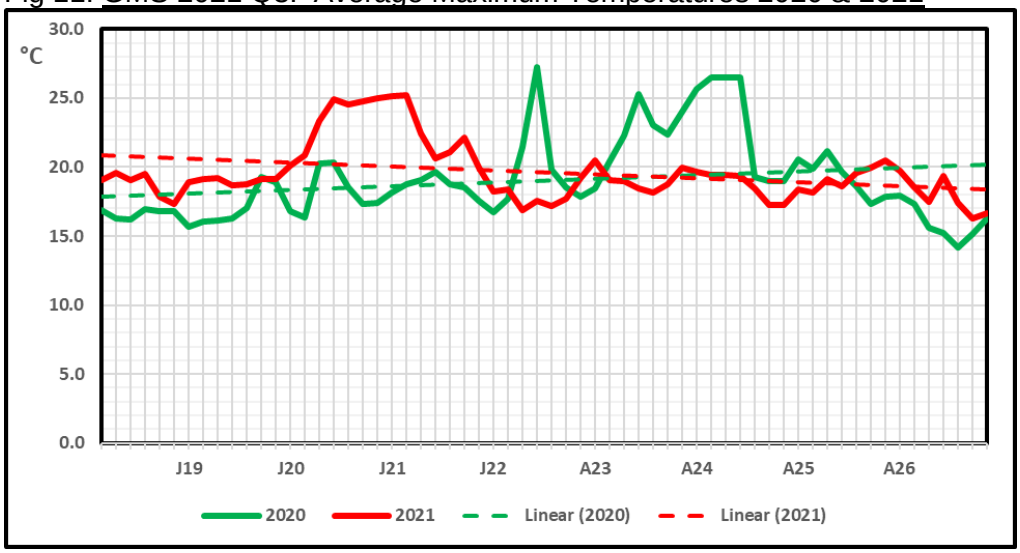



Fig 10. GMS 2021 Q3. Average Weekly Catches 2020 & 2021



The maximum temperatures may have also had an effect on the larval emergence and possible night time flying conditions (fig 11). The actual time and temperature could have an effect in that a later and higher temperature may well give a warmer evening suitable for flying and nectar production.

Fig 11. GMS 2021 Q3. Average Maximum Temperatures 2020 & 2021

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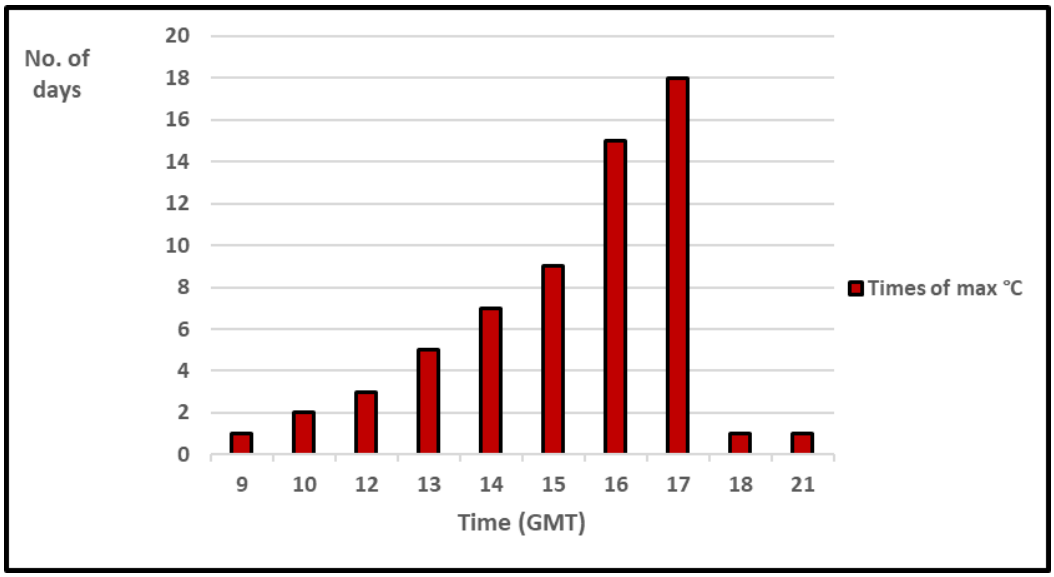
Noel Coward said that "*Only mad dogs and Englishmen*" go out in the midday sun, being the shortest time to get a sunburn. The maximum temperature, however is later in the day as the earth's surface continues to receive more sun than it can radiate back into space. This delay from maximum radiation to highest temperature is called the thermal response and can be up to 3 to 7 hours depending on local conditions.

The times of maximum temperature I recorded in our garden for July and August (fig 12) show that for the majority of days the maximum temperature occurred between 1500 and 1700 hrs GMT. Earlier times were caused by local weather conditions. The strangest one is 2100 hrs. I checked with a nearby weather station which recorded 1800 hours so it must have been an anomaly in our valley.

Fig 12. GMS 2021 Q3. Times of Maximum Temperature – July to August



## Statistics

The slight difference in moth numbers between this quarter and that of last year should mean that there is only a small shuffling of positions in the top twenty core species. Indeed, this seems to be a game of snakes and ladders with some species sliding down while others come up. Some of the winners include the Brimstone Moth which was a familiar sight in our trap this quarter and the Lesser Yellow Underwing which got us going back to the ID books being very infrequent here in the past. Losers include the Setaceous Hebrew Character and the Vine's Rustic that just managed to stay in the top 20.

The catching frequency difference figures in the last column sometimes seem to be at variance with the apparent difference between the numbers in the previous two columns but this is due to rounding.

Table 1. GMS Q3 2021 – Top 20 Core Species

| Position | | Top 20 | *Mean Per Trap* | | | **Catching** | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | Frequency (%. of gdns) | | |
| ***2020*** | **2021** | Species | **2020** 367 Gardens | **2021** 346 Gardens | Change | **2020** | **2021** | Diffnce |
| **1** | **1** | Large Yellow Underwing | 130.2 | 96.1 | -34.1 | 99 | **99** | -1 |
| **4** | **2** | Garden Grass-veneer | 24.9 | 27.9 | 3 | 77 | **74** | -3 |
| **5** | **3** | L B-B Yellow Underwing | 23.7 | 27.6 | 4 | 94 | **92** | -2 |
| **7** | **4** | Common Footman | 21.9 | 27.6 | 5.7 | 82 | **84** | 3 |
| **3** | **5** | Uncertain/Rustic agg. | 28.3 | 25.9 | -2.4 | 86 | **85** | -2 |
| **2** | **6** | Common Rustic agg. | 28.8 | 21.3 | -7.5 | 96 | **95** | -2 |
| **6** | **7** | Dark Arches | 22.5 | 21.2 | -1.3 | 97 | **96** | -2 |
| **10** | **8** | Riband Wave | 15.1 | 19.6 | 4.5 | 96 | **96** | -1 |
| **16** | **9** | Square-spot Rustic | 11.1 | 15.1 | 4 | 81 | **87** | 6 |
| **18** | **10** | Lesser Yellow Undrwing | 10.2 | 14.5 | 4.3 | 89 | **92** | 4 |
| **19** | **11** | Brimstone Moth | 9.6 | 14.2 | 4.5 | 85 | **93** | 8 |
| **8** | **12** | Set. Hebrew Character | 18.7 | 13.9 | -4.9 | 69 | **66** | -2 |
| **9** | **13** | *Agriphila tristella* | 15.8 | 12.9 | -2.9 | 72 | **70** | -2 |
| **21** | **14** | Willow Beauty | 9.3 | 11.5 | 2.2 | 86 | **86** | 1 |
| **14** | **15** | Heart and Dart | 12.7 | 11.4 | -1.4 | 90 | **89** | -1 |
| **26** | **16** | Flame Shoulder | 6.5 | 11.4 | 4.9 | 75 | **82** | 6 |
| **22** | **17** | Dingy Footman | 8.1 | 10 | 1.9 | 54 | **55** | 1 |
| **15** | **18** | Mother of Pearl | 11.4 | 10 | -1.4 | 76 | **82** | 6 |
| **11** | **19** | Light Brown Apple Moth | 14.7 | 9.1 | -5.6 | 74 | **68** | -6 |
| **20** | **20** | Vine's Rustic | 9.6 | 8.4 | -1.2 | 43 | **40** | -3 |

Once again, I have compared this year with last year by taking the **maximum** number of moths caught in any trap in one night and subtracting the values of 2021 from those of 2020 (Table 2).

Table 2. GMS 2021 Q3. Maximum Catches (2021 minus 2020)

| **Vernacular** | **SC** | **NE** | **Y&H** | **NW** | **IR** | **EE** | **EM** | **WA** | **WM** | **SE** | **SW** |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Large Yellow Underwing | -87 | -38 | -6 | -24 | -86 | 7 | 198 | -84 | -245 | -2 | 83 |
| Garden Grass-veneer | 12 | -41 | 166 | 8 | -4 | 5 | -6 | 25 | 43 | -89 | 115 |
| LB-B Yellow Underwing | 10 | 24 | 13 | 18 | -20 | 23 | 13 | -11 | -23 | -14 | -60 |
| Common Footman | 10 | -15 | 19 | -5 | 13 | 30 | 53 | 81 | -76 | -11 | 26 |
| Uncertain/Rustic agg. | -1 | 7 | -4 | 10 | -1 | 81 | 7 | -4 | -12 | -10 | 30 |
| Common Rustic agg. | -41 | 0 | 6 | 92 | -41 | 11 | -2 | -34 | -45 | 11 | -6 |
| Dark Arches | 4 | -8 | -2 | -20 | -18 | 19 | -4 | 83 | -17 | 3 | 2 |
| Riband Wave | 13 | 14 | 1 | 10 | 18 | 12 | 27 | 16 | 5 | 12 | -3 |
| Square-spot Rustic | -13 | -6 | 4 | 10 | 176 | 10 | -36 | 25 | 27 | 12 | -13 |
| Lesser Yellow Underwing | -50 | -2 | 4 | 21 | 8 | -1 | 7 | 15 | 1 | 25 | 10 |
| Brimstone Moth | 5 | 2 | -2 | 17 | 25 | -5 | 6 | 12 | -7 | -4 | -13 |
| Set Hebrew Character | -1 | -5 | 38 | 9 | 23 | -190 | 59 | 14 | -24 | -47 | -46 |
| *Agriphila tristella* | 46 | -14 | 11 | 4 | 23 | -48 | 6 | -142 | -42 | -24 | -26 |
| Willow Beauty | 9 | 8 | -2 | -4 | 4 | -2 | 4 | -6 | -1 | 0 | 4 |
| Heart and Dart | 5 | -11 | -14 | 0 | -9 | 11 | 17 | -26 | -2 | -18 | 2 |
| Flame Shoulder | 1 | 2 | 6 | 6 | -30 | 35 | 1 | -7 | -5 | 17 | -7 |
| Dingy Footman | 9 | -2 | 7 | 45 | 3 | -18 | 5 | 43 | 0 | 13 | 64 |
| Mother of Pearl | 3 | 6 | -35 | 25 | 13 | -28 | -14 | 1 | -4 | 9 | -24 |
| Light Brown Apple Moth | 1 | -8 | -9 | -1 | 9 | -39 | -7 | 29 | -20 | -5 | -10 |
| Vine's Rustic | 0 | 0 | 4 | 11 | 0 | -109 | 38 | -7 | -29 | -57 | -42 |

The highlighted cells show a drop in the maximum catch so for example in Ireland, the maximum catch for the Large Yellow Underwing dropped from 161 (week 23) to 75 (Week 21) to give a negative 86. Conversely, congratulations go both to the recorder in the North West who in week 25 laboriously counted 332 Large Yellow Underwings and to the recorder in the East Midlands who in week 19 had a similarly labour-intensive task of counting 264 Setaceous Hebrew Characters.

Breaking the top 20 down to regional levels I have listed in Table 3 the top 10 moths which may be more relevant to your area. It's noticeable that the Large Yellow Underwing, so dominant elsewhere, is not in top place in both SE and SW England.

Table 3. GMS 2021 Q3. Top 10 Regional Core Species

| Scotland (27) | Mean | North East (29) | Mean | North West (43) | Mean |
|---|---|---|---|---|---|
| Large Yellow Underwing | 147.9 | Large Yellow Underwing | 151.1 | Large Yellow Underwing | 168.2 |
| Dark Arches | 34 | Dark Arches | 20.6 | Common Rustic agg. | 27.7 |
| Bird-cherry Ermine | 32.6 | Common Rustic agg. | 17.4 | LB-B Yellow Underwing | 24.6 |
| LB-B Yellow Underwing | 29.4 | Common Footman | 16.4 | Bird-cherry Ermine | 22.2 |
| Lessr Yellow Underwing | 25.8 | LB-B Yellow Underwing | 15.9 | Dark Arches | 20 |
| Common Rustic agg. | 24.3 | Garden Grass-veneer | 15.9 | Lessr Yellow Underwing | 18.8 |
| *Agriphila tristella* | 23.9 | Lessr Yellow Underwing | 14.4 | Riband Wave | 18.5 |
| Dotted Clay | 18.4 | Bird-cherry Ermine | 12.2 | *Agriphila tristella* | 16.5 |
| Rosy Rustic | 18.1 | Riband Wave | 10.9 | Common Footman | 16.1 |
| July Highflyer | 15.4 | Square-spot Rustic | 7.6 | Uncertain/Rustic agg. | 13.4 |
| **Yorks & Humber (20)** | **Mean** | **Ireland (24)** | **Mean** | **East of England (34)** | **Mean** |
| Large Yellow Underwing | 125.6 | Large Yellow Underwing | 88 | Garden Grass-veneer | 44.1 |
| Garden Grass-veneer | 28.1 | LB-B Yellow Underwing | 46.5 | Large Yellow Underwing | 41 |
| Common Footman | 27.1 | Square-spot Rustic | 37.3 | Common Footman | 34.9 |
| Common Rustic agg. | 25 | Common Rustic agg. | 34.3 | Uncertain/Rustic agg. | 32.7 |
| Uncertain/Rustic agg. | 22.9 | Small Square-spot | 27.1 | Set Hebrew Character | 25.3 |
| Dark Arches | 22.4 | Lessr Yellow Underwing | 25.9 | Vine's Rustic | 21.6 |
| *Blastobasis adustella* | 21.6 | Rosy Rustic | 17.9 | Common Wainscot | 18.1 |
| *Agriphila straminella* | 21.5 | Dark Arches | 17.6 | Shuttle-shaped Dart | 16.4 |
| Riband Wave | 20.6 | Riband Wave | 16.6 | Riband Wave | 16 |
| Lessr Yellow Underwing | 19 | Uncertain/Rustic agg. | 16.2 | Flounced Rustic | 15.9 |
| **East Midlands (39)** | **Mean** | **West Midlands (22)** | **Mean** | **Wales (41)** | **Mean** |
| Large Yellow Underwing | 93.3 | Large Yellow Underwing | 89.9 | Large Yellow Underwing | 86.7 |
| Set Hebrew Character | 42.7 | Garden Grass-veneer | 56.5 | Uncertain/Rustic agg. | 33.4 |
| Uncertain/Rustic agg. | 40.5 | Uncertain/Rustic agg. | 29.6 | LB-B Yellow Underwing | 30.1 |
| Common Footman | 38.8 | LB-B Yellow Underwing | 23.7 | Common Footman | 28.1 |
| Dark Arches | 35.8 | Dark Arches | 19.9 | Dingy Footman | 27.1 |
| Riband Wave | 35.3 | Square-spot Rustic | 19.5 | Brimstone Moth | 23.4 |
| Garden Grass-veneer | 34.3 | Common Rustic agg. | 18.6 | Flame Shoulder | 21.3 |
| LB-B Yellow Underwing | 30.5 | Common Footman | 17.5 | Heart and Dart | 21 |
| Common Rustic agg. | 27.2 | Riband Wave | 16.6 | Garden Grass-veneer | 19.5 |
| Common Wainscot | 20.7 | Vine's Rustic | 16 | Dark Arches | 19.5 |
| **South East (32)** | **Mean** | **Southwest (35)** | **Mean** | | |
| Garden Grass-veneer | 39.7 | Common Footman | 68.7 | | |
| LB-B Yellow Underwing | 24.4 | Uncertain/Rustic agg. | 52.2 | | |
| Riband Wave | 23.9 | Large Yellow Underwing | 49.4 | | |
| Uncertain/Rustic agg. | 22.9 | Garden Grass-veneer | 46.9 | | |
| Large Yellow Underwing | 22.6 | LB-B Yellow Underwing | 43.4 | | |
| Common Footman | 20 | Brimstone Moth | 32.3 | | |
| Brimstone Moth | 16.1 | Riband Wave | 25.8 | | |
| Willow Beauty | 16 | Dingy Footman | 25.5 | | |
| Dark Arches | 15.1 | Flame Shoulder | 23.2 | | |
| Light Brown Apple Moth | 13.6 | Common Rustic agg. | 20.3 | | |

All the trap nights and catches completed by the recorders are summarised in Table 4. The minimum and maximum moth numbers both within and between regions over the nine-week period vary considerably, yet with some similarities, possibly reflecting location, type of trap and/or the individual micro-climates. The minimum and maximum numbers of moths caught per region have increased from the second quarter, when ranges were between 3 and 1223, to this quarter with ranges between 22 and 3571 while the trapping effort (moth trap nights) remains remarkably consistent. For many recorders this quarter has certainly been better than the last, and marginally better than last year.

The third section shows the preferred night for trapping. Although Friday is the official night three nights either side are acceptable as everyone hopefully has a life apart from mothing. Certainly, this quarter we have had to vary our trapping nights due to family commitments and power supply problems.

Table 4. GMS 2021 Q3 - Regional Statistics

| Region | Gardens | Moths | | | |
|---|---|---|---|---|---|
| | | Total | Mean | Min | Max |
| SC | 27 | 20440 | 757 | 154 | 1580 |
| NE | 29 | 15502 | 535 | 22 | 1086 |
| Y&H | 20 | 15400 | 770 | 131 | 3377 |
| NW | 43 | 31405 | 730 | 45 | 2234 |
| IRL | 24 | 20940 | 873 | 66 | 2268 |
| EE | 34 | 25461 | 749 | 95 | 2916 |
| EM | 39 | 35477 | 910 | 271 | 2063 |
| WA | 41 | 30629 | 747 | 105 | 1692 |
| WM | 22 | 14319 | 651 | 83 | 1467 |
| SE | 32 | 18344 | 573 | 105 | 1358 |
| SW | 35 | 32628 | 932 | 107 | 3571 |

| Moth Trap Nights | | |
|---|---|---|
| Possible | Actual | Percent |
| 243 | 221 | 90.9 |
| 261 | 246 | 94.3 |
| 180 | 167 | 92.8 |
| 387 | 356 | 92.0 |
| 216 | 207 | 95.8 |
| 306 | 296 | 96.7 |
| 351 | 337 | 96.0 |
| 369 | 356 | 96.5 |
| 198 | 187 | 94.4 |
| 288 | 280 | 97.2 |
| 315 | 303 | 96.2 |

| Weekday Trap Nights | | | | | | | |
|---|---|---|---|---|---|---|---|
| Night | Tues | Wed | Thurs | Fri | Sat | Sun | Mon |
| Days | 30 | 115 | 349 | 2579 | 757 | 172 | 73 |
| Percent | 1 | 3 | 9 | 63 | 19 | 4 | 2 |

## Additional Species

The lower part of the form is to input other moths caught in the GMS trap that are not in the core and regional species list. There are a few reasons for this including whether there should be additional moths added to the present database. I have found it to be very interesting and educational including having to decipher some of the names.

This quarter there were over 2651 rows of data coming from all of the regions giving a total of over 9294 moths of 623 species of both micro and macro moths, assuming of course that the identifications are correct. Some of these may actually be duplicated up to three times when one recorder identifies it as the species whilst others record it as a sp. or an agg. Table 5 below lists the top 20 moths from the section for this quarter. “R” identifies it as a regional species and is actually included in their upper section

Table 5. GMS 2021 Q3. Maximum Catches (2021 minus 2020)

| Latin/Vernacular | Total | SC | NE | Y&H | NW | Irl | Wa | WM | EM | EE | SE | SW |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Eudonia lacustrata* | 684 | 105 | 64 | 93 | 94 | 21 | 105 | 11 | 107 | **R** | 39 | 45 |
| *Blastobasis adustella* | 509 | 10 | **R** | **R** | 55 | 254 | 23 | 22 | 145 | **R** | 0 | R |
| Water Veneer | 505 | 1 | 0 | **R** | 226 | 0 | 8 | 1 | 102 | 0 | 63 | 104 |
| Bird-cherry Ermine | 357 | **R** | **R** | **R** | **R** | 5 | 67 | 33 | 245 | 6 | 1 | **R** |
| *Eudonia mercurella* | 181 | 22 | 24 | **R** | 13 | 21 | 58 | 16 | 27 | 0 | **R** | 0 |
| *Yponomeuta malinellus/ cagnagella.* | 179 | 0 | 0 | 0 | 0 | 16 | 0 | 139 | 0 | 0 | 0 | 24 |
| Orchard/Apple Ermine | 171 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 2 | 0 | 4 | 145 |
| Coronet | 170 | 3 | 0 | 1 | 1 | 0 | 84 | 54 | 27 | 0 | R | **R** |
| Codling Moth | 139 | 0 | 2 | **R** | **R** | 0 | 16 | 35 | 5 | **R** | **R** | 81 |
| *Argyresthia goedartella* | 127 | 12 | 5 | 27 | 2 | 5 | 15 | 5 | 10 | 2 | 27 | 17 |
| Apple Ermine | 124 | 0 | 0 | 3 | 5 | 0 | 45 | 40 | 15 | 0 | 1 | 15 |
| *Acrobasis advenella* | 116 | 3 | 25 | 20 | 4 | 10 | 12 | 1 | 25 | 0 | 16 | 0 |
| Boxworm/Box-tree Moth | 115 | 1 | 0 | 1 | 6 | 0 | 2 | 0 | 1 | 0 | 69 | 35 |
| *Scoparia ambigualis* | 107 | 48 | 11 | **R** | 12 | 4 | 28 | 4 | 0 | 0 | **R** | 0 |
| *Celypha lacunana* | 104 | 26 | **R** | **R** | 20 | **R** | 30 | 28 | 0 | **R** | **R** | **R** |
| Brindled Ochre | 100 | 2 | 98 | 0 | 0 | 0 | 0 | 0 | **R** | 0 | 0 | 0 |
| *Clepsis consimilana* | 86 | 9 | 5 | 13 | 6 | 1 | 11 | 7 | 4 | 0 | 24 | 6 |
| Red Twin-spot Carpet | 86 | 0 | **R** | **R** | 1 | 0 | 57 | 14 | 3 | **R** | 11 | **R** |
| *Acleris laterana* | 80 | 0 | 3 | 1 | 0 | 66 | 6 | 3 | 1 | 0 | 0 | 0 |
| Feathered Gothic | 76 | 0 | **R** | **R** | 3 | 0 | 59 | 2 | 12 | 0 | **R** | **R** |

Brownie points for persistence are awarded to four recorders in the North West and the East Midlands who caught over 100 Water Veneer in single catches in weeks 19 and 20. Similar points are also awarded to the recorder, also from the East Midlands, who caught 150 Bird-cherry Ermine in week 21.

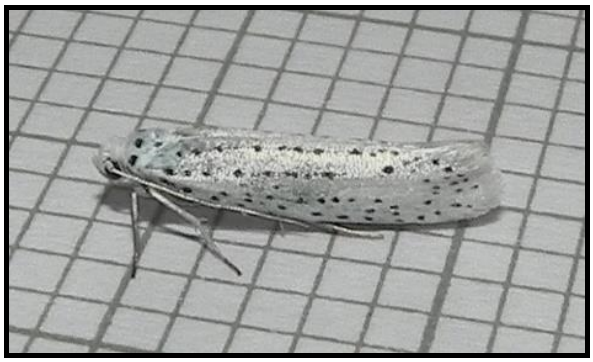
Water Veneer *Acentria ephemerella* (fl 11-13 mm)

A small inconspicuous species with an entirely underwater nymphal stage feeding on Canadian Pondweed and other water plants. The adult is usually found close to water and can be seen in swarms up to several thousand.

Photo by H. Burt

Photo by G. Tordoff

Bird-cherry Ermine (*Yponomeuta evonymella)* (fl 16-25 mm)
According to Butterfly Conservation it is a common resident from the South Midlands northwards but widely considered an immigrant in the south. The caterpillars feed in tents which like other ermine moths can cover whole trees. It is often a pest of Bird Cherry trees sometimes completely stripping their foliage.



**Flounced Rustic (*Luperina testacea*)**

This Noctuid is a common and widespread species of many dry grassy habitats in England, Wales and Southern and Eastern Scotland but much scarcer in the western highlands. It is widely distributed in Ireland, the Isle of Man and the Channel Islands.

It is a rather thickset variable moth. The forewing is coarsely marked and varies in colour from dull straw to light or dark brown often dusted with grey or blackish brown. Oval and kidney marks are prominent. Sometimes a solid dark bar joins the central cross-lines and the hindwing is white or whitish brown.

Photo by K Noble

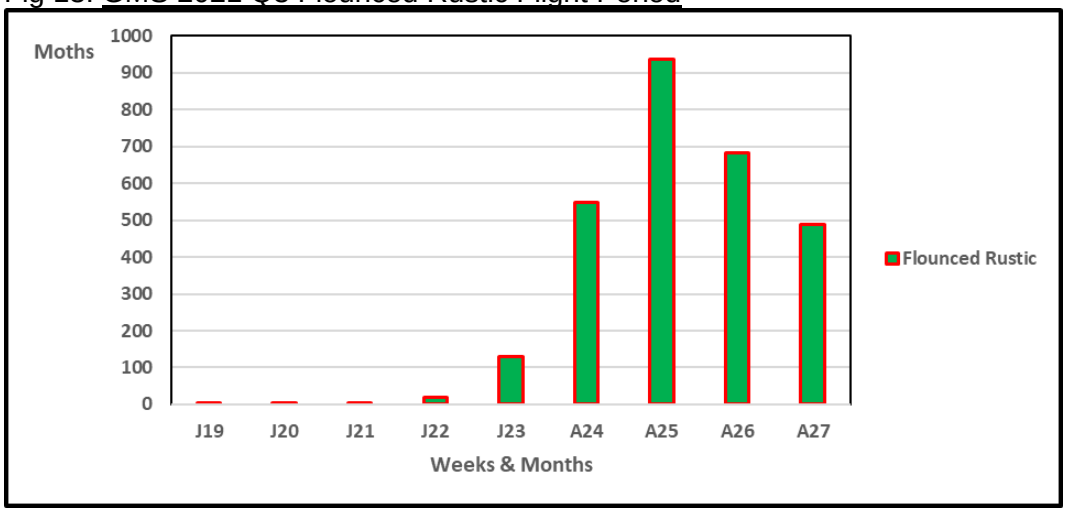
The scientific name of the genus *Luperina* is named after the Latin word for wolf, lupus. No wolf qualities here but it seems to refer to the moth's hairy body. The species name *testacea* means brick-coloured. This is a variable-coloured species, as are bricks which depend on where they were fired. This moth was named by the Austrian Schiffermüller in 1775. In addition to being

interested in nature he was also noteworthy for his work in developing a scientifically based colour nomenclature with which to describe the countless colours of nature and introduced the colour wheel used nowadays in computer graphics.

According to Peter Marren in his book, Emperors, Admirals and Chimney Sweepers, flounce refers to the margin of the moth's wings, suggesting a strip of attached material. The word rustic refers to the brownish ground colour of the moth named after cheap cloth such as hessian which was worn by poor countrymen who historically were sometimes called rustics.

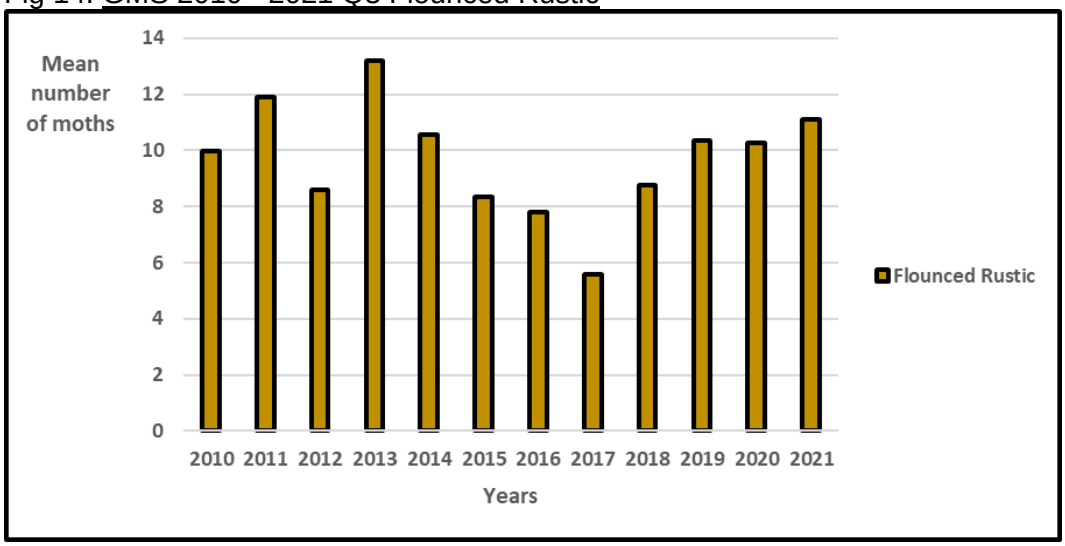
Its flight period is August to September (fig 13). It comes to light often in numbers and rests on grass at night, but does not feed. It overwinters as a larva (September to June) living in the soil among the roots and stem bases of its foodplants which include the grasses Common Couch, fescues and sometimes cereal crops. It pupates there underground.

Fig 13. GMS 2021 Q3 Flounced Rustic Flight Period




The long-term abundance trend in the Atlas of Britain and Ireland's Large Moths shows a substantial decrease since 1970 in contrast to a significant increase in distribution. According to the GMS data, which effectively only starts from 2010, it shows an increase in numbers until 2013 and then a dip until 2017, followed by a steady rise.

Fig 14. GMS 2010 - 2021 Q3 Flounced Rustic




Evan Lynn

## *Clearwings attracted to pheromones in a VC56 suburban garden*

I have successfully attracted Currant Clearwings to a pheromone lure in my garden annually for the last 3 years; my garden backs onto allotments with several soft fruit growers so I was not surprised that this species appeared. I had never thought about trying other clearwing lures in my garden, but I was inspired by some posts on social media to give them a try (all sourced from Anglian Lepidopterist Supplies).

I was extremely surprised by the results where four other species were attracted to my garden: Lunar Hornet Moth (1), Red-tipped Clearwing (14), Red-belted Clearwing (7) and surprisingly a single Yellow-legged Clearwing. Yellow-legged Clearwing has been confirmed as the first garden record in VC56 with the nearest prior VC56 record being over 10 km away from my garden. I only use the clearwing pheromone lures for as long as it takes to record the targeted species in a locality which in the case of the above garden records were once!

**52.003 Lunar Hornet Moth**
***Sesia bembeciformis***

**52.013 Currant Clearwing**
***Synanthedon tipuliformis***

**52.008 Red-tipped Clearwing**
***Synanthedon formicaeformis***

**52.011 Red-belted Clearwing**
***Synanthedon myopaeformis***

**52.012 Yellow-legged Clearwing**
***Synanthedon vespiformis***

Roger Freestone

## *Moths in a cypress hedge*

Our garden in Brecon is shielded from the road by a trimmed cypress hedge and a house-high tree. It is home to three moths whose caterpillars eat only cypress and have few records in the area covered by BIS, the Local Environmental Record Centre covering Powys and the Brecon Beacons National Park. All are colonists which are spreading north and west. Cypress Pug was first recorded in Britain in 1959, *Argyresthia trifasciata* in 1982 and *Argyresthia cupressella* in 1997, reaching Wales in 2009.

Sorting a recent catch for the Garden Moths Scheme on September 6th I found a Pug which I had not seen before. Unlike some others, this was quite distinctive in shape and markings and from the Field Guide was clearly Cypress Pug. The Brecknock Moth Group website held no previous record and the Distribution Map on Aderyn (the Wales-wide biodiversity database produced by LERC Wales) showed 418 records in 28 squares. They were spread from Chepstow to Marloes with most in and around Cardiff, and just two outliers at Llandyssil, Montgomeryshire and Pentraeth, Anglesey.

I first saw the tiny *Argyresthia trifasciata* in the hedge in 2016 and it has appeared each summer since. It was first noted locally in Llangynidr in 2015 and has also been seen in Beacons Park, Brecon. Dates range between 10th May and 19th June.

Alongside it on 1st June last year I found another moth of similar size but different pattern which proved to be *Argyresthia cupressella* with one previous Brecknock record at Cefn Coed. It has since been seen again there and in Beacons Park. The distribution of both species on Aderyn, with just a few records away from south Wales, is similar to Cypress Pug.

Their food plants are common, useful if not always liked, so these spreading specialist moths are likely to be recorded more often.

Keith Noble

## *Dotted Fan-foot first for Wilts*

I wonder how many county firsts are trapped during the Garden Moth Scheme? It happened to me! On 16th July I had a particularly good haul for the scheme with 75 species including 12 new for the year - and one new for Wiltshire! A Dotted Fan-foot *Macrochilo cribrumali*s turned up in an egg box in my Robinson trap together with a Silky Wainscot - as they share a similar habitat - marshes - perhaps they had arrived together?

I live about 600 yards from the River Thames at Cricklade so regularly trap marshy moths despite not having a wetland garden (eg. all four species of China-mark) but when I discovered that the nearest place where the Dotted Fan-foot was known to have occurred was in Oxfordshire I was amazed. Perhaps the species, which is apparently expanding westwards, is following the Thames? Almost more remarkably two nights later I trapped another Dotted Fan-foot, again in company with a Silky Wainscot - what is going on? It seems that there are two different individuals - see what you think?

Robin Griffiths

## *Puzzle Corner*

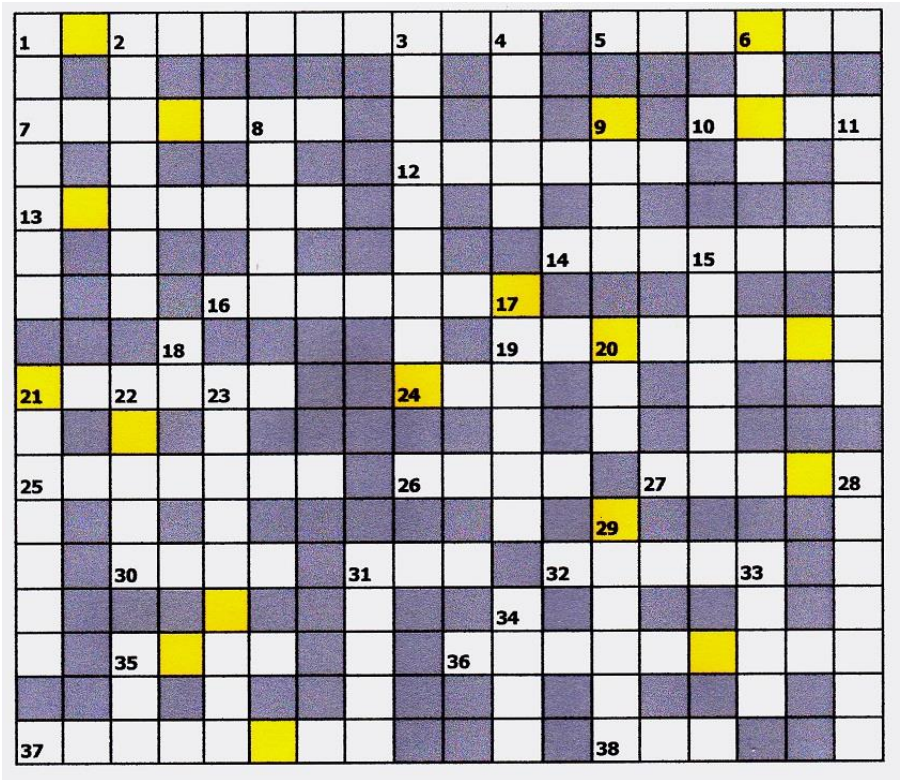
Lepidoptera Crossword No.16 Solution

| B | L | A | C | K | S | N | O | U | T | ■ | M | A | R | B | L | E | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| R | ■ | S | ■ | ■ | ■ | ■ | B | ■ | R | ■ | A | ■ | A | ■ | I | ■ | ■ |
| O | C | H | R | E | O | U | S | ■ | U | N | I | O | N | ■ | N | ■ | O |
| T | ■ | W | ■ | ■ | ■ | ■ | C | ■ | E | ■ | D | ■ | N | ■ | G | ■ | R |
| H | ■ | O | ■ | S | T | O | U | T | ■ | D | E | V | O | N | ■ | ■ | A |
| E | A | R | ■ | ■ | ■ | ■ | R | ■ | C | ■ | N | ■ | C | ■ | P | ■ | C |
| R | ■ | T | R | E | B | L | E | ■ | O | ■ | S | ■ | H | E | A | T | H |
| ■ | ■ | H | ■ | X | ■ | ■ | ■ | ■ | R | ■ | ■ | B | ■ | ■ | L | ■ | E |
| R | U | S | T | I | C | ■ | K | N | O | T | ■ | L | I | N | E | S | ■ |
| ■ | ■ | ■ | ■ | L | ■ | ■ | ■ | ■ | N | ■ | ■ | U | ■ | ■ | ■ | ■ | H |
| W | H | I | T | E | ■ | ■ | S | L | E | N | D | E | R | ■ | C | H | I |
| A | ■ | ■ | U | ■ | ■ | P | ■ | ■ | T | ■ | ■ | ■ | ■ | ■ | L | ■ | G |
| I | N | G | R | A | I | L | E | D | ■ | C | ■ | B | ■ | ■ | A | S | H |
| N | ■ | ■ | N | ■ | ■ | U | ■ | ■ | O | L | D | L | A | D | Y | ■ | F |
| S | A | T | I | N | ■ | M | ■ | R | ■ | O | ■ | U | ■ | ■ | ■ | ■ | L |
| C | ■ | ■ | P | ■ | M | E | R | E | ■ | V | ■ | S | ■ | G | R | E | Y |
| O | ■ | ■ | ■ | ■ | A | ■ | ■ | E | ■ | E | ■ | H | ■ | ■ | ■ | ■ | E |
| T | W | E | N | T | Y | ■ | ■ | D | A | R | T | ■ | E | G | G | A | R |

Hidden moth SHOULDER STRIPE

Lepidoptera Crossword No. 17

All answers are either the whole, or a part of, the vernacular name of a moth on the British List. The letters in the coloured squares form an anagram of another British moth.



Clues Across

| | |
|---|---|
| 1 | This mace holder was brewed in a gentler mug and enjoyed. |
| 5 | See 2d. |
| 7. & 21d | A one-timer which could be confused with a clouded Berber. |
| 10 | see 3d |
| 12 | You should invest all your efforts to trace this chaste specimen. |
| 13 | We let this remain after discarding the fine clothing. |
| 14 | see 30a. |
| 16 | Surely Oscar let a large feline escape to retain this item. |
| 19 | Forget who's watching the under-aged! Who is dealing with the trash? |
| 21 | see 8d. |
| 24 | I'd love to prepare a really good clue to include this one..... |
| 25 | ..... but my wife suggests that I ask my Dad and Olly for help! |
| 26 | see 11d. |
| 27 | Initially realising each minor movement surprises the country dweller. |
| 30. & 14a. | Get wet feet after following our leader Pedro looking for this moth. |
| 31 | TV's Bake Off needs an extra hob to provide a compartment ..... |
| 32 | ..... for the main part of the show |
| 35 & 28d. | After following the dog-leg plans are made to catch this beauty. |
| 36 | see 17d. |
| 37 | Finding this small moth made Kim a star in her local area. |
| 38 | This moth may need others to make a distress call. |

Clues Down

| | |
|---|---|
| 1 | A decapod in the trap? Not quite what it sounds. |
| 2. & 5a | You need a real quirk to find this latecomer. |
| 3. &18d,10a. | Not only James Bond but Julie over-ruled M to track down this marvel. |
| 4 | see 6d. |
| 6. & 4d | I am sure that a stork sang to announce the arrival of this species. |
| 8. & 21a. | Whilst in Cuba lately I recorded this widespread moth. |
| 9 | Say goodbye to several geometers. A sign of the times maybe. |
| 11 & 26a | President Roosevelt. F.D. furbished the White House for this species. |
| 15 | A prickly colour problem Mabel, Pru, Pat and pals looked back on fondly. |
| 17. & 36a | Found after watching flirter on the rocky coast-line. |
| 18 | see 3d. |
| 20 | Two dozen across may well contain the answer to this moth. |
| 21 | see 7a. |
| 22 | Using binoculars in reverse many barred layers can be seen. |
| 23 | Why not let the raver tell his story from his caravan. |
| 28 | see 35a. |
| 29 | I'd rather Alderman Grundy make this announcement. |
| 31 | When potting this you deserve to confirm a good seven pointer? |
| 33 | During next winter we may find parts of at least three species. |
| 34 | Solid material shown by a backward but loyal companion |
| 35 | Could be found whilst making a huge mistake when digging. |

Non-conformist

## *Tailpiece*

As I write this we are getting close to the end of the GMS recording year. Doesn't time fly? Most of you will have sent your records in at the end of each quarter, but if you have been doing the recording but haven't been able to send in your results, please to try to get them in as soon after the end of the season as you can. Every set of records is important.

And, as always, let me have your thoughts or better still send me an article for the next edition which should reach you in time for Christmas.. Contact me at the usual norman@enviro-consulting.com.

## *Communications & Links*.

GMS Website - http://www.gardenmoths.org.uk/ - the Communications section gives information on the regional coordinators; the Downloads section provides access to Identification Guides, Annual Reports and Newsletters, as well as all the regional recording forms and instructions.

Facebook Page - https://www.facebook.com/GardenMothScheme - we now have over 1100 'Likes'!
Facebook Group - https://www.facebook.com/groups/438806469608527/ - currently with more than 2200 Members (not all active GMS participants) – open membership – all recording forms, instructions and micro-moth identification guides are available in the Files section

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