

GMS NEWS



Week 9 – Spring 2008



Common Quaker was the commonest Spring moth in 2004 to 2007, but was it in 2008? Photo by W. Plowes

Introduction:

Welcome to the first newsletter of 2008 for the Garden Moth Scheme (GMS). This year has seen a rapid expansion from what used to be a West Midland based GMS to a national GMS scheme. We have grown from 50 gardens taking part in 2006 to over 100 in 2007 and now close to 200 in 2008. We have moved from strong area GMS schemes based in Wales, South East England, East England and the West Midlands to a truly national scheme. The spread of gardens in the GMS now includes people from N. Ireland, Cornwall, N. Scotland and Jersey. **So, a big welcome, to all you new recorders out there and thanks for making the GMS one of the most successful moth recording schemes in the UK.** Do get in touch with me, or your area

coordinator if you need any help with the GMS, how to fill in your forms, identification help or help with your trap. We will try and help you out.

No-one needs to send their 2008 records in until November, but any records sent in early help us with accumulating records for the whole of the UK and also help your area recorders. As each year of the GMS consists of 36 weeks then we ask people to send in their records after week 9 (end of April), week 18 (end of June) and week 27 (end of August), so that we can produce a newsletter with each set of records. So the more records that you send in then the more news we can get in the newsletter.

In future issues of GMS News, we would very much like to include short articles of a couple of paragraphs on your garden and its moths – so get writing now! Whether this describes your experiences as a total beginner or as an expert of several years experience, or whether you have a massive rural garden or a tiny urban back yard – it is all interesting to other recorders. Also maybe our area coordinators would like to give a round-up of what's happening in their area? So if you have any ideas then get them in to me as soon as possible after the end of June and by July 18th at the latest – with the next newsletter out in early August.

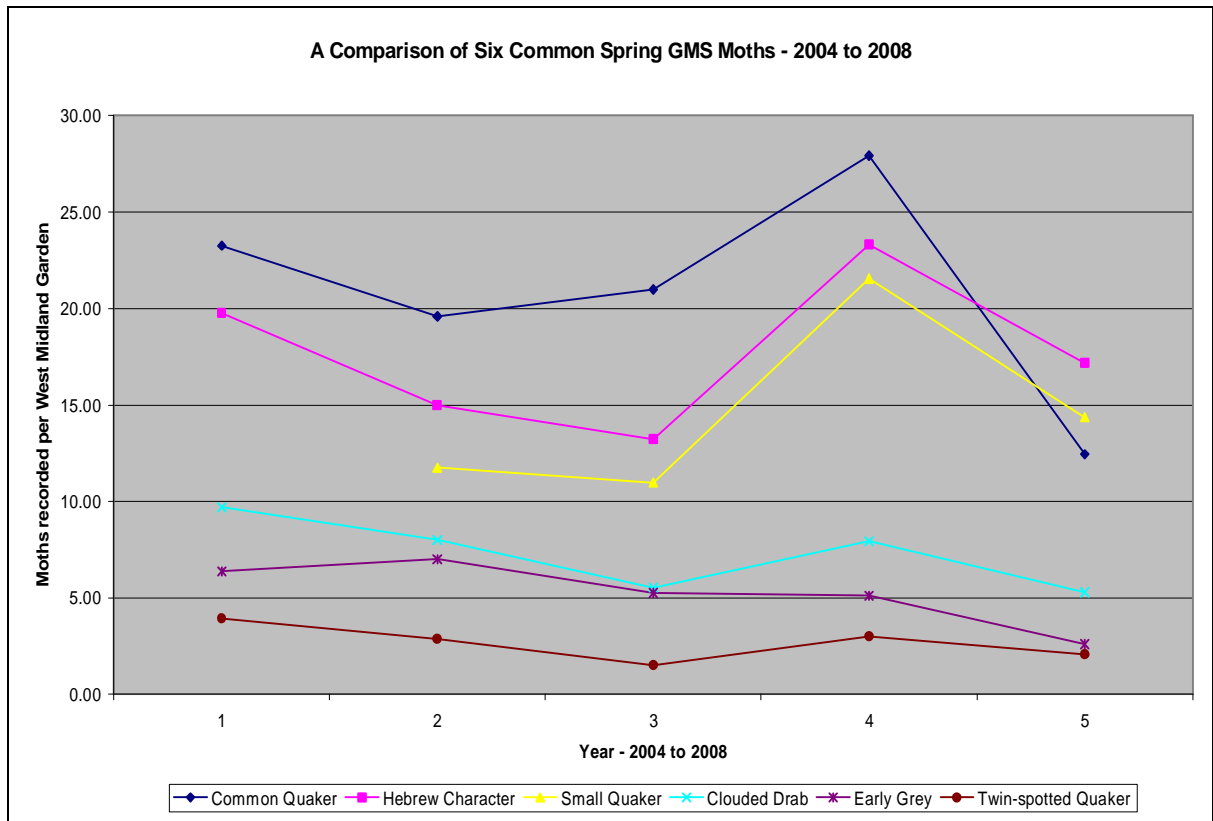
So, What's the News from Spring 2008?

We've had records back from an excellent total of 145 gardens to date – well done to everyone who sent them in. Rough comparisons can be made for West Midland records for the first 9 weeks in 2004, 2005, 2006, 2007 and 2008. Unfortunately we don't have enough data yet to make these comparisons for other parts of the UK.

Many moth recorders have been saying that spring 2008 is the worst they can remember for numbers of moths and numbers of species recorded. Certainly there was a big drop from the warm spring of 2007 when we recorded 56 species in the first 9 weeks to only 45 in 2008. But if you remember spring 2006 was also exceptional by recent standards, being very cold and late starting and only 27 species had been recorded from 23 West Midland gardens. So, in the West Midland area Spring 2008 was not as bad as spring 2006 for numbers of species recorded.

Readers from previous years will know we have referred to the Spring Big 5 Species; Common & Small Quaker, Hebrew Character, Clouded Drab and Early Grey as these are the commonest species recorded in most areas. These again featured as the commonest species, with Twin-spotted Quaker a poor sixth in 2008. Interestingly the seventh commonest species in 2008 was the Muslin and in the cold spring of 2006 this species didn't get recorded at all!

A comparison of the fortunes of the six commonest species from the GMS in the West Midlands for 2008 is shown in the graph below:



This shows a marked peak for spring species in 2007 followed by a decline in 2008. However, figures for 2006 were also very low. For most species 2008 was better than 2006, with only Common Quaker and Early Grey recording lower numbers in 2008. A look at the graph shows that for these six species, spring 2008 was cold and recorded low numbers, but these were not exceptionally low. All of this seems to show that there is nothing major to worry about for common spring moths in the West Midlands. The cold spring weather and effects of the previous wet summer have not been as bad as might be expected. Figures are really needed for at least ten years to test whether some species such as Common Quaker or Early Grey are in long-term decline. Also we need to test whether this situation is reflected across the whole of the UK.



Clouded Drab, one of 'the Spring Big 5', by W. Plowes

So, what's happening in the different areas of GMS?

The following tables show the top 10 commonest species in the UK as shown by records sent in by you.

		UK Totals		
Top Ten position	Species Number	145 gardens Common Name	Total Moths	Average per Garden
1	2190	Hebrew Character	2909	20.06
2	2182	Small Quaker	2803	19.33
3	2187	Common Quaker	2182	15.05
4	2188	Clouded Drab	1013	6.99
5	2243	Early Grey	606	4.18
6	2189	Twin-spotted Quaker	305	2.10
7	1862	Double-striped Pug	208	1.43
8	1927	Brindled Beauty	195	1.34
9	1917	Early Thorn	182	1.26
10	1663	March Moth	162	1.12
		Nothing	196	1.35

So, the commonest moth we recorded was Hebrew Character with a total of 2,909 moths seen and an average of 20.06 per garden. Common Quaker was the commonest moth recorded in 2004 to 2007, but has now slipped to third place in the table. The bottom row marked 'Nothing' is a measure of how many weeks there were when moth-trappers put their traps out and recorded no moths at all. So, 145 gardens in the UK trapped for 9 weeks and had a total of 196 empty traps (ie an average of 1.35 weeks out of 9 with empty traps for each garden) This total is higher than for 2007, but lower than 2006, again showing that Spring 2008 probably wasn't as bad as Spring 2006. But unfortunately one unlucky moth trapper managed an empty trap every week in 2008 with his Heath trap.

It is also interesting to compare these 10 species for the different GMS areas as shown below:

Average Numbers Recorded per Garden of 10 Commonest UK species, Spring 2008												
	Area Totals	SW	SE	CY	WM	EM	EE	NW	YH	NE	SC	
Species Number	Number of Gardens Common Name	11	25	26	42	4	19	7	6	4	1	
1	2190 Hebrew Character	24.9	13.5	26.5	17.2	7.3	23	33.1	13.3	12.8	58	
2	2182 Small Quaker	3.55	40.7	22.7	14.4	1.8	24.7	8.86	1.67	1.0	0.0	
3	2187 Common Quaker	13.7	16.6	19.1	12.4	7.0	16	24.9	6.5	7.0	26.0	
4	2188 Clouded Drab	3.91	4.28	10.6	5.29	7.5	11.2	10.3	4.0	4.75	7.0	
5	2243 Early Grey	3.91	4.8	6.96	2.6	4.3	4.21	3.43	2.17	4.0	3.0	
6	2189 Twin-spotted Quaker	0.73	3.0	2.81	2.05	0.0	1.84	4.14	0.5	0.0	0.0	
7	1862 Double-striped Pug	1.55	3.8	2.65	0.64	0.3	1.21	0.29	0.0	0.25	0.0	
8	1927 Brindled Beauty	0.64	1.36	2.92	1.62	0.5	0.42	0.0	0.0	0.0	0.0	
9	1917 Early Thorn	1.91	0.8	3.19	1.19	0.3	0.37	1.29	0.5	0.0	0.0	
10	1663 March Moth	0.45	0.68	1.35	1.24	0.3	2.32	0.0	1.83	0.25	0.0	
	Nothing	0.55	0.96	0.58	2.21	3.3	1.0	1.0	1.5	2.5	0.0	

In the table above; SW = SW England, SE = SE England, CY = Cymru or Wales, WM = West Midlands, EM = East Midlands, EE = East of England, NW = NW England, YH = Yorkshire & Humberside, NE = NE England, SC = Scotland. Figures for East Midlands, NW & NE England, Yorkshire & Humberside and Scotland are relatively small samples and therefore possibly not representative of the whole area.

For most areas the top ten species are roughly the same as for the national statistics, but there are interesting variations. Hebrew Character appears commonest in Scotland, Wales, NW and SW England. In contrast Small Quaker is commonest in SE and East England. Brindled Beauty is quite common in Wales, but absent from our tables for NW and NE England, Yorkshire & Humberside and Scotland. March Moth appears commonest in the East of England. Most of these species are considered common across the UK, so it is interesting to see just how much their numbers vary between areas.

The records for nothing in the trap are interesting to see with SW England and Wales recording the lowest number of empty traps (along with Scotland, but records only from one garden). Empty traps were recorded more regularly in the north and east and possibly with a concentration in the Midlands. This might reflect warmer winter temperatures in the south and west. Are temperatures in the Midlands cooler than near surrounding coasts?

Also of interest are the species that are quite common in gardens in different areas of the UK, but not making the national top ten. These include;
Red Chestnut, which is common in Wales, NE and NW England,
Powdered Quaker, which is common in East of England
Shoulder Stripe, common in Wales
Early Tooth-striped, common in Scotland.



Red Chestnut, common in Wales, by D. Grundy

Notes from Contributors:

(All the articles below are the opinions of the authors and not necessarily of the GMS or GMS coordinators as a whole)

a. From David Baker, Tadcaster, North Yorkshire Nine Cold Weeks of 2008

As a newcomer to the Garden Moths Scheme, I ought to introduce myself. I am a retired Electrical Engineer who took up “Mothing” in 1999, having been a member of Butterfly Conservation, Yorkshire Branch since 1996. I have run a moth trap from February to late October each year and now have a reasonable data-base for my garden site.

In answer to your Editor’s query as to whether spring 2008 was similar to 2006 I can give my response. In 2006 by April 30th I had caught 17 species of macro-moth (230 specimens). This year the catch has been 12 species (78 specimens). This count includes 42 blank nights from the 84 nights the trap was running. My poorest start to a year ever!

However, all is not gloomy! I have had two new species, 2236 Pale Pinion and 2139 Red Chestnut, and this could well have been three had I not seen 2237 Grey Shoulder-knot on 5th December last year. Also 2235 Tawny Pinion turned up after a nine year gap and 1746 Shoulder Stripe after a three year gap.



Pale Pinion, a new species, by D. Baker

So where are all the regulars? I have missed Angle Shades, Early Thorn, Muslin Moth, Garden Carpet, Waved Umber, Shuttle Shaped Dart and Small Quaker to name but a few. Several more “Northerners” have joined the scheme this year, I am told, and it will be interesting to see whether their results match my poor start.

b. From Chris Johnson, Nuneaton, Warwickshire
My Moth Comparisons 2007 & 2008 First Quarters (Sort of).

Having missed the first 6 weeks of the GMS my records will not qualify for the 2008 scheme, unfortunately. David Grundy has explained in great detail why they can't be included (*statistical analysis won't work well enough with this number of weeks missing, however do still send your records in for the newsletter and chatsite, where they will be useful if you miss lots of weeks – Ed*). This however does not stop me analysing my own records. So I thought I would share my results with you.

Firstly if I compare GMS 2008 weeks 7, 8 & 9 with GMS 2007 I find a huge difference in both species and numbers.

2007: 7 species totalling 17 moths.

2008: 2 species totalling 3 moths.

A fellow trapper Ray Healey has recorded a similar drastic drop in both species and numbers over the complete nine week period.

2007: 14 species totalling 112 moths.

2008: 9 species totalling 50 moths.

Does this mean last year's awful weather has taken its toll on this years population or has this year's first 9 weeks weather been awful too. Well, my weeks 7, 8 & 9 have not been too bad weather wise and in fact the weeks 8 & 9 were almost ideal nights so I would have expected to catch reasonable numbers.

So, if I now look at the species caught in 2007 weeks 7, 8 & 9 with 2008's I find that of the 7 species caught in 2007 I missed most of the flight periods for:

1) Common Quaker (7)

2) Small Quaker (1)

3) Early Grey (3)

4) March moth (1)

5) Hebrew Character (2)

6) Brindled Beauty (1)

(Incidentally the 7th moth was Shuttle-shaped Dart but this was at the start, for me, of its flight period.)

In fact, I only recorded Common Quaker (2) out of the 6 species for weeks 6, 7 & 8 in 2008. This goes a long way in explaining the lack of numbers for 2008. This lack of numbers also seems to indicate that either this year's poor weather has curtailed the flight periods or last year's awful weather has indeed affected this year's populations of the early spring moths. But has it? Rather confusingly in week 10 I caught a Hebrew Character and an Early Grey so have some species delayed emerging until the weather improved or are they genuinely late in developing?

As always it is very difficult to come to a logical or concrete conclusion, especially when based on just nine weeks, but judging by the lack of both species and numbers in my trap the weather has played a significant part in their decline. It is even harder to say that last year's poor weather is the culprit as this year's weather hasn't been good either.

One final spanner in the works is that this year I have caught my first for the garden:

1) Herald (Wk 9)

2) Pine Beauty (Wk10)

3) Lime Hawkmoth (Wk11)

4) Scalloped Hazel (dark form) Wk11)

Equipment: Skinner Trap Actinic 15W

Smallish garden in the middle of a housing estate with farmland to the North.

This is my third year of serious trapping and sixth year of attending moth nights.

c. From Philip Gould & Ian Woiod

The Rothamsted Insect Survey Light-trap Network

Introduction

Special conservation attention is now being given to many of Britain's rarer moths but we still know very little about the current status of the more widespread and common species. Thanks to the foresight of entomologists at Rothamsted Experimental Station over the last 70 years and the dedication of their army of volunteers, we are one of the few countries in the world to have any quantitative information on this important topic.

Rothamsted Research is the oldest agricultural research station in the world and is internationally renowned for its long term "Classical" fertiliser experiments, but it also has a long history of entomological studies. In the 1930s and 40s C.B. Williams ran a trap on the Rothamsted Farm from which all moths were counted on a daily basis. These data, and those from other traps on the estate, were published in an influential series of papers detailing many aspects of moth biology. These included: the effects of weather and moonlight on catches; nightly and annual flight times; the influence of trap height on catch; and the statistical measurement of moth diversity (long before the word "biodiversity" even appeared).

This work was continued in the 1950s by Roy (L.R.) Taylor. He was interested in how and why populations fluctuate from year to year but was also aware that many insect groups, such as moths, can be very mobile. He realised that it would be necessary to study populations of as many species as possible at different locations, to see how populations were synchronised and if this was related to mobility. At the time these were revolutionary ideas but no such data existed.

He decided to recommence trapping at C.B. Williams' original site on the Rothamsted Farm, using a trap identical in design and light source. This immediately provided unique information about long-term changes in farmland moth populations. The results were both surprising and alarming, as they showed an overall decline during the 1950s of about 70% in the total number of larger moths, and many species that had been common at the site had become very scarce or disappeared altogether. There is no comparable data from elsewhere in the UK so we don't know how widespread or synchronised farmland moth declines were during this period but we do know that the moth populations at the long-running Rothamsted site are currently very typical of arable fields in Britain. Therefore it is very likely that the decline of farmland moths during the 1950s was widespread and probably due to agricultural intensification hastened by post-war food shortages.

It was clear that these traps could provide invaluable research data but also that moth populations needed to be monitored much more widely if we were to understand population changes as they occurred. It was to fulfil both of these principles that during the early 1960s the Rothamsted Insect Survey (RIS) National Light-trap Network was set up. A large number of moth enthusiasts and other volunteers were enlisted to run traps throughout Britain and by 1968 there was a good national

coverage. In all, over 460 sites have been sampled and 54 of these have operated for 15 or more years. Currently 87 traps are in operation.

The Rothamsted Light Trap

Ideally, any national monitoring network should utilise identical apparatus and procedures at every site to maximise consistency, enable comparisons between sites and aid accurate statistical analysis. The Rothamsted light trap has proved ideal for such long term, quantitative, standardised monitoring.

One important feature of the trap is its opaque roof, which not only protects the sample from bad weather but, by careful examination, has been shown to improve the consistency of catches from night to night, when compared with the more widely used Robinson and other “open-topped” MV traps used today. This effect is probably related to changes in the height of flight of some of the more powerful moths, such as noctuids. These species may be influenced by local weather conditions from one night to another, making the sample size much more erratic and therefore much less representative of actual population size. As the Rothamsted trap only catches a small sample from a low level in the immediate vicinity of the trap, sample size is little influenced by this effect.

We use 200W clear Tungsten-filament bulbs, partly to ensure continuity with the historic data and because the small but representative samples obtained are practical to deal with, without any likelihood of harming moth populations. The latter point is particularly important when operating a scheme where the samples have to be killed for later identification, often away from where the traps are run. In an increasingly conservation-conscious world the necessity for taking dead samples has been questioned, but we have found no practical live-sampling method that would provide us with daily data that would stand up to rigorous analysis. The time and commitment required from volunteer operators would be just too great.

Of course, there can also be conservation issues with regular live trapping using MV-type traps, as many moths settle on vegetation surrounding such traps and it doesn't take long for birds and bats to discover this convenient food source. The Rothamsted trap is particularly benign in this respect because it is on a stand 1.2m above the ground. This, combined with the opaque roof and base, means that approaching moths either enter the trap or fly into a dark zone above or below the trap and continue on their way without settling. For scientific, long-term quantitative monitoring of moth populations it has become increasingly apparent over the years that the Rothamsted trap design, with its small but consistent sample size and simple operation, is as near optimum as possible for such work.

Concern regarding the collection of dead samples is not a new one and the whole subject of the ethics of insect collecting was addressed by C.B. Williams in the 1950s, who used samples from a Rothamsted trap to illustrate the lack of a long-term effect of such sampling on moth populations. All of his points are still valid today. We firmly believe that insects should never be killed casually or thoughtlessly, nor should sampling have any detrimental effects at the population level. We are therefore careful to ensure no vulnerable or very localised populations are sampled. What should be clear is that this cautious approach is fully justified by the results of conservation importance emerging from the unique RIS datasets.

The Garden Tiger Moth



Garden Tiger, by D. Grundy

Over 600 publications have made use of the RIS moth data, many addressing fundamental questions in ecological science. The first detailed study of a single species was of the Garden Tiger Moth, *Arctia caja*. Once regarded as common and widespread, it is now known to have declined and largely disappeared from many parts of England. The decline is particularly noticeable in the south-east whereas other areas, such as Scotland, are less affected. Analysis of our data confirmed that not only are there now 30% fewer RIS sites recording this species than there were 30 years ago but even at inhabited sites there has been a 30% decline in abundance. Further investigation has shown that wet winters and warm springs are particularly detrimental to the Garden Tiger and that change in distribution and abundance may largely be due to climate change. The complete story is not fully understood but it is possibly related to the overwintering survival of hibernating larvae.

Changes in Common and Widespread Species

Recently we have determined population trends using the full RIS dataset, analysing records from the 35 year period of 1968 – 2002. We used strict criteria for site and species inclusion to ensure the validity of the results and from this it has been possible to estimate population changes for 337 species of our more common macro-moths. The results should worry not just those interested in moths but also anyone concerned more widely in the conservation of British wildlife biodiversity, because both moth adults and larvae are vital sources of food for birds, mammals and other invertebrates.

Over the 35 year period, macro-moth abundance as a whole has declined by almost a third. However, these declines are not uniform across Britain, the strongest decline is seen in the south (particularly the south-east) and the smallest decline in the north. In fact, total moth abundance in the north has remained fairly stable, with species in decline being balanced out by those increasing.

At the species level there is even greater cause for concern. Of the 337 species, 71 (just over 20%) are declining at rates greater than 3.5% per year, a rate which is generally regarded as cause for serious conservation concern. It should not be

forgotten that these are species generally regarded as common and widespread. Until recently none had given cause for concern or been thought to warrant conservation priority. Thankfully much of this has changed since the publication of our research results, and particularly since the joint publication in 2006 of *The State of Britain's Larger Moths*, by Butterfly Conservation and Rothamsted.

What has caused these changes?

The patterns of decline or increase in some of our common moths result from a variety of factors. Some people have offered explanations for our results that we are sure are incorrect:

Diminishing effectiveness of the light source. This is highly unlikely as the technology used in making the Tungsten bulbs that we use is long established. Additionally, the bulbs are replaced several times each year, ruling out bulb age as a problem (which can be an issue with some longer-lasting MV and fluorescent bulbs). Again, the varied response of the same species in different areas rules out the validity of this idea.

Competition from light pollution. It has been suggested that our traps might simply be attracting moths less effectively with the increase of background light pollution. This is a serious concern and we have carefully studied satellite data showing changes in surface light emission between 1992 and 2000. We have compared moth trends at light-trap sites with no change (or decreases) in background illumination to those with increasing levels of emission. No differences in moth trends were found between these two categories, confirming our data to be robust in this respect

We have caught so many moths that it is not surprising that they have become rarer. Careful examination of long runs of data has never shown any consistent pattern that could be ascribed to a trapping-out effect. Apart from anything else, the patterns of decline do not fit such a suggestion, with the same species showing different rates of changes in different regions. For example, the Scalloped Hazel, *Odontopera bidentata*, has strongly declined in the south-east, remained stable in the south-west and increased significantly in the north. Together with the basic understanding that insect population dynamics are driven by very high natural birth and death rates in each generation, such examples exclude any possibility that our small light-trap samples are having the slightest influence on moth abundance over the long term.



Scalloped Hazel, strongly declined in the south-east, by D. Grundy

The pattern of our sites has changed with time. The results could have simply been due to changes in the distribution of our traps, therefore we repeated the analyses using only the longer-running sites (those running for 10, 15 or 20 years) and our conclusions remain the same.

So what has caused such a large imbalance between declines and increases in our common moths? The honest answer is that we don't know for sure. Further work is required to fully understand what is happening, particularly if we are to successfully influence conservation efforts that could help to reverse such trends. Some relationships between our results and the life histories of species have been found. For example, many species that feed on lichen have been increasing in number, probably as a result of lichen populations improving thanks to cleaner air. Conifer feeders have also been doing well, due to plantations and our penchant for ornamental conifers in gardens. In contrast, species that overwinter as eggs have been faring particularly badly but those on the wing throughout the winter have been increasing. These may well be signs related to recent changes in the British climate.

The results from the Garden Tiger study certainly suggested that climate change is playing an important role in distribution changes and declines in abundance. However, there are almost certainly other factors at work on particular species, including: agricultural intensification, land-use change, urbanisation and eutrophication from nitrates in air pollution. Light pollution is also likely to be having an effect, not as a competitor to light traps but as a pollutant in its own right, disrupting the normal breeding behaviour of many species. Determining the relative importance of each of these factors is vitally important but will not be an easy task because many of them are closely interrelated.

You could help

The long-term monitoring of any species-rich group is never going to be easy but hopefully the above account proves the importance of the RIS Light-trap Network. In many ways the Garden Moth Scheme is collecting complementary data that, with time, will give much useful detail about the urban situation. However, for those willing to make that extra commitment we are always happy to welcome new volunteers to the RIS network. As little as five minutes per day is required for daily trap operation, all equipment is provided and running costs are reimbursed. The commitment comes from keeping traps operating consistently (although samples can be accumulated if necessary) and wanting to make a truly valuable research contribution to our future knowledge of moth populations. For any further information, please contact Phil Gould at: phil.gould@bbsrc.ac.uk or 01582 763133 x 2453.

(As the GMS expands into a truly national scheme then we will need to work more closely with other schemes analysing what is happening to moths in this country. The GMS will try to work in a complementary way to other projects such as the Rothamsted Insect Survey, which has been going much longer than the GMS and the various important initiatives of Butterfly Conservation including Moths Count and more particularly Garden Moths Count – Ed)

d. From Norman Lowe

A Round-up of GMS Records in Wales so far in 2008

There are now 40 people in Wales who are taking part in GMS for 2008 – a big increase on the 23 who submitted records in 2007, our first year in Wales. I have now

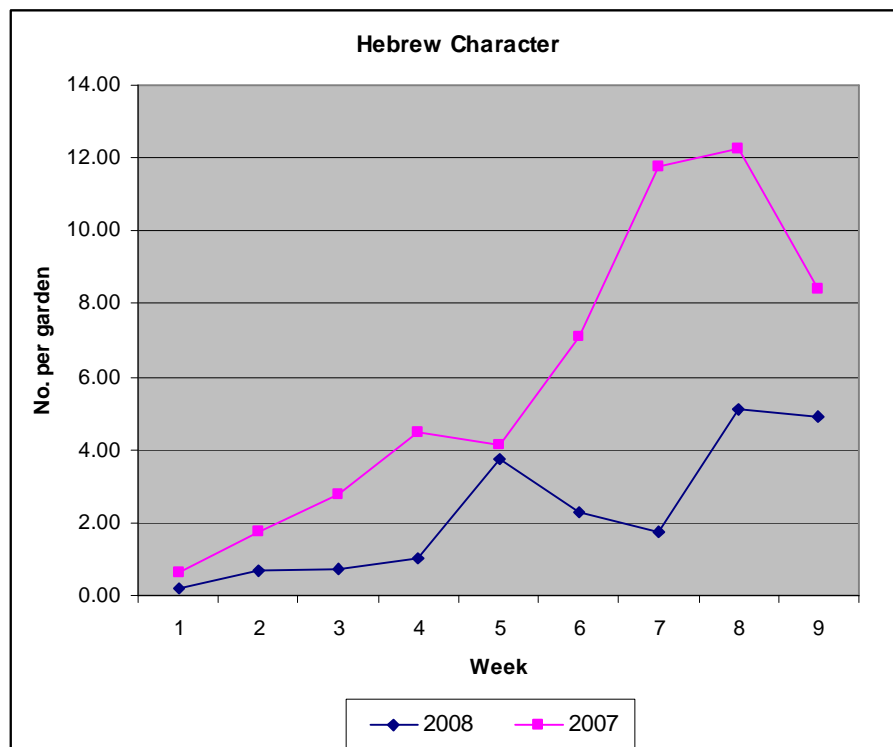
received 26 sets of interim results from recorders in Wales, which is really good – thanks to them for all their hard work.

I've put together some of the highlights from these, and the most obvious result is that most species are very much down on last year – hardly a surprise in view of the weather. The Top 10 commonest species for Weeks 1-9 in 2008 were:

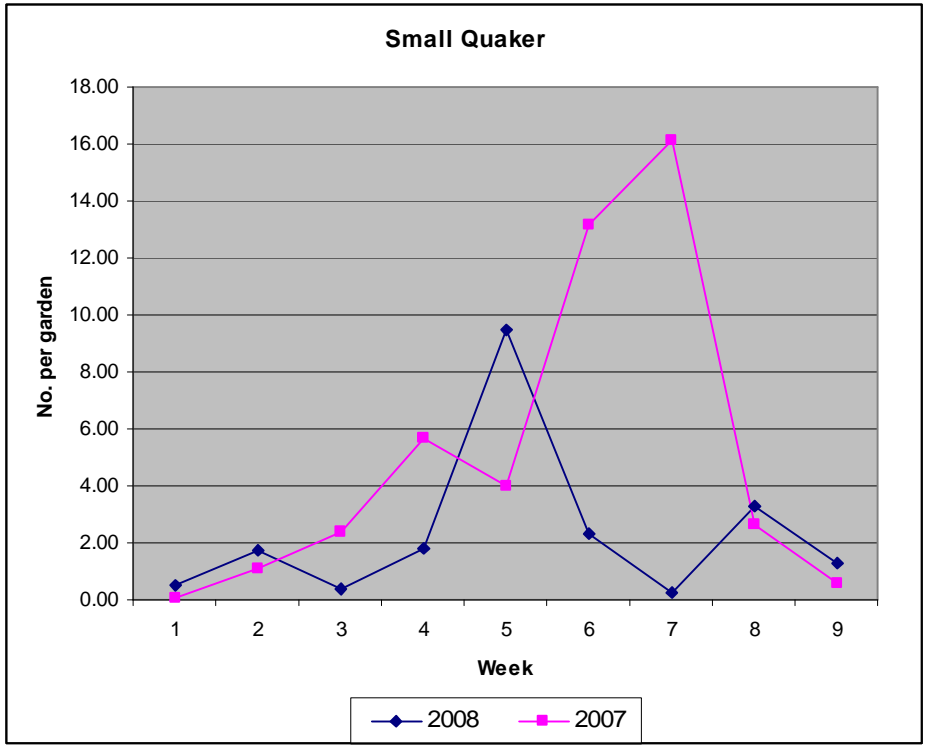
	Common Name	Total	Average	
			2008	2007
1	Hebrew Character	689	26.50	58.11
2	Small Quaker	590	22.69	43.72
3	Common Quaker	497	19.12	75.72
4	Clouded Drab	276	10.62	20.89
5	Early Grey	181	6.96	18.22
6	Shoulder Stripe	109	4.19	6.78
7	Early Thorn	83	3.19	10.22
8	Red Chestnut	80	3.08	3.72
9	Brindled Beauty	76	2.92	5.72
10	Oak Beauty	73	2.81	6.00

All have gone down in numbers compared with last year, especially Common Quaker and to a lesser extent Early Grey – Early Thorn is still probably in mid-season.

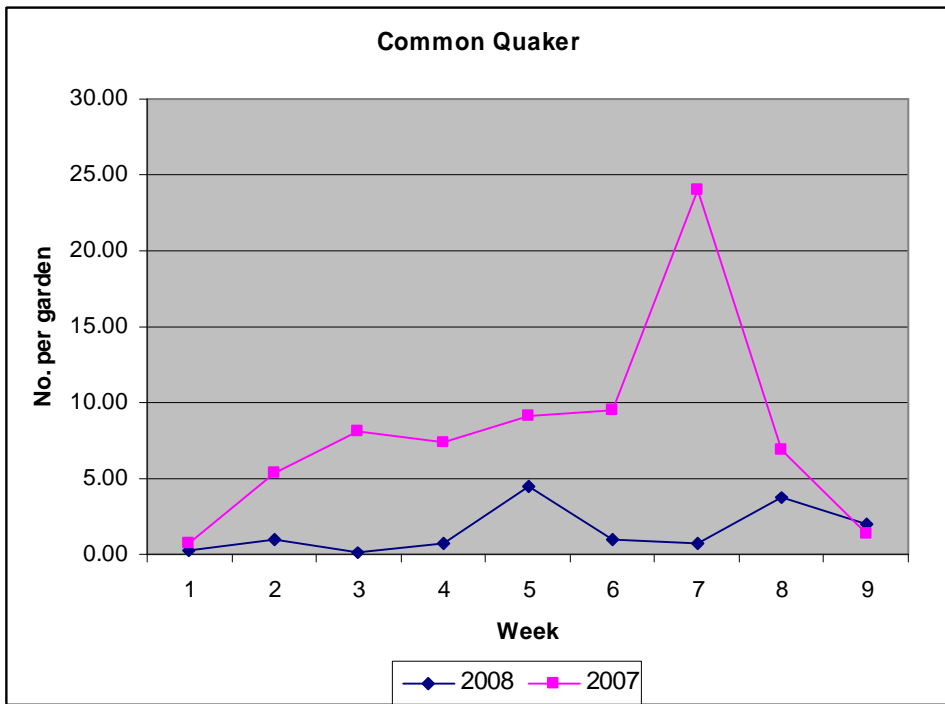
I've also had a look at flight periods of the “Spring Big 5” and produced charts to show average numbers for the 26 gardens, compared with the average for the 17 gardens that sent in figures for Weeks 1-9 2007.



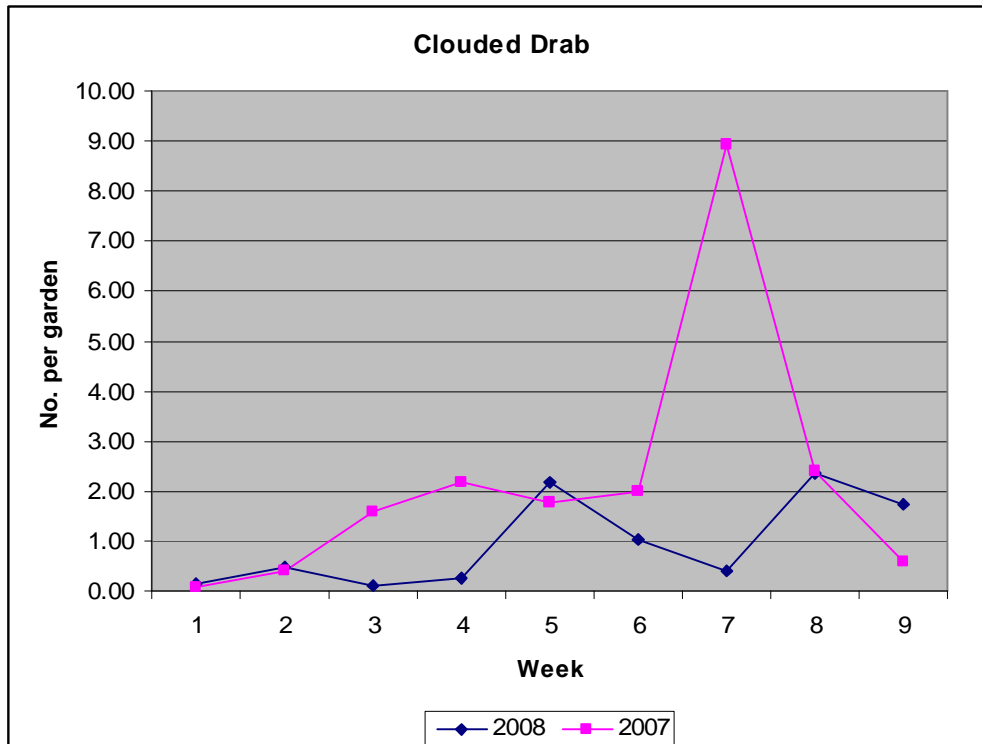
Clearly well down on last year but more probably only just past its peak so more moths to come.



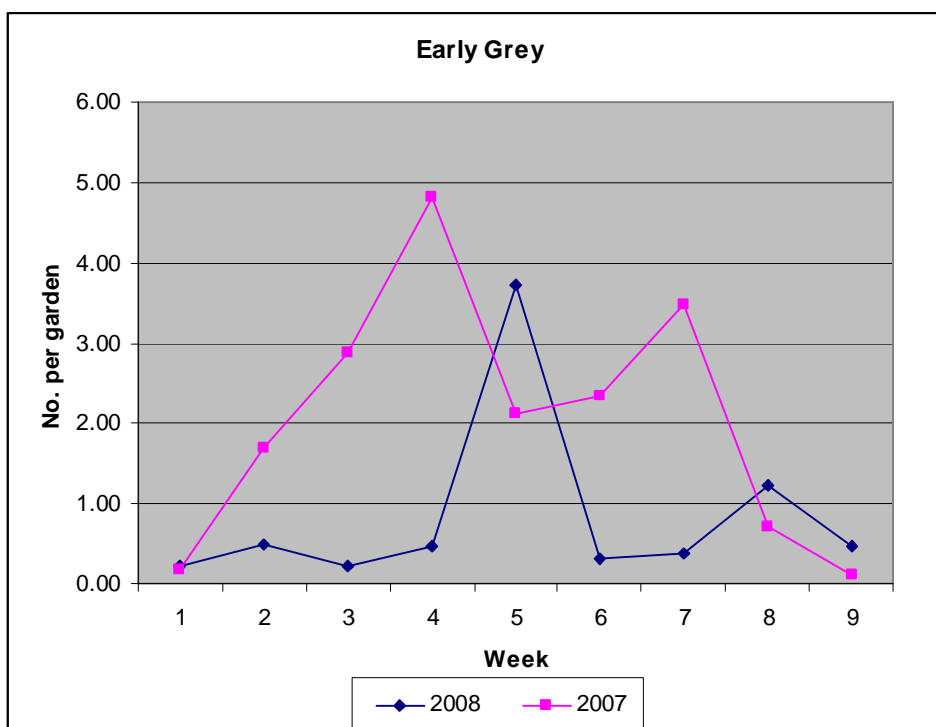
Again, well down and for some reason may have peaked early.



A big reduction compared with last year.



Similar pattern to Common Quaker but not such a big fall.



Another big reduction compared with 2007.

So, What About Other Moth News?

a. The GMS Chat-site

The chatsite is now going from strength to strength, with a lot of really useful correspondence between GMS contributors across the country. It is useful to see what other recorders are seeing in their gardens each week. Also people are sending in some excellent photographs of moths in their gardens (not necessarily just those on

the GMS list) and many of these are helping with identification. At least two gardens have reported the Puss Moth to the chatsite, but this is one of many species too rare to appear on our recording forms. More expert GMS participants are identifying photographs of rarer moths to help people who are beginners. If you want to join the chatsite then get in touch with John Bryan, who is our coordinator on john.bryan15@yahoo.com and he will get you joined up – but you must mention the passwords Marbled Beauty to show that you are in the GMS.



Puss Moth, by P. Beckett, Norfolk, 2008

b. Next Newsletter

The next newsletter is due out early in August, but the newsletter is only as good as your contributions allow so get your articles and photographs through to me by July 18th. Also please remember to get your week 10 to 18 records through to your area recorder as soon as possible after July 4th (don't worry you can send us all 18 weeks of records if that's easier), so that your records can feature in the next newsletter. You don't have to send us any records till November, but the more we get in after each 9 weeks, the better the newsletter can be!

c. GMS AGM – 2009!

The 2008 GMS AGM was held in Coleshill, Warwickshire in February this year and those of you who came along, will agree that it was an excellent event with over 70 people there. There were excellent talks and refreshments and stalls selling moth traps and GMS t-shirts etc. So, how can you possibly not make it to the next AGM – you can bring friends and family too, but we will be limited to the first 100 bookings for

the hall. Make a note in your diary now – it will be on Sunday February 15th from 1 to 5pm 2009 at Chaddesley Village Hall in Worcestershire. We will send you more details and directions nearer the time!



GMS AGM, February 2008, by W. Southall

d. National Moth Night

National Moth Night will be on Saturday 7th June 2008, so I hope you get this newsletter before the date. Please try and trap moths in your garden on this date and try and get along to one of the many public moth-trapping events organised around the country. See the National Moth Night website at www.nationalmothnight.info for further details of events and how to get your records back to the organisers.

e. Garden Moths Count Survey

In 2008, this event will take place from 21st June to 6th July. The event aims to encourage people who don't have a moth trap to look at moths in their garden that might be attracted to a lighted window or to plants in their garden. So, if you have any friends that might be interested in this survey then get the details of how to take part from the Moths Count website at www.mothscount.org (this is an excellent idea from Butterfly Conservation to get new people interested in moths).

f. The GMS Questionnaire

Thank you to everyone who has taken the time to fill in their GMS garden questionnaire. This is incredibly important to us in that it will collect habitat information about your garden which we can compare with population changes in moths. We believe that we have received filled in forms from all the people who took part in GMS in 2007. There will be a mailing including a blank form for you to fill in coming out soon to all new 2008 GMS people, from me or via your area coordinator, so look out for it! If you would like a form before this then you can download a copy from the files section of the chatsite, or from our garden moths website at

www.gardenmoths.org.uk or you can receive a copy from me or your area coordinator by email. You can also receive a copy from me by post – just let us know if you need one.

A quick search through the forms returned so far yields some interesting results. About a quarter of gardens are adjacent to a streetlight and about a quarter are on acid soils. Most surprising to me was the high number of gardens that contained wild ivy and buddleia. It's amazing that most gardens had these two key Lepidoptera nectar plants!

And Finally

Keep up with your excellent recording work, through the busy months of mid summer and keep your records coming in to myself and your area recorders. We would like your next set of records in after Week 18 on the 4th July (**and definitely by 18th July**).

Remember this is your newsletter – so if you want it to improve then send in your ideas for improvement and better still your ideas and stories about GMS recording, gardens and common moths, moth ID etc. This newsletter will be sent out by email wherever possible to save costs, so please try to arrange to receive it by email if you can. This then cuts down considerably on paper use for environmental reasons and cuts down on costs to GMS for postage, photocopying etc. and time for myself in addressing and filling envelopes. If you can not receive emails then we will of course send it out by post to you.

Remember also if you need any help with moth ID or equipment or just want to hear what other GMS people are recording then get yourself joined up to the GMS chatsite on the computer – this is a chatsite only for GMS members and no-one from outside the group. You can join the chatsite and listen to other people's comments, see their photos or you can contribute regularly or anything in between! Just contact our GMS chatsite coordinator; John Bryan on john.bryan15@yahoo.com and he will get you joined up. You will get to hear about all GMS news first via the chatsite.

Best wishes
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Some Sad News

Whilst typing this Newsletter, I have just heard the very sad news that Stephen West, a keen GMS contributor every year since 2005 has died suddenly. Our thoughts go out to his wife and family. He was a great believer in what we are all doing.