

## FEEDBACK IN THE SOUTH WEST FOR Q4 AND 2012

I must start of with an apology as to the lateness of the Q4 report and combining it with the whole year feedback. I shall try to find more available time in future!

Let's start with Q4 – weeks 28 – 36. Table 1 below shows comparison to the last four years averaged across all the gardens with no vice count split - and table 2 below it the vice county split for 2012.

Looking at these figures along with Angus's graphs show that it was a very poor period for moths in our gardens especially the species with their main flight times in September and October; for example Lunar Underwing, Beaded Chestnut and Green Brindled Crescent. Numbers were generally returned to 2008 levels.

SPECIES NAME	2008	2009	2010	2011	2012
GARDEN NUMBER	17 gdns	38gdns	40gdns	63gdns	58gdns
Large Yellow Underwing	21	32	76	67	26
Setaceous Hebrew Character	29	67	61	40	24
Square-spot Rustic	8	12	12	23	12
Lesser Yellow Underwing	7	8	8	13	11
Common Marbled Carpet	8	17	7	9	9
Light Brown Apple Moth	6	15	10	10	8
Silver Y	4	4	2	5	8
Brimstone Moth	4	7	2	5	6
Snout	5	8	3	4	6
Lunar Underwing	7	10	13	23	6
Black Rustic	5	8	8	11	3
Flounced Rustic	1	2	3	4	3
Angle Shades	4	5	2	2	3
Beaded Chestnut	3	7	16	18	2
Vine's Rustic	1	1	3	11	2
Rusty-dot Pearl	0.6	10	1	5	2
Feathered Ranunculus	7	7	3	4	2
Blair's Shoulder-knot	4	3	6	4	2
Green Carpet	0.2	2	1	3	2
Rosy Rustic	1	2	4	3	1
Barred Sallow	0.3	3	2	3	1
<i>Eudonia angustea</i>	not on list	2	1	3	1
November Moth aggregate	not on list	not on list	3	5	1
Green-brindled Crescent	1	2	2	6	1
Yellow-line Quaker	2	8	8	7	1
Common Wainscot	0.3	2	6	3	0.4
Spruce Carpet	not on list	4	1	3	0.3

**Table 1 – AVERAGE MOTH NUMBER PER GARDEN IN Q4**

SPECIES	VC1 & 2	VC3 & 4	VC5,6,7,8	VC 33,34	VC 9	average
<b>NUMBER of GARDENS</b>	<b>12</b>	<b>14</b>	<b>14</b>	<b>13</b>	<b>6</b>	
Large Yellow Underwing	17	20	33	16	37	26
Setaceous Hebrew Character	53	8	20	16	32	24
Square-spot Rustic	13	13	6	12	18	12
Lesser Yellow Underwing	4	8	14	12	16	11
Common Marbled Carpet	11	11	7	9	8	9
Light Brown Apple Moth	11	9	8	8	7	8
Silver Y	5	6	5	4	8	8
<b>Lunar Underwing</b>	3	3	5	7	13	6
Brimstone Moth	5	6	3	7	9	6
Snout	12	4	3	6	6	6
Flounced Rustic	3	1	1	3	7	3
Black Rustic	3	2	2	2	9	3
Vine's Rustic	1	1	2	0.7	7	3
Beaded Chestnut	0.2	0.8	3	2	6	2
Rusty-dot Pearl	7	0.1	2	0	1	2
Feathered Ranunculus	4	3	0.6	1	10	2
Green Carpet	3	1	0.5	3	2	2
Yellow-line Quaker	0.4	0.5	0.1	1	0.5	1
<i>Eudonia angustea</i>	3	0.5	0.8	0.2	0.5	1

**Table 2 – AVERAGE MOTH NUMBER PER GARDEN IN Q4**

It was really good to get 58 sheets back for this quarter. This enables our year on year comparisons to be more validly compared and also enables me to show some differences across our Vice Counties.

-----

Before looking at the whole year I always think it is worth looking at numbers in context. In the last five years, in our gardens, we have trapped in the South West over 408,000 moths from 108,400 records. This is just our gardens which only make up a tiny fraction of gardens in the area let alone the wider countryside. When we think of numbers we need to remember that many moths rarely come to light, some are day flying and that our traps only attract moths over a relatively small area. Also many moths have short life spans and we only trap one night a week. There must truly be a lot of moths – hundred's of millions or billions in the UK alone!

---

## **FEEDBACK 2012**

We have had 58 sheets returned which I was truly delighted with. During the year some recorders could not cope with the weather, others moved but the biggest problem for some recorders were health problems. Six recorders had illnesses during the year which meant they were unable to complete their sheets. We all wish them well but Gordon Hopkins from Dorset and John Cooke from Cornwall have had to stop regular trapping because of the need to take care of themselves! Gordon had done 5 years without missing a sheet and was one of the first recorders outside the Midlands for the GMS. John introduced me to mothing and has done four years for the GMS; so well done and thanks especially to both of them. They will be kept in touch with the GMS via the feedback. Thank - you to everyone who completed a sheet and if you did not manage one in 2012 I hope you will be raring to complete one this year.

From these comments one can see how important all our contributions are, and the need for keeping our recorder numbers replenished! If you know of any mother who may be interested in joining the GMS please feel free to give them my email – [george.w.davis@lineone.net](mailto:george.w.davis@lineone.net) or my phone number 013236 250171. Several of you already have ‘recruits’ in the scheme – well done and thank-you. Table 3 below shows the breakdown of recorders returning sheets this year by vice county. It is great to see that VC 3 which used to be very under-represented now is a stronghold and an improvement in VC 5 and especially VC 7.

<b>Vice County</b>	<b>2012 [2011]</b>	<b>Vice County</b>	<b>2012 [2011]</b>
1	4 [5]	7	6 [3]
2	5 [6]	8	2 [1]
3	12 [12]	9	6 [5]
4	1 [2]	33	8 [5]
5	4 [3]	34	5/[8]
6	2 [2]	TOTAL	55 + 3 sheets

**TABLE 3**

*The italics show vice counties recorders returning more than one sheet*

Another pleasing aspect of our SW group is that we now have several garden sites with records covering several years. Since the SW group started in 2007 with Gordon Hopkins and Clive Pinder.

a/ We have had 110 mothers expressed an interest in joining and been approached. About 13 said not for them or have not responded to the welcome explanatory email.

b/ Clive has done 6 complete years. 12 recorders have done 5 years at a site, 13 have done 4, 17 have done 3, 15 have done 2 and 26 one year.

c/ With a large garden or a good nearby friend it is possible to do more than one site – although this does need an extra spreadsheet each year and a separate G/Q. Three recorders do this and it interesting that often there are significant differences between catches. Peter Hugo has done 9 sheets altogether, David Price 6 sheets and I trap at 3 sites [two in my garden and another at a friend ] have done 13 sheets. One other factor to bear in mind is consistency. If one traps at more than one site it may be best to opt for a different chosen night for the extra trap – in a normally busy summer morning one cannot be at two traps at dawn at the same time!

d/ Altogether in the South West we have so far completed 216 sheets in the summer and also 73 winter sheets and, as already stated, recorded 408,000 moths from 108,400 records. After six years in the South West – starting from small beginnings – we are helping the GMS to build a high quality database – we should all give ourselves a pat on the back.

-----

So how did our moths do in the second wettest Summer on record? The answer is that numbers of most species were reduced and aggregate numbers returned to 2008 levels which generally was thought of as a bad year. Before we look at our figures in more detail I thought it would be interesting to look at some records over many years to see whether it was just my garden where the moth numbers were the lowest for years. Several recorders sent in some details of their ‘total’ moths trapped that I have not been able to use and I would like to thank them all. It is just an indication of what has happened in some gardens and the figures cannot be related from garden to garden due to different sampling and recording criteria. For each individual garden however there was more consistency in the recording and sampling criteria from week to week but without rules for holidays, weather, traps etc. I think the results back up the idea however that this year really was poor for moths.

	2004	2005	2006	2007	2008	2009	2010	2011	2012
A	22274	27819	41940	17652	21698	20593	14392	20751	11921
B	49476	34744	36578	24026	25043	19580	19617	15428	14856
C	1897	3526	6946	4118	4236	6096	4700	4154	2957
D	3330	2260	2729	2128	1798	3100	3453	4343	2593
<b>TOTALS</b>	<b>76977</b>	<b>68349</b>	<b>88193</b>	<b>47924</b>	<b>52775</b>	<b>49369</b>	<b>42162</b>	<b>44676</b>	<b>32327</b>

**TABLE 4 – MOTH NUMBERS**

A/ George Davis – garden in VC1      B/ Mick Scott – his ‘GMS’ trap on the Scillies – all weeknights VC1      C/ Lawrie de Whalley – garden in VC9 – different numbers of nights trapped – a lot more in 2012      D Leon Truscott – trap in his garden with different recording criteria, but consistent yr on yr. VC2.

The next table [5] shows the top 30 commonest moths across the SW in our GMS traps during the whole of this year along with figures for the average number of moths trapped in a garden and also figures for the growth in the numbers of moths we record on our sheets. The latter has increase by 25% and now includes a lot of common moths that were not originally counted in the scheme; bearing this in mind it clear that for moth numbers 2012 was the worst year since 2008. Seven moths appear in the 2012 list in the top 30 that were not counted in 2008. If allowances were made for this difference moth numbers in 2012 were actually 15-25% less than 2008 levels in the SW.

<b>Year</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
<b>SPECIES LIST SIZE</b>	<b>228</b>	<b>250</b>	<b>265</b>	<b>265</b>	<b>282</b>
<b>Number of Gardens in the SW.</b>	<b>17</b>	<b>38</b>	<b>40</b>	<b>63</b>	<b>58</b>
AVERAGE per GARDEN	1354	1832	2192	2020	1370
Large Yellow Underwing	253	210	242	182	110
Heart and Dart	47	71	132	232	66
Hebrew Character	32	46	69	78	56
Uncertain/Rustic ag.	Not on list	Not on list	Not on list	Not on list	51
Lesser Broad-bordered Yellow Underwing	42	39	30	37	44
Light Brown Apple Moth	42	48	32	25	44
Common Rustic Aggregate	Not on list	Not on list	61	42	39
Setaceous Hebrew Character	60	156	227	92	38
Dark Arches	29	29	50	52	36
Small Quaker	4	11	13	31	36
Flame Shoulder	65	87	76	28	34
Common Quaker	17	28	38	67	33
Garden Grass-veneer	Not on list	6	30	47	32
Brimstone Moth	37	37	27	32	30
Common Footman	27	25	28	28	30
Riband Wave	23	23	34	35	27
Dingy Footman	23	24	27	13	20
Square-spot Rustic	27	22	29	48	20
Buff Ermine	23	28	34	23	18
Lesser Yellow Underwing	21	16	16	21	18
Willow Beauty	19	17	21	17	18
Common Marbled Carpet	21	37	18	15	16

Snout	14	20	14	10	14
<i>Agriphila tristella</i>	Not on list	5	10	27	11
Shuttle-shaped Dart	21	16	48	35	10
Treble Lines	6	7	14	24	10
Clouded Drab	6	5	8	13	10
Bright-line Brown-eye	11	19	16	10	8
Marbled Minor Aggregate	Not on list	Not on list	25	18	8
Vine's Rustic	16	9	47	45	8
Lunar Underwing	7	10	11	23	5
Flame	10	22	29	15	8
Flounced Rustic	5	5	10	14	8
<i>Agriphila straminella</i>	Not on list	5	8	14	8
White Ermine	3	12	15	12	6
Double Striped Pug	5	6	7	11	5
<i>Agriphila geniculea</i>	Not on list	3	7	12	5
Muslin Moth	5	6	5	11	4
Double Square-spot	3	7	12	10	3
Beaded Chestnut	3	7	13	18	2
<b>Year</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>

**TABLE 5**

The next table [6] shows the vice county split. I hope this will show your garden in the context of others more locally than the huge whole of the SW. region.

	1&2	1&2	3&4	3&4	5,6,7,8	5,6,7,8	33&34	33&34	9	9	<u>REGI</u>	<u>ONAL</u>
	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011 av.	2012 av.
<b>NUMBER OF GARDENS</b>	<b>14</b>	<b>11</b>	<b>14</b>	<b>14</b>	<b>10</b>	<b>14</b>	<b>16</b>	<b>13</b>	<b>7</b>	<b>6</b>		
Large Yellow Underwing	164	86	180	127	323	154	113	79	181	97	182	110
Heart and Dart	90	32	177	50	455	126	304	68	171	31	234	66
Hebrew Character	66	52	69	38	47	52	103	84	109	58	78	56
Lesser Broad-bordered Yellow	25	22	28	35	55	59	36	49	54	62	37	44

Underwing												
Light Brown Apple Moth	48	61	22	48	21	34	15	45	9	18	25	44
Common Rustic Aggregate	23	14	32	29	71	58	43	50	52	47	43	39
Setaceous Hebrew Character	111	69	63	12	115	33	60	37	155	54	92	38
Dark Arches	32	18	55	19	89	55	45	54	53	30	52	36
Small Quaker	21	15	56	46	18	27	13	48	57	44	31	36
Flame Shoulder	43	63	26	29	24	24	19	20	32	42	29	34
Common Quaker	56	26	74	25	50	32	59	40	100	54	68	33
Garden Grass-veneer	14	4	15	9	94	59	66	55	66	26	47	32
Common Footman	5	3	31	26	20	36	41	40	49	58	28	30
Brimstone Moth	32	20	38	24	28	30	24	39	42	45	32	30
Riband Wave	16	15	34	24	34	32	60	40	22	25	35	27
Dingy Footman	23	30	14	15	6	14	5	15	17	37	13	20
Square-spot Rustic	25	16	37	23	76	14	51	24	73	31	49	20
Willow Beauty	9	6	24	18	20	27	15	16	20	23	17	18
Buff Ermine	25	17	26	16	16	13	18	16	31	37	23	18
Common Marbled Carpet	28	20	14	20	7	13	12	16	6	9	15	16
Agriphila tristella	26	10	20	8	34	9	32	20	20	6	27	11
Shuttle-shaped Dart	14	9	14	5	93	14	31	8	44	15	35	10
Treble Lines	25	10	21	7	15	10	30	13	29	11	24	10
Clouded Drab	2	1	20	9	15	11	17	18	11	6	13	10
Vine's Rustic	23	6	32	4	93	9	24	7	94	26	45	8
Lunar Underwing	13	3	15	3	43	5	14	7	46	12	23	5
Marbled Minor Aggregate	16	7	13	4	20	9	19	10	26	12	18	8
Flame	15	5	10	4	11	9	25	12	9	11	15	8
Flounced Rustic	13	9	5	3	11	7	23	13	20	14	14	8
Agriphila Straminella	4	2	17	5	20	7	12	16	23	10	14	8
Bright-line Brown-eye	8	7	13	4	11	10	11	6	6	6	10	7
White Ermine	19	8	14	7	6	4	7	5	12	6	12	6
Agriphila geniculea	6	2	3	3	27	6	17	7	10	5	12	5
Double Striped Pug	15	7	9	5	12	4	11	3	6	11	11	5
Muslin Moth	12	4	14	4	6	3	10	4	10	5	11	4
Beaded Chestnut	4	0.1	21	0.8	19	3	19	2	34	7	18	2
	<b>VC 1&amp;2</b>		<b>VC 3&amp;4</b>		<b>VC5, 6,7,8</b>		<b>VC 33&amp;3 4</b>		<b>VC 9</b>	<b>VC 9</b>		

**TABLE 6**

Looking at these tables it is clear that 2012 was the first year in the last five that all of the top three commonest moths [Large Yellow Underwing, Heart and Dart, Setaceous Hebrew Character] had a bad year. Roughly 30% of the difference in moth numbers between 2011 and 2012 was accounted for by this. There were plenty of other species where numbers fell by 50% between 2011 and 2012 and Beaded Chestnut

declined 89% and Lunar Underwing's tentative recovery from the crash in numbers around 2002 – 2004 was reversed with numbers returning down 78% to 2008 levels.

Some moths did do better however. Light Brown Apple moth returned to average numbers after a relatively poor year in 2011. Lesser Broad-bordered Yellow Underwing and Common Footman [ apart from VC1&2] had good years and Small Quaker comfortably had its best year in the last five. Finally Common Swift continues to slowly recover from its crash in numbers a few years ago; the garden average was 9.2 making it the 32<sup>nd</sup> most common moth in our area.

I hope you have found something to interest you in this report.

George Davis