

Butterfly Transect at Markstakes Common: 2015 Summary



Ian Seccombe
30th October 2015

The Markstakes butterfly transect was walked on 22 of the 27 weeks specified by the United Kingdom Butterfly Monitoring Scheme (UKBMS) between the beginning of April and the end of September 2015. Sightings of butterflies occurred on 19 transect walks. This is the fourth consecutive year of recording on this transect. Data have been submitted to UKBMS using the online Transect Walker system.

In the 19 weeks when recordings were made 530 butterflies were recorded in 24 species. The UKBMS algorithm provides estimates for the missing weeks which gives a total *estimated* abundance of 590. The recorded data (530) compares with 591 individuals in 2013 and 602 in 2014. Perhaps the most notable feature this year, apart from the overall decline in numbers, was the re-appearance of Ringlets. Eleven Ringlets were recorded in 2015 compared with none in 2014.

With a few notable exceptions most species were present in smaller numbers compared with 2014. Numerically the largest declines were amongst Small Skippers (-23), Meadow Brown (-19) and Common Blue (-19). These three species account for 86% of the overall drop. Small Copper and White Admiral numbers have fallen for a second year in a row, with very few individuals recorded. The main exceptions to this overall decline were among the early spring butterflies - Brimstones and Orange Tips - which both had much better years. Comma, Marbled White, Gatekeeper and Small Heath were also recorded in larger numbers.

As in previous years, the three most numerous species account for over half (56%) of all the records:

Meadow Brown	178
Gatekeeper	77
Peacock	42

For full list of species recorded, and their abundance, over the four years see table 1 below. Note that species which declined between 2014 and 2015 are shown in bold.

Table 1 Number of each species recorded in 2012, 2013, 2014 and 2015 seasons

Family and Species	Common Name	2012	2013	2014	2015
HESPERIIDAE					
Thymelicus sylvestris	Small Skipper	2	6	57	34
Ochlodes venata	Large Skipper	4	4	5	5
PIERIDAE					
Gonepteryx rhamni	Brimstone	8	29	32	41
Pieris brassicae	Large White	22	73	33	24
Pieris rapae	Small White	3	4	12	2
Pieris napi	Green-veined White	6	16	2	3
Anthocharis cardamines	Orange Tip	10	5	5	12
Colias croceus	Clouded Yellow		2	1	
Leptidea sinapis	Wood White		1		
LYCAENIDAE					
Lycaena phlaeas	Small Copper	1	8	4	2
Celastrina argiolus	Holly Blue	1	1	3	2
Polyommatus icarus	Common Blue		15	33	14
NYMPHALIDAE					
Limenitis camilla	White Admiral	9	10	6	2
Vanessa atalanta	Red Admiral	5	3	13	4
Inachis io	Peacock	8	20	51	42
Polygonia c-album	Comma	4	10	6	10
Argynnis paphia	Silver Washed Fritillary	14	35	28	15
Aglais urticae	Small Tortoiseshell		3	11	3
Vanessa cardui	Painted Lady		1		1
Melanargia galathea	Marbled White		6	7	14
Apatura iris	Purple Emperor			1	1
SATYRIDAE					
Pararge aegeria	Speckled Wood	54	55	29	21
Pyronia tithonus	Gatekeeper	36	44	63	77
Maniola jurtina	Meadow Brown	83	225	197	178
Coenonympha pamphilus	Small Heath	7	12	3	12
Aphantopus hyperantus	Ringlet		3		11

The records show a very uneven distribution of butterflies across Markstakes. Section 7 (the Mire) had 17 of the 25 species present and 30% (160) of all recordings. Section 5 (which includes the butterfly glades) also had 15 species and nearly 18% (95) of recordings. In contrast sections 3 and 10 had only one record each. Table 2 shows the number of species and butterflies in each section of the transect in 2015.

Table 2 Number and distribution of species by transect section 2015

Section	No. of species	No. of butterflies	% total
1	5	7	1.3
2	6	20	3.8
3	1	1	0.2
4	11	50	9.4
5	17	95	17.9
6	14	40	7.5
7	17	160	30.2
8	13	69	13.0
9	5	15	2.8
10	1	1	0.2
11	6	17	3.2
12	11	55	10.4
Total		530	100.0

Chart 1 below shows how the number of butterflies recorded in each section has varied from year to year over the past three years. Despite 2015 being a poorer year overall, some sections (4, 5, 8, 9 and 11) actually recorded an increase.

Chart 1 Abundance by transect section, 2013, 2014 and 2015

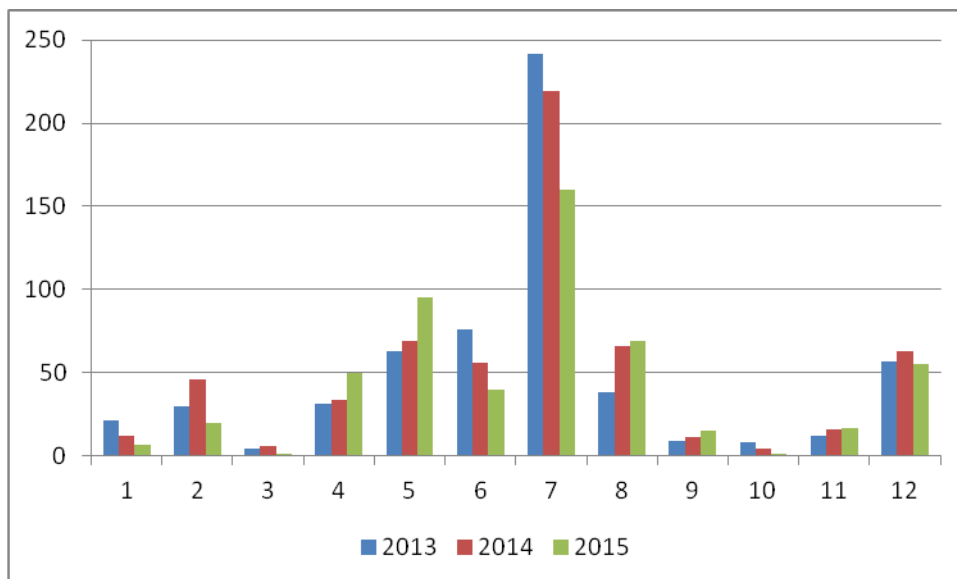
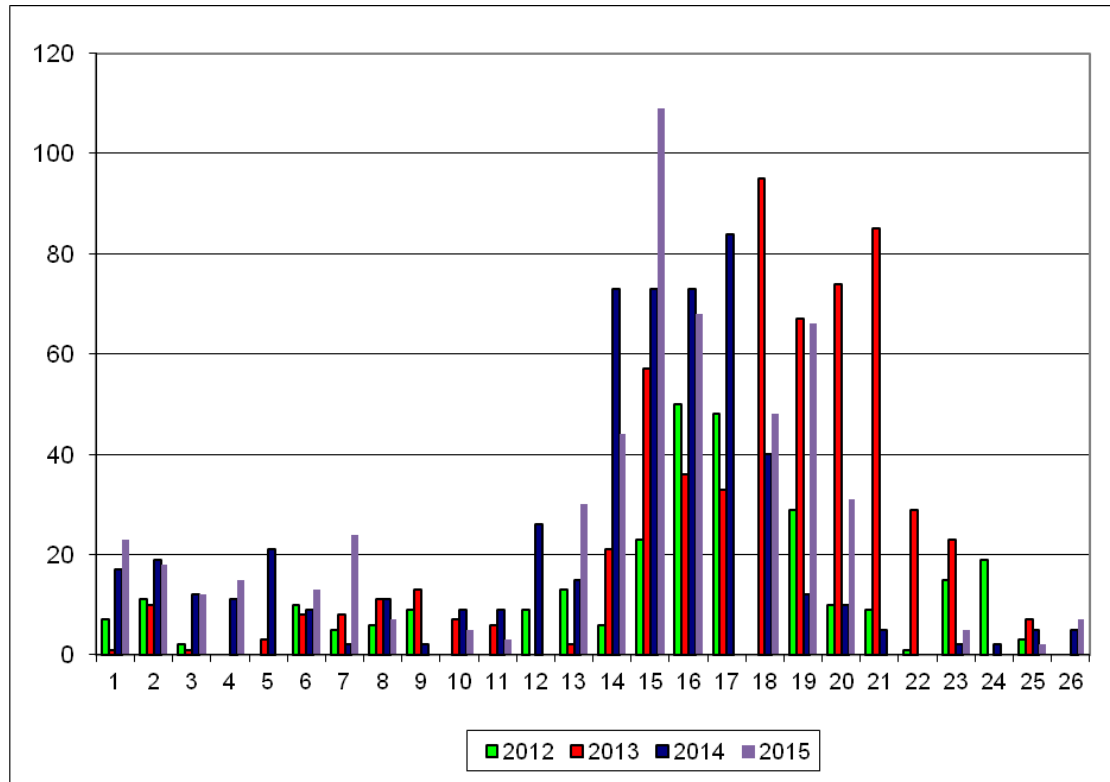


Chart 2 below shows the number of butterflies recorded each week over the past four years. Recordings in April and May account for 21% of the 2015 total, compared with 17% in the previous year. Numbers again peaked in July, which accounted for over half the total - with the second week of July accounting for a fifth of all records. Numbers dropped off rapidly with the wet weather from early August. Only 14 butterflies were recorded over the last six weeks of the period - that was fewer than in the first week of April.

Chart 2 Number of butterflies by week, 2012-2015



Recorders: Rupert Hall, Ian Seccombe, Ian Woolsey