

# THE BUTTERFLIES of STUDLAND COMMON



## REPORT OF BUTTERFLY TRANSECTS 2016

# Part 1 - Introduction, Acknowledgements & Contents

## A) Introduction

The following report summarises the findings of the weekly butterfly transects undertaken by the New Forest Transect Group at Studland Common during 2016.

This is the first year of recording along this route which was designed with advice and collaboration of the Milford Conservation Volunteers.

Recording protocols are in accordance with United Kingdom Butterfly Monitoring Scheme Guidelines.

By adopting Butterfly Conservation terminology, the term 'index' is used throughout though, for most purposes, this is synonymous with 'count'.

## B) Acknowledgements

Milford Conservation Volunteers:	Keith Metcalf
Hampshire Flight Chart:	Alan Thornbury
Transect History:	Derek Hankinson
Report prepared by:	Bob Annell
Narrative:	Bob Annell
Overall Summary:	Tani Read
UK Weather:	Trevor Bumfrey
Report Checking:	Jacky Adams
UKBMS database entry:	Tani Read

Team Leaders:	Tani & Eric Read	
Transect Team:	Bruce Halliday	Keith Metcalf
	Jean Halliday	Theresa Holden
	Anne Jenks	

## C) Contents

Part	Title	Page
1	Introduction, Acknowledgements & Contents	1
2	Overall Summary	2
3	Flight Periods	3
4	Weekly Indices	4
5	Species Overview	5
6	Species per Section	6
7	Annual Comparison Indices	7
8	Annual Species Variation	8
<b>Appendix 1</b>	Weather	9
<b>Appendix 2</b>	Photographs	10
<b>Appendix 3</b>	Transect Location/Route	11

A more detailed analysis, together with the raw data is available to Group Members and Landowners on request.

## Part 2 - Overall Summary

Studland Common Nature Reserve located in Milford On Sea is a designated Site of Importance for Nature Conservation. There are several habitats within this 6.92 hectare site including meadow, orchard, scrub, woodland, and a stream. The stream is nearby but not on the Transect and the woodland borders part of the Transect.

The Parish Council, with the guidance of the New Forest Land Advice Service and Milford Conservation Volunteers, started a 10 year scrub management and grassland restoration project in 2012, which is being funded by Natural England. Works are done under the Higher Level Stewardship Agreement. The aim is to achieve a 50/50 mix of scrub and flower-rich grassland from a 70/30 mix. As part of the restoration cattle grazing has been re-introduced after some fifty years in the meadow and common.

The New Forest Transect Group took an interest in Studland Common Nature Reserve when a White-letter Hairstreak was reported in 2015. In subsequent visits no others were seen but the potential to register a Transect was eagerly pursued by Milford Conservation Volunteers and the New Forest Transect Group. Sadly no White-letter Hairstreaks were recorded in 2016.

Given the disappointing weather of 2016 the overall results are encouraging. Future management plans should provide good habitat for many of our butterfly species and a corridor for migrants.

Generally sightings were within the Hampshire flight periods. Our annual index was 740 with 22 different species.

The 'browns' were the dominant family making 72% of the annual index - Meadow Brown 227, Gatekeeper 160, Marbled White 104 and Speckled Wood 42.

'Whites' and 'yellows' were 13% - Large White 60, Small White 29, Brimstone 3, Clouded Yellow 1, Green-veined White 1 and Orange Tip 1.

'Fritillaries', 'admirals', and 'tortoiseshells' were 8% - Red Admiral 37, Peacock 10, Comma 8, Painted Lady 1, Small Tortoiseshell 1 and Silver-washed Fritillary 1.

'Coppers', 'hairstreaks' and 'blues' were 4% - Small Copper 14, Holly Blue 7, Common Blue 5 and Green Hairstreak 2.

Skippers were 3.5% of the annual index - Small/Essex Skipper 22 and Large Skipper 4.

As 2016 is the first year for transect records there is no comparison data. There was good diversity in all sections. Although six species were only single sightings and one species two sightings they generate an air of hope and anticipation that, with better weather conditions, future numbers may prove more robust. Watch this space...

## Part 3 - 2016 Flight Periods

2016 Flight Periods																											
Week Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	Totals
Week Commencing	1/4	8/4	15/4	22/4	29/4	6/5	13/5	20/5	27/5	3/6	10/6	17/6	24/6	1/7	8/7	15/7	22/7	29/7	5/8	12/8	19/8	26/8	2/9	9/9	16/9	23/9	
Small/Essex Skipper															13	2	7										22
Large Skipper														4													4
Clouded Yellow																								1			1
Brimstone						1	2																				3
Large White							7	1	1						1	2	4	24	2		6	5	6	1			60
Small White		1			1											2	2	1	8	10		2	1			1	29
Green-veined White																				1							1
Orange-tip							1																				1
Green Hairstreak							1	1																			2
Small Copper																							2	1	5	6	14
Common Blue									1									1	1	2							5
Holly Blue								1										3		1	2						7
Red Admiral	1		1					1	1						1		7	10	1		2	1	1		5	5	37
Painted Lady											1																1
Small Tortoiseshell		1																									1
Peacock		3			2		2										1	2									10
Comma		1			1	3											1	2									8
Silver-washed Fritillary																					1						1
Speckled Wood							1	4			1								11	3	1	3	3	2	2	3	42
Marbled White													1	22	64	12	4	1									104
Gatekeeper															1	2	29	92	20	15	1						160
Meadow Brown											1	9	24	30			44	41	30	22	15	7	1	2		1	227
DIFFERENT SPECIES	1	4	1	0	2	3	6	5	3	1	1	1	2	3	6	4	9	12	7	8	6	5	6	5	3	5	22
TOTALS - 2016	1	6	1	0	3	5	14	8	3	1	1	1	10	50	110	18	94	195	65	53	29	18	13	7	13	21	740
Hants Flight Periods Alan Thornbury														Transect record within normal Hants flight period							Transect record outwith normal Hants flight period						

In the main, all species were seen during their normal Hampshire flight periods.

Small/Essex Skipper emerged late and were only on the wing for four weeks.

Only over-wintering Brimstone were seen which hopefully did provide their annual brood – only next year will tell!

Small Copper however were only recorded in their last brood of the season.

Red Admiral were well represented throughout although higher numbers were recorded later in the year, possibly a consequence of continental migrant arrivals.

A single Small Tortoiseshell was recorded in early April, but Peacock were seen in both the over-wintering and annual broods, as were Comma.

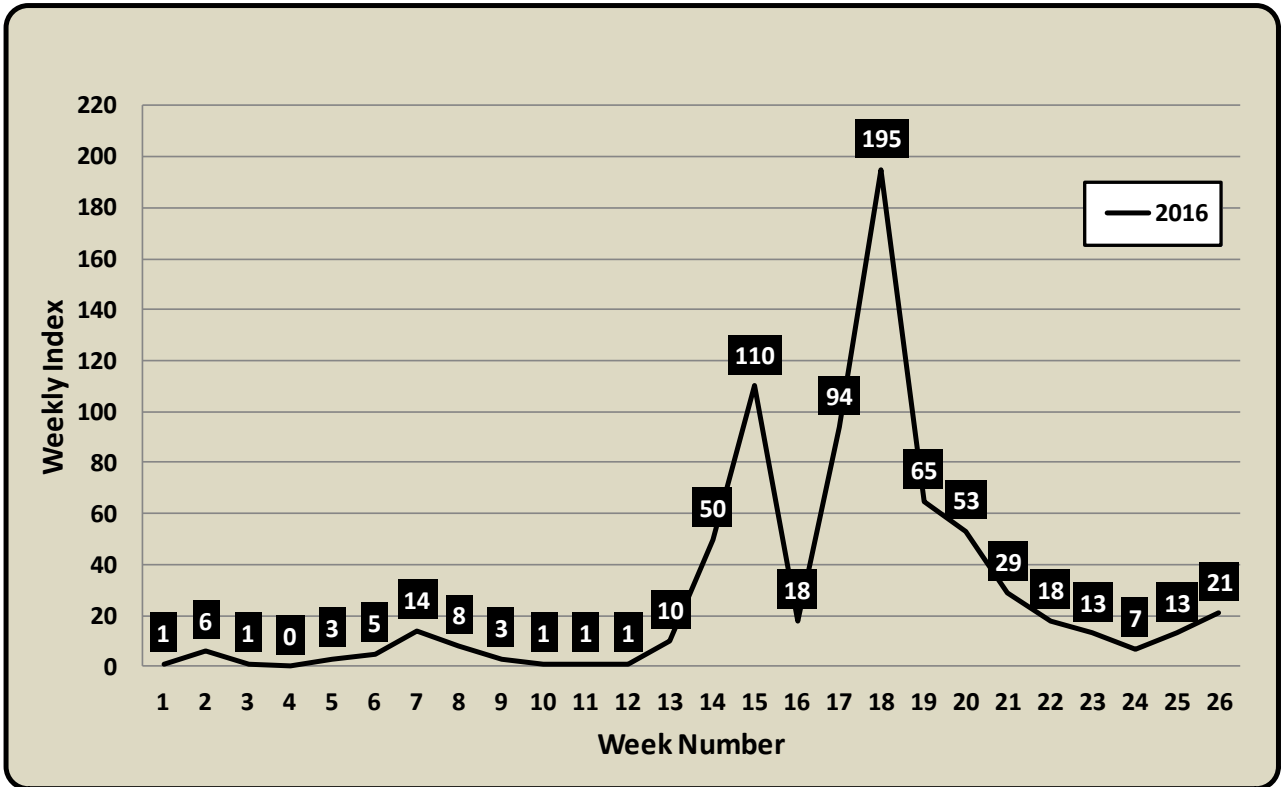
Speckled wood were more abundant later in the year with a peak during Week 18 in common with many other of the summer species.

Both Meadow Brown and Gatekeeper generally followed their normal Hampshire flight periods.

Marbled White emerged late but recorded in good numbers albeit within a rather short flight period.

All of the above observations regarding flight periods are based on Alan Thornbury's Hampshire Flight Chart, [www.purple-emperor.co.uk](http://www.purple-emperor.co.uk)

## Part 4 - Weekly Indices



Peak numbers occurred towards the end of July in Week 18. This coincided with the peak period of most of the summer species.

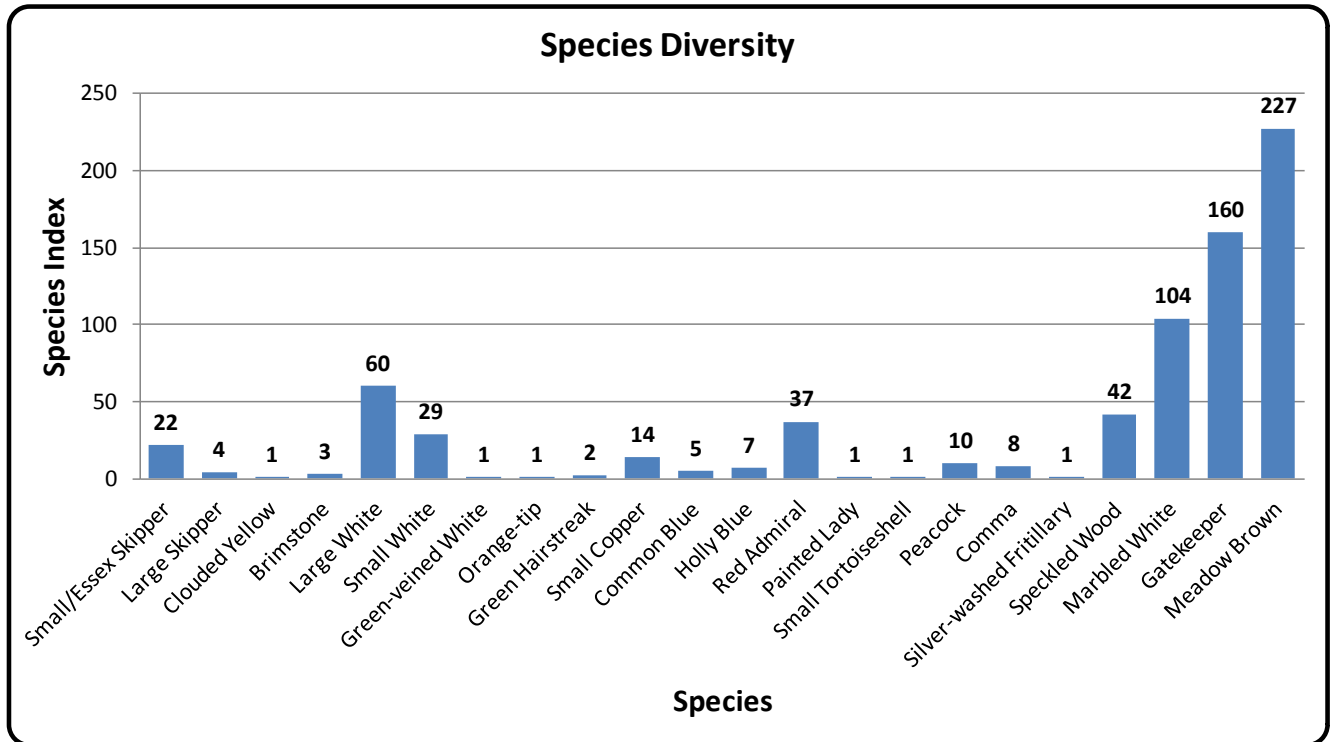
Not surprisingly, maximum species diversity (12) also occurred during Week 18.

An earlier minor peak in Week 15 was the result of the Marbled White peak of 64 even though the percentage sun that week was far from ideal.

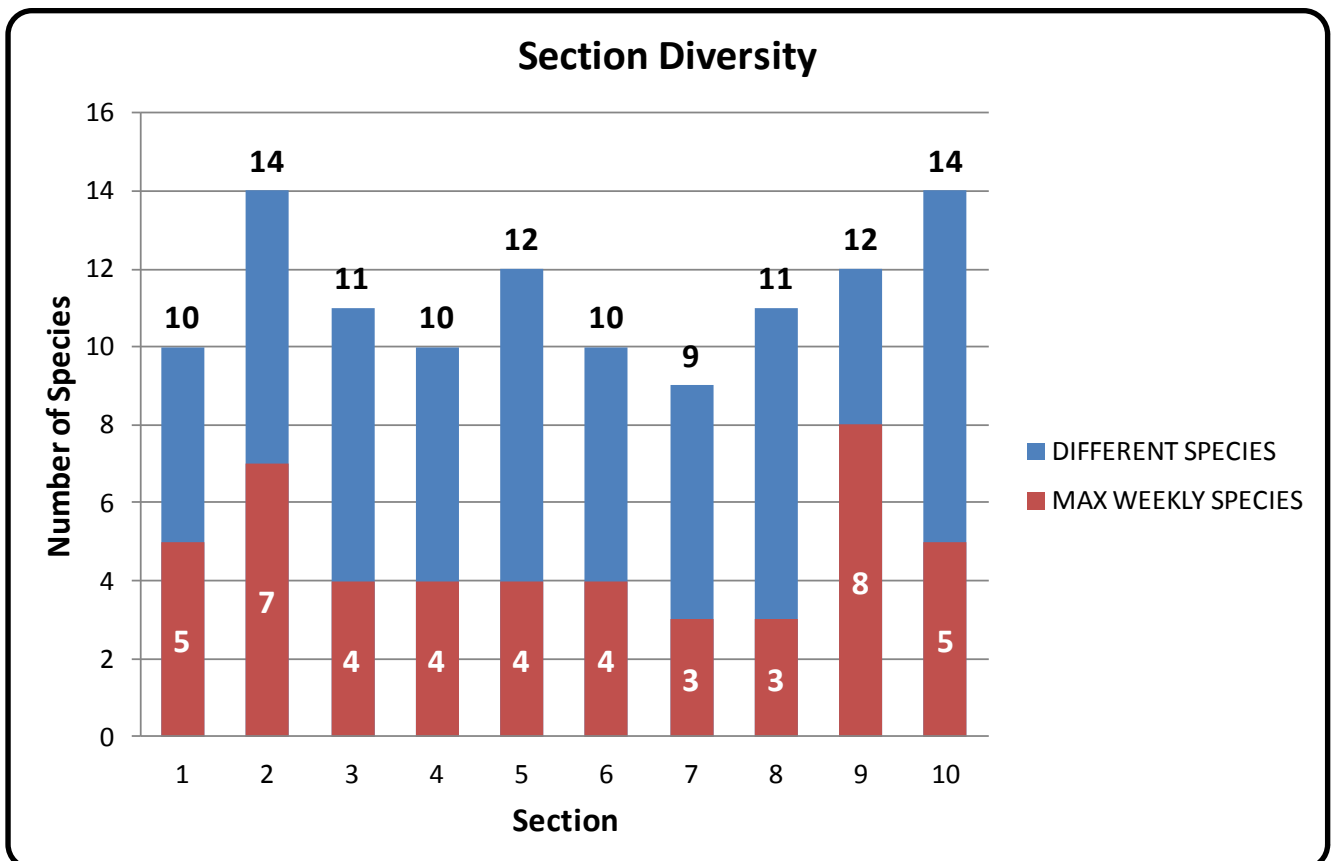
Numbers rapidly declined after the summer peak although rallied during the last two weeks thanks to reasonable numbers of Speckled Wood, Red Admiral and Small Copper.

The above graph will develop over the years to include previous years' counts therefore enabling useful comparisons to be made.

## Part 5 - Species Overview

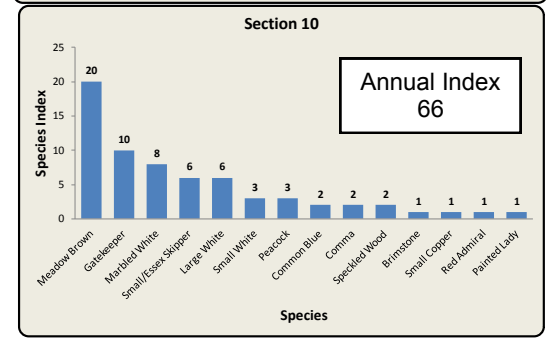
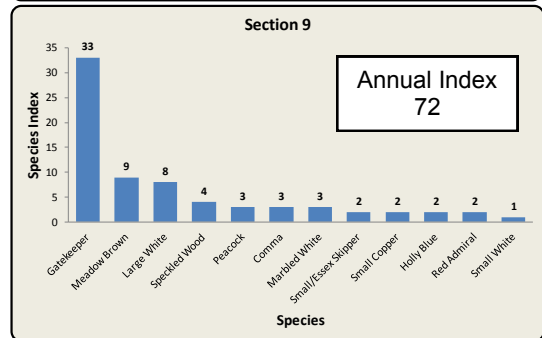
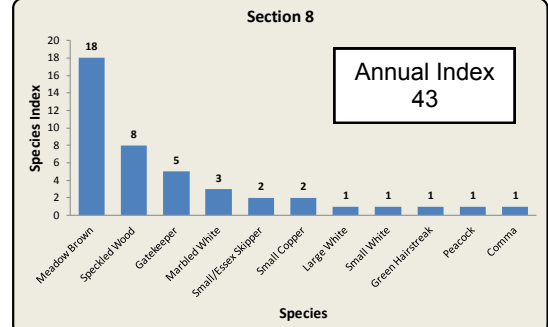
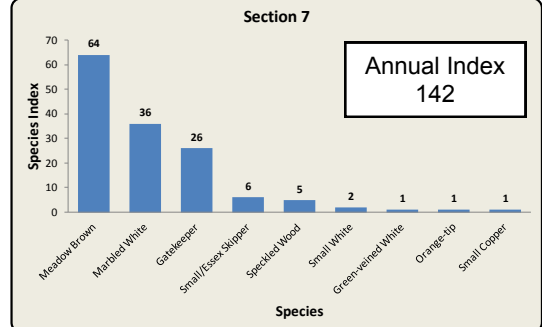
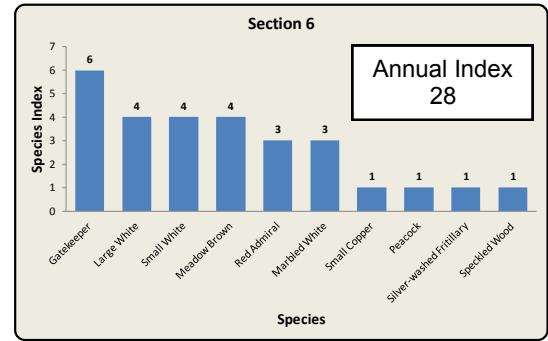
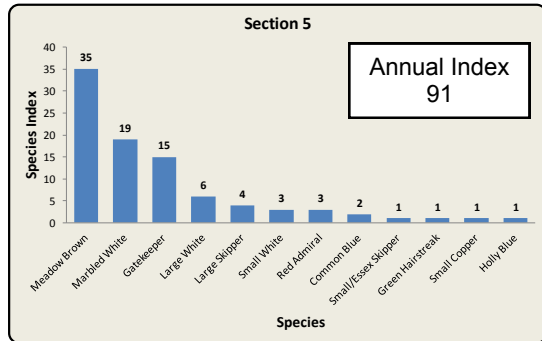
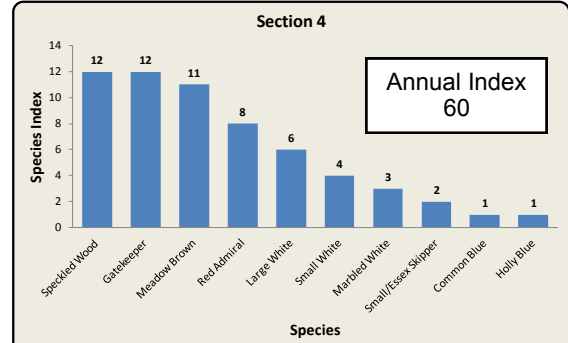
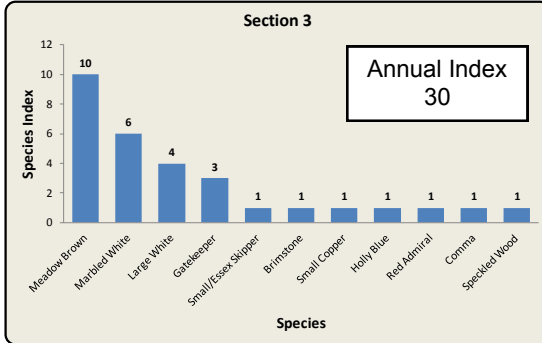
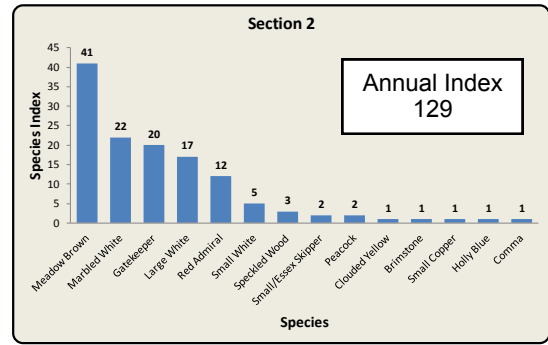
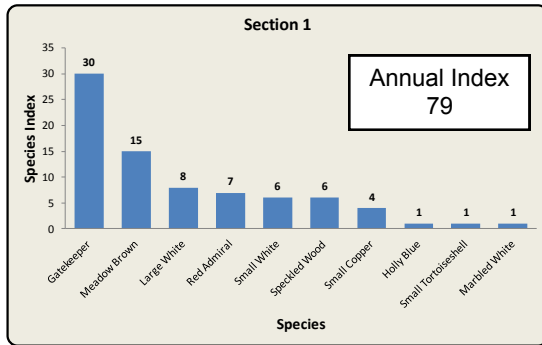


Twenty two different species were recorded on the first year of this transect dominated by the wider countryside species such as Meadow Brown, Gatekeeper, Marbled White and Large White. Encouraging also to see Green Hairstreak and Silver-washed Fritillary.



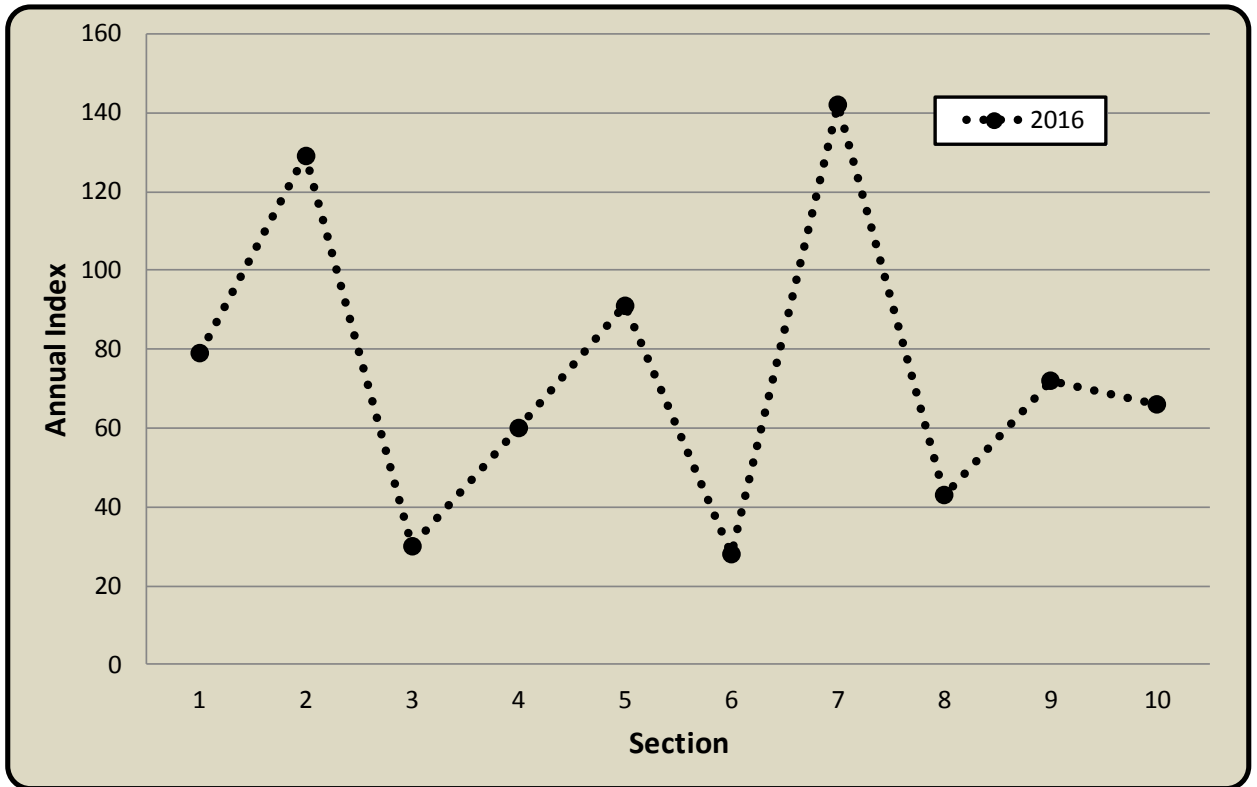
Good diversity was apparent in most sections. It will be interesting to see what results the second year of recording brings.

## Part 6 - Species per Section



Highest Section Index for 2016 was in Section 7 and all sections were dominated by the typical grassland species, Meadow Brown, Gatekeeper and Marbled White.

## Part 7 - Annual Comparison Indices



Annual Species Diversity										
Year	Section									
	1	2	3	4	5	6	7	8	9	10
2016	10	14	11	10	12	10	9	11	12	14

The above graph and table will develop over time to show the annual variations in Section Abundance and Section Diversity.



## Part 8 - Annual Species Variation

Highest species counts/annum highlighted by red shaded box

↓ indicates decrease

↑ indicates increase

= indicates no change

Species	2013	2014	2015	Diff	
				2014-2015	
Small/Essex Skipper	68	218	157	-61	↓
Large Skipper	53	351	249	-102	↓
Clouded Yellow	3	0	0	0	=
Brimstone	45	53	63	+10	↑
Large White	73	9	12	+3	↑
Small White	39	11	15	+4	↑
Green-veined White	29	4	3	-1	↓
Orange-tip	1	0	3	+3	↑
Green Hairstreak	1	0	3	+3	↑
Small Copper	1	0	1	+1	↑
Silver-studded Blue	1	1	1	0	↓
Common Blue	6	10	5	-5	↓
Holly Blue	1	4	15	+14	↑
White Admiral	1	1	0	0	=
Red Admiral	1	5	3	-2	↓
Painted Lady	0	1	1	0	=
Small Tortoiseshell	0	3	5	+2	↑
Peacock	3	19	34	+15	↑
Comma	1	3	3	0	=
Pearl-bordered Freckle	26	15	37	+22	↑
Dark Green	4	0	5	+5	↑
Silver-washed Flycatcher	38	238	89	-149	↓
Speckled Wood	132	146	68	-78	↓
Marbled White	1	2	14	+12	↑
Grayling	0	1	0	-1	↓
Gatekeeper	309	533	1005	+472	↑
Meadow Brown	440	539	360	-179	↓
Small Heath	1	0	2	+2	↑
Ringlet	66	586	526	-60	↓
<b>TOTALS</b>	<b>1348</b>	<b>2752</b>	<b>2681</b>	<b>-71</b>	<b>↓</b>
<b>DIFFERENT SPECIES</b>	<b>26</b>	<b>22</b>	<b>25</b>	<b>+3</b>	<b>↑</b>

The above is a sample of how annual changes will be reported in future years.

## Appendix 1 - Weather

A warm dry autumn in 2015 followed by a warm and wet period. June was very wet followed by a relatively dry July and August.

### October – December 2015

October was warmer than average with a typical level of sunshine but significantly drier. November saw storms Abigail, Barney and Clodagh arrive, but with a limited effect on the south, with warmer than average temperatures and fewer rain days than normal. December saw us in a warm and tropical air mass for most of the month with the average temperature 5°C above normal but in the south near normal rainfall.

### January – March 2016

January was dominated by low pressure with 70% more rainfall than usual and 2.3°C higher temperature. February was again warmer than normal (+1.8°C) but close to typical rainfall in the south. Low pressure again dominated March with 39% higher rainfall and a slightly higher average temperature (+0.5°C).

### April – June 2016

This period was also unsettled but April saw close to average temperature and rainfall. May was 1.2°C warmer than average and 19% wetter. June was cooler (-0.2°C) with almost double the average rainfall (+88%).

### July – September 2016

July was a relatively dry month with only 41% of the average rainfall with a near average temperature. August was warmer (+1.1°C) and drier (-30%) than average. September was 2°C warmer with near average rainfall.

<http://www.metoffice.gov.uk/climate/uk/summaries>

### Local Rainfall (mm) - Southampton

2015			2016								
Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
80.1	92.5	116.9	184.4	66.8	98.9	65.6	53.8	121.4	14.0	54.4	51.5

<http://www.southamptonweather.co.uk/wxhistory.php>

### Transect Weather

Week No	1	2	3	4	5	6	7	8	9	10	11	12	13
Wind Direction	SE	S	E	NE	SW	SE	NE	SW	S	S	N	SW	SW
Wind Force	2	2	3	2	3	3	3	3	3	2	2	3	5
Temperature °C	13	12	17	13	13	20	21	14	20	17	19	18	20
% Sun	97	100	100	83	86	100	100	100	100	0	50	0	62

Week No	14	15	16	17	18	19	20	21	22	23	24	25	26
Wind Direction	SW	NW	S	W	SW	SW	SW	SE	NW	SW	S	SE	SW
Wind Force	5	3	3	3	1	3	3	3	2	4	2	1	2
Temperature °C	18	20	22	21	22	22	22	24	21	20	18	21	20
% Sun	65	10	30	84	50	100	100	100	90	100	100	100	100

## Appendix 2 - Photographs



Small Copper – Eric Read



Marbled White – Keith Metcalf



Meadow Brown (f) – Keith Metcalf



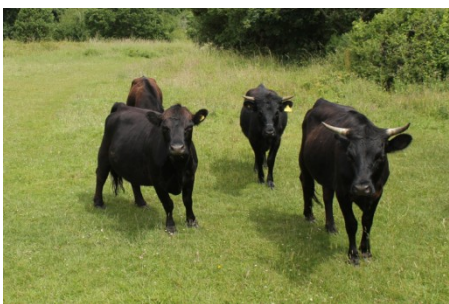
Small Skipper (f) – Keith Metcalf



Green-veined White – Eric Read



Cinnabar moth larvae – Eric Read



Dexter Cattle – Keith Metcalf



Dyers Greenweed – Keith Metcalf



Flailing Bracken – Keith Metcalf

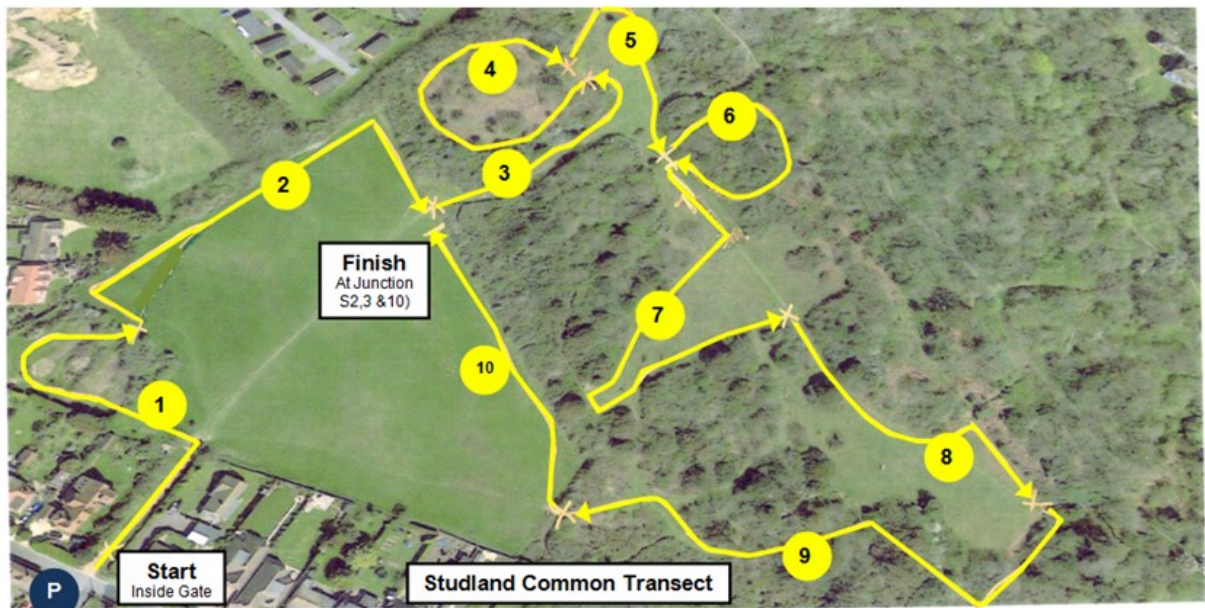


Harebells – Keith Metcalf

## Appendix 3 – Transect Location & Route



Parking in Westminster Road or nearby Pay & Display Car Park



Total Length – 2.17km