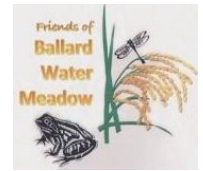




BALLARD WATER MEADOW TRANSECT REPORT 2019

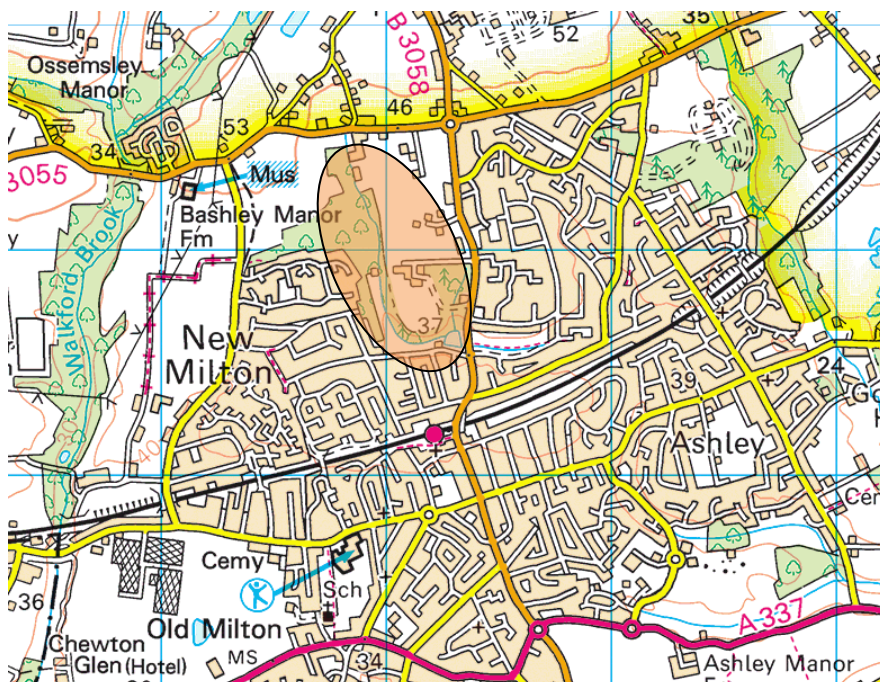


Team Leader: Trevor Bumfrey
Transect Team: Keith Braithwaite Alan Hopking
Ann Gorman Pam Petherbridge

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Part 1 - Introduction, Acknowledgements & Route

A) Introduction

The following report summarises the findings of the weekly butterfly transects undertaken by the Friends of Ballard Water Meadow under the guidance of the New Forest Transect Group. This is the first year of recording along this route.

The meadow is owned by New Milton Town Council and maintained by the Friends of Ballard Water Meadow, following advice provided by the New Forest National Park Land Advice Service and Natural England.

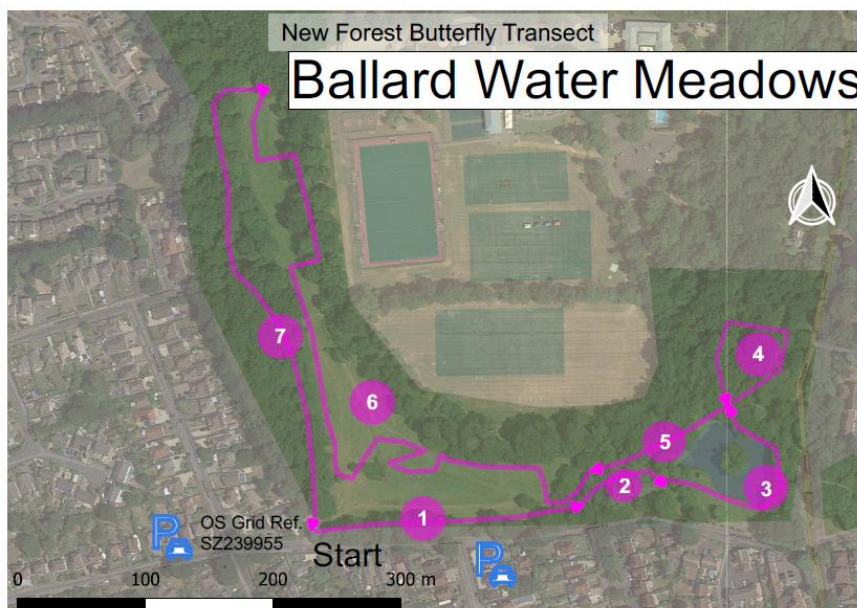
Recording protocols are in accordance with United Kingdom Butterfly Monitoring Scheme Guidelines. By adopting Butterfly Conservation terminology, the term 'index' is used throughout though, for most purposes, this is synonymous with 'count'.

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

B) Acknowledgements

Hampshire Flight Chart:	Alan Thornbury
Transect History:	Tani & Eric Read
Report Preparation:	Bob Annell
Supporting Narratives	Trevor Bumfrey
Overall Summary	Trevor Bumfrey & Ann Gorman
UK Weather:	Trevor Bumfrey
Image Manager:	Eric Read
Report Checking:	Jean Annell
UKBMS Database Entry:	Trevor Bumfrey

C) Transect Route



Part 2 - Overall Summary

The Friends of Ballard Water Meadow are undertaking an active conservation programme with the aim of improving biodiversity. This year they have carried out a number of surveys to identify the flora and fauna that is present in the meadow. The butterfly transect was one of those activities.

A total of 739 butterflies were counted covering 16 different species. Meadow Brown were the most abundant followed by Gatekeeper and Speckled Wood.

Part 3 - Flight Periods

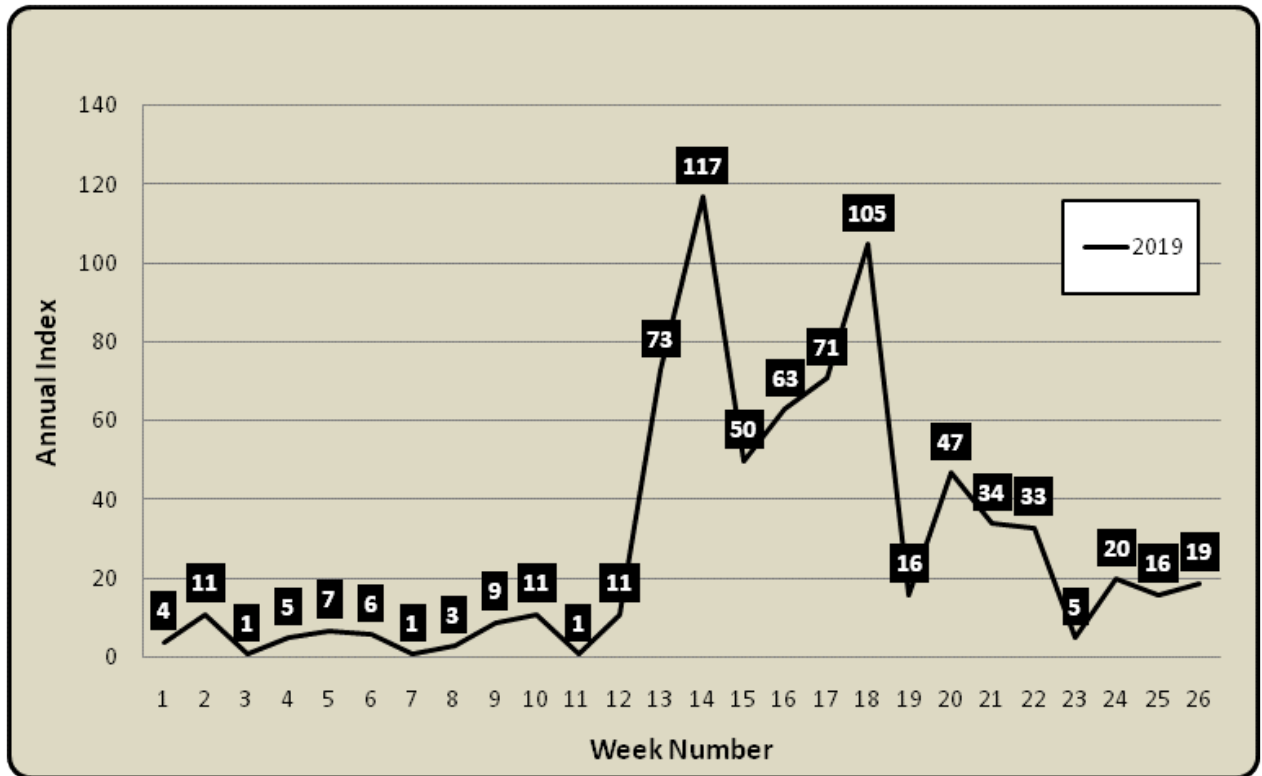
2019 Flight Periods																												
Week Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	Totals	
Week Commencing	1/4	8/4	15/4	22/4	29/4	6/5	13/5	20/5	27/5	3/6	10/6	17/6	24/6	1/7	8/7	15/7	22/7	29/7	5/8	12/8	19/8	26/8	2/9	9/9	16/9	23/9		
Small Skipper																	1										1	
Small/Essex Skipper																2		2										4
Brimstone	4	7		1																							12	
Large White															4		4		1		8	11	2			12	4	46
Small White									1			1			2	5	2			23	9	12			10		1	66
Green-veined White				3				1						2					10		3	1					20	
Orange-tip		1			3	2			1																		7	
Small Copper									1				1				1										3	
Brown Argus																				1	3						4	
Common Blue									3	2			3	2		6	8	16		6	1	3					50	
Holly Blue																					1						1	
Red Admiral												8	2	1					2					3		3	19	
Painted Lady													3	1								1					5	
Peacock			1					1				1							1								4	
Speckled Wood		3		1	4	4		2	3	9		2	3	5		4	4	2	2	2	5	2	2	7	2	11	79	
Gatekeeper																4	20	54		8	3	4					93	
Meadow Brown												1	60	106	44	42	31	19	12	7			1		2		325	
DIFFERENT SPECIES	1	3	1	3	2	2	1	2	5	2	1	3	7	6	3	6	8	7	4	6	9	6	3	3	3	4	16	
TOTALS - 2019	4	11	1	5	7	6	1	3	9	11	1	11	73	117	50	63	71	105	16	47	34	33	5	20	16	19	739	
First year of recording																												
	Hants Flight Periods Alan Thornbury							Transect record within normal Hants flight period							Transect record outwith normal Hants flight period													

It's not considered significant when a species is observed just outside its perceived normal flight period, as local weather conditions can influence the emergence dates. It is also noticeable that no observations were made during a large part of the expected flight period.

The majority of white butterflies were recorded from the second brood.

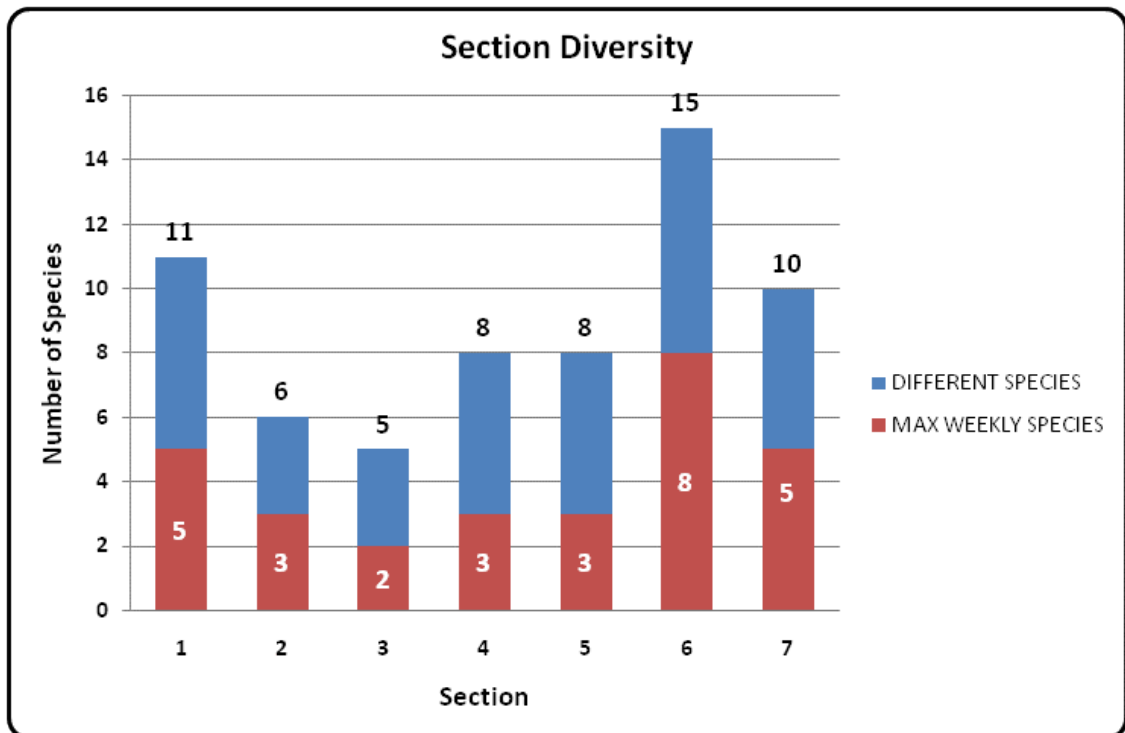
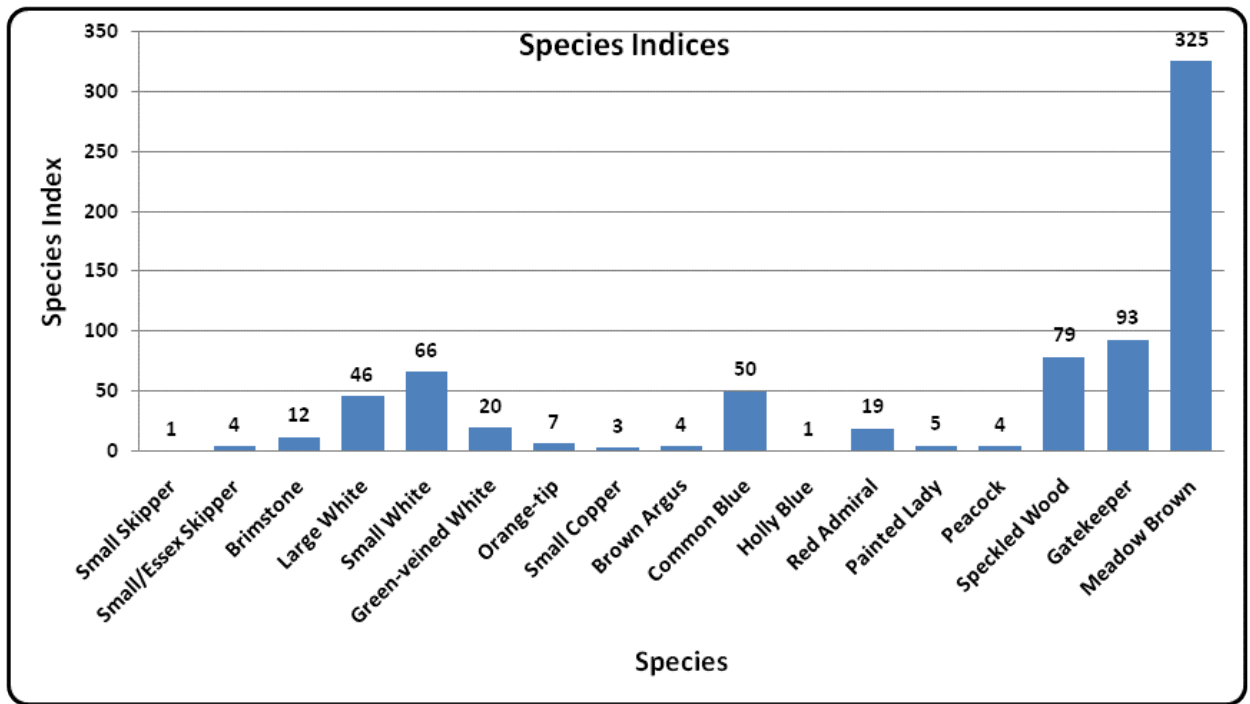
Speckled Wood were observed in 21 out of the 26 weeks in the recording period.

Part 4 - Weekly Indices

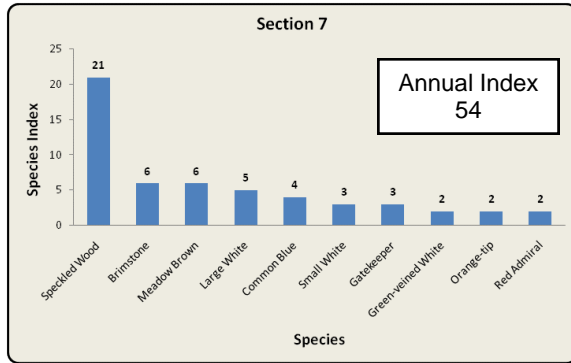
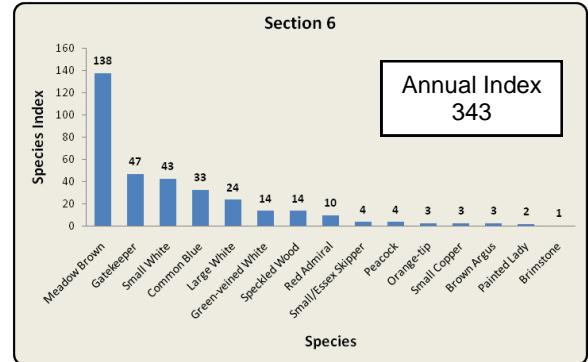
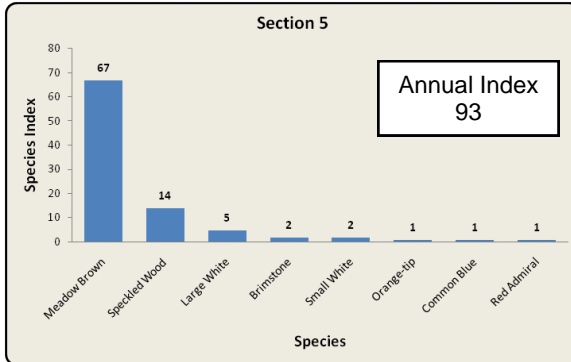
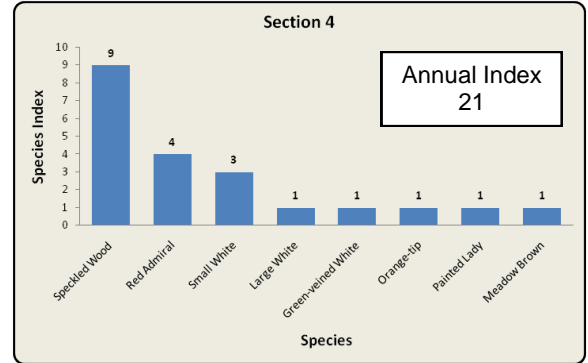
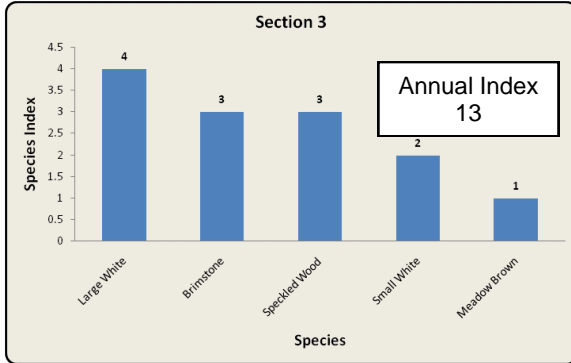
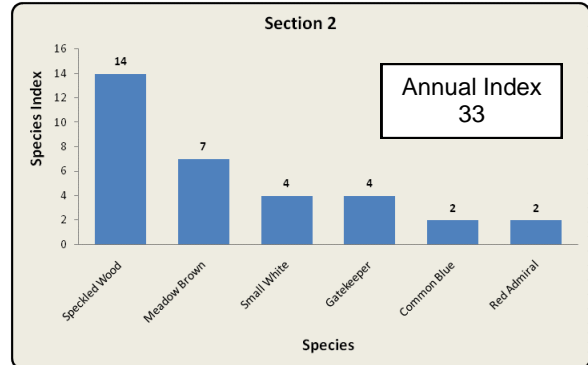
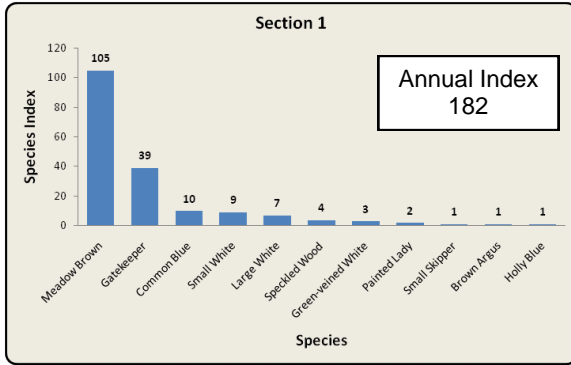


The summer peak occurred in Week 14 caused by the emergence of Meadow Brown. A secondary peak occurred in Week 18 due to a high number of Gatekeeper being recorded.

Part 5 - Species Overview

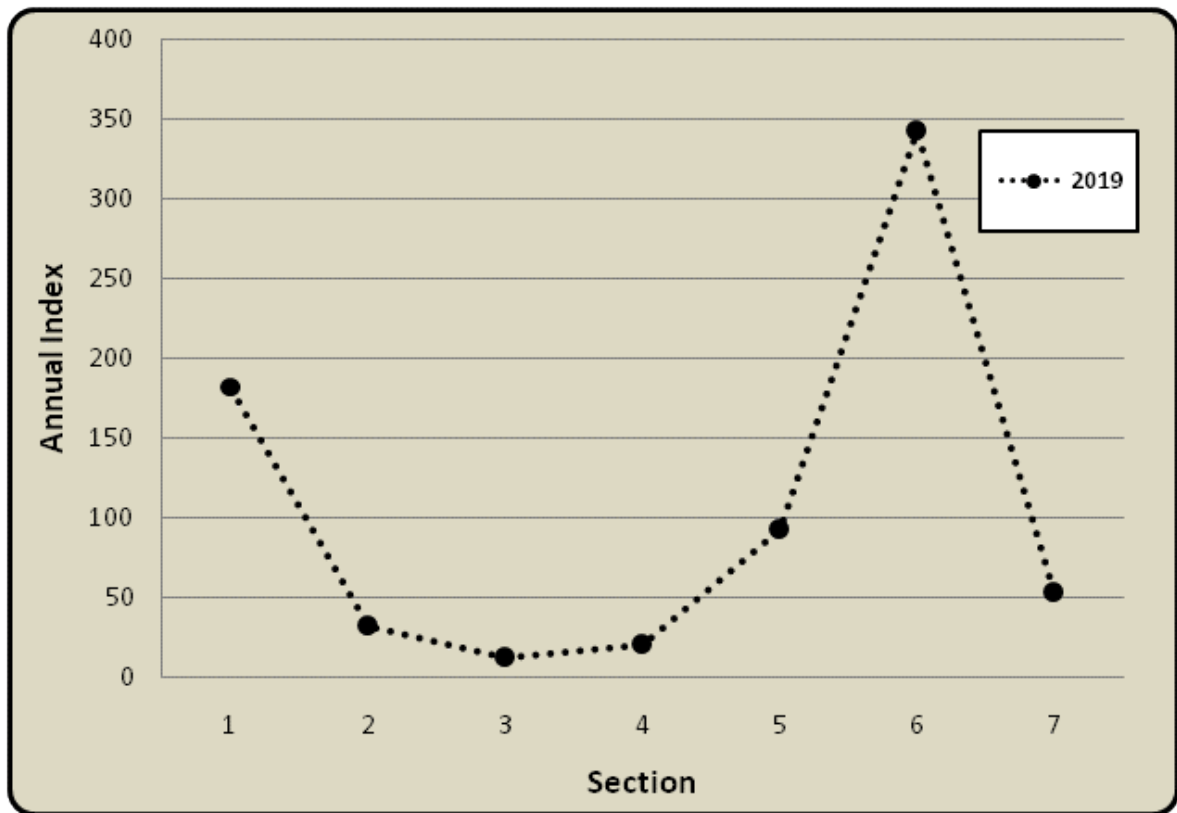


Part 6 - Species per Section



16 different species overall

Part 7 - Annual Comparison Indices



Annual Species Diversity							
Year	Section						
	1	2	3	4	5	6	7
2019	11	6	5	8	8	15	10

Section 1 follows a path across the meadow. Section 2 goes through woodland with Section 3 going around the lake which attracts a large number of people. Sections 4 and 5 also go through woodland with Section 6 being the longest section criss-crossing the meadow with Section 7 back through woodland to the start.

Part 8 - Annual Species Variation

Highest species counts/annum highlighted by red shaded box

↓ indicates decrease

↑ indicates increase

= indicates no change

Species	2015	2016	2017	2018	2019	Diff	
						2018-2019	
Small Skipper	0	0	1	0	0	0	=
Small/Essex Skipper	31	16	37	31	4	+15	↑
Large Skipper	14	22	52	38	4	+30	↑
Brimstone	42	45	44	17	40	+40	↑
Large White	24	17	18	1	3	-24	↓
Small White	15	11	9	1	12	+5	↑
Green-veined White	4	10	1	1	4	+4	↑
Orange-tip	3	0	0	0	4	+4	↑
Small Copper	0	0	1	0	0	0	=
Common Blue	0	0	1	1	0	0	=
Holly Blue	12	10	0	7	5	-2	↓
White Admiral	0	2	6	31	11	-20	↓
Red Admiral	0	0	4	0	7	+7	↑
Painted Lady	0	0	0	0	1	+1	↑
Small Tortoiseshell	0	0	1	0	0	0	=
Peacock	15	2	2	3	3	+3	↑
Comma	8	0	1	3	5	+2	↑
Pearl-bordered Tortil	0	2	0	0	0	0	=
Dark Green Fritill	0	0	2	0	14	+14	↓
Silver-washed Primary	30	24	91	92	71	-21	↓
Speckled Wood	106	84	177	259	231	-28	↓
Marbled White	2	0	1	0	1	+1	↑
Gatekeeper	80	59	172	90	181	+91	↑
Meadow Brown	117	89	267	138	174	+36	↑
Ringlet	74	127	239	165	254	+254	↑
TOTALS	581	525	1138	986	1145	+159	↑
DIFFERENT SPECIES	17	16	22	16	20	+4	↑

The above table is a sample only to show how data will be presented as more annual records become available for this transect route.

Appendix 1 - Weather

Southern England Weather Oct 2018 - Sept 2019

October 2018 experienced close to average rainfall with a wider than normal variation between max and min temperatures due to the clear skies. November was warmer than average with average rainfall.

December, January and February temperatures were higher than average with cold days at the end of January and the beginning of February. January and February had more sunshine than normal with February being the second warmest on record. December rainfall was close to average with January and February much drier than average.

March and April were warmer than average with May close to the average temperature. Sunshine was slightly higher than average. March was very unsettled and wetter than average with April and May drier.

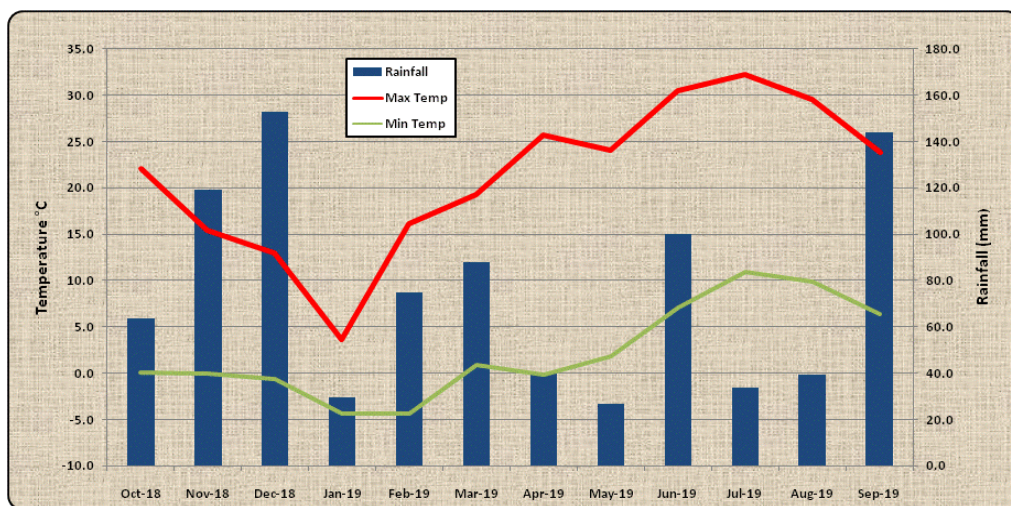
June was cooler and wetter than average, with July more settled and warmer than average. August was again wet but with some long sunny and warm periods. Sunshine levels were lower than average in June but increased through July and August.

September started wet but settled to give a warm and sunny month.

This was the twelfth warmest and seventh wettest summer since 1910.

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

Local Weather - Southampton



<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	E	S	SE	E	SE	NW	SE	W	W	SW	SE	W	NE
Wind Force	4	2	2	3	2	3	2	3	2	2	2	4	2
Temperature °C	13	13	15	17	14	14	16	17	18	17	16	16	24
% Sun	100	100	100	100	100	86	100	10	100	100	100	91	100

Week No	14	15	16	17	18	19	20	21	22	23	24	25	26
Wind Direction	NE	SE	S	NW	SE	SE	W	S	NW	SE	W	E	SW
Wind Force	1	2	1	1	1	2	4	2	1	2	0	1	2
Temperature °C	21	21	21	23	25	21	21	21	23	19	20	19	18
% Sun	100	100	100	81	85	56	79	100	85	79	100	100	56

Appendix 2 - Photographs



Brimstone (m) – Ann Gorman



Common Blue – Keith Braithwaite



Red Admiral – Keith Braithwaite



Orange-tip – Ann Gorman



Meadow Brown – Trevor Bumfrey



Painted Lady – Ann Gorman



Peacock – Ann Gorman



Small Copper – Ann Gorman



Small Skipper (f) – Trevor Bumfrey



Speckled Wood – Ann Gorman