



# STUDLAND COMMON TRANSECT REPORT 2020



Team Leaders: Tani & Eric Read  
Transect Team: Sue Bumfrey Keith Metcalf  
Helen Duckett Ron Taylor  
Theresa Holden

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## Location:



Parking in Westminster Road or nearby Pay & Display Car Park

# Part 1 - Introduction, Acknowledgements & Transect Route

## A) Introduction

The following report summarises the findings of the weekly butterfly transects undertaken by the New Forest Transect Group at Studland Common during 2020. The transect, which was designed with advice and collaboration of the Milford Conservation Volunteers commenced in 2016.

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

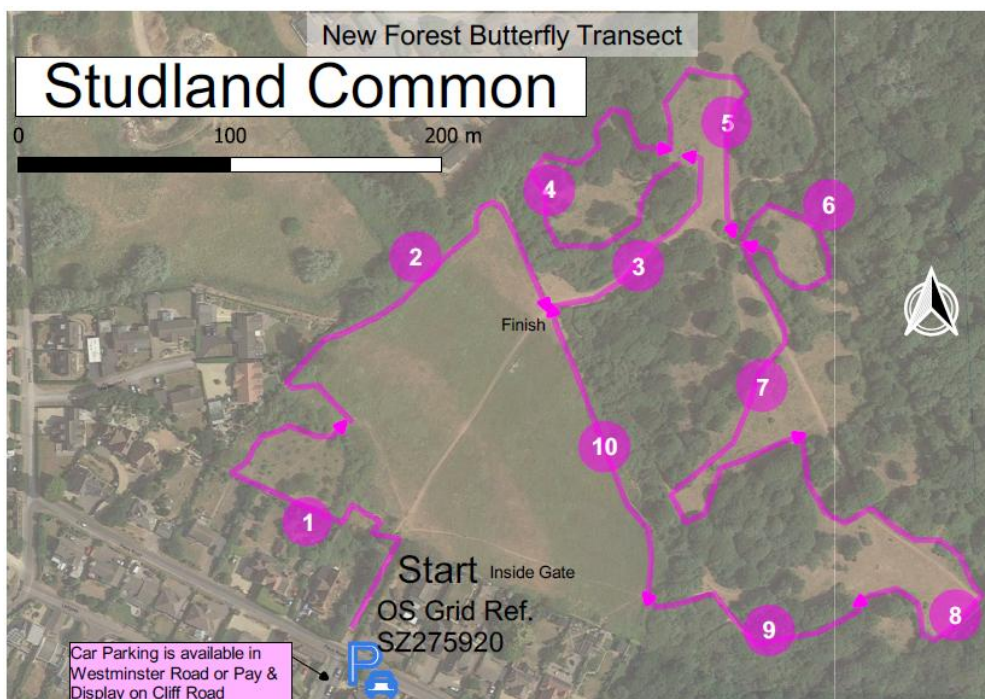
By adopting Butterfly Conservation terminology, the term 'index' is used throughout though, for most purposes, this is synonymous with 'count'.

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

## B) Acknowledgements

Milford Conservation Volunteers:	Keith Metcalf
Hampshire Flight Chart:	Alan Thornbury
Transect History:	Derek Hankinson
Report Preparation:	Bob Annell
Overall Summary & Supporting Narratives:	Tani Read
UK Weather:	Trevor Bumfrey
'Day-Flying' Moth Appendix:	Jacky Adams
Image Manager:	Eric Read
Transect Map:	Neil Smith
Report Checking:	Jean Annell
UKBMS Database Entry:	Tani Read

## C) Transect Route



## 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. Restoration works are carried out 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 a result of the restoration work many more wildflowers have appeared in the cleared areas. These enhanced wildflower areas should gradually help increase invertebrate populations. Cattle grazing is continuing, and additional fruit trees were planted in the orchard in 2020.

The New Forest Transect Group and Milford Conservation Volunteers jointly undertake recording. There were no sightings of White Letter Hairstreak, which had been reported on the common in 2015 prior to the Transect start. There were no sightings of Purple Hairstreak in the oaks on the edge of the Transect, (last reported 2017). Brown Argus were seen in the meadow in 2019, but have not been seen on Transect.

Due to the COVID-19 pandemic transect walks did not commence until week seven. Despite some weeks being very difficult weather-wise valid counts were recorded for all of the 20 remaining weeks. There were no zero counts. Overall there was a 13% increase in total numbers over last year. The shortened 2020 season is the highest index to date.

Generally, sightings were within the Hampshire flight periods although some flights were reported between broods. Brimstone, Large White, Small White, Common Blue, Holly Blue, Red Admiral, and Small Heath appeared between brood flight periods. The annual index was 1,579 with 18 different species.

'Browns' were the dominant species making 82% of the annual index. Apart from Speckled Wood the 'Browns' indices were not affected by the late start to the season. Meadow Brown 857, Gatekeeper 298, Marbled White 84, Speckled Wood 42, Ringlet 11 and Small Heath 7.

'Whites and Yellows' were 8%.  
Large White 68, Small White 57 and Brimstone 3.

'Coppers, Hairstreaks and Blues' were 5%.  
Small Copper 30, Holly Blue 21 and Common Blue 18.

'Skippers' were 3%.  
Small/Essex Skipper 49.

'Fritillaries, Admirals, and Tortoiseshells' were 2%.  
Red Admiral 13, Comma 10, Peacock 9, Painted Lady 1 and Small Tortoiseshell 1.

There continues to be good diversity in all sections. Section 3 had the lowest diversity of seven. Section 1 had the biggest drop in diversity from 20 in 2019 to 13. Section 10 also had a big drop in diversity from 18 in 2019 to 12.

## Part 3 - Flight Periods

2020 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													4	19	21	2	3										49	
Brimstone																2	1										3	
Large White												3	8	8	14	5			2		7	1	7	4	7	2	68	
Small White								3	3				3	2	8	7	4		1	2	3		3	5	5	3	5	57
Small Copper									1					1	3	2			2		1						30	
Common Blue									4	2				2	3					3				1		3	18	
Holly Blue									1		1				5	8	2	2				1	1				21	
Red Admiral												1		2	3				1		3		1		1	1	13	
Painted Lady																				1							1	
Small Tortoiseshell										1																	1	
Peacock														1	3	2	1								1		9	
Comma												2				1						3		1	2	1	10	
Speckled Wood								1	2	3	2					4	1	3			1	6	2	6	1	9	42	
Marbled White										1		15	31	17	19		1										84	
Gatekeeper														9	23	119	64	24	49	8		2					298	
Meadow Brown										47	55	163	178	90	50	50	45	44	31	53	20	14	11	4	2		857	
Small Heath													2	1	2									1		2	7	
Ringlet														1		7					3						11	
DIFFERENT SPECIES							2	2	4	5	3	4	7	10	12	13	9	6	6	7	5	7	7	8	8	7	18	
TOTALS - 2020							2	5	11	53	57	184	237	152	128	222	124	76	88	70	37	26	38	19	36	14	1579	
TOTALS - 2019	18	10	7	7	15	8	8	4	9	8	1	44	94	184	131	174	152	128	85	61	63	64	30	51	20	19	1395	
TOTALS - 2018	2	7	3	5	4	11	14	9	13	1	15	31	49	122	161	106	107	49	1	20	16	15	16	16	25	21	839	
	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, most of the sightings outside the flight periods were between broods. The late start to the recording season due to the COVID-19 pandemic adversely affected most species.

Small/Essex Skipper had a very short flight period of five weeks.

The overall indices for the 'Whites' were somewhat affected due to the late start in recording. Only second brood Brimstone were recorded. No Orange-tip or Green-veined White were seen on Transect.

Small Copper were recorded in all three broods. Common Blue were recorded during and between both broods. Holly Blue appeared between broods and there were good numbers at the start of the second brood. Two single sightings extended the second brood flight period to eight weeks.

Red Admiral were present throughout the annual brood. There was a single sighting between the overwintering and annual brood.

A single Painted Lady was recorded in the second brood. A single Small Tortoiseshell appeared between the overwintering and annual broods. Peacock were seen in both the overwintering and annual broods. Comma were only recorded during the annual brood.

Speckled Wood slumped mid-season over a five-week period.

Marbled White appeared in good numbers over four weeks. With two additional single sightings the flight period extended to eight weeks.

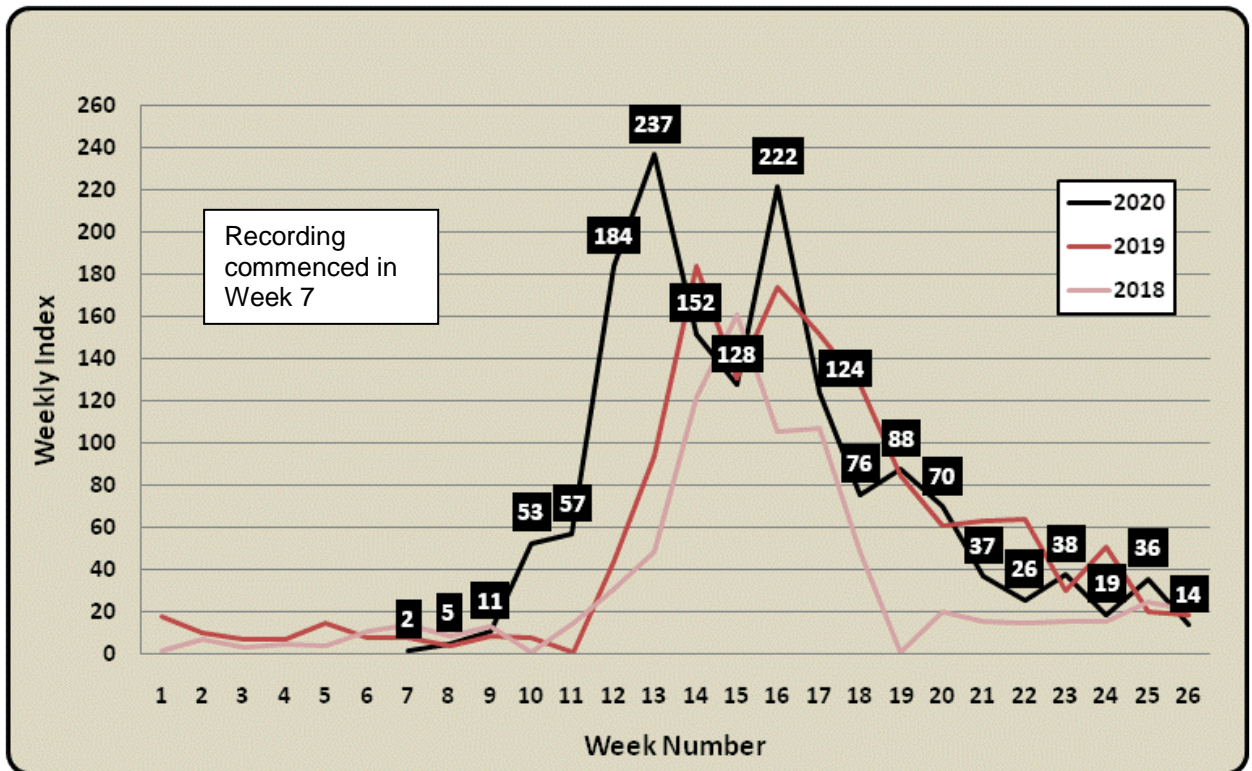
Gatekeeper appeared in good numbers during the flight period, finishing early. Meadow Brown were present throughout the normal flight period.

Small Heath were present in both broods.

Ringlet were recorded over a seven-week period.

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

## Part 4 - Weekly Indices

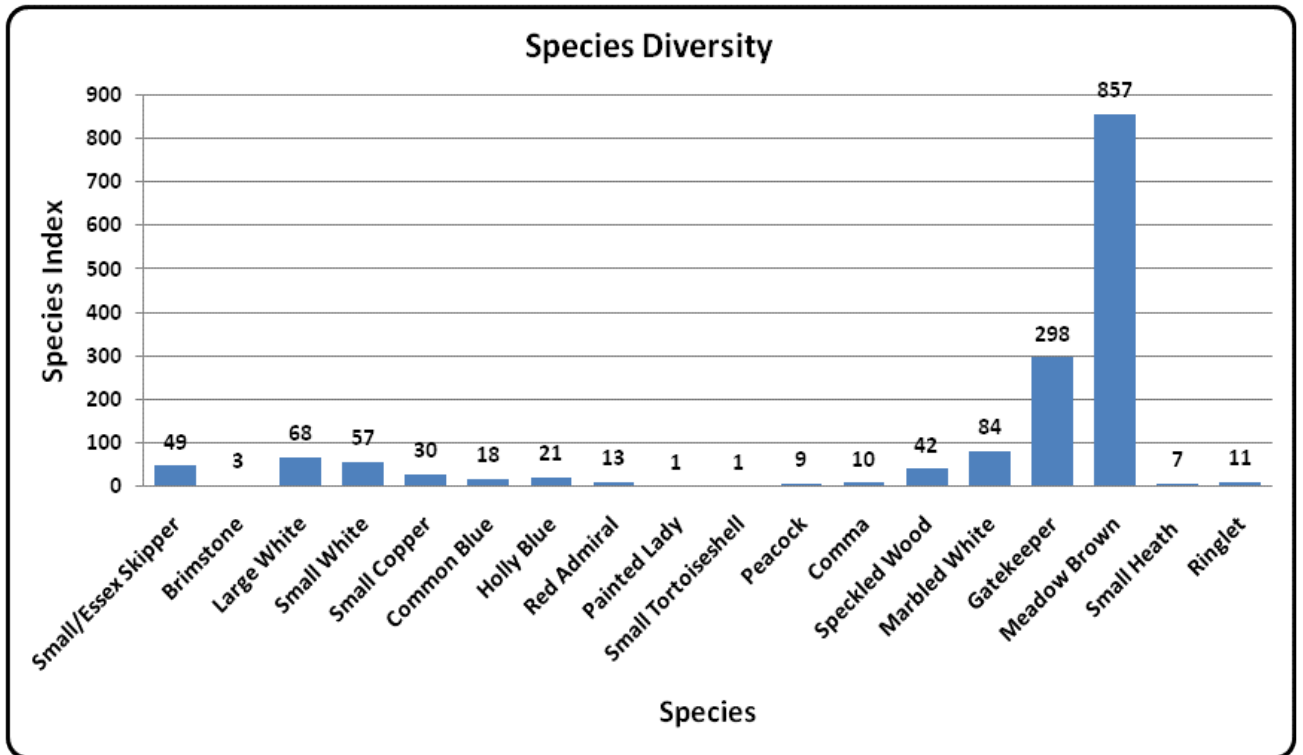


Due to the COVID-19 pandemic recording did not commence until Week 7. The pattern of peaks and drops in numbers is similar to previous years.

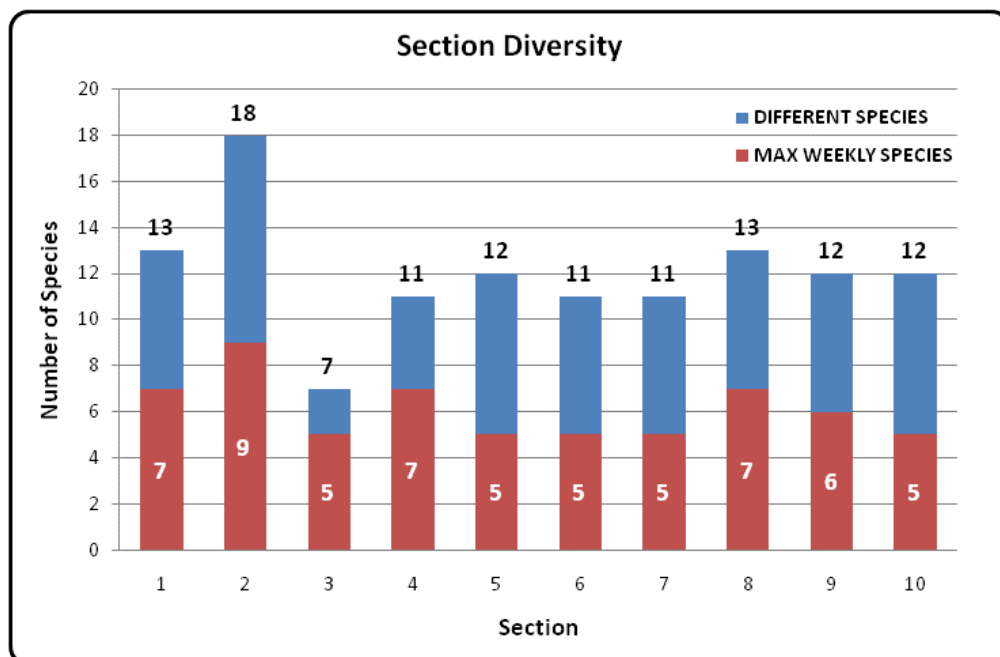
Peak numbers occurred late June in Week 13 due to Marbled White and Meadow Brown both peaking in that week, plus strong numbers of Small/Essex Skipper. Peak numbers have occurred earlier year on year, 2017 Week 17, 2018 Week 15 and 2019 Week 14.

A second peak occurred in Week 16 due mainly to Gatekeeper peaking, along with five other species, Brimstone, Large White, Holly Blue, Red Admiral and Ringlet. And strong numbers of Meadow Brown. The maximum species diversity also occurred in Week 16.

## Part 5 - Species Overview

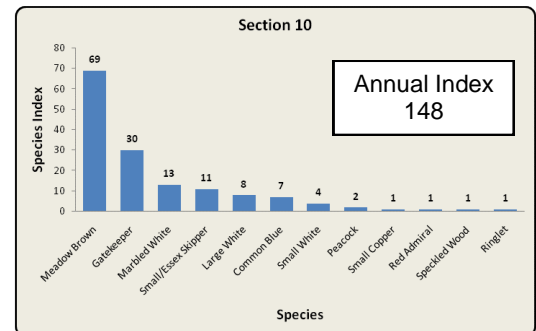
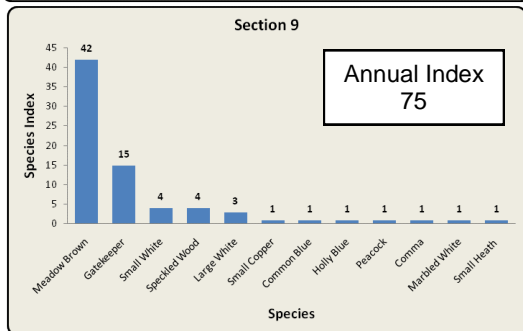
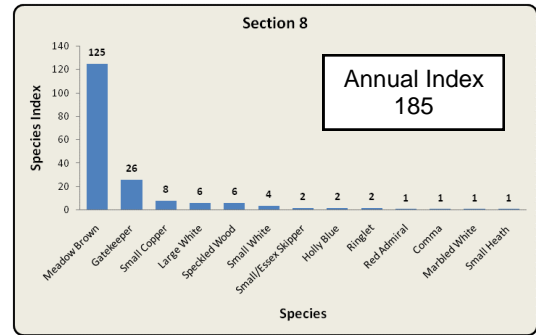
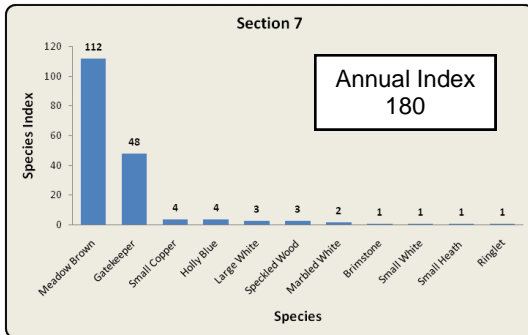
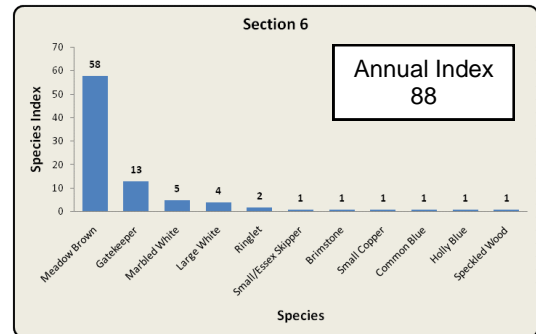
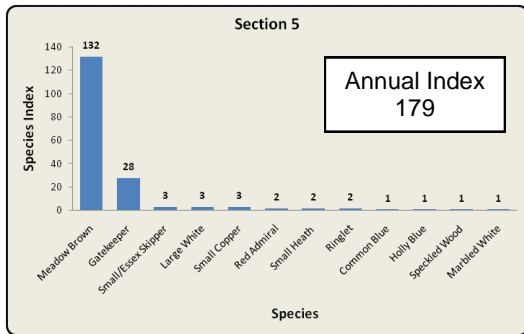
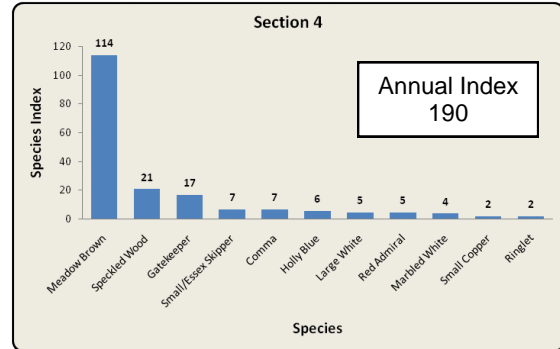
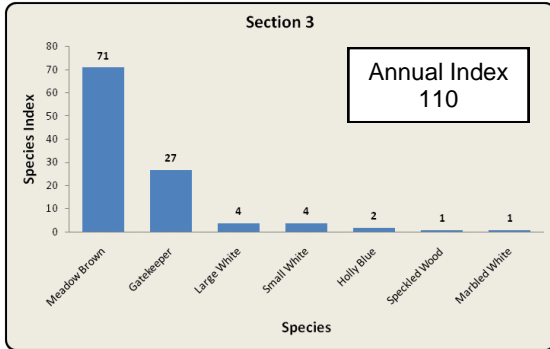
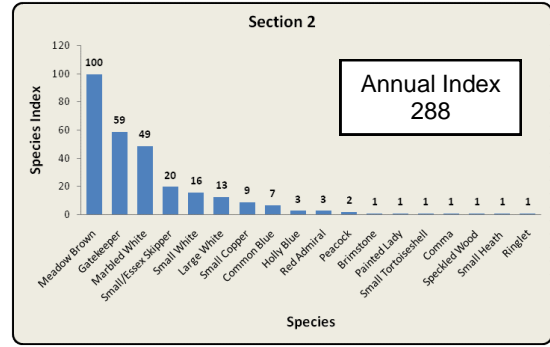
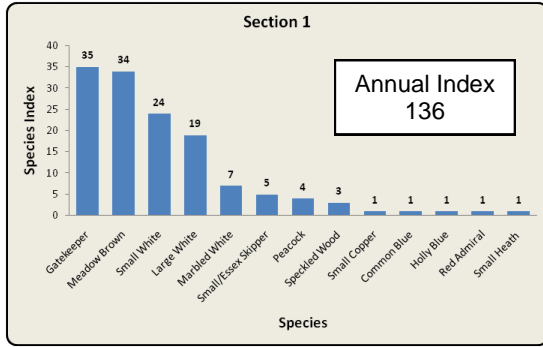


There were 18 different species in 2020, down four from 2019. Species not recorded on Transect in 2020 were Green-veined White, Orange-tip, Green Hairstreak and Silver-washed Fritillary. No new species were recorded. The wider countryside species dominate especially Meadow Brown and Gatekeeper, both having their highest index along with Ringlet and Small Heath.



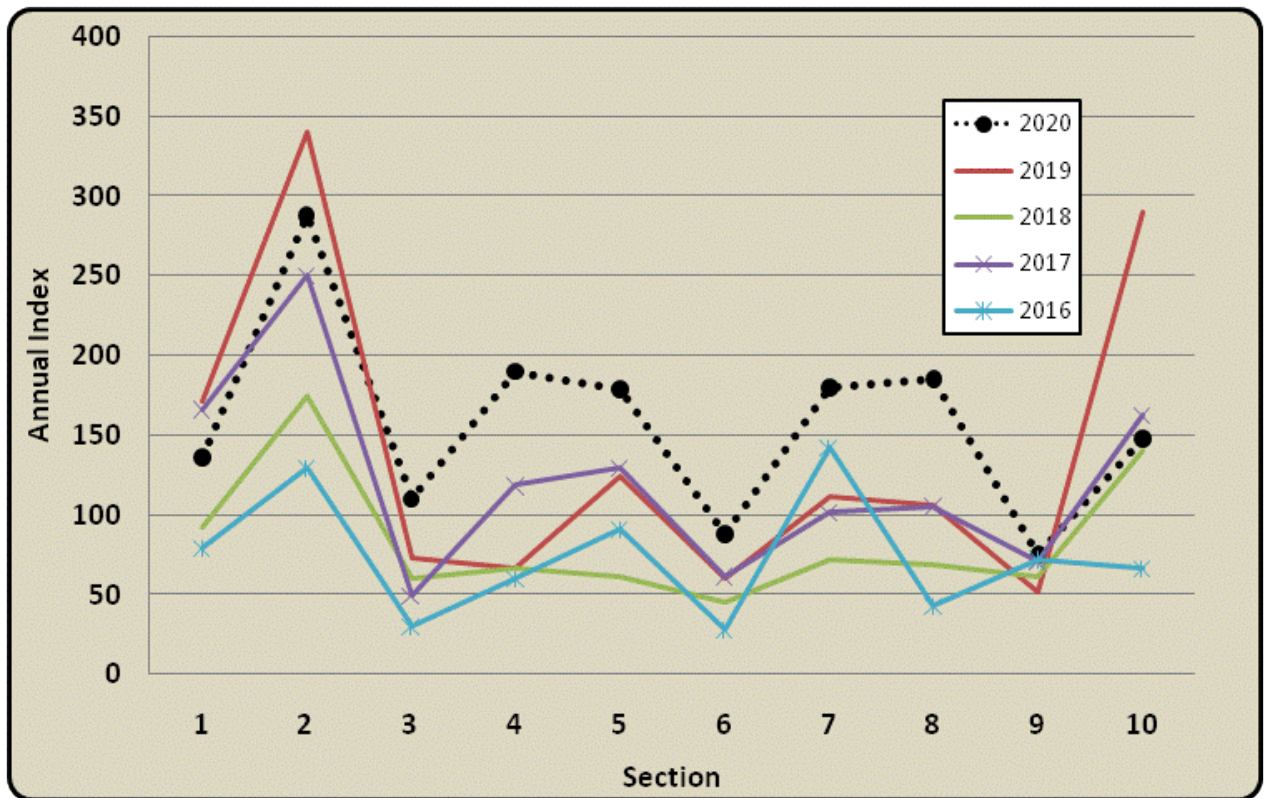
Diversity remains good in all sections. Section 2 is the highest in species diversity and maximum weekly species. Sections 1 and 10 dropped by one third in species diversity.

## Part 6 - Species per Section



Highest Section Index for 2020 was in Section 2. Meadow Brown was the dominant species in all but Section 1 where Gatekeeper was dominant.

## 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
2017	14	14	10	10	14	10	14	12	11	12
2018	12	13	6	9	11	10	11	12	13	13
2019	20	15	10	13	11	8	13	15	10	18
2020	13	18	7	11	12	11	11	13	12	12

Indices were highest since records began in 2016 for Sections 3 through 9, all dominated by Meadow Brown.

Species seen for the first time in the following sections were:

- Section 2 – Ringlet
- Section 4 – Ringlet
- Section 5 – Small Heath, Ringlet
- Section 6 – Ringlet
- Section 7 – Small Heath, Ringlet
- Section 8 – Small Heath
- Section 9 – Small Heath
- Section 10 – Ringlet



## Part 8 - Annual Species Variation

Highest species counts/annum highlighted by red shaded box

↓ indicates decrease

↑ indicates increase

= indicates no change

Species	2016	2017	2018	2019	2020	Diff 2019-2020	
Essex Skipper	0	1	0	0	0	0	=
Small/Essex Skipper	22	31	30	70	49	-21	↓
Small & Essex Skipper Total	22	32	30	70	49	-21	↓
Large Skipper	4	0	2	0	0	0	=
Clouded Yellow	1	0	0	0	0	0	=
Brimstone	3	2	4	9	3	-6	↓
Large White	60	48	49	94	68	-26	↓
Small White	29	57	86	57	57	0	=
Green-veined White	1	1	1	1	0	-1	↓
Orange-tip	1	1	1	3	0	-3	↓
Green Hairstreak	2	2	2	4	0	-4	↓
Small Copper	14	30	21	36	30	-6	↓
Common Blue	5	35	25	53	18	-35	↓
Holly Blue	7	25	12	25	21	-4	↓
Red Admiral	37	80	12	36	13	-23	↓
Painted Lady	1	2	1	9	1	-8	↓
Small Tortoiseshell	1	1	1	1	1	0	=
Peacock	10	52	11	32	9	-23	↓
Comma	8	53	16	10	10	0	=
Silver-washed Fritillary	1	0	0	1	0	-1	↓
Speckled Wood	42	96	53	34	42	+8	↑
Marbled White	104	63	21	84	84	0	=
Gatekeeper	160	235	141	246	298	+52	↑
Meadow Brown	227	396	347	581	857	+276	↑
Small Heath	0	0	0	7	7	0	=
Ringlet	0	0	3	2	11	+9	↑
TOTALS	740	1211	839	1395	1579	+184	↑
DIFFERENT SPECIES	22	19	21	22	18	-4	↓
Max. Weekly Species	12	14	12	12	13	+1	↑
No. of Recorded Weeks	26	26	26	26	20		

Although 2020 has the highest annual indices since records began in 2016 only the 'Browns' increased in numbers. Meadow Brown was up by 48% on 2019, Gatekeeper 21% and Ringlet 450%. All other species declined or remained the same in numbers compared to 2019.

Seven species had significant declines from to 2019, Small/Essex Skipper 30%, Brimstone 67%, Large White 28%, Small Copper 20%, Common Blue 66%, Red Admiral 64% and Peacock 72%.

There were three species which had less than 5 in total numbers. Brimstone, Painted Lady and Small Tortoiseshell. Seven species had zero counts,(present in previous years), Essex Skipper (2017), Large Skipper (2018), Clouded Yellow (2016), Green-veined White (2019), Orange-tip (2019), Green Hairstreak (2019) and Silver-washed Fritillary (2019).

## Appendix 1 - Weather

### Southern England Weather Oct 2019 - Sept 2020

Temperature was average in October 2019 with higher rainfall and less sunshine than average. November was cooler, duller and with higher rainfall than average, leading to flooding in places.

Winter (December, January and February) was milder than average and unsettled, with February particularly wet and stormy with three named storms. This was the fifth mildest winter since 1884 and the fifth wettest since 1862.

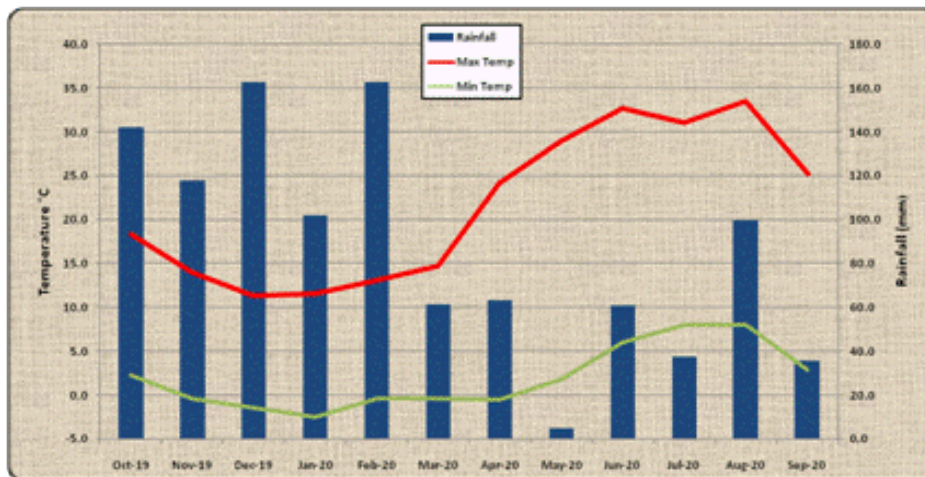
Spring (March, April and May) was warmer, drier and sunnier than average with April the fifth warmest since 1884.

Summer (June, July and August) experienced temperatures slightly above average with June and August warmer but July cooler. Rainfall was above average in all three months and not surprisingly sunshine levels below average.

September was 1.1°C warmer, with 20% more sunshine and 52% less rain than average.

<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							SW	NE	E	S	E	S	E
Wind Force							2	1	4	3	4	3	3
Temperature °C							15	21	21	19	20	19	28
% Sun							95	100	100	100	74	70	100

Week No	14	15	16	17	18	19	20	21	22	23	24	25	26
Wind Direction	W	NE	N	S	SW	SW	E	SE	SW	W	NE	NE	NW
Wind Force	3	3	2	2	4	3	1	4	5	2	1	2	5
Temperature °C	18	21	24	20	21	24	27	23	21	18	19	24	14
% Sun	91	76	64	100	100	100	100	100	71	77	100	91	100

## Appendix 2 - Photographs



Comma – Eric Read



Common Blue – Keith Metcalf



Gatekeeper – Ron Taylor



Marbled White – Adrian Duckett



Red Admiral – Ron Taylor



Ringlet – Keith Metcalf



Small Copper – Adrian Duckett



Small White – Eric Read



Speckled Wood – Ron Taylor



Meadow Brown – Ron Taylor



## Appendix 3 - 'Day Flying' Moths



Since 2018, the New Forest Transect Group (NFTG) has supported an initiative launched by the Hampshire & Isle of Wight Branch of Butterfly Conservation to record moths seen on transect walks. All transect walkers are encouraged, as part of each walk, to record any moth seen within their standard transect 'cube' that is large or distinctive enough to be identified in the field.

This appendix provides feedback on the moths seen on the above transect since 2018. An overview report, collating data from all NFTG transects, is also produced to give context to sightings and provide sufficient data to identify trends in more common species. Please see the overview report for further background information and a list of references used in compiling this appendix.

Many thanks go to all transect recorders who look out for moths during their walks. It is recognised that not everyone wishes to 'spot moths' and it takes time for recorders to hone their skills in moth identification. Some differences in recording at transect level may be due as much to these factors as to the presence or absence of particular species.

### Studland Common - Species seen

Species	2018	2019	2020
Six-spot Burnet	20		
Yellow Shell	1		
Common Carpet	1		
Brimstone Moth	1		
Jersey Tiger	1		
Cinnabar		4	3
Mother Shipton	1		
Silver Y	1		
Small Yellow Underwing	1		

Since the current monitoring scheme commenced in 2018, 34 moths of nine different species have been recorded at Studland Common.

Eight of these species were only recorded in 2018, with the ninth, Cinnabar, being the only species recorded in 2019 and 2020.

Cinnabar is a widespread species that can be seen wherever its larval food plant, Common Ragwort, grows. This distinctive black and red moth can have a relatively long flight period although at Studland Common it has only been recorded between late June and early July in both 2019 and 2020.

The moths spotted in 2018 included another distinctive black and red coloured species - Six-spot Burnet. All 20 of those recorded were seen in a single week in early July. This is another widespread species which is found in greatest number in grassy areas where its larval food plants, Bird's-foot Trefoil and Horseshoe Vetch grow.

While all other 2018 sightings were of individuals, they cover a good range including some widespread day flying species, such as Common Carpet, Mother Shipton and Silver Y, and two which are seen less widely in Small Yellow Underwing and Jersey Tiger.