



BARTON COMMON TRANSECT REPORT 2021



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Photographs:	Tani Read (TR) and Trevor Bumfrey (TB)

Section 1 - Introduction

This report summarises the findings of the weekly butterfly transects undertaken at Barton Common in 2021, providing comparison with previous years' walks where possible. It is designed to provide feedback to the landowner and land managers who have allowed this transect walk to take place and to the volunteers who have carried it out. The transect has been walked since 2013.

Monitoring walks have been carried out using the Fixed-route (Pollard Walk) transect methodology as promoted through the United Kingdom Butterfly Monitoring Scheme (UKBMS). This involves walking a fixed route each week during the recording season which runs for 26 weeks from 1st April to 30th September, recording all butterflies within a 5m cube ahead of the walker. This produces an index for the numbers of each butterfly species seen, which may also be referred to in the report by various terms, such as 'count' or 'record'. Adopting this methodology means that it is possible to make a meaningful comparison of species indices and, over time, identify trends in their abundance. A more detailed analysis, together with the raw data is available to Group Members and Landowners on request.

Transect walkers are also encouraged to record any moths seen on transect that they are able to identify in the field, in the same way as they do for butterflies. They may also record any other sightings of note which can be entered into UKBMS and are passed to the relevant conservation body.

2021 Weather

In summary 2021 was cool and changeable and cloudy. A poor spring and early summer certainly affected the later butterfly emergence and numbers.

After a warm spell in late March, April was a dry, sunny but cold month, the frostiest on record. May was very changeable and very wet in the south, the wettest in the last 30 years and temperatures rarely reached 17c, making timing of walks difficult. Apart from a warm and sunny spell at the beginning. June started cool and changeable and then turned warm and humid with numerous periods of rain nearly matching the May rainfall. July was also cool, changeable and cloudy with a few periods of sunny spells in the middle of the month and unusually for 2021 a very hot end. The heat wave did not last and the first half of August was mostly rather unsettled, with temperatures suppressed by day, and regular falls of rain. It became much drier from mid-month, with quiet settled weather but largely unremarkable temperatures and dull skies. September was drier and more settled and quite warm before turning wet and chilly for the last four days of the month.

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



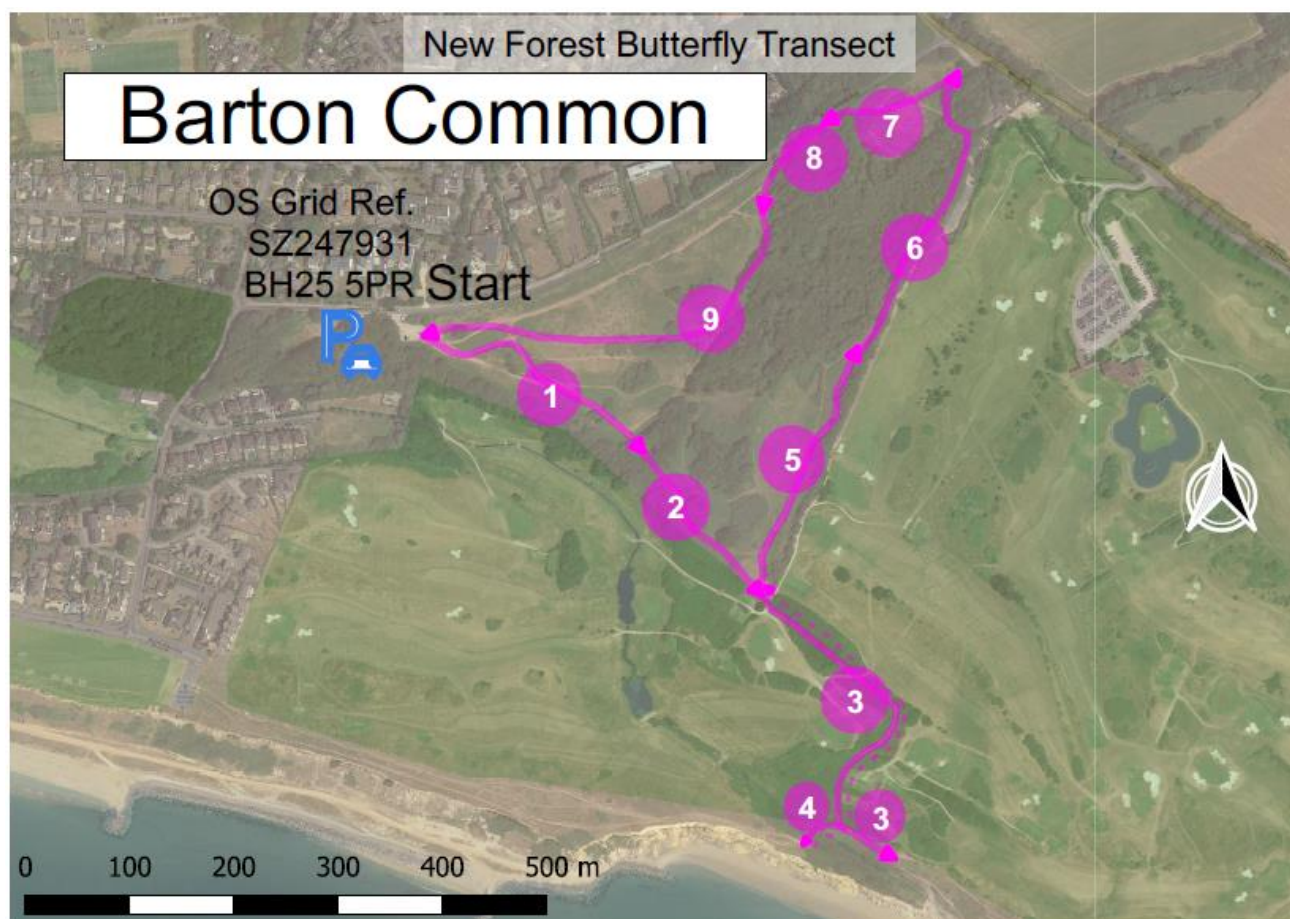
Section 2 Habitat (TB)

Section 2 – Transect Background and Season Highlights

Transect Description

Barton Common transect is situated south of the New Forest on the cliff top adjacent to a golf course and managed by New Milton Town Council. Conservation activities took place in 2015/6 to return the common to two thirds grassland and one third scrub and woodland. That habitat ratio is maintained by grazing ponies and conservation activities as and when needed. 5 sections traverse open grasslands, 2 sections go through mature woods, 1 section is a scrub lined track across the golf course and 1 is a short section on the cliff top.

Transect Route



2021 Highlights

It should be remembered that any abundance comparisons with 2020, must take into account that transect walking in 2020 started 6 weeks later than normal, due to Covid-19.

The total abundance is in line with the previous few years although lower than the average, which is influenced by the very high count in 2013.

Species indices were in line with previous years, with the summer peak in weeks 16 and 17 caused by the emergence of Meadow Brown and Gatekeeper.

Large numbers of Small White butterflies were observed in September which produced an abundance peak in week 23.

A Cream-spot Tiger moth was recorded for the first time.

Section 3 - Flight Periods

2021	Weekly Records																										TOTAL	Weeks Recorded	
Week	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			
Sun (%)	100		100	100		100	100	82	100	100	100	10	80	100	17	100	100	93	100	96	88	100	24	80	100	100			
Temp (°C)	15		13	17		13	14	15	18	18	24	22	20	19	21	24	20	18	22	20	21	19	23	19	20	19			
Small/Essex Skipper																8	1										9	2	
Orange-tip							1		2																		3	2	
Large White																4	9	7		2	3			4			2	31	7
Small White											2					2	1	8	7			2	17	42	10	5	2	98	11
Green-veined White																		1									1	1	
Brimstone											1						2							1			4	3	
Speckled Wood									1		1	1		1	1	1	2		3	2	2	6	12		8	1	42	14	
Small Heath									2			7	2	7	3		4									2	27	7	
Ringlet																		1									1	1	
Meadow Brown													5	10	14	25	29	1	4	2						2	92	9	
Gatekeeper																1	25	46	14	27	26	3					142	7	
Marbled White															4	5	7	1									17	4	
Silver-washed Fritillary																			1								1	1	
Red Admiral													1	2			2	2		2	4	2		1		4	20	9	
Painted Lady									1			1															2	2	
Peacock	2		4	2					2	1							1	1			1						14	8	
Comma																	1									1	2	2	
Small Copper								2									2					1	1		1	1	8	6	
Green Hairstreak						1			2	1																	4	3	
Holly Blue									1																		1	1	
Common Blue																	1	1		1		3					6	4	
TOTAL	2	0	4	2	0	1	3	5	8	0	5	8	8	24	30	85	104	22	40	38	13	24	60	10	18	11	525		
Weekly Species	1	0	1	1	0	1	2	3	6	0	4	2	3	5	7	13	13	3	7	6	6	3	5	1	4	7	21		
Week	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			
	Normal flight Period †					Inside Normal Peak Flight Period							Outside Normal Peak flight period							Outside Normal Flight Period									

† Normal Flight Period is derived from actual New Forest sightings from 2011 to 2018 and Hants Flight Periods by Alan Thornbury

FAMILIES
Hesperiidae
Pieridae
Nymphalidae 'Browns'
Nymphalidae 'Aristocrats'
Lycaenidae

Flight periods are based on New Forest Transect Group historic data supplemented by Alan Thornbury's Hampshire Flight Chart.

Weeks 2 and 5 were not walked due to poor weather. There were no significant deviations from the expected flight periods.



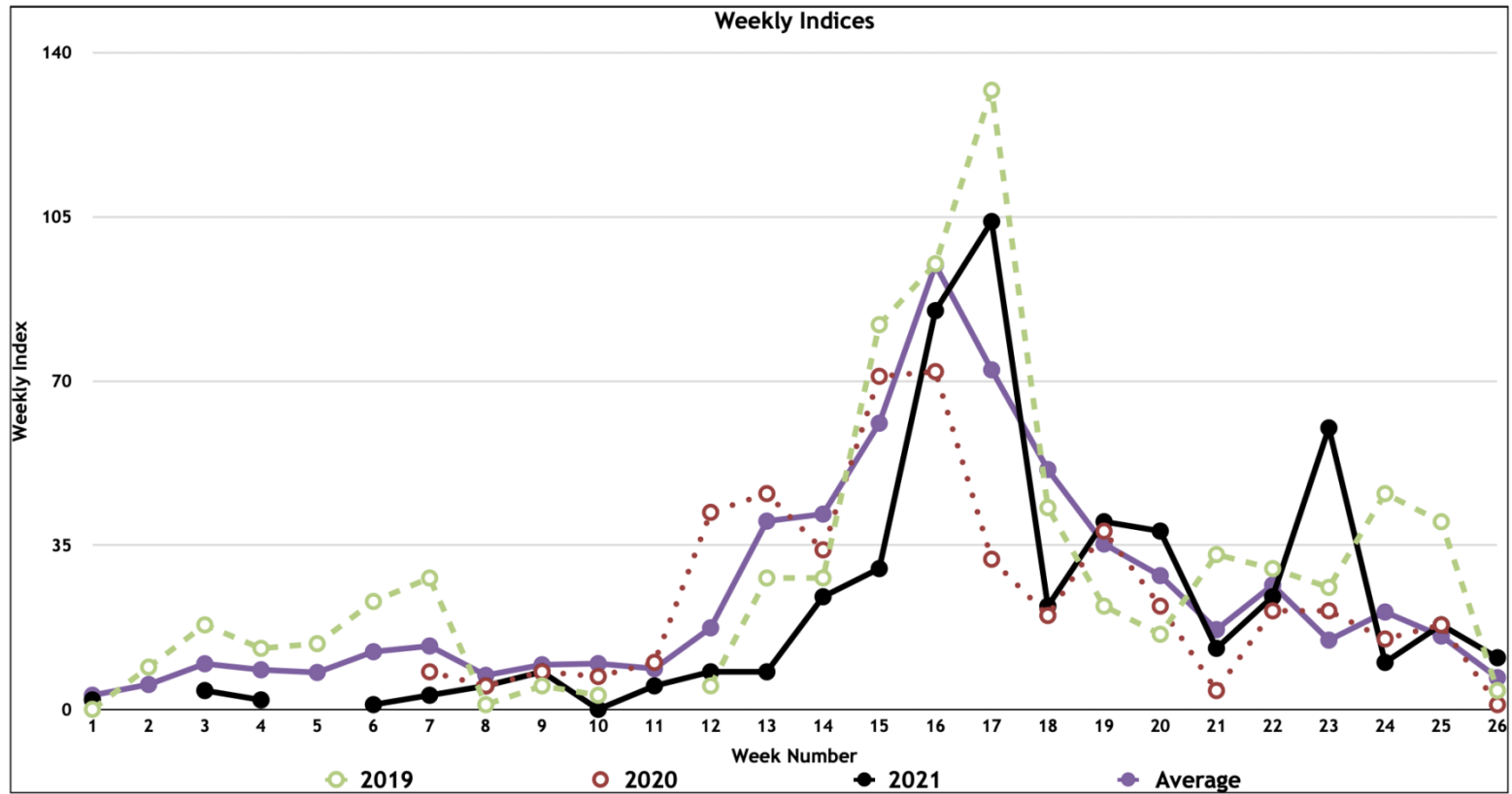
Gatekeeper (TB)

Marbled White (TB)

Speckled Wood (TB)

Small Heath (TB)

Section 4 - Weekly Indices



Summary of Transect Indices by Week																										Highest Index			
Week	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		
2013		0	2	2	11	8	15	12	17	30		30	12	8	56	282	81	45	108	126	43	91	11	16	20	0	1,026		
2014	1	5	13	3	15	19	15	3	3	8	20	7	22	38	90	63	153	90	18	9	11	14	9	26	20	14	689		
2015	5	3	13	17	1	13	5	10	13	21	7	12	14	50	70	31	39	124	33	16	19	11	7	10	3	7	554		
2016	2	2	1	6	4	5	16	15	6	0	0	0	5	12	8	39	35	24	22	7	6	16	6	6	1	8	252		
2017	4	14	11	13	6	3	4	7	3	3	3	16	63	33	23	65	14	39	35	28	8	22	32	10	18	12	489		
2018	6	4	10	5	4	15	17	5	21	6	12	27	131	130	88	111	93	24	6	4	12	7	6	37	5	8	794		
2019	0	9	18	13	14	23	28	1	5	3		5	28	28	82	95	132	43	22	16	33	30	26	46	40	4	744		
2020							8	5	8	7	10	42	46	34	71	72	32	20	38	22	4	21	21	15	18	1	495		
2021	2		4	2		1	3	5	8	0	5	8	8	24	30	85	104	22	40	38	13	24	60	10	18	11	525		
Average	3	5	10	8	8	12	14	7	10	10	9	17	40	42	61	95	72	51	35	29	17	27	15	21	16	7	630		

The weekly indices followed a similar pattern to previous years, with the Browns being responsible for the summer peak and very high numbers of Small White the secondary peak in week 23.



Orange Tip (TR)

Section 5 - Species per Section

Species↓	Section→	S1	S2	S3	S4	S5	S6	S7	S8	S9	Total	No. Sections
Small/Essex Skipper				1	6					2	9	3
Orange-tip			1			1		1			3	3
Large White		6	5	3	6	5	2		1	3	31	8
Small White		16	6	22	7	8	6	7	3	23	98	9
Green-veined White										1	1	1
Brimstone					2	2					4	2
Speckled Wood			5	16	1		11	3	2	4	42	7
Small Heath			1			2	4	7	1	12	27	6
Ringlet				1							1	1
Meadow Brown		12	5	14	3	8	4	25	8	13	92	9
Gatekeeper		13	38	36	13	8	1	16		17	142	8
Marbled White		1						10	4	2	17	4
Silver-washed Fritillary							1				1	1
Red Admiral		7	2	5		2	1	2		1	20	7
Painted Lady		1	1								2	2
Peacock		2	2	2	2			2		4	14	6
Comma				1			1				2	2
Small Copper				1	1			4		2	8	4
Green Hairstreak			1	1		2					4	3
Holly Blue				1							1	1
Common Blue				3				1		2	6	3
Total		58	67	107	41	38	31	78	19	86	525	
No. Species		8	11	14	9	9	9	11	6	13	21	

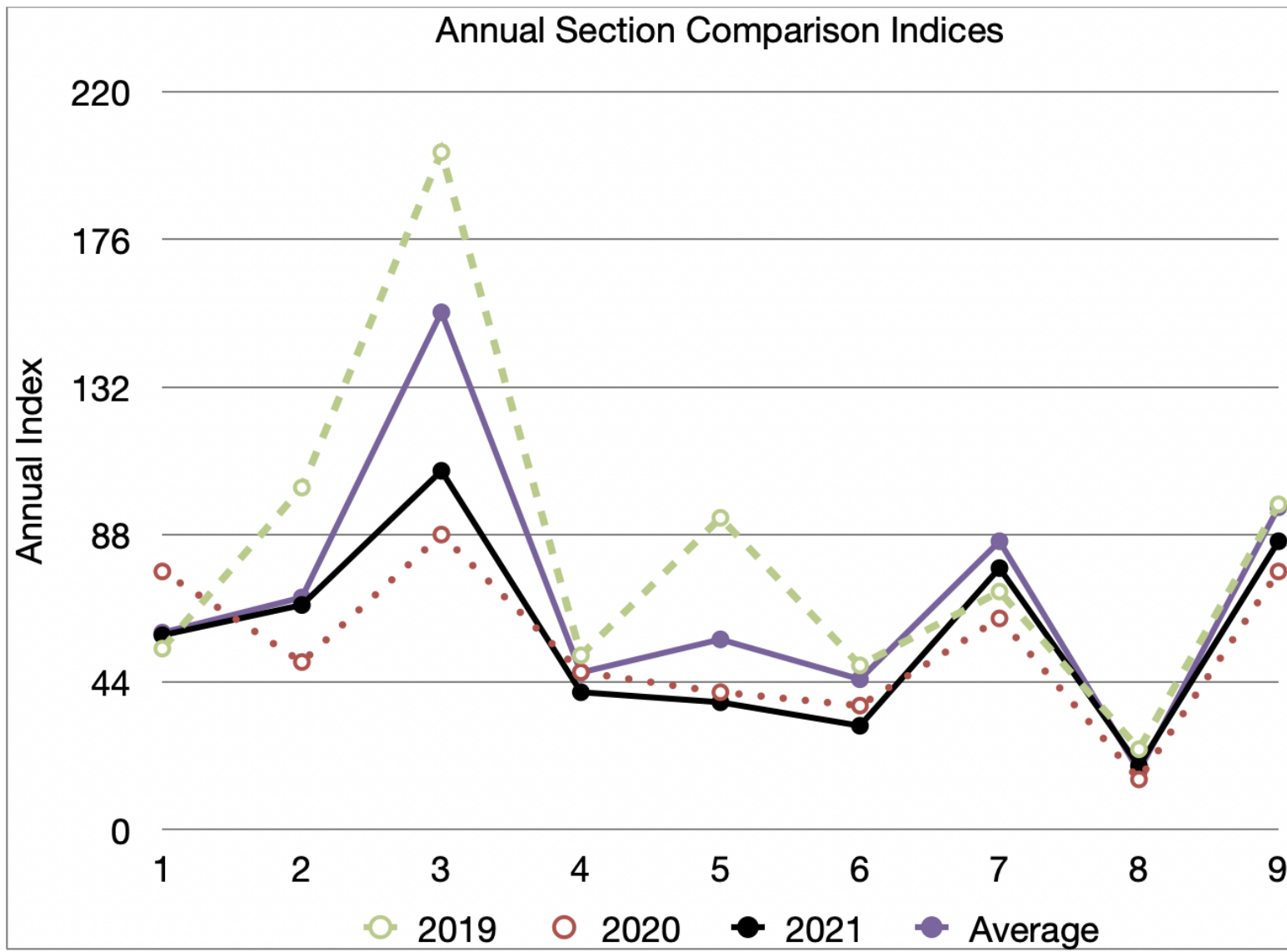


Small Copper (TR)



Common Blue (TR)

Section 6 - Annual Section Comparison Indices



Annual Section Indices													
Section↓	Year→	2013	2014	2015	2016	2017	2018	2019	2020	2021	Average Excl Current Year	Change 2021 v Average	Change 2020-2021
1		127	66	38	17	35	56	54	77	58	59	-1	↓
2		87	73	36	21	67	118	102	50	67	69	-2	↑
3		155	209	191	75	122	192	202	88	107	154	-47	↑
4		60	55	36	36	36	53	52	47	41	47	-6	↓
5		86	66	67	26	31	44	93	41	38	57	-19	↓
6		89	48	45	21	29	41	49	37	31	45	-14	↓
7		195	75	62	15	79	128	71	63	78	86	-8	↑
8		8	10	12	6	27	38	24	15	19	18	2	↑
9		219	87	67	35	63	124	97	77	86	96	-10	↑
Annual Index		1,026	689	554	252	489	794	744	495	525	630		↑

Section 8 goes through a shaded wood and as such will always give a low abundance. Section 3 is always the most abundant, the shrub lined track traverses the golf course before ending with a short section along the clifftop. Section 4 has become shorter in recent years due to cliff falls.

Section 7 - Annual Species Variation

Highest species counts per annum highlighted by red shaded box.

↓ indicates decrease ↑ indicates increase ↔ indicates no change

Annual Indices													
Species↓	Year→	2013	2014	2015	2016	2017	2018	2019	2020	2021	Average Excl Current	Change 2021 v Average	Change 2020-2021
Small/Essex Skipper		66	63	20	6	12	37	4	7	9	27	-18	↑
Large Skipper		52	13	15	5	1	14	2	3		13	-13	↓
Orange-tip			1					2		3	2	2	↑
Large White		120	14	33	20	31	72	85	75	31	56	-25	↓
Small White		68	14	10	19	10	46	57	55	98	35	63	↑
Green-veined White		5	3	6	2	24	20	8	13	1	10	-9	↓
Clouded Yellow		3	2	2	1		1		1		2	-2	↓
Brimstone		15	27	44	18	6	9	24	2	4	18	-14	↑
Speckled Wood		80	101	45	12	92	96	64	13	42	63	-21	↑
Small Heath		120	35	22	4	18	36	28	36	27	37	-10	↓
Ringlet		7		2		7	4	1	1	1	4	-3	↔
Meadow Brown		126	75	54	30	113	150	90	74	92	89	3	↑
Gatekeeper		208	237	198	64	84	188	248	139	142	171	-29	↑
Marbled White		103	31	28	7	12	29	26	22	17	32	-15	↓
Silver-washed Fritillary		1	1	1		7	1	2	4	1	2	-1	↓
Dark Green Fritillary									4		4	-4	↓
Red Admiral		3	10	5	14	16	3	12	10	20	9	11	↑
Painted Lady						2		6		2	4	-2	↑
Peacock		20	22	21	7	23	21	15	2	14	16	-2	↑
Small Tortoiseshell		1	6	3	2	4					3	-3	↔
Comma		3		8	4	5	8	1		2	5	-3	↑
Small Copper		2	7	6	9	10	25	14	13	8	11	-3	↓
Purple Hairstreak							1				1	-1	↔
Green Hairstreak		7	17	13	8	5	12	28	4	4	12	-8	↔
Holly Blue		11	1	14	20	5	15	26	16	1	14	-13	↓
Common Blue		5	9	4		2	6	1	1	6	4	2	↑
Total		1,026	689	554	252	489	794	744	495	525	630	-105	↑
Different Species		22	21	22	19	22	22	22	21	21	21	-0	↔
Max. Weekly Species		9	10	10	11	11	12	11	11	13	11	2	↑

It was a good year for Red Admiral and Small White whose numbers may have been enhanced by migrants.

Section 8 - Moths recorded on Transect

Transect walkers are encouraged to record any moths seen within their standard transect 'cube' that are distinctive enough to be identified in the field. The records below provide an insight into moth species that are around during the daytime, including a number that will be missed or under-represented through more traditional methods of moth recording.

Unlike butterflies, this is not a comprehensive record of the moths that in the area. Many more moth species are likely to be present but either not seen as they are not active during the day or not recognised as they may be too small or not distinctive enough to be identified accurately during a transect walk.

Given that the numbers of moths spotted on individual transects is generally quite low, 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 seen in the daytime. The overview report is available on request for further background information and a list of references used in compiling this section.

Highlights at Barton Common in 2021 were:

- The first Cream-spot Tiger seen on a New Forest Transect Group walk

Species	2018	2019	2020	2021
Meadow Long-horn		1		
Humming-bird Hawk-moth	3			
Orange Underwing				1
Cream Wave		1		
Brown Silver-line	4	1	2	2
Yellow Shell				1
Cream-spot Tiger				1
Jersey Tiger		1		
Cinnabar	2		2	
Silver Y	1			



Cream-spot Tiger (TB)