



# STUDLAND COMMON TRANSECT REPORT 2023



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## Acknowledgements

Thanks go to the transect team, listed above, for their dedication in undertaking walks and identifying and recording the butterflies and moths seen throughout this year's monitoring period.

Many thanks also to those listed below for allowing walks to take place and for their support in producing this report.

Milford-On-Sea Parish Council:	Graham Wells
Milford Conservation Volunteers:	Keith Metcalf
Transect History:	John French
Report Preparation:	Bob Taylor/John French
Report Narrative:	Tani Read
Image manager:	Trevor Bumfrey
Moths Summary:	Jacky Adams
Transect Map:	Neil Smith
UKBMS Entry:	Tani Read

## **Section 1 – Introduction and Transect Background**

This report summarises the findings of the weekly butterfly transects undertaken at Studland Common in 2023, 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, which was designed with advice and collaboration of the Milford Conservation Volunteers commenced in 2016.

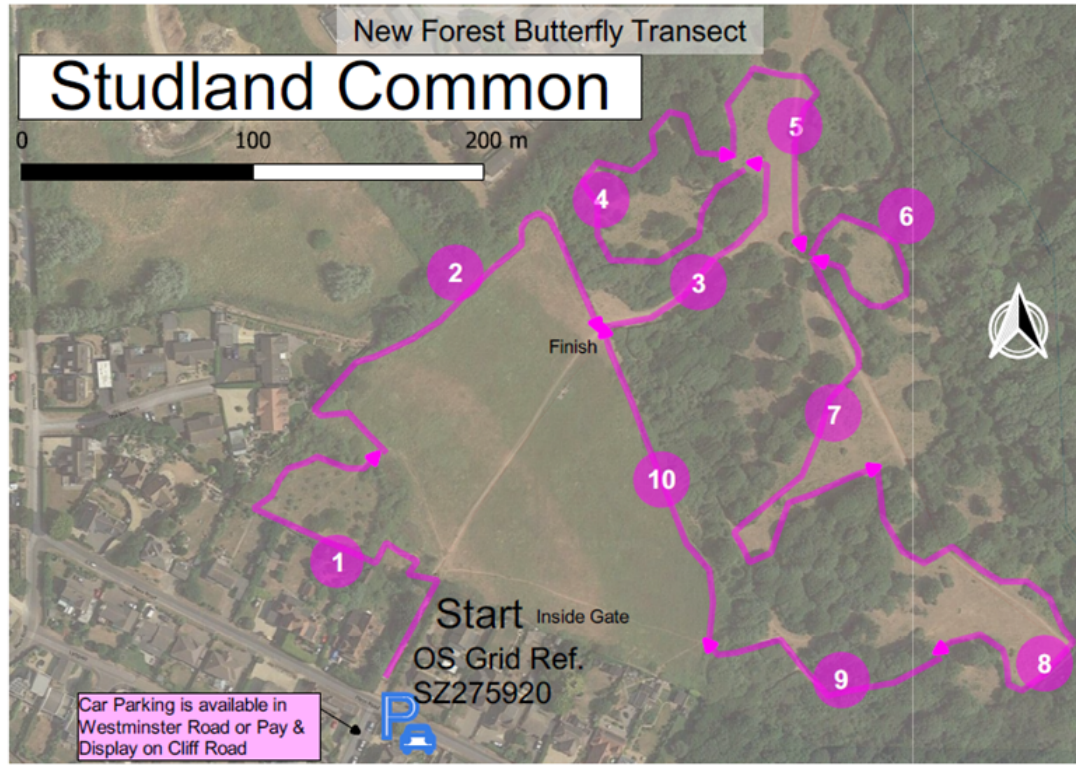
Monitoring walks have been carried out using the Fixed-route (Pollard Walk) transect methodology as promoted through the United Kingdom Butterfly Monitoring Scheme (UKBMS). This involves walking a fixed route each week during the recording season which runs for 26 weeks from 1<sup>st</sup> April to 30<sup>th</sup> 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.

### **Transect Description**

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 transect has been subject to a 10-year scrub management and grassland restoration project aiming for a 50/50 mix of scrub and flower-rich grassland from a 70/30 mix. Natural England funded the project for the Parish Council with the guidance of the New Forest Land Advice Service and Milford Conservation Volunteers. Restorations have been carried out under the Higher Level Stewardship Agreement.

# Transect Route





## Section 2 – Season Highlights

### 2023 Weather Summary

The winter was marginally milder and drier than average, but with alternating cold, settled spells and milder, wetter weather. However, February was the driest since 1993 whilst the southern half of the UK had more than double the average March rainfall. March and April alternated between colder and milder spells of weather, with a cold spell in March and a chilly spell in late April. Spring temperatures were slightly above average, mainly due to a warm May. June was warm, dry, and settled with high pressure dominating. It was the UK's warmest and fourth sunniest June on record. In contrast, July and August were unsettled. July was very cool, dull and was the sixth wettest July on record. August included two named storms, Antoni and Betty, bringing unseasonably wet and windy weather. September temperatures were above average, with the maximum temperature 3.5°C above average. 2023 and 2006 were the equal-warmest Septembers since 1884

### The 2023 NFBTG Season

2023 was a record year in terms of overall numbers recorded. 68948 exceeded the 67567 recorded in 2019, although the density was higher in 2019 as less transects were walked. This represents a 40% increase over 2022. Much of the increase is down to a very warm dry June which resulted in large numbers of summer browns. It also meant that less common summer species such as White Admiral had a spectacular year. We also recorded our first Purple Emperors since 2002 and Red Admirals were everywhere in the late summer. Record numbers of Meadow Brown and Gatekeeper made up nearly 50% of the total and both Small/Essex and Large Skippers had record years. Brimstone, Peacock did well in spite of the cool spring and Brown Argus and Small Copper also thrived after a poor 2022. On the down side Small Tortoiseshell, Common Blue and Grayling had poor years partly due to the cool, wet July and August. Most surprising was that Ringlet were 36% down on average and we barely recorded 50% of the 2022 total.

### 2023 Highlights

Studland Common numbers were highest since recording started in 2016, "The Browns" accounted for 68% of the total with Gatekeeper having its highest index. There were only four weeks with numbers less than 10 and species diversity was just below average. Small White and Speckled Wood numbers were down on average, Red Admiral and Peacock fared better being above average. Small Copper sightings at the beginning of the season were a concern but numbers picked up towards the end and finished with a record count. Holly Blue had their highest index as well. Good to see that Brown Argus were recorded again on transect.



Holly Blue – Eric Read



Marbled White – Ron Taylor



Brown Argus – Eric Read



Green Hairstreak – Ron Taylor



Jersey Tiger – Trevor Bumfrey



Gatekeeper – Trevor Bumfrey

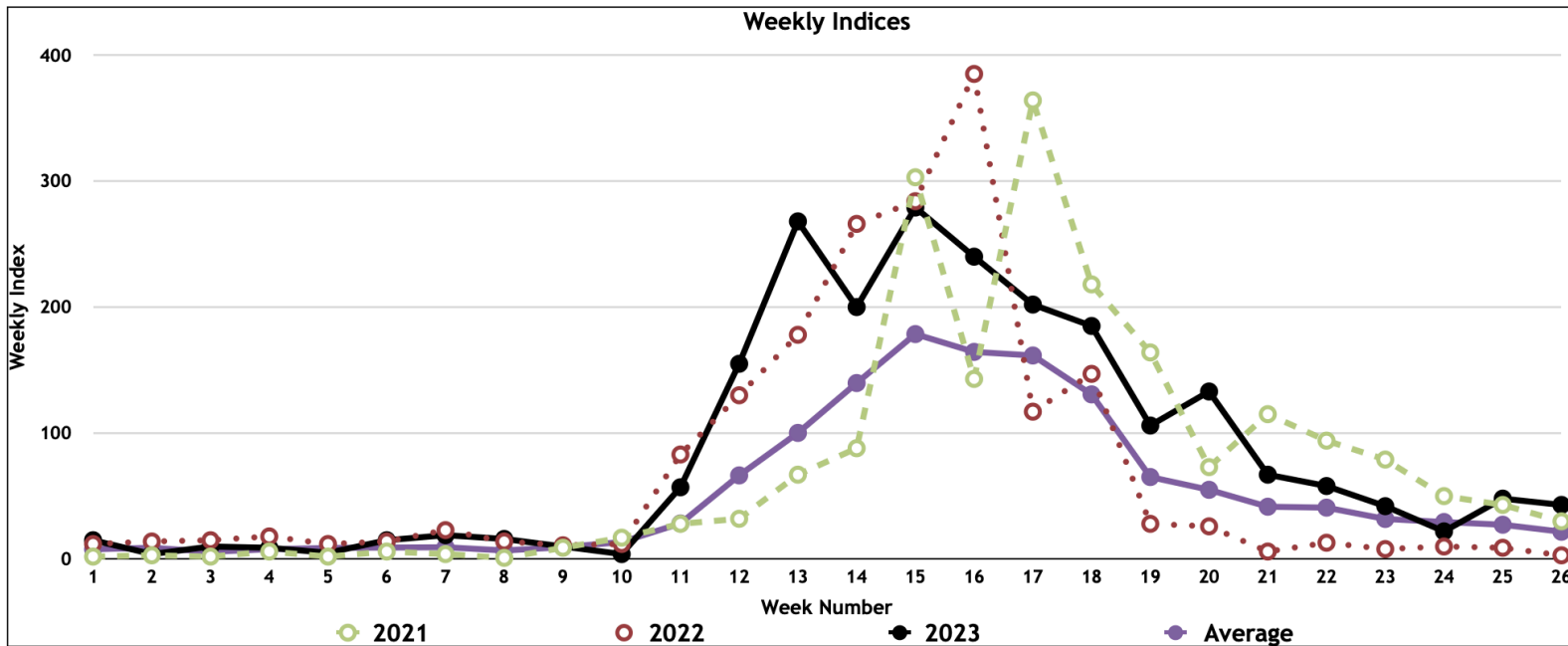
### Section 3 – Weekly Flight Periods and Indices

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

2023		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	71	100	60	100	86	100	100	100	100	47	100	69	94	87	100	100	100	100	25	100	10	94	100		
Temp (°C)		13	13	13	16	19	16	18	18	20	21	23	20	20	25	23	20	20	20	18	20	21	19	24	22	19	19		
Small/Essex Skipper											2	12	64	32	70	23	7												
Large Skipper													5																
Orange-tip								4	1	2																			
Large White												1	1	5	11	9	9	7	12	4	5		9	3	3	3			
Small White								2					1	2	4	7	7	11	2	2	1	2	1	1	7				
Clouded Yellow																							1						
Brimstone			2	3	1												1		1										
Speckled Wood		1		1		1					1							1	2	3	4		2	1	1	17	8		
Meadow Brown											50	116	110	59	51	55	71	79	71	80	46	43	22	6	4	3			
Gatekeeper													2	53	94	107	71	50	9	18	7	2							
Marbled White											1	23	80	38	32	9	6												
Red Admiral				1				2		1			2		3	4	10	5	8	2	3	1	1	4	4	6	12		
Painted Lady						1										1										1			
Peacock		14	2	5	6	2	3	3	3							4	4	2											
Comma													4	1	1	2	1	1									7		
Small Copper							1	2		1					4		3	6	8	3	5	4	3	5	6	11	8		
Green Hairstreak													1																
Holly Blue				2	2	11	7	10	2	1				1	1	4	3	6	2	17	3								
Brown Argus									1										3				2						
Common Blue										4	1	4	1		2	6	6	13	9	2			3				1		
<b>TOTAL</b>		15	4	10	9	5	15	19	16	10	4	57	155	268	200	279	240	202	185	106	133	67	58	42	22	48	43		
<b>Weekly Species</b>		2	2	4	3	3	3	6	4	5	4	4	6	9	11	12	13	13	12	9	8	7	8	6	7	6	8		
<b>Week</b>		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

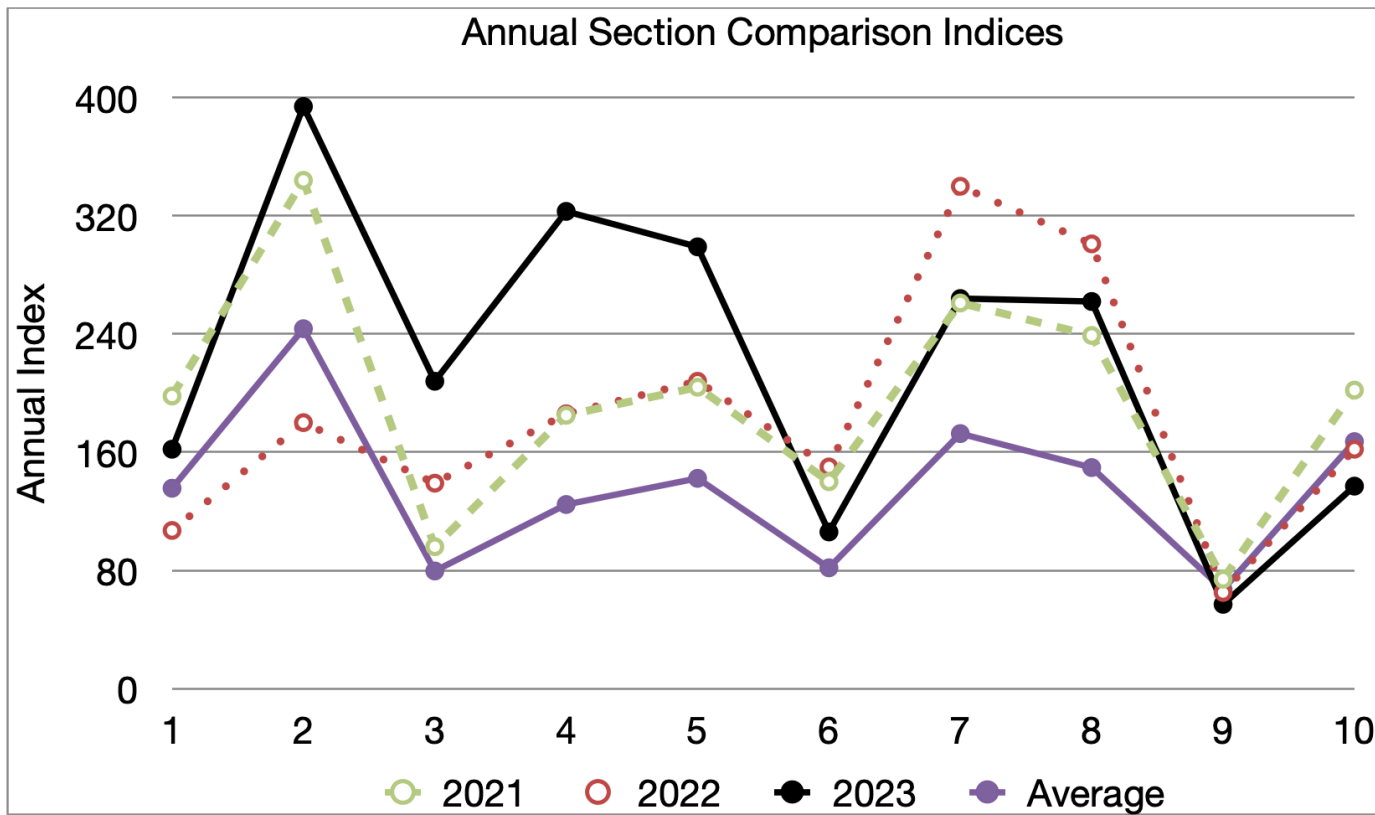


Summary of Transect Indices by Week																										Highest Index	Totals
Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	
2016	1	6	1	0	3	5	14	8	3	1	1	1	10	50	110	18	94	195	65	53	29	18	13	7	13	21	740
2017	12	14	7	11	17	11	1	7	10	3	13	43	66	116	133	103	173	102	25	82	25	56	39	53	45	44	1,211
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
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	1,395
2020						2	5	11	53	57	184	237	152	128	222	124	76	88	70	37	26	38	19	36	14	1,579	
2021	2	3	2	6	2	6	4	1	9	17	28	32	67	88	303	143	364	218	164	73	115	94	79	50	43	30	1,943
2022	12	14	15	18	12	14	23	14	11	12	83	130	178	266	284	385	117	147	28	26	6	13	8	10	9	3	1,838
2023	15	4	10	9	5	15	19	16	10	4	57	155	268	200	279	240	202	185	106	133	67	58	42	22	48	43	2,212
<b>Average</b>	8	9	6	8	9	9	9	7	9	14	28	66	100	140	179	164	162	131	65	55	42	41	32	29	27	22	1,364



### Section 4 – Section Species and Comparison Indices

Species↓	Section→	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	Total	No. Sections
Small/Essex Skipper		10	46	19	22	40	8	25	26	2	12	210	10
Large Skipper		2	3									5	2
Orange-tip		1	3		1					1	1	7	5
Large White		22	17	4	12	8	2	3	6	2	6	82	10
Small White		15	14	6	4	3		4	3		1	50	8
Clouded Yellow						1						1	1
Brimstone		2		1	2	2				1		8	5
Speckled Wood		5	5	1	12	2	1	1	15	1		43	9
Meadow Brown		33	156	101	122	126	34	96	118	14	66	866	10
Gatekeeper		28	31	39	102	48	27	63	48	20	7	413	10
Marbled White		1	53	19	9	36	6	46	8	3	8	189	10
Red Admiral		22	7	7	9	4	11	3	4	1	1	69	10
Painted Lady					1			1			1	3	3
Peacock		6	3	1	2		3	1	6	3	23	48	9
Comma		2		2	4	4	2	1	1	1		17	8
Small Copper		4	16	2	6	8	2	14	10		8	70	9
Green Hairstreak									1			1	1
Holly Blue		8	8	5	11	5	7	4	14	8	2	72	10
Brown Argus			5		1							6	2
Common Blue		1	27	1	3	12	3	2	2		1	52	9
Total		162	394	208	323	299	106	264	262	57	137	2,212	
No. Species		16	15	14	17	14	12	14	14	12	13	20	

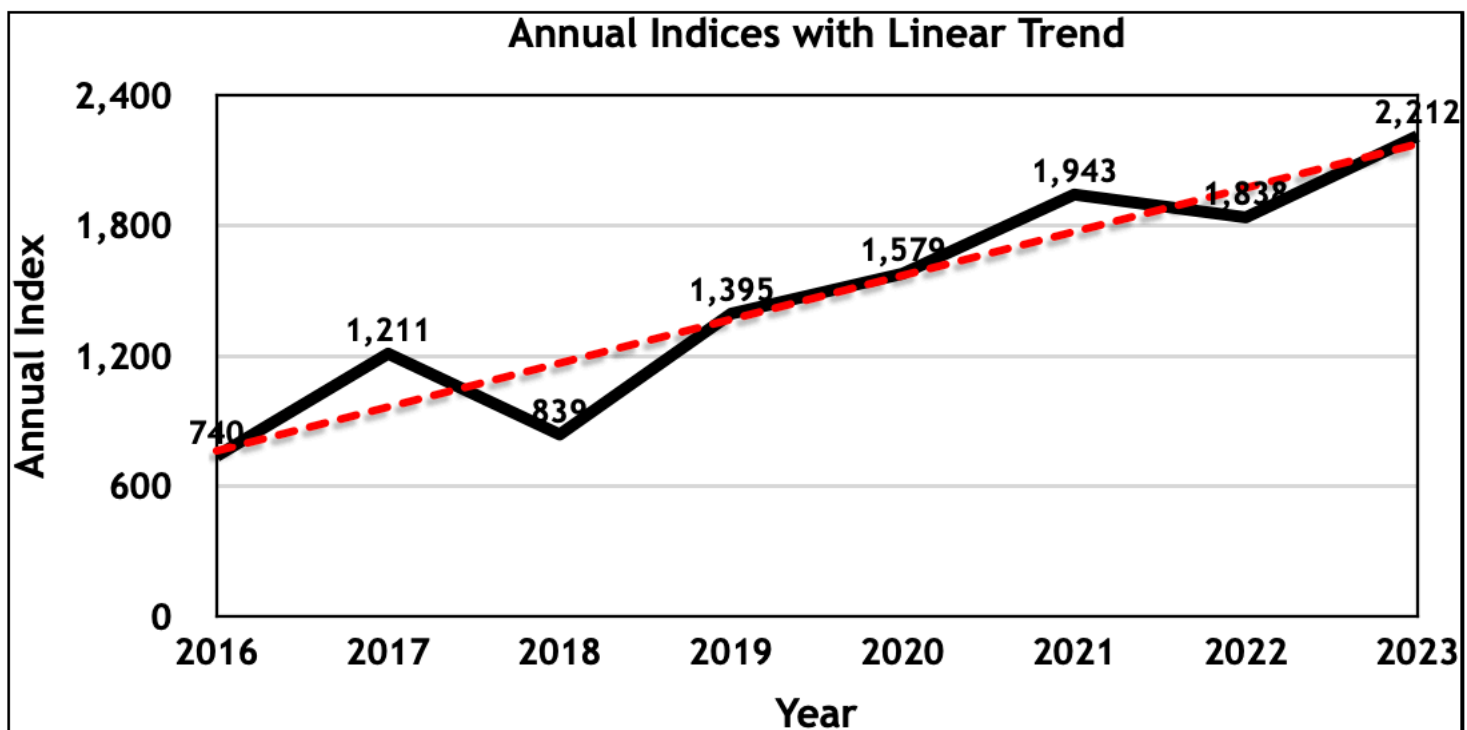


Annual Section Indices										Average Excl Current Year	Change 2023 v Average	Change 2022 v 2023
Section↓	Year→	2016	2017	2018	2019	2020	2021	2022	2023			
1		79	166	92	171	136	198	107	162	136	26	↑
2		129	250	174	340	288	344	180	394	244	150	↑
3		30	49	60	73	110	96	139	208	80	128	↑
4		60	118	66	67	190	185	186	323	125	198	↑
5		91	129	61	124	179	204	208	299	142	157	↑
6		28	61	45	60	88	140	150	106	82	24	↓
7		142	101	72	112	180	261	340	264	173	91	↓
8		43	105	68	106	185	239	301	262	150	112	↓
9		72	70	61	52	75	74	65	57	67	-10	↓
10		66	162	140	290	148	202	162	137	167	-30	↓
Annual Index		740	1,211	839	1,395	1,579	1,943	1,838	2,212	1,364	848	↑

## Section 5 – Annual Species Variation

Annual Indices		2016	2017	2018	2019	2020	2021	2022	2023	Average Excl Current	Change 2023 v Average	Change 2022 v 2023
Species↓	Year→											
Essex Skipper			1									
Small Skipper												
Small/Essex Skipper		22	31	30	70	49	99	221	210			↓
Small & Essex Skipper Total		22	32	30	70	49	99	221	210	75	135	↓
Large Skipper		4		2			8	5	5	5	0	↔
Orange-tip		1	1	1	3		7	4	7	3	4	↑
Large White		60	48	49	94	68	109	26	82	65	17	↑
Small White		29	57	86	57	57	90	33	50	58	-8	↑
Green-veined White		1	1	1	1		1	2		1	-1	↓
Clouded Yellow		1						1	1	1	0	↔
Brimstone		3	2	4	9	3	6	7	8	5	3	↑
Speckled Wood		42	96	53	34	42	80	46	43	56	-13	↓
Small Heath					7	7	3			6	-6	↔
Ringlet				3	2	11				5	-5	↔
Meadow Brown		227	396	347	581	857	869	648	866	561	305	↑
Gatekeeper		160	235	141	246	298	220	370	413	239	174	↑
Marbled White		104	63	21	84	84	200	317	189	125	64	↓
Silver-washed Fritillary		1			1		2	2		2	-2	↓
Red Admiral		37	80	12	36	13	52	14	69	35	34	↑
Painted Lady		1	2	1	9	1	7	1	3	3	-0	↑
Peacock		10	52	11	32	9	13	50	48	25	23	↓
Small Tortoiseshell		1	1	1	1	1	1			1	-1	↔
Comma		8	53	16	10	10	22	14	17	19	-2	↑
Small Copper		14	30	21	36	30	15	4	70	21	49	↑
Green Hairstreak		2	2	2	4		5	6	1	4	-3	↓
Holly Blue		7	25	12	25	21	6	27	72	18	54	↑
Brown Argus							4		6	4	2	↑
Common Blue		5	35	25	53	18	124	40	52	43	9	↑
<b>Total</b>		<b>740</b>	<b>1,211</b>	<b>839</b>	<b>1,395</b>	<b>1,579</b>	<b>1,943</b>	<b>1,838</b>	<b>2,212</b>	<b>1364</b>	<b>848</b>	<b>↑</b>
<b>Different Species</b>		<b>22</b>	<b>19</b>	<b>21</b>	<b>22</b>	<b>18</b>	<b>23</b>	<b>21</b>	<b>20</b>	<b>21</b>	<b>-1</b>	<b>↓</b>
<b>Max. Weekly Species</b>		<b>12</b>	<b>14</b>	<b>12</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>13</b>	<b>13</b>	<b>-0</b>	<b>↓</b>

FAMILIES	2016	2017	2018	2019	2020	2021	2022	2023
Hesperiidae	26	32	32	70	49	107	226	215
Pieridae	95	109	141	164	128	213	73	148
Nymphalidae 'Browns'	533	790	565	954	1,299	1,372	1,381	1,511
Nymphalidae 'Aristocrats'	58	188	41	89	34	97	81	137
Lycaenidae	28	92	60	118	69	154	77	201



## Section 6 – 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 are 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 NFBTG 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.

<b>Species</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	
<b>Orange Swift</b>						1	
<b>Six-spot Burnet</b>	20			1	15	8	
<b>Yellow Shell</b>	1						
<b>Common Carpet</b>	1			1			
<b>Clouded Border</b>					1		
<b>Brimstone Moth</b>	1			1			
<b>Speckled Yellow</b>						1	
<b>Muslin Moth</b>				1			
<b>Jersey Tiger</b>	1			2		1	
<b>Cinnabar</b>		4	3	10	1		
<b>Mother Shipton</b>	1						
<b>Silver Y</b>	1			18	2	12	
<b>Small Yellow Underwing</b>	1			1			
<b>Total</b>	<b>27</b>	<b>4</b>	<b>3</b>	<b>35</b>	<b>19</b>	<b>23</b>	
<b>Number of species</b>	<b>8</b>	<b>1</b>	<b>1</b>	<b>8</b>	<b>4</b>	<b>5</b>	
<b>Total Species (2018-2023)</b>							<b>13</b>