

Wyre Forest Butterfly Recorders Group

Summary of 2021 results

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Contents

	Page Numbers
1. Summary	3
2. Transect recording	4-6
3. Timed Count recording	7-10
4. Pearl-bordered Fritillary	10-14
5. Summary statistics for volunteer effort	14-15
6. Appendix 1 Pearl-bordered Fritillary & Wood White numbers by recording week of transect	16-25

Acknowledgements

This report would not have been possible without the continued efforts of all our volunteer butterfly recorders at the Wyre Forest. In 2021 these were:

Giles Alder, Colin Amor, Elaine Barbour, Geof Carpenter, Phil & Ann Constable, Louise Green, Craig Jones, Jenny Joy, Richard Langley & family, Pat Lancaster, Roger Littleover, Clive Lloyd, Andy Pearce, Sally Pendergast, Dave Plowman, Jane Pope, Phil Rudlin, Pete & Les Smith & family, Matt Standen, Jan Taylor, Jackie Wickham, Mike Williams, Rosemary Winnall, Richard & Jan Woolley, and Mark Wrench with apologies to anyone we have missed off the list.

We are also very grateful to Phil Rudlin and Richard Boles (Forestry England) plus Tom Simpson and Alice James (Natural England) for their continued support of this group. John Tilt (West Midlands Butterfly Conservation Branch Recorder) kindly supplied species records and summary distribution maps for some species and produced the graph.

March 2022

1. Summary

Despite the challenges of the past two years the Wyre Forest Butterfly Group has delivered an impressive set of results in 2021.

In 2021 there were a total of 245 visits (excluding those inputted via irecord). Of these 139 were surveys and timed counts and 106 were transect visits.

There are now six transects recorded in the Wyre Forest area. Three of these are in the main Forest block (Wyre Forest West (Dowles), Wyre Forest West (Edwards Way) and Wyre Forest East), one is in the north of the main block (Hurst Coppice), and two are outlier sites (Pound Green Common and Shatterford Wood). Both Pound Green Common and Shatterford Wood are north of the main block. This means that all of these transects now provide us with a huge amount of information about the status of butterflies in these areas.

The surveys and timed counts continue to enable us to assess the current status of many species across the forest. The Grizzled Skipper is just about hanging on, the Marbled White is becoming more frequent in the north of the forest, and Dark Green Fritillary are still most frequent in the Dowles Brook area.

The poor May weather meant that many of the initial Pearl-bordered Fritillary counts and transect figures were very poor. On numerous sites, they were either absent or the lowest numbers were recorded since regular monitoring began. Fortunately, better weather arrived towards the end of May allowing numbers to recover on some but not all sites. This resulted in two of the transects recording reasonable Pearl-bordered Fritillary numbers and one large and two medium sized colonies being found elsewhere in the forest. Good numbers were particularly important in 2021 as the Wyre Forest was the only remaining potential donor site for a planned re-introduction project of this butterfly onto the Malvern Hills by West Midlands Butterfly Conservation. In the event, numbers reached the threshold to allow the collection of four females and a good number of their caterpillars are still currently developing in captivity.

The peak recording week for Pearl-bordered Fritillary on transects was week 10 (3-9 June) for three transects, and week 9 (27 May – 2 June) for one transect. We tend to think of the peak of Pearl-bordered Fritillary in the Wyre Forest being much earlier than this but past transect data shows that this is not unusual.

2. Transect recording in 2021

The total number of each species recorded on each transect during 2021 is given in the table below.

The Wyre Forest West (Wyre West Dowles) and Wyre Forest East transects both started in the 1980s. The Wyre Forest West Edwards Way (Ed in table below) started in 2019, the Shatterford transect started in 2019 and the Pound Green Common transect in 2013. The Hurst Coppice transect (which started in 2010) was walked eight times in 2021 with the other five transects all being walked more than 20 times in 2021 and frequently up to 26 times per year (see the monitoring visits summary table in Section 5) This means that all of these transects continue to provide us with a huge amount of information about the status of butterflies in these areas.

The transect recorders in 2021 were as follows:

Wyre Forest West (Dowles) – Mark Wrench

Wyre Forest West (Edwards Way) – Mark Wrench

Wyre Forest East – Geof Carpenter, Phil & Ann Constable, Louise Green, Pete Smith & family, Jan Taylor, and Richard & Jan Woolley

Hurst Coppice – Dave Plowman and Craig Jones

Shatterford – Steve Horton

Pound Green Common – Jackie Wickham and Colin Amor



Marbled White



Brimstone

Transects and Species totals for the year

Species	Wyre West (Dow)	Wyre West (Ed)	Wyre East	Shatter-ford	Pound Green Common	Hurst coppice
Small Skipper	2					
Small/Essex Skipper				37	15	
Essex Skipper	3		91			
Dingy Skipper						1
Large Skipper	6	7	33	28	3	
Wood White			1		1	11
Brimstone	83	46	85	4	36	13
Large White	14	2	131	1	45	1
Small White	3	2	195	6	55	2
Green-veined White	212	72	133	63	36	
Orange Tip	32	11	84	19	5	
Purple Hairstreak	1		1			
Small Copper	2		6		4	
Brown Argus			1			
Common Blue	3		22	13	3	
Holly Blue	5	1	5		5	
Red Admiral	3	4	6		10	
White Admiral		1	1			
Painted Lady	1	1	1		1	
Small Tortoiseshell	2	5	29	11	14	
Peacock	123	51	74	58	20	
Comma	9	1	13	9	9	
Small Pearl-bordered	13	7	27			1
Pearl-bordered Fritillary	19	18	60		2	40
Dark Green Fritillary		1	27		1	

Silver-washed Fritillary	72	24	290	9	3	
Speckled Wood	71	12	95	41	22	3
Marbled White	3		12	2	1	
Gatekeeper	169	33	214	228	341	
Meadow Brown	123	7	735	307	193	
Small Heath					21	
Ringlet	550	80	890	224	126	

A few comments on the transect recording results:

- No Grizzled Skippers and only one Dingy Skipper were recorded on any transects
- The Hurst Coppice transect is still really important for Wood White (11 recorded here) with only singleton records on two other transects (Wyre Forest East and Pound Green Common).
- It was a good year for Green-veined White across five transects.
- It is unusual to see two Purple Hairstreak records on transects.
- Pearl-bordered Fritillary numbers held up pretty well on four transects with Wyre Forest East providing the best result (60) and Hurst Coppice recording the highest number since 2012 (40). These are good results in what was generally a very poor year for this species (see the comments below in Section 4).
- Small Pearl-bordered Fritillary - see comments below under timed count recording
- Dark Green Fritillary was still present in good numbers on the Wyre Forest East with singleton records on 2 other transects
- Silver-washed Fritillary were recorded on all five transects and it was especially good to see them present on the outlier sites of Pound Green Common and Shatterford.
- The records of two Marbled White at Shatterford and one at Pound Green Common show that it is clearly becoming established in the wider area around the north of the forest.
- It was good to see Small Heath still present at Pound Green Common.

The transect results have also been incorporated into the summary comments for individual species in Section 3.

3. Timed count and general recording in 2021

As a result of the cold wet spring of 2021 the timed count recording got off to a slow start. It is essential we continue to monitor the wider area of the forest as well as the fixed transect routes so we can assess how things are changing in many more areas. General survey work is also important as it helps us to identify new areas of the forest to include in our timed count monitoring. As a change to how we have reported previously we are going to focus our summary comments on a few species (although Pearl-bordered Fritillary is considered separately see Section 4 below). All the sightings in the tables are from Wyre Forest Butterfly Group members. Any extra records from other recorders are mentioned in the text below the tables.

Wood White

Site	Number seen/comment
Blackgraves Copse	1
Birchen Valletts	2
FC Powerline	Singletons seen here three times
Lodge Hill Meadow 7	2
Worcestershire Wildlife Trust (WWT) Knowles Coppice Meadow	1
Transects (see Section 2 above)	13
Total number seen	22

Comment: wider recording of the Wyre Forest area contributes towards an encouraging picture of the future of this species here. There were 2 additional recorders submitting records. These were Craig Jones (at Blackgraves, Birchen Valletts and Hurst Coppice) and G. Alder (at WWT Knowles Coppice meadow so included in the Table above and one other nearby). This increases the total to 26.

Grizzled Skipper

Site	Number seen/comment
Malpass Pipeline	2
Roxel Boundary	1
Transects	0
Total	3

Comment: Wider recording showing this butterfly is still just hanging on here. There were no records for this butterfly in the forest from other recorders in 2021.

Dingy Skipper

Site	Number seen/comment
Hurst coppice area	Present
Roxel Compound	4
Pipeline West	4
Button Oak Meadow	3
Malpass Pipeline	1
Transects	1 (Hurst Coppice)
Total	At least 14

Comment: A butterfly clearly significantly affected by the cold wet spring like the Pearl-bordered Fritillary. There were no records for this butterfly in the forest from other recorders in 2021.

Small Pearl-bordered Fritillary

Site	Number seen/comment
Hurst coppice area	7
Pound Green Common	1
Roxel Compound	1
Birchen Valletts	4
Blackgraves Copse	6
FC Powerline	36
Pipeline East	1
Button Oak Meadow	8
FC Railway Line	6
Great Bog	14
Malpass Powerline	18 (highest total count of 3 sections)
Wimperhill	2
Withybed main track	2
Chamberline Wood	2
Lodge Hill Meadow (LHM) 1	5
LHM 2	1
LHM 4	1
LHM 8	1
LHM 11	12
Total wider survey/timed counts	128
Transects - recorded on 4 transects (mainly on both Wyre West transects and Wyre East)	48
Overall total	176

Comment: The Wyre Forest is the only place in the region where this butterfly is still widespread across a forest. The 2021 results are very encouraging in this regard. There were also a small number of records for this butterfly in 2021 on record from other

recorders who included Craig Jones, John Fox, Matthew Harpin, Craig Reed, Richard Southwell and Mike Cram. This increases the total to at least 182.

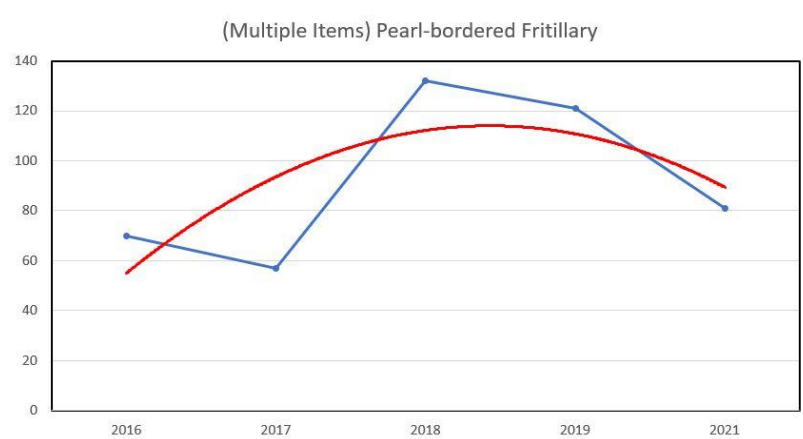
Dark Green Fritillary

Site	Number seen/comment
Long Coppice	2
Blackgraves Copse	2
Button Oak Meadow	2
LHM 7	1
LHM 8	3
LHM 11	5
Total wider survey/timed counts	15
Transects – 27 on Wyre Forest East with singleton records on 2 other transects	29
Overall total	44

Comment: The meadows around the Dowles Brook are currently still the main focus for this butterfly in the forest with only 16% of group members records coming from other areas. There were however a small number of records for this butterfly in 2021 on record from other recorders. These were from Richard Southwell (Blackgraves Copse) and Craig Reed (Postenplain and Pound Green). This increases the total to at least 47 records.

4. Pearl-bordered Fritillary in 2021

2021 was a very poor year for this butterfly across the region mirroring both regional and national trends for this butterfly (graph produced by John Tilt (West Midlands Butterfly Conservation Branch Recorder). Blue line shows actual numbers recorded, red line the linear trend.



As it was the coldest May for eleven years, it was hoped that the improvement in the weather conditions towards the end of May might result in higher numbers across the forest. While this did occur on some sites, other areas recorded their lowest numbers since regular recording began and this was reflected in a number of comments made by recorders e.g. 'It was the worst return by miles in all the years I've been to Brand Wood' said Dave Williams who went on to say 'that nectaring sources were virtually non-existent here'. Nevertheless, this butterfly was still seen in various locations across the forest and while the number of small colonies did not significantly drop (see Table 1), there was only one large and two medium sized colonies located.

There were also numerous records for this butterfly in the forest from other recorders (usually via irecord) including Eleanor Bateman, Richard Clifford, John Clift, Mike Cram, Pete Davies, Neil Duggon, John Fox, Beth Howells, Craig Jones, Jason Kernohan, Dave Martin, Craig Reed, Richard Southwell, Sue Walker, and Thomas Ward. This level of recording reflects the increasing popularity of the Wyre Forest as a place to easily record and photograph this butterfly with the majority of these records in very well-known places.

On the transects (see Appendix 1), numbers held up on Wyre Forest East (60 recorded), increased at Hurst Coppice (40 recorded, the highest number since 2012), dropped hugely from 2020 numbers on Wyre Forest West (Dowles), but were in similar numbers to the previous year on the Wyre Forest West (Edwards Way) and Pound Green Common transects.

It is also interesting to note that the peak recording week was week 10 (3-9 June) for three transects (both of the Wyre Forest West transects and Hurst Coppice) and week 9 (27 May – 2 June) for Wyre Forest East. The only Pearl-bordered Fritillary seen on Pound Green Common were also in week 9 (but just 2 seen). We tend to think of the peak of Pearl-bordered Fritillary in the Wyre Forest being much earlier than this but the transect data in Appendix 1 shows the peak has commonly been in week 9 or week 10 in the past and even occasionally in week 11.

Table 1. Population size of Pearl-bordered Fritillary colonies monitored by peak counts from 2002-2021. Colony sizes as Oates (2003) Large (L) = peak season counts of equal to or >50, Medium (M) = 21-49 and Small (S) = <21.

Year	Total no. occupied sites monitored by timed counts	No. small colonies	No. medium colonies	No. large colonies
2002	15	11	4	0
2003	14	13	1	0
2004	14	11	3	0
2005	18	17	1	0
2006	13	11	2	0
2007	16	10	6	0
2008	18	15	3	0
2009	13	11	2	0
2010	23	16	4	3

2011	30	16	3	11
2012	59	39	15	5
2013	43	35	7	1
2014	58	44	12	2
2015	55	48	6	1
2016	51	41	8	2
2017	59	53	3	3
2018	61	48	9	4
2019	57	41	12	4
2020	41	35	6	0
2021	43	40	2	1

Note: While the 2020 figures have been included here for interest, they are by no means a full data set with COVID 19 restrictions limiting access to the forest at key flight times.

Table 2 – Total numbers of Pearl-bordered Fritillary adults recorded on timed/peak counts carried out across the forest from 2002-2021.

Year	Total number recorded
2002	229
2003	146
2004	197
2005	151

2006	133
2007	275
2008	175
2009	121
2010	514
2011	1600
2012	1158
2013	591
2014	792
2015	595
2016	584
2017	571
2018	884
2019	1061
2020	449
2021	410

If we ignore the low total figure in 2020 (as many of our normal recorders were unable to visit the Forest due to Covid 19), the total numbers of Pearl-bordered Fritillary adults recorded on timed counts in 2021 were the lowest since 2009. However, they are likely to eventually recover given the generally much lower numbers recorded between 2002-2009. As the 2021/22 winter has generally been a mild wet one, this is not usually a precursor to a good emergence so 2022 may not be the year where they return to anywhere near their previous peaks.

5. Summary statistics for volunteer effort 2012-2021

Summary statistics/Year	2012	2013	2014	2015	2016	2017	2018	2019	2020*	2021
Total numbers of volunteers involved	28	32	28	34	39	40	37	30		27
Total number of survey and timed count visits	78	75	155	191	180	227	165	122		139
Number of butterfly transects	4	4	4	4	4	4	4	5	5 (6)	5 (6)

Number of transect visits	85	94	94	93	86	87	89	100	96 (119)	106 (132)
Total number of volunteer visits	163	169	249	284	266	314	254	222		245

Figures in brackets for 2020 and 2021 represent the additional Edwards Way transect.

‘*’ limited figures in 2020 and those included restricted to those filed elsewhere (the UK butterfly monitoring scheme (UK BMS) data) due to covid restrictions.



Wood White, Hurst Coppice

6. Appendix 1 - Pearl-bordered Fritillary and Wood White numbers by recording week of transects

With total numbers seen (adjusted for missing weeks), annual index or weekly index estimates from Transect Walker and peak flights weeks. Figures in red are those calculated by Transect Walker for missing weeks from John Tilt, Transect Co-ordinator for West Midlands Butterfly Conservation.

a) Wyre Forest East Transect – 26 recording visits in 2021

Recording Year

Recording week of transect (dates)	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	
Week 1 (1-7 April)																					
Week 2 (8-14 April)																					
Week 3 (15-21 April)																					
Week 4 (22-28 April)						8				12		0	0						9		
Week 5 (29 April – 5 May)	1	3		1		9		1		75		0	0	2		2		1	2		
Week 6 (6 May-12 May)	12	8		1		7		4		41	6	0	4	1		3		9	4	1	
Week 7 (13 May-19 May)	9	5	2	8		4	1		9	4	13	1	3	3	3	7	7	14	24	7	
Week 8 (20 May-26 May)	8	6	5	7	1	4	2		14	47	4	16	35	15	8	7	45	16	18	15	
Week 9 (27 May-2 June)	4	10	12	8	4	2	4		6	1	88	16	18	17	1	3	29	7	10	20	

Week 10 (3-9 June)	1	5	2	12	7		7	2	12	5		18	1	15	8		19	2	1	15	
Week 11 (10-16 June)	1	3	3						1		15	5	0	8						2	
Week 12 (17-23 June)	2								1			3	0								
Week 13 (24-30 June)			2								1	8	0								
Week 14 (1-7 July)										1		2	0								
Total number seen	37	34	24	29	12	25	13	6	43	18 6	12 7	69	61	61	20	22	95	49	68	60	
Total number estimated by adjustment for missing weeks	38	40	26	37	12	34	14	7	43	18 6	13 1										
Annual Index	38	40	26	37	12	34	14	37	43	18 6	13 1	69	61	61	20	22	95	49	68	60	
Peak flight time (by recording week)	6	9	9	10	10	5	10	6	8	5	9	10	8	9	8 & 10	7 & 8	8	8	7	9	

b) **Wyre Forest West Transect (Dowles)** – 26 recording visits in 2021

Recording week of transect (dates)	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	
Week 1 (1-7 April)																					
Week 2 (8-14 April)											1		0								
Week 3 (15-21 April)												1	0								
Week 4 (22-28 April)		3								21		0	0						8		
Week 5 (29 April – 5 May)	2	3				6			4	57		0	0						5		
Week 6 (6 May-12 May)	2	3	2					2	6	80		0	1	14		3		4	16	1	
Week 7 (13 May-19 May)	3	3	9		2				6	93	7	0	9	12	20	10	1	9	17	2	
Week 8 (20 May-26 May)	13		2	7	2			9		46	15	11	18	6	6	14		14	20	4	
Week 9 (27 May-2 June)	23	16			6				8	19	20	4	2	5	12	5	10	16	4	3	
Week 10 (3-9 June)	1	3	4	9	9				4		4	15	0	8		0	7	5		7	
Week 11 (10-16 June)	1						1			1	11	5	0	15		1	2			2	
Week 12 (17-23 June)											1	13	0								
Week 13 (1-7 July)												3	0								
Total number seen	45	32	17	16	19	6	1	11	24	31 8	59	52	30	47	38	33	20	48	70	19	

Total number estimated by adjustment for missing weeks	45	37	29	35	19	*1	3	34	25	31 8	59	52	30	47							
Annual Index	45	38		16	19	6	3	16	28	31 8	59	52	30	47	38	33					
Peak flight time (by recording week)	9	9	9	10	10	NED	NED	NED	9	7	9	10	8	6	7	8	9	9	8	10	

NED = Not enough data

c) Wyre Forest West (Edwards) – started in 2019, 26 recording visits in 2021

Recording week of transect (dates)	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	
Week 1 (1-7 April)																					
Week 2 (8-14 April)																					
Week 3 (15-21 April)																					
Week 4 (22-28 April)																			1		
Week 5 (29 April – 5 May)																		3	2		
Week 6 (6 May-12 May)																		10	5		
Week 7 (13 May-19 May)																		5	4	1	
Week 8 (20 May-26 May)																		15	2	4	

Week 9 (27 May-2 June)																		3	4	4	
Week 10 (3-9 June)																		2		6	
Week 11 (10-16 June)																				3	
Week 12 (17-23 June)																					
Week 13 (1-7 July)																					
Total number seen																		38	18	18	
Total number estimated by adjustment for missing weeks																					
Annual Index																					
Peak flight time (by recording week)																		8	6	10	

d) **Hurst Coppice Transect** – started in 2010, walked more intermittently (8 recording visits in 2021) giving priority to Wood White and Pearl-bordered Fritillary flight times.

i) Wood White results (estimates for missing weeks)

Recording week of transect (dates)	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	
																		No data			
Week 1 (1-7 April)																					
Week 2 (8-14 April)																					
Week 3 (15-21 April)																					
Week 4 (22-28 April)												0		0							
Week 5 (29 April – 5 May)										8		0		0						0	
Week 6 (6 May-12 May)												0		0						0	
Week 7 (13 May-19 May)										1		0	5	3			3		3	0	
Week 8 (20 May-26 May)									18	18	1	0	15	4			9		3	0	
Week 9 (27 May-2 June)									18	7	20	3	8	5	3		3		3	0	
Week 10 (3-9 June)									15	5	8	5	7	7	5		3		2	5	
Week 11 (10-16 June)									15			15	7	5	14					6	
Week 12 (17-23 June)									5	4		4	6	4						0	
Week 13									5	1	5	5	4	4	1						

Week 14									2	1	4	1	2	3			3				
Week 15												1	0	3							
Week 16												0	0	3							
Week 17												2	1	2							
Week 18												1	1	1							
Week 19									2				0	1							
Week 23									2				0	0							
Total number seen						10*			82	45	38	33	42	24	23	9*1	21		11	11	
Annual Index									87	59	49	37	64	45							
Peak flight time (by recording week)									7-8	8	9	11	8	10	11		8		7-9	11	

*1 – In 2017 3 were seen on 21/5, 3 on later transects and 3 on 7/6 giving a total of 9. The total number of transect visits made was at least 11. There are not enough records to calculate an annual index or do an adjustment for missing weeks.

ii) Pearl-bordered Fritillary results (estimates for missing weeks)

Recording week of transect (dates)	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	
Week 1 (1-7 April)																					
Week 2 (8-14 April)																					
Week 3 (15-21 April)																					
Week 4 (22-28 April)												0									

Week 5 (29 April – 5 May)									33		0								0	
Week 6 (6 May-12 May)									3		0		2						0	
Week 7 (13 May-19 May)								2	5		1	5	4					9	0	
Week 8 (20 May-26 May)								6		11	1	10	4	2	3			8	0	
Week 9 (27 May-2 June)								2		97	6	2	4					5	19	
Week 10 (3-9 June)								2		37	10	0	4					2	20	
Week 11 (10-16 June)								2			8	0	4						0	
Week 12 (17-23 June)											12	0	3						1	
Week 13 (24-30 June)											3	0	1							
Week 14 (1-7 July)											2	0	0							
Total number seen								14	41	145	36	17	18	2	3*	*	No data	24	40	
Total number estimated by adjustment for missing weeks								14	48	224	43	25	26							
Annual Index								14	77	165	43	25	26							
Peak flight time (by recording week)								8	5	9	12	8	7-11	8		*		7*	10	

*Cannot calculate an annual index or do an adjustment for missing weeks as not enough records. In 2020 recording started late due to covid restrictions.

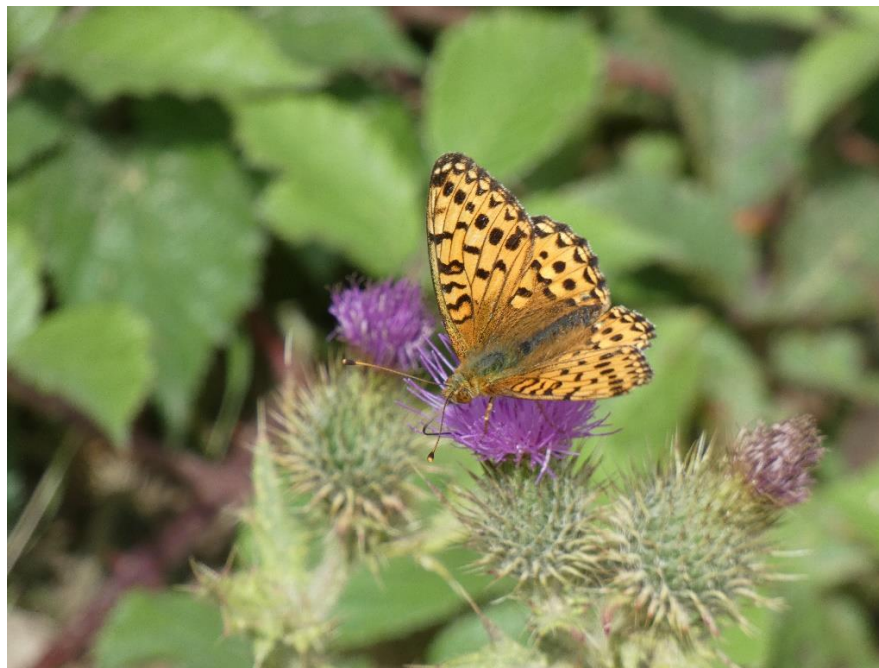
ii) Pound Green Common Transect – started in 2013, 25 recording visits in 2021

Recording week of transect (dates)	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21		
Week 1 (1-7 April)																						
Week 2 (8-14 April)																						
Week 3 (15-21 April)																						
Week 4 (22-28 April)																						
Week 5 (29 April – 5 May)																		8				
Week 6 (6 May-12 May)																		2	2			
Week 7 (13 May-19 May)															1	1	3	4				
Week 8 (20 May-26 May)																	8					
Week 9 (27 May-2 June)																1	3			2		
Week 10 (3-9 June)																	1					
Week 11 (10-16 June)																	1					
Week 12 (17-23 June)																	0		1			
Week 13 (1-7 July)																	1					

Total number seen															1	2	17	14	3	2		
Peak flight time (by recording week)																	8	5	6	9		

iii) **Shatterford** – started in 2019, 21 recording visits in 2021

No Pearl-bordered Fritillary or Wood Whites have been recorded here to date.



Dark Green Fritillary, Long Coppice