

Butterfly Conservation Upper Thames Branch

Black Hairstreak Report 2023

Stuart Hodges

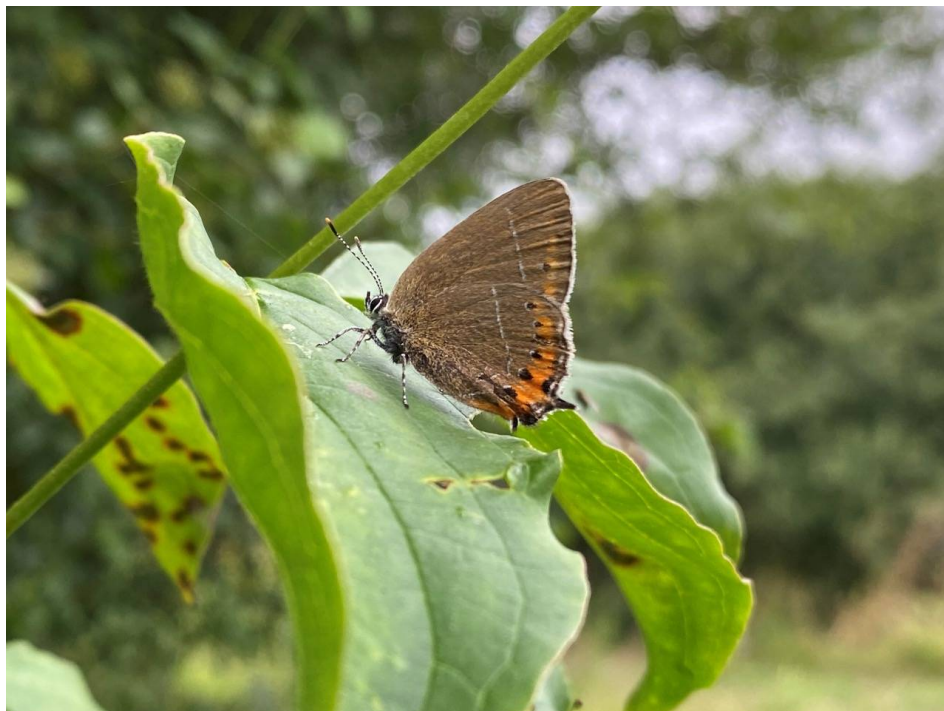
The Black Hairstreak had a much better year than average in 2023. The records many of you have provided show that 9.8 were seen for every hour's observation. With an average of 4.7 for the last 26 years, only in two years has it been higher; in 2018 it was 17.2 and the following year 11.3.

In December 2022 we had a brief cold spell of and it was dry, but most of the winter was mild. March 2023 was extremely wet, in April it improved but was still wetter than average. May started quite wet but the second half of the month was drier than average. June started unsettled but by the 9th the weather improved and the first Black Hairstreak were seen at three different sites.

The peak of the flight period was from the 13th of June to the 19th, after that numbers dropped away, with the last being seen on the 3rd of July.

New information came through early in the year that the use of UV lights to find larvae at night was a way to increase and extend our search opportunities. Two people had attempted it, one person found four larvae - it took a total of three and three quarter hours of searching. We need to research this new technique further in our region.

Four pupae were found at three different sites, these reports did not include time of searching, the report on one was, that it was found purely by accident.

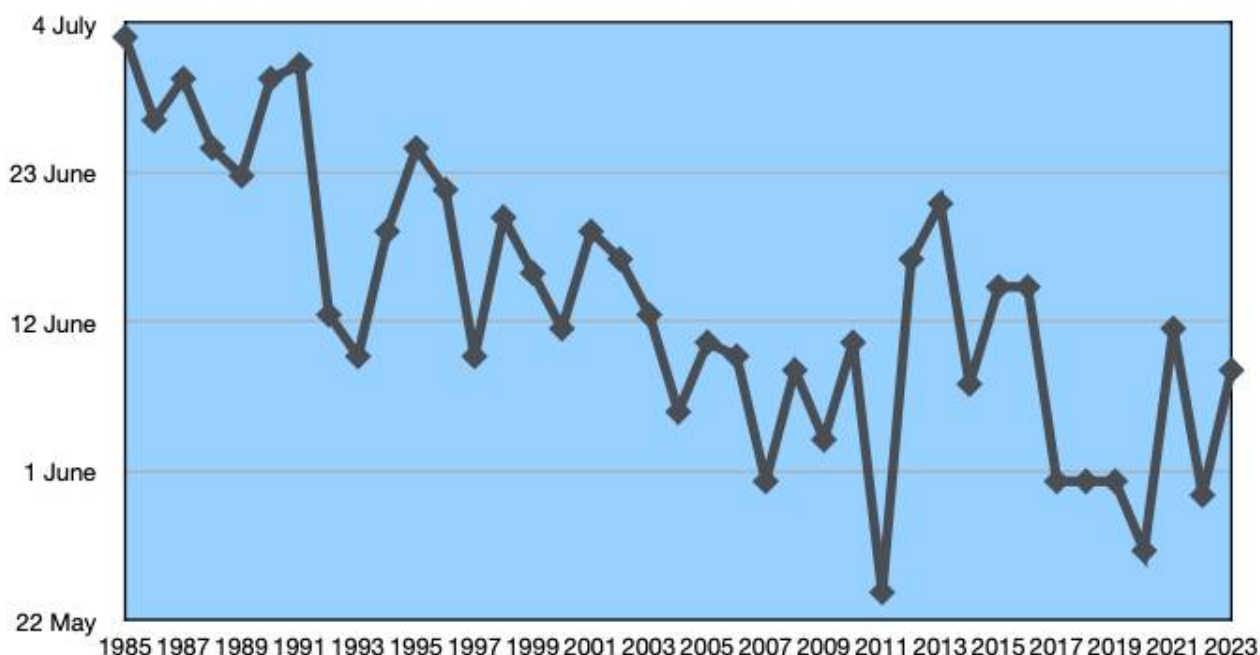


The last Black Hairstreak to be seen on 3/7/23. Photo taken by Ilona Livarski

Annual Comparison of Record information.

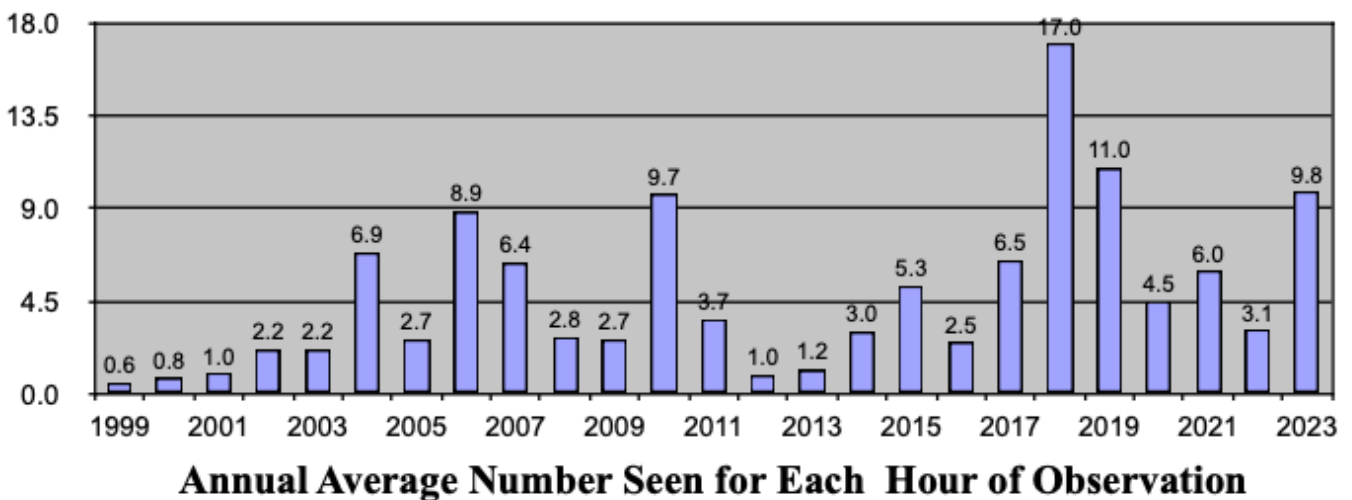
Year	98	99	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total
All Time Total of Bucks and Oxon Colonies/ Sites. Some are now Extinct																											106
Colonies/Sites Visited by the Recording Group.		31	22	36	28	29	40	38	51	54	55	60	67	57	28	34	34	35	42	42	73	42	40	30	30	47	
Colonies/Sites Seen by the Recording Group.	7	13	9	15	9	13	34	34	39	41	40	40	46	38	17	19	29	26	31	36	69	38	32	27	26	39	
Colonies/Sites Extant 1990-2022.																											83
New Colonies/Sites Found since 1997.	2		1			2	2	1	6	4	3	1	4			1	1		2	2	6	1	1			2	40
Colonies Re-discovered Seen pre 1990.	1	5	2	4	1	1	2	1		2			2							1	3		1				26
Individual Butterflies Seen.	19	28	73	90	123	109	525	258	995	655	261	326	1095	586	118	132	263	418	182	435	1789	617	341	311	185	608	26
Hours Spent Looking for the Black Hairstreak.				91	53	49	76	99	112	102	91	118	112	158	109	106	87	78	73	66	104	543	745	51	59	615	9814
People Helping with the Recording.	4	9	12	13	15	16	17	24	21	20	27	30	32	39	34	33	35	42	31	34	35	30	27	25	33	35	
Days with suitable Weather for Black Hairstreak activity.			16	18	18	21	22	28	28	25	18	30	26	31	27	24	22	25	20	23	33	34	35	25	34	24	625
Hours of suitable Weather for Black Hairstreak activity.	40	90	105	149	151	167	150	176	234	140	115	205	210	168	137	181	142	194	108	188	278	241	213	156	202	181	4333
Average Hour's Suitable for Activity per Day											6.8	8.4	5	4.6	6.9	6.4	7.6	5.14	7.23	8.4	6.1	5.75	5.5	5.5	7.5		
Average no Seen per Hour's Observation	1.4	0.6	0.8	1	2.2	2.2	6.9	2.7	8.9	6.4	2.8	2.7	9.7	3.7	1	1.2	3.02	5.3	2.49	6.5	17.24	11.36	4.56	3.6	9.8	4.73	
Annual Site Visit's that Make up this Information	7	12	25	99	54	77	129	157	157	186	167	210	383	286	143	112	112	136	115	120	262	119	122	85	87	137	
Kilometre Squares where the Butterfly was Seen													60	52	18	21	40	41	41	43	64	51	40	41	32	49	
Kilometre Squares where its been seen in Last Six Years																											108
New Kilometre Squares													8	2		2	2	2	2	3	12	1	3	2	2	2	43
Total Kilometre Squares with Black Hairstreak Records																											139

Black Hairstreak Upper Thames Branch First Sightings 1985-2023

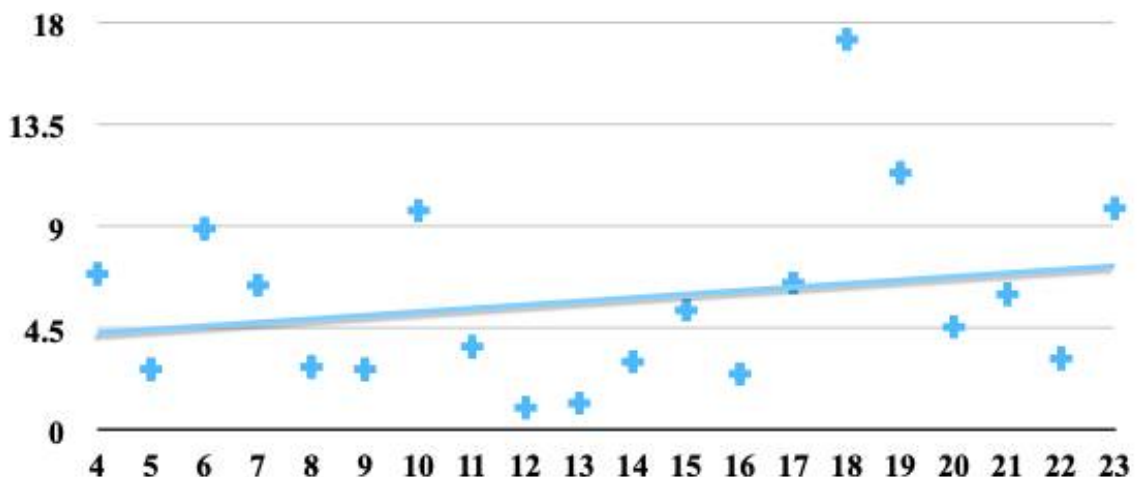


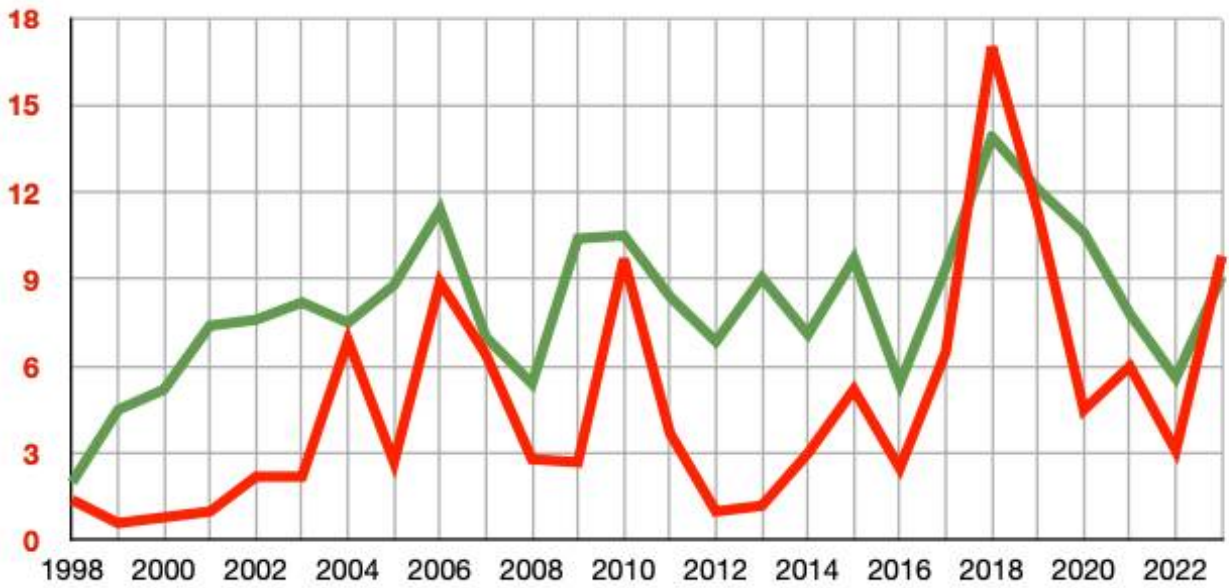
Colony Site Information

The current number of known colonies in Bucks and Oxon.*	68
Colonies within Woodland.	8
Colonies in Woodland edge sites.	26
Colonies at Hedgerow Thicket and Copse Sites.	40
Some of the features of these colonies.	
Hedgerow Colonies at Roadside sites.	11
Colonies Associated with Bridleways and Footpaths.	15
Colonies alongside Railways both Used and Disused.	10
Colonies with Private Landowners.	33
*With the more extensive searching over recent years it has been found that the colonies are more dispersed than originally thought, so this can only be an estimate.	

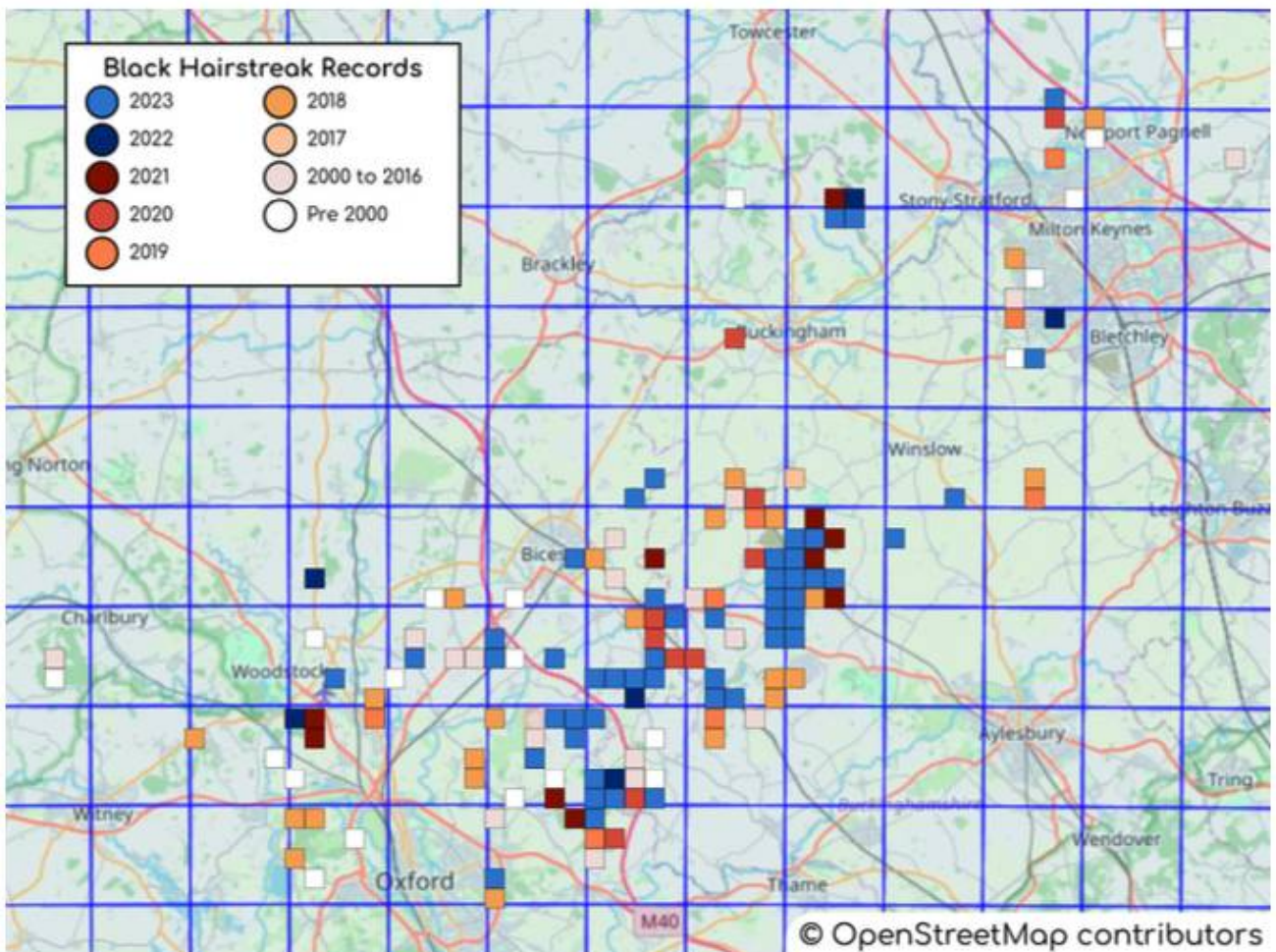


+ Trend Line of Timed Observations





The Red line on the chart above is the average number seen for each hour of observation, the Green line is my own weather recording of the number of hours suitable for Butterfly activity during the flight period, but scaled to fit the same axis. This is an attempt to find out if there is any correlation between the weather conditions in year one and the numbers seen the following year. There isn't always an obvious correlation, though usually years with more suitable weather are followed by higher numbers seen in the next year.



Distribution Map.

Threats

The habitat damage along rail lines within the Black Hairstreak's local distribution has largely ceased after many years of considerable destruction of Trees and Hedgerows.

East-West rail lines are in place, with the embankments extensively planted, and associated mitigation sites are complete. HS2's destruction phase is largely complete and much of their mitigation planting is also largely finished.

More recently we have become aware of the importance of the hedgerow habitat for the Black Hairstreak, so we are concerned that forecast large scale housing development may well destroy colonies including many of which that we are unaware of. The impact of Solar Farms and Battery Storage could be similarly destructive.

Future Prospects.

Some of the new Defra new Environmental Land Management Scheme's may well be beneficial. A recently established Cluster Farm Area could well encompass 50% of our known colonies, providing an opportunity to enhance and connect the rich pastures and hedgerows that they contain. New planning regulations should produce funds for environmental improvements, through Biodiversity Net Gain. Natural England are considering an extensive SSSI, which will encompass some of our Woodland and in a few years time, benefits from HS2 and East-West Rail mitigation may become apparent.

Many thanks to all who spent so much time looking for the Black Hairstreak, thanks also for keeping me up-to-date with your records, including all the sites visited whether or not the butterfly was actually seen. Stuart Hodges. Black Hairstreak Champion. Butterfly Conservation, Upper Thames Branch.
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