

HAMPSHIRE & ISLE OF WIGHT BUTTERFLY REPORT - 2021

Hampshire and Isle of Wight Butterfly Report 2021

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A very warm welcome to the 2021 Annual Butterfly Report of the Hampshire & Isle of Wight Branch of Butterfly Conservation.

Whilst 2021 proved another difficult year, with new variants of Covid-19 to contend with, we should count ourselves lucky to have such excellent commitment from NHS staff, other key-workers, and all the many volunteers involved with the vaccination rollout. I for one am extremely grateful for their continuing efforts in a very difficult situation. I am cautiously optimistic for a better 2022, and I hope this Annual Butterfly Report inspires you all to go out and enjoy the richly diverse and beautiful butterflies and moths we are fortunate to have in our area.

With the UN Climate Change Conference, COP26, held in Glasgow in November 2021, for a few weeks at least, the world's media and politicians were very much focused on the global climate crisis and challenges that lie ahead. I just hope there is the will to deliver on all the promises made, as a few months on, it seems that politics is very much back to business as usual. I do, however, remain hopeful, and the commitment and enthusiasm of young people to force change and address the issue has certainly inspired me.

Just as important as the climate crisis is the world's biodiversity crisis, and the anthropogenic link with both is inescapable. Butterfly Conservation launched its 2021-2026 Strategy in October 2021, outlining how it intends to improve the fortunes of butterflies and moths over the coming years. The overall vision being a world where butterflies and moths thrive and can be enjoyed by everyone, everywhere, I would encourage you all to visit the Butterfly Conservation website where you can find out more about this and what is involved. Rest assured that our Branch intends to play a full part in delivering on the various conservation goals and your contribution, and that of other volunteers, will be a vital part of this. You will see through this report just how many records are submitted annually by members and supporters. So whether you are a beginner, or seasoned recorder, every record counts. This provides us with the data to understand which species are doing well and those that are struggling. The challenge, of course, is to implement the necessary conservation action to reverse the declines so that species are able to recover and prosper. We have serious concerns for some of our woodland fritillaries, but thanks to conservation action, many of our chalk grassland butterflies appear to be doing well. This certainly seems to be the case on our Magdalen Hill Down and Yew Hill nature reserves.

Once again, on behalf of the Branch, let me pay tribute to Bob Annell (Editor) and his entire team of volunteers (see list inside front cover), for the incredible amount of time and effort put into the production of this Annual Butterfly Report. The task doesn't get any easier, but for a report of such quality, packed with vital information, I'm sure you'll agree that it's worth it. As always, let me finish by wishing you all the very best for the new season, and hope this report encourages you to go out, wherever and whenever you can, to enjoy nature.

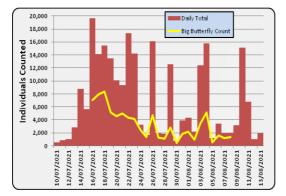
Andy Barker Chair, January 2022

Preamble & Overview

Overall it was a rather disappointing year for butterflies, some might even say '2021 was a mediocre year'.

Although March was warm and April reasonably sunny, frosty nights resulted in late emergence of many of the spring species compared to recent years. Your species writers have mentioned this throughout this report and a review of first sightings reveals that 29 of our Hampshire & Isle of Wight species emerged over ten days later than they did in 2020.

Once again, a considerable proportion of our records are courtesy of the annual Big Butterfly Count (26%). This events takes place for a three week period straddling July and early August, the usual peak time for butterfly abundance and species diversity. The graph illustrates the number of individuals seen around this time



Peak numbers were recorded on 16 July, the first day of the Big Butterfly Count when 729 recorders were active. The highest daily count from the actual Big Butterfly Count occurred two days later (Sunday) and this coincided with the greatest daily number of recorders of 867 (20% of the season's total). The fewest number of recorders during peak season was a mere 14 on 06 July.

The tetrad (2km square) embracing Magdalen Hill Down was visited by 43 recorders, that embracing Mottisfont Abbey by 35 recorders & Southampton Common tetrad by 34 recorders.

A special mention goes to one recorder who submitted 2,575 records, amounting to 4,253 butterflies covering 40 tetrads & 164 days of recording effort.

It is perhaps appropriate to mention that the National Butterfly Red List published in 2010 has been updated. Some of our scarcer species have been re-classified.

Pearl-bordered Fritillary and Duke of Burgundy have been downgraded from Endangered to Vulnerable, whilst Grayling has been upgraded from Vulnerable to Endangered. Other species present within our Branch boundary not deemed at risk in 2010 have now been classified as Vulnerable: Silver-spotted Skipper, Small Heath, Adonis Blue & Chalk Hill Blue. Additionally, Wall has moved from Near Threatened to Endangered.

My sincere thanks to all those who submit their records but please do remember to include species you may consider common as well as our scarcer species. Maybe keep an eye out for Large Tortoiseshell, a species which has been recorded 21 times in the last two years, mainly along the south coast and on the Isle of Wight.

Deadline for butterfly records and images to be included in the 2022 report is 30 November 2022.

Bob Annell

County Butterfly Recorder, January 2022

Glossary of Terms

Butterfly transect: A method of monitoring butterflies, involving walking a fixed route at a given site, once a week from the first week of April to the last week of September, counting the number of each species seen. For the purpose of comparison between other butterfly transects both locally and nationally, there are a fixed set of guidelines. These primarily relate to the time of day when and the weather conditions under which the transect is walked. For further details of transect methodology, see http://www.ukbms.org/.

25 Year Transect Trends: These are available on the Branch website. An Annual Index is the sum total of weekly counts for a particular butterfly species on a given transect in a particular year. The graphs show the 25-year trend (1996-2021) for almost all Hampshire and Isle of Wight butterfly species, based on the average of the top 20-30 transect monitored sites where the species occurs.

Flight period: This is the period when the adult butterfly (*imago*) is on the wing.

Butterfly counts: Butterfly transects do not monitor population size, but because of a consistent methodology, they allow us to monitor change from one year to the next. Other counts sent in by recorders will be a function of the area of a site covered and the amount of time spent. In a quantitative way they give an idea of important sites, but would only give an indication of population size.

BC Priority Status: Regional priority is shown as listed in the *Butterfly Conservation South East England Regional Conservation Strategy 2015-2025*, as adopted for Hampshire and the Isle of Wight. Six butterfly species have been identified as 'Top Priority'.

Wider Countryside Butterfly Survey: The Wider Countryside Butterfly Survey (WCBS) was established in 2009 to improve data on the population status of butterflies across the countryside as a whole. This is important given that most site-based monitoring is biased towards good quality semi-natural habitat relatively rich in butterflies. Wider countryside monitoring is organised in partnership with the British Trust for Ornithology (BTO). The WCBS method is based on the BTO's Breeding Bird Survey (the 'BBS'), counting along two parallel 1-km long transects subdivided into 10 sections, located within randomly selected 1-km squares. The differences are that butterflies are counted in a more restricted area than for birds and at different times of the day. Only 2-4 visits are required compared to 26 visits on the traditional UKBMS transects.

Species distribution maps: The distribution maps in this report were produced using *MapMate* recording and mapping software. These show the 2km squares (tetrads) for which records were received since 2000.

Red: 2021 Mid Blue: 2010-2020 Open Black: 2000-2009 A blue or open black circle does not necessarily mean that the species no longer occurs, merely that the site may not have been visited in 2021. For maps of pre-2000 records, see '*The Butterflies of Hampshire*', by M Oates, J Taverner and D Green (Pisces Publications).

Vernacular and scientific names of plants: Plant names follow Francis Rose, 2006, *The Wild Flower Key*, revised and expanded edition, Warne.

Species Number: is in accordance with Agassiz, D.J.L., Beavan, S.D. and Heckford, R.J. (2013) *Checklist of the Lepidoptera of the British Isles*.

Common Species Summary

This year's twenty-three most common species are shown below according to their tetrad coverage within the Hampshire & Isle of Wight Branch Boundary which embraces a total of 1,246 tetrads. Previous years' positions are also shown according to their respective tetrad coverage.

With the (statistically annoying) exception of Red Admiral in 2018, five species, Small White, Meadow Brown, Large White, Red Admiral & Gatekeeper have shared the top five positions since 2016.

Meadow Brown were seen in the same number of tetrads as they were in 2020, but Gatekeeper were seen in 49 fewer tetrads this year.

If the positions were ordered by number of records, then Speckled Wood would jump from eleven to seventh & Small Heath from twentieth up to twelfth. By far the most abundant species was Meadow Brown with approaching 104,000 individuals recorded.

Silver-washed Fritillary has remained in 21st or 22nd position for the last nine years.

		P	ositio	Tetrad	d)		
Species	Tetrads	Tetrads Records		2020	2019	2018	2017
Small White	877	12,604	1	1	2	1	5
Meadow Brown	866	13,160	2	3	4	4	3
Large White	864	9,347	3	2	5	2	4
Red Admiral	821	7,215	4	5	3	9	1
Gatekeeper	794	8,066	5	4	1	3	2
Peacock	732	5,679	6	6	7	12	8
Brimstone	689	6,395	7	7	6	7	7
Comma	639	2,704	8	8	11	6	6
Ringlet	614	3,842	9	14	14	13	14
Marbled White	597	3,880	10	16	12	15	16
Speckled Wood	580	5,742	11	11	9	5	9
Small Tortoiseshell	574	2,180	12	12	17	14	11
Small Copper	531	2,140	13	15	18	18	18
Green-veined White	513	1,981	14	13	15	10	12
Painted Lady	461	1,296	15	20	8	16	15
Common Blue	439	3,596	16	9	10	8	10
Holly Blue	426	1,589	17	10	13	11	13
Orange-tip	366	1,652	18	17	16	17	19
Small Skipper	287	1,412	19	21	19	20	20
Small Heath	269	3,073	20	19	21	22	22
Large Skipper	246	1,525	21	18	20	19	17
Silver-washed Fritillary	187	1,559	22	22	22	21	21
Brown Argus	134	865	23	23	23	23	24

Scarcer Species Summary

Dark Green Fritillary had an excellent year and tops the scarcer species table for the first time (101 tetrads). Of the scarcer species, it was the only one to achieve 100+ tetrads. Dingy Skipper also did well, rising three places to 29th, with more than 500 records. Conversely, the migrant Clouded Yellow, which topped the table in 2020 slipped to 31st place.

The bottom ten species are the same as 2020, but with some change in rank order. Perhaps most remarkable is the rise of Brown Hairstreak, which from a low of just 10 tetrads and 44th place in 2017, has now risen to 38th place (33 tetrads) in 2021. In part this is due to increased survey effort, but there is no doubt it is expanding its range in Hampshire.

The bottom five species remain extremely isolated and vulnerable, but with just six records, compared with 12 in 2020, Small Pearl-bordered Fritillary are at rock bottom and close to extinction as a Hampshire species.

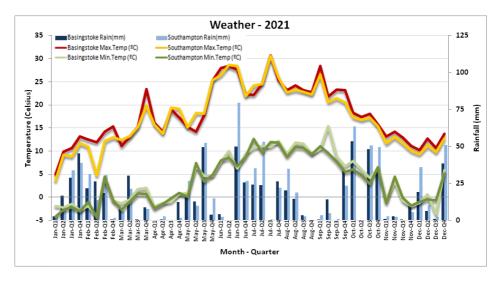
			Positions (by Tetrad)					
Species	Tetrads	ds Records		2020	2019	2018	2017	
Dark Green Fritillary	101	816	24	25	26	30	28	
Essex Skipper	94	231	25	27	27	28	25	
White Admiral	85	326	26	28	25	24	23	
Green Hairstreak	82	208	27	29	24	26	27	
Silver-studded Blue	79	849	28	26	28	29	29	
Dingy Skipper	68	513	29	32	30	35	32	
Purple Hairstreak	71	157	30	30	33	25	31	
Clouded Yellow	65	143	31	24	34	27	26	
Grizzled Skipper	62	379	32	34	31	33	34	
Grayling	60	483	33	31	32	31	30	
Chalk Hill Blue	56	926	34	33	29	34	33	
Small Blue	54	426	35	36	36	37	35	
Wall	45	111	36	35	37	38	39	
White-letter Hairstreak	40	64	37	37	35	32	37	
Brown Hairstreak	33	125	38	41	39	42	44	
Adonis Blue	26	368	39	38	40	39	40	
Glanville Fritillary	26	170	40	40	42	40	42	
Purple Emperor	26	53	41	39	38	36	36	
Duke of Burgundy	20	121	42	42	41	41	38	
Pearl-bordered Fritillary	13	279	43	45	43	43	41	
Silver-spotted Skipper	9	72	44	44	45	45	43	
Marsh Fritillary	9	36	45	43	44	44	45	
Small Pearl-bordered Frit.	2	6	46	46	46	46	46	

Weather Report 2021

As in previous years, this report has been compiled with reference to Meteorological Office summaries and data from private weather stations at Southampton and Basingstoke (Chineham, run by Simon Neil).

http://www.metoffice.gov.uk/climate/uk/summaries/2021

www.southamptonweather.co.uk



2021 was warmer although duller than average. Rainfall was close to that expected. The UK overall was affected by five named storms during the year, with significant disruption being caused by Storm Arwen in November.

Note: Figures are based on UK average from 1991-2020.

January started cold continuing so until the second week when it became milder. Unfortunately the slightly warmer air brought with it showers which persisted until the end of the month. Temperature for the month was 1.5°C below average, making it the coldest January since 2010.

February began mild and wet but during the second week became colder with bitter easterly winds. During the second half of the month it became a little milder and more settled.

The settled, chilly weather continued into **March**. This changed, however, by mid month with rain and high winds, after which it settled finishing the month warm and cloudy with patches of rain.

By **April** cold air was again sweeping across the country. Although sunny by day, leading to the second highest sunshine levels since 1919, temperatures were low. Overall it was a dry and sunny month with only 28% of normal rainfall for the UK as a whole.

May started unseasonably cold, not really warming until the end of the month, making it the coldest May since 1996. It was also very windy at times, with gusts up to 93mph off the Needles (Isle of Wight) recorded during the first week. Wet, unsettled weather continued throughout the month with sunshine only increasing in the last few days.

Although **June** started mainly warm and sunny, things deteriorated from the middle of the month. There was significant rain and, at times, strong winds. Patchy rain and drizzle became the pattern at the end of the month.

The unsettled weather continued into the first two weeks of **July**, keeping temperatures low. Some of the rain was heavy and thundery. Then followed a period of hot, sunny weather, which was broken around the 24 July with showers and thunderstorms. Once again we finished the month wet and very windy with gust up to 77mph recorded at the Needles (Isle of Wight) as Storm Evert passed through.

August came in with, again, unsettled weather. Temperatures were kept down during the day with regular falls of rain, some heavy with thunder. By mid month things were becoming more settled, finishing on a cool cloudy note.

September was fine and settled for much of the month with the temperature being 2.1°C above average. Sunshine over all the UK was 103% of the average. It remained sunny with high cloud until the end of the month when, during the last week, showers and isolated thunderstorms came to the fore. These were accompanied by high winds.

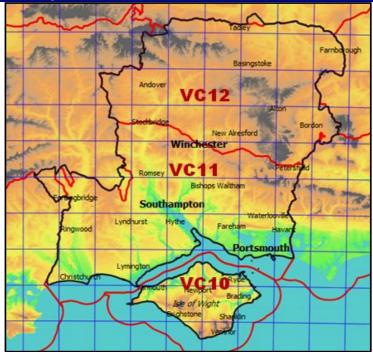
Although at times **October** was unsettled and wet, the average temperature was 1.4°C up. The driest, warmest time was between 06 and 17 of the month. Either side of these dates it remained mild until the last few days of the month when cooler weather came with very heavy rainfall and gusty winds. It was another month that ended wet and, at times, very windy.

November continued mild with very little rainfall overall. Mid month brought showers and a drop in temperature on a northerly wind. Fortunately we only felt mild effects from Storm Arwen as we ended the month in an unsettled period.

December started generally chilly, unsettled and often windy. Despite the cold start the mean temperature for the month was up by 2°C. Sunshine and showers seemed the order of the day. It became a little milder during the second week then back to being cold. By Christmas it was milder again, finishing the year on a mild and showery note.

As can be seen from the following species reports, the cold weather in April resulted in late emergence of many of our spring species here in Hampshire and on the Isle of Wight.

Location Map



The above relief map shows the extent of our Hampshire & Isle of Wight Branch Boundary (black), together with Vice Counties (red with coastal buffer) and 10km grid lines (blue). The elevation shading is appropriate to the relief of our area with the darker grey indicating an elevation of over 200 metres above mean sea level.

Vice Counties are a system devised in 1852 by the botanist H.C. Watson (1804-81) of dividing the British Isles into approximately equal areas. The boundaries that Watson selected were principally county boundaries as defined in an atlas published by the Society for the Diffusion of Useful Knowledge in 1844. These reflected the political boundaries as they existed then. Watson tried to define areas of approximately equal size and so some of the larger counties (including Hampshire) were divided into "vice counties". The system was later extended to cover Irish vice-counties. These boundaries are fixed and do not change as do administrative county boundaries.

Vice County 10 is the Isle of Wight. Vice County 11 covers the entire present Hampshire administrative boundary roughly south of a line between Stockbridge, Winchester and Petersfield but also includes parts of present day Dorset westwards to Bournemouth. Vice County 12 covers the northern half of Hampshire together with a part of present day Wiltshire around Tidworth and a very small part of Berkshire in the extreme north-west of the county. The Hampshire & Isle of Wight Butterfly Database & this report include records from all three of these Vice Counties not just records within the current Administrative Boundary.

BUTTERFLY REPORT 2021

Transect Summary

Andy & Linda Barker

This brief account provides an overview of transect recording for the year and the pattern of change. It is best read in conjunction with the Table on Page 64.

Thankfully transect recording in 2021 was largely unaffected by the continuing Covid-19 pandemic, but a cold April and early May presented a challenging start to the season, and delayed the flight period for many species. Even so, it is pleasing to report that 173 butterfly transects took place in Hampshire and Isle of Wight (164 full transects, 9 single species transects), including several new sites. This highlights the dedication and enthusiasm of transect recorders in our area. The data collected makes a fantastic contribution to our understanding of national, regional and local trends, so many thanks to all involved.

You may recall that in 2020 the first six weeks of transect recording were lost (due to Covid restrictions) on all but a handful of sites, and other transects were not walked at all due to Covid constraints. Consequently, there are only 142 sites with data for both 2020 and 2021. The missed six week block at the start of 2020 meant that a representative assessment of change was not possible for Orange-tip, Green Hairstreak and Grizzled Skipper, as too few sites had data for both years. Species like Pearl-bordered Fritillary and Dingy Skipper were similarly affected, as were hibernating species (e.g. Brimstone). It is important to take this into consideration when interpreting the overall trends and flight period graphs in this report.

As many of you will know, butterfly transects are walked once a week, from 01 April until the end of September. It is not always possible to walk all 26 weeks, but of 164 full transects walked in 2021, 56% of these achieved 22-26 weeks coverage, and a further 13% were walked 20-21 weeks. This gives a combined total of 69% of transects that were walked for 20 weeks or more, which is a great achievement.

The total number of butterflies recorded on transect in 2021 fell by 12% relative to 2020, which when added to the 26% drop the previous year, gives a decline of 38% over two years. This significant drop is partly explained by the absence of a few key transects, but that's certainly not the full story. Once again, many of the grass-feeding Satyrids (the "Browns"), were reduced in numbers, as indeed were most of the Pierids (the "Whites"). Given that these account for the largest proportion of butterflies seen, such declines understandably impact on total butterflies recorded. The "Blues" had a mixed performance, with Adonis Blue (+99%) doing best, Chalk Hill Blue doing well at many sites, but Holly Blue (-66%) and Common Blue (-27%) faring badly. It would seem like the Painted Lady (+540%) had a fantastic year, but in truth it was an average season, albeit a massive improvement on the abysmal 2020 showing, when hardly any were seen. By contrast the Clouded Yellow (-75%) had a very poor performance in 2021, with most transects recording zero or one.

Finishing on a positive note, Dingy Skipper (+101%), Dark Green Fritillary (+79%) and Red Admiral (+41%) all did well in 2021 relative to 2020.

Wider Countryside Butterfly Survey

As explained more fully in the 'Glossary', the Wider Countryside Butterfly Survey is a national scheme designed to monitor how well species not seen as 'habitat specialists' are faring across all landscapes by surveying 1km OS squares selected at random.

The table below shows the percentage of squares monitored in Vice-Counties 10, 11 and 12 where each of the listed species has been recorded in July and August (the core months for the survey) since the scheme began. The table includes squares monitored by volunteers from both Butterfly Conservation and the British Trust for Ornithology, whose willingness to take time to record in areas that can be urban or agricultural in nature and at times lack butterflies, is much appreciated. Some 48 1km OS grid squares were surveyed in 2021, only a small proportion of the land area of the three Vice-Counties, so results should be viewed as indicative at a local level.

The colour blocks (Yellow - species occupies 1% - 20% of monitored squares; Orange 21% - 40%; Green 41% - 60%; Cyan 61% - 80%; Mauve 81% - 100%) help indicate broad trends.

Species	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Meadow Brown	96	89	91	91	92	97	94	95	88	97	100	89	97
Small White	94	94	94	97	83	94	81	87	94	69	82	89	97
Gatekeeper	83	85	89	91	86	76	97	95	88	79	100	93	95
Large White	81	87	89	94	86	94	83	90	100	72	82	96	95
Red Admiral	71	72	77	63	92	76	50	72	62	69	71	63	51
Small/Essex Skipper	60	53	60	54	58	56	78	69	47	41	59	52	49
Marbled White	60	36	47	31	50	50	44	51	44	28	24	26	27
Speckled Wood	50	53	72	80	86	62	69	77	74	59	94	85	86
Ringlet	48	53	62	57	67	68	81	67	71	72	59	59	54
Peacock	48	62	53	34	39	53	64	82	68	38	41	56	68
Comma	38	47	49	63	78	44	50	38	50	34	41	52	70
Brimstone	38	60	49	57	58	59	56	54	71	38	35	44	49
Holly Blue	31	66	38	49	19	29	42	21	18	38	53	67	8
Common Blue	27	38	36	54	31	12	50	54	32	7	29	63	35
Green-veined White	25	43	32	63	47	59	47	56	44	45	76	67	68
Small Tortoiseshell	25	28	26	11	31	53	61	74	74	10	18	41	35
Small Heath	23	17	26	29	11	6	17	21	18	10	12	30	19
Large Skipper	21	21	26	20	33	32	50	49	26	14	29	30	27
Painted Lady	17	2	62	14	6	6	19	5	9		6	11	95
Small Copper	8	4	11	9	3		14	10	15	10	6	30	19
Brown Argus	6	6	2	14	11		17	18	9		6	7	11
Purple Hairstreak	4	2		6	3			3	9		18	11	3
Clouded Yellow	2	2	2	3	3		8	8	18				
Wall					3		3		3			4	11

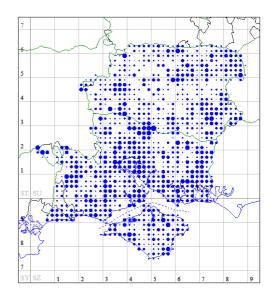
Butterfly Record Coverage 2021

Recorded tetrads in 2021 – the bigger the circle, the greater the recording effort.

This methodology better illustrates the 'cold spots' that require more targeted effort in coming field seasons.

No of 2021 records: 108,376 No of tetrads in 2021: 1,061

Number of Recorders					
Source	2021	2020			
Transects	337	313			
WCBS	47	41			
Big Butterfly Count	3,181	3,104			
iRecord	687	669			
Living Record	77	107			
Spreadsheets	45	76			
MapMate	5	8			
Overall	4,170	4,084			



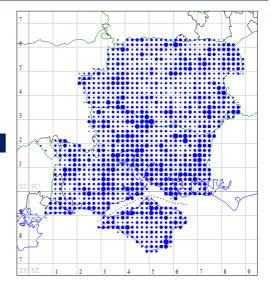
Butterfly Record Coverage 2020 - 2021

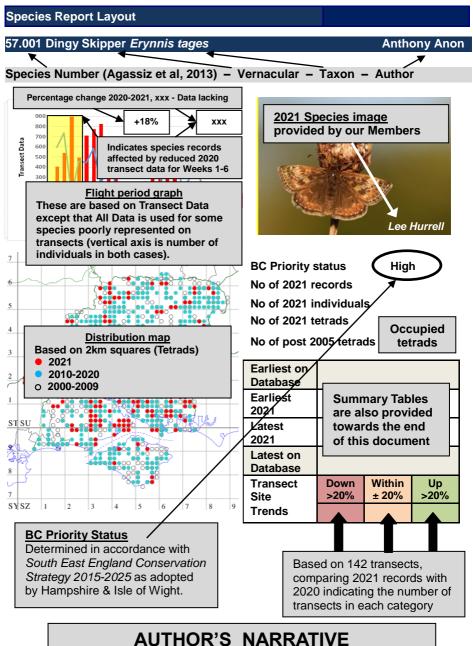
Recorded tetrads in the two years 2020 to 2021 (92% coverage) – as per the preceding map, the bigger the circle, the greater the recording effort.

No of records: 231,379 No of tetrads: 1,209

Tetrad Coverage 2016 - 2021

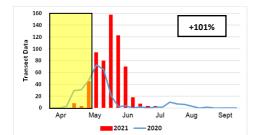






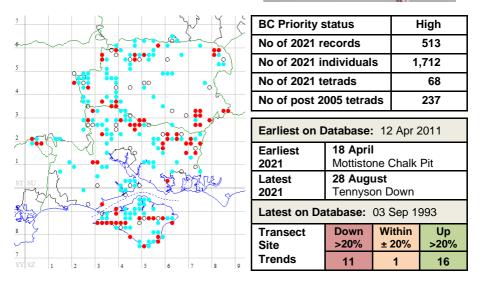
Prepared using information & data available on 30 November 2021 which excludes any records quarantined for further investigation

57.001 Dingy Skipper Erynnis tages





Lee Hurrell



Numbers were much improved on transect for 2021: a staggering 101% increase. Total number recorded was also up, with a total of 1,712 individuals recorded against 1,543 in 2020. Dingy Skipper seems to be doing well across the region.

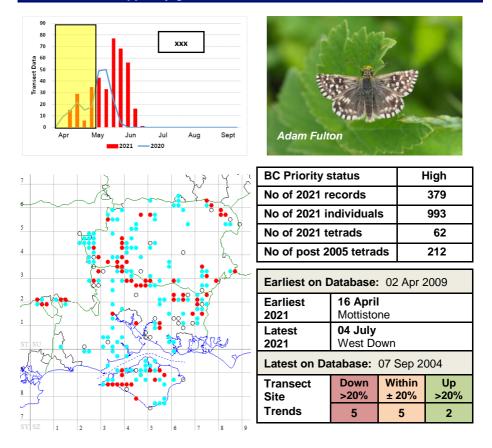
The Dingy season started two days later than last year, on 18 April at Mottistone, then in earnest across the two counties the following week. The butterfly flew right up until mid-July, then again in August, where a very small second brood appeared on the Isle of Wight, with just four individuals recorded.

Butser Hill was the place to see Dingy Skipper in 2021, with staggering counts of 65 on 29 May and 31 nearby in Queen Elizabeth Country Park on 30 May. Quarley Hill Fort produced an impressive 47 Dingy Skippers on 05 June, while Yew Hill, despite its small size, gave 30 on 27 May.

Isle of Wight sightings contained over double those from last year with 460 individuals recorded. Compton Chine, Brook Down, Mottistone and Ashton Down all had sightings of over 20 butterflies.

57.002 Grizzled Skipper Pyrgus malvae

Lee Hurrell



Fewer Covid restrictions during early 2021 along with a much cooler (and delayed) spring, allowed for a whopping 86% increase in numbers recorded on transect over those the previous year. Total numbers were up too, from 855 individuals recorded in 2020 to 993 in 2021.

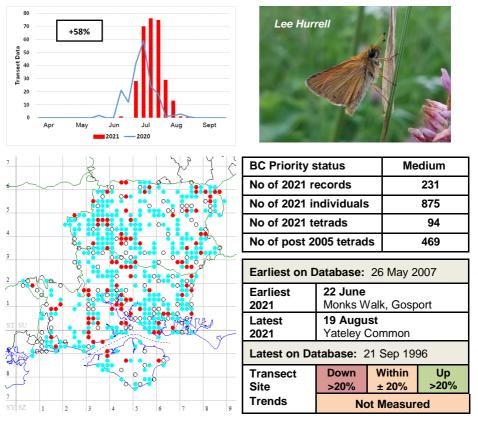
The flight season started five days later than 2020, when three were seen at Mottistone, on the Isle of Wight. Mottistone continued with sightings of up to five through to mid-June. On the mainland, Butser Hill recorded some impressive figures in the last week of June: 35 on 25 June and 25 the following day. Not to be outdone, Oxenbourne Down, Magdalen Hill Down, Brook Down and Ningwood Common all recorded sightings of over ten individuals.

Like last year, it is good to see that woodland colonies are still going strong, with Bentley Wood, West Wood and Botley Wood delivering.

Unusually, the flight season lasted into July, with two sites, Cheriton and West Down, recording individuals in the first week – another result of the long, cold spring perhaps.

57.005 Essex Skipper Thymelicus lineola

Mervyn Grist



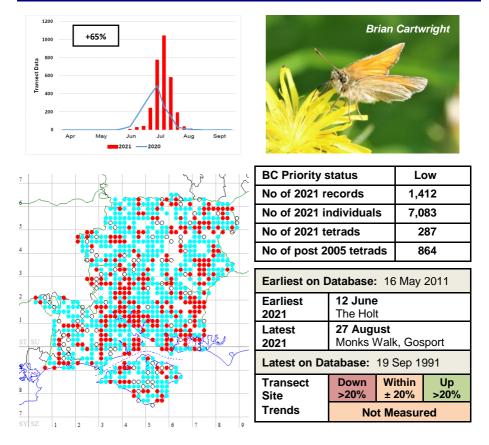
As the chart shows the flight season was delayed by two weeks due to the extremely cold April. Whilst the transect record was up the overall numbers were 9% down on 2020, and as this is a summer species Covid restrictions are unlikely to be the cause. Numbers built up quickly and later fell rapidly to a last multiple record of two at Foxlease Meadows on 11 August. Most records came from the south of Hampshire including the highest site count of 180 adults on Monks Walk, Frater Fields (Gosport) transect. Highest in the north was Pilot Hill transect with 166.

Further locations with numbers exceeding twenty were Petersfield Heath (61), Haslar sea wall (28) and Lymington (28) in the south. In the north were Wolverton (near Kingsclere) (37), Foxlease Meadows (27) and Ox Drove Meadow (Andover) (23). A few records came from Wider Countryside Butterfly Survey walks. Some normally well represented sites were not visited due possibly to observer health and the risk of encountering frequent heavy rainstorms.

On the Isle of Wight singletons were reported from just four locations including east to west Brading, Bowcombe Down, Ningwood Common and nearby Cranmore. The main foodplant of this species is Cocksfoot Grass not favoured by its ubiquitous cousin.

57.006 Small Skipper Thymelicus sylvestris

Mervyn Grist



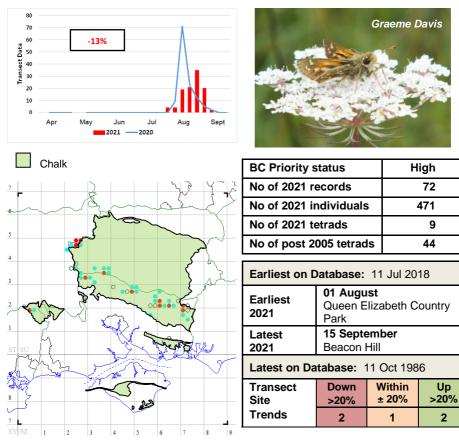
A site at Fleming Park, an open space south west of Eastleigh, amassed a total of 412 butterflies from three spaced out visits during the flying period. This is likely to be an early benefit from the new 'No Mow Policy' now selectively applied on public open spaces. This results in taller plant growth to the benefit of egg laying, larval and pupae survival on Tor Grass, the main food plant of Small Skipper. More benefits will come! A site in Aldershot benefitted from very regular monitoring of Small Skipper with a total of 21 visits made in July. This resulted in a total of 467 individuals being recorded, with the greatest number on a single day (43) being seen on 13 July.

Other large Hampshire counts came from the transects at Monks Walk, Frater Fields (Gosport) 271, Brown Down (north) plus Alder Valley 161 and non transect West Wood (Farley Mount) 192. In the north, Pilot Hill transect yielded 165.

Isle of Wight reports of 831 from 18 sites were mainly from the west, dominated by Ningwood Common transect on the Hampshire & Isle of Wight Wildlife Trust Reserve with an annual index of 729. Other Island sites yielded only low numbers, Walters Copse (22), Briddlesford Woods (18) and Shepherds Chine (15).

57.008 Silver-spotted Skipper Hesperia comma

Andy Barker

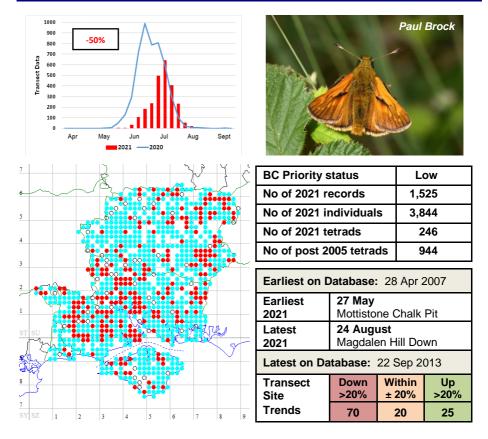


2021 saw very little change for this specialist of short-turf, unimproved chalk grassland. It is absent from the Isle of Wight, and with just eight known sites in Hampshire, it remains an extremely rare species.

Based on earliest and latest records the timing and duration of the 2021 flight season was broadly similar to 2020, but whereas the previous year peaked in mid August, the highest counts in 2021 were a week or two later. The best tallies all came from Old Winchester Hill, with 45 on 21 August, 40 on 24 August, and 51 on 05 September. Elsewhere, the best counts were 25 on 11 August at Oxenbourne Down, 22 on 19 August at Broughton Down, 15 on 25 August at St. Catherines Hill, nine on 26 August at Beacon Hill NNR and six on 26 August at Queen Elizabeth Country Park. The only other Hampshire sites, at Stockbridge Down and Martin Down have very small populations. The former recorded a maximum of three on 25 August, and the latter just two singletons earlier in the month. Good counts were also received for Warren Hill in present-day Wiltshire, but Vice County 12 (North Hampshire). Transect data and ad hoc records suggest that the species had an average year, coming to an end in mid September.

57.009 Large Skipper Ochlodes sylvanus

Amanda Scott

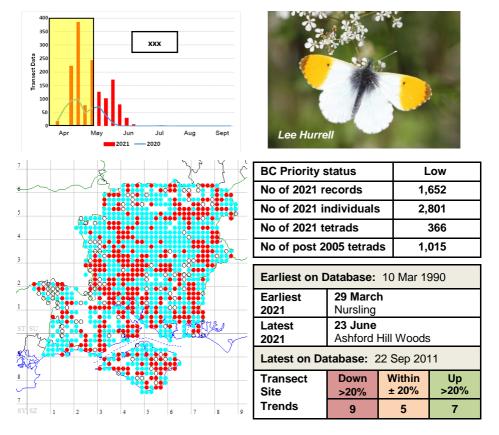


Large Skipper numbers have decreased for a second year running, and by a greater percentage (50% compared with 21% in 2020). The date of the first sighting was also later than in 2020 by almost two weeks on both the Isle of Wight (Mottistone Chalk Pits) and mainland (Magdalen Hill Down). The overall peak was reached four weeks later than in 2020, in the week beginning 15 July. Numbers in 2021 then declined over the following four weeks. Final sightings were a few days later than in 2020; however, the flight season was overall shorter by approximately one and two weeks on the Isle of Wight and mainland, respectively. The highest number of individuals for a single record was at Basing Wood on the mainland (93) and at Ashton Down on the Isle of Wight (11), but most records were of smaller numbers (less than10).

The unseasonably cold and then wet weather in May 2021 probably explains the later than usual emergence and peak in recorded numbers. Large Skipper are not considered at risk nationally, and the two-year trend of an overall decrease in numbers locally may well therefore be weather-related, but this will need to be kept under review.

58.003 Orange-tip Anthocharis cardamines

Bob Whitmarsh



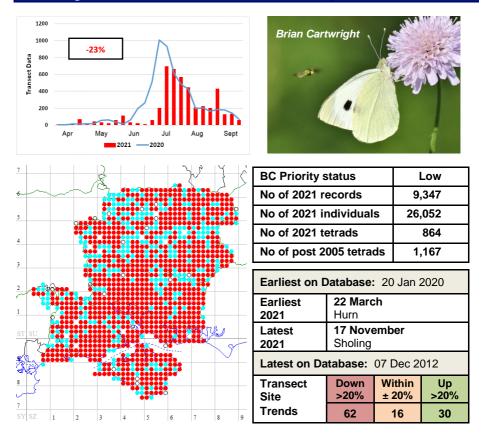
This species continues to maintain a near constant presence. 2,801 individuals were counted in 2021 (251 on the Isle of Wight) of which 1,502 individuals were counted on transect (106 on the Isle of Wight). From historic transect records it is evident that Orange-tip have achieved consistently higher counts in the last eleven years. The earliest sighting was almost two weeks later than in 2020 but the last sighting occurred within a day of the 2020 date.

Twenty individuals were recorded on 31 May (South Warnborough) and 19 on 22 April (Hilliers Garden, Romsey). The most individuals seen on transect were 14 on 22 April (Breamore Down). Where gender was determined on the off-transect records there were 188 males and 48 females, a ratio of 3.9:1.

Numbers seen on transect varied during 2021 with three distinct peaks, each less than the one before, in late April, early May and late May; the intervening dips apparently corresponded with cooler periods. Transect records for the species in 2020 were greatly affected by Covid-19 regulations for the first six weeks of the season (until 12 May), therefore it is not feasable to make sensible comparisons between the two years 2021 and 2020.

58.006 Large White Pieris brassicae

Francis Plowman

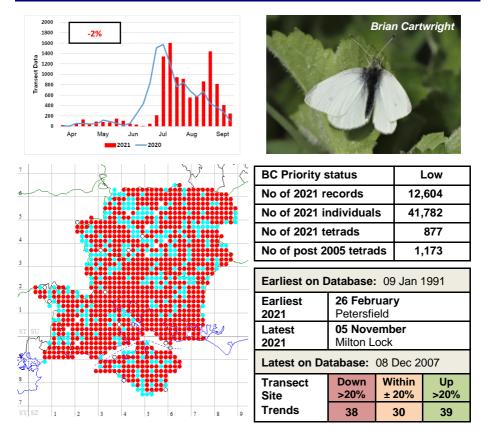


Overall sightings followed the dip of 23% (over 2020) noted in transects. However, the combined downward trend of *all* sighting reports (ie -9,381) or -9.2% translates to a remarkable 19% fall of individual butterflies. 26,052 were counted. Speculation as to cause(s) would be premature.

The summer peak remained mid-July although the season ran to November on both the mainland and Isle of Wight possibly indicating a partial third brood. Emergence on the Isle of Wight commenced on 15 April at Wheelers Bay Revetment with a first double count of ten at Whippingham on 16 July. Stockbridge Down reached 10 on 08 June with sightings spread far and wide throughout both coastal and inland locations. Highest count was the 101 recorded at Old Winchester Hill on 13 September. Other highs were St Mary Bourne (97) on 26 July and Cheriton (75) on 18 July. Highest of the Isle of Wight sightings was 27 on 26 August at Newport. There were 29 records in October amounting to 36 butterflies and four singleton records in November shared equally between the Isle of White and mainland sites.

Notwithstanding the year's dip in numbers Pieris brassicae continues to thrive.

58.007 Small White Pieris rapae



Whilst transect numbers fell by 2% compared to 2020 and overall there were 89 fewer records submitted, there was a 5% increase in the number of individuals recorded! As the tetrad coverage suggests, all remains well with our most common butterfly. First sighting on the Isle of Wight was at Cowes on 01 April with an initial double count at Ryde on 18 June. Double figures were reached earlier on the mainland at Stockbridge Down on 08 June. Highest count on the Isle of Wight was at Bowcombe on 08 August (42). Spectacular highs were: Chilling to Brownwich on 16 July (91); Breamore transect 26 July (107); Southsea had 166 on 08 August and Magdalen Hill Down topped that with 294 as late as 03 September. Other later season reports covered: Hayling Billy Trail on 07 September (31); Stockbridge Down also on 07 September (72) and Old Winchester Hill on 13 September (101). There were 55 records in October totalling some 115 butterflies with six at Portsdown Hill on 12 October and four at Monks Walk on 16 October.

There were two records for November.

It was a good year for *Pieris rapae* with evidence of a three-brood season.

23

58.008 Green-veined White Pieris napi

450

Brian Cartwright 400 46% 350 300 Data 250 250 200 150 100 50 Ap Jun Jul 2020 2021 **BC Priority status** Low No of 2021 records 1,981 No of 2021 individuals 3,939 No of 2021 tetrads 513 4 No of post 2005 tetrads 1,098 3 Earliest on Database: 03 Mar 1989 Earliest 30 March 2021 **Fishlake Meadows** 16 October Latest Wildern Local Nature 2021 Reserve Latest on Database: 05 Nov 2017 Within Transect Down Up >20% Site >20% ±20% 2 Trends 1 3 8 ٩ 55 19 24

Green-veined White, a common and widespread butterfly, had a poor year in 2021. Since 2018, the Hampshire and Isle of Wight transect average for this species has seen a marked downwards trend, being lower this year than at any point in the last 25 years.

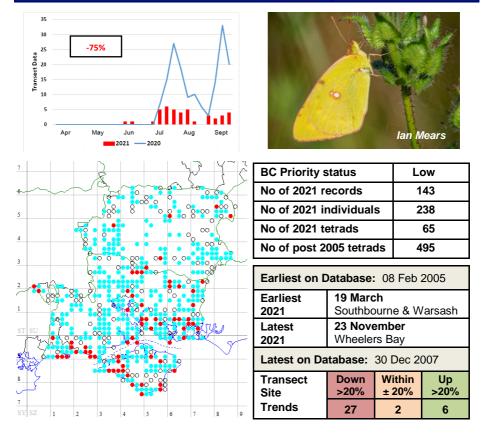
This species remains widespread, being recorded on 121 transects (112 in Hampshire, nine on the Isle of Wight), slightly more than in 2020. However, in nearly three quarters of these, fewer than ten individuals were seen. The greatest decline in numbers has been on those transects where highest numbers have been recorded in previous years, with only the Pamber Forest transect reaching three figures this year, with an annual index of 137. Five transects had annual counts of over 100 in 2020. On the Isle of Wight, the Kemphill Moor Copse transect had the best annual index for this species for the second year running, although the 48 recorded this year were over 40% fewer than in 2020.

This species has fluctuated in numbers in past years and it is to be hoped that it will start to see a recovery soon.

Jacky Adams

58.010 Clouded Yellow Colias croceus

Mike Gibbons



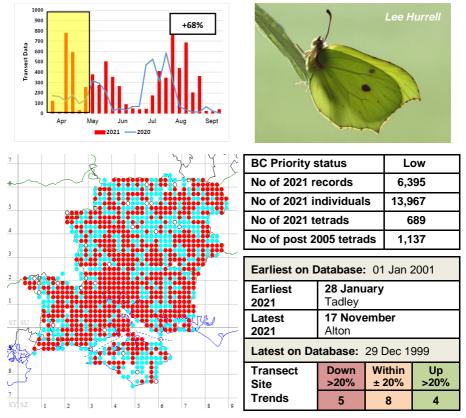
Although this was a poor year for the Clouded Yellow it did appear to overwinter and make an early emergence in March. The early Warsash record was particularly noteworthy as it is well away from the usual early sites and could indicate a local emergence. The combined transect trend was down 75% which could be concerning but numbers migrating to the UK vary from year to year and this year was just a particularly bad one as can be seen in the graph showing a notable drop. The majority of Hampshire and Isle of Wight records were coastal with relatively few inland and scattered widely.

The Isle of Wight coast was favoured with Compton Chine holding seven on 14 September and the final sighting was made at Wheelers Bay Revetment on 23 November.

Southbourne Undercliff was a notable exception in the late summer/autumn period with a peak of 16 on 22 September including one pale helice female. On sunny, bright days during September and October males were patrolling the undercliff and nectaring with females mainly on seaside daisies. Numbers here were up and down over this period indicating some emerging then remaining to breed and some possibly leaving our shores.

Jacky Adams

58.013 Brimstone Gonepteryx rhamni

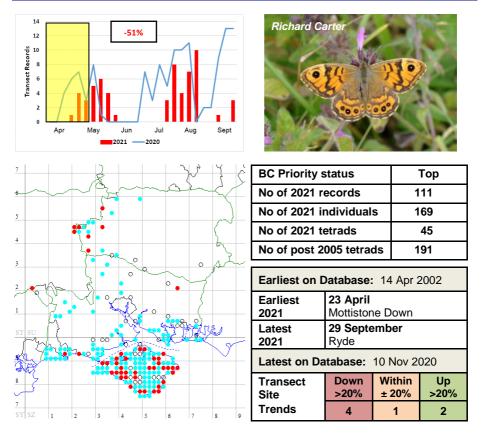


This lovely harbinger of spring is seen widely throughout Hampshire but less so on the Isle of Wight, possibly due to the absence of its larval food plant, Buckthorn, in parts of that County.

Brimstone started flying early in 2021, being seen intermittently from the start of February when the fickle spring weather was warm enough to bring the bright yellow males out from hibernation, with paler females recorded from mid-March. Fluctuating temperatures and sunshine led to see-sawing numbers during the spring, with the overwintering generation continuing to be seen until about mid-June, some two weeks later than in 2020.

The annual brood emerged from mid-July, just in time for the Big Butterfly Count, where Brimstone was recorded on 850 counts. Numbers remained high during August as the adults took on nectar to help them survive the coming winter. The apparent year on year increase of 68% shown above is deceptive as Covid restrictions prevented recording in early weeks of 2020. A more meaningful comparison suggests that numbers in 2021 were some 30% lower than in 2019, which had been a good year for this species.

59.002 Wall Lasiommata megera



As in 2020 the first sighting of the year came from Mottistone Down on the Isle of Wight with the first mainland record at Barton on Sea on 09 May. This was the only record from its former coastal stronghold.

On the island there were again no double figure counts from any location with the best being six at Havenstreet on 12 May and seven at Brighstone on 17 May. The second generation emerged at the end of July with three on the Mottistone transect on 26 July and a further seven recorded here on the 03 August.

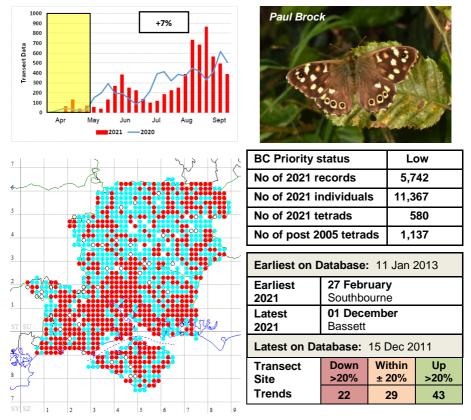
On the mainland spring emergence was poor with just three individual sightings, two coming from the Quarley area.

Singles at Stanpit Marsh on 09 August and Old Winchester Hill on 25 August were unusual, as were two sightings at Martin Down on 23 and 24 August, perhaps indicating this species ability to persist in very low numbers at a location.

A strong series of records from the Shipton Bellinger area during the late summer with six on both the 22 and 23 August underlines this area's status as the stronghold for the species in Hampshire.

59.003 Speckled Wood Pararge aegeria

Jean Annell



Speckled Wood were only recorded in 580 tetrads this year, slightly less than in 2020 (606 tetrads), but similar to 2019 when they were recorded in 566 tetrads.

North Hampshire provided the two best transect sites for Speckled Wood this year, Pamber Forest having a total of 368 individuals, closely followed by Basing Wood with 367. On the Isle of Wight, Kemphill Moor Copse was once again the top transect with a total of 174 individuals, peaking with a count of 23 on 26 August, but the total count for this transect was far lower than that of 2020 (298).

The highest single transect count was 62 at Basing Wood on 28 August, equalled at Pamber Forest on 05 September.

In the south of the county, Blashford Lakes North was again the top transect with a total of 239 indivuduals, peaking with a count of 32 on 26 August.

The highest count from the Big Butterfly Count this year was 24 at Stanmore (Winchester) and on the Isle of Wight, a count of 17 at Sandown, both counts early on in the event.

Other than some Gosport sightings in 2011, the last sighting this year is the only December record for Speckled Wood on our Branch Database.

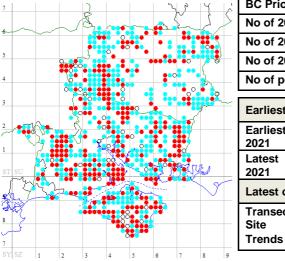
59.005 Small Heath Coenonympha pamphilus

Mark Tutton





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BC Priority s	LOW				
No of 2021 r	3,073				
No of 2021 in	ndividuals	11,780			
No of 2021 te	No of 2021 tetrads				
No of post 2	No of post 2005 tetrads				
Earliest on Database: 08 Apr 1997					
Earliest 2021	18 April Harewood Common				
Latest 2021	09 October Mottistone				
Latest on Database: 29 Oct 2011					
Transect	Down Within Up				

>20%

± 20%

>20%

 Trends
 37
 17
 26

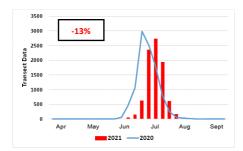
 The flight season for the Small Heath got off to a very slow start being some three weeks behind its normal trajectory. The first brood numbers built quite slowly, reaching a peak in early June. This however, led to an extended season for the first brood with reasonable numbers being recorded right up until the third week in July when numbers crashed. The first specimens were recorded on transect at Harewood Common on the mainland, and from Mottistone Down on the Isle of Wight on 27 April, the same location as last year's first record. The second brood was almost non-existent with seriously low numbers being seen during August, although there was a slight rally during the last few weeks of the season.

There were no October records from the mainland but there were two from the Isle of Wight at Mottistone and Brook Downs.

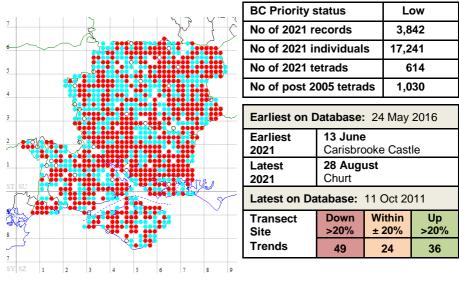
Unsurprisingly, the highest site counts reflected this butterfly's poor season with just two counts of more than 100 butterflies at Stockbridge Down and Old Winchester Hill. On the Isle of Wight there were no counts of more than 50 recorded, which bears no comparison to the 230 recorded at Whippingham Fields last year.

59.009 Ringlet Aphantopus hyperantus

Rupert Broadway







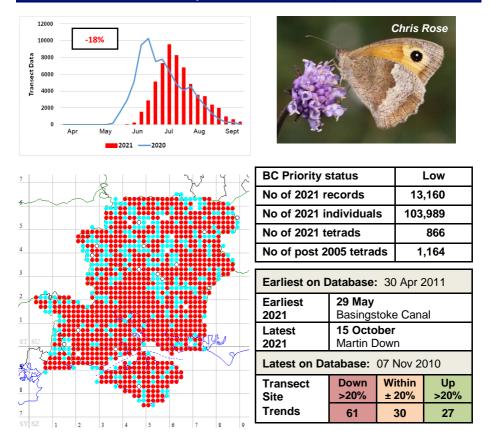
Data from monitored sites indicates a 13% reduction in numbers and a peak in the third week in July – a couple of weeks later than in 2020. Overall records, however, present a slightly brighter picture with modest increases in both sightings and quantities.

The season began late and finished early, with only 122 records in June and none after the end of August. This is a butterfly that does best in sheltered woodland rides and the year's best counts came from the Basing Wood transect with 332 and 348 on 09 and 15 July respectively. From casual records, West Wood, near Winchester, supplied five three-figure counts, peaking at 149 on 08 July. Sites that are predominantly grassland generally return lower numbers - the Noar Hill transect, for example, has experienced three successive years of falling numbers, with a nonetheless respectable peak of 57 on 22 July.

On the Isle of Wight, the best transect counts came from Briddlesford Woods, peaking at 55 on 08 July: there was also a Big Butterfly Count record of 108 at Chale Green on 15 July. Overall records from the Island comprised approximately 6% of the 2021 total.

59.010 Meadow Brown Maniola jurtina

Susan Clarke



During summer 2021, while carrying out my work surveying for butterflies at sites across England, there were days when the grasslands seemed empty of insects and even the ubiquitous Meadow Brown appeared scarce.

Certainly, in comparison with the last four years, they made a slightly later start to their flight period and then peak numbers did not build up until around mid-July instead of late June to early July. Once flying, they kept going with strong numbers during September and then quite a few records in October.

The ability of this butterfly to use many different habitats probably helps it to maintain a surprisingly level population from year to year. However, 2021 did produce fewer very high counts, with only four records of over 300 individuals.

Sitting in your deckchair and watching this species lay eggs on your uncut lawn is one of the delights of summer.

59.011 Gatekeeper Pyronia tithonus

-27%

7000

6000

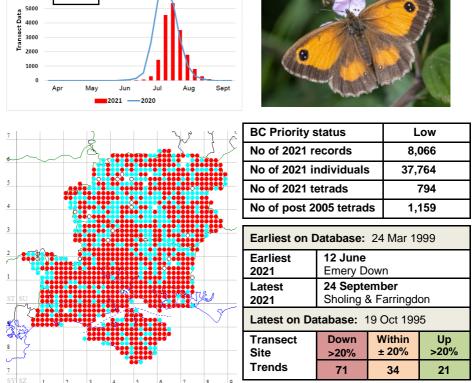
5000 Transect Data 4000 3000 2000 1000 0 Auc Sept Jun Jul 2021 2020 **BC Priority status** Low No of 2021 records 8,066 No of 2021 individuals 37,764 No of 2021 tetrads 794 No of post 2005 tetrads 1,159 Earliest on Database: 24 Mar 1999 Earliest 12 June 2021 Emery Down 24 September Latest Sholing & Farringdon 2021 Latest on Database: 19 Oct 1995 Transect Down Within ± 20% Site >20%

After two very good years with numbers in excess of 50,000 the number of Gatekeeper recorded was down by 30% compared to 2019 and 2020. Even so, the number recorded was broadly in line with its long term average, in spite of the primary transect for the last few years, Whippingham Fields (Isle of Wight), not being walked in 2021. The number of records remained high indicating that whilst being widespread, fewer Gatekeeper were seen per record.

Unsurprisingly given the weather in April and May, Gatekeeper were late to emerge and the peak in late July was the latest for some years. The first sighting was not until 12 June, later than any year since 2016 but the season was not particularly extended with the last individual seen on 24 September.

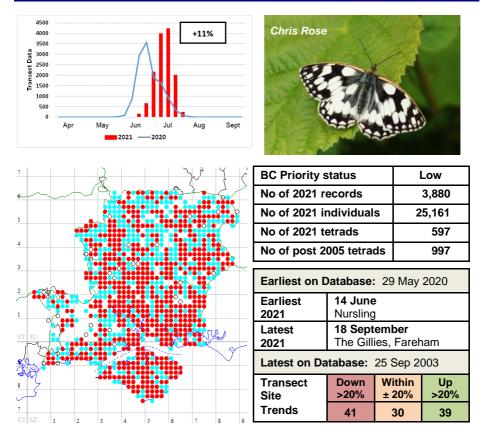
The highest daily count was at Holbury on 19 July with 236 (Big Butterfly Count). There were 12 other daily counts of over 100, surprisingly only two of which were on transect, both at Ningwood Common (Isle of Wight). Ningwood Common also recorded the most individuals with 897, followed by Pamber Forest with 808. No other transect exceeded 500 in contrast to 2020 when seven transects recorded over 500. This gives further evidence that while Gatekeeper were widespread in 2021 they were not seen in great abundance compared to previous years.

Bob Taylor



Francis Plo

59.012 Marbled White Melanargia galathea



The number of records received in 2021 was up by almost 8% on 2020 with the number of individuals showing a pleasing increase of nearly 17%. Overall transect trends reflected the upward trend with an 11% increase.

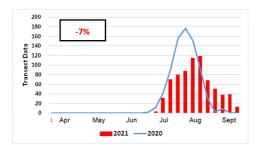
Marbled White got off to a late start, relative to 2020, with the first individuals recorded at a number of locations from mid-June. Unsurprisingly, numbers peaked in mid-July, a couple of weeks later than in 2020. It was more or less finished by the end of August, with only four September records (which included a count of 10 at Beacon Hill (Warnford) on 15 September).

Although only 12% of records came from the Isle of Wight, these did include some of the most impressive counts including 428 on the Ningwood Common transect on 08 July and 257 on the Mottistone Down transect on 18 July. On the mainland the Danebury Hill Fort transect recorded 235 on 09 July and there was a count of 211 from Worthy Down on 08 July. Butterfly Conservation reserves at Magdalen Hill Down (original) and Yew Hill contributed counts of 156 and 139 on 16 July and 05 July respectively.

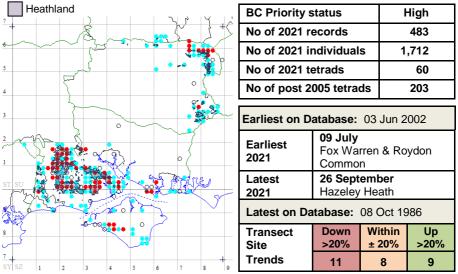
Overall, a respectable season for the Marbled White.

59.013 Grayling Hipparchia semele

Nigel Owen







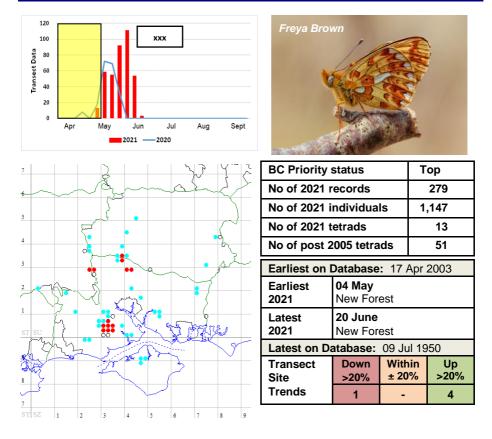
This year saw a levelling off of Grayling numbers, following four years of successive growth, during which time the numbers recorded had more than doubled. There was a 7% drop in numbers reported on transect, and an overall 3% drop in individuals reported. It is tempting to attribute this to the weather conditions in 2021, which were less warm and dry than in 2020, particularly earlier in the summer.

Emergence was late, with the first sighting some 18 days later than in 2020. The peak counts were in the first and third weeks in August. The highest count, of 284 at Beaulieu Heath on 04 August, was by far the largest single record received, as this is a species which is usually seen in small numbers dispersed over a wide area. A prolonged hot, dry September meant that sightings continued later than usual, with four transects recording sightings in the final week of September.

The heaths of the New Forest remain the stronghold for Grayling, but nearly a quarter of sightings this year were in the north east of Hampshire, with Eversley Common and Hazeley Heath particularly consistent. Over 50 individuals were seen on the Isle of Wight, with Mottistone Down the best site.

59.014 Pearl-bordered Fritillary Boloria euphrosyne

Andy Barker



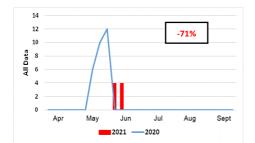
In recent years, late April emergence had become the norm for this species, but not so in 2021, when a cold spring delayed first sightings until early May. In the New Forest, which is the county stronghold for this species, the flight period peaked at the very end of May and early June, with the best counts being 68 at Parkhill Inclosure on 29 May, 66 at Pignal Inclosure on 31 May, and 61 at Ramnor Inclosure on 05 June.

Whilst the New Forest populations continue to thrive, the same cannot be said for sites in central-west Hampshire, where numbers are worryingly low. The previously strong population at Bentley Wood (Eastern Clearing) produced a maximum count of just seven on 08 June, and again the following day. Elsewhere, numbers were even lower, with just four individuals reported from the Stockbridge area, and a meagre three reported from West Wood, Winchester, throughout the whole season. More encouragingly a singleton was observed on 11 May at Upper Frenchmoor Copse.

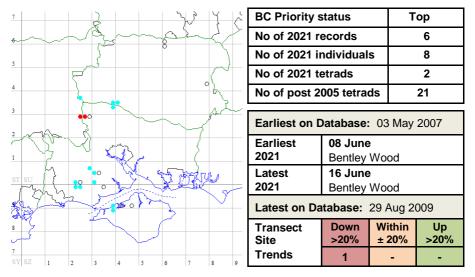
Whereas the 2020 season didn't extend beyond May, in 2021 it continued to the third week of June, which is unusually late for this species.

59.015 Small Pearl-bordered Fritillary Boloria selene

Linda Barker







The warm spring of 2020 produced the first sighting on 17 May, but the cold spring of 2021 delayed emergence by three weeks, with the first sighting coming on 08 June. Indeed, taking the comparison further, the 2020 season was over by 02 June, whereas 2021 had yet to produce any adults by the equivalent date.

Based on the few records received, the 2021 flight period was just eight days, which is a sure sign of a species in trouble. The only extant Hampshire population is at Bentley Wood (Eastern Clearing), and sadly, there was another decline in numbers. The recent history is of 30 recorded in 2019, 28 in 2020, and just eight individuals in 2021, with a maximum count of two.

This species is clearly close to the point of extinction as a Hampshire butterfly, indeed, habitat loss, and increasingly climate change, have seen this butterfly all but disappear from south-east England. However, the situation elsewhere in the UK is more positive, with this species doing well in the wetter west and north-west of Britain.

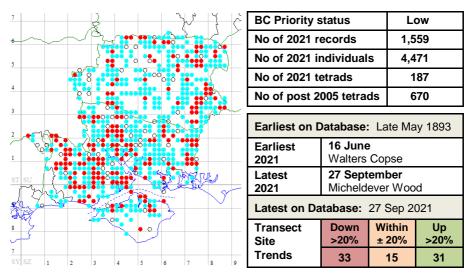
I hope I have something to write about for 2022, so please report all sightings, and let's hope the species responds well to the ongoing conservation efforts taking place at Bentley Wood.

59.017 Silver-washed Fritillary Argynnis paphia

Rupert Broadway







After an indifferent 2020, this elegant butterfly suffered a further decline in 2021, with transect numbers down by 12% and a slightly higher decrease both in overall sightings and in quantities reported across the two counties. The Pamber Forest transect bucked this trend with a modest increase after a four year decline.

There were no three-figure counts this year. The Holt transect (near Horndean) contributed the year's highest number of 53 on 20 July, with counts of 51 reported from West Wood, near Winchester, also on 20 July, from Straits Inclosure on 26 July and from the Pamber Forest transect on both 16 and 29 July. Kemphill Moor Copse provided the Isle of Wight's highest record of 38 on 09 July, with the Island providing approximately 10% of overall sightings.

In common with many other species in 2021, the season started late, with only 65 June records. Peak numbers were achieved in most locations in the third week in July. It was largely finished by the first week in September, with three records of late stragglers.

The Silver-washed Fritillary is due a better season: perhaps that will come in 2022.

37

59.019 Dark Green Fritillary Speyeria aglaja

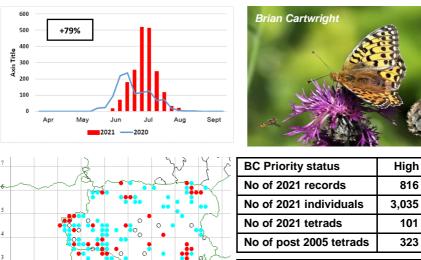
No of 2021 individuals No of 2021 tetrads No of post 2005 tetrads 2020 Earliest 12 June 2021 Latest 2021 Martin Down

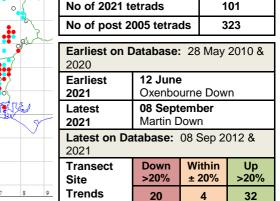
Transect Down Within Site >20% ± 20% Trends 20 4 32 Compared with the previous year, the Dark Green Fritillary got off to a very modest

start. There were no sightings at all in May and the first specimen from the Isle of Wight was reported from Mottistone Down on 16 June, just four days after the first mainland sighting.

Low numbers were recorded through the middle of June and peak season was reached during mid-July with significantly more butterflies being recorded during this time than during the same period in 2020. A number of sites had single day counts in excess of 30 butterflies including 71 at Oxenbourne Down on 24 June and 70 on the Isle of Wight at Mottistone Down on 18 July. However, by far the highest count was an astonishing 256 at Quarley Hill Fort on the 01 July. Low numbers were regularly recorded through late August with a single September record being the latest on the mainland and a singleton at Bonchurch Down for the Isle of Wight in mid-August.

After being in the doldrums for a few years, and following what was a pretty poor 2020, the Dark Green Fritillary has shown a great deal of resilience. It has indeed boomed, with an overall increase of some 79% on transect, one of the best upward trends for a Hampshire butterfly in 2021.





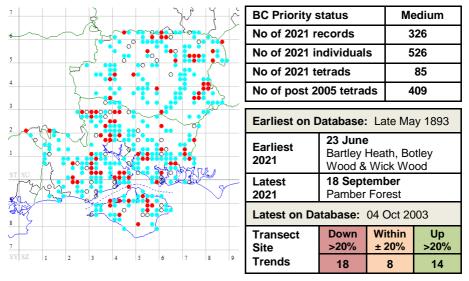
Mark Tutton

59.021 White Admiral Limenitis camilla

Andrew Brookes







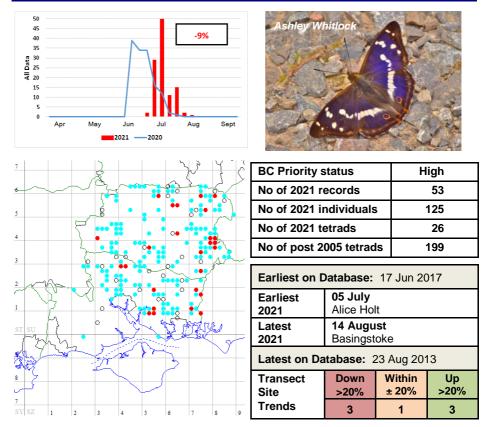
It was yet another very poor year, the species in apparent freefall towards extinction. In comparison with 2020, the number of records submitted fell by 16%, while the total number of butterflies fell by 32%, reflected in the combined transect trend of -24%. Moreover, the vast majority of records were of singletons; indeed, not one doublefigure tally was made, although if the transects totals for Walters Copse on the Isle of Wight are aggregated, the wood emerges as the two counties' hotspot with 14 on 14 July 2021, while 10 were seen two days later at Kemphill Moor Copse further east. In Hampshire, just, West Harting Down took the laurels with nine on 14 July 2021, followed by Abbotts Wood, Straits Inclosure, and Basing Wood, all with eight. Not a single inclosure in the New Forest sported more than two.

The cold spring delayed emergence by at least three weeks, extending the flight season well into August, with a possible second brood reported from two locations in mid-September.

The decline and fall of the White Admiral is commonly attributed to the uncontrolled deer populations devouring its host plant, honeysuckle, a hypothesis undermined by the Isle of Wight, which has no feral deer, where the dismal downward trend has been repeated.

59.022 Purple Emperor Apatura iris

Ashley Whitlock



After a very poor season in 2020 the season in 2021 was marginally better at some sites in Hampshire. The season was very late, but at several sites in Hampshire the butterfly seemed to have done quite well, like Creech Wood and Basing Wood. The species was recorded on five transects, a total of seven individuals for the season.

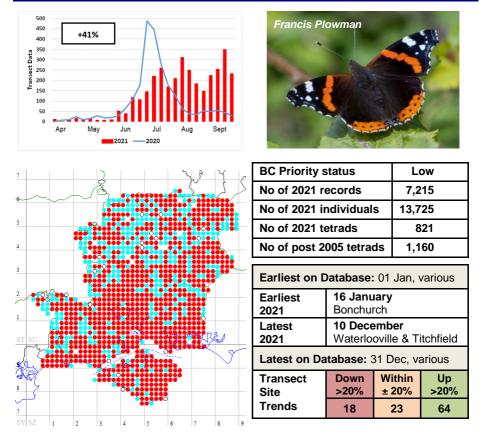
It was a very protracted season, and fresh males were still being seen at woods like West Wood and Crab Wood in the latter part of July, with females egg-laying in many of the woods by the third week of July.

Most seemed to have survived the stormy weather of 23/24 July when the heatwave broke down to give way to torrential rain and another low pressure sitting over the country, giving the Purple Emperor another bout of unfavourable weather. The weekend of 24/25 July seems to be have been the species peak in Hampshire. Despite a generally low adult emergence and a lot of unfavourable flight season weather, the Purple Emperor managed to lay a good number of eggs, and larvae were seen in reasonable numbers.

All this suggests that 2022 could be a good Emperor year.

59.023 Red Admiral Vanessa atalanta

Phil Budd



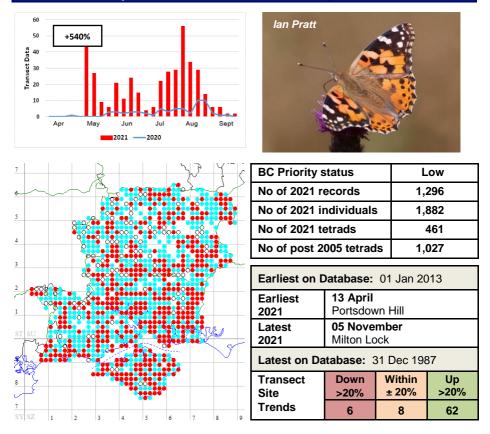
2021 was a very good year for Red Admiral in Hampshire and the Isle of Wight. Transect trends showed an overall 41% increase on 2020 figures.

The flight seasons for 2020 and 2021 showed very different patterns. The two years showed similarly low numbers up to mid June in both years but in 2021 there was a gentle increase in numbers up to a late September peak compared to a sharp peak in early summer in 2020 followed by much lower number numbers from late July onward last year. All this could be related to the hot, dry weather earlier in summer in 2020, particularly the dry spring. There was a much wetter spring in 2021 followed by steady summer warmth.

Red Admiral is a very widespread butterfly that can appear at any location and on any date of the year. There were three sightings reported in January and four more in December. Although the Red Admiral is usually seen in low numbers at any place and date there were some high counts in 2021. Particularly high were the numbers at Magdalen Hill Down with a peak of 55 on 06 October. Away from here the next highest count was 27 at St Mary Bourne on 11 August and on the Isle of Wight the highest number was 24 at Alverstone on 04 August.

59.024 Painted Lady Vanessa cardui

Bob Whitmarsh



A total of 1,882 individuals were recorded, including 386 on the Isle of Wight. Of these 413 individuals were seen on transect, 83 of which were from the Island.

The first significant weekly count on transect began on 08 May with a single sighting in Wheelers Bay, Isle of Wight. More persistent individuals had penetrated as far north as Ashford Hill, Kingsclere by 11 May. This was a period of south-westerly winds possibly aiding arrivals from France. Subsequently fewer than 30 per week were counted on transect until a second peak of 56 appeared in the week beginning 05 August, suggesting a second brood or, because winds were again from the south to south-west, a French provenance. Subsequently numbers on transect dropped away steadily until the end of September.

Total numbers in 2021 lay between the high count of 2019 and the 2020 minimum but exceeded those of all other years since 2010. Even so, Painted Lady were recorded on six fewer transects compared to 2020. The highest single counts were 23 individuals on the Isle of Wight on 08 August and 19 on the south coast mainland on 22 July; the highest count on transect was eight at Morn Hill, Winchester on 23 August.

59.026 Peacock Aglais io

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SY SZ	1 2	3 4	5	6 7	8	9	Trends	12	22	66	

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Peacock had a strong showing in 2021 in spite of the number of records being less than in 2020 and individuals 37% down. It is likely that the 2020 figures were skewed by individual lockdown sightings, as the transect record was up on 2020 although mainly due to the loss of the six weeks recording in 2020. With over 12,000 individuals, 2021 was 50% higher than 2019 and 200% higher than 2018. Unsurprisingly given the weather in April and May the early season sightings were sporadic and the summer brood was late to emerge. The peak week which is normally expected between early/mid July was delayed until late July.

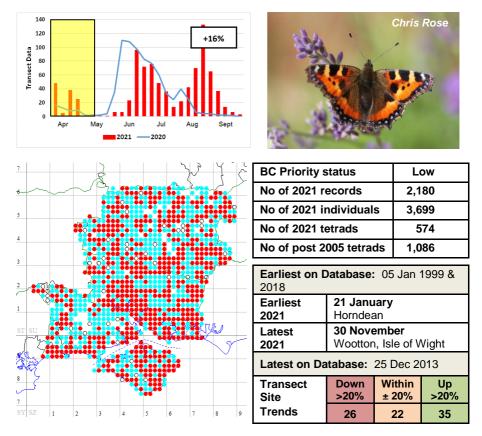
Only five Peacock were recorded in January with the first not being recorded until 22 January. They became increasingly abundant through February and into March, with 549 being recorded up to the end of March, 17% higher than in 2020.

In 2020 80% of all sightings were in July. In 2021 August was the peak month accounting for 45% of the total and double the July sightings. There were only two (estimated) counts of over 100, 150 at West Wood near Farley Mount and 100 at Tresgoulds Copse near North Baddersley on 23 June and 26 June respectively. The highest daily count on transect was 34 at Morn Hill on 08 August and the highest transect total was Breamore with 229, down on 2020, however there were eight more transect totals of over 100.

Terence Hart

59.027 Small Tortoiseshell Aglais urticae

Andrew Brookes



A remarkable year, which saw the gains of 2020 sustained by almost identical numbers of records and butterflies. But there the similarity ends, owing to the significant climatic differences during spring and summer. The exceptionally cold spring saw the first brood numbers peak much later, between late June and early July. Records of note start with the 24 seen at Upper Clatford on midsummer's day, trumped three days later by 41 at Ropley, and another 41 at Magdalen Hill Down on 02 July.

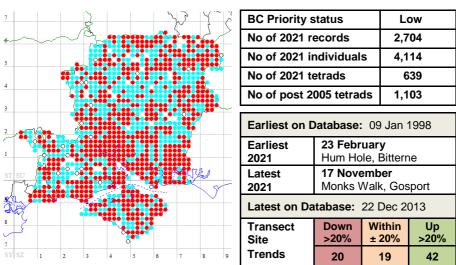
Fast-forward to mid-August and a second brood unprecedented in recent years, manifest at Monxton with 33, Ellingham with 36, and finally the year's top tally of 47 at Monxton again on 22 August. The sublime September weather prompted nearly 100 reports comprising 182 butterflies, including 25 on Old Winchester Hill on 05 September. Numbers dwindled dramatically thereafter; just one reported in a rather wet October, and three in November.

The species on the Isle of Wight was surprisingly subdued, with a top tally of just 15 seen on 15 July at Chale Green; the proximity of the site to the Channel suggesting immigration.

59.031 Comma Polygonia c-album

250 200 150 50 Apr May Jun Jul Aug Sept 201 – 2020





The awakening first peak of 2021 was similar to that of 2020, the second peak during mid July and the third peak during mid September 2021 were both three weeks later than that of 2020, reflecting the disruptive spring weather experienced during May.

A reduction in total records from 2020 (3,283) to 2021 (2,704) was matched by a proportional reduction in numbers recorded. The year provided very few double figure counts. Numbers exceeded 20 on only three occasions on transects with Mockbeggar recording 30 on 17 September, Pamber Forest 23 on 18 September and Mockbeggar 22 on the 24 September. The peak count during field recording observations was 21 from Castle Bottom, in north Hampshire on 18 July 2021. Double figure counts were recorded on a further 17 occasions during field observations. The majority of the remaining records were observations of the odd one or two individuals that it is so important to capture. The combined transect totals for 2020 and 2021 provide a reassuring 9% increase in numbers.

What is becoming more apparent with each year's data is the impact of climate change induced instability of weather patterns. Establishing long term trends with acceptable margins of error is becoming more difficult to achieve. The added complication of the pandemic, over the last two years, has added a further level of complication. However analysis would point to Comma having enjoyed a stable year.

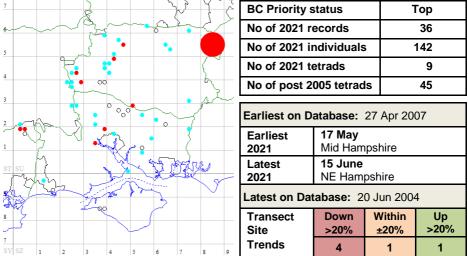
John Levell

45

59.033 Marsh Fritillary Euphydryas aurinia

250 200 150 150 0 Apr May Jun Jul Aug Sept 2021 2020





On the wing for around a month, the Marsh Fritillary suffered low numbers throughout. The combined transect trend was down 65%. There were 17 seen on 30 May at Magdalen Hill Down (extension) and 20 on transect at the official introduction site in northern Hampshire.

In general the introduction site in northern Hampshire did not fare as well as in recent years but this could be partly weather related, with poor weather conditions affecting larval and pupal development as well as larval parasites affecting emerging adult numbers.

Martin Down held a maximum of eight adults on 31 May which was well down on 2020 and it is becoming apparent that Magdalen Hill Down (extension) is now a key site and becoming a stronghold for Marsh Fritillary.

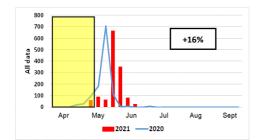
One at Rownhams, near Southampton on 09 June was an odd record but it has become almost an annual event to be unsure whether the record is of a wild or a released butterfly when it comes to this species.

There were larval webs at Magdalen Hill Down (extension) with third and fourth instar larvae present on 14 August.

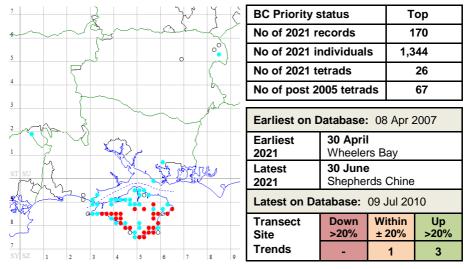
Mike Gibbons

59.034 Glanville Fritillary Melitaea cinxia

Andy Butler







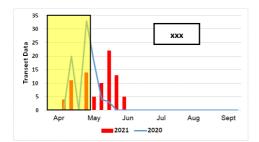
The annual spring web count this year was carried out in full unlike the previous year (due to covid restrictions) so a comparison is not possible but as numbers always vary greatly, year to year, this is of no particular consequence.

The surveys started in 1981 but the first two years data has been lost and some sites have also been lost due to erosion but in spite of this the figures give a good indication of the status of the butterfly at the ten monitored sites. The annual average number of webs from all sites since the survey started is 515 and in 2021 the figure was 414 so not too bad at all. A feature in recent years has been the increase in sightings of adult Glanville on the Island's downlands, a move away from the traditional slipped cliff sites. The butterfly is now regularly reported from all over the Island indicating that there are small colonies in areas that we are unaware of so its true status is impossible to gauge. The species was present in 26 of the Isle of Wights 110 tetrads in 2021, equalling the previous highest Isle of Wight coverage in 2010, although the number of individuals was only 41% of the 2010 figure.

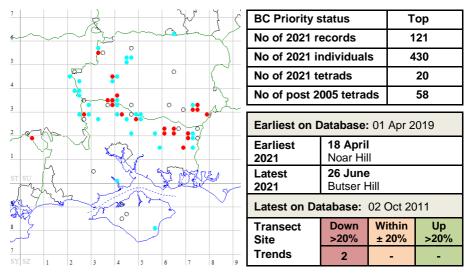
Perhaps we ought to treat the Island as one large metapopulation ie. a given area with a number of colonies that fluctuate in numbers but continue to exist as there is always suitable habitat available for the continuation of the species.

60.001 Duke of Burgundy Hamearis lucina

Ashley Whitlock







The first Duke of Burgundy recorded on transect was at Noar Hill on 19 April, where four individuals were recorded. Most years this site has warmer temperatures at ground level in the small flint and chalk pits, where the Duke of Burgundy caterpillars can pupate quicker than on average chalk downland sites, especially northern slopes which are susceptible to cooler temperatures due to wind and frosts. April turned out to be the coolest for over 90 years, also one of the driest on record with most nights having a frost. A total of 84 individuals were recorded on eight transect sites. May turned into one of the wettest and windiest on record with constant low pressure sitting on top of the UK for well over a fortnight, keeping the Duke of Burgundy

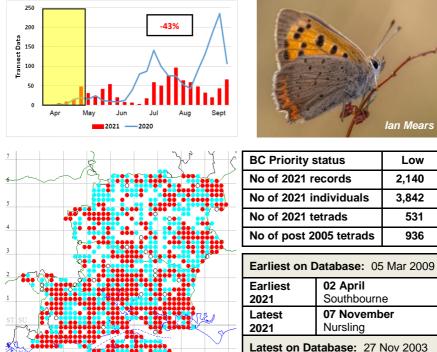
suppressed marking time for much of this period.

The butterfly certainly had a very protracted season and they were still flying well into June with worn individuals being seen at Bentley Wood, Oxenbourne Down and Noar Hill on the 12 June. There were sightings at Martin Down where good areas of scrub and cowslip helped the species to get a toe hold at this site.

Good numbers of females were seen laying eggs in the second week of June which, given reasonable winter and early spring weather, should produce a reasonable brood in 2022.

61.001 Small Copper Lycaena phlaeas

John Levell





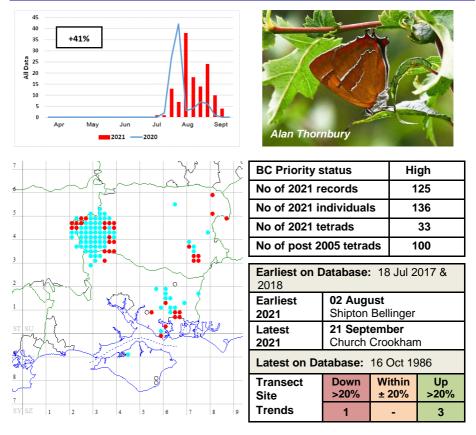
The 2021 first emergence peak exceeded that of 2020 although at a similar time of year. Two subsequent peaks were later and failed to reach last year's numbers, possibly due to the unsettled weather of May that coincided with the first emergence.

Total number of records for 2020 (2,139) and 2021 (2,140) were similar yet there was a reduction of approximately 10% in individual butterflies. This outcome is however influenced by one transect route on the Isle of Wight that contributed 10% to 2020 records not having been walked in 2021. The total record numbers comparison makes better reading than the 2020-2021 species trend that is based on transect data from both years and shows a 43% decline. This once again has to be tempered against the influence of the missing Isle of Wight transect that previously contributed in the region of 30% to the overall transect count.

Transect records struggled to make double figures with only RSPB Hazeley Heath North transect recording 10 on 21 July 2021 and Mockbeggar recording 13 on 09 August, 10 on 13 August and 14 on 24 September 2021. Field records fared slightly better with 48 recorded at Droxford on 31 July and 28 recorded at Totton on 19 July 2021.

61.003 Brown Hairstreak Thecla betulae

Clive Wood



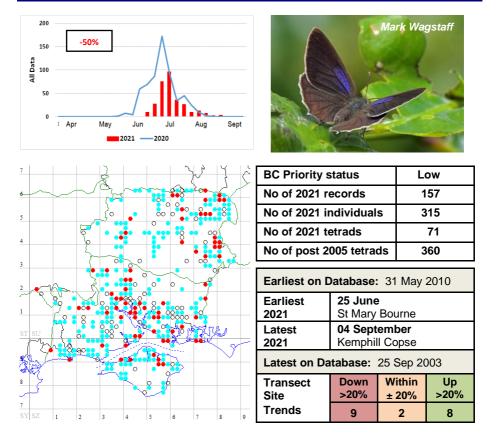
Firm evidence that this beautiful butterfly continues to expand its range within Hampshire came with the first ever confirmed sightings of adults on no less than three existing transects. These were two transects near Andover (Harewood Common and Rooksbury Mill) and at Hookheath Meadows just north of Portsdown Hill. The latter is a restricted access site managed by the Hampshire & Isle of Wight Wildlife Trust.

Egg searches have confirmed that the butterfly is also breeding at several new sites. These include our own Bentley Station Meadow reserve near Farnham, at Wherwell, Chilbolton and Longstock down the Test valley, and at further sites south of Selborne down the Meon valley. A search also found eggs at a private site north of Fareham. This indicates that the butterfly may be spreading westwards north of the M27 after eggs were found around Soberton and Southwick in recent years. An interesting record of one adult and two eggs was recorded at Yateley Common near Fleet. Total adult counts increased by over 40% to reinforce an encouraging picture of a butterfly that appears to be gaining ground over large areas of central southern England.

It has yet to be reliably recorded on the Isle of Wight in recent years.

61.004 Purple Hairstreak Favonius quercus

Andy Bolton



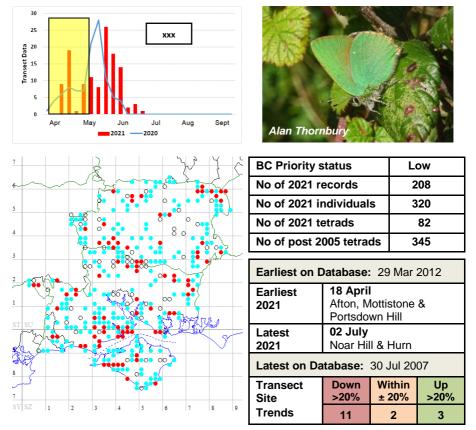
In terms of abundance, 2021 ended the run of good years for this species, with a fall in the combined transect trend of -50% over 2020 making it the sixth most declined Hampshire species for the year. However from the records, its distribution around the two counties seems to have held up, sites apparently losing it this year (five) balanced by those gaining it (six). Nine sites had a greater than 20% decrease in numbers, with the remaining 10 sites being stable or gaining greater than 20%. The flight period ran from the end of June until early September, a flight period of 72 days, compared to 89 days in 2020.

The peak in individual numbers was way below that of 2020 and occurred one week later in mid-July. Overall the season was delayed in its start and shorter in duration, although perhaps more in line with the long-term historical 'normal'. The size of any large counts? Well really there were none, the top three being 16 at Briddlesford Woods (Isle of Wight), 15 at Abbots Wood Inclosure and ten at Straits Inclosure; all others being single figures.

The highest mainland transect count was six at Yateley Common East on 29 July and on the Isle of Wight, four at Kemphill Moor Copse on 16 July.

61.005 Green Hairstreak Callophrys rubi

Tani Read

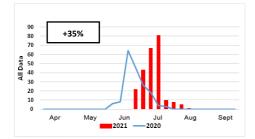


Total individuals in 2021 dropped by 12% from 365 in 2020, and by 50% compared to 2019. Generally spring was changeable and cool, not favourable for the species, which had the lowest count of individuals since 2012!

On the Isle of Wight total individuals were 44, equalling the count of 2020. The transect flight period on the Island was six weeks save for a single record during mid-June. Only two Island transects reported sightings and numbers peaked in early May; most individuals were from casual sightings (37) and these peaked mid-April. Mottistone Down had the highest seasonal number of five, (down from 15 in 2020). The highest individual sighting was a field record of six at Mottistone Chalk Pits on 18 April.

Total individuals on the mainland were 276, a drop of 50% compared to 2019 (standard recording season), and 13% from 2020 (transect recording delay of six weeks due to pandemic). The 2021 transect flight period spanned 12 weeks peaking late May with fairly strong numbers for a further two weeks. Magdalen Hill Down Original had the highest seasonal number of individuals (17). The highest individual sighting of nine was at Magdalen Hill Down Original on 23 April.

61.006 White-letter Hairstreak Satyrium w-album





	BC Priority s	status	Hi	gh		
on Bromand	No of 2021 r		64			
	No of 2021 in	; 2	37			
	No of 2021 to		40			
	No of post 2	005 tetrad	ls 1	63		
3 8 0 0 1						
	Earliest on Database: 25 May 2011					
	Earliest 24 June					
	2021 Southwick					
st su	Latest 14 August					
The age of the second s	2021	Southwic	:k			
	Latest on Database: 23 Aug 2004					
	Transect	Down	Within	Up		
	Site	>20%	± 20%	>20%		
7 8 9 SY SZ 1 2 3 4 5 6 7 8 9	Trends	4	2	1		

The numbers of reports and butterflies remained largely unchanged, save the total absence from the Isle of Wight. Such comparisons are largely meaningless anyway, since the butterfly, like its cousins, is rarely a feature of casual observation; the majority of sightings made by a few dedicated observers imbued with the initiative to identify elms and the patience to stand and stare.

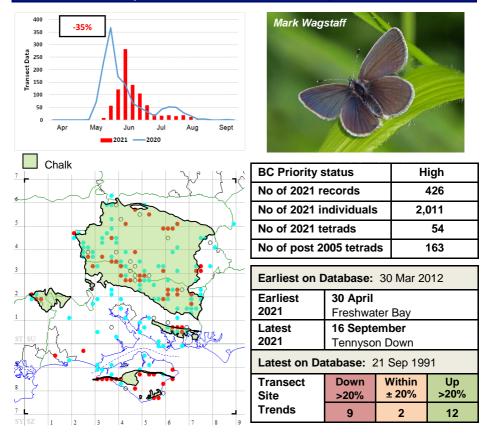
The overall distribution of sightings remained unchanged in Hampshire, with the majority coming from urban areas such as Portsmouth and Basingstoke where elm has been commonly planted as an ornamental; as in previous years, none came from the New Forest, only its periphery.

The flight season was delayed by at least three weeks owing to the exceptionally cold spring. The highest tally of 31 was made at the Great Fontley elm trials site on 17 July, where over 60 resistant elms, now sexually mature, populate just over one hectare, preceded on 09 July by 25 on the wych elms surviving south-east of Southwick.

Prolonged negotiation with the Ministry of Defence has at last borne fruit, and surveys of the historical county hotspot, the Dutch elm thicket at Bedenham within Defence Munitions Gosport, are set to resume this summer.

61.010 Small Blue Cupido minimus

Clive Wood



The poor weather conditions in April and May doubtless contributed to a 35% decline in Small Blue recorded on transect. This followed three relatively good years in succession. However, this is a species that can readily colonise new sites and it was pleasing to note that a colony has become established at a community-managed wildflower meadow at Cliddesden near Basingstoke. The site recorded 57 Small Blue which is an excellent result. Other newly colonised sites recorded good numbers including Morn Hill near Winchester (73 adults) and Corhampton Golf Club (10). Old Down, Basingstoke remains the county stronghold for the species with a total count of 415 including 179 recorded on transect on 12 June. Magdalen Hill Down had a modest year with 209, half the 2020 count. Good numbers were seen on Stockbridge Down (78) and Old Winchester Hill (26) in contrast to the previous year. The only other triple figure count was 101 recorded near Coombe Lane, West Meon on 05 June.

A total of 295 Small Blue were recorded on the Isle of Wight including a notable count of 98 at Watcombe Bottom on 27 May.

The late flight season and a long tail of sightings in August masked evidence of a strong second brood.

61.012 Holly Blue Celastrina argiolus

250 64% 200 **Fransect Data** 150 100 50 0 Aug Apr M-.lur Jul Sept 2021 2020



7	BC Priority s	status	L	ow		
	No of 2021 r	1,	589			
5	No of 2021 in	2,	561			
	No of 2021 to	etrads		426		
	No of post 2	005 tetrad	s 1,	015		
	Earliest on Database: 08 Jan 2019					
	Earliest10 March2021Monks Bay					
	Latest25 November2021Wheelers Bay					
	Latest on Database: 27 Dec 2020					
	Transect Site	Down >20%	Within ±20%	Up >20%		
7 6 7 8 9 SY SZ 1 2 3 4 5 6 7 8 9	Trends	66	14	12		

After an excellent 2020 season, it was back down to earth in 2021 for the Holly Blue. The overall numbers of both records and individuals were down to less than 40% of the previous year's total and this trend was reflected in the transect counts which showed a 64% reduction. The decrease was most marked in the summer brood, where numbers were modest at best, peaking in late August. As in 2020, approximately 8% of records received came from the Isle of Wight.

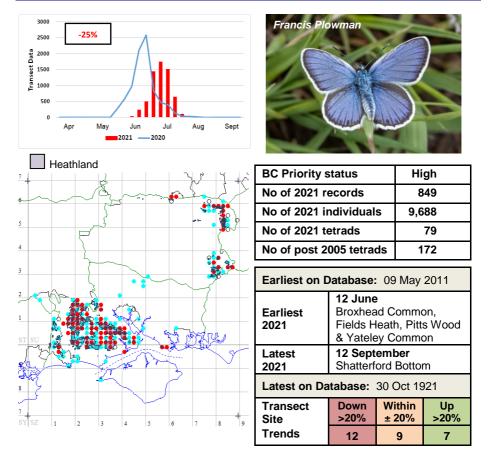
Unusually, there were only three March records, one from the Isle of Wight and two from Hampshire. Thereafter it continued to be reported in small numbers through the next three months, tailing off towards the end of June. During this period, a count of 13 at The Mountain, near East Meon, was the only double-figure record.

The highest numbers came once again from the Shipton Bellinger area (which comes under particular scrutiny in late summer from those seeking out the Brown Hairstreak). It provided four counts of over 20 in August, peaking at 51 on the 24 August. The species kept going late into the year with a couple of October records and six in November.

Rupert Broadway

61.014 Silver-studded Blue Plebejus argus

Nigel Owen



This year saw a marked decline in Silver-studded Blue, with the number of records falling by 21% and individuals by 24%. It also saw a 25% drop in numbers seen on transect, despite reports at three new sites. However, it may well be that these figures simply reflect the differences in weather, with 2021's cold and wet late spring contrasting sharply with the hot, dry start to the season in 2020. Silver-studded Blue have shown significant fluctuations in numbers over previous years and appears to benefit from consistent warm weather in May and June.

Certainly, the emergence was significantly later than last year, with no sightings until 12 June, some 18 days later than in 2020. The latest record was also significantly later than last year, with four individuals hanging on into September.

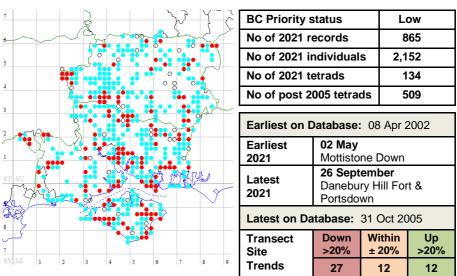
The highest single count of 603 was at Dibden Bottom on 07 July. Silver-studded Blue is widely distributed across the New Forest heathlands and also found in significant numbers at Broxhead and Bramshott Commons. Again this year there were no sightings reported from the Isle of Wight.

61.015 Brown Argus *Aricia agestis*

Phil Budd







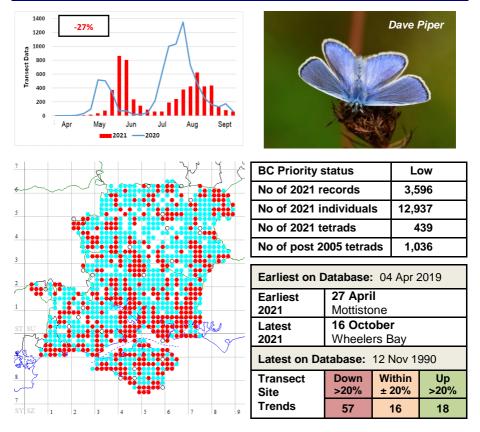
2021 was an 'average' year for Brown Argus in Hampshire and the Isle of Wight relative to the long-term trends. There was a slight fall in transect numbers (5%) as compared to 2020. A striking feature of the Brown Argus season, for both broods, was that it started and peaked two to three weeks later in 2021 compared to 2020. In 2021 the first brood peak occurred in early June, whilst the second brood peaked in mid/late August. As is usually expected, the numbers for the second brood were double those of the first.

In Hampshire, the highest single counts for the first brood were 21 at Magdalen Hill Down on 18 May and 20 at Butser Hill on 29 May. For the second brood the maximum was 36 at Magdalen Hill Down on 26 August, followed by 35 at Beacon Hill, Warnford on 01 September and 23 at Broughton Down on 19 August. Magdalen Hill Down and Beacon Hill remain top sites for this butterfly in Hampshire. As usual, counts on nonchalk sites were only in single figures.

For the Isle of Wight, the top count for the first brood was 29 at Bonchurch on 08 June with Brighstone and Mottistone Down also recording double-figures. There were no double-figure counts for the second brood on the Isle of Wight.

61.018 Common Blue Polyommatus icarus

Andy Butler

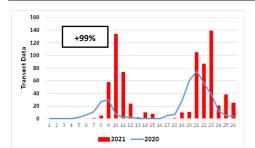


Although this is still a fairly common butterfly and still recorded in reasonable numbers there is, however, a distinct year by year discernable downward trend to the figures. Most of the records are of singletons or, at best, less than ten but as it is a widespread species this may tend to give a false impression of its true status. There are exceptions of course and the 310 seen on Stockbridge Down on 05 June is a good example. Other downland sites in both counties had only what could best be descibed as average to below average numbers. Transect data gave a negative 27% trend overall.

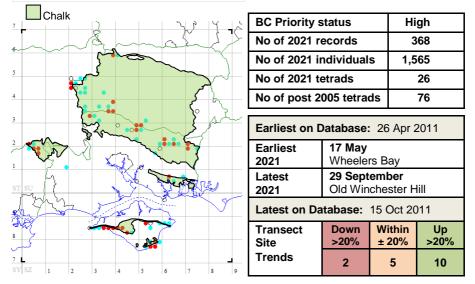
The Butterfly Conservation Priority Status for the Common Blue is classed as ' low' and there are still plenty of them to be seen but the effects of our changing climate, for instance, need to be taken in to account as, at the moment, this is a bit of an unknown factor. Fortunately a lot of our prime sites are owned and managed by various conservation bodies who are aware of the problems and can adjust conservation techniques to suit.

61.019 Adonis Blue Polyommatus bellargus

Jim Baldwin







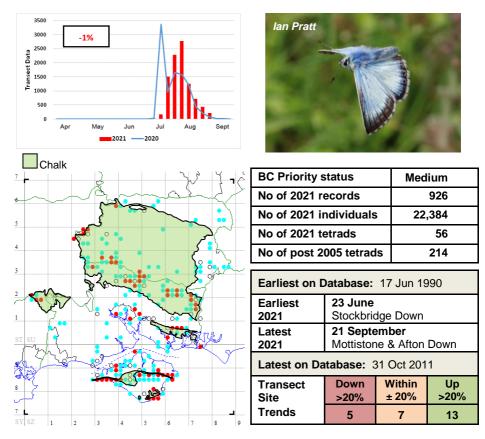
After two years of decline, 2021 proved to be an excellent year for the Adonis Blue, especially for the second brood. The majority of transects showed an increase of 20% or more, in comparison to 2020, with a combined transect trend of +99%. The number of records increased significantly by over 34%. Peak counts at Old Winchester Hill in Hampshire showed an 80% improvement over 2020. On the Isle of Wight, the best counts were at Bonchurch Down although slightly lower than 2020.

The unsettled weather resulted in the first brood peaking around two and a half weeks later in Hampshire, 41 at Martin Down on 05 June, and over three weeks later in the Isle of Wight, 23 at Bonchurch Down on 08 June, in comparison to 2020. The latter part of the first brood lasted into mid-July in Hampshire.

For most sites, the second brood started in the second week of August. It peaked in late August/early September with both counties reporting higher numbers than in 2020. For Hampshire the best counts were 72 at Old Winchester Hill on 05 September and for the Isle of Wight it was 26 at Bonchurch Down on 03 September.

61.020 Chalk Hill Blue Polyommatus coridon

Jim Baldwin



2021 was another good year for this species, with 13 transects showing a significant increase, seven little changed and just five with marked decline. Unfortunately, the transect at the principal site for this species, Arreton Down, Isle of Wight was not covered in 2021 with only five casual records received.

Brading Down recorded the highest counts for the Isle of Wight; 1,326 on 04 August and 816 on 11 August. 530 at Mottistone Down on 03 August was the other notable count from the Isle of Wight in the absence of any counts from Brook Down (a count of 1,000 recorded there in 2020).

Once again, Stockbridge Down produced the best count in Hampshire with 1,355 on 04 August, although it was 25% lower than in 2020. Conversely, Magdalen Down's count of 678 on 10 August was an 85% improvement compared to 2020. Oxenbourne Down recorded 500 on two dates: 22 & 26 July. Numbers at Yew Hill showed a recovery with 211 on 29 July but this is 90% lower than the peak in 2011.

Dispersal was evident as usual across both counties with individuals reported in various locations. The best late season counts were 185 at Stockbridge Down on 05 September followed by 52 at Brading Down on 06 September.

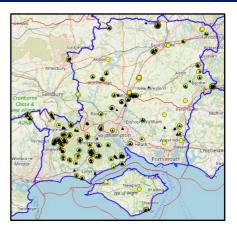
Day Flying Moths

Andy Barker & Bob Annell

Bob Annell

Moths recorded on transect

Species	Records	Individuals	Transects
Silver Y	436	666	78
Brown Silver-line	112	178	29
Six-spot Burnet	103	308	32
Small Purple & Gold	88	210	14
Common Heath	86	156	19
Cinnabar	67	86	29
Common Carpet	55	86	15
Five-spot Burnet*	54	104	12
Burnet Companion	47	72	12
Speckled Yellow	41	50	13
Yellow Shell	36	40	19
Mother Shipton	34	42	22
Shaded Broad-bar	21	43	9
Vapourer	15	19	5
Scarlet Tiger	14	18	6
Common Plume	11	14	1
Treble-bar	11	14	5
Latticed Heath	10	15	6
Forester	9	14	2
Mother of Pearl	8	20	3
Drab Looper	7	12	1
Totals - 2021	1,397	2,318	100
Totals - 2020	957	1,427	94
Totals - 2019	1,214	2,209	99
Totals - 2015	684	1,186	40



The map represents transects where moths were recorded in 2021 (black triangles) with 2020 locations shown in larger yellow circles.

* Includes Narrow Bordered Five Spot Burnet

The table contains only those species which returned a total count of over ten individuals during 2021.

There were a far greater number of moths recorded on transect in 2021 than in previous years with most records coming from the south of the county:

Vice County	Records	Individuals	Transects	Species
North Hampshire	564	1,003	24	39
South Hampshire	824	1,306	74	66
Isle of Wight	9	9	2	3

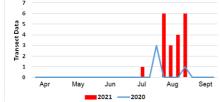
56% of individuals recorded on north Hampshire transects came from Magdalen Hill Down transects and 75% of those in south Hampshire were on New Forest transects. Magdalen Hill Down Tree & Shrub transect once again had the highest number of individuals (241), also sharing the greatest species diversity of 12 with Martin Down north. Overal 78 different species were recorded (see above table for breakdown).

Although there were a similar number of Six-spot Burnet records as in 2020 individuals increased by 60%. The records also suggest that both Mother Shipton & Yellow Shell were far more widespread in 2021 than they were in the previous year.

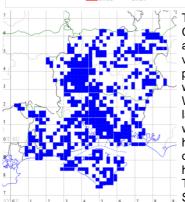
Visit the HantsMoths website <u>www.hantsmoths.org.uk</u> to find out more about Hampshire and Isle of Wight moths.

Andy Barker

63.038 Mother of Pearl Patania ruralis







Taxonomically this species is in the family Crambidae, which are "micro-moths", but it is actually larger than many "macro-moths". The vernacular name comes from the rather attractive pearly sheen on the wings, in sunshine. It is widespread and common in Hampshire and Isle of Wight, occurring wherever stinging nettles, the larval foodplant, are found. It is often disturbed when walking along nettle-lined footpaths and hedgerows, but will also be found in gardens. It doesn't always present a clear view, as it likes to hide on leaf undersides.

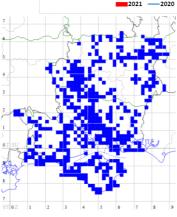
The flight period is typically July to early September.

70.059 Yellow Shell Camptogramma bilineata





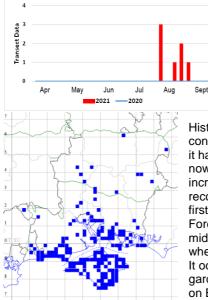
Andy Barker



This attractive yellow to yellow-orange moth occurs in a wide range of lowland habitats and is readily disturbed by day. Its appearance varies but is characterised by numerous fine wavy lines and bands. The caterpillars feed on various plants, especially cleavers and other bedstraws, so it is often encountered alongside hedgerows and in herbaceous borders of gardens. Its flight period extends from May to September, but in 2021, the cold April and May weather meant it did not appear on transect until the first week of June. Although only a small sample, the numbers recorded on transect suggest 2021 was a stronger season than 2020.

72.030 Jersey Tiger Euplagia quadripunctaria

Andy Barker

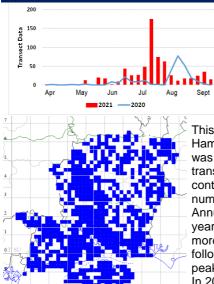


Andy Barker

Historically this beautiful species was largely confined to south Devon, but over recent decades it has experienced a huge range expansion. It is now widespread on the Isle of Wight, and increasingly reported from south Hampshire. It was recorded on Hampshire butterfly transects for the first time in 2018 and this year on six different New Forest transects. The flight period extends from mid July to early September, but August is the time when it will most often be seen.

It occurs in a wide range of habitats, including gardens, where it may be observed taking nectar on Buddleia.

Andy Barker





This is one of the commonest day-flying moths of Hampshire and Isle of Wight, and once again it was the most frequently recorded moth on transect. It is an immigrant species from continental Europe, arriving in the UK in varying numbers annually. Previously featured in the 2018 Annual Report, it deserves a mention again this year following a strong season. It can be found in more or less any habitat, including gardens, and following successful breeding, numbers generally peak in mid to late summer.

In 2021, numbers in May/June were modest, but there was a strong peak in late July and early August.

73.015 Silver Y Autographa gamma

Summary of Earliest/Latest Butterfly Sightings 2021

Andy Barker

Please interpret these all-time Earliest/Latest dates with caution as our records for earlier years are far from complete.

Species	Earliest on Database	Earliest 2021	Latest 2021	Latest on Database
Dingy Skipper	12 Apr 2011	18 Apr	28 Aug	03 Sep 1993
Grizzled Skipper	02 Apr 2009	16 Apr	04 Jul	07 Sep 2004
Essex Skipper	26 May 2007	22 Jun	19 Aug	21 Sep 1996
Small Skipper	16 May 2011	12 Jun	27 Aug	19 Sep 1991
Silver-spotted Skipper	11 Jul 2018	01 Aug	15 Sep	11 Oct 1986
Large Skipper	28 Apr 2007	27 May	24 Aug	22 Sep 2013
Orange-tip	10 Mar 1990	29 Mar	23 Jun	22 Sep 2011
Large White	20 Jan 2020	22 Mar	17 Nov	07 Dec 2012
Small White	09 Jan 1991	26 Feb	05 Nov	08 Dec 2007
Green-veined White	03 Mar 1989	30 Mar	16 Oct	05 Nov 2017
Clouded Yellow	08 Feb 2005	19 Mar	23 Nov	30 Dec 2007
Brimstone	01 Jan 2001	28 Jan	17 Nov	29 Dec 1999
Wall	14 Apr 2002	23 Apr	29 Sep	10 Nov 2020
Speckled Wood	11 Jan 2013	27 Feb	01 Dec	15 Dec 2011
Small Heath	08 Apr 1997	18 Apr	09 Oct	29 Oct 2011
Ringlet	24 May 2016	13 Jun	28 Aug	11 Oct 2011
Meadow Brown	30 Apr 2011	29 May	15 Oct	07 Nov 2010
Gatekeeper	24 Mar 1999	12 Jun	24 Sep	19 Oct 1995
Marbled White	29 May 2020	14 Jun	18 Sep	25 Sep 2003
Grayling	03 Jun 2002	09 Jul	26 Sep	08 Oct 1986
Pearl-bordered Fritillary	17 Apr 2003	04 May	20 Jun	09 Jul 1950
Small Pearl-bordered Fritillary	03 May 2007	08 Jun	16 Jun	29 Aug 2009
Silver-washed Fritillary	Late May 1893	16 Jun	27 Sep	27 Sep 2021
Dark Green Fritillary	28 May 2010/2020	12 Jun	08 Sep	08 Sep 2012/2021
White Admiral	Late May 1893	23 Jun	18 Sep	04 Oct 2003
Purple Emperor	17 Jun 2017	05 Jul	14 Aug	23 Aug 2013
Red Admiral	01 Jan*	16 Jan	10 Dec	31 Dec*
Painted Lady	01 Jan 2013	13 Apr	05 Nov	31 Dec 1987
Peacock	01 Jan*	22 Jan	24 Nov	31 Dec*
Small Tortoiseshell	05 Jan 1999/2018	21 Jan	30 Nov	25 Dec 2013
Large Tortoiseshell	10 Feb 2008	26 Feb	04 Sep	04 Sep 2021
Comma	09 Jan 1998	23 Feb	17 Nov	22 Dec 2013
Marsh Fritillary	27 Apr 2007	17 May	15 Jun	20 Jun 2004
Glanville Fritillary	08 Apr 2007	30 Apr	30 Jun	09 Jul 2010
Duke of Burgundy	01 Apr 2019	18 Apr	26 Jun	02 Oct 2011
Small Copper	05 Mar 2009	02 Apr	07 Nov	27 Nov 2003
Brown Hairstreak	18 Jul 2017/2018	02 Aug	21 Sep	16 Oct 1986
Purple Hairstreak	31 May 2010	25 Jun	04 Sep	25 Sep 2003
Green Hairstreak	29 Mar 2012	18 Apr	02 Jul	30 Jul 2007
White-letter Hairstreak	25 May 2011	24 Jun	14 Aug	23 Aug 2004
Small Blue	30 Mar 2012	30 Apr	16 Sep	21 Sep 1991
Holly Blue	08 Jan 2019	10 Mar	25 Nov	27 Dec 2020
Silver-studded Blue	09 May 2011	12 Jun	12 Sep	30 Oct 1921
Brown Argus	08 Apr 2002	02 May	26 Sep	31 Oct 2005
Common Blue	04 Apr 2019	27 Apr	16 Oct	12 Nov 1990
Adonis Blue	26 Apr 2011	17 May	29 Sep	15 Oct 2011
Chalk Hill Blue	17 Jun 1990	23 Jun	21 Sep	31 Oct 2011

* Recorded on this date in several years

2020-2021 Butterfly Trends in Hampshire & Isle of Wight

This table is based on 142 Hampshire & Isle of Wight transects with data for both 2020 and 2021.

Oracia	Combined	>20%	Within	>20%	0 /21	1+/21
Species	Transect	Decrease	±20%	Increase	1+/20	0/20
	Trend	2021	No Change	2021	Loss	Gain
Dingy Skipper	+101%	11	1	16	2	8
Grizzled Skipper	XXX	5	5	2	2	-
Small/Essex Skipper	+8%	44	28	47	4	8
Silver-spotted Skipper	-13%	2	1	2	1	1
Large Skipper	-50%	70	20	25	14	10
Orange-tip	XXX	9	5	7	1	-
Large White	-23%	62	16	30	-	1
Small White	-2%	38	30	39	1	-
Green-veined White	-46%	55	19	24	15	11
Clouded Yellow	-75%	27	2	6	18	5
Brimstone	+68%	5	8	4	1	-
Wall	-51%	4	1	2	1	1
Speckled Wood	+7%	22	29	43	-	8
Small Heath	-30%	37	17	26	10	12
Ringlet	-13%	49	24	36	5	4
Meadow Brown	-18%	61	30	27	-	-
Gatekeeper	-27%	71	34	21	-	-
Marbled White	+11%	41	30	39	9	7
Grayling	-7%	11	8	9	4	1
Pearl-bordered Fritillary	XXX	1	-	4	-	-
Small Pearl-bordered Frit.*	-71%	1	-	-	-	-
Silver-washed Fritillary	-12%	33	15	31	8	10
Dark Green Fritillary	+79%	20	4	32	13	13
White Admiral	-24%	18	8	14	10	10
Purple Emperor*	-9%	3	1	3	3	3
Red Admiral	+41%	18	23	64	1	-
Painted Lady	+540%	6	8	62	6	48
Peacock	+15%	12	22	66	-	3
Small Tortoiseshell	+16%	26	22	35	12	16
Comma	+9%	20	19	42	6	15
Marsh Fritillary*	-65%	4	1	1	2	1
Glanville Fritillary*	+16%	-	1	3	-	1
Duke of Burgundy	XXX	2	-	-	-	-
Small Copper	-43%	40	25	23	10	6
Brown Hairstreak*	+41%	1	-	3	-	2
Purple Hairstreak*	-50%	9	2	8	5	6
Green Hairstreak	XXX	11	2	3	4	1
White-letter Hairstreak*	+35%	4	2	1	4	1
Small Blue	-35%	9	2	12	2	4
Holly Blue	-64%	66	14	12	20	5
Silver-studded Blue	-25%	12	9	7	-	3
Brown Argus	-5%	27	12	12	12	5
Common Blue	-27%	57	16	18	13	2
Adonis Blue	+99%	2	5	10	1	2
Chalk Hill Blue	-1%	5	7	13	1	-
	-170	5	1	10		-

* Figures based on 'All Data' for species poorly represented on transect

xxx - Not determined in 2021 as most of 2020 flight season missed due to Covid-19 restrictions

Reserves Summary

2021 rank position of BC Reserves (based on transect) for particular species in top 20 compared with 140+ other Hampshire and IoW sites with butterfly transects, (bracketed) values are 2020 positions, "p" if present on site but not ranked in top 20.

Species – Dingy Skipper – Grizzled Skipper – Small/Essex Skipper – Silver-spotted Skipper – Large Skipper – Orange-tip – Large White –	Original 12(7) 1(1) p(20) - 15(p) 16(5) 20(p) 20(p)	Ext 13 (6) p(-) p(p) - p(p) p(p)	North p(p) p(p) - p(p)	Allot. -(-) 20 (-) p(p)	N(T&S) 15(15) 15(p) p(p)	Yew Hill 3 (13) 14 (6)	BSM -
Grizzled Skipper Small/Essex Skipper Silver-spotted Skipper Large Skipper Orange-tip	1(1) p(20) - 15(p) 16(5) 20(p)	p(-) p(p) - p(p) p(p)	p(p) p(p) -	20 (-) p(p)	15 (p)	14(6)	-
Small/Essex Skipper Silver-spotted Skipper Large Skipper Orange-tip	p(20) - 15(p) 16(5) 20(p)	p(p) - p(p) p(p)	p(p) -	p(p)			-
Silver-spotted Skipper Large Skipper Orange-tip	15 (p) 16 (5) 20 (p)	- p(p) p(p)	-		n(n)		
Large Skipper Orange-tip	15 (p) 16 (5) 20 (p)	p(p) p(p)			P\P/	p(p)	p(19)
Orange-tip	16 (5) 20 (p)	p(p)	p(p)	-	-	- (p)	-
8 1	20 (p)	,	P(P)	p(p)	p(p)	p(p)	p(20)
Large White	(i)		p(p)	p(p)	p(p)	p(p)	p(p)
	0(0)	6 (19)	p(p)	p(p)	p(p)	13 (14)	19 (p)
Small White	3 (6)	7(20)	18 (p)	p(p)	16 (p)	20 (10)	p(p)
Green-veined White	p(20)	p(p)	p(p)	p(p)	p(p)	18 (p)	p(p)
Clouded Yellow	5= (3)	8= (9)	16 (8=)	- (-)	- (-)	8= (p)	-
Brimstone	4 (1)	17 (p)	20 (p)	p(p)	p(p)	13 (p)	p(p)
Wall	-	-	-	-	-	-	-
Speckled Wood	p(p)	p(p)	p(p)	- (p)	p(p)	p(p)	p(p)
Small Heath	13 (10)	p(13)	15 (16)	19 (17)	18 (19)	16 (7)	p(p)
Ringlet	16 (p)	p(p)	p(p)	p(p)	p(p)	p(p)	14 (15)
Meadow Brown	3 (8)	16 (14)	p(p)	p(p)	p(p)	18 (16)	p(p)
Gatekeeper	p(p)	p(p)	p(p)	p(p)	p(p)	8 (19)	p(p)
Marbled White	3 (16)	2 (2)	14 (15)	p(p)	p(p)	5(4)	p(p)
Grayling	-	-	-	-	-	-	-
Pearl-bordered Fritillary	-	-	-	-	-	-	-
Small Pearl-bordered Frit.	-	-	-	-	-	-	-
Silver-washed Fritillary	-	-	-	-	-	-	p(p)
Dark Green Fritillary	p(p)	p(p)	-(p)	-	-	14 (16)	-
White Admiral	-	-	-	-	-	-	-(14)
Purple Emperor	-	-	-	-	-	-	-(p)
Red Admiral	p(p)	9 (20)	p(p)	p(p)	p(p)	p(p)	p(p)
Painted Lady	8= (p)	20= (p)	8= (p)	p(p)	8 =(8)	18= (p)	p(p)
Peacock	9 (8)	15(9)	p(11)	p(18)	17(2)	p(p)	p(p)
Small Tortoiseshell	14 (14)	18 (13)	p(12)	11 (18)	p (5)	p(19)	-(p)
Comma	p(p)	19 (p)	p(p)	p(p)	p(p)	p(p)	16 (13)
Marsh Fritillary	-(5)	3 (4)	4 (-)	-	-	-	-
Glanville Fritillary	-	-	-	-	-	-	-
Duke of Burgundy	-	-	-	-	-	-	-
Small Copper	4 (3)	p(p)	p(p)	p(p)	p(p)	p(p)	p(p)
Brown Hairstreak	-	-	-	-	-	-	p(p)
Purple Hairstreak	-	-	-	-	-	-	9 (p)
Green Hairstreak	2 (1)	p(p)	12 (-)	-(p)	4 (5)	13 (p)	-(p)
White-letter Hairstreak	-	-	-	-	-	p(4=)	-
Small Blue	9 (7)	4 (4)	13 (5)	12 (11)	20 (14)	14 (15)	-
Holly Blue	10 (12)	p(p)	p(p)	p(p)	p(p)	13 (p)	p(p)
Silver-studded Blue	-	-	-	-	-	-	-
Brown Argus	1 (1)	18 (17)	p(p)	9 (3)	15 (15)	14 (14)	p(p)
Common Blue	1 (1)	15(6)	p(P)	p(13)	16 (10) 16 (5)	17 (11)	p(p)
Adonis Blue	7 (6)	-	16= (-)	16= (13)	-	-	-
Chalk Hill Blue	3 (2)	p(19)	10 =() 12 (11)	14 (12)	p(p)	7(8)	-

Note: In 2021 Yew Hill (Hill Top): Small White 9(p), Small Blue 15(p), Common Blue 14(p), Marbled White 18(p), Meadow Brown 11(p), Small Heath 5(12). Note: 36 butterfly species recorded on BC Hampshire Reserves in 2021.

Hampshire & Isle of Wight Butterfly Report 2021



Butterfly Conservation

www.hantsiow-butterflies.org.uk