Butterfly Conservation Dorset Branch Newsletter No 96

Butterfly Report for 2020

www.dorsetbutterflies.com



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Editor's Introduction

elcome to the 2020 Butterfly Report for Dorset! 2020 posed two major problems for our analysis of the year's butterfly data. One was missing data, due to the Covid-19 lockdown, and the other was the retirement of our long-serving Records Officer, Bill Shreeves.

The lockdown primarily affected counting the early butterflies such as the Orange Tip. Many transect (butterfly monitoring) walks could not be done, which means either the figures have to be missed out,

Photo on front cover. Dark Green Fritillaries by Mel Bray

or estimates have to be made. On the other hand, spending so much time at home and in our gardens at the start of 2020 when the weather was so warm probably increased the number of other records we received, and certainly led to an increased interest in watching wildlife, which we hope will continue.

Bill Shreeves sadly had to retire from the post of Records Officer due to ill health of both himself and his wife. He did undertake some work on the "winners" and "losers" as evidenced by the transect walk results, which Robin George, our new County Records Officer, has picked up and which features in this report.

This year's Report is therefore something of a transitional phase: not quite the same as we have produced previously, but a basis on which Robin will build to achieve an analysis next year.

Looking back over the years, it is remarkable a system which used only paper records is now probably over 90% recorded via computers in one way or another. This has, however, allowed us to receive and analyse a lot more data than would have been the case.

We have searched back through our database to compare 2020 with previous decades. The number of records received in 2000 was 26,582, in 2012 it had increased to 43,693 and 2020 achieved 76,512. The number of butterflies represented by these reports was respectively 123,494, 154,252 and a whopping 332,837.

We give our very grateful thanks to all of you who contributed butterfly sightings via whatever means. Without you, we would not have the data to understand how the various species are doing, which gives us the knowledge to do what we can to help those in trouble.

Please keep your records coming in and help us to help butterflies.

Lyn Pullen

Bill Shreeves

e want to take this opportunity to thank Bill Shreeves for all he has done for the Branch over many years.

Bill was involved with the Branch before it even became the branch, and was enticed onto the committee in 1988 as Records Officer, so he has filled this post for a solid 32 years!

For many, many years, Bill has been the backbone of the Dorset Branch of Butterfly Conservation with his encyclopaedic knowledge of butterflies and moths, and the sites and areas where they can be found in Dorset.

Bill was always ready to help with the answers to anyone's questions about butterflies in Dorset, and was the driving force behind the excellent network of transect walks that have been running here since the 1970's.

Looking through the Dorset database, there are more than 45,000 records attributed to him personally - a vast set of data covering the whole county, and dating back to 1953.

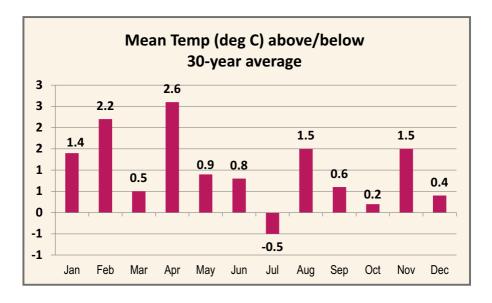
The butterflies of Dorset owe Bill so much gratitude and so does the Dorset Branch, so huge thanks to Bill and his wife Judy, for all they have done over the years. We are really glad that Bill is still going to help with the knotty identification problems, and we will no doubt be needing his expert advice too much to allow him a quiet retirement.

Thank you Bill!

Weather

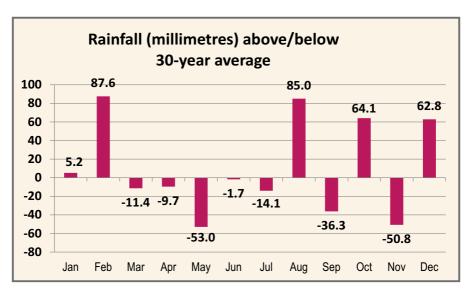
e send our very grateful thanks to John Oliver, for helping us out with the weather data for 2020. The temperature and rainfall is from Dorchester and the sunshine data is from Bournemouth.

Mean temperatures were above the average every month in 2020 except for July which produced a negative anomaly of 0.5C. February and April were more than 2C above the average.

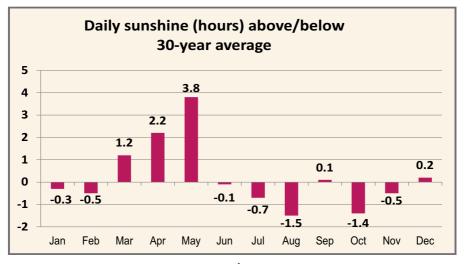


The rather wet winter of 2019 - 20 was followed by a dry spring (notably May) and this continued to a lesser extent until midsummer. A very wet August with more than double the usual rainfall was followed by a much drier than usual September. (See graph overleaf).

Weather



The spring period (March to May) was, apart from being very dry, the sunniest on record across England by a wide margin. At Bournemouth 339 hours of sunshine was recorded in May equating to nearly 11hrs a day - nearly four hours per day more than normally expected.

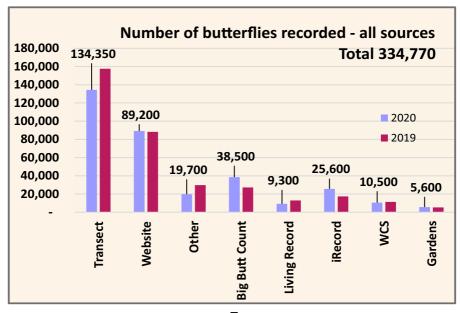


Butterfly Data Sources

e receive data from numerous sources, giving us an astonishing 300,000+ butterflies recorded in a year. This data is invaluable for looking at whether species are flourishing or declining, and to provide clues to allow us to help if needed.

Some notes on the statistics and terminology:

- Numbers quoted in this year's report may vary slightly from those used last year, as late records will have been received and included in the new figures.
- Lockdown due to Covid 19 affected the early-season transect
 walk figures. The UKBMS (UK Butterfly Monitoring Scheme)
 software, into which our transect data is entered, automatically
 estimates missed weeks, which works for odd weeks not walked,
 but can give some slightly odd looking results if several weeks in a
 row are missed.



Butterfly Data Sources

- Transect walk figures vary with how you define a transect walk! Robin George, our County Records Officer, rightly sticks with the precise definition of walks undertaken 26 times a year, as seen in the chart on page 13. However, others have used the term to also cover walks done under transect conditions (re time, weather, etc) but walked less times in a year. One example of this are the Purbeck Ridge Walks, which are aimed at monitoring specific species about which we have concerns. It is this wider definition we use in the table on the opposite page, but statistics elsewhere referring to transect walks are limited to the full 26-week version.
- To explain our use of the term "record" as opposed to
 "butterfly". To take the example of you seeing several butterflies
 on your buddleia in the summer and sending us sightings of three
 Peacock, two Small Tortoiseshell and one Painted Lady, that would
 be six butterflies, but three records: one record for each species.
- Transect Walks are described on page 11.
- The website has been collecting reports of sightings via its user-friendly map-based system since 2014. It is not data which is so scientifically valid, as there is no control over what comes in, but it has many uses, especially regarding butterflies seen outside the transect walking season of April-September.
- Casual records are just that; these have tended to be on paper or on a spreadsheet, and are reducing in number as the website is increasingly used.
- The Big Butterfly Count is run by the national Butterfly Conservation charity every year, and records pertaining to Dorset are sent to us.
- Living Record is a national on-line system for wildlife recording.

Butterfly Data Sources

- iRecord is another national on-line wildlife-recording system, and there is now also iRecord Butterflies: an app for smartphones which enables recording of sightings on the spot.
- The Wider Countryside Survey and the Garden Butterflies scheme are covered on pages 30 and 31.

All the records received are verified as far as is possible, and we send very grateful thanks to Nick Urch, Steve Brown, Paul Dexter, Robin George. Lorraine Munns and Bill Shreeves for all their very hard work, without which the records would not be reliable enough to use. They verified over 330,000 butterflies in 2020 - medals all round!

The Dorset Butterfly Database

s we have just mentioned records, our database may well achieve another one, as it now has over 5 million butterflies recorded in it!

we know

We are not sure exactly when it started, though



Duke of Burgundy. Photo: Sasha Crowley

Jeffers
helped a
lot in the
mid 1990s.
Records
pre-dating the
database itself were added from
the files of the Dorset
Environmental Records Centre,
with the earliest record being
from 1831, when an unknown

The Dorset Butterfly Database

recorder reported a Duke of Burgundy in Poole. It is odd snapshots like this that make one realise how much we have lost in the way of butterflies in terms of both numbers and range. The Duke is now restricted to a very few sites in Dorset, the only one of which has

reasonable public access being Giant Hill, near Cerne Abbas. As an aside, there is a description in the "Butterflies of Dorset" by Jeremy Thomas and Nigel Webb (1984) of the Pearl-bordered Fritillary being "too widespread for localities to be worth listing"; this species is now extinct in

If the average butterfly wingspan is (say) 46mm, the 5 million butterflies counted, placed wing-tip to wing-tip would stretch for 16 miles!

Dorset. That's why we do all the work we do.

The actual figure for butterflies in the database as of May 2021 was 5,608,000, and that will be an under-estimate; some recording methods only call for numbers seen to be recorded in bands, e.g. Band B - 2-9 butterflies and Band E is more than 100. We use the lowest number in each band for our calculations, so the true figure will be higher.

The number of records (see definition above) is 1,271,392. Of these, only 700 were of eggs, caterpillars or chrysalises, and it may be that some people do not realise you can record anything other than the adult stage. The other life stages add to our knowledge, as they show us that the species is breeding at the site, whereas the adult may have flown there from elsewhere. The website recording form allows this, so if you spot any of these other life stages, please use it to let us know. If you are entering your results from doing a transect walk in the UKBMS database, only adults are recordable, but you can separately record the other stages on our website, or via the iRecord Butterflies app.

Transect Walk data

ransect Walks are walks to count butterflies, the results of which are made more statistically valid by a number of rules around criteria such as the temperature, time of day, wind speed etc. They are walked over the same route every week from April to September, giving 26 weeks of walks. Most transect walks are undertaken by a team of walkers, sharing the weeks, but a few are done by one person, especially where access to the land is restricted by the owner. The results of these walks are entered into the UKBMS national database, along with results from all over the UK.

Due to the problems of Covid-19, plus the lack of regional meetings for distribution of the traditional paper-based coloured spreadsheets, Bill devised a new system for deciding the winning and losing species on our transect walks, using a points system.

Robin George has now taken over as County Records Officer and has used this work by Bill for the 2020 report. However, Robin has not had access to exactly the same figures that Bill used to use for his transect walks analysis, so she has applied the records from the Dorset database, which holds the totality of our records. The figures used therefore include all the actual records from transects, but not the estimated or interpolated figures produced by the UKBMS system when walks are missed. This software uses some sophisticated algorithms to automatically estimate results for missed weeks, which works well when a single walk is not undertaken, but can give some slightly odd-looking results if several weeks in a row are missed.

The figures quoted in this report are therefore not completely comparable with previous years and where we felt figures looked "odd" we have chosen not to report them rather than present doubtful data. We hope you will still find plenty to interest you.

Transect Walk data

Transect Walks in 2020.

The main effect of the Covid-19 lockdown which came in at the end of March 2020, was that we were all told to stay at home except for a very limited number of reasons including going out for a walk for exercise. This meant that transect walks were not possible, except where there were recorders living very close by. Many of our walks were not therefore walked at the beginning of the season. By week seven (mid May), restrictions had been loosened, and the transect walks resumed as normal.

	No of transect walks	Weeks missed (over the			
	across Dorset	26 possible weeks)			
North	16	97			
South	18	83			
East	14	111			
West	18	139			
Total	66				

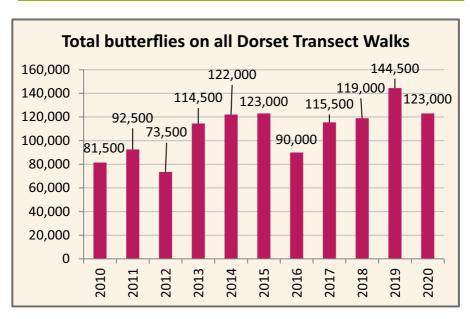
Two transect sites were not walked at all in 2020: Powerstock Poorwood and Lorton Meadows (both in our West area).

The walk which recorded the most butterflies in 2020 was Giant Hill (Cerne Abbas) with 6,704 butterflies. This moved Durlston East, which won in 2018 and 2019, into 2nd place with 6,173 butterflies recorded.

The highest number of different species recorded was a tie between Giant Hill and Lydlinch Common, both with 31.

In 2019, Fontmell Down recorded 34 different species on its transect, but this number dropped to 28 in 2020. The missing species were: Essex Skipper, Silver-spotted Skipper, Orange-Tip, Green

Transect Walk data



Hairstreak, Brown Argus and Wall. Silver-spotted Skipper are still present on the site, but not recorded on the transect, showing how butterflies will move over time to continue to inhabit the best habitat for them.

Orange-Tip

Due to the lack of early walking, the number of Orange Tips recorded on transect walks fell to 317 in 2020 from an all-time high of 1,183 in 2019. Looking at our casual records, however, the picture is much brighter. 2,216 in 2020 compared with 1,493 in 2019. This may be a reflection of the extra time people spent watching wildlife.



Orange Tip on Alkanet. Photo: Mel Bray

Winners and Losers in 2020

e calculate "winning" and "losing" butterflies on the results of the transect walks only, as these are designed to be comparable over a period of time. By contrast, results from the website, for example, can be influenced by the number of recorders who sent in records.

For the 2020 results, Bill has tried a different method of assessing the winning and losing species on the transect walks by awarding points to them depending on their "performance". Improving figures lead to positive scores, whilst declines give negative scores. The year's total for each species on a walk is compared with both last year's value, and with the average count since the walk began.

	Points
	awarded
Species gaining over 50% on both the previous year's results	
and the annual average count since the walk began	30
Species gaining over 50% on the annual average count since the	
walk began	20
Species gaining over 50% on the previous year's results	10
Species declining over 50% on both the previous year's results	
and the annual average count since the walk began	-30
Species declining over 50% on the annual average count since	
the walk began	-20
Species declining over 50% on the previous year's results	-10

The full details of the scoring system and the complete results are available on request from Robin George (see page 39).

Winners in 2020

The "winning" butterflies, with the points they scored:

Small White: 380 points

Large White: 480 points

• Small Heath: 270 points

Meadow Brown:

260 points



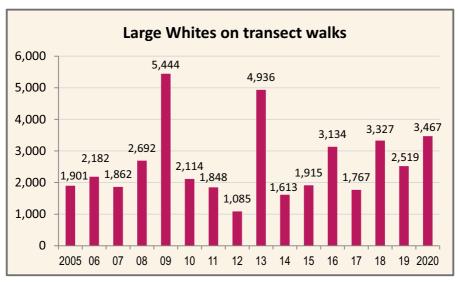
Large White. Photo: Clive Hill

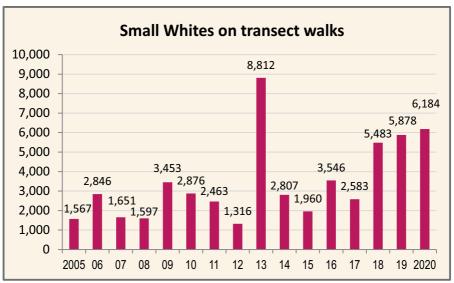
Broken down by area:

North		South		West		East	
	Points		Points		Points		Points
Meadow	210	Orange	140	Large	210	Small	90
Brown		Tip	160	White		White	
Peacock		Dark		Essex		Marbled	
	160	Green	160	Skipper	120	White	80
		Fritillary					
Small	140	Small	130	Small	100	Small	80
White		Heath	130	Heath	100	Heath	80
Large	120	Small	130	Comma	60	Large	50
White		White	130			White	

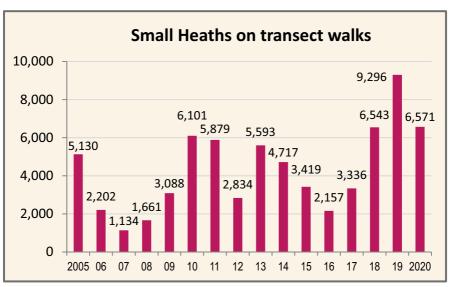
Winners in 2020

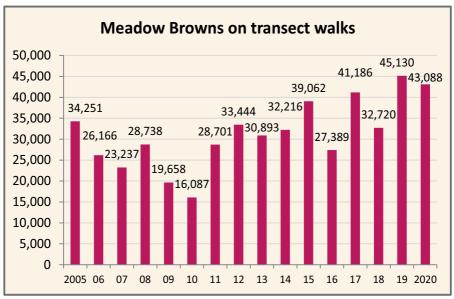
See these two pages for graphs of the four winners in 2020, to give you an idea of how they are doing over the years. We do have longer datasets, but it is not possible to show them on this size page.





Winners in 2020





Winners in 2020 - by area

North

The walk at Melbury Down and Wood saw a very welcome jump in the number of Chalkhill Blues seen. Between 2015 and 2019, only three were recorded on the transect, but in 2020 a total of 38 were recorded. Numbers of Adonis Blue and Brown Argus also increased significantly compared with their average for the previous five years.

The winner on points was the Meadow Brown. They did particularly well on the walks at Duncliffe Wood (more than 2600 recorded compared with an average of 790 over the previous 5 years), and also at Fifehead Magdalen Wood where more than 1100 were recorded on the transect compared with an average of 400 for the previous 5 years. At times, hedgerows looked as if they were moving or steaming, so many Meadow Browns were flitting over them.



Meadow Browns. Photo: Shona Refoy.

The Peacock also had a good year in 2020, with Piddles Wood, Duncliffe Wood and Cashmoor recording well above their averages. At Cashmoor 127 were recorded, including 71 in week 15 (starting 8 July).

The Dorset Branch of Butterfly Conservation is one of 32 branches of the national charity; we all work to save butterflies, moths and the environment.



Winners in 2020 - by area

South

The walks at Ailwood Down, Ballard Down, Bindon Hill and Wareham Walls all recorded good numbers of butterflies compared with their averages for the previous 5 years.

At Ailwood Down, 103 Lulworth Skippers were recorded compared with an average of 29 over the previous five years. Numbers of Clouded Yellow,



Lulworth Skipper. Photo: Rob Morrison.

Orange Tip and Small Copper were all more than three times their average over the previous five years.

The top two species in the South under the revised scoring system were the Orange-Tip and the Dark Green Fritillary. The walk at Ailwood Down was completed most weeks of the lockdown, and 43 Orange-Tip were recorded, more than three times the average for the walk. The walks at Townsend Quarry, Wareham Walls and Ballard

Dark Green Fritillary. Photo: Paul Freedman

Down all reported encouraging numbers of Orange-Tip too.

26 Dark Green Fritillary were recorded on the Ailwood Down walk, compared with its average of nine, while 86 were recorded on the walk at Bindon Hill, more than twice the average on this walk, but slightly down on the 2019 figure of 105.

Winners in 2020 - by area

East

It was a good year for Garston Wood with numbers of Large Skippers, Peacock and Gatekeeper all well up on the average for the previous five years. The walk at Wimborne St Giles also did very well, with more than 2,000 butterflies recorded, compared with the average for the previous five years of about 1500.

Winners in the East were the Small White and the Marbled White. At Wimborne St Giles, 236 Small White were recorded, more than twice the average for the previous five years on this walk. Marbled Whites had very good counts at Sovell Down and Wimborne St Giles, where they were well above average.



Marbled White. Photo: Mark Pike

West

The Weymouth Relief Road walk, now in its third year as an official transect, continues to do very well. Numbers of both Small and Essex Skippers were well up on their average for the previous two years. Small Skipper increased from an average of 45 for 2018/2019 to 114 in 2020. Essex Skipper increased from an average of seven in the previous two years to 54 in 2020. Marbled Whites increased from an average of 212 in 2018/2019 to a huge 656 in 2020, with a count of 212 in week 12.

The Large White was the winner on points in the West. At Southfield Hogcliff, 162 were recorded, compared with an average of 35 for the previous five years.

Losers in 2020

he "losing" butterflies, with the minus points they scored:

• Painted Lady: -1670

• Small Tortoiseshell: -930

• Green-veined White: -440

• Ringlet: -440



Painted Lady. Photo: Edmund Mackrill

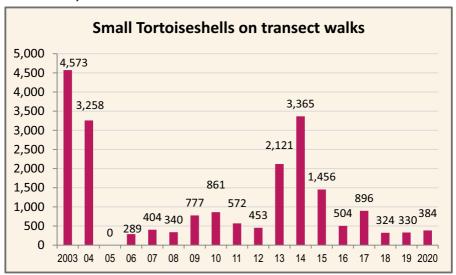
Losers by area:

North		South		West		East	
	Points		Points		Points		Points
Painted	-470	Painted	-460	Painted	-500	Painted	-240
Lady	-770	Lady		Lady		Lady	
Ringlet		Small		Small		Small	
	-170	Tortoise-	-310	Tortoise-	-320	Tortoise-	-130
		shell		shell		shell	
Small		Green-		Ringlet		Common	
Tortoise-	-170	veined	-170		-270	Blue	-110
shell		White					
Brown		Common		Green-		Grayling	
Argus	-120	Blue	-130	veined	-260		-80
				White			

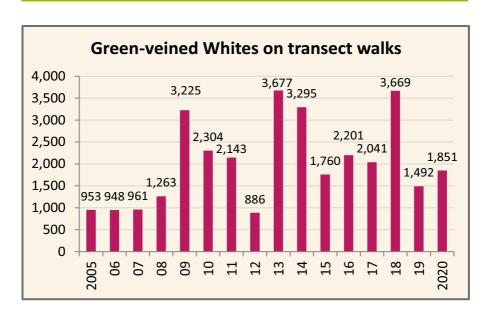
Losers in 2020

The large number of **Painted Ladies** recorded in 2019, because of a large migration, means that their scores are always likely to be much lower the following year. However, even allowing for this, it was a very poor year for the Painted Lady on transect walks in Dorset with only 37 recorded, compared to 2,353 in 2019. Compared to the years 2010-2018 the numbers were much the same, varying from 38 to 297. We have periodic big influxes of this butterfly, the exceptional year of 1996 recording 11,196 (and remember, that is just on transect walks).

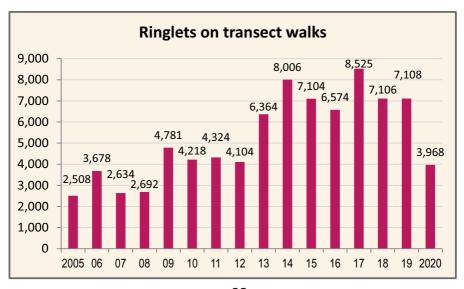
It was not generally a good year for the **Small Tortoiseshell**, but it is encouraging to note that numbers were well up at Hambledon Hill in the North, with 38 being recorded. The sheltered ditches there harbour good numbers of the caterpillar food plants, stinging nettles, as many walkers there will know. Space on the graph below does not permit earlier years to be shown, but the high number of 2003 was unusual: numbers from 1996 to 2002 had varied from 446 to 3,143. This species is in trouble elsewhere than in Dorset, for reasons as yet unidentified.



Losers in 2020



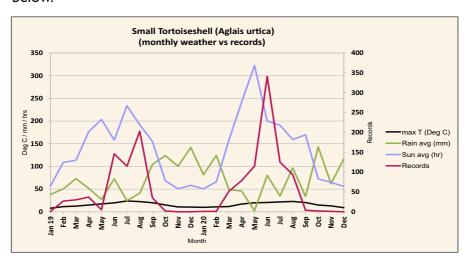
The reduction in Ringlet numbers is surprising, given that numbers have been well up for the previous seven years.



Losers and the Weather

rom the transect records for the 2020 season, it appeared that there were several 'losers' based on the points scoring system, as covered in the previous pages.

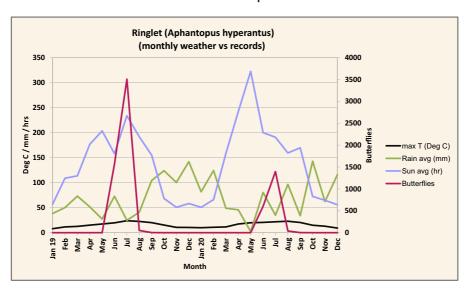
However, looking at the records submitted via the Branch website there was a slightly different picture; although the website results are not as statistically valid, we think these results are of interest. The following three graphs show comparison data for the years 2019 and 2020 for Small Tortoiseshell, Ringlet, and Green-veined White. The weather data used monthly historical Meteorological Office data from Hurn and Yeovilton — the data was averaged to get an overall picture for Dorset. The three most likely weather parameters to affect butterfly numbers were chosen: maximum monthly temperature, monthly rainfall, and monthly sunlight hours. Butterfly numbers are shown on the right hand Y axis on all of the graphs below.



For the **Small Tortoiseshell** there seems to be a correlation between sightings and sunlight (which will impact overall daily temperature). The peak sightings for both 2019 and 2020 show in

Losers and the Weather

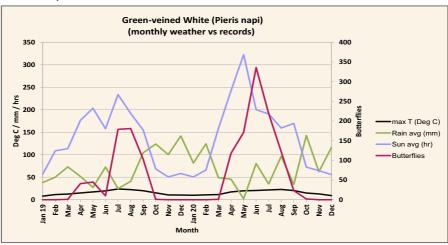
the month after the peak sunshine hours. Although the transect walks for 2020 showed a decline, there was an increase in numbers submitted via the website: 815 compared to 601 for 2019. This could be due to the Covid-19 pandemic where more people weren't at work, were furloughed, and able to submit more records. Also there were 33 days of air frosts in the winter of 2019/2020 which could have reduced the numbers of the parasite Sturmia Bella resulting in increased numbers of adult Small Tortoiseshells. There is certainly anecdotal evidence for this in on-line forums, and as the parasite's lifecycle more closely matches that of the Small Tortoiseshell than other nymphalids it parasitises, then this species would seem to bear the brunt of this parasite's behaviour.



For the **Ringlet** there was a significant decline in numbers recorded in 2020 compared to 2019 (2041 compared to 4110 in 2019). Studies have shown ("Butterfly numbers and weather: predicting historical trends in abundance and the future effects of climate change', by DB Roy et al. Journal of animal ecology, 2008) that

Losers and the Weather

numbers were reduced if there was high rainfall the previous winter, especially in November. There was around 100 mm less rain in October, November, and December 2018 compared to 2019, which could explain the lower numbers seen in 2020.



For the **Green-veined white**, the numbers in 2020 were actually higher than 2019, although the transects showed them as 'losers'. It's not clear what has caused the overall decline in numbers, but higher summer temperatures the previous year do result in a

decline. The summer of 2018 was warmer than 2019, and both 2019 and 2020 were fairly warm.

Maybe this species will be an indicator of the effects of climate change. Warm spring weather has been shown to produce higher numbers of these butterflies, as do wet summers, so maybe we're likely to see fewer of this species in future.



Green-veined White. Photo: Mel Bray

Species expansion



Duke of Burgundy. Photo: Richard Belding.

new colony of Silverstudded Blues has been found at Hengistbury Head (near Bournemouth). We have a transect walk here, but the Silverstuddeds were found off the transect route. This colony is quite a long way from any others, and this is not a very mobile butterfly.

Two Duke of Burgundy, including a female, were recorded on the south side of the old

shooting range on Martin Down (on the Dorset/Hants border), near the car park on the Salisbury Road. This species' more usual location is the Cerne Giant hill.

We also had five species recorded in more than 60 km squares where they had never previously been recorded. It is impossible to judge immediately whether this is genuine expansion or just that noone had previously recorded in that area at the right time of year, so we will be watching the records with interest for the next few years. The species are:

- Holly Blue
- Orange Tip
- Common Blue
- Ringlet
- Small Copper



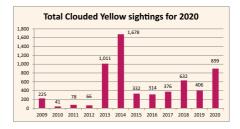
Small Copper. Photo: Shona Refoy.

Migrants

e have covered the **Painted Lady** statistics on page 22, but there was an interesting sighting on Hardown (SW Dorset) on 16 April at around 6.30pm, of around ten pale and worn butterflies chasing, banking and swerving at amazing speeds, and occasionally rising vertically in pairs and coming down to rest on the grass. It seems likely that this was an example of an early migration of this species taking part in 'hilltopping'. This is a behaviour seen in many insects, where males will go to a hilltop (or rise in the ground) and females who wish to mate will go to the hilltop to find one. The males compete for the best territory - the top of the hill - to prove their virility.

Clouded Yellows did better in 2020 than 2019.

An interesting Clouded Yellow aberration known as "aubuissomi" was recorded at Lorton Meadows near



Weymouth .The website www.britishbutterflyaberrations. co.uk says: "The ground colour of these specimens is a yellowishorange, and is intermediate between the type and helice forms. The hind wings are dark dusted with a large orange discoidal spot.



Normal Clouded Yellow. Photo: Chris Rowland



Clouded Yellow ab aubuissomi. Photo: Shona Refoy

Rare and Exotic visitors

very year we get a number of butterflies which are not common to this area, or even to the UK: our position on the south coast makes it more likely that we will pick up migrants from Europe than inland counties.

We seem to get one or more **Long-tailed Blue** most years now. A record came in on 10 August 2020, with the butterfly sighted near everlasting Sweet Peas (their caterpillar food plant) in a Swanage garden. Possible eggs and caterpillar remains visible in some of the pods suggest this sighting might have been the offspring from an earlier migration.

One **Continental Swallowtail** was seen on 9 May at Hill Bottom, near Swanage and another on 9 August flying on to the beach at Hengistbury Head, followed by a third on 12 August at Highcliffe.

Large Tortoiseshells were seen on Portland. We suspect someone has released this species, possibly as far back as 2018, although this species has also started to be seen in other areas along the south and east coasts of the UK, suggesting there may be migration from the continent. It is known to have successfully bred on Portland in



Large Tortoiseshell. Photo: Mike Kirby

2020. We had an article on the Large Tortoiseshell in Newsletter 95.

It is always difficult to gauge numbers of butterflies like this, which many people flock to see, as a lot of the reports are going to be telling us about the same individual butterflies. The maximum number we had reported from one person was four, with sightings mainly clustered in July, though with a few in March, April and May.

Wider Countryside Scheme

he Wider Countryside
Scheme aims to find out
how butterflies are doing
outside of the butterfly hotspots
from which many records are
received. selecting the places to
be surveyed at random.

In 2020 Dorset surveyed 63 squares, 58 of which were done by Butterfly Conservation volunteers and five by people from the BTO (British Trust for Ornithology).

We give grateful thanks to all who participated. These walks are often not in good butterfly sites: that is the whole point of them, but it does mean that walking them can seem a bit boring and unproductive. However, it is as important (if not more so) that we know where butterflies are struggling as where they are flourishing. One walk this year, visited twice, only turned up four Small Whites and two Red Admirals, so particular thanks to that walker!

The total number of butterflies counted was 10,498, with the top five species being:

- Meadow Brown
- Small White
- Gatekeeper
- · Large White
- Marbled White

The high score by the Marbled White is surprising, considering many Wider Countryside walks did not record one at all, but where they were seen, they were seen in quantity.

Again, somewhat surprisingly, Meadow Browns were absent on three walks.

Depressingly, the Small Tortoiseshell only made it to fifteenth on the list. They seem to be doing better in the north of Dorset than the south.

Of the migrants, two Painted Ladies were seen, and nine Clouded Yellows

Garden Butterflies



Small Tortoiseshell on Aster Frikartii Monch. Photo: Lyn Pullen

he recording of butterflies in gardens has gone through several changes over the years. The original survey was run nationwide by Dr Margaret Vickery and looked not just at species seen, but the plants on which they were nectaring. Dr. Vickery published a booklet called "Gardening for Butterflies" using the information she had collected, which is still available second-hand.

When Dr Vickery had to give up, the task was passed to Butterfly Conservation branches, and we used paper records, collated for Dorset by Adrian Neil. This is gradually changing again, with the ability to record online via the national website www.gardenbutterflysurvey.org.

Adrian tells us that for 2020 he received records from 104 different

Garden Butterflies

gardens in Dorset, with 48 coming via the national website. For Adrian, the paper records have the advantage that they reach him earlier. The records from the national website have to be abstracted from the rest of the UK records by Butterfly Conservation HQ, and that takes several months, as well as giving Adrian a somewhat undigestible mass of data through which to trawl. There are undoubtedly records from people's gardens which reach us by other means, including our website, but we are not currently able to separate them from the non-garden data.

The 2020 garden records came from a good spread of locations across the county and the number of species seen was a record 41! This is remarkable, as it is not that far short of the total number of species seen in Dorset, and some butterflies are habitat specialists while others do not move far from where they hatch. The unusual species are inevitably from gardens near to "different" habitats: for example, the Duke of Burgundy might turn up in a garden at the foot of the Cerne Abbas Giant, where there is a good colony.

The species which are never (or hardly ever) reported in gardens are:

- Wood White
- Brown Hairsteak
- Silver-studded Blue (only seen in gardens in 2010 and 2018)
- Purple Emperor (only seen in 2016 and 2018)
- Marsh Fritillary (only seen 2010-2012)

The number of species reported in gardens has been steadily increasing: in 2016 it was only 34. It seems likely that more people are making their gardens wildlife-friendly and/or are paying greater attention to what they see there. It is quite likely that, during the Covid restrictions in 2020, people were spending more time in their gardens with the result that they noticed more butterflies and had the time to report them - we hope this will continue.

Garden Butterflies

Of the 41 species reported in 2020, 39 were native or common migrants, the other two being Long-tailed Blue and Large Tortoiseshell. Three such 'exotic' species were seen in the previous year, the additional one being a Monarch.

The increase in the total number of species recorded was due to several species that only appear occasionally all turning up in the same year. A Grizzled Skipper was seen for the second year running

at Cerne Abbas, before that there had been no garden sightings since 2011. Small Blues are infrequent visitors to gardens despite at the moment seeming to be doing well in more suitable habitat, the last time one was reported in a garden being in 2015. This year there were two records, from Winterborne Tomson and Wyke Regis respectively; neither are particularly likely areas for this species, but maybe this is an indication that they are prospering and even possibly spreading. Another Blue,



Small Blue nectaring on Kidney Vetch in Mike Lewis' rewilded front garden in Dorchester. Photo: Mike Lewis.

Chalkhill, appeared in a Purbeck garden. It was only the third report of one since 2010, all of them having been seen in that part of Dorset. (By way of contrast, Adonis were seen in seven of the last 10 years).

There were no species missing from the list of butterflies recorded in 2019, except the Monarch. A very unlikely addition was a Small Pearl-bordered Fritillary, which record came from a reliable recorder in Ferndown: it was presumably an escaped or released specimen.

Big Butterfly Count

n 2020 we received 12,109 records via the Big Butterfly Count, submitted by more than 1,000 people. The Small White was the butterfly seen most, with more than 7,200 recorded, followed in second place by the Large White at just over 7,000 seen. Third and fourth places were taken by the Gatekeeper and the Meadow Brown.

This is a very large citizen science project helping to increase awareness of butterflies, and hopefully fostering an interest in them in a new generation.

Sorry to ask, but...

We cannot help butterflies and moths without funding, and government input in the foreseeable future looks unlikely, given the huge bill from the pandemic. So if you can help us with a donation and/or leave us something in your will, that would be hugely appreciated.

There is a "donate" button on the website, which takes you to a page on the Butterfly Conservation HQ website, though the money will come to Dorset Branch.

You can send the money from your online bank account to sort code 60-22-45, account 72032332, but you need to let either our Treasurer Georgie Laing (see page 39) or HQ know the money is for Dorset Branch or it will go into HQ funds.

If you wish to send a cheque, please post to Mrs G Laing, 6 Clarence Road, Weymouth, DT4 9EE.

Thank you for helping us to help butterflies and moths.

White Holes progress

s part of a national scheme, we count butterflies in five-year cycles. They are recorded by the kilometre square within which they are seen, and Dorset has 2,915 squares (roughly it becomes very difficult to judge whether ones that are partly in and partly out of the county ought to be included!)

At the end of each five-year period, the map is wiped clean and the results for the period are analysed nationally, leading to a new "State of UK's Butterflies Report publication. Reports published in 2001, 2007, 2011 and 2015 can be seen at www.butterfly-conservation.org.

Dorset did very well in the last five-year cycle of 2015-2019, recording at least one butterfly in 2,613 squares: nearly 90% of the total.

We are very pleased with the start we (you!) have made to the 2020-2024 period, with butterflies recorded in 1,588 squares (54%). We need to keep going, however: these records are essential to help us understand how our butterflies are doing and how to help them.

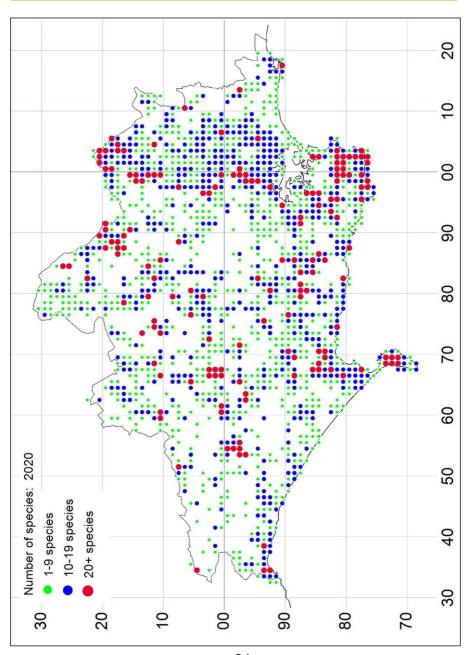
There are various ways to approach recording: either just note any species you see, or join in with more formal schemes such as Garden Recording, the Wider Countryside Scheme, or Transect Walks: see our website recording page and "Become a Recorder" for full information.

When it comes to sending us your results you also have a choice:

Use our **website** www.dorsetbutterflies.com. The quickest way to the recording form is via the home page: look in the right-hand column for "Report a sighting"

Use iRecord Butterflies, a free app which you can put on your

White Holes progress



White Holes progress

phone and use when you are out and about: it's free from Google Play or iTunes. All records submitted to iRecord Butterflies are verified by our team in the Dorset Branch, and will be added to our records at the end of each season.

Use the national schemes **iRecord** or **LivingRecord** - we will pick the records up from these schemes. They allow you to record all sorts of insects and animals, not just butterflies and moths.

If you want to use a **spreadsheet** on your computer, we can provide a template for you to fill in if you do a lot of recording (contact Robin George); if you only collect a few records you can use your own spreadsheet (or a Word table), listing Recorder Name, Date, Grid Reference, Site Name, Species and Number Seen.

Digitised recording of some type helps us a lot by saving us time, but if you need to use good old **pen and paper**, we still welcome your records and you can help by sending them in periodically, not waiting until the end of the season.

Please note that the White Holes map on the website is not updated in real time: this is beyond our resources. The map is updated each month with the website sightings submitted the previous month. Records from other sources such as transect walks and iRecord are added at the end of the butterfly year.

If you send in a record for an unusual butterfly (an unusual species, or one out at the "wrong" time or in an odd place) please send us at least one photo (several are better). You can make a note on the form where you enter the record and send your photos to enquiries@dorsetbutterflies.com, saying you have sent in your record.

Website Hints

e hope you have found the information in this report interesting, but within 40 pages, we are limited in what we can include, and a visit to our website www.dorsetbutterflies.com will show you a lot more.

Even on the website we cannot put everything at the top of the page. If you go to the "Species" section, you will see links to a page per species for detailed information, but it is also worth scrolling to the foot of the page. Here, under "More resources" you will find:

- Some general advice on butterfly identification, which suggests all the questions to ask yourself when trying to identify a butterfly.
- A size guide for all Dorset species. listing them by wingspan and breaking them down into small, medium and large to tie in with the descriptions on the individual species pages.
- A flight times chart specific to Dorset. This uses data recorded between 2013 and 2017 and so is not only local but more up to date than many such charts you will find in books.
- A list of whether the various Dorset species overwinter as an adult butterfly, an egg, caterpillar or chrysalis.

Browse the Recording page for more information. Here you will find links to the pages of the website with both up-to-date information and historical data. The website archive goes back to 2014 and shows you both an annual summary and information for each individual month. From here, go to the "First sightings" page and you will find the first date each species was first reported to the website from 2014 to date.

Finally, don't omit clicking from the Recording page to the Butterfly Atlases, where there is a lot of analysis of how each species has fared over various time periods.

Photo on back cover: Ringlet by John Woodruff

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