

## Adastra report 2021

January was the coldest for 10 years and far too cold to entice butterflies out of their winter hibernation. Perhaps it was inadvertently disturbed, or stirred during a brief period of relative warmth, but there was one butterfly record or just woke up, there was a Red Admiral in a Worthing garden, on the 24<sup>th</sup>. Most of February was either wet and windy, or very foggy, and these adverse conditions limited sightings to a Peacock on the 5<sup>th</sup>, and a Brimstone and a Speckled Wood on the 20<sup>th</sup>. Southerly winds in the last few days of February increased daytime temperatures to the high teens, and even encouraged thoughts of an early spring. The wind direction changed on February 26<sup>th</sup> and with very warm air drifting in from the south. There was a dramatic change in the last few days of February when southerly winds brought in very warm air encouraged thoughts of an early spring and there were sightings of all five over-wintering species: Brimstone, Red Admiral, Small Tortoiseshell, Peacock and Comma. As welcome as these sightings were, the stand-out record in late February was a Large Tortoiseshell, which was seen in Brighton on the 28<sup>th</sup>. Was this a fresh migrant from northern France, or had this butterfly over-wintered? The same conundrum applied to very early sightings of Humming-bird Hawk-moth, at Eastbourne, Lewes, and Horsham on the 26<sup>th</sup> and North Lancing on the 27<sup>th</sup>.

Any notions of an early spring soon vanished in early March, as the wind direction switched 180 degrees, bringing bitterly cold air from the Arctic. From a giddy ten degrees Celsius above the norm, in late February, daytime temperatures fell precipitously and were generally five degrees colder than the seasonal average, and it remained that way for most of the month. Despite the unfavourable, cool weather there were some notable records, with 18 male Brimstones at Stansted Forest on the 19<sup>th</sup>, another Large Tortoiseshell at Rowland Wood on the 21<sup>st</sup>, further singles of Humming-bird Hawk-moth at Brighton on the 20<sup>th</sup>, and Chichester on the 25<sup>th</sup>, a Painted Lady at Ifield, Crawley on the 29<sup>th</sup>, and to end the month, 50 Peacocks at Lancing Ring/Steep Down and 27 Peacocks at Mill Hill, on the 30<sup>th</sup>.

There was plenty of sunshine in April, but daytime temperatures were 4-5 degrees lower than the seasonal norm and it was also the frostiest April, for at least 60 years. It was also one of the driest Aprils on record, and the flush of green vegetation that we usually see in April, didn't happen. Despite the vagaries of the British weather there were some interesting records with a Green Hairstreak recorded at Kingston nr Lewes on April 1<sup>st</sup> and a Grizzled Skipper at Mill Hill on April 11<sup>th</sup> (both "national firsts"). One of the best locations in Sussex to see spring species, in substantial numbers, is North Stoke/Burpham meadows and this area delivered the first county "100+ butterflies seen in a day" on the 20<sup>th</sup>, as follows: Brimstone (40+), Orange-tip (35), Peacock (30), Green-veined White (8), Large White (1) and Small White (1). There was yet another Large Tortoiseshell record to whet the appetite, when a male was seen at Friston Forest, on the 24<sup>th</sup>. Might we have breeding Large Tortoiseshells, in Sussex, this year?

The cold weather continued into May but now it was also very wet, with many parts of Sussex recording more than twice the average rainfall. There was some relief from this cold, wet weather on May 7<sup>th</sup>, when one member was "tripping over butterflies at Mill Hill" and duly recorded 14 species. May 12<sup>th</sup> was another fine day and there was a good variety at Lancing Ring/Steep Down where 17 species were found, and also at Mill Hill where there were 16 species. Butterfly enthusiasts do enjoy a Painted Lady invasion, and in 2021 there was a significant influx of these lovely butterflies between May 9<sup>th</sup> and May 12<sup>th</sup>. Large numbers were seen at several locations, as follows: 40 at Abbot's Wood, 25 at Castle Hill, 24 at Lancing Ring/Steep Down, 23+ in the Friston Forest area, 20+ at Lullington Heath, 20+ at Kithurst Meadow, 20+ nr Binsted, 15 at Lancing Ring, 13 at Wolstonbury Hill and 10+ at Mill Hill. Overall, the month of May was cold, wet, and very forgettable but then there was a dramatic change on the 27<sup>th</sup>, and we had some sunny, warm, spring days.

On June 1<sup>st</sup>, and in blazing sunshine, Lindsay Morris recorded 20 butterfly species in-and-around Lancing Ring and Steep Down: with Wall, Common Blue, Small Heath, and Holly Blue the most numerous species. There was some further welcome news on June 2<sup>nd</sup> and June 3<sup>rd</sup> when two Duke-of-Burgundy colonies (on the Storrington-Amberley Downs) were surveyed, and there were nationally-significant counts of 34 and 31, with many of the individuals freshly-emerged (some 2-3 weeks later than usual). Another iconic downland species, the Small Blue, was also having a good season, and between the 7<sup>th</sup> and 14<sup>th</sup> there was a count of 100+ at one location (when 25-30 was more usual), and 50+ counts at three other locations. Many BC members visit Kithurst Meadow for easy viewing of this beautiful butterfly, and they were not disappointed with 30+ to admire and photograph. Five species of blue butterflies were recorded at Lancing Ring and Steep Down on the 8<sup>th</sup>, as follows: 29 Adonis Blue, 127 Common Blue, 35 Holly Blue, 3 Small Blue and 2 Brown Argus, of which the Holly Blue count of 35, was especially noteworthy. After several dire years, Small Tortoiseshell had a slightly better season with several good counts between the 20<sup>th</sup> and 24<sup>th</sup>, as follows: 30 nectaring on Corn Marigold at Storrington, 20 nectaring on Catmint at Midhurst, 20 at Arlington reservoir, 8 at Herstmonceux Castle gardens, 6 on the western embankment of the River Adur, and several more recorded at Ditchling Common, Lancing Ring and Kingston Gorse. On another positive note, the Silver-studded Blue colony at Iping Common had a satisfactory year with daily totals in the region of 50-100. Unfortunately, the same could not be said of the fledgling colony of Small Pearl-bordered Fritillaries at Rowland Wood and Park Corner Heath, where the highest daily count was just six, a worryingly low number.

Early July was largely dominated by reports of Dark Green Fritillaries, with 37 at Lullington Heath and good numbers seen at Horseshoe Plantation, on the 1<sup>st</sup>. The following day there were 71 fritillaries at Chantry Hill (70 of them males) and whilst numbers in the Wilmington Hill and Deep Dean area were lower than expected, there was more than adequate compensation for Bob Eade when he found a stunning aberrant, *ab. cadmeis* Lemp. DGF numbers continued to increase, and on the 7<sup>th</sup>, there were around 60 in the countryside between Lullington Heath and the Long Man of Wilmington, and approximately 40 at Friston Gallops on the following day. A limited survey of Chantry Hill on the 9<sup>th</sup> produced a count of 184 (with an estimated total for the entire site of 200+), and at Castle Hill, many 100s were seen on the 14<sup>th</sup>. Other highlights in early July included 8 Small Tortoiseshells at Barcombe and 6 Silver-studded Blues at Ashdown Forest, on the 5<sup>th</sup>; a male Long-tailed Blue in a garden in Felpham, and 9 Small Tortoiseshells at Goring Gap, on the 8<sup>th</sup>; 8 White-letter Hairstreaks in the Meads area, Eastbourne, on the 11<sup>th</sup>; 2 Silver-spotted Skippers (a national first) at High and Over, and the first significant influx of Clouded Yellows on the 13<sup>th</sup>; and around a dozen White-letter Hairstreaks at Hollingbury Park, Brighton, on the 14<sup>th</sup>.

In the second half of July there were approximately 20 Dark Green Fritillaries at Cissbury Ring on the 15<sup>th</sup>, with many also seen at Blackcap and Ashcombe Bottom the following day. Purple Emperor aficionados were often thwarted by this magnificent butterfly in 2021, but at Knepp there was a creditable peak daily count of 79 on the 16<sup>th</sup> (Neil Hulme). On downland, south of Berwick there were 40 Painted ladies on the 17<sup>th</sup> and on the same day 26 butterfly species were recorded in the Lancing Ring area, by Lindsay Morris (his personal record for that location). A large Tortoiseshell was sunning itself on an Oak tree at Markstakes Common on the 19<sup>th</sup> and on the 22<sup>nd</sup> there were 5 skipper species in the Cissbury Ring/Lancing Ring area: Large Skipper, Small Skipper, Essex Skipper, Silver-spotted Skipper, and a freshly-emerged, second-brood Dingy Skipper. In woods near Goodwood Racecourse, there were 28 Silver-washed Fritillaries on the 22<sup>nd</sup>, and on the 24<sup>th</sup> there was a remarkable record of a garden female Small Blue, at Felpham, some 10 km from the nearest known colony. There were 34 Graylings (mainly males) at Deep Dean on the 24<sup>th</sup> and "huge numbers" of Meadow Browns and Gatekeepers at Mill Hill, on the 26<sup>th</sup>. Chalk Hill Blues had an

exceptional year and at the end of July there were 1000s across the two valleys of Ewe Dean and Deep Dean, with 1000s more at Castle Hill.

The Chalk Hill Blue fest continued into August with 1000s seen between Butchershole and the Gallops, and another beautiful aberrant (*ab. semisyngrapha*) was found by Bob Eade. On August 1<sup>st</sup> there was a Large Tortoiseshell in a garden at Clayton, and a Valezina Silver-washed Fritillary in the Washington area. There were 22 species at Deep Dean, on the 4<sup>th</sup>, including 16 Graylings, 55 Silver-spotted Skippers, 19 Walls, 2 second-brood Dingy Skippers and a fly-over White Admiral. On August 10<sup>th</sup> there were 22 species at Lancing Ring and Steep Down, including 47 Red Admirals, 32 Walls, 17 Peacocks, 13 Painted Ladies, 13 Speckled Woods, and 7 Small Tortoiseshells; 20 species at Chanctonbury Ring, including 20 Brimstones, 13 Red Admirals and 4 Small Tortoiseshells; 17 species at Deep Dean, including a fantastic 48 Graylings (Patrick Moore); and 6 Clouded Yellows on the cliffs at Saltdean. On August 12<sup>th</sup>, Bob Eade went on his usual four-mile circuit from High and Over to Greenbank, returning along Cradle Valley, and in doing so broke his all-time record for second-brood Walls with a count of 119! On the same day Lindsay Morris walked from Devil's Dyke to Pyecombe, via a circuit of Newtimber Hill, and recorded a remarkable 27 butterfly species! Away from downland, there was a very welcome mass emergence of 40-50 Small Tortoiseshells at Herstmonceux Castle gardens on the 15<sup>th</sup>. A Long-tailed Blue was seen at Seaford on the 18<sup>th</sup> and there was a male Small Blue in a Rusper garden on the 19<sup>th</sup>, (a very long way from the nearest known colony). Also, on the 19<sup>th</sup> there were two Brown Hairstreaks egg-laying at Steyning Rifle Range and 20 Painted ladies at Mill Hill. In a West Worthing garden there were two Brown Hairstreaks seen in quick succession, with one egg-laying on a flowering Cherry tree, raising the possibility that a colony of Brown Hairstreaks might be largely dependent on this garden hybrid. At Mill Hill on the 23<sup>rd</sup> there were 20 species, including significant numbers of fresh male Adonis Blues. At Malling Down on the 25<sup>th</sup> there 16 species in total, with large numbers of both Meadow Browns and Gatekeepers, 30 each of Adonis Blue and Silver-spotted Skippers, and about 6 each of Red Admirals and Small Tortoiseshells. Towards the end of the month there was a flurry of Brown Hairstreak activity with 3 females at Burgess Hill, at least 5 at Steyning Rifle Range and 3 at Ifield Brook Meadow. In the last week of August, Anchor Bottom was the place to visit with male Adonis Blues creating a "carpet of blue", with 739 recorded on the 24<sup>th</sup> and a staggering 3,350 on the 29<sup>th</sup> (Jonathan Crawford).

On September 1<sup>st</sup> there were 17 species at Cissbury Ring and on the following day, there was a count of 43 Speckled Woods in St Leonards Forest, Horsham, which was very welcome, as this species appeared to be rather scarce for most of the year. On September 3<sup>rd</sup> there were 16 butterfly species in a North Lancing garden, and in Bracklesham there was a garden sighting of a Brown Hairstreak, which was at least 10km from the nearest known colony and the first-ever record for the Selsey Peninsula. There were 4 Clouded Yellow at Pett level on the 6<sup>th</sup> and another 9 Clouded Yellows between Seaford and Cuckmere Haven on the following day. The cold NE winds of late August had switched to warm, southerly winds and there were large numbers of fresh immigrants of Small and Large White, as well as a few Clouded Yellows. There was a "Speckled Wood bonanza" in St Leonards Forest, Horsham on the 13<sup>th</sup> with a count of 78, and on the same day there were 20 Red Admirals in a garden in Crawley Down and 6 fresh Clouded Yellows on the seafront at Lancing. On September 16<sup>th</sup>, "a walk from North Lancing to Cissbury via Steep Down and then down to Worthing east of the golf courses was dawdled in wonderful sunshine", with the following recorded: "74 Meadow Brown, 70 Small Heath, 61 Small White, 38 Speckled Wood, 19 Red Admiral, 16 Small Copper, 14 Adonis Blue, 14 Common Blue, 12 Brown Argus, 5 Comma, 4 Clouded Yellow, 4 Brimstone, 2 Holly Blue, 2 Green-veined White, Chalk Hill Blue, Peacock, Painted Lady, Large White" (Lindsay Morris). Several Gatekeepers were recorded in September, including one nectaring on *Verbena Bonariensis* in a Seaford garden on the 22<sup>nd</sup> (which is a very late record). The first of the third-brood Wall Browns was seen at Seaford Head on September 13<sup>th</sup> and at High and Over there was a peak autumn count of

around a dozen. The final notable record for September was on the 24<sup>th</sup> when 30+ Clouded Yellows were seen at Ouse Estuary Nature Reserve.

In October there were 14 butterfly species recorded in Sussex, with the main surprise the absence of any records of Long-tailed Blue. Red Admiral was probably the commonest species reported, with 39 at Lancing Ring on the 4<sup>th</sup>, 36 along the promenade at Lancing and the banks of the River Adur on the 6<sup>th</sup>, 12 at Thorney and Pilsey Islands on the 9<sup>th</sup>, 19 at Lancing Ring chalk pit on the 12<sup>th</sup>, 24 in the Lullington Heath area on the 13<sup>th</sup>, and on the same day, around 20 in the Friston area. Otherwise, there were late records for Small Heath near Berwick on the 6<sup>th</sup> and Wall Brown at Cradle Valley on the 21<sup>st</sup>.

In November there were 8 butterfly species recorded. At Cissbury Ring there was an unusual record of a Clouded Yellow laying eggs on Birdsfoot Trefoil on the 2<sup>nd</sup>. At Newhaven a few Red Admirals were seen coming in off the sea on the 3<sup>rd</sup>. In the autumn, most Red Admirals leave the UK and migrate south, and it seems strange and somewhat counter-intuitive that in November, a few are still heading north against the general flow. In North Lancing, on the 9<sup>th</sup>, there was a very fresh male and female Holly Blue, and these two were briefly joined by a third. Another third-brood Holly Blue was seen at Southwick Harbour on the 13<sup>th</sup>. In the Lancing area on the 16<sup>th</sup> there were 14 Red Admirals, 3 Holly Blues, a Painted Lady, and a Speckled Wood. On the 23<sup>rd</sup> there were 3 Red Admirals, 2 Speckled Woods and 2 Holly Blues at North Lancing and 3 Speckled Woods at Crawley. On the 25<sup>th</sup> there was a Speckled Wood at the same Crawley hot-spot and a faded Small Tortoiseshell at Rye Harbour.

In December there were 5 butterfly species recorded: Speckled Wood, Holly Blue, Red Admiral, Peacock and Brimstone. The Speckled Wood and 2 female Holly Blues were seen in North Lancing on the 1<sup>st</sup>. The average last sighting for Speckled Wood in the 2010-2014 county survey was November 7<sup>th</sup>, and so December 1<sup>st</sup> is a very late date. The latest-ever Sussex record for Holly Blue was posted last year on November 28<sup>th</sup> and there has never been a December record, until now. It means that Holly Blue is now a member of a very select group of butterfly species that has been recorded in every month of the year.

The narrative above is a brief synopsis of the butterfly records in 2021. Reflecting on the butterfly season as a whole, how did it compare to recent years? Well, it was a curious year in many respects, for the first half of the season was generally poor, but the second half was, occasionally, quite spectacular. A cool, dry March, a very cold, very dry April and a cold and very wet May had a profoundly negative impact on most of the spring/early summer butterfly species. Emergence for most species was delayed by around 10-14 days, and sometimes as much as 21 days. With just a couple of exceptions, those species that usually emerge in April and May fared badly. Orange-tip, Green-veined White, Small Copper, Common Blue, Green Hairstreak, Pearl-bordered Fritillary and Small Pearl-bordered Fritillary were amongst the many species that struggled in 2021. Two downland species that appeared to be unaffected by the cold spring, were Duke of Burgundy and Small Blue. They simply delayed their emergence by around three weeks, until there was warmer weather. Downland is often cold, windy, and bleak and any species that routinely copes with these adverse weather conditions must have evolved survival strategies, including delayed emergence.

A combination of Covid restrictions and a non-functioning Sussex BC website (from April to early July)

Large Tortoiseshell did breed in 2021, which is the first proven-breeding in Sussex since 1948. To avoid unnecessary disturbance, those monitoring this year's attempt(s) have kept locations secret but have released the following comments: *"By way of an update on the Large Tortoiseshell in*

*Sussex, the discovery of a larval web at a secret location on the 13<sup>th</sup> of June has been followed by the sighting of a single diminutive and somewhat damaged male at this same site on the 1st July. Despite further repeat visits no further observations of additional specimens have been noted here, although the same individual was spotted again on the 5th of July. In both instances it was feeding on thistle (Creeping and Welshed)". "A further probable breeding site was found just over two miles away from the first location where two adult butterflies were located high among trees and scrub on the 18th of July. In the absence of Elm, the likely food-plant here is Wild Cherry". "In summary the butterfly has bred in Sussex this year and produced offspring".*

Some species in the second half of the season did well, or very well, as for example Dark Green Fritillary, second-brood Wall Brown, Chalk Hill Blue, and Adonis Blue. As a result of the heavy rainfall in May the downland meadows were very lush and verdant and wildflowers such as Horseshoe Vetch flourished, as did the caterpillars that fed on their leaves, which resulted in Chalk Hill Blues and Adonis Blues, flying in their thousands. A pleasing note on which to finish this report.

Martin Kalaher

