

State of Surrey Butterflies in 2015

The weather for 2015 was characterised by a typical Spring, a little drier than normal, which resulted in those butterflies that overwinter as pupae emerging at a similar time as for 2014. The summer was cooler and wetter than normal (especially at the beginning of August), and this resulted in those butterflies that overwinter as ova typically emerging later than 2014. The weather improved in September and October, but by then butterfly numbers were decidedly down.

Numbers of adults is based on records received, with no variation in recording effort taken into account. This should not be confused with abundance trends from formal analysis of transect data. However, it does give a rough indication of how each species is faring.

Papilionidae – The Swallowtails

There were no sightings of the **Continental Swallowtail** in 2015.

Hesperiidae – The skippers

Dingy Skipper from 16th April to 2nd July, and singletons from a partial second brood at four sites between 31st July and 17th August. Peak numbers during May. Numbers similar to 2014.

Grizzled Skipper from 15th April to 24th June, with numbers similar to last few years, and only seen in small numbers. Peak flight period 21st April to 30th May, about 4 days later than 2014.

Essex Skipper from 25th June to 19th August, with a singleton on 29th August. Numbers slightly better than 2014. However, true state is hidden as most records still don't distinguish between Small and Essex Skipper.

Small Skipper from 16th June to 21st August. Numbers similar to 2014.

Silver-spotted Skipper an early sighting on 14th July, with main flight period from 25th July and throughout August, with a few stragglers until 15th September. Numbers above last eleven years, below bumper year of 2003. Peak flight period commencing about 12 days later than 2014 and shorter by 2 weeks than 2014.

Large Skipper an early sighting on 17th May, rest from 30th May to 28th August. Numbers similar to 2014.

Pieridea – The Whites & Yellows

Wood White small first brood from 4th May to 17th June, and a bigger second brood 6th July to 28th August. The best year since 2011, although still below the numbers recorded in 2003-4. First Brood peak flight period about 15 days later than 2014.

Orange-tip from 6th April to mid-June with a few stragglers to 6th July. Fewer recorded than 2014 but better than 2012-13. Peak flight period last two weeks in April similar to 2014, despite a later first appearance.

Large White from 7th April to 11th October, with peak numbers seen between July and August. Numbers above average and improved from 2014, but still below the large numbers in 2013.

Small White from 6th April to 11th October, with an early sighting on 4th March, and a late sighting on 12th November. Numbers average and improved from 2014, but still below the large numbers in 2013.

Green-veined White from 6th April to 29th September, with peak numbers on 26th June and during the first three weeks of August. Numbers slightly below 2014.

Clouded Yellow numbers were low in 2015 with only 21 recorded, compared with 128 in 2014 and 276 in 2013. First seen on 13th May, and last hanging until 26th October suggesting local breeding.

Brimstone was first seen on 25th February. The 2015 brood emerged in mid-July, and by September most were entering hibernation, while a few were seen as late as 28th December. The majority of the records from the North Downs, and the least records from the Weald Clay, probably reflecting under-recording. Another good year, with numbers well above the long term average, and slightly up on 2014.

Nymphalidae – The Browns, Fritillaries & Aristocrats

Speckled Wood from 5th April to 27th October. Numbers about average, a little lower than 2014.

Small Heath from 22nd April to 11th October with a later sighting on 27th October. Numbers slightly better than 2014, but still below 2011-13 numbers.

Ringlet first recorded on 28th May, and elsewhere from 10th June to 29th August, with greatest numbers between 24th June and 20th July. Another great year, slightly down on 2014, but well above the long term average.

Meadow Brown from 1st June to 2nd November, although main flight period was over by 11th October. Numbers still improving since the low of 2010.

Gatekeeper or Hedge Brown from 23rd June to 19th September, with peak numbers between mid-July to mid-August. Best year since 1996.

Marbled White from 3rd June to 16th August, with a couple stragglers lasting until 28th August. Another bumper year, well above the long term average.

Grayling from 6th July to 17th September. Peak flight period from mid-July to early August. Numbers better than 2014, but still below the bumper year of 2006.

Silver-washed Fritillary an early female on 19th June, rest from 24th June to 20th September. Another bumper year, improving on 2014 and 2006 numbers.

Dark Green Fritillaries from 17th June to 22nd August, generally small numbers everywhere, except at Newlands Corner where peak numbers of 30 were seen between 26 June and 10 July. An unexpected sighting in Castle Green Chobham, backed up by a photograph, well away from known populations. Overall numbers slightly below 2013 and 2014, which are still well above numbers for previous years.

White Admiral from 19th June to 8th August. Numbers slightly above the previous two years.

Purple Emperor from 29th June to 1st August. Numbers recorded were typical for the year at 72, below the bumper year of 2013 - 181 and above the lows of 2012 - 13. A butterfly that needs to be properly monitored to understand any changes in abundance.

Red Admiral welcomed in the New Year in Guildford, and there were sightings for every month of the year, with the last on 23rd December. Peak sightings (max. 10) in March and June through to August. Good numbers recorded, slightly lower than 2014.

Painted Lady was the best year since the last large migration in 2009. One attempting to over-winter was recorded on 13th January, but would not have survived the frosts. The first migrant on 27th April, with the main migration arriving on 11th May. Second generation from mid-July onwards. The last of

the season on 26th September. Numbers compared with previous years 2009 – 4045, 2013 – 372, 2014 – 234 and 2015 – 596. Not quite the large migration as was predicted at the beginning of the year.

Peacock a few were seen as early as 9th February and onwards, with the main emergence occurring from 27th March. Peak hibernators seen from 7th April to 24th May, and new brood between 20th July and 5th August. All had entered hibernation by 8th October, and one recorded on 18th December. Numbers slightly down on 2014 and the peak in 2013m but still well above the long term average.

Small Tortoiseshell early sightings on 9th and 17th February; main flight period 4th March to 30th September, with a late sighting on 28th October. Peak numbers seen 7th, 14th, 18th April, 17th June and 5th, 22nd July. Numbers down from 2014, but still significantly above the lows of 2005-12.

Comma was first seen on 7th March and last on 27th October, with numbers declining in mid-June before picking up in late June. A Comma was found indoors on 31st December. Good numbers similar to 2014.

Glanville Fritillary larvae were found at Hutchinson Bank on 27th April, with the first Adults emerging on 17th May and flying until 11th June. Up to 14 were seen at Wrecclesham on 7th and 11th June contradicting premature reports last year of their demise at the site. Best year so far.

Lycaenidae – The Coppers, Hairstreaks & Blues

Small Copper an early sighting on 14th April, rest from 30th April to 27th October. There were at least three overlapping generations, the first April to May, the second July to August, and the third September to October. Numbers lower than previous thirteen years, but still significantly better than 2000-02.

Brown Hairstreak flying from 29th July to 11th October. A huge effort from a few people carrying out egg surveys during the winter 2015/16 has changed the distribution map for the species, although still much needs to be done. The first transects for Brown Hairstreak have been set up so numbers can be monitored in future years.

Purple Hairstreak seems to be doing badly over the last four years, with numbers recorded a fraction of the numbers recorded back in 2008. However, this is another butterfly that is currently not properly monitored. Flight period from 24th June to 21st August.

Green Hairstreak from 15th April to 4th July. Total number recorded, slightly down on 2014, but still well above the lows of 2012-13. Except for 2012, peak numbers below 2010-14. Peak flight period 13 May, compared with 3-18 May for 2014.

White-letter Hairstreak from 26th June to 8th August, a slightly better year, but still only 38 recorded in 2015, and below the numbers recorded 2007-10.

Long-tailed Blue no sightings were reported despite a notable influx into southern counties.

Small Blue from 13th May to 23rd August, with one extraordinary confirmed late sighting on 27th September, which presumably represents a speculative third brood. Average numbers recorded, slightly down on 2014.

Holly Blue from 6th April to 29th September, with the second brood starting in the last week of June. There was an unusually late sighting on 25th October from a third brood. First brood peak numbers from 21st April to 24 May compared with just 18th April in 2014. A surprisingly great year, with approximately 3.5 times more recorded in 2015 than 2014, and well above previous peaks in 2004 and 2011.

Silver-studded Blue from 6th June to 8th August. Despite the loss of a colony at Ash Ranges due to arson in April, numbers seemed to better than 2014, but still well below the bumper year of 2010. Peak flight period 16th June to 25th July, about 7 days later than 2014, and about 8 days earlier than 2013.

Brown Argus 7th May to 23rd September, with peak numbers seen in August to early September. No records were received for Mitcham Common. Numbers still improving since the lows of 2012.

Common Blue an early sighting on 10th April, rest 18th April to 25th September, although the first generation didn't really kick-off until mid-May. Numbers still improving since the lows of 2012.

Adonis Blue was not recorded at Hackhurst or Newlands Corner, and reduced distribution at Box Hill. First brood 9th May to 24th June with peak flight period 10 days later than 2014, a larger second brood than 2014 flying 2nd August to 25th September. Numbers still improving since the lows of 2012, but still well below the bumper years of 2003-06 and 2010.

Chalk Hill Blue from 4th July to 30th September, with large numbers (100+) seen at Denbies Hillside and Pewley Down, during the first two weeks of August. Numbers better than 2014, but still well below the huge numbers seen in 2013. Peak flight period starting about 13 days later than 2014.

Acknowledgments

Thank you to everyone who submitted records during 2015, with a record-breaking number of records. This report would not have been possible without the dedication and hard work of all those people who recorded their sightings and sent them into one of the recording schemes. Verified records were received from the following recording schemes:

| Survey | Records | Monads | Recorders |
|------------------------------------|---------------|--------------|--------------|
| Big Butterfly Count | 8,838 | 803 | 1,237 |
| Branch website sightings | 96 | 66 | 51 |
| Brown Hairstreak transect | 14 | 14 | 2 |
| Butterflies for the New Millennium | 5,282 | 361 | 64 |
| iRecord Butterfly App | 1,488 | 264 | 117 |
| iRecord general data | 1,622 | 178 | 51 |
| iRecord Multi-site | 57 | 15 | 6 |
| Migrant Watch – Painted Lady | 96 | 80 | 74 |
| UK Butterfly Monitoring Scheme | 29,633 | 149 | 103 |
| Wider Countryside Butterfly Scheme | 394 | 28 | 21 |
| TOTAL | 47,520 | 1,162 | 1,559 |

The Big Butterfly Count records provide a valuable addition to the dataset, and hopefully some recorders can be encouraged to submit records throughout the year. Details on how to submit your records on the Branch website.

The importance of occurrence data (distribution data) has been shown in recent scientific papers, and was the basis of the State of Butterfly Report 2015 (for the period 2010-14). The records have proved invaluable in the revision of the Regional Action Plan identifying changes in distribution over the years, and hence which butterflies are in greatest need of conservation.

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