

Butterfly Conservation

Saving butterflies, moths and our environment

Garden Butterfly Survey 2019 results summary

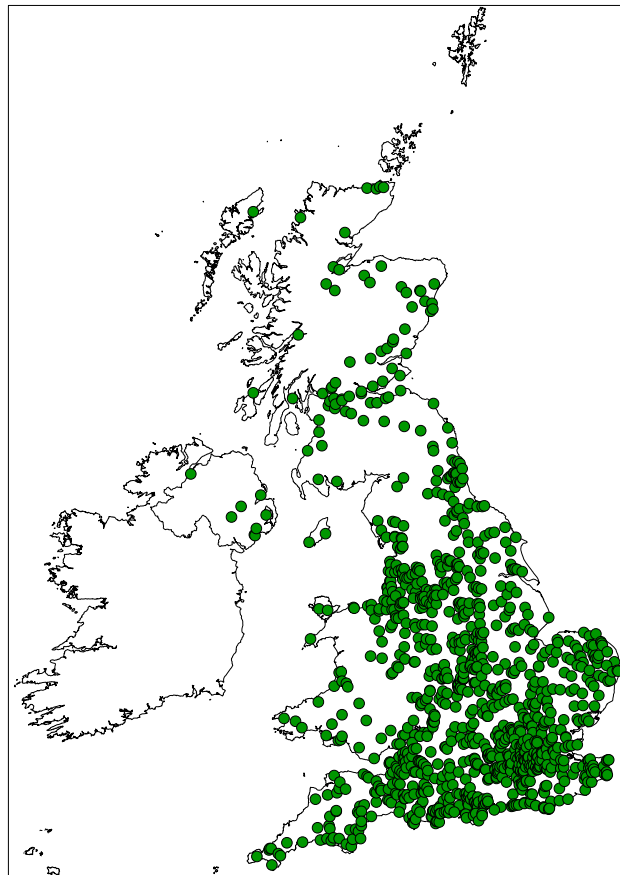
2019 was a good year across the countryside for many butterfly species (as shown by the UK Butterfly Monitoring Scheme) and the Garden Butterfly Survey results show that this was generally reflected in the nation's gardens too.

Participation

The fourth year of the Garden Butterfly Survey saw a small increase in participation, with 1,110 gardens taking part compared to 1,053 in 2018. The total number of sightings (records) submitted went up by a much greater extent, thanks to the generally higher numbers of butterflies around. Overall, nearly 85,000 sightings were logged through the GBS website in 2019, a 19% increase on 2018. The map below shows the location of all gardens contributing GBS records in 2019.

The intensity of recording also improved on the previous year. 45% of gardens reported butterfly sightings in at least six months of the year. Recording throughout the year is a vital part of GBS, which aims to determine how butterflies are faring in UK gardens.

Participants were quick off the mark with three sightings (two of Red Admiral and one of Peacock) on New Year's Day 2019 and records built up rapidly from February onwards. The summer was good in many parts of the UK, but without a repeat of the long heatwave and drought of summer 2018, and after a relatively cold autumn, the year finished with a mild December. The final GBS sightings of 2019 were made on 30 December, one each of Red Admiral, Small Tortoiseshell and Peacock.



Many thanks to everyone who took part in GBS 2019. We are really grateful!

Species results

Despite the larger number of records submitted in 2019, participants actually saw slightly fewer species than in the previous year. The average (mean) number of species seen per garden was 9.82 in 2019 compared to 10.09 in 2018.

The table below shows the results for the most commonly recorded species, ranked by the proportion of gardens they were recorded in during 2019. Red Admiral regained the top spot (which was taken by Small White in 2018), being recorded in more gardens than any other species. It was recorded in 10% more participating gardens than in the previous year, as was the Peacock. The biggest change, however, was for Painted Lady, which was recorded from an amazing 67% of gardens. All three showed very large increases in the total number counted too. The greatest losers were the Large White, Small White and Green-veined White, which were all spotted in about 10% fewer gardens in 2019. Despite this, the Small White remained the most abundant butterfly recorded during the year.

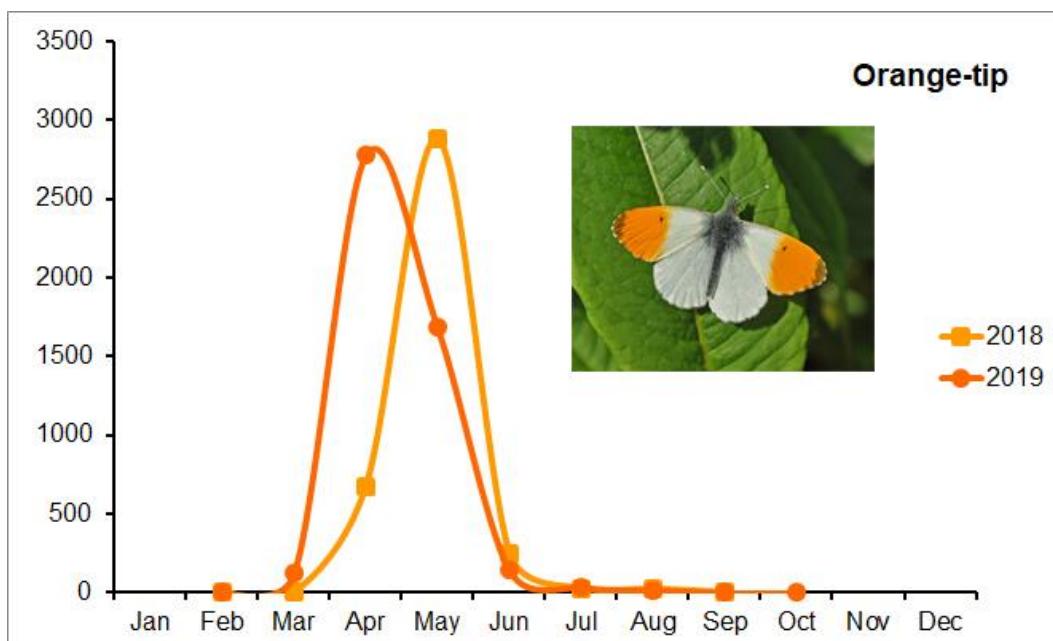
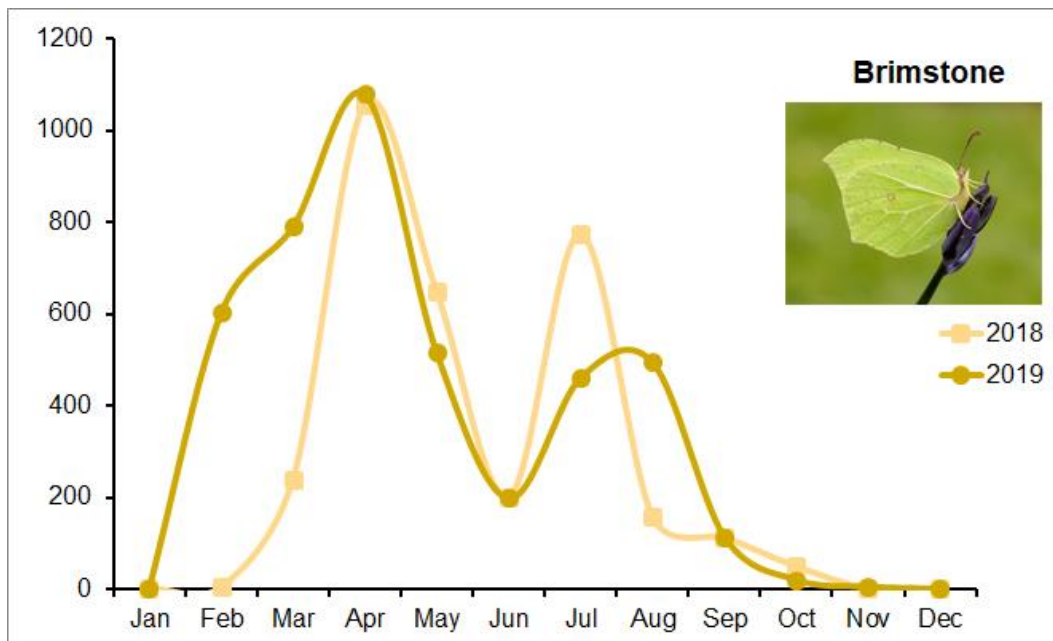
Species	Total count 2019	% Gardens 2019	% Gardens 2018
Red Admiral	18,617	73%	63%
Peacock	14,946	72%	62%
Small White	28,135	71%	80%
Painted Lady	17,898	67%	40%
Large White	15,275	66%	76%
Small Tortoiseshell	11,279	61%	59%
Holly Blue	8,161	58%	63%
Comma	4,950	57%	62%
Orange-tip	4,788	56%	56%
Brimstone	4,275	54%	49%
Speckled Wood	5,761	51%	57%
Gatekeeper	10,553	50%	50%
Meadow Brown	13,131	48%	53%
Green-veined White	4,033	39%	49%
Ringlet	3,019	31%	33%
Common Blue	1,539	24%	31%
Small Copper	850	20%	25%
Small Skipper	1,201	18%	21%
Large Skipper	951	12%	16%
Marbled White	928	12%	10%

The garden butterfly year 2019

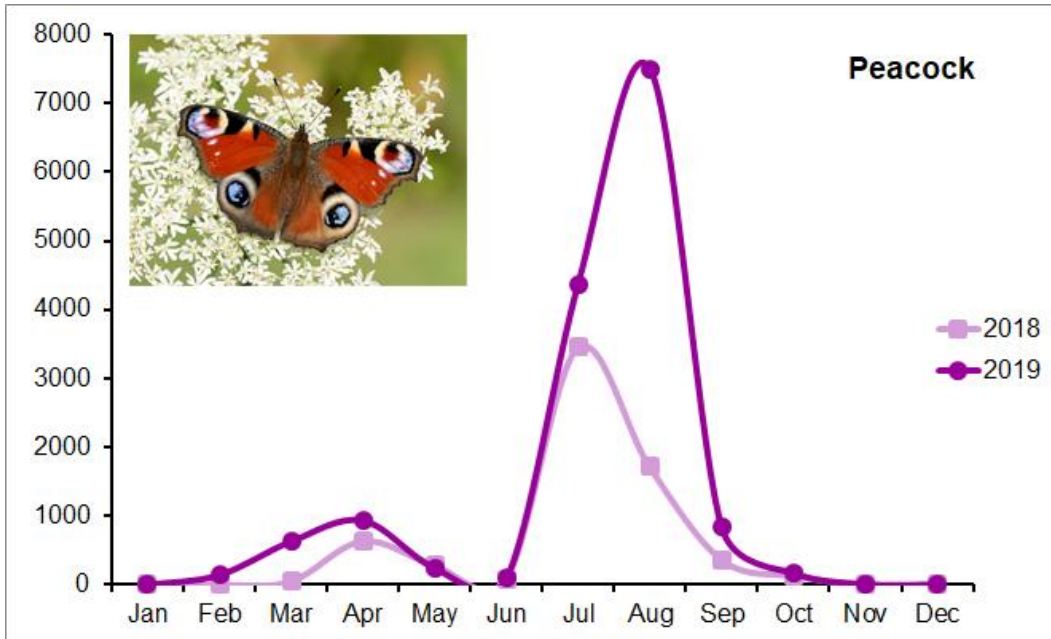
As is usual nowadays, Red Admiral dominated the small number of sightings in the first few weeks of the year, but a very warm spell from mid-February saw a surge in other species that overwinter in the UK as adults, particularly Brimstone. February 2019 turned out to be the second warmest February since 1910 and March and April were also warmer than recent averages.

The effect of this warm period early in the year can be seen in the GBS results for early-flying species. The emergence of species such as Brimstone and Orange-tip occurred substantially earlier than in 2018, although that was a relatively late spring

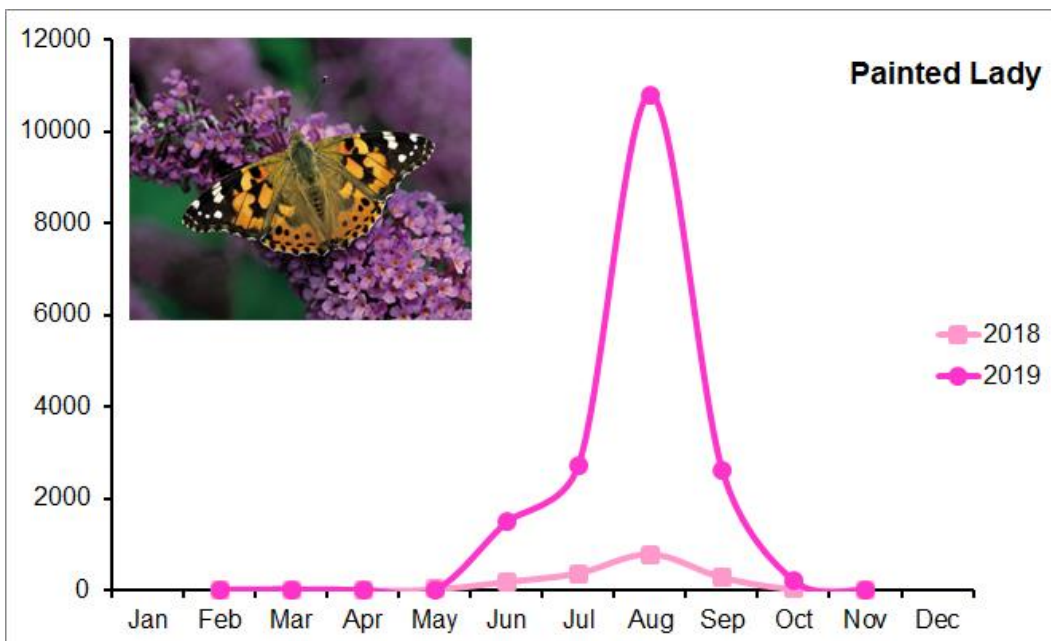
on account of the 'Beast from the East' weather events. In all there were just over 14,000 butterflies of all species reported to GBS in February-April 2019, which contrasts with just 5,200 in the same period in 2018.



Peacock also got off to a better start in 2019 compared to the previous year, as can be seen in the chart below, coming out of hibernation earlier and in better numbers. Breeding was clearly more successful than in 2018, as the new generation emerging from July was much larger. The total number of Peacocks reported from gardens in 2019 was more than double that in 2018 and this beautiful butterfly was also spotted in a greater proportion of gardens.

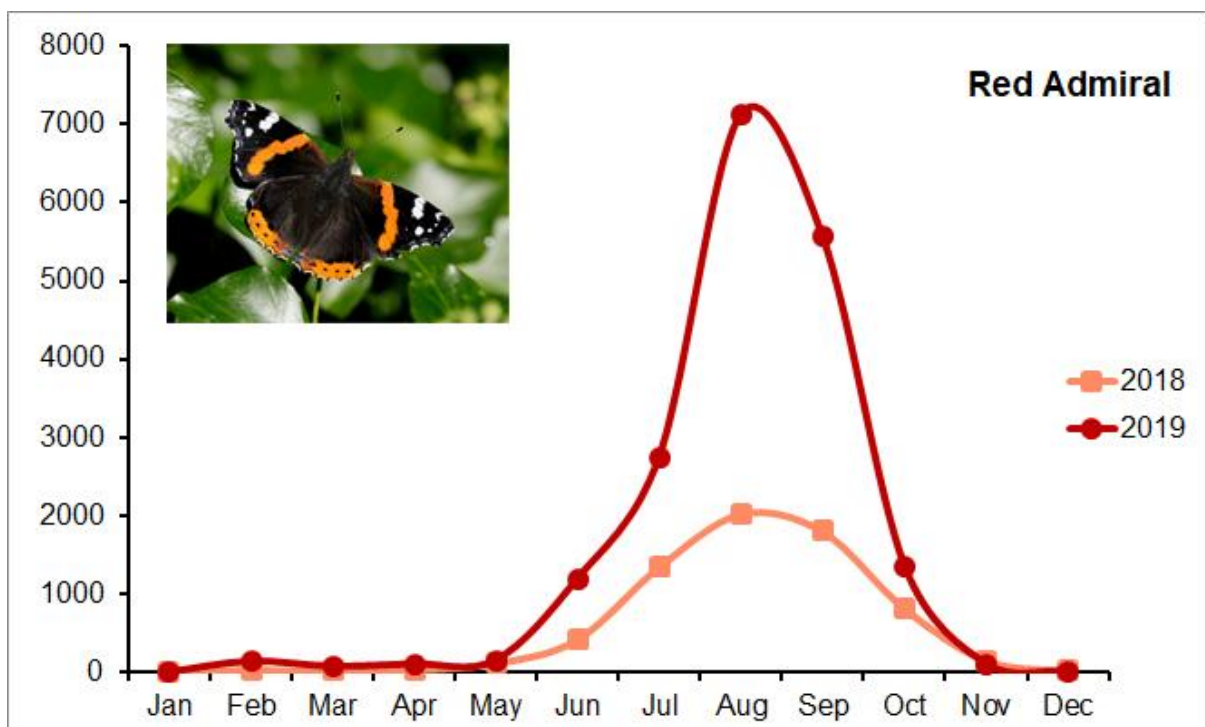


The end of May / beginning of June is eagerly anticipated by UK butterfly enthusiasts each year, as the usual main arrival period for Painted Ladies. Recent “Painted Lady Years”, when this immigrant arrived in huge numbers and bred successfully, e.g. 1996 and 2009, followed this pattern. Hopes were high in spring 2019 due to reports of huge numbers of the butterfly around the Mediterranean, particularly from some of the Greek islands. However, May came and went and there was little sign of the much anticipated influx. In mid-June, just when hopes were fading, Painted Ladies did begin to arrive into the UK, but not from the south as is usual but from the east. It seems that the Painted Ladies reaching us in early summer 2019 came not from southern Spain and France as is usual, but from the eastern Mediterranean via central Europe. The numbers that arrived in June were not enormous, but were considerably higher than in any of the previous three years of GBS.



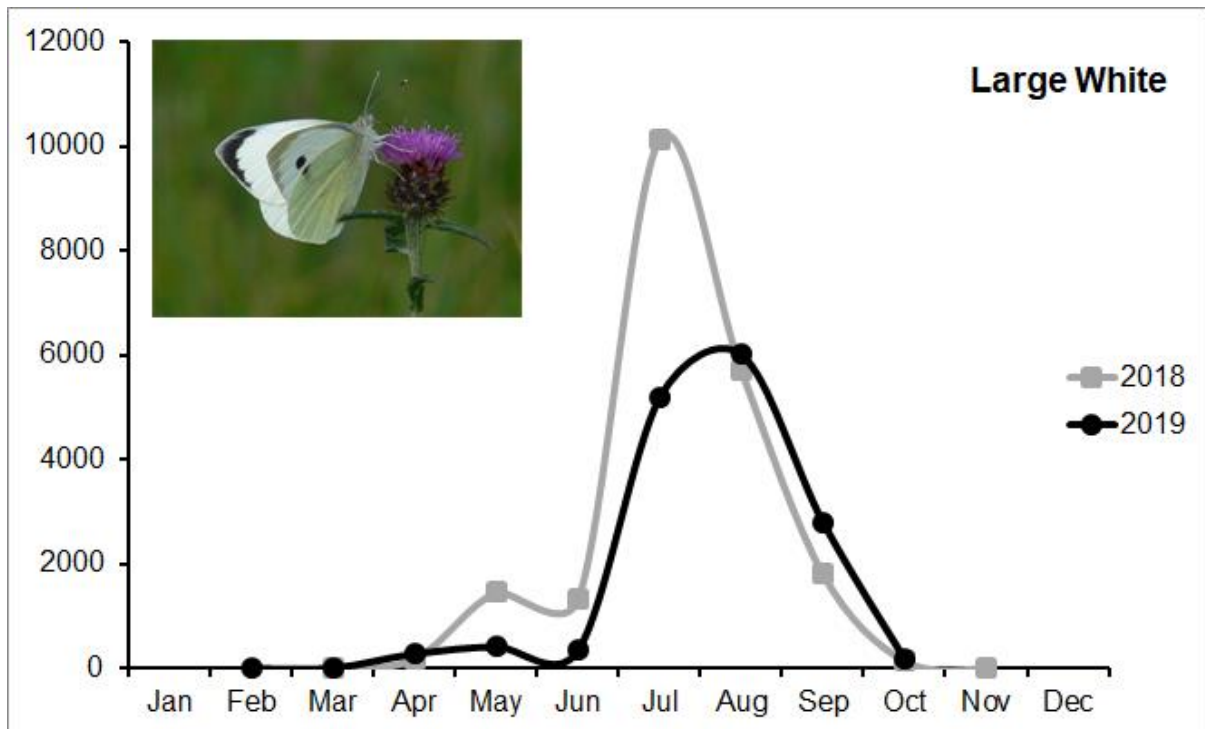
As the plot above clearly shows, however, that was far from the end of the Painted Lady story for 2019. At the end of July there was another major arrival of Painted Ladies, this time seemingly from the north-east, as huge swarms of the butterflies were recorded along the coast of north-east England and eastern Scotland. In the last five days of July an incredible total of 2,072 Painted Lady butterflies were reported to GBS, substantially more than were reported in the whole of the 2018 survey (1,721). Day counts in double figures during late July 2019 came predominantly from Scotland, including gardens in Aberdeen, Carnoustie, Ellon, Gullane, Renfrew and Stornoway in the Outer Hebrides, before the butterflies spread out much more widely across the UK. One GBS participant had an amazing 210 Painted Ladies nectaring on Buddleia in their garden at Colinsburgh, Fife, on 30 July. Not surprisingly, most people were not as fortunate but two-thirds (67%) of GBS participants saw at least one Painted Lady in their garden during 2019, a much higher proportion than in previous years (40% in 2018, 32% in 2017 and 35% in 2016). The total number of Painted Ladies reported to GBS in 2019 was over 10 times greater than that in 2018.

Other species fared well during summer 2019 too. The total numbers of Meadow Browns, Gatekeepers and Small Tortoiseshells spotted in gardens were up on 2018 and the Red Admiral, which seems to be part resident, part immigrant in the UK nowadays, had a much better summer than its disappointing performance in 2018 (see chart below). Overall, Red Admiral numbers have increased greatly in the UK since the 1970s, so 2018 should be seen as a minor blip and the 2019 GBS as the butterfly getting back on track.



Not all the UK's garden visitors fared well however. In particular, numbers of Large White, Small White and Green-veined White were all well down on 2018, although that was a notably good year for these white butterflies. The Large White plot (below)

shows that both 2019 generations were reduced in number compared to the previous year.



Overall, the results of GBS 2019 suggest a good year for garden butterflies, largely free of any anticipated major impacts resulting from the 2018 drought. By taking part in GBS in 2020, you can play an important part in assessing the ongoing fortunes of butterflies in UK gardens.

Many thanks once again to everyone who took part in the [Garden Butterfly Survey](#) in 2019. Hope you see and record lots of butterflies in your garden in 2020.

Dr Richard Fox
Associate Director Recording and Research
Butterfly Conservation