

Summary of the 2012 Butterfly Year in Sussex

The relative fortunes of each species are assessed against average abundance and distribution in recent years, over the period 2000 onwards. These comments are much generalised and the success, or otherwise, of each species varied from site to site, sometimes markedly so.

Good Season

Chalkhill Blue: This species emerged in unprecedented numbers (by modern standards) at Friston Gallops and in the valleys south of Amberley, with a combined peak day estimate for the two sites being 1 million butterflies. When less active during cooler periods counts reached 33 per metre square, and considerably more when concentrated in evening roosts. **Red Admiral:** 2012 was the best year for Red Admiral this century. Those which over-wintered successfully, mated in the spring and their progeny were seen egg-laying across much of Sussex during the summer. Towards the end of August, through September and into October the next brood emerged, with numbers further bolstered by immigrant butterflies. Approximately 1000 were seen in an orchard at Ticehurst and large numbers collected on buddleia and flowering ivy across the counties. A southwards migration was noted, although numbers heading for mainland Europe were significantly lower than during the autumn exodus of late 2011. Given a mild 2012/2013 winter this species could continue its current success.

Average to Poor Season

Dingy Skipper: This species coped well with the dull and wet spring weather and was seen in good numbers on many sites, perhaps falling on the better side of average. Only a handful of second brood butterflies was seen, which is the situation in most years. **Small Heath:** Spring and early summer numbers were quite high, but this good start was followed by an indifferent late summer brood and there was no indication of a third wave in the autumn. **Meadow Brown:** Although some sources, such as the Big Butterfly Count (BBC), suggest a very good year nationally, Meadow Brown numbers were slightly down on the excellent 2011 showing in Sussex, which followed on from a significant dip in 2009 and 2010. Although only an average performer, this ubiquitous species was still seen in the hundreds and even thousands on the best sites.

Ringlet: One of several species for which the lush growth of grasses (larval food-plant) was potentially beneficial (BBC national website). Despite some national indicators of performance (BBC) it was, however, no better than average in Sussex. The Ringlet has never been particularly bothered by grey clouds and rain. **Marbled White:** This is another species which might have benefited from exceptional grass growth. However, contrary to some indicators of performance across the UK (BBC) it was no more numerous than average in Sussex. **Wall:** This species usually produces approximately three times as many adults in the second brood as the first. In 2012 the difference was even greater, with a relatively poor spring showing being followed by a quite good summer brood, particularly behind Seaford where it was locally strong. With the butterfly calendar running late (by modern standards) for most of the season, the Wall failed to fit in a third brood, even on the warmest sites; only a single autumn specimen was seen. **Gatekeeper:** Another of several species for which the lush growth of grasses was theoretically beneficial in the larval stage. Nevertheless, it performed no better than average in Sussex. **Grayling:** The Grayling is another grass-feeder which had an average year. Encouragingly, several specimens were sighted at High & Over. Bearing in mind that male butterflies were photographed, it seems likely that these emerged on site, suggesting an adventurous female had wandered over from Windover Hill in 2011. **Speckled Wood:** This species can over-winter as either caterpillar or chrysalis, so emergence of the adults is always rather protracted through the spring and early summer. Poor weather may have strung out early stage development even more than usual, so 2012 saw a slow release of modest numbers throughout the season, with poorly defined abundance peaks. Fewer were seen than in 2011, with the early days of June being best. **Large**

Skipper: The Large Skipper was yet another species to suffer a season which was at best average. However, in isolated pockets its numbers were reasonable. **Wood White:** Numbers in both the spring and summer broods were significantly lower than in the previous couple of years. However, bearing in mind that the Sussex population dropped to a dangerously low level prior to those better seasons, it is encouraging that a viable colony persists on our side of the Chiddingfold complex. **Brimstone:** Numbers were down on 2011 and the summer emergence was two weeks later than in recent years. The Brimstone was another very average performer. **Green-veined White:** A poor showing in the spring was followed by a better emergence in the summer. Very few third brood butterflies appeared this year. **Orange Tip:** Following a couple of good seasons Orange Tip numbers were significantly down in the spring. Isolated sightings in the late summer occur in some years, but the discovery of a mating pair was unusual. **Large White:** Numbers of Large White were quite low throughout the spring and summer, although a modest influx from The Continent bolstered their ranks along the coastal plain in September. **Small White:** The Small White followed a similar pattern to its larger relative and failed to show in any numbers until late summer, when it appeared along the coast. **Holly Blue:** This species suffered a very slow and faltering start, although numbers increased during the third week of May, triggered by a spell of warm sunshine. It is difficult to assess the impact of poor weather on this species, bearing in mind that Holly Blue numbers are largely controlled, on a cyclical basis, by the host-specific ichneumon wasp *Listrodomus nycthemerus*. No third brood butterflies were seen. **Silver-studded Blue:** A relatively poor season was suffered by this species, with significantly reduced numbers at Iping and Stedham Common in comparison with recent years. **Adonis Blue:** A poor spring brood was followed by lower than average summer numbers on all but the warmest, driest sites, probably due to the unfavourably lush and bushy growth of horseshoe vetch; this was far more to the liking of the Chalkhill Blue. However, summer brood numbers were quite good at Malling Down and Mill Hill. **Brown Hairstreak:** Numbers were slightly down on 2011. However, the weather was favourable through much of the flight season and the species had ample opportunities to lay plenty of eggs, which bodes well for 2013. **Silver-spotted Skipper:** Although numbers were lower than last year, warm and calm anticyclonic conditions during the flight period will hopefully have encouraged its attempts to move further through the Sussex landscape. **Grizzled Skipper:** This is yet another species which appeared in lower numbers than in recent years. However, it was encouraging to see that it has spread onto the BC Rowland Wood reserve, including specimens of the highly prized aberrant *taras*. **Small Skipper:** The Small Skipper was another 'below par' performer, although reasonable numbers were seen on some sites. **Essex Skipper:** It is always difficult to assess the numbers and distribution of the Essex Skipper from our records, due to the difficulties in identification and tendency to 'lump' the species with its close relative. Where both species are present it is quite challenging to determine their relative abundances. However, it certainly had a season no better than average. **Comma:** In line with the other hibernating species, numbers were quite low through the early spring period. A relatively poor mid summer brood followed, but the butterfly rallied in the autumn, with good numbers emerging from early/mid September onwards. **Peacock:** Post-hibernation numbers were disappointing and noticeably lower than in recent years. The over-wintering species (excluding Red Admiral) all seemed to struggle this spring, probably due to the mild and dry winter; this unusual meteorological combination is unfavourable to those species which are best kept in a state of deep torpor. The summer brood was at least two weeks later than the modern day norm. However, this delayed mid August emergence was not much worse than average and the majority of butterflies soon tucked themselves away for the winter. **Small Tortoiseshell:** This species continues to struggle and both post-hibernation and mid summer brood numbers were again disappointing. However, mid August saw a better emergence, with more than a dozen on a single buddleia on farmland in West Sussex. Numbers increased again in late August, possibly bolstered by immigrant

butterflies. **Pearl-bordered Fritillary:** The PBF had a significantly poorer year than of late, although this should be seen in the context of a run of very good seasons. However, this species is capable of making the most of even the shortest spells of sunshine and the reduced numbers do not give cause for concern. **Silver-washed Fritillary:** Another quite poor year for this species, with numbers much lower than during its last good season (2010). **Dark Green Fritillary:** A very patchy performance with relatively poor numbers on its best sites at Cissbury Ring in the West and Friston Forest in the East. Better numbers were seen along the East Sussex coastline and particularly at Ewe Dean near Wilmington. **Small Pearl-bordered Fritillary:** Numbers were lower than in recent years, making its colonisation of the recently acquired Rowland Wood even more vital in securing its future in Sussex. **Duke of Burgundy:** Duke of Burgundy had a poor season and numbers were down by between 50% and 75% on most sites, which would qualify as a 'very poor' were this comparison being made with any other year than 2011 (the best for many decades). Emergence was delayed for several weeks by the inclement weather, with a few warm and sunny days at the end of May and through early June rescuing the situation from potentially much worse. **Purple Emperor:** Numerically the Emperor had a poor year, with very low levels of occupancy at most master trees in its stronghold woodlands. Despite this it was seen in a surprisingly wide spread of locations, probably due to increased recording efforts further afield. The season started (and finished) much later than in any year this century, returning to the calendar of the 1980s and earlier. **Painted Lady:** 2012 was a poor year for migrants in general and this included the Painted Lady. A few freshly emerged specimens were seen from mid August onwards, these being the progeny of the dribs and drabs which had made it across The Channel earlier in the year. **Clouded Yellow:** The Clouded Yellow had another poor year; it is, however, normal to experience at least half a dozen of these between significant invasions.

Very Poor Season

Green Hairstreak: Although the first specimens were seen in early April, this species never really got going. Compared to 2011, numbers were pitifully low. **Purple Hairstreak:** Although elusive and relatively difficult to record before its evening flight commences, there can be little doubt that the Purple Hairstreak had a very poor season. In most seasons it is one of our most numerous butterflies, but in 2012 it started late and numbers subsequently failed to reach anything like normal. **White-letter Hairstreak:** This species had such a poor season that even in the most reliable locations it was often necessary to invest several hours effort for a single sighting. **Common Blue:** Although this species has always demonstrated numerical peaks and troughs from year to year, 2012 was a spectacularly poor season. In some areas at least, the Common Blue was the rarest of our Blue species. **Small Blue:** The first brood was modest and the second almost non-existent on some sites. Unsurprisingly there was no third brood this year. **Brown Argus:** The Brown Argus had its worst season for many years. In some locations, where it usually occurs in low numbers, it failed to show. On some normally well populated downland sites numbers were down by between 50% and 75%. As with the Small Blue, the occasional third brood failed to materialise. **Small Copper:** A very poor first brood was hardly bettered by the second. The strong third brood usually seen during October on sites such as Cissbury Ring and Kingley Vale was non-existent in 2012. Only High and Over (Frog Firle) in the East and Thorney Island in the West produced more than a tiny number of autumnal butterflies. **White Admiral:** Following a poor 2011 season White Admiral numbers crashed further. At Southwater Woods where daily counts reached 50 in 2010, it was difficult to find more than 10% of that number.