

## BUTTERFLY REPORT

It is now 11 years since the first attempts to systematically monitor butterflies at Woolston Eyes. In that time many species have undergone a dramatic decline nationally as a result of habitat losses and climate change, whilst others have benefitted and continue to spread northwards. It is therefore more important than ever to monitor numbers and distribution in order to be aware of changes as they occur.

As always the weather had a major effect, and this year the seasons continued to confuse both butterflies and observers, with unseasonably warm weather at the end of March preceding months of what seemed like continually cold and wet conditions. According to Butterfly Conservation, 2012 was the worst year on record as many species suffered a catastrophic decline in numbers. In this context the early spring weather seems even more amazing and drought conditions continued in many areas.

The last week of March and temperatures in excess of 20 degrees produced some excellent totals with 44 Peacocks, 18 Small Tortoiseshells, together with early Orange Tips, Speckled Woods and Small Whites. However, the period between April and June was the wettest for a hundred years and the surprise was not that butterflies fared badly but that any survived at all. Orange Tips were particularly hard hit and migrants were few and far between. The summer months saw low numbers of Small White and Common Blue, two species which suffered a decline of over 50 per cent nationally, and few species were seen in reasonable numbers.

It was not until August that conditions improved and this brought about a quite amazing change with record numbers of Meadow Brown present on the Reserve. Other species to respond to this belated period of warm weather were Peacock and Small Copper, which began to appear in excellent numbers. No less than eight species were seen in higher numbers than in 2011, a fact which seemed impossible at the end of July. Another positive feature was the increased numbers of Purple Hairstreak which was found at Woolston for the first time ever in 2011. This year a total of fourteen confirmed that a viable breeding colony is now present and hopefully these rather elusive butterflies will prove a permanent addition to our resident species.

September began with excellent numbers of Small Tortoiseshells and sightings of Comma also peaked, albeit at a very low level, at the end of the month. Thereafter the only report was of a single Comma and a Red Admiral on 18<sup>th</sup> October.

In spite of the often appalling weather conditions the Butterfly Transect was monitored for all but three weeks, which often meant dodging the rain whilst waiting for the sun to put in a brief appearance. Thanks go, as always, to Les Jones and David Bowman for their willingness to cover in my absence.

Thanks also to all permit holders and fellow wardens who take the trouble to enter their sightings in the logbook. The Annual Report of the Cheshire and Peak District Branch of Butterfly Conservation is an essential guide to the wider context and underlines the importance of Woolston Eyes, which this year produced the highest counts in the county for no less than seven species. I would strongly recommend anyone with an interest in butterflies and moths to join Butterfly Conservation whose local group members organise a variety of events and field trips and are a repository of helpful advice.

## SPECIES ACCOUNTS

### Small Skipper

*Thymelicus sylvestris*

For the first time in many years there were no June records and the first sighting was not until 3<sup>rd</sup> July when one was found on Butchersfield Tip. The following week a Reserve total of 16 included eight on the Canal track and six on No.1 bed. Numbers peaked around 25<sup>th</sup> July when 18 were present. Reports continued into August with eight on the 11<sup>th</sup> and the final record of five on No.4 bed on the 14<sup>th</sup>. Butterflies were seen in all areas apart from No.3 bed and numbers this year were about average.

### Large Skipper

*Ochlodes sylvanus*

The first was noted on 4<sup>th</sup> June and although sightings continued until 8<sup>th</sup> August, most reports were of single butterflies. Although there were records from all parts of the Reserve the maximum recorded on any day was two on 12<sup>th</sup> June. Both Large and Small Skippers are inconspicuous insects found in undisturbed grassland and are almost certainly under-recorded. More records would help to monitor the numbers and distribution of these species at Woolston.

### Brimstone

*Gonepteryx rhamni*

The five reports received were about average for this species. All were of single butterflies; the first on 16<sup>th</sup> April on No.2 bed followed by sightings on No.3 bed on 22<sup>nd</sup> May and 10<sup>th</sup> June. Most records at Woolston occur during spring but this year a female of the summer brood was found on No.4 bed on 8<sup>th</sup> August. The final sighting was on 20<sup>th</sup> October on No.3 bed.

### Large White

*Pieris brassicae*

There were very few records this year and this was one of many species to struggle as a result of the unfavourable weather conditions. None were reported until the very late date of 22<sup>nd</sup> July when one was on No.3 bed and a second on the Canal track. The maximum recorded was six on 8<sup>th</sup> August. Of these, four were on Butchersfield Tip and the other two on No.1 bed. The last sighting of a poor year was on 22<sup>nd</sup> September.

### Small White

*Pieris rapae*

In spite of early sightings on 28<sup>th</sup> March and 1<sup>st</sup> April, very few were present this year. The maximum spring count was a mere three on 28<sup>th</sup> May, although 16 unidentified "whites" the following day may have included some of this species. Most of these were thought to be Green-veined Whites however. The maximum for the year occurred during the first half of August when up to 16 were present. This is the lowest total since 2004 and well below average. The last positive identification was on 22<sup>nd</sup> August when three were at Latchford Locks.

### **Green-veined White**

*Pieris napi*

This was the only "white" to be recorded in reasonable numbers, possibly as a result of its liking for damp conditions. The first was found on 12<sup>th</sup> April but very few were then reported until 29<sup>th</sup> May when 25 were present on No.3 bed, most of which were attracted to the seed crop on the north meadow. There were no double figure counts during June and most of July but a Reserve total of 32 "whites" on 25<sup>th</sup> July was thought to be mostly, if not exclusively, of this species. Numbers peaked in the first half of August, when there was some improvement in the weather conditions. The maximum total was around 85, which is an improvement on the previous year and above average for Woolston. On 22<sup>nd</sup> August ten were in the centre of No.4 bed but only single figure counts were then reported until the final record of the year on 15<sup>th</sup> September.

### **Orange Tip**

*Anthocharis cardamines*

The exceptionally warm weather at the end of March resulted in the earliest emergence of this species for at least ten years when two were seen on the 28<sup>th</sup>. Unfortunately, this was a prelude to the lowest totals recorded during the same period. Only seven reports were received as April proved to be one of the wettest on record. The highest count was a mere six on 28<sup>th</sup> May and this proved to be the last of a very disappointing season

### **Purple Hairstreak**

*Favonius quercus*

Following the discovery of this species at Woolston for the first time in 2011, it was very pleasing to find that butterflies were present in increased numbers and over a wider area. Poor weather limited the opportunities to view this elusive species which is best searched for in the canopy of Oak trees during sunny evenings in July and August. Three were located on 7<sup>th</sup> August along the Canal track very near to where they were found the previous year. A more detailed search three days later involving three observers produced a total of 14. Of these, 12 were on the Canal track and included three near to the entrance to No.3 bed. The other two were found on the south bank of No.3 bed in Oak trees near the viewing screen. Perhaps, surprisingly, this was the highest number recorded in Cheshire this year. It appears that the colony is now established at Woolston but given the small number of mature Oak trees it seems unlikely that this species will spread further across the Reserve. Between two and four butterflies were also seen on the Trans-Pennine Trail at Thelwall (less than a mile to the south of the Reserve) on 9<sup>th</sup> August.

### **Small Copper**

*Lycaena phlaeas*

Early May sees the emergence of this attractive small butterfly and a first sighting on the 9<sup>th</sup> was typical. There were three further records at the end of May including two on No.1 bed. Singles were reported on two dates in June but there were no further sightings until the second brood emerged at the beginning of August. A total of 12 was found at this time and ten were present on the 14<sup>th</sup>. A series of visits between 19<sup>th</sup> and 23<sup>rd</sup> August produced a year maximum of 28 which included 12 on the north bank of No.2 bed and nine on No.1 bed. Singles were also present at Latchford Locks and, perhaps surprisingly, on the north meadow area of No.3 bed. This is the highest total since systematic

recording began in 2002, the previous maximum being 18 in 2010. It seems that this species fared less well in the rest of the county and the Woolston total was by far the highest in Cheshire this year. The final record of an exceptional year was on 9<sup>th</sup> September when two were on No.2 bed.

### **Common Blue**

*Polyommatus icarus*

The past few years have seen a resurgence in the fortunes of this species at Woolston with totals in excess of a hundred in each of the past three years. Unfortunately, this was not the case this year as continued poor weather and possibly changes to the habitat took their toll. The first was found on 22<sup>nd</sup> May and up to nine were reported on Nos. 2 and 3 beds by the 29<sup>th</sup>. Similar numbers were seen during the few periods of sunshine in June and the only July record was of one on the 7<sup>th</sup>. The second brood emerged on 1<sup>st</sup> August and this coincided with a slight improvement in weather conditions. A series of visits between 8<sup>th</sup> and 11<sup>th</sup> August produced a total of 14, increasing to 23 towards the end of the month. Maximum numbers were present between 28<sup>th</sup> August and 5<sup>th</sup> September when 35 were found across the Reserve. However poor this total was, it was nevertheless the highest in Cheshire in what was a very disappointing year. Of the 35, 24 were on No.1 bed, including 15 in a small grassy area close to the Viaduct. The north bank of No.1 bed, which had been so productive in 2011, held only six butterflies. This may be due to a combination of the weather and the increased vegetation in the area around the recycling plant. The last report of a disappointing year was of a single on 15<sup>th</sup> September.

### **Holly Blue**

*Celastrina argiolus*

Reports of this species are always infrequent and the two sightings this year were fairly typical. One was found on the river bank to the north of No.2 bed on 25<sup>th</sup> July and the only other record was of one on No.4 bed on 8<sup>th</sup> August.

### **Red Admiral**

*Vanessa atalanta*

For the first time since 2009 there were no spring records. The first was seen on 12<sup>th</sup> June and there were no further reports until 5<sup>th</sup> July. Four were noted between 20<sup>th</sup> and 22<sup>nd</sup> August and the highest count of the year was on the 17<sup>th</sup> and 18<sup>th</sup> September when six were present across the Reserve. Thereafter, only singles were reported and the last of a poor year was found on 18<sup>th</sup> October.

### **Painted Lady**

*Vanessa cardui*

Given the climatic conditions throughout the summer it was no surprise that there were very few sightings of this migrant species, and for the third year in succession numbers were disappointing. There were just four records, all of singles, on 12<sup>th</sup> June, 19<sup>th</sup> July, and 9<sup>th</sup> and 13<sup>th</sup> September. Although a poor showing, it is an improvement on 2011 when there were only two records.

### Small Tortoiseshell

*Aglais urticae*

The year began well when fine early spring weather tempted one from hibernation on 29<sup>th</sup> February. This is the earliest record since systematic recording began in 2002. The next sighting was of one on 18<sup>th</sup> March and the warm weather at the end of the month produced six on Nos.1 and 2 beds and a further 12 along the river. A survey of the whole Reserve on 12<sup>th</sup> April found a total of 20 but very few were then reported until the beginning of July. Counts by two observers on 3<sup>rd</sup> and 5<sup>th</sup> July gave a total of 17 of which five were on the river and eight on No.2 bed. A search of the paths to the south of the Loop of No.4 bed on 11<sup>th</sup> July resulted in a total of six and no more than ten were present until the end of August, when a major emergence took place. This was no doubt helped by more favourable weather and the first half of September produced some excellent counts. On 1<sup>st</sup> September 50 were found on the north bank of No.1 bed and a series of visits between 4<sup>th</sup> and 9<sup>th</sup> September gave a total of 118, by far the highest of the year. The northern half of No.1 bed accounted for 85 and newly seeded Buddleias in this area proved particularly attractive. On 17<sup>th</sup> September 11 were on the Butterfly Transect but only singles were then reported until the last of the year on 29<sup>th</sup> September.

### Peacock

*Aglais io*

The first of the year was on 18<sup>th</sup> March, the same date as in 2011. Fine weather at the end of March gave an excellent count of 39 with a further five along the river. This was short lived however and there were no double-figure counts in April. A total of 17 was present on 8<sup>th</sup> and 9<sup>th</sup> May and ten at the month end. There were only four records of single butterflies in June, the last being on the 21<sup>st</sup>. The second brood emerged on 1<sup>st</sup> August and numbers rapidly increased by mid-month, when a series of visits produced an excellent total of 360, by far the highest in the county this year. This is the second highest total in the last ten years and was exceeded only in 2009 when 500 were present. 166 were found on the north bank of No.1 bed, where a large number of Buddleias have become established. Butterflies remained plentiful until the end of August, when 130 were still present. Numbers reduced rapidly in early September until the last sighting on the 17<sup>th</sup>.

### Comma

*Polygonia c-album*

For the second successive year there was a February sighting when one was seen on No.3 bed on the 29<sup>th</sup>. There were only two other spring records, both of singles, on 25<sup>th</sup> March and 1<sup>st</sup> April. The next report was not until 7<sup>th</sup> July and there were regular sightings during July and August, with a maximum of three. The highest totals occurred in September with four on the 17<sup>th</sup> and the 22<sup>nd</sup> and a year maximum of five on the 29<sup>th</sup>. This is similar to 2011, when a maximum of six was recorded, but below average for a species which occurs in very variable numbers.

### Speckled Wood

*Pararge aegeria*

An early record on 28<sup>th</sup> March was followed by unusually low numbers during April. A maximum of six was recorded on 12<sup>th</sup> April and none were seen between 20<sup>th</sup> April and 29<sup>th</sup> May. There were regular sightings in June and July but no more than four were present. A total of 18 at the end of August included ten on Butchersfield Tip and this proved to be the start of a major emergence. A

series of visits between 4<sup>th</sup> and 9<sup>th</sup> September resulted in a year maximum total of 75, which was an improvement on the 2011 maximum of 45 and well above average for this species. It was also the highest total in Cheshire. Distribution was fairly even across the Reserve, with 26 on No.4 bed and 13 on Butchersfield Tip. Reasonable numbers were still present in mid-September and about 20 were seen at this time. The last of a successful year was seen on 29<sup>th</sup> September.

### **Gatekeeper**

*Pyronia tithonus*

In spite of a late emergence, with the first appearing on 7<sup>th</sup> July, this species was seen in reasonable numbers given the weather conditions. Numbers built up slowly and visits on 22<sup>nd</sup> and 25<sup>th</sup> July found only 181. Early August saw an increase however and 108 were found on No.1 bed and Butchersfield Tip on the 1<sup>st</sup>. Peak numbers occurred around mid-month and detailed searches of the whole Reserve between 3<sup>rd</sup> and 16<sup>th</sup> August produced a total of 628. As usual the most favoured areas were Nos.1 and 4 beds, which held 143 and 245 respectively. This year's maximum was almost identical to the 625 recorded in 2011. Woolston invariably produces the highest numbers in Cheshire and this year was no exception. Typically, there followed a rapid decline after mid-August. 67 were on Nos.1 and 2 beds on the 23<sup>rd</sup> but by the 28<sup>th</sup> only 13 were present. This proved to be the last sighting of the year.

### **Meadow Brown**

*Maniola jurtina*

Unsurprisingly, very few were reported during June and July. The first record was of two on 12<sup>th</sup> June and no more than three were seen during that month. Numbers were slow to increase in July which was generally cloudy and wet. Ten on the 3<sup>rd</sup> and 8<sup>th</sup> increased to 42 on the 20<sup>th</sup> and a more respectable 117 by the 25<sup>th</sup>. August saw a remarkable increase however with 315 on Nos.1, 2, and 4 beds on the 8<sup>th</sup>. Surveys of the whole Reserve between 3<sup>rd</sup> and 16<sup>th</sup> August found no less than 500, which is the highest since detailed monitoring began in 2002 and also the highest in Cheshire this year. About half were on No.1 bed and Butchersfield Tip. The previous highest total was 335 in 2009. The usual decline in numbers followed and the last record was of three on 15<sup>th</sup> September.

### **Dave Hackett**