

**BUTTERFLIES 2006**  
by Keith Balmer and Peter Glenister

Only a handful of reports were received for the first eleven weeks of the year as there were no mild spells to tempt species out of hibernation, however the first report, on 2<sup>nd</sup> January, was surprisingly of a Small White caught inside a Dunstable supermarket (AS&LH), foretelling the interesting year that 2006 was to become.

The season began in earnest on 25<sup>th</sup> March with a flood of reports of all five over-wintering species (including Red Admiral), but this was shortly followed by a spell of cold weather in early April that subdued things for a while. Once over, the normal progression of spring emergences continued until mid May, when a prolonged wet spell until the month end curtailed the season for many individuals. Ed Turner of the Wildlife Trust had been leading mark, release, re-capture research on Duke of Burgundy at Totternhoe Quarry, to learn more of the mobility of the species, and over 50 individuals had been marked before the rains began. Sadly few were ever seen again, although, along with other spring species such as Dingy Skipper, Grizzled Skipper and Orange Tip, which were also affected by the bad weather, there was a recovery in numbers when drier weather returned in early June.

The weather of June and July was superbly dry, sunny and hot, favouring all species except those that prefer things a little more temperate, such as Green-veined White. It was during this period that the season became particularly exciting...

Large numbers of migrant Red Admirals boosted resident numbers, leading to local hotspots such as occurred at Priory Country Park, where the evening spectacle of countless hundreds coming off the extensive thistle and nettle beds near the sewage works, to roost along the cycle track, was a wonder to behold. Painted Ladies also arrived in numbers that approached those of 1996 but Clouded Yellow didn't arrive with the same abundance as the other migrants and numbers for the year were only average.

The tantalising prospect of confirming a new resident species on the county list was boosted by the appearance of Silver-washed Fritillary across the county, setting new records for the species. Although many of these may have dispersed from more southerly counties some may have resulted from successful broods of local colonies, possibly at Chicksands Wood and at College Wood/Home Wood, Northill, where the species had been recorded in 2004 and 2005, though no evidence of breeding has yet been confirmed.

There has long been a belief by some that Purple Emperor is resident in the county, though no colony has ever been confirmed, or meeting point discovered, and several years usually pass between scattered sightings. The sighting of four in 2006 therefore caused much excitement, though despite much effort by many searching Mid-Bedfordshire woods in temperatures in the mid 30s Celsius, no location was confirmed, though Chicksands Wood, where one was seen, seems as good as any to resume searching in future years.

The cooler and damper August brought welcome relief from the scorching heat and reporting was slightly suppressed. The abundance of most species though seemed much as expected with one notable exception. Many commented upon the dearth of Small Tortoiseshell, which had a second consecutive poor summer. This is consistent with national data that show marked fluctuations in abundance and it is to be hoped that the species will recover as it has before.

The excitement resumed in late August as reports of a mass migration to Britain of Camberwell Beauty circulated. This county was blessed with at least five over a three-week period though only one BNHS member was lucky enough to see one.

The extended warm weather throughout September and October was kind to all species allowing an extra partial brood of several species to occur, notably Small Copper, Common Blue, Holly Blue, Small White and Speckled Wood. Sporadic reports of Clouded Yellows throughout October may also be attributable to an extra partial brood as were the occasional fresh specimens of Painted Lady that were seen until the first week of November.

In the final two months of the year reports diminished as expected, though Red Admiral continued to be reported almost daily until mid December.

## Analysis of Data

At the time of analysing records for this report (27<sup>th</sup> January 2007) 9971 records had been received and computerised, containing reports of 44067 adults from 402 1km squares. Records were analysed at this date but may be subject to minor revision.

## Transects

The total number of adults and numbers of species ( ) for the long running transects were:

|                      | 2002      | 2003      | 2004      | 2005      | 2006      |          |
|----------------------|-----------|-----------|-----------|-----------|-----------|----------|
| Bedford Old Cemetery | 451 (19)  | 557 (20)  | 427 (20)  | 534 (17)  | 394 (16)  | BA & YA  |
| Hill Rise, Bedford   | 364 (20)  | 392 (19)  | 351 (17)  | 285 (15)  | 305 (17)  | BA & YA  |
| Old Warden Tunnel    | *         | *         | 665 (23)  | 570 (20)  | 879 (24)  | KB       |
| Potton Wood          | 2872 (22) | 3560 (25) | 2511 (24) | 3284 (22) | 2477 (22) | IPW & BF |
| Priory Country Park  | 913 (19)  | 1591 (19) | 1933 (19) | 1799 (18) | *         | RB & EN  |
| Sharpenhoe Clappers  | 5441 (30) | 7640 (29) | 7364 (31) | 7227 (27) | *         | DC       |
| Totternhoe Quarry    | 2666 (28) | 3880 (26) | 4958 (28) | 4567 (26) | 3506 (30) | GWH & CB |
| Whipsnade Downs      | 1842 (27) | 3949 (27) | 4671 (30) | 2842 (29) | 2970 (31) | GWH & CB |

\* The transect at Sharpenhoe Clappers was not walked in 2006 and the one at Priory Country Park was walked for only seven weeks. Old Warden Tunnel transect was first walked in 2004.

## Skippers

### Small Skipper *Thymelicus sylvestris*

This species had a relatively poor year with numbers on most transects noticeably below average and only the Hill Rise transect showed a significant rise. Abundances from other recording were also below average and the species had a premature end to its season, with no records after 12<sup>th</sup> August. The distribution of reports from 72 1km squares was slightly higher than usual.

### Essex Skipper *Thymelicus lineola*

Although abundance on most transects is usually low, numbers were even lower this season, with a total of only six recorded across them all. The species was however recorded for the first time on the Old Warden Tunnel transect. Overall totals from all recording were noticeably lower than recent years, but the distribution of reports from 28 1km squares was similar. In keeping with the last few years the latest report was from early August, on the 7<sup>th</sup>, which is a week or two earlier than it was until recently.

### Large Skipper *Ochlodes venata*

This species appeared to fare better than the other two golden skippers with overall totals only slightly reduced and the flight period much as expected. It is interesting to note though that during the extremely hot weeks in mid July reported numbers were much lower than usual, but returned to expected values when the weather moderated. The reported total of 101 1km squares was the highest since 1999.

### Dingy Skipper *Erynnis tages*

This species appeared to continue its recent run of good seasons, though the very wet May weather may have had an effect. Good numbers (i.e. between 12 and 15 at each site) were reported from Pegsdon Hills (AP, LG, AM), Elstow Storage Depot (SH), Marston Vale Millennium Country Park (PG) and Sundon Chalk Pits (PG). New locations were also recorded at Lidlington Pit (JC), Chicksands Military Base (KB) and Sandhouse Lane NR (AB&MB). The last of these locations is a long distance from the next nearest known colony and it may be worth further exploring this area.

### Grizzled Skipper *Pyrgus malvae*

It seemed to be a reasonably good season for the species with abundance and distribution following recent trends, though it was also affected by the wet May weather. The Marston Vale continues to be a stronghold with many of the brown-field sites carrying small colonies, though land development may affect some of these, such as at Elstow Storage Depot from where 11 were reported (SH). A peak of 11 was also reported from Sundon Chalk Pits (PG). New sites were found on the southern edges of

Rowney Warren and Chicksands Military Base (both by KB) and it was also recorded for the first time on the Old Warden Tunnel transect, probably having worked its way southwards along the old railway track.

## Whites

### Wood White *Leptidea sinapis*

One individual was observed on 23<sup>rd</sup> May on the Old Warden Tunnel transect, possibly the offspring of the one that was seen laying there the previous year. The wet May weather may have taken its toll as it was not seen again.

### Clouded Yellow *Colias croceus*

In total 44 were reported, distributed over 32 1km squares. This abundance is close to the long-term average meaning that it wasn't a "Clouded Yellow" year in Bedfordshire. The most notable feature of this season was its extension into autumn, with 11 reported in September, six in October and even one in early November. A female of the form *helice* was present at Willington gravel pits on 4<sup>th</sup> August (DB) and another at Sharpenhoe Clappers on 4<sup>th</sup>/5<sup>th</sup> September (DC/KB).

### Brimstone *Gonepteryx rhamni*

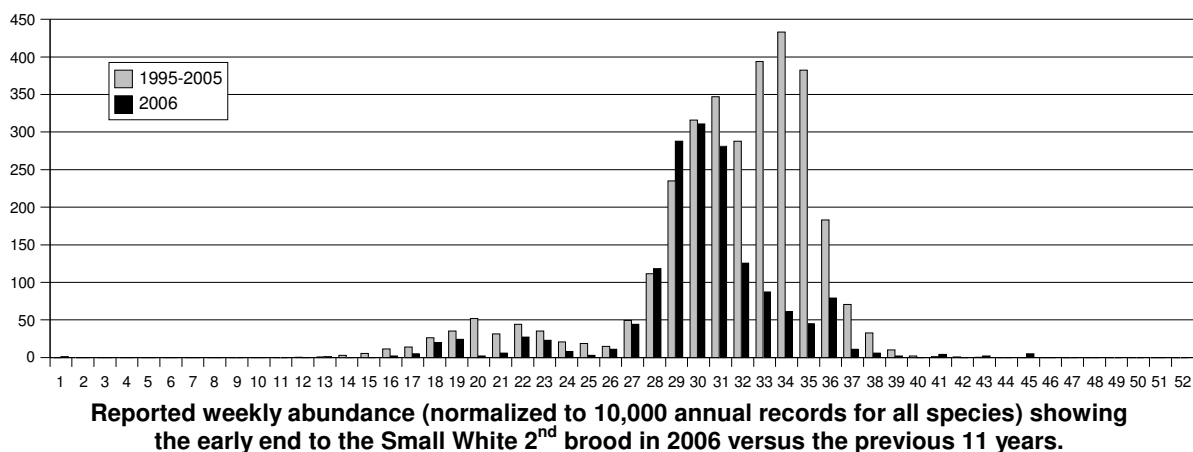
It was a very typical year for this species, with abundances and distribution similar to most years, though numbers of the new brood reported during August were slightly lower than usual, probably as a result of the unsettled weather.

### Large White *Pieris brassicae*

Long-term transect data indicate widely fluctuating annual abundance for this species. 2006 appears to have been somewhere near the middle of the range. Records indicate that the 2<sup>nd</sup> brood was advanced about one week earlier than normal with a peak in standard weeks 29 and 30 (16<sup>th</sup>-29<sup>th</sup> July). There was a hint of a partial third brood with a small number of reports throughout September.

### Small White *Pieris rapae*

Migrants from Europe usually boost this species' numbers, but in 2006 this may not have had a significant effect as numbers fell steadily after the 2<sup>nd</sup> brood peak in standard week 30 (23<sup>rd</sup>-29<sup>th</sup> July). A scattering of reports from mid September through to early November suggests that a partial third brood occurred. Reported from 158 1km squares, this was as usual one of the most widely reported species.



### Green-veined White *Pieris napi*

Both the 1<sup>st</sup> and 2<sup>nd</sup> broods were slightly fewer in number than usual and the 2<sup>nd</sup> brood ended quickly with a rapid decline following its peak in standard weeks 29 and 30 (16<sup>th</sup>-29<sup>th</sup> July). This white also may have produced a partial third brood, with a handful of reports throughout September and October. Reported from 158 1km squares, the same as Small White, it is still a widespread species.

### Orange Tip *Anthocharis cardamines*

After getting off to a slightly delayed start, possibly affected by the cold weather of early April, the Orange Tip season quickly caught up with normal and it showed in good numbers during the first half of

May. Reports from the wet second half of the month were unsurprisingly very much reduced, but during the tail of its season in early June numbers were back to normal, if not slightly higher. There were no reports of a partial 2<sup>nd</sup> brood.

### **Hairstreaks**

#### **Green Hairstreak** *Callophrys rubi*

All reports came from the usual two regions – chalk sites (Whipsnade Downs, Totternhoe Knolls and Quarry, Sundon Chalk Pits, Sharpenhoe Clappers/Markham Hills, Barton Hills, Knocking Hoe and the area around Deacon Hill) and the Marston Vale (Marston Vale Millennium Country Park, Coronation Pit and Elstow Storage Depot). Abundances seemed to be normal with most reports being single-digit, but the wet May weather probably affected reporting.

#### **Purple Hairstreak** *Neozephyrus quercus*

The extremely hot weather throughout July brought many individuals down to ride-side nectar sources, possibly because honeydew was in shorter supply than normal, and resulted in more records than usual for this under-reported species. Throughout the hot period individuals were also seen at ground level, not appearing to be taking up moisture or minerals, but just crawling around in the grass, sometimes in the company of White-letter Hairstreaks that were behaving similarly. This behaviour was noted by AM, IPW, PA and JA amongst others.

#### **White-letter Hairstreak** *Satyrrium w-album*

Although reported from only a few sites (Brickhill, Chicksands Wood, College/Home Woods, Maulden Wood and Wilstead Wood) the numbers were generally higher than usual. There were six records of more than twenty from Chicksands Wood, with peak totals of about 50 reported by JA, RD and DB. Honeydew and nectar being in short supply towards the end of the flight period, up to four individuals were noted sharing a single head of creeping thistle. As for Purple Hairstreak, many were observed simply walking around at ground level during the extremely hot weather.

#### **Black Hairstreak** *Satyrrium pruni*

June 13<sup>th</sup> to 30<sup>th</sup> was the reported flight period this year and despite searching potential sites all came from the two known colonies. On 17<sup>th</sup> June adults were unusually active, flying closely around most blocks of mature blackthorn throughout Marston Thrift, including places where they had not previously been recorded, and KB observed an amazing 28 hairstreaks in total, those positively identified all being this species. On the following day five were observed on the edge of Wootton Wood (KB).

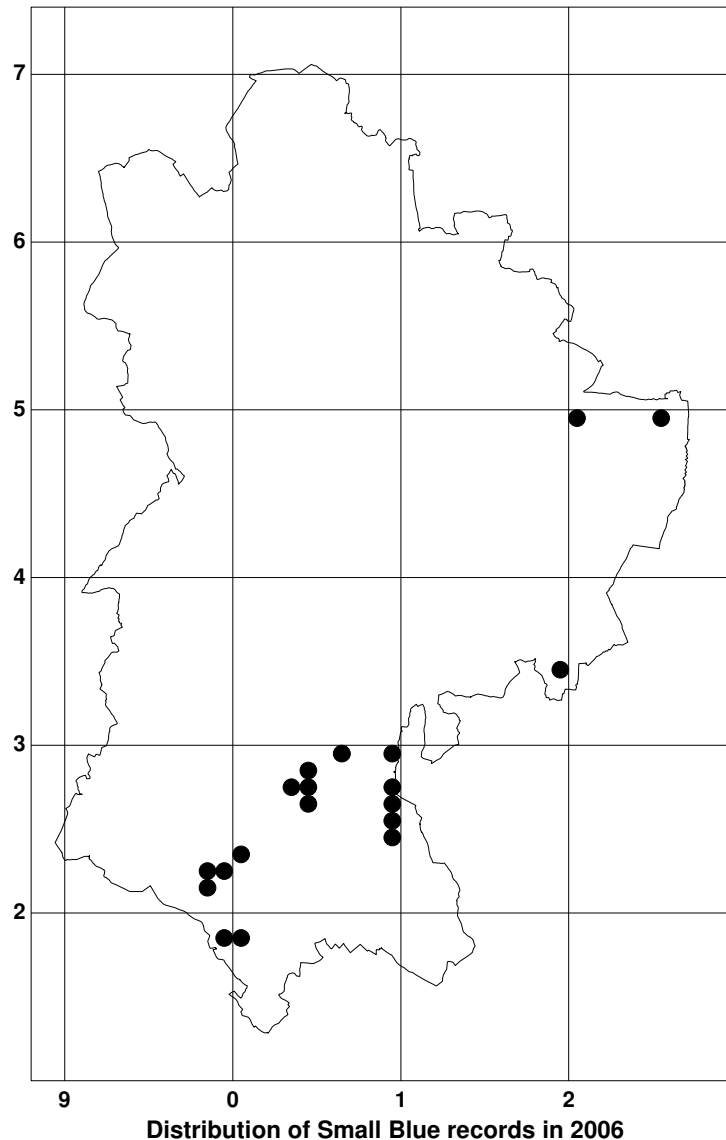
### **Coppers, Blues and Metalmarks**

#### **Small Copper** *Lycaena phlaeas*

This species generally does better in warm years and the numbers and distribution reported for the second and third broods were indeed above average. A late individual seen on 29<sup>th</sup> October at Felmersham Gravel Pits SSSI by KB, three weeks after the next latest report, could possibly have been of a partial fourth brood. The peak report was of 14 seen on Maulden Heath on 26<sup>th</sup> July by PG and from where the form *caeruleopunctata* was reported on 20<sup>th</sup> July by SR.

#### **Small Blue** *Cupido minimus*

Reported in small numbers from Barton Hills, Blue Lagoon, Bradger's Hill, Galley and Warden Hills, Sharpenhoe Clappers and Whipsnade Downs. The transect on the Downs reported 19, its largest ever value. Houghton Regis Chalk Pit, Sewell Cutting, Sundon Chalk Pits and the Totternhoe area produced larger numbers and the annual roost count at the base of the Totternhoe cliff by GWH was 566 on 9<sup>th</sup> June. Two additional reports were received from Cockayne Hatley on 23<sup>rd</sup> July (IPW) and Sandy Heath Quarry on 6<sup>th</sup> August (NR) with one at each location. These two reports are particularly interesting as their presence on the Greensand ridge is currently unexplained, but repeats a previous report from Sandy Heath Quarry in 2004.



**Brown Argus** *Aricia agestis*

Widely reported, from 60 1km squares and 19 10km squares, the species had a very good year with abundances amongst the highest of the last decade. Reports came from grasslands and woodlands throughout the county with the largest report of 40 from Whipsnade Downs on 9<sup>th</sup> June (DC).

**Common Blue** *Polyommatus icarus*

The wet weather in the second half of May and the damp August had a noticeable effect on the reporting of this species during these weeks, but numbers and distribution reported for the remaining weeks of its season were very similar to normal, with reports coming from suitable habitat in all types of grassland, woodlands and brown-field sites. A report of a male from Felmersham Gravel Pits SSSI on 29<sup>th</sup> October (KB) was undoubtedly of a partial 3<sup>rd</sup> brood.

**Chalkhill Blue** *Polyommatus coridon*

The transects at Totternhoe Old Quarry and Whipsnade Downs showed a slight reduction in numbers relative to the last few years, but reported numbers were still healthy (1135 and 201 respectively). The usual sites of Whipsnade Downs, Totternhoe area, Galley and Warden Hills, Harlington Hill Chalk Pit, Markham Hills and Sharpenhoe Clappers, Barton Hills and Deacon Hill were all reported, plus a couple of wandering males; one in Linslade (JK) and another in Chicksands Wood (KB, JA, DP).

**Holly Blue** *Celastrina argiolus*

After a slightly delayed start to the season the first brood showed in only average numbers, suggesting that the species may be heading for another downturn in its cycle. An even weaker second brood

confirmed this. A lone female entertained staff at the RSPB headquarters at The Lodge between 31<sup>st</sup> October and 2<sup>nd</sup> November, an uncommon example of a partial third brood (MD, IKD, DFD).

### **Duke of Burgundy** *Hamearis lucina*

The total of 31 reported on the Totternhoe Quarry transect was the highest ever, reversing the situation of the previous year which, with only 9 recorded, was the second lowest. The opposite however occurred on the Whipsnade Downs transect where the number of 6 recorded in 2006 was the lowest ever, following the previous year's 27, which was the highest. As both transects are walked by the same person every year (Greg Herbert) recorder bias is unlikely to be a major factor and such fluctuations may be a genuine nature of the sites and species. A couple were also reported from Sewell Cutting. The results of the work lead by Ed Turner at Totternhoe Quarry have not be included in this report as he will publish them independently.

### **Nymphalids**

#### **White Admiral** *Limenitis Camilla*

Reported in reasonable numbers from its usual woodland haunts (maximum records in parentheses): Chicksands Wood (6); College Wood (4); Home Wood, Northill (1); King's Wood, Heath and Reach (5); Marston Thrift (2); Maulden Wood (4); Odell Great Wood (2); West Wood (11); Wilstead Wood (8). Palmer's Wood was a welcome new addition to the list with one seen there on 14<sup>th</sup> July (PG) and again on 18<sup>th</sup> July (IPW). Wanderers were also reported from Stockgrove Country Park, Totternhoe Old Quarry and Whipsnade Downs. All records were from between 24<sup>th</sup> June and 24<sup>th</sup> July. There were no confirmed reports of a second brood.

#### **Purple Emperor** *Apatura iris*

A male was spotted flying west along Sewell Cutting on 1<sup>st</sup> July (GWH). On 15<sup>th</sup> July a very tatty female glided past the author (KB) while walking the transect at Old Warden Tunnel, coming to rest on *prunus* re-growth for 20 minutes, allowing ample time for inspection. Three days later (18<sup>th</sup> July) AM had a probable sighting of one briefly on the ground near the 1<sup>st</sup> (northern) monument in Chicksands Wood. The final sighting was of a dead male found in Dunstable Downs' car park on 23<sup>rd</sup> July (AW/CB). Woodlands, particularly in mid-Bedfordshire, were avidly searched during the scorching July heat, paying particular attention to the canopy at the highest part of each wood where males may have congregated, but none were discovered this way, although the method may yet yield results in locating a colony in future years.

#### **Red Admiral** *Vanessa atalanta*

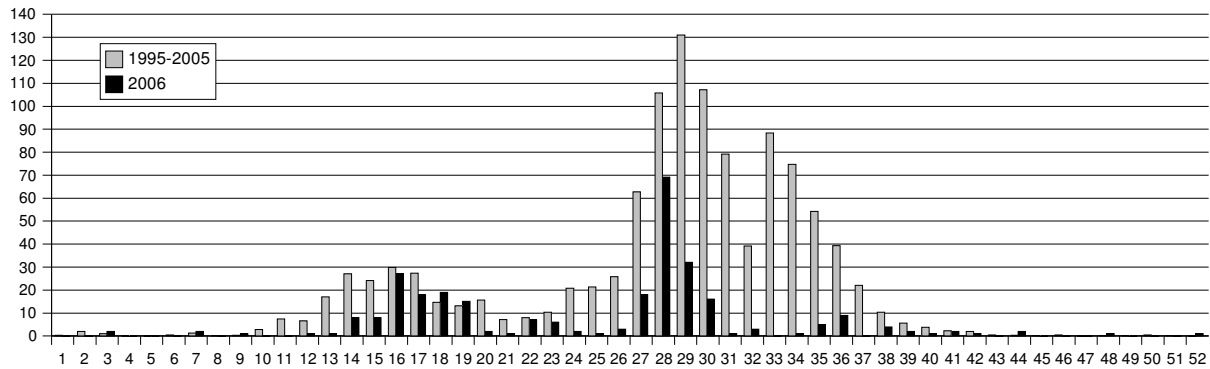
A comparison of statistics with the next most prolific year for the species (2003); 217 (121) 1km squares; 786 (481) records; 2380 (730) adults; shows 2006 to have been an exceptional year for Red Admirals as a result of strong immigration from the continent presumably combined with successful local breeding. The peak of activity was in standard weeks 28 and 29 (9<sup>th</sup>-22<sup>nd</sup> July), but it was a very long season, with the first report on 20<sup>th</sup> January and the last on 10<sup>th</sup> December. It was unreported on only one day in September, nine days on October and six in November, and was easily the most abundant species during the extended autumn season. It was also the most widely reported species in terms of 1km squares, depositing meadow brown to second place.

#### **Painted Lady** *Vanessa cardui*

This species also had a very successful year (second only to 1996 in recent years) following a strong immigration in standard weeks 30 and 31 (23<sup>rd</sup> July to 5<sup>th</sup> August). The large numbers feeding on creeping thistle, teasel and knapweeds were a delight to see, especially after their scarcity the year before. The autumn extension to the season was much less pronounced than for Red Admiral, but a small number of reports of fresh specimens continued until 6<sup>th</sup> November.

#### **Small Tortoiseshell** *Aglais urticae*

It was an exceptionally poor year for this species, the worst in at least the last decade. Post-hibernation numbers were slightly lower than average and 1<sup>st</sup> brood numbers were then proportionately worse. The 2<sup>nd</sup> brood was extremely weak and seeing an individual was a rare delight, with many people commenting upon their scarcity. National records collated since 1976 show wide fluctuations in the abundance of this species, with strong recoveries following similar periods of weakness, so there is currently no great concern for the long-term future of this widespread butterfly.



**Reported weekly abundance for Small Tortoiseshell (normalized to 10,000 annual records for all species) showing how poor the 2006 season was compared with the average of the previous 11 years.**

### **Camberwell Beauty *Nymphalis antiopa***

Fingers were crossed in August as the migration reached Britain and started to spread westwards from the eastern counties. The first report from Bedfordshire was from north of Blow's Down, Dunstable on 23<sup>rd</sup> August where one paused for five minutes on a buddleia (MS&HS). On 1<sup>st</sup> September one was spotted in Cranfield, where DA was shown a photograph taken by his next-door neighbour. Another was reported as having remained in the Greenfield area from 1<sup>st</sup> to 3<sup>rd</sup> September, apparently displaying a fondness for damsons (PK). On the 7<sup>th</sup> September another (possibly the first again?) was reported on the side of a house in south-west Dunstable where it was photographed by a neighbour over the garden fence from atop a stool (KBi). The final report was from Broom gravel pits on the 10<sup>th</sup> September where one paused just long enough for SC to positively identify it. It is with regret that another season passed by without either Recorder ever having seen one of these wonderful creatures!

### **Peacock *Inachis io***

It was a fairly typical year for this butterfly other than a slightly earlier than normal peak, in standard week 30 (23<sup>rd</sup>-29<sup>th</sup> July), and fewer reports during August apparently as a result of entering hibernation about a week earlier than usual. It was reported from 160 1km squares, which is slightly more than normal, but this reflects a difference in reporting rather than the species' distribution.

### **Comma *Polygonia c-album***

Post-hibernation reports in April were slightly higher than usual and this was followed by two successful broods, each with abundances much larger than normal. The number of 1km squares (125) and quantity of adults reported (854) were both the largest of the last decade. Reports of small numbers continued throughout October and into November as the mild autumn weather continued.

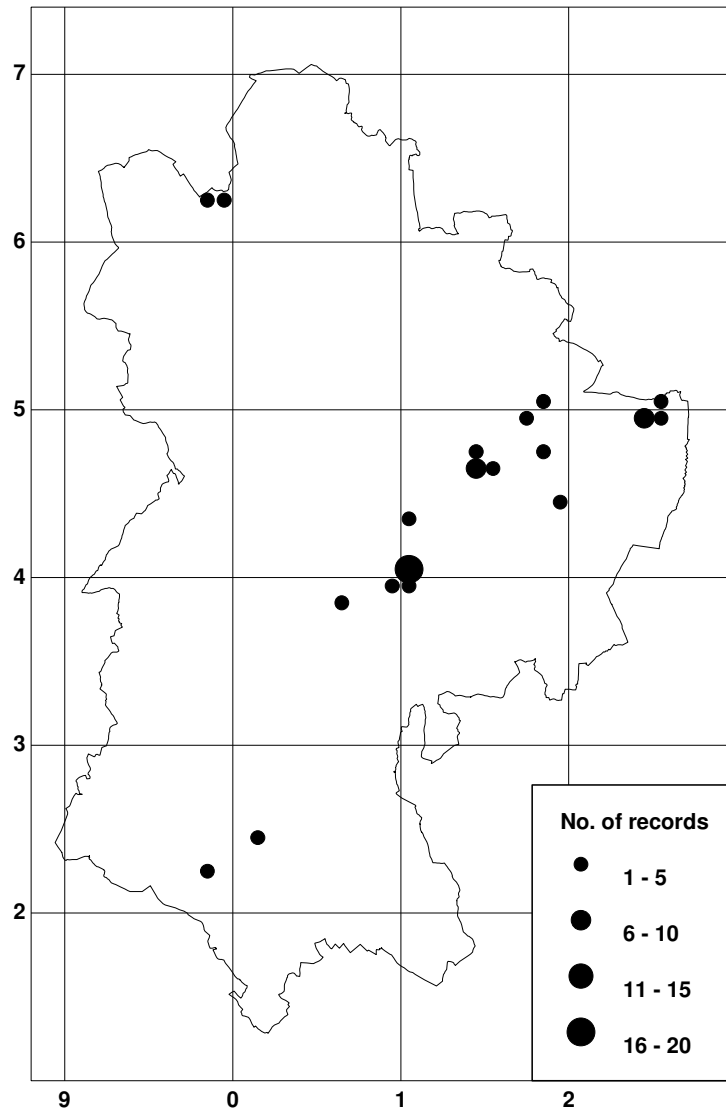
### **Fritillaries**

#### **Dark Green Fritillary *Argynnis aglaja***

The county stronghold continues to be Sharpenhoe Clappers where 93 were recorded by PG on 3<sup>rd</sup> July. (The lack of transect there this year unfortunately means that direct comparisons with previous years aren't possible). Five were also recorded on Pegsdon Hills on 25<sup>th</sup> June by KW, four near Ravensburgh Castle on 3<sup>rd</sup> June by PG and two in Sundon Chalk Pit on 8<sup>th</sup> July, also by PG. Individuals were also spotted at Knocking Hoe, Old Warden Tunnel and King's Wood, Heath and Reach.

#### **Silver-washed Fritillary *Argynnis paphia***

Although 101 adults were reported in total this undoubtedly includes considerable, but hard to quantify, amounts of multiple recording, especially from Chicksands Wood where many visits were made specifically to see them. The highest number of distinct individuals from woodlands would appear to be: Chicksands Wood (8), College Wood/Home Wood, Northill (2), Maulden Wood (1), Potton Wood (5), Warden Little Wood (1), West Wood (2). Nearly all reports were of males relentlessly patrolling the rides, presenting only fleeting "fly-bys" which made distinguishing individuals difficult, but a female was spotted in Potton Wood and another in College Wood. Wanderers were also spotted, some in lucky members' gardens, in Biggleswade (RR), Ickwell Green (ND), Bidwell (DG), The Lodge (RSPB staff), Whipsnade Downs (GWH) and two at Totternhoe Old Quarry (ET). All reports were between 4<sup>th</sup> July and 25<sup>th</sup> August, with a peak in standard weeks 30 and 31 (23<sup>rd</sup> July to 5<sup>th</sup> August).



Distribution of records of Silver-washed Fritillary in 2006

**Browns**

**Speckled Wood *Pararge aegeria***

Overall it would appear to have been a fairly typical year for this species. The 1<sup>st</sup> and 3<sup>rd</sup> broods were perhaps slightly smaller than usual but the 2<sup>nd</sup> brood slightly larger. The most unusual aspect of the season was four reported between 5<sup>th</sup> and 9<sup>th</sup> November (TS, NP, ABu, KF, MW), which were presumably of a partial fourth brood.

**Wall Brown *Lasiommata megera***

The species continues to cling on in the county but was the least reported resident and concerns for its future persist. The Marston Vale remains its "stronghold" with reports from Coronation Pit (2), Rookery Pit (2), Marston Vale Millennium Country Park (1) and Elstow Storage Depot (2). The last of these sites is soon to be destroyed for housing and the future of the disused clay pits is also uncertain. Occasional reports, hopefully of correct identification, still come from elsewhere giving some cause for hope, this year from Priory Country Park, Luton, Eversholt, Totternhoe Old Quarry and Whipsnade Downs.

**Marbled White *Melanargia galathea***

Overall abundance and flight-time were typical of the last decade but the reported distribution of 82 1km squares beats the previous largest of 70 in 1997. Most transects showed somewhat higher than average abundance suggesting it was probably a good year for the species and was maybe under-represented by casual recording.

**Gatekeeper *Pyronia tithonus***

Most transects reported slightly below average numbers, with the exception of Old Warden Tunnel where abundance was the highest in its three years of recording. The peak was in standard week 30 (23<sup>rd</sup> to 29<sup>th</sup> July) as usual but reported numbers fell quickly after this and few were reported after standard week 32 (6<sup>th</sup> to 12<sup>th</sup> August), a week or so earlier than normal. Reported from 165 1km squares, this was the highest since 1999 (182).

#### **Meadow Brown** *Maniola jurtina*

This consistently abundant and widespread species lived up to its reputation with 7897 adults reported (a long way ahead of second-place gatekeeper with 4397) and from 184 1km squares. Abundance on transects was generally a little higher than normal. The peak was in standard week 29 (16<sup>th</sup> to 22<sup>nd</sup> July) and as usual there was a long tail end to the season with a few individuals reported throughout September, up to the 26<sup>th</sup>.

#### **Ringlet** *Aphantopus hyperantus*

Another abundant species that had a fairly typical year with most transects reporting near normal numbers, except that Whipsnade Downs' total of 157 was the lowest ever recorded and about half that expected. An aberrant individual with the underside of the left hind-wing "bleached almost white" was spotted in Claphampark Wood by AM on 26<sup>th</sup> June.

#### **Small Heath** *Coenonympha pamphilus*

Long-term data from transects show large fluctuations in the abundance of species at monitored sites. At Whipsnade Downs 2006's numbers were higher than average, but were average at Totternhoe Old Quarry. In casual recording reported numbers were low for both 1<sup>st</sup> and 2<sup>nd</sup> broods however the reported distribution of 70 1km squares was the largest in more than a decade. Records suggest that the 2<sup>nd</sup> brood peaked in week 36 (3<sup>rd</sup> to 9<sup>th</sup> September) around two weeks later than usual unless a partial third brood confused the picture.

### Summary of 2006's records at 27<sup>th</sup> January 2007

| Species                 | Records | Adults | Squares |     | Records (%) | Adults/All-species adults <sup>1</sup> (%) |      |      |      |      |
|-------------------------|---------|--------|---------|-----|-------------|--|------|------|------|------|
|                         |         |        | 10km    | 1km |             | 2002                                       | 2003 | 2004 | 2005 | 2006 |
| Small Skipper           | 204     | 720    | 17      | 72  | 2.05        | 2.44                                       | 2.21 | 3.26 | 1.98 | 1.63 |
| Essex Skipper           | 37      | 77     | 11      | 28  | 0.37        | 0.25                                       | 0.34 | 0.31 | 0.26 | 0.17 |
| Small/Essex Skipper     | 27      | 220    | 8       | 20  | 0.27        | 0.00                                       | 0.00 | 0.31 | 0.11 | 0.50 |
| Large Skipper           | 264     | 1172   | 19      | 101 | 2.65        | 8.70                                       | 2.26 | 2.73 | 2.98 | 2.66 |
| Dingy Skipper           | 52      | 153    | 7       | 18  | 0.52        | 0.28                                       | 0.34 | 0.50 | 0.45 | 0.35 |
| Grizzled Skipper        | 34      | 66     | 8       | 20  | 0.34        | 0.07                                       | 0.10 | 0.19 | 0.19 | 0.15 |
| Wood White              | 1       | 1      | 1       | 1   | 0.01        | 0.00                                       | 0.00 | 0.00 | 0.02 | 0.00 |
| Clouded Yellow          | 44      | 47     | 14      | 32  | 0.44        | 0.11                                       | 0.03 | 0.07 | 0.02 | 0.11 |
| Brimstone               | 453     | 757    | 19      | 139 | 4.54        | 1.44                                       | 1.55 | 2.06 | 2.14 | 1.72 |
| Large White             | 553     | 1323   | 18      | 132 | 5.55        | 3.17                                       | 3.06 | 3.51 | 3.67 | 3.00 |
| Small White             | 608     | 1599   | 20      | 168 | 6.10        | 3.82                                       | 6.15 | 7.65 | 4.59 | 3.63 |
| Green-veined White      | 578     | 1068   | 18      | 163 | 5.80        | 6.04                                       | 3.27 | 5.19 | 4.18 | 2.42 |
| Small/G.V. White        | 57      | 159    | 9       | 33  | 0.57        | 0.00                                       | 0.00 | 0.56 | 0.14 | 0.36 |
| Orange Tip              | 231     | 353    | 19      | 102 | 2.32        | 0.98                                       | 0.73 | 1.03 | 1.39 | 0.80 |
| Green Hairstreak        | 52      | 151    | 7       | 15  | 0.52        | 0.24                                       | 0.13 | 0.23 | 0.53 | 0.34 |
| Purple Hairstreak       | 61      | 143    | 13      | 28  | 0.61        | 0.10                                       | 0.04 | 0.22 | 0.05 | 0.32 |
| White-letter Hairstreak | 54      | 427    | 4       | 8   | 0.54        | 0.09                                       | 0.17 | 0.08 | 0.21 | 0.97 |
| Black Hairstreak        | 19      | 44     | 1       | 3   | 0.19        | 0.01                                       | 0.02 | 0.02 | 0.02 | 0.10 |
| Small Copper            | 112     | 200    | 14      | 55  | 1.12        | 0.09                                       | 0.51 | 0.50 | 0.15 | 0.45 |

<sup>1</sup> These values show the number of adults reported for each species relative to the number of adults reported for all species, allowing crude year-on-year comparisons to be made using data partially acquired by casual recording.

|                          |      |       |    |     |      |       |       |       |       |       |
|--------------------------|------|-------|----|-----|------|-------|-------|-------|-------|-------|
| Small Blue               | 50   | 845   | 6  | 19  | 0.50 | 5.43  | 5.00  | 0.40  | 0.35  | 1.92  |
| Brown Argus              | 198  | 702   | 19 | 60  | 1.99 | 0.37  | 0.75  | 0.84  | 1.01  | 1.59  |
| Common Blue              | 365  | 1816  | 17 | 91  | 3.66 | 2.84  | 5.72  | 3.51  | 5.35  | 4.12  |
| Chalkhill Blue           | 157  | 2775  | 7  | 19  | 1.57 | 6.08  | 8.64  | 8.14  | 10.05 | 6.30  |
| Holly Blue               | 176  | 210   | 17 | 72  | 1.77 | 1.20  | 0.21  | 0.86  | 1.43  | 0.48  |
| Duke of Burgundy         | 34   | 98    | 3  | 4   | 0.34 | 0.13  | 0.15  | 0.31  | 0.18  | 0.22  |
| White Admiral            | 51   | 115   | 9  | 18  | 0.51 | 0.03  | 0.08  | 0.07  | 0.16  | 0.26  |
| Purple Emperor           | 4    | 4     | 3  | 4   | 0.04 | 0.00  | 0.00  | 0.00  | 0.00  | 0.01  |
| Red Admiral              | 786  | 2380  | 20 | 217 | 7.88 | 0.76  | 1.73  | 0.57  | 0.99  | 5.40  |
| Painted Lady             | 402  | 2446  | 19 | 149 | 4.03 | 0.55  | 3.05  | 0.48  | 0.04  | 5.55  |
| Small Tortoiseshell      | 216  | 292   | 18 | 115 | 2.17 | 1.27  | 2.87  | 1.78  | 1.07  | 0.66  |
| Camberwell Beauty        | 5    | 5     | 4  | 5   | 0.05 | 0.00  | 0.00  | 0.00  | 0.00  | 0.01  |
| Peacock                  | 560  | 1627  | 20 | 160 | 5.62 | 3.50  | 2.89  | 1.96  | 4.56  | 3.69  |
| Comma                    | 446  | 854   | 19 | 125 | 4.47 | 1.22  | 1.74  | 1.02  | 1.22  | 1.94  |
| Dark Green Fritillary    | 31   | 313   | 6  | 12  | 0.31 | 0.40  | 0.51  | 0.54  | 0.80  | 0.71  |
| Silver-washed Fritillary | 57   | 101   | 9  | 19  | 0.57 | 0.01  | 0.01  | 0.02  | 0.01  | 0.23  |
| Speckled Wood            | 631  | 1461  | 19 | 150 | 6.33 | 5.72  | 4.02  | 3.96  | 3.25  | 3.32  |
| Wall Brown               | 12   | 13    | 5  | 11  | 0.12 | 0.04  | 0.01  | 0.08  | 0.02  | 0.03  |
| Marbled White            | 274  | 3229  | 17 | 82  | 2.75 | 5.60  | 4.86  | 6.79  | 5.27  | 7.33  |
| Gatekeeper               | 578  | 4397  | 19 | 165 | 5.80 | 8.93  | 10.12 | 14.25 | 12.16 | 9.98  |
| Meadow Brown             | 845  | 7897  | 20 | 184 | 8.47 | 14.98 | 16.86 | 17.32 | 20.02 | 17.92 |
| Ringlet                  | 380  | 3012  | 18 | 115 | 3.81 | 12.37 | 7.32  | 5.65  | 5.05  | 6.84  |
| Small Heath              | 265  | 795   | 17 | 70  | 2.66 | 0.78  | 2.56  | 3.06  | 3.92  | 1.80  |
| Overall                  | 9971 | 44067 | 20 | 402 |      |       |       |       |       |       |

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**Keith Balmer and Peter Glenister are the Society's honorary joint butterfly recorders, a position they have held since 2003.**