

**BUTTERFLIES 2004**  
by Peter Glenister and Keith Balmer

Despite several spells of wet and windy weather that made recording a bit of challenge at times, 2004 would appear to have been generally a good year for butterflies with only a few species showing a decline. Most species appeared to have an average or above average year in terms of abundance and distribution (relative to recent years).

Nine transects were walked during the year. The six long running transects and the more recently started Bedford Cemetery transect (B&YA) were joined by two new transects at Pegsdon Hills (DW & GB) and Old Warden Tunnel (KB).

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

	2000	2001	2002	2003	2004	
Hill Rise, Bedford	425 (19)	496 (19)	364 (20)	392 (19)	351 (17)	B & YA
Potton Wood	2305 (17)	2575 (20)	2872 (22)	3560 (25)	2511 (24)	IPW & BF
Priory Country Park	1332 (20)	1083 (16)	913 (19)	1591 (19)	1933 (19)	RB & EN
Sharpenhoe Clappers	5335 (30)	5677 (30)	5441 (30)	7640 (29)	7364 (31)	DC
Totternhoe Quarry	2712 (30)	2158 (25)	2666 (28)	3880 (26)	4958 (28)	GWH
Whipsnade Downs	4615 (28)	*	1842 (27)	3949 (27)	4671 (30)	GWH

\* Not walked in 2001 due to Foot and Mouth disease precautions.

At the time of writing this report (23<sup>rd</sup> February 2005) 10,576 records had been received and computerised, containing reports of 54,502 adults from 353 1km squares. Records were analysed at this date but may be subject to minor revision.

### Skippers

#### Small Skipper *Thymelicus sylvestris*

Numbers were down slightly on all long-running transects other than Whipsnade Downs where they rose for the second consecutive year. The species has been increasingly reported by casual recording over recent years and the 1km squares count was the highest since 1997. The peak record of an estimated 100 but "probably lots more!" was from Maulden Heath on 28<sup>th</sup> June (SP).

#### Essex Skipper *Thymelicus lineola*

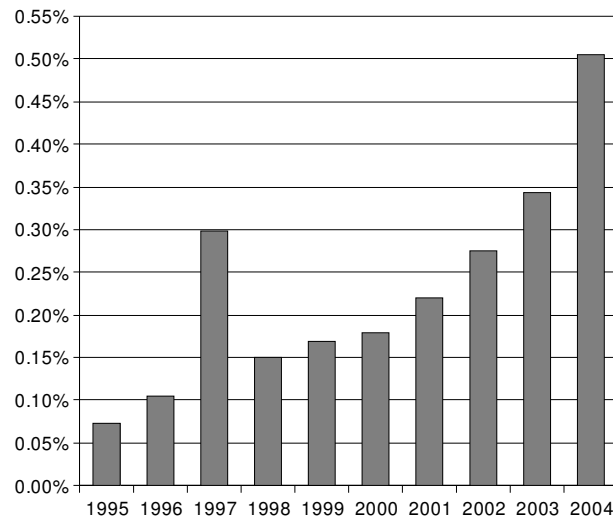
Numbers on the Whipsnade Downs transects continued their recent rise and produced the highest count (51) of the last decade (GH). Numbers were flat on the other long-running transects but up slightly in casual recording, being reported from the most 1km squares since 1999. The average number of adults per record (1.78) was approximately one-third that of Small Skipper (5.55).

#### Large Skipper *Ochlodes venata*

The species had an undistinguished year with long-term transect numbers around their long-term averages. It was much the same story with casual recording with no discernable trend in the data. Largest numbers were noted from woodland with 100+ reported from both Chicksands and Wilstead Woods (JA).

#### Dingy Skipper *Erynnis tages*

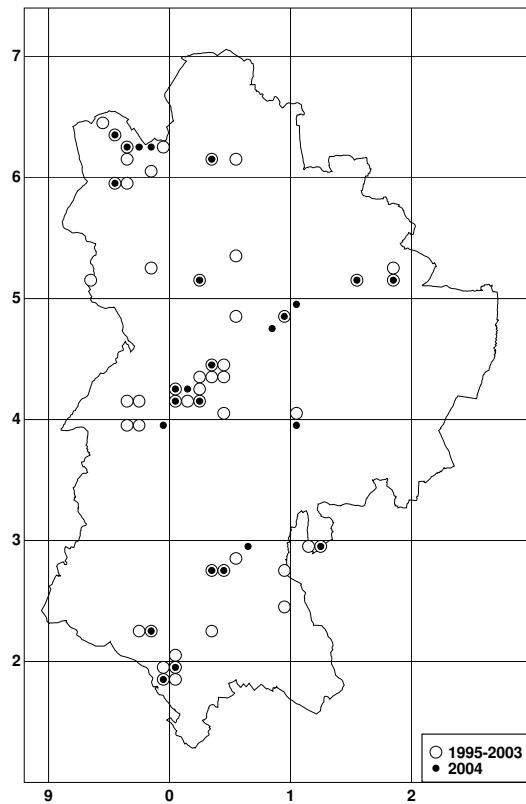
This species has been reported in steadily increasing numbers throughout the last decade, from just 32 in 1995 to 275 in 2004. The average number of adults/record has similarly grown steadily from 1.28 to 3.53 suggesting increasing local abundance. It is still a localised species however, reported from only 22 1km squares. The Sharpenhoe Clappers transect saw a large jump to 73 adults from 34 in 2003 and surpassing the 2002 largest total of 41 (DC).



**Number of Dingy Skipper adults reported as a percentage of number of adults for all species, showing the steady rise in reporting of the species over the last decade.**

**Grizzled Skipper *Pyrgus malvae***

Many historic sites for this species were revisited in 2004 as part of a countywide survey. Although it was reported from 26 1km squares the total of about 104 adults reflected low abundance everywhere. Brownfield sites were shown to be particularly popular with the species but these are often targeted for development. One site has since been destroyed and there are known threats to several others.



**1km squares where Grizzled Skipper was reported in 2004 versus the previous nine years.**

## Whites

### Clouded Yellow *Colias croceus*

Between 2<sup>nd</sup> and 22<sup>nd</sup> August 29 of the year's 36 reported Clouded Yellows were seen, with three noted at Moleskin on 6<sup>th</sup> (BP) and three at Sundon Quarry on 7<sup>th</sup> (PG).

### Clouded Yellow sp. *Colias*

A "large white" clouded yellow was reported from Langford on 19<sup>th</sup> June (BW). Statistically this was probably the *helice* form of a female Clouded Yellow, but could possibly have been a female Pale or Berger's Clouded Yellow. The species was undetermined.

### Brimstone *Gonepteryx rhamni*

The three long-running chalk-based transects returned very high counts with Totternhoe Old Quarry's (GH) and Sharpenhoe Clappers' (DC) the highest in a decade, but numbers were either flat or down on the other transects. 37 adults were reported from one section of the new Pegsdon Hills transect on 2<sup>nd</sup> August (DW). Larger than normal numbers were also reported in casual recording and the reported distribution of 119 1km squares was slightly above average.

### Large White *Pieris brassicae*

The total of 259 reported from the Whipsnade Downs transect (GH) was the highest in a decade and good numbers were also reported from the other chalk-based transects. Other transect totals were near normal. Several records from mid-Bedfordshire reported totals of 50+ from Willington, Haynes and Chicksands Wood (all JA) and Home Wood, Northill (RW). Reports peaked during standard weeks 30 and 31 (23<sup>rd</sup> July to 5<sup>th</sup> August) when 762 adults were reported.

### Small White *Pieris rapae*

The most widely reported of all species, from 159 1km squares. Transect numbers were generally high except at Hill Rise LNR where the lower numbers seen in recent years continued. As for Large White, reports peaked during standard weeks 30 and 31 when 1574 adults were reported. The highest count reported was of 86 at Sundon Quarry on 23<sup>rd</sup> July (PG).

### Green-veined White *Pieris napi*

Numbers at Sharpenhoe Clappers transect (131) were the largest in the last decade and at Priory Country Park (174) they were the highest since 1997. Reported numbers and distribution for casual recording were slightly greater than average. 100+ were reported from Chicksands Wood on 29<sup>th</sup> July (JA).

### Orange Tip *Anthocharis cardamines*

Numbers on the long-running transects were around their long-term averages except at Priory Country Park and Sharpenhoe Clappers where they were noticeably higher. It was reported from 117 1km squares, the second-largest in the last decade. The peak record of 30 was from the Icknield Way on 16<sup>th</sup> May (RW).

## Hairstreaks

### Green Hairstreak *Callophrys rubi*

The total of 124 reported adults was the highest since 2000. Ten were reported twice on the Sharpenhoe Clappers transect on 13<sup>th</sup> and 20<sup>th</sup> May (DC). All records came from either chalk-based sites or the clay pits of Marston Vale. One site at Kempston Hardwick from where 12 were reported (KB/GW) has since been developed and is likely to have been lost.

### Purple Hairstreak *Neozephyrus quercus*

Although the total of 119 adults and 28 1km squares are both high by comparison with recent years the species is probably very under-recorded. The peak of 28 reported from West Wood on 17<sup>th</sup> July (KB) was achieved by pausing under a small sample of oak trees for fifteen seconds each, recording 1 to 5 adults around the canopy of each. Five of the 1km squares were recorded on after-work evening walks near Bedford, some of which were new record squares for the species (KB).

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

The species seemed to be slightly harder to find than in recent years with Chicksands Wood only yielding total reports of 14 (DC & SP). The Northhill area yielded most of the other reports. Reported from five 1km squares, which is comparable with recent years, but well down on the 16 of 1996.

### **Black Hairstreak** *Satyrium pruni*

The flight period was early, with all reports between 10<sup>th</sup> and 26<sup>th</sup> June, continuing the recent trend of earlier first sightings (23<sup>rd</sup> (2001), 17<sup>th</sup> (2002), 14<sup>th</sup> (2003)). Marston Thrift yielded most reports, with five positively identified out of thirteen hairstreaks seen on 12<sup>th</sup> June (KB), the others remaining unidentified. The species was also seen at Wootton Wood, a private site (KB).

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

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

The species had a second consecutive good year, with 271 adults reported from 72 1km squares, both figures the highest in the last decade. On the Whipsnade Downs transect 28 were reported (GH) which was also the highest of this period, while numbers on other transects were mostly slightly up too, except at Potton Wood where only one was reported (IW/BF). Largest numbers were reported from greensand sites with an estimated 15 from Maulden Wood on 6<sup>th</sup> August and 20 from Rowney Warren on 5<sup>th</sup> August (both SR).

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

Numbers on the three long-running transects where the species is present were close to long-term averages. The species was reported from 23 1km squares, which was the greatest of the last decade (c.f. 18 in 2000, the next highest). It was unexpectedly encountered on two BNHS field trips to Glebe Meadows, Houghton Conquest on 15<sup>th</sup> August and Sandy Heath Quarry on 21<sup>st</sup> August where about five were seen (c/o PG). Both sites are considerable distances from known colonies.

#### **Brown Argus** *Aricia agestis*

For the third consecutive year reported numbers rose and distribution increased. This trend was clear from transects at Whipsnade Downs (GH) and Sharpenhoe Clappers (DC) and in casual recording, where the percentage of all records, the number of adults per record and the number of 1km squares have all risen year-on-year since 2001. The largest count of 25 was seen on the Whipsnade Downs transect on 18<sup>th</sup> August (GH).

#### **Common Blue** *Polyommatus icarus*

Numbers on all transects were down from their unusually high values of 2003, but were mostly close to their long-term averages. It was a similar tale in casual recording, though the reported distribution of 90 1km squares was marginally the highest of the last decade. The peak of 96 adults was reported from Sundon Quarry on 7<sup>th</sup> August (PG).

#### **Chalkhill Blue** *Polyommatus coridon*

Sharpenhoe Clappers (DC) and Totternhoe Old Quarry (GH) transect numbers have shown steady increases over the last three years, reaching totals of 1326 and 2097 respectively, and numbers on Whipsnade Downs (GH) only fell slightly to 256. Overall reporting of this butterfly remained high with over 8% of all adult butterflies being of this species. The highest non-transect report was of 154 from Harlington Hill Chalk Pit on 3<sup>rd</sup> August (PG).

#### **Holly Blue** *Celastrina argiolus*

The regular 4-5 year cycle in numbers began its upturn during the year and reported numbers in the second brood were noticeably higher than the first. 469 adults were reported for the year versus only 90 in 2003, the nadir of the cycle, and 110 1km squares versus 38. The peak of 12 was reported from a garden in Blunham on 10<sup>th</sup> May (TS).

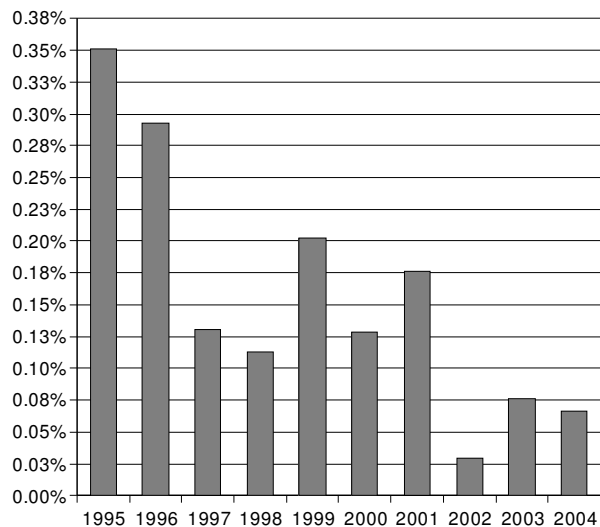
#### **Duke of Burgundy** *Hamearis lucina*

Numbers on the Whipsnade Downs (GH) and Totternhoe Old Quarry (GH) transects were close to the long-term averages. The largest reports were 22 from Totternhoe Old Quarry on 19<sup>th</sup> May (KB) and approximately 10 from Whipsnade Downs on 18<sup>th</sup> May (RW).

## Nymphalids

### White Admiral *Limenitis camilla*

Reported from 10 1km squares of which three were new for the last decade. These new sites, all within a few kilometres of each other, were College Wood (RW&KB), Home Wood (RW), Ickwell Green (ND) and The Lodge (ME). Despite this apparent spread in distribution the species continues to be reported less each year relative to other species. The largest record was of six from West Wood on 3<sup>rd</sup> July (KB).



**Number of White Admiral adults reported as a percentage of number of adults for all species, showing the steady fall in reporting of this species relative to others.**

### Purple Emperor *Apatura iris*

No reports were received this year. Several woods were searched during the flight period and the quest to find a Bedfordshire colony continues.

### Red Admiral *Vanessa atalanta*

After its exceptionally good year in 2003 the species had a slightly below average year. Only 15 had been reported before the end of May, suggesting only a small proportion had over-wintered successfully. Later reports were largely of small numbers, but a peak of 30+ in just 50 yards was reported from Kings Wood Houghton Conquest on 16<sup>th</sup> September (BP). The species claimed the record for the latest flight of the year with one seen in Dunstable on 31<sup>st</sup> December (RD).

### Painted Lady *Vanessa cardui*

After its excellent year in 2003 the species had an undistinguished year with fairly typical numbers and distribution. As the earliest report was from 6<sup>th</sup> June there was no suggestion of over-wintering adults. After an initial wave of reports in standard weeks 23 and 24 (4<sup>th</sup> to 17<sup>th</sup> June) a second larger peak occurred in weeks 31 to 33 (30<sup>th</sup> July to 19<sup>th</sup> August).

### Small Tortoiseshell *Aglais urticae*

The species' recent revival was maintained with a second consecutive good year reported in casual recording and on transects, except at Potton Wood and Hill Rise where numbers slipped back to their earlier low values. The peak report was of 28 in Palmers Wood on 27<sup>th</sup> June (SP).

### Peacock *Inachis io*

Peacock numbers appear to have been falling slowly over the last three years with 2004 producing the fewest on most transects and in casual recording, although it is still widespread being reported from 122 1km squares. The new brood usually results in a large peak in numbers in late July and early August but in 2004 this period coincided with a spell of wet and windy weather and the reported peak was noticeably smaller than usual. The largest report was of 41 from Sundon Quarry on 29<sup>th</sup> July (PG).

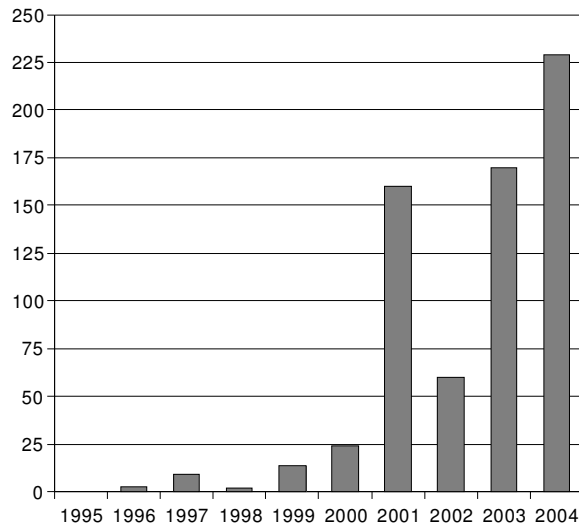
### **Comma** *Polygonia c-album*

Numbers on the long-running transects were unexceptional except at Priory Country Park where the total of 90 was the largest in a decade (c.f. 80 in 1998). Casual recording also suggested an unexceptional year, but the species remained widespread, reported from 99 1km squares. Over 50 were seen feasting on blackberries in King's Wood Houghton Conquest on 16<sup>th</sup> September (BP).

### **Fritillaries**

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

The species had its best ever year on the Sharpenhoe Clappers transect (DC) with a total of 229 reported, up from the previous highest total of 170 in 2003. Apart from two on Pegsdon Hills (DW & KW) and two at Barton Hills (RR) all other reports were from Sharpenhoe Clappers/Moleskin.



**Number of Dark Green Fritillaries reported on the Sharpenhoe Clappers transect over the last decade.**

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

The species was reported from three mid-Bedfordshire sites. There were three sightings of a singleton at College Wood on 24<sup>th</sup> and 25<sup>th</sup> July (RW & KB) on one occasion confirmed as a female (RW). Another sighting was on the Old Warden Tunnel transect on 7<sup>th</sup> August (KB) and three or four more were seen at Chicksands Wood on 15<sup>th</sup> August (BP & KB) including one male which was photographed (KB).

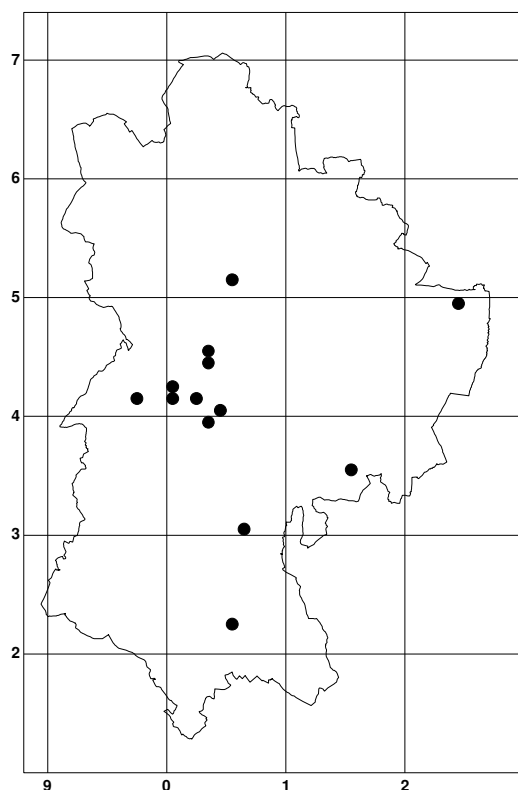
### **Browns**

#### **Speckled Wood** *Pararge aegeria*

The species continues to do well, reported from 157 1km squares, the second highest in a decade and second only to Small White. The average number of adults per record at 3.06 was also second highest, suggesting good local abundance. The transects tell a mixed story with numbers down for the second consecutive year at Potton Wood (IW/BF), remaining high at Priory Country Park (RB/EN) and a very large rise to 186 at Sharpenhoe Clappers (DC), easily the largest in a decade.

#### **Wall Brown** *Lasiommata megera*

A slight recovery may have occurred with reports from 13 1km squares, spread across much of the county, but particularly concentrated in the Marston Vale clay pits, with 11 reported from Coronation Pit (SW), 15 in Rookery Pit (KB) and a few others in nearby sites. In total 43 were reported, the highest count since 2000. The latest report on 11<sup>th</sup> October in Kempston Hardwick (JC) was presumably of a third generation individual.



**The 1km squares from which Wall Brown was reported in 2004, showing the clustering of sightings in Marston Vale.**

**Marbled White** *Melanaria galathea*

Numbers remained high on the chalk-based transects, doing especially well on Whipsnade Downs with totals more than doubling over 2003's (GH). Countywide reported from a fairly typical 58 1km squares, with 7.79% of all adult butterflies being of the species. The total of 3699 adults reported was the largest in a decade.

**Gatekeeper** *Pyronia tithonus*

It was generally a good year for the species, with especially high numbers on the Totternhoe Old Quarry (GH) and Priory Country Park transects (RB/EN). The overall total of 7766 adults was second only to 1996 in the last ten years. Reported distribution of 121 1km squares was typical. On 29<sup>th</sup> July over 500 were seen in Chicksands Wood (JA).

**Meadow Brown** *Maniola jurtina*

As usual the species was the most reported, with over 17% of all adults being Meadow Browns. With 148 1km squares reported it also remains well distributed. Numbers were flat on most transects except at Potton Wood where numbers have fallen to their second lowest in a decade (298) and well down on the 709 reported in 2003 (IW/BF).

**Ringlet** *Aphantopus hyperantus*

On most transects numbers were slightly down on their long-term averages, but the species continues to remain common. The largest report was of 146 from Yelnow New Wood on 4<sup>th</sup> July (I&SK).

**Small Heath** *Coenonympha pamphilus*

It was a second consecutive good year at Whipsnade Downs with 242 reported (GH) and Sharpenhoe Clappers with 344 (DC). There was a significant rise in the number of 1km squares reported (61) well up on recent years (26 (2002) and 34 (2003)) and the total of 1666 adults was similarly higher (262 (2002) and 1082 (2003)). The peak of 31 was reported from one section of the Pegsdon Hill transect on 22<sup>nd</sup> June (DW/GB).

Summary of 2004's records as of 23<sup>rd</sup> February 2005

Species	Records	Adults	Squares		Records (%)	Adults/All-species adults <sup>1</sup> (%)				
			10km	1km		2000	2001	2002	2003	2004
Small Skipper	320	1776	16	78	3.02	1.34	1.88	2.44	2.21	3.26
Essex Skipper	96	171	13	30	0.91	0.21	0.28	0.25	0.34	0.31
Small/Essex Skipper	20	171	5	12	0.19	0.00	0.00	0.00	0.00	0.31
Large Skipper	287	1487	17	83	2.71	2.34	1.93	8.70	2.26	2.73
Dingy Skipper	78	275	8	22	0.74	0.18	0.22	0.28	0.34	0.50
Grizzled Skipper	57	104	14	26	0.54	0.07	0.01	0.07	0.10	0.19
Clouded Yellow	30	36	11	15	0.28	0.53	0.01	0.11	0.03	0.07
Clouded Yellow sp.	1	1	1	1	0.01	0.00	0.00	0.00	0.00	0.00
Brimstone	549	1125	18	119	5.19	3.21	1.35	1.44	1.55	2.06
Large White	577	1914	18	119	5.45	2.70	2.63	3.17	3.06	3.51
Small White	898	4168	19	159	8.49	3.47	4.59	3.82	6.15	7.65
Green-veined White	706	2829	19	173	6.67	4.17	4.22	6.04	3.27	5.19
Small/G.V. White	85	303	14	37	0.80	0.00	0.00	0.00	0.00	0.56
Orange Tip	285	560	20	117	2.69	1.22	0.82	0.98	0.73	1.03
Green Hairstreak	54	124	8	15	0.51	1.06	0.22	0.24	0.13	0.23
Purple Hairstreak	37	119	11	28	0.35	0.14	0.15	0.10	0.04	0.22
White-letter Hairstreak	13	42	4	5	0.12	0.02	0.09	0.09	0.17	0.08
Black Hairstreak	10	10	1	4	0.13	0.01	0.01	0.01	0.02	0.02
Small Copper	159	271	18	72	1.50	0.07	0.11	0.09	0.51	0.50
Small Blue	61	219	8	23	0.58	0.96	2.24	5.43	5.00	0.40
Brown Argus	181	456	15	44	1.71	0.68	0.20	0.37	0.75	0.84
Common Blue	448	1911	19	90	4.23	3.51	5.56	2.84	5.72	3.51
Chalkhill Blue	225	4434	7	17	2.13	7.30	6.82	6.08	8.64	8.14
Holly Blue	304	469	18	110	2.87	0.18	1.75	1.20	0.21	0.86
Duke of Burgundy	36	167	3	5	0.34	0.10	0.12	0.13	0.15	0.31
White Admiral	22	36	7	10	0.21	0.13	0.18	0.03	0.08	0.07
Red Admiral	237	311	19	91	2.24	1.24	1.45	0.76	1.73	0.57
Painted Lady	177	260	17	72	1.67	0.64	0.11	0.55	3.05	0.48
Small Tortoiseshell	478	970	19	146	4.52	1.06	1.06	1.27	2.87	1.78
Peacock	457	1068	20	122	4.32	4.72	5.62	3.50	2.89	1.96
Comma	306	554	19	99	2.89	1.02	1.42	1.22	1.74	1.02
Dark Green Fritillary	47	297	3	7	0.44	0.14	1.84	0.40	0.51	0.54
Silver-washed Fritillary	7	9	3	4	0.07	0.00	0.01	0.01	0.01	0.02
Speckled Wood	705	2160	20	157	6.66	4.85	4.88	5.72	4.02	3.96
Wall Brown	21	43	7	13	0.20	0.36	0.13	0.04	0.01	0.08
Marbled White	305	3699	15	58	2.88	9.12	8.58	5.60	4.86	6.79
Gatekeeper	564	7766	19	121	5.33	11.04	12.53	8.93	10.12	14.25
Meadow Brown	902	9440	19	148	8.52	21.92	21.08	14.98	16.86	17.32
Ringlet	392	3081	17	94	3.70	9.14	4.62	12.37	7.32	5.65
Small Heath	428	1666	16	61	4.04	1.12	1.31	0.78	2.56	3.06
Overall	10576	54502	20	353						

<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.

## **ACKNOWLEDGEMENTS**

We are very grateful for the efforts of the 110 people listed here who reported their sightings, either directly or via the newsgroups. We apologise if any name has been inadvertently omitted.

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