

BUTTERFLY TRANSECTS IN BERKSHIRE, BUCKINGHAMSHIRE AND OXFORDSHIRE IN 2010

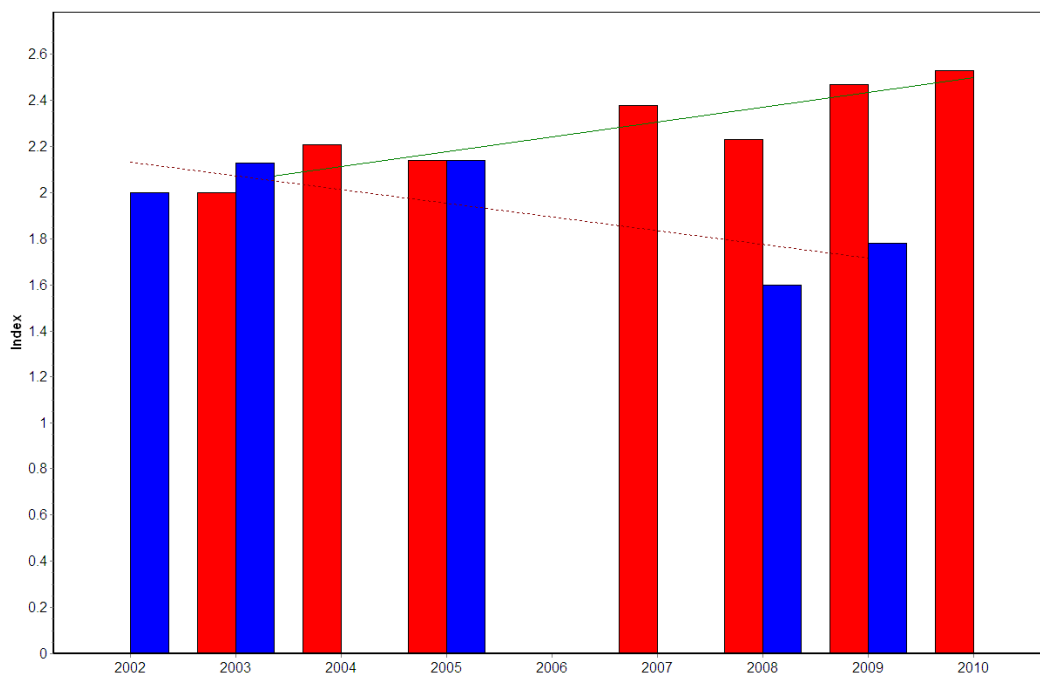
The total number of sites used in this analysis is 62, two more than in 2009. Although new sites obviously cannot show population trends they can add to information about, for example, flight periods.

After a rather cool, wet March, all months of the recording period apart from August had well below average rainfall. April, June and July had temperatures above recent 25 year averages and the rest were slightly below. Broadly speaking, the earlier emerging species were 1-2 weeks later than 2009 but later species and later broods appeared at about the same time as in 2009.

As a rough comparison with 2009, just under twice as many sites suffered declines as increases in their overall counts. In terms of species, increases and decreases were evenly divided, falling fairly neatly into family groups. Declines were recorded for Small and Essex Skipper, all the whites except Orange-tip, all vanessids except Small Tortoiseshell and White Admiral and browns, except Ringlet and Small Heath.

Winners included all the exceptions already mentioned, the rest of the skippers, and all the lycaenids. Common Blue, White Admiral and Silver-washed Fritillary did particularly well.

Looking in more detail, the combined **Small/Essex Skipper** category declined to its lowest index over nine years and 7% from 2009. The individual species, where recorded, also decreased from 2009 but



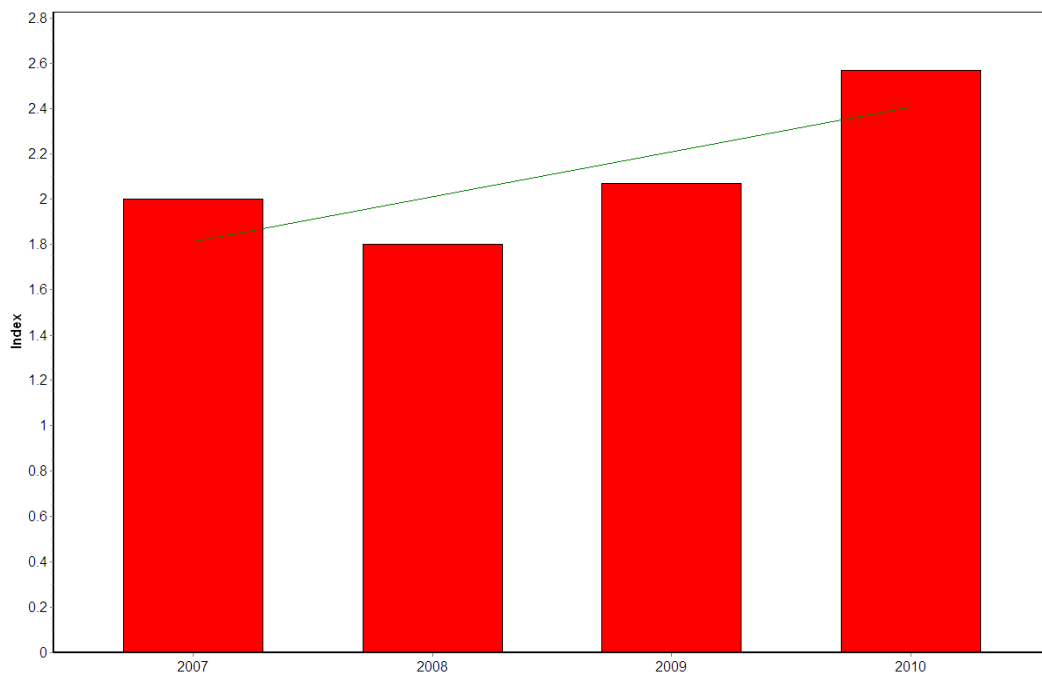
Collated Indices for Dingy Skipper (red) and Grizzled Skipper (blue)

there are less years to show a longer term trend for the individual species. In contrast, **Large Skipper** had its fourth best of 16 years and increased by 16% over 2009. The early emerging **Dingy Skipper** was up 15% with its best year of seven. There are not have enough data for **Grizzled Skipper** to produce an index for 2010 but for sites with counts in both years the total was up 41%.

Brimstone shows a long-term decline over the last 20 years and it suffered a further 16% decrease from 2009. As partial immigrant, the **Large White** fluctuates widely from year to year, so a decrease of 69% from the peak year in 2009 may not be as serious as it appears. Both **Small and Green-veined Whites** decreased, by 34% and 38% respectively, but from a high base, the Small from its third highest index since 1989 and the Green-veined from its peak year over the same period.

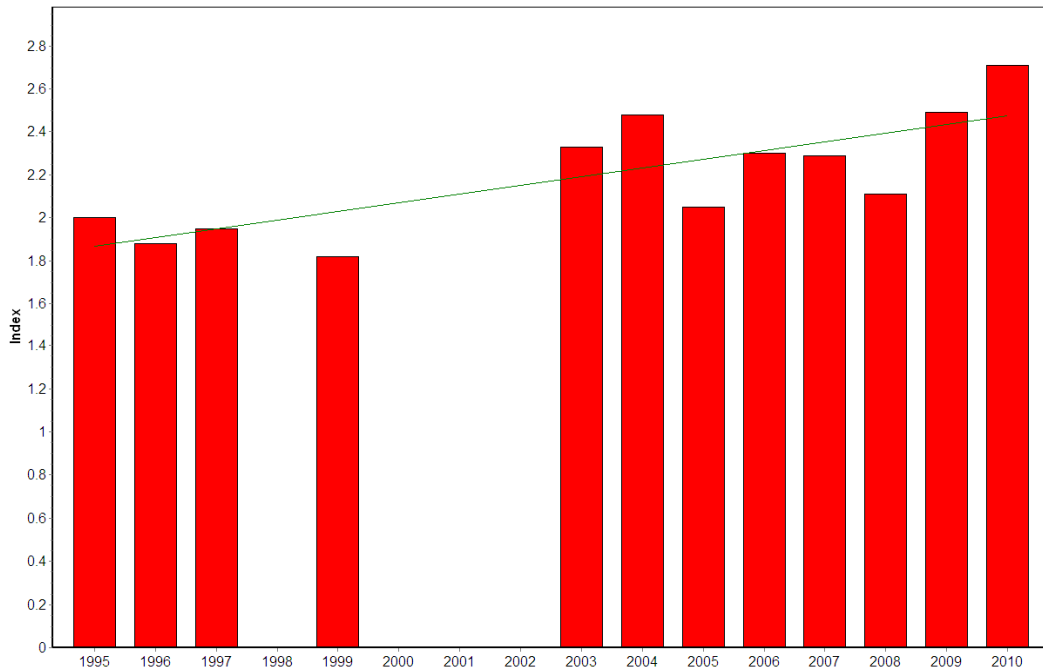
In contrast, the **Orange-tip** had its best year of those with indices, including the last eight and 1998/9. It increased 20% over 2009. Although it emerged about a week later than 2009 it was flying for up to two weeks longer.

The next group of species, the lycaenids, all increased over 2009. Although the **Black Hairstreak** has indices for only the last four years it has continued to increase over that period. These figures should be regarded as tentative, as only in 2010 did the counts used exceed 100. However, they do confirm the results of intensive surveys coordinated by Stuart Hodges.



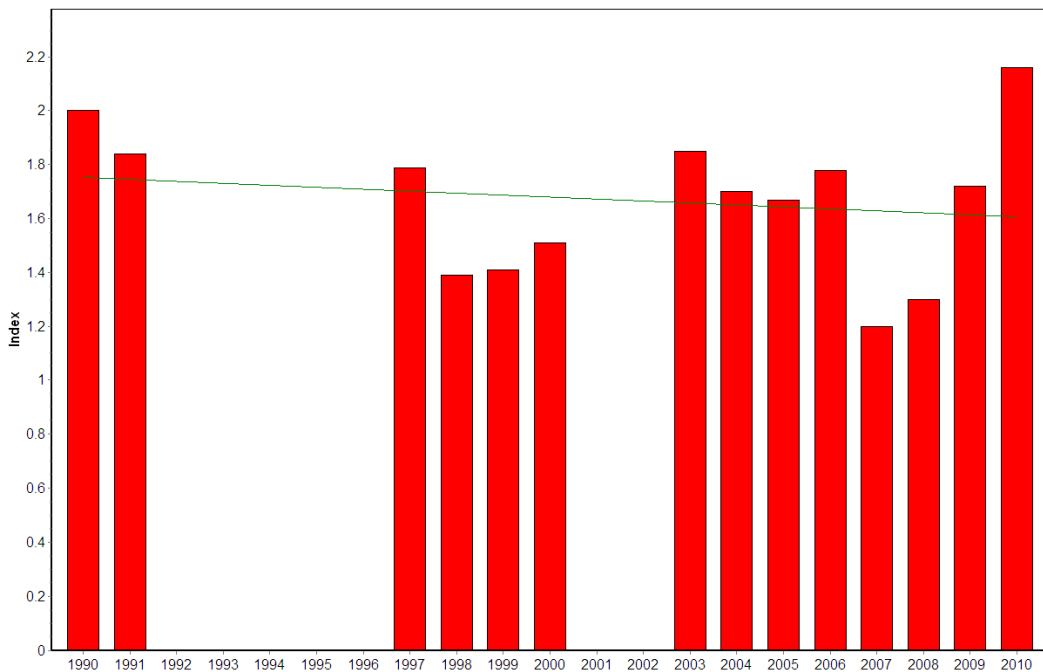
Collated Indices for Black Hairstreak

The **Small Copper** certainly registered its highest index since 1995, increasing by 68% over 2009, the first brood being particularly abundant. This is encouraging, as it had been decreasing during the late nineties.



Collated Indices for Small Copper

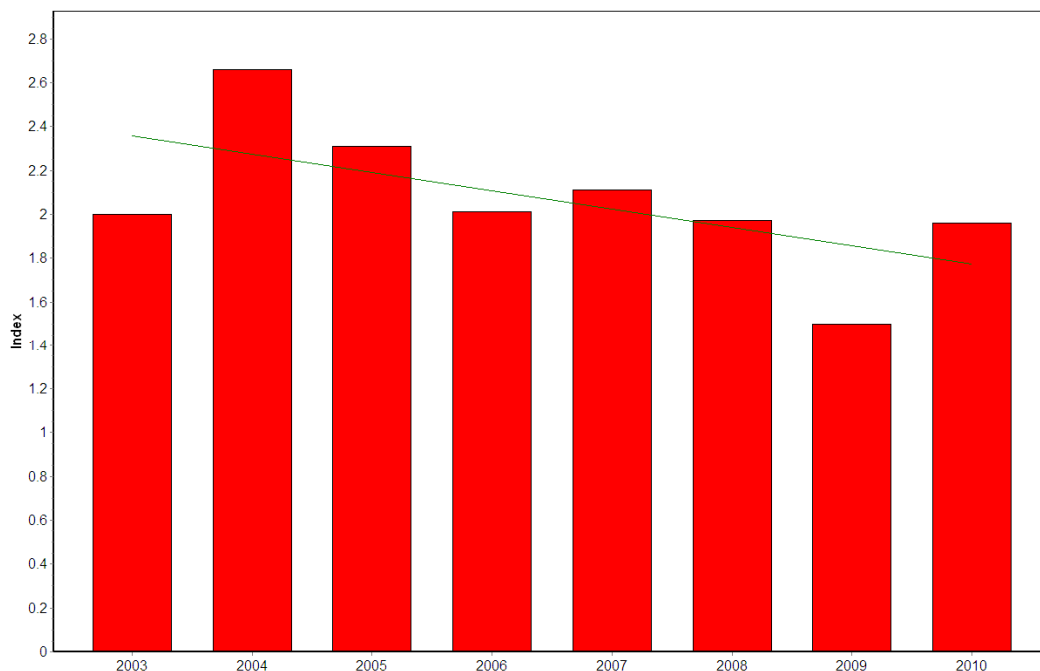
After a peak in 2006 the **Brown Argus** had been decreasing year by year, but 2010 shows a recovery by 138% over 2009 to bring it fourth of the last nine years. The first brood was about a week later than in 2009 but the second was about the same.



Collated indices for Common Blue

This was also the case for the **Common Blue**. It crashed in 2007 to its lowest index, then recovered each year since, with an increase from 2009 to 2010 of 178%. The result was the highest index this century and even higher than the previous peak in 1990. **The Chalkhill Blue** also had a peak in 2006 followed by a crash in 2007, then a steady recovery, increasing 90% in the last year to fourth place in the last seven.

Although the **Holly Blue** made some recovery in 2010, with a 193% increase over 2009 it still recorded its sixth lowest year of the last seven; the peak index was back in 2004.



Collated Indices for Holly Blue

It was a good year for the **White Admiral**. Although it has produced an index for only five years in the last fifteen, 2010 was the highest, at 48% above 2009.

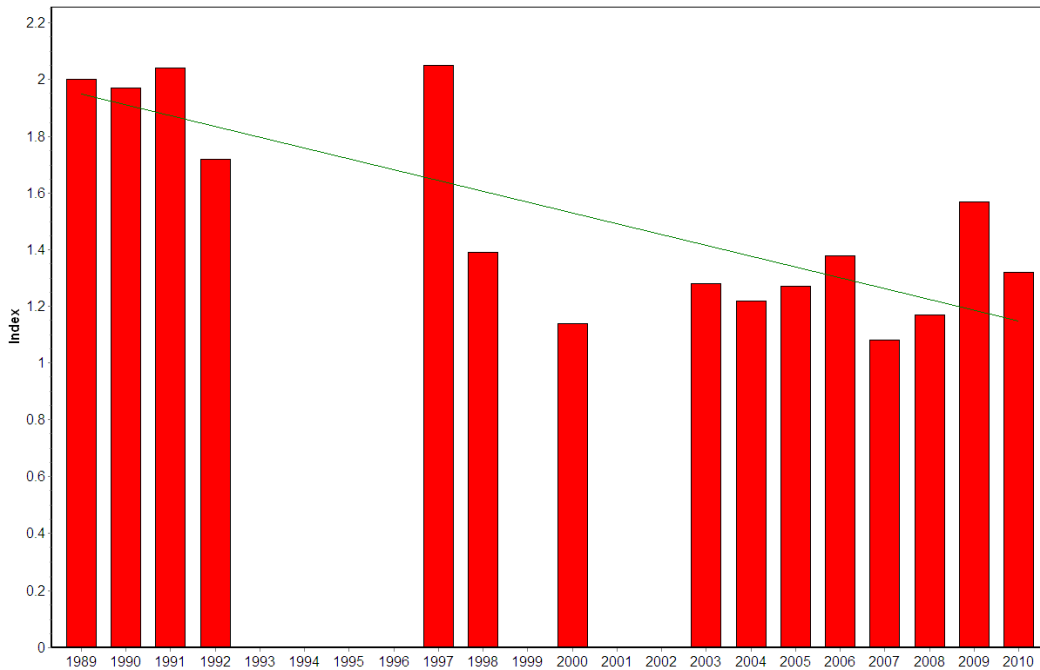
The **Small Tortoiseshell** also increased, by 17%, to have its best year since 2003 even though there were few records after late July, while the main peak in 2009 was in August.

The rest of the vanessids did not fare so well, the **Red Admiral** decreasing for the fourth year in succession from the 2006 peak to 15th place out of 17.

There is not much to be said about the **Painted Lady**, with a total of 27 for the entire 62 sites. There was no discernible invasion.

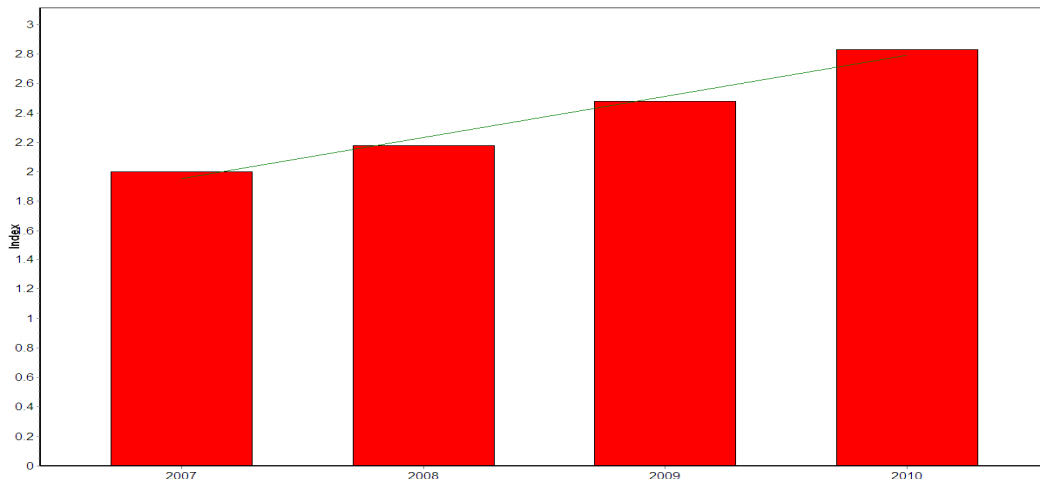
As the **Peacock** decrease of 43% from 2009 was from the peak year of the last eight it still ranks third.

The overall trend over the past twenty years for the **Comma** is downwards, but 2010 was the third best this decade, down 43% from the recent peak in 2009. It was more abundant in the early nineties.



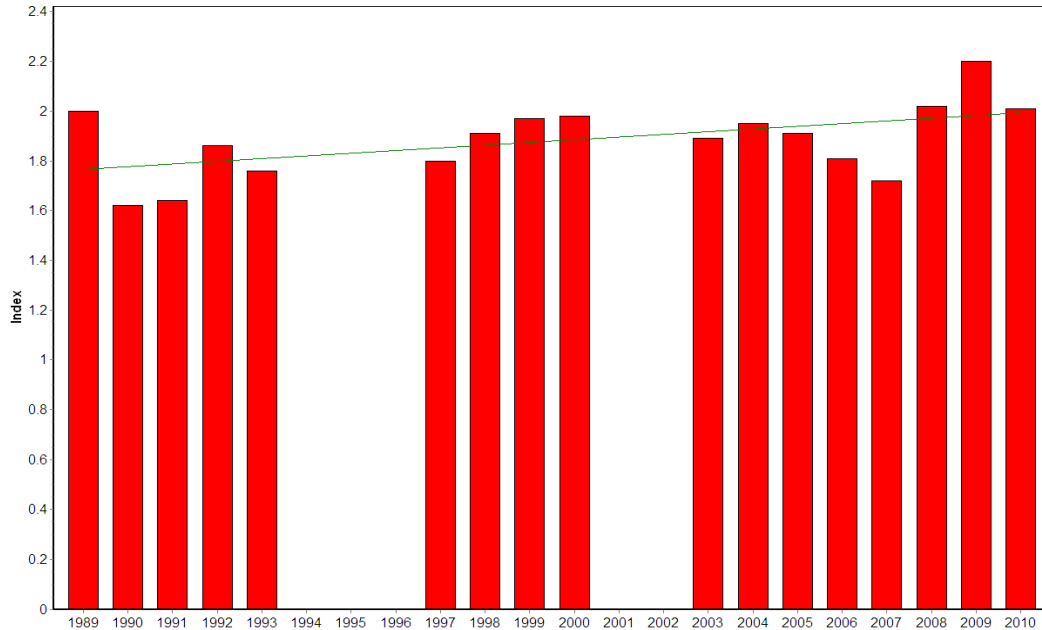
Collated Indices for Comma

As mentioned above, the **Silver-washed Fritillary** had another good year, increasing steadily over the last three years of the four for which indices have been produced, 125% over 2009 and 6.7 times that for 2007. Many wanderers were recorded out of their woodland habitat, even in gardens.



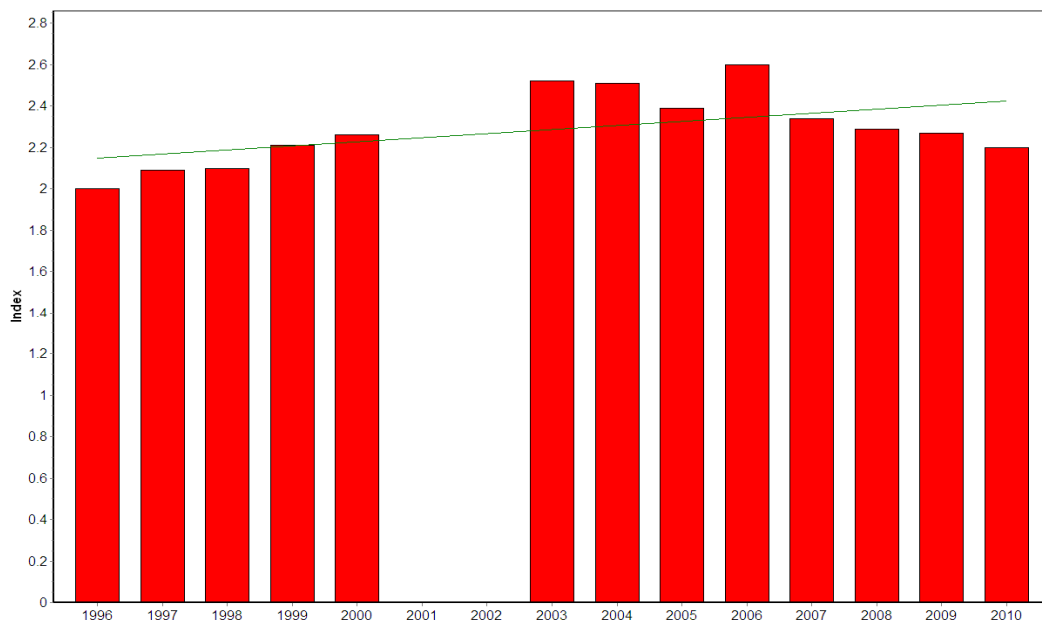
Collated Indices for Silver-washed Fritillary

Although the **Speckled Wood** index fell by 35% from 2009, that was the peak year so 2010 was still the third highest index since the first in 1989. It is a species which shows a definite upwards trend over the period. Early emergences were 1-2 weeks later than in 2009 but the late August peak was the same.



Collated Indices for Speckled Wood

Since 1996 the **Marbled White** went through a peak in 2006 and has decreased steadily since but the index is still above that for the mid-nineties. It decreased by 15% from 2009 but many sites still record hundreds.



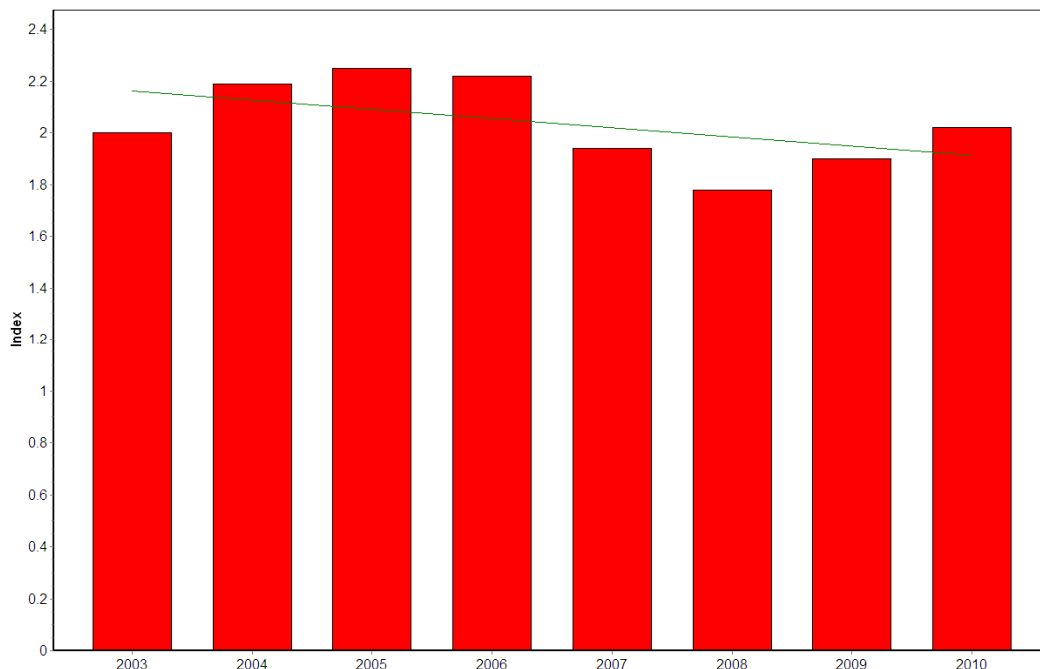
Collated Indices for Marbled White

Numbers of **Gatekeepers** have fallen for the past four years from the peaks 2003-6 but again, totals are still high. There was a slight 4.5% decrease from 2009.

Meadow Browns have declined from a 2005 peak with a further drop of 25% from 2009 but the last decade is still better than most of the nineties.

The past three years have seen increases for **The Ringlet** with a further 7% increase in 2010 to bring it second to the peak year 2003 and well above the previous decade.

Finally, the **Small Heath** has been through a peak and a trough in the past eight years and has been recovering for the past two to bring it fourth. An increase of 32% over 2009 was recorded. It was about a week later throughout the season.



Collated Indices for Small Heath

Of the 42 species recorded only 29 have enough transect data to show population trends. The following species were also recorded: Silver-spotted Skipper, Clouded Yellow the rest of the hairstreaks, Small, Silver-studded and Adonis Blues, Duke of Burgundy, Purple Emperor, the Dark Green and Marsh Fritillaries, Wall and Grayling. Some, such as Clouded Yellow only had one or two records. Others, for example Silver-spotted Skipper, which had 123 and 163 records in the past two years, for some reason still produced no indices. Other data collected, especially by species champions, may be able to analyse trends for at least some of these species.

In general, I have not tried to explain the trends I have described but leave it to readers to draw their own conclusions in the light of their own results and local conditions.

Many thanks to all transect walkers who spent many hours in the field collecting the data. Also to the organisers (often walkers as well, to whom we are doubly indebted) for submitting their data in good time. Colin Williams of the Berkshire, Buckinghamshire and Oxfordshire Wildlife Trusts supplied a substantial fraction of the total data. Much technical support was freely given by Ian Middlebrook, National Transect Coordinator.

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