

BUTTERFLY TRANSECTS IN BARTON FIELDS – UPDATE 2012

For the last three years a group of Green Team members have surveyed butterflies in Barton Fields as part of the UK Butterfly Monitoring Scheme. This has provided a means of assessing the management of the site for butterflies. The survey involves 26 weekly transects, in the period April to September, and has been undertaken by volunteers on a weekly rota.

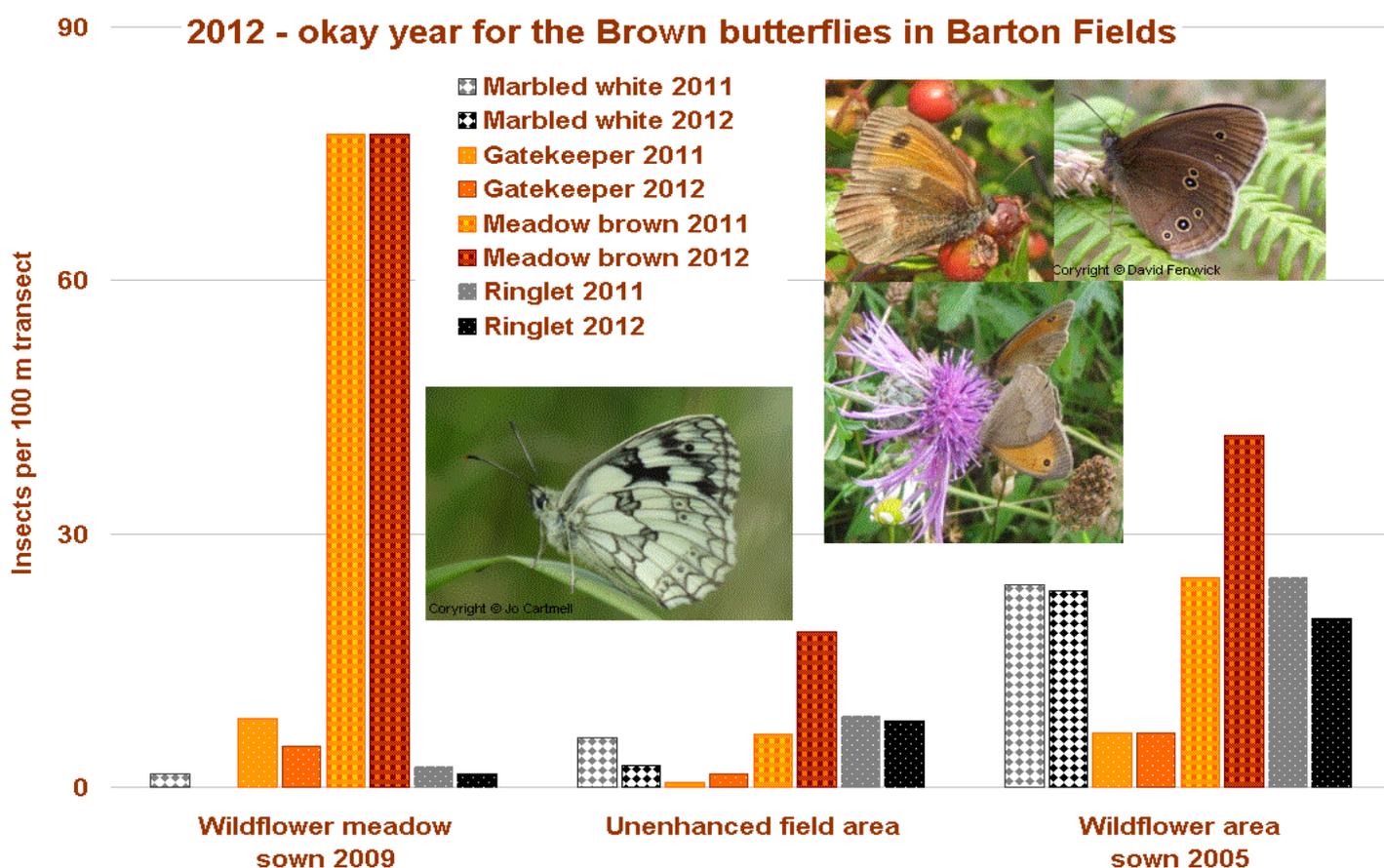
Eleven sections of the Field are surveyed in total. The records of the three dry grassland sections have been presented here, comprising:

- The wildflower meadow at the east end, sown in 2009
- An un-enhanced mid-field area
- An area at the west end, seeded in 2005

The abundance of grassland species of butterfly are compared, in these three sections for 2011 and 2012 in the three charts below:

Browns - Marbled White, Gate Keeper, Meadow Brown & Ringlet

The chart below shows that these four butterfly species were considerably more abundant in the two enhanced sections of grassland. The meadow sown 2009 has a preponderance of Meadow Browns whereas the section seeded in 2005 has a greater diversity of Brown butterfly species. Comparing 2012 with 2011 there appears to be little difference in abundance despite the wet, cool spring and summer. Possibly, as all four species pupate during the spring period, the poor weather did not affect their survival. It remains to be seen whether the cool wet conditions over most of the 2012 season, will affect numbers in 2013.



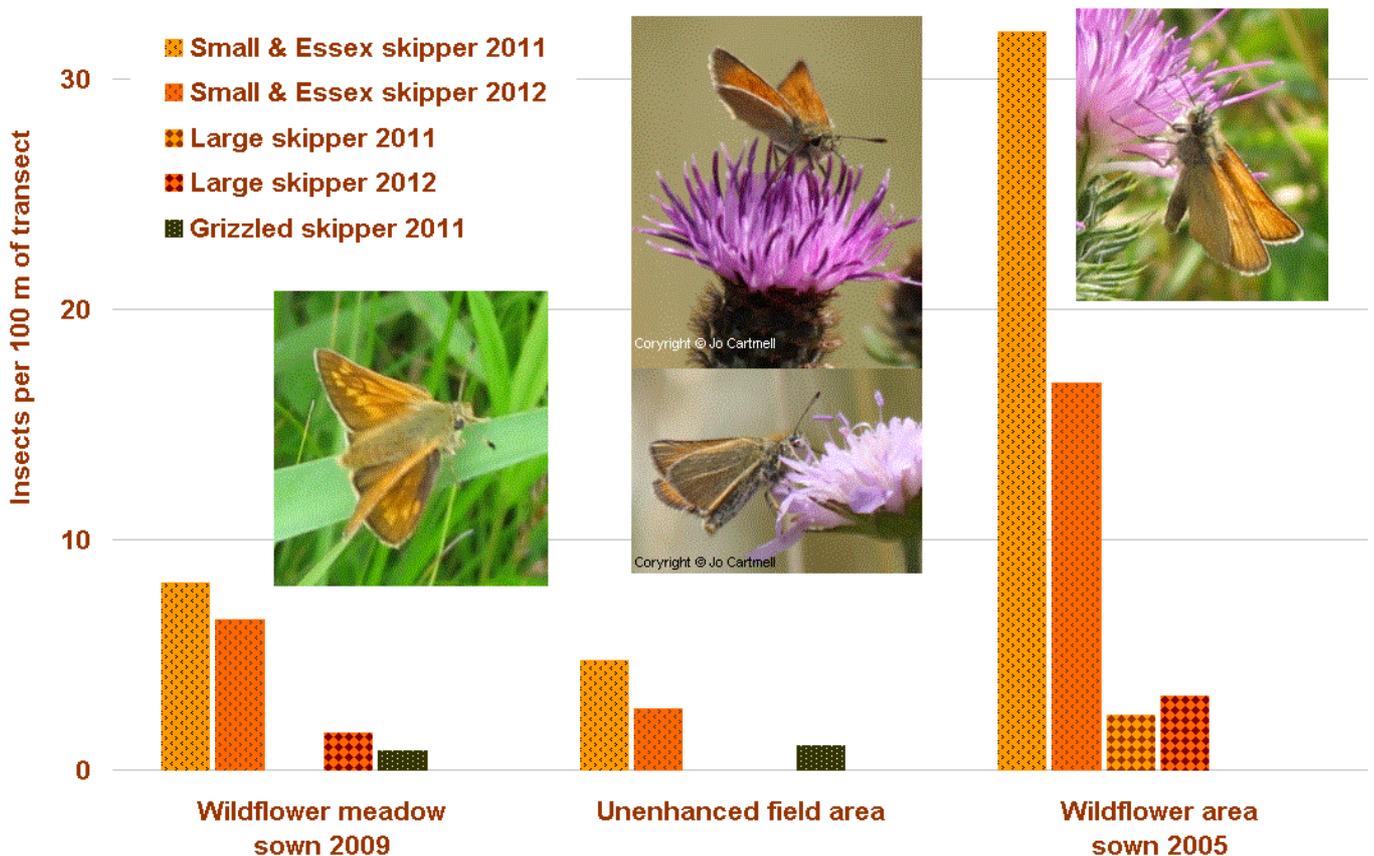
Skippers - Small Skipper, Essex Skipper, Large Skipper & Grizzled Skipper

The Small and Essex Skippers species have not been separated in the chart below, as they can be distinguished only by close inspection of their antennae, which is only occasionally possible in surveys. However, both species are present in comparable numbers. These two species were most abundant in the 2005-seed section, less abundant in the 2009-seeded section and least abundant in the un-enhanced section. Overall, numbers in 2012 were about 50% down compared to 2011.

The Large Skipper was present in both of the seeded sections and was slightly more numerous in 2012 than in 2011

The Grizzled Skipper, was seen in very small numbers in 2011, and not at all in 2012

not a good year for Small & Essex Skippers in 2012



Blues - Common Blue, Brown Argus and Small Copper

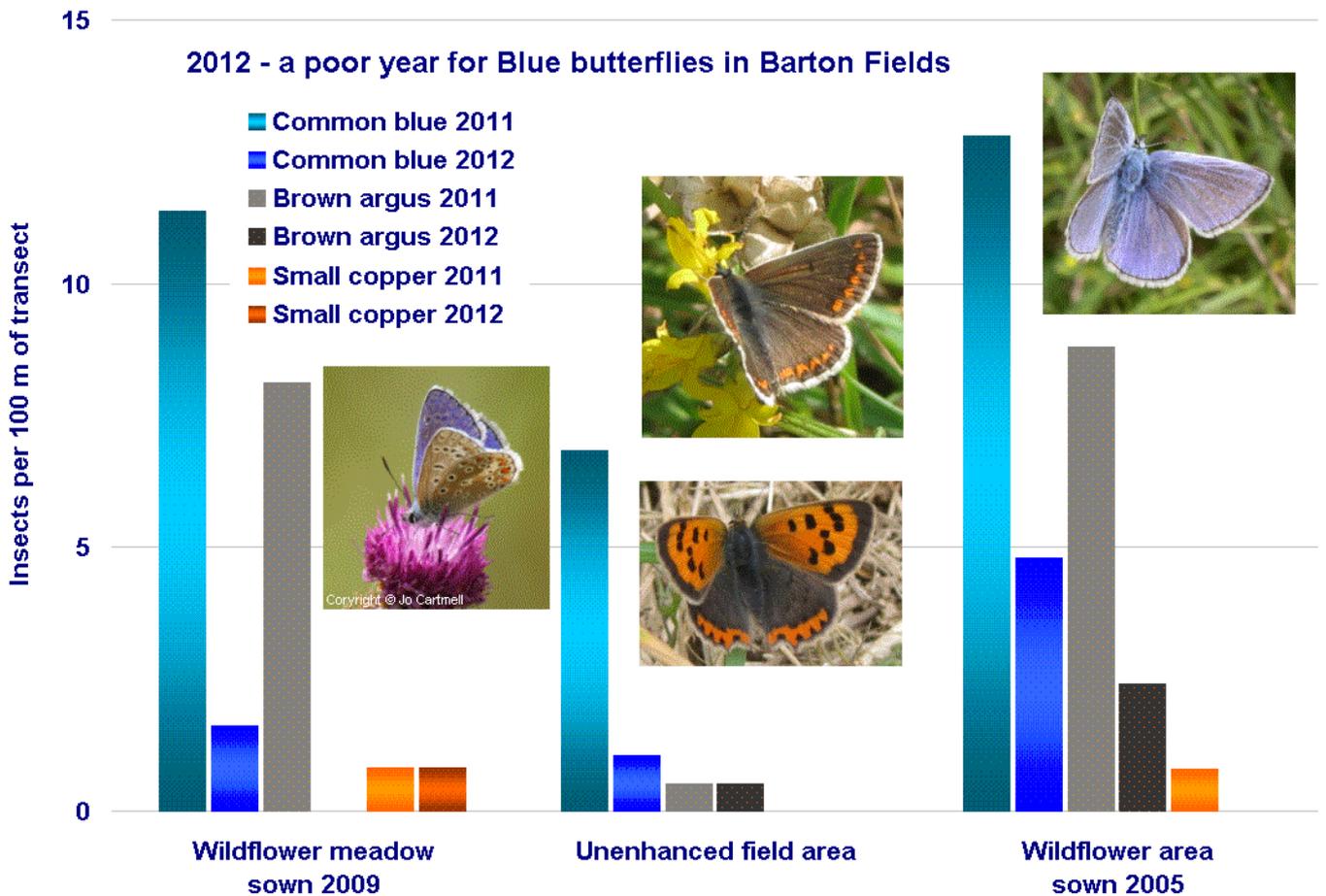
Both Common Blue and Brown Argus caterpillars produce substances attractive to ants, which attend them and help to protect them from predators. These ants also make special cells in their hills, into which the Brown Argus pupa are carried. This may also happen with the Common Blue*. Numerous anthills of Yellow Meadow Ant and Black Ant species are found in the 2005-seeded section. A few anthills are found in the un-enhanced section and none in the 2009-seeded section.

Enhanced numbers of Common Blue and Brown Argus were found in the two seeded areas, though significant numbers were found in the un-seeded section, too.

Numbers of both species were drastically down in 2012, in both the spring and the summer broods. The effect was less apparent in the 2005-seeded section. It is possible that the presence of ants and ant hills in this section may have had a beneficial influence on numbers.

It appears that the combination of cool wet weather in 2012 and the absence of ants was responsible for the drastic reduction in numbers of Blues in the 2009-seeded section.

* Private communication; Prof Jeremy Thomas.



Recorders: Adrian Allsop, Norma Blamires, Jo Cartmell, Eleanor Dangerfield, David Guyoncourt, Helen Stoner, Vivienne Summers.

