

## Heartwood - long term monitoring - Butterflies

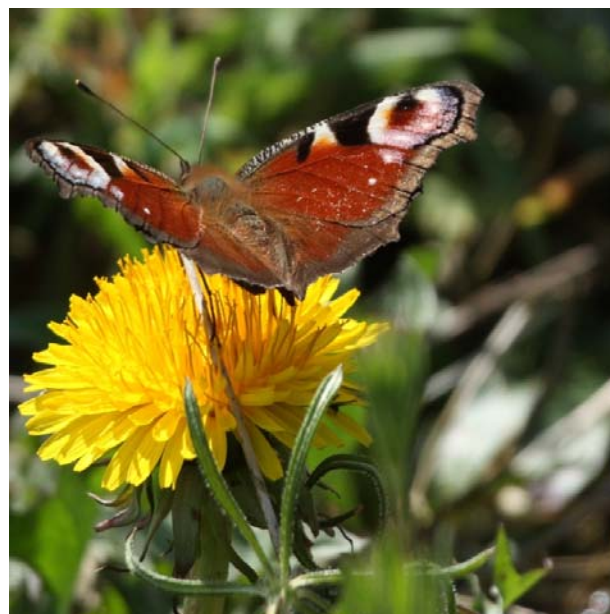
Butterfly monitoring is being carried out by Andrew Steele and volunteers from Herts and Middlesex branch of Butterfly Conservation.

As Heartwood is developed, the changing habitat from highly managed arable crops to open grassland and trees will have a big impact on the populations of butterflies.

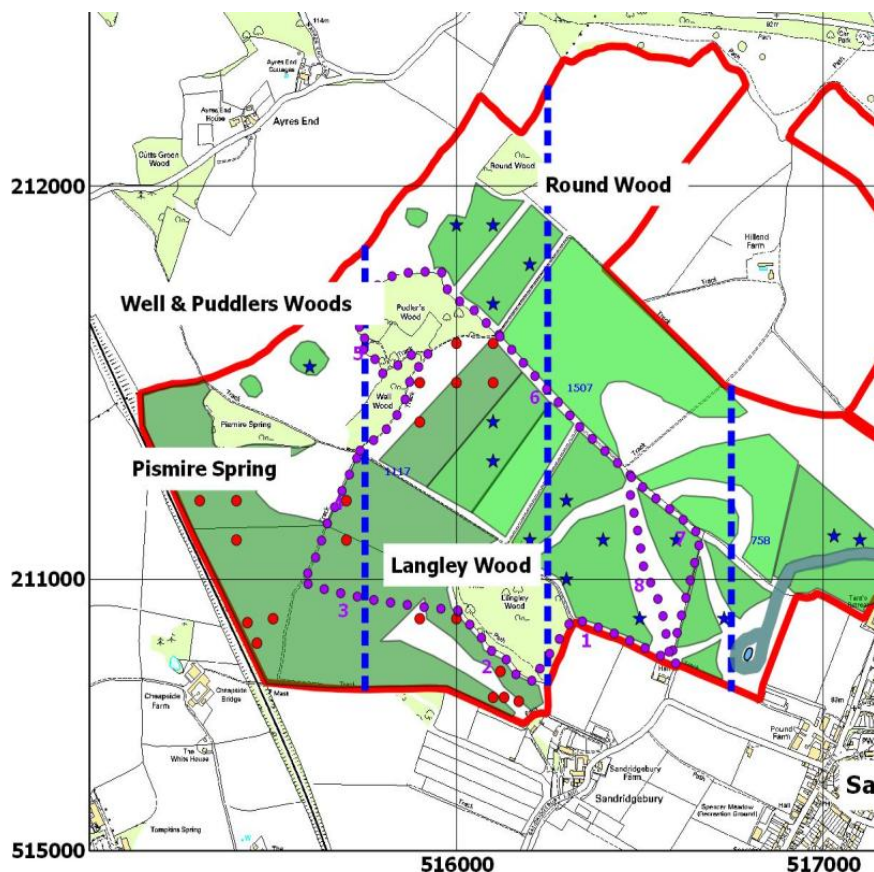
To establish a baseline, two initial visits by volunteers from Butterfly Conservation in 2009 concentrated on the existing woodlands and surrounding fields (Woodland Trust, 2009). They found the woods generally too dark for much butterfly activity. The small clearing and associated east-west ride in Well Wood contained a few butterflies. Areas of old coppice in Round Wood and Langley Wood, cut about 10-15 years ago, had re-grown and were dark. The pit area at the south end of Round Wood potentially had some interest. They reported that the site contained a good deal of high quality woodland edge habitat where grassy field margins had been unploughed around the edge of the small woods.

True woodland specialists such as Silver-washed Fritillary & White Admiral were not found although both were observed in good numbers in nearby Symondshyde Great Wood on the day of the second visit. Purple Hairstreak was not recorded, but was present in good numbers on the adjoining Nomansland Common. White-letter Hairstreak was not found despite 2 hours searching suitable Elm. The absence of these species was attributed to the lack of woodland management.

The woodland edge of all four woods was attractive habitat for butterflies and Peacocks, Commas and Large Skippers were all present in very good numbers. There appeared to be a small colony of Marbled White on the NW corner of Pismire Spring – this was the least common butterfly recorded on site. Two of the long grass species, Meadow Brown and Ringlet, were both in good numbers. Small Skipper had only just started to emerge and it is likely that it along with Gatekeeper and Essex Skipper will be there in good numbers. Species such as Common Blue, Small Copper, Small Heath and Brown Argus which prefer shorter grass were not found although they are all well distributed in the district.



Peacock at Heartwood by Andrew Steele



Since August 2010 Andrew Steele has carried out surveys on standard transect walks as shown on by the purple dotted line on the map (Wood, 2010 and 2011).

Transects are the main method of measuring how butterfly populations change with time. The technique is simple, involving walking the same set route every week in good weather throughout the summer months (from 1 April to 29 September), and noting down the numbers of each species of butterfly seen within about 5 metres. The Heartwood transect takes 88 minutes and was walked 15 times in 2010 and every week (26 times) in 2011 by Andrew Steele. In both years 22 species were seen. (Wood, 2012).

In 2011 there were increases over 2010 for Marbled White, Essex Skipper, Small Skipper, Red admiral, Common Blue and Purple Hairstreak but loss of Small Copper and big dips in the number of Peacock and Comma see the Table below.

The results for 2012 will be added as soon as they are available.

Small Tortoiseshell feeding on thistle photographed at Heartwood by Andrew Steele



#### Butterfly monitoring in 2011

Butterfly	Total seen	Max	Date	First date	Last date
Small Skipper	27	14	2 July	13 June	15 Aug
Essex Skipper	2	2	2 July		
Large Skipper	90	37	13 June	30 May	11 July
Brimstone	12	6	9 May	12 Apr	13 June
Large White	296	64	11 July	12 Apr	26 Sept
Small White	73	12	23 Apr	12 Apr	19 Sept
Green-veined White	61	9	9 May	12 Apr	12 Sept
Orange Tip	110	31	23 Apr	12 Apr	23 May
Purple Hairstreak	2	1	25 July	25 July	31 July
Brown Argus	2	1	23 May	23 May	13 June
Common Blue	22	9	15 Aug	9 May	22 Aug
Holly Blue	13	7	12 Apr	12 Apr	31 July
Red Admiral	16	6	25 July	11 July	22 Aug
Painted Lady	2	1	19 Sept	19 Sept	26 Sept
Small Tortoiseshell	26	8	11 July	12 Apr	11 July
Peacock	28	6	25 July	12 Apr	12 Sept
Comma	9	3	2 July	27 June	15 Aug
Speckled Wood	54	13	31 July	12 Apr	26 Sept
Marbled White	22	8	2 July	27 June	25 July
Gatekeeper	104	39	25 July	27 June	15 Aug
Meadow Brown	314	81	2 July	18 Apr	22 Aug
Ringlet	81	40	2 July	20 June	25 July

Andrew Steele, July 2012