

## Heartwood - long term monitoring of Breeding Birds

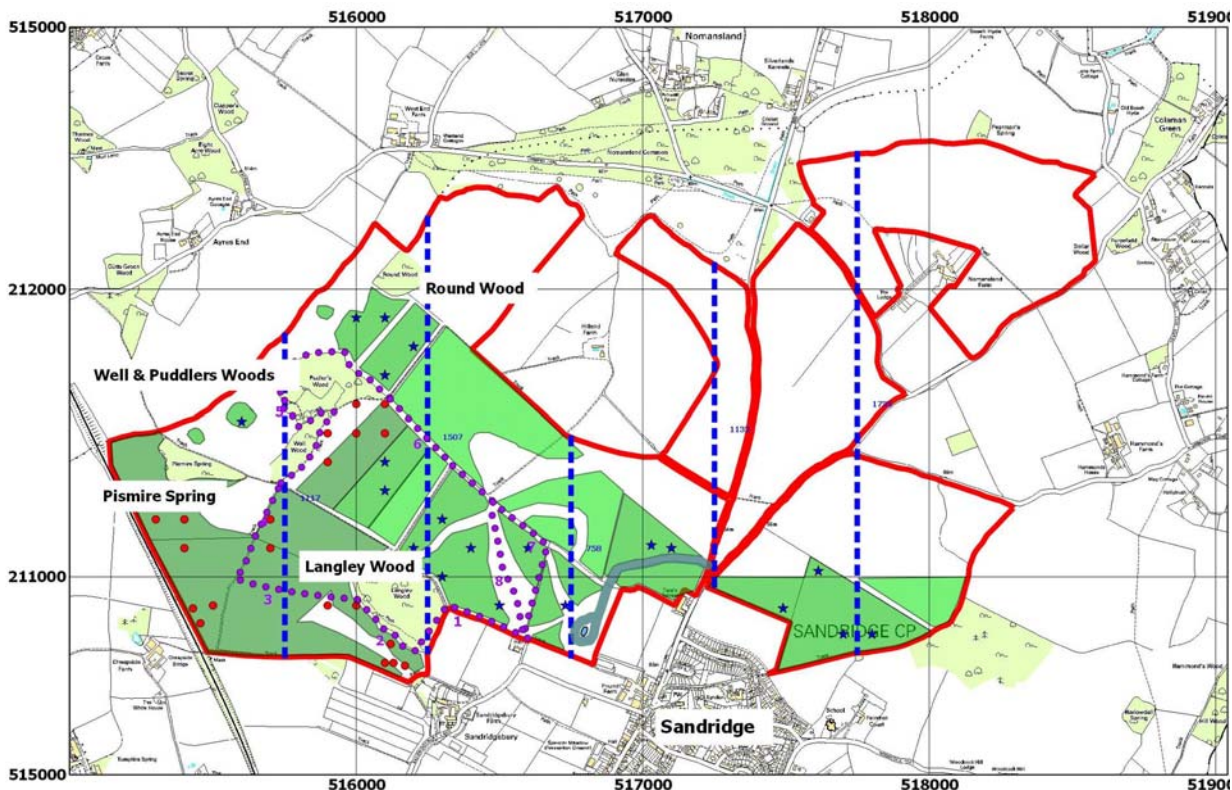
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Birds breeding at Heartwood have been surveyed in spring each year since 2009. A baseline breeding bird survey was carried out over the whole area owned by the Woodland Trust in spring 2009, at this time all the land was being farmed commercially growing arable crops including wheat and oilseed rape. The survey has been repeated each year since. Standard BTO/JNCC/RSPB Breeding Bird Survey (BBS) methods were used that will be repeatable in future years as the habitats are created and develop and providing the potential to compare the results with those from other similar areas of land in due course.



The BBS (Risely *et al.* 2008) is the method used for annual monitoring of common breeding birds in UK and is the major source of data for annual reports on the status of UK's birds (RSPB 2008). The method involves walking transects through the land to be surveyed and recording all birds seen or heard in each 200m section. The birds are recorded in three distance bands from the transect line (0-25m, 25-100m, >100m). Birds in flight are recorded separately. For the national BBS, transects are surveyed within randomly selected 1km squares distributed throughout the UK. For each square, a total of ten 200m sections (2km) are walked.

In the case of the 'Heartwood' land, a series of transect routes running north-south were set out to cover the whole area as shown by the blue dashed lines on the map. Each transect was divided into 200m sections and, to ensure independence of observations, transects were set 500m apart over the whole area. A total of six transects were walked giving a total of 34 x 200m sections.



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A full site survey takes two mornings of fieldwork, from 7.00-9.00am, in two episodes – early April and early June; following standard recommendations for timings and methods.

Although the transects did pass through some of the existing woodlands on the site, additional dedicated surveys will be required to count all the birds breeding in these woods. The results from the three surveys are presented in the table below

*Species and number of birds recorded during Breeding Bird Surveys at Heartwood in 2009-20011,  
Key: v1, first visit in early April; v2, second visit in early June*

<b>Species</b>	<b>2009, v1</b>	<b>2009, v2</b>	<b>2010, v1</b>	<b>2010, v2</b>	<b>2011, v1</b>	<b>2011, v2</b>
Woodpigeon	257	111	57	26	40	23
Skylark	75	48	86	81	102	60
Yellowhammer	21	18	13	9	12	13
Chafinch	20	30	29	39	37	25
Dunnock	18	3	7	3	7	6
Carrion crow	17	29	15	13	42	16
Robin	15	10	15	10	8	8
Blue tit	11	27	16	4	18	15
Wren	8	7	13	7	14	8
Great tit	8	4	7	12	16	3
Blackbird	7	11	20	15	18	10
Great spotted woodpecker	7	2	3	6	2	2
Pheasant	7	3	7	4	5	1
Stock dove	7	2	6	3	0	2
Magpie	6	4	6	6	5	3
Meadow pipit	6	0	2	0	3	0
Mistle thrush	6	0	3	0	1	1
Green woodpecker	5	0	6	2	4	1
Chiffchaff	3	5	4	2	2	4
Jay	3	0	0	0	4	2
Buzzard	3	4	0	0	2	0
Blackcap	2	6	7	5	8	5
Long-tailed tit	2	1	2	0	2	0
Kestrel	2	2	1	0	2	0
Willow warbler	1	0	0	0	3	0
Red-legged partridge	1	5	3	3	0	0
Song thrush	1	4	11	1	5	2
Linnet	1	20	5	11	10	17
Whitethroat	0	11	2	17	13	17
Bullfinch	0	2	0	1	0	0
Swift	0	3	0	1	0	2
Feral pigeon	0	1	0	0	0	0
Greenfinch	0	1	0	0	1	0
Goldfinch	0	1	0	0	3	1
Jackdaw	0	3	0	1	5	3
Swallow	0	0	4	7	2	4
Collared dove	0	0	3	2	1	0
Starling	0	0	0	5	3	13
Cuckoo	0	0	1	1	0	0
Marsh tit	0	0	1	0	1	0
Turtle dove	0	0	1	0	0	0
Treecreeper	0	0	0	1	1	0
Grey heron	0	0	0	1	0	0
Lapwing	0	0	0	0	2	3
Reed bunting	0	0	0	0	3	1
Yellow wagtail	0	0	0	0	3	0
Rook	0	0	0	0	2	0
Nuthatch	0	0	0	0	1	0
Sparrowhawk	0	0	0	0	1	0
Coal tit	0	0	0	0	1	0
Lesser whitethroat	0	0	0	0	1	0
Nightingale	0	0	0	0	0	1
Total birds recorded, excluding wood pigeons	263	267	299	273	376	249



## Discussion

The total number of species recorded in the transect surveys has increased over the three years from 35 species in 2009, to 37 in 2010 and 46 in 2011, representing an increase in diversity.

If pigeons are excluded, the total number of birds seen on the first yearly visit has also increased. The counts vary between episodes; episode 1 sometimes includes winter visitors or birds passing through which did not stay to breed on the site, as no birds were subsequently detected in episode 2. For some other species (for instance the Dunnock) the counts vary between episodes simply because the birds are more detectable on one episode than the other. In these cases the highest count is probably the best indicator of numbers. Of the five red listed species recorded, three (Skylark, Yellowhammer and Linnet) are open ground/farmland specialists (Eaton *et al*, 2009).

## References

- Eaton M A, Brown A F, Noble D G, Hearn R, Aebischer N J, Gibbons D W, Evans A & Gregory R D (2009). Birds of Conservation Concern 3: the population status of birds in the United Kingdom, Channel Islands and the Isle of Man. *British Birds*, 102, 296-341.
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- RSPB (2008). The State of the UK's Birds 2007. RSPB, Sandy.
- Woodland Trust (2009) Heartwood Forest Environmental Statement [www.woodlandtrust.org.uk/en/support-us/appeals/england/heartwood-forest/more-information/](http://www.woodlandtrust.org.uk/en/support-us/appeals/england/heartwood-forest/more-information/)

## Photographs

*Great Tit on 26 February 2012 by Ben Hartman*

*Young Whitethroat in a hedge at Heartwood on 13 June 2011 by Andrew Steele*

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