

Small Mammals at Heartwood

In early October 2012 we were lucky to be visited by Veronica Carnell from Northumbria Mammal Group (pictured left). She kindly led a small group of volunteers in small mammal trapping as part of our ongoing monitoring of species and woodland creation habitat at Heartwood Forest.

Until now our knowledge of small mammals at this location had been limited to individual unrecorded sightings, and a presumption that the population of mice, shrews and voles were healthy enough to feed the Owls and birds of prey that are making Heartwood their home.



So why did we want to monitor small mammals? Their presence is a key indicator of habitat quality, so incorporating these species into our monitoring regime informs us about their population, their conservation and biodiversity across Heartwood. It allows us to identify any trends and transformations within the habitat that we are creating over this 858 acre site, as it changes from agricultural use to a forest habitat.

How did we do it? By using Longworth traps (an aluminium trap comprised of a tunnel and a nest box), designed for the minimum of discomfort for trapped animals, they allow us to humanely capture small mammals weighing 6 grams or more. This is also an effective way of monitoring a range of mammal species occupying the same habitat at one time. A Natural England licence is also required to carry out trapping of Shrews. Autumn is the best time of year to conduct these surveys as their population should be at its peak.

Over the course of four days, a total of 30 Longworth traps were placed in 6 areas, shown by coloured dots on the maps below.;

1. Natural regeneration area (unmanaged since last harvest in Summer 2008).
2. Bramble in established ancient woodland (Pudlers Wood)
3. Woodland edge (Langley Wood)
4. Thick grass (planted in 2009-10 season)
5. Grass & clover (planted in 2011-12 season)
6. Hedgerow margin, long grass

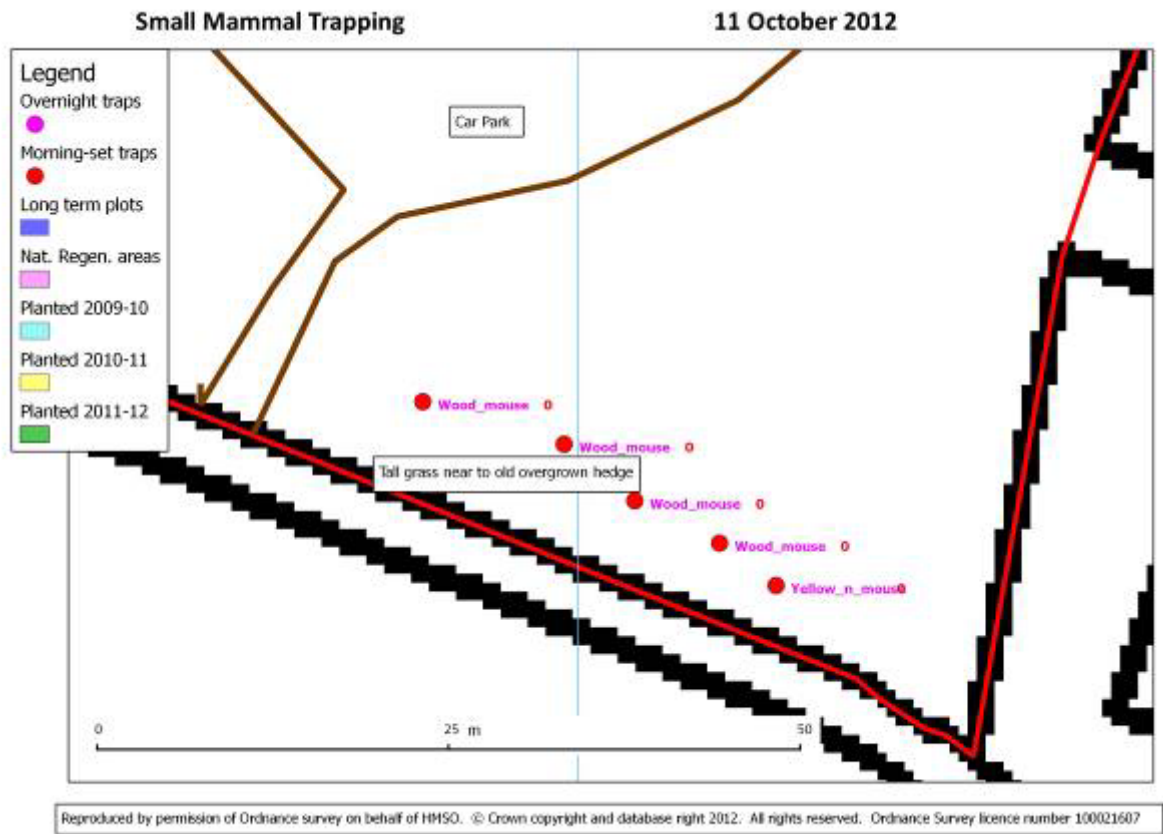
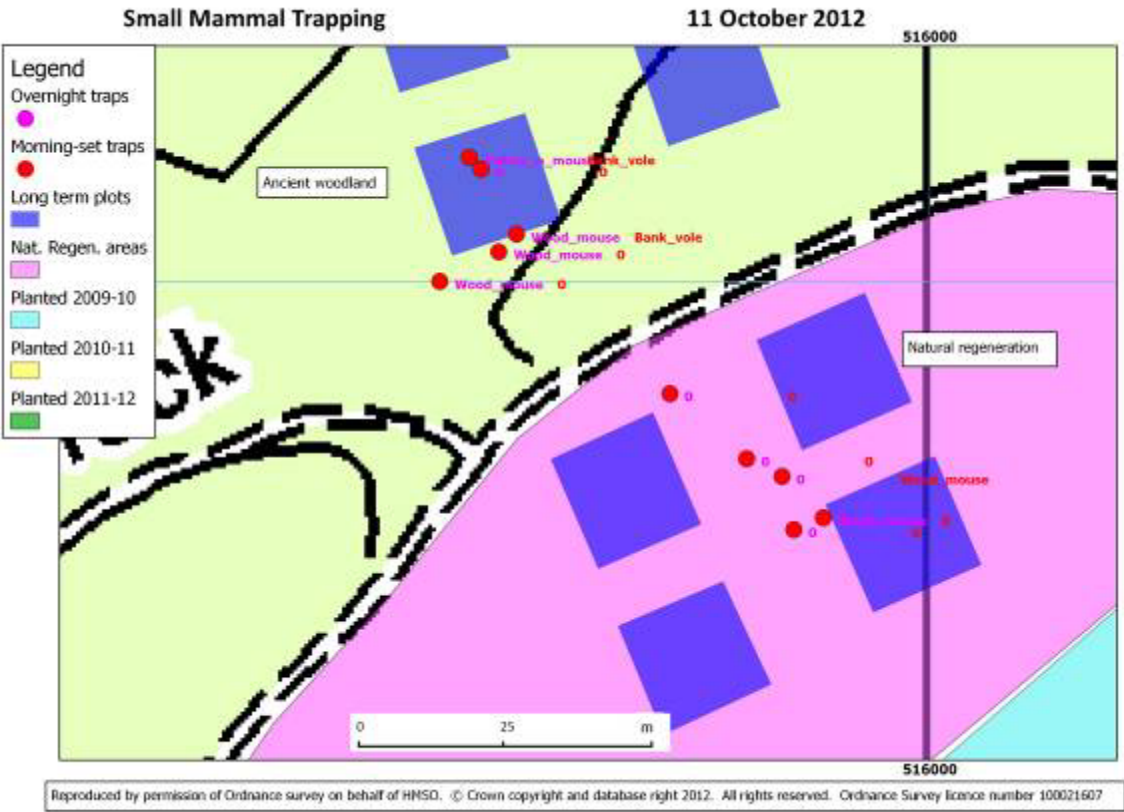
On the afternoon of the first day, five traps were filled with hay for insulation and baited with seeds & grain, blowfly pupae and apple for moisture. They were then placed on pre-bait, (ie with the doors locked open) in a line in each location. This was two days prior to the actual trapping activity planned, to allow the population in the area to become familiar with them and less trap-shy

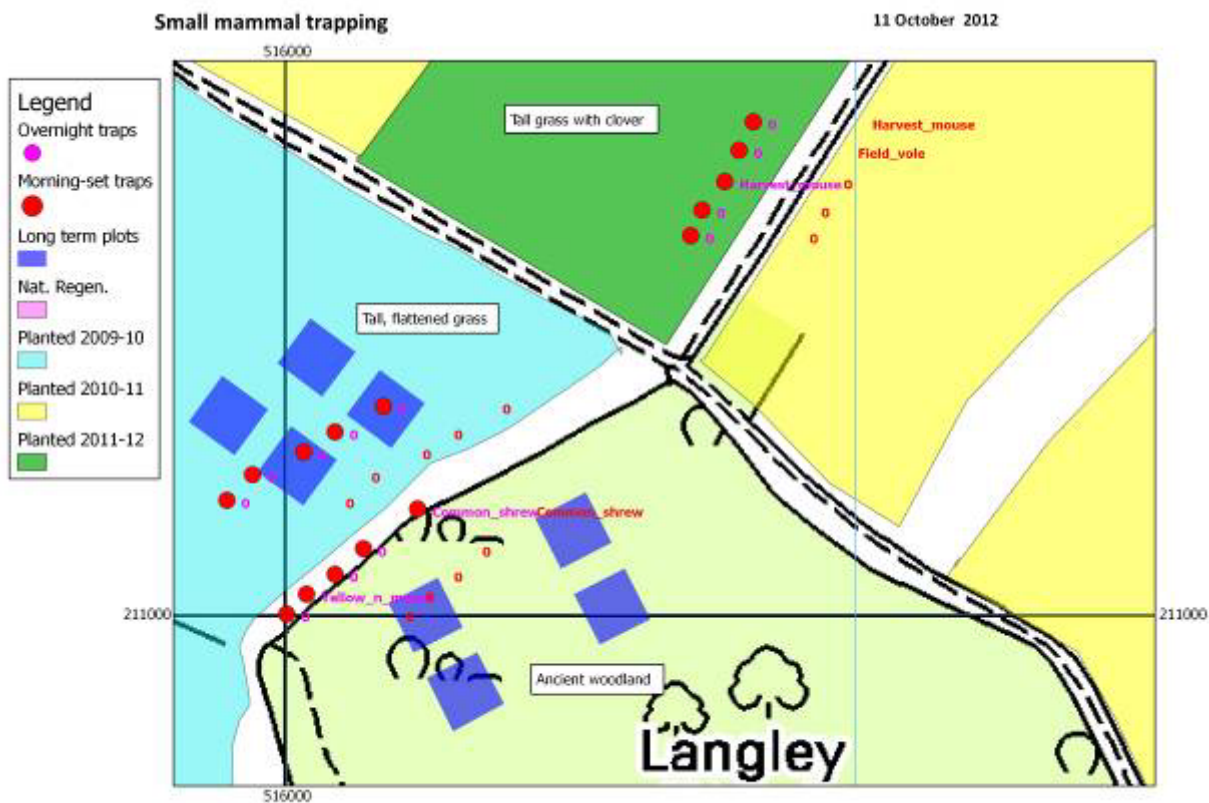
On the third night, the traps were rebaited where necessary and set between 10.30pm – 12.30am. Shrews have a high metabolic rate and need to eat every two hours, so adequate baiting was required to avoid starvation. The following morning the traps were checked between 6am – 9am where findings were recorded and traps then re-set for a final check between 10-30am and 12 noon.

A summary of the animals trapped on 11 October 2012 is below

Area	Thicket		Pudler's Wood		Langley Wood edge		Sunday Times		Magic Wood		Hedge by car park	
Vegetation	4 yrs growth of ash, hornbeam etc		Brambles under ancient forest		Thick shrubs & trees along edge of ancient hornbeam wood		Tall flattened grass. Saplings planted 2009/10		Tall grass & clover. Saplings planted 2011/12		Very tall grass alongside old overgrown hedge	
	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day
Wood mouse	1	1	3								4	
Yellow necked mouse			1		1						1	
Harvest mouse									1	1		
Bank vole				2								
Field vole										1		
Common shrew					1	1						
Totals	1	1	4	2	2	1	0	0	1	2	5	0

Species	Total	Total	Total
	Overnight	Morning	All
Wood mouse	8	1	9
Yellow necked mouse	3		3
Harvest mouse	1	1	2
Bank vole		2	2
Field vole		1	1
Common shrew	1	1	2
Totals	13	6	19





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It was encouraging to find Harvest Mice, a species of concern and a UK BAP (Biodiversity Action Plan) species. They had already populated an area which had only been planted the previous season. In contrast, despite some field signs, there was no successful trapping of any small mammals in the area planted three seasons ago that had the most grass cover.





Yellow Necked Mice are generally restricted to southern England & Wales and their distribution is patchy even in this area due to their preference for established woodland cover. Largest of all the mammals trapped during our survey, their coloured collar really does make them stand out from their close relative the Wood Mouse.

The Common Shrew - we think it was the same one trapped twice – was sporting an interesting colour as it was moulting.



The established areas of ancient woodland and hedgerows provided a higher rate of success, but we are already seeing a presence in areas that were under agricultural use until only a few years ago.



What next? Heartwood Forest has now been registered with the Mammal Society as a small mammal monitoring site. It is the intention that this trapping activity will be conducted annually from now on, along with other methods of survey; bait tubes, Harvest Mouse nest searches and Field Vole sign searches.

We would like to thank Veronica for her time and training for the volunteers during this survey.



