



# Wyre Forest Study Group

## Dormice and Conifers in Wyre Forest 2010 update

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As with any long term monitoring work, every year is different and 2010 was no exception! After finding very low numbers of Dormice in 2009 and then carrying out invasive forest operations during the autumn, I was not expecting great things. The first inspections of the year, in May, went reasonably well, finding 7 animals who had survived the harvesting and the harsh winter. This is below average for the last 8 years (see Fig. 1). However subsequent inspections found good numbers in the research area of Ribbesford. In fact by the end of the season it became clear that it had been the best since the research project started in 2000!

After last year's disappointing breeding success it was great to see a record number of youngsters in the boxes. Just 6 young Dormice were found in 4 boxes in 2009 compared to 35 in 22 boxes in 2010 (see below). This is a huge difference, which is difficult to explain. However, the winter of 2009 / 2010 was a particularly cold one and the spring and early summer warm and dry. This is in contrast to previous years and may have allowed the animals to hibernate properly, without losing too much valuable body fat prior to breeding time. If the animals were in good condition they would be far more likely to breed successfully.

2003 - 26 Juveniles	2007 - 10 Juveniles
2004 - 34 Juveniles	2008 - 34 Juveniles
2005 - 11 Juveniles	2009 - 6 Juveniles
2006 - 22 Juveniles	2010 - 35 Juveniles

The total number of Dormice found in the research area was also very good. The total for this year of 105 is well above the 71 average over the last 8 years. Fresh nests were also found in better numbers - 37 compared to 11 in 2009. (These are nests which have been built by Dormice, but we have not recorded an animal during inspections). A further 39 animals were found in the research area that were big enough to microchip - 14 adults and 25 juveniles. (See Fig. 2)

Although 105 animals were found in the research area and adjacent woodland in 2010, we know from micro-chipping that some of these were found on multiple occasions. From this information we know there were at least 55 different Dormice in the area. This figure is worked out from the individuals chipped during the year or recaptured from previous years. It includes juveniles which were big enough to chip, but not those which were too small to chip, as they may have been found again later in the year and chipped, therefore duplicating results. This again is the best figure since the start of the project (see fig. 3).

16 adult animals were recaptured from previous years, which is less than one may expect with numbers found (see Fig. 4). However, only 11 were chipped in 2009 and the harvesting operations would have dispersed some and unfortunately others would surely have perished! There seems to be a dramatic shift in distribution within

Fig. 1

	2003		2004		2005		2006		2007		2008		2009		2010	
	Dormice	Fresh Nests	Dormice	Fresh Nests	Dormice	Fresh Nests	Dormice	Fresh Nests	Dormice	Fresh Nests	Dormice	Fresh Nests	Dormice	Fresh Nests	Dormice	Fresh Nests
April									3	0						
May	5	1	6	2	12	2	15	3	20	3	5	2	10	1	7	2
June	14	0	11	0	14	2	11	8	16	0	9	11	9	1	11	6
July	5	0	19	0	17	5	6	4	8	2	11	1	4	5	9	8
August	9	1	13	1	8	0	4	1	7	4	16	8	8	0	28	7
September	19	4	19	0	8	4	10	3	8	0	8	6	8	3	20	8
October	16	0	28	9	4	16	18	8	2	0	18	2	1	1	30	6
Totals	68	6	96	12	63	29	64	27	64	9	67	30	40	11	105	37

Fig. 2

Treatment No	No of Dormice chipped in 2004	No of Dormice chipped in 2005	No of Dormice chipped in 2006	No of Dormice chipped in 2007	No of Dormice chipped in 2008	No of Dormice chipped in 2009	No of Dormice chipped in 2010
1	4	0	3	1	0	2	8
2	7	4	12	5	11	2	2
3	13	3	9	4	2	3	4
4	8	3	0	0	2	2	4
Sausage	3	0	0	1	2	0	1
New plantation	Not surveyed	3	1	0	4	1	19
Unthinned area	0	0	0	0	3	1	1
<b>Total</b>	<b>35</b>	<b>13</b>	<b>25</b>	<b>11</b>	<b>24</b>	<b>11</b>	<b>39</b>

Fig. 3

Treatment No	No of individual Dormice found 2004	No of individual Dormice found 2005	No of individual Dormice found 2006	No of individual Dormice found 2007	No of individual Dormice found 2008	No of individual Dormice found 2009	No of individual Dormice found 2010
1	4	1	3	4	3	3	9
2	9	9	14	11	13	3	5
3	16	10	13	9	4	11	5
4	9	4	3	1	4	2	6
Sausage	3	0	2	1	2	0	2
New plantation	Not surveyed	3	1	0	4	1	26
Unthinned area*	0	0	1	2	3	2	2
<b>Total</b>	<b>41</b>	<b>27</b>	<b>37</b>	<b>28</b>	<b>33</b>	<b>22</b>	<b>55</b>

\* Area adjacent to research site, on other side of forest track. 15 boxes erected in 1993 and a further 20 in 2005

the project area. Treatment 1 has usually appeared the least favoured by Dormice, whereas the boxes in Treatments 2 & 3 have always been the most occupied. This year the Treatment 1 has exceeded all expectations, with the most animals found. Treatment 3 had the worst occupation levels. This is the area of standard thinning (see reminder of Treatment methods below), however 2 animals that were found here last year were recorded in the adjacent 'New Plantation'. This is an area of 10 year old Corsican Pine and Larch in which boxes were installed in 2005. Numbers in this plantation seemed to increase dramatically in 2010. This could be an example of animals moving out of the research area during the harvesting operations or just that the habitat is very good! It does have a rich variety of native trees within the plantation and much of it is a tangle of bracken or bramble – heaven for Dormice, but very difficult habitat to find them in!

We have now been micro-chipping for 9 years and have therefore followed some individuals for a

number of years (see Fig. 5). In 2009 we had 2 animals over 3 years old. Neither of these were recorded in 2010. However, we did find 3 animals which are at least 3 years old. They were all chipped as adults in 2008 and therefore had to have been born in 2007, if not before.

This year's survey hasn't shown animals moving any great distances, although this is difficult to establish as some animals are only found once or twice a year. The boxes erected adjacent to the research site, on the other side of a forest track, were placed there to see if animals moved across this track during the harvesting operations. This was not proved as animals chipped in the research site were not found in this area. However, one young female chipped in September 2010 was found in one of these boxes in the October. There are aerial connections across this track, but this is the first evidence of animals moving from one side to the other.

Fig. 4

# Not surveyed prior to 2005.

\* Area adjacent to research site, on other side of forest track. 15 boxes erected in 1993 and a further 20 in 2005

Treatment No	Dormice found 2005	Re captures from previous years	Dormice found 2006	Re captures from previous years	Dormice found 2007	Re captures from previous years	Dormice found 2008	Re captures from previous years	Dormice found 2009	Re captures from previous years	Dormice found 2010	Re captures from previous years
1	4	1	4	1	9	2	1	1	3	0	19	1
2	23	4	28	9	20	7	36	6	12	3	13	3
3	26	5	28	10	21	12	11	3	17	7	8	1
4	6	1	2	2	2	1	4	2	5	1	11	2
Sausage	0	0	0	0	5	0	10	0	0	0	2	1
New Plantation	4	*	2	1	7	0	5	1	1	0	50	7
Unthinned area*	0	0	1	0	2	0	3	0	2	1	2	1
<b>Total</b>	<b>63</b>	<b>11</b>	<b>65</b>	<b>23</b>	<b>66</b>	<b>22</b>	<b>70</b>	<b>13</b>	<b>40</b>	<b>12</b>	<b>105</b>	<b>16</b>



Fig. 5

Micro-Chip number	Date micro-chipped	Age when micro-chipped	Sex	Number of boxes used	Number of recaptures	Approximate age in 2010
447963	Jul-08	Mat	Male	4	6	3
441700	Jul-08	Mat	Male	5	7	3
448173	Oct-08	Mat	Female	4	4	3
519202	Sep-08	Juv	Male	6	7	2
448467	Jul-09	Mat	Male	1	3	2

## Phase 2 - Experimental Planted Ancient Woodland Sites (PAWS) restoration

As mentioned above, during late September and October 2010, the second phase of our experimental work to find the best method of reverting coniferous plantations back to native broadleaves whilst maintaining Dormice populations, began.

The aim of the project was to replicate the Treatments in each area over 3 phases to remove all conifer from the site. However, Treatment 1 was not replicated as finding chainsaw operators to work during the same time as the machine operators proved impossible. Therefore Treatments 1 & 2 were combined and worked with a harvester. (See original treatment methods). The other 3 Treatment methods were repeated.

Staff from Forest Research marked out a further 20 mini clearfells in Treatments 1 & 2 and 2 0.3ha clearfells in Treatment 4. It proved very difficult to mark the mini clearfells while maintaining connections to the existing ones. It was important that these small areas were left undisturbed and that the Dormice would still have arboreal access to them when they woke up in the spring. Due to the size of machinery it was very difficult not to cut them off from each other.

Late September saw the machines move in and unfortunately it coincided with the end of a decent dry spell! The work in the research area took less than a week to complete, therefore the disturbance to the Dormice was fairly short but extreme! Most of the mini clearfells remained connected, with much of the credit going to the Harvester operator, who weaved his way 'carefully' through the woodland! The lesson learned is that this method is far too fiddly when using large machinery. It may be possible using more traditional methods such as horse extraction, but is not practical on a large scale. We will, however, continue with this method until the conifers are all removed and see how the Dormice fare! Treatments 3 & 4 were much more straightforward and were carried out leaving as many arboreal connections as possible.

### Treatment methods:

**Treatment 1** - (Hand cut with chainsaws and forwarder extraction - autumn). Small areas of conifers were felled (approx 20m x 20m) to create small glades within the crop. The idea being that these would regenerate naturally in years to come and would provide viable habitat for Dormice by the time of the next operations in 5 years. (This will now be carried out using machinery and combined with Treatment 2).

**Treatment 2** - (Harvester operation with forwarder extraction - autumn / winter). Method as treatment 1.

**Treatment 3** - (Harvester operation with forwarder extraction - autumn / winter). Normal thinning; operation removing 30-35% according to standard thinning tables.

**Treatment 4** - (Harvester operation with forwarder extraction - autumn / winter). Two Larger areas of conifers were felled (approx 0.3ha). This replicates the normal coppice size in the broadleaf scrub habitat, which Dormice favour. Again this should regenerate naturally in years to come and would provide viable habitat for Dormice by the time of the next operations in 5 years.

## Conclusion

After last year's poor results and the disturbance caused by the forest operations it was a surprise and a relief to find such good numbers of Dormice in the research area. True, almost half of them were found in the undisturbed 'New Plantation'. But if we ignore these, the animals found in the rest of the site are still better than last year (33 in 2009 - 53 in 2010)! The advantage this plantation gives us is that it will not be worked for at least another 10 years and therefore will be left undisturbed while we finish the broadleaf restoration work on the rest of the research area.

I would like to think that the reason for such a good year is our proactive management work! However, I fear this is impossible to prove and feel that it is far more likely to be the natural cycle and resilience of this remarkable animal.

I would like to thank Roger Trout, from the Forestry Commission Research Dept, for his continued effort and support. We have been working together now for 10 years and still have a lot to learn. For the last few years he has been assisted by Sarah Brooks. She is now fully trained, licensed to microchip and has also helped considerably. This year I have been fortunate to have had plenty of other willing helpers, walking the many rows of boxes. Andy Bucklitch, a keen new recruit, helped with every box inspection and is well on his way to getting his licence. Kate Swinburne and Jo Sangster from Natural England, based in Cumbria, came to experience our southern animals. Bernie Higgins and Louise Sherwell, from the Warwickshire Dormouse group came to see what a Dormouse looked like! Liz Nether, who has been helping for the last 5 years unfortunately only made it once due to other commitments – but got her annual Ribbesford Dormouse fix!

## Other Ribbesford records

The above figures are for the research area of Ribbesford. However this does not tell the whole story. There are now 578 boxes in the whole woodland: 363 in the research area and a further 215 in the surrounding woodland. 300 of these boxes have been in Ribbesford for over 15 years now. If we just look at these old boxes it should give a better idea of population trends. However, this is where it gets weird! There are 86 of these old boxes in the research area and the remaining 214 are spread throughout the rest of the woodland. 19 Dormice were found in the old boxes within the research area and just 1 outside! Does this, in fact, prove our good management work? Again, I would like to think so, but I doubt it! These other boxes are in 'unmanaged' conifer plantations which are a similar age to the research area but have not been worked. The trees have grown well over the last 15 years of monitoring and the canopy and therefore food is high above ground. There is little or no understorey below this canopy. Why would a Dormouse come to a box at chest height? Within the research area there is a greater variety of tree heights. The biggest effect of our work is allowing more light onto the forest floor and therefore the amount of bracken and bramble has increased dramatically. This gives Dormice an abundance of food and excellent shelter. It will be interesting to see when we start working some of these other areas if we record more Dormice as they come down from their lofty world!

Due to work constraints and the fact I was recording very few animals in these old boxes outside the research area, I only checked them in June and October. Unfortunately this would normally throw out any long term comparisons. However, I did not find any signs of Dormice in the October checks outside

the research area, not even a nest. Therefore I have included the charts below and feel they are still representative.

Charts 1 and 2 show the number of Dormice found in October and throughout the year respectively. Ironically the only occupied box outside the research area was once again adjacent to the downhill mountain bike course, which has the most disturbance in the whole forest! This animal below was found in June, torpid and oblivious to everything going on around him!



Torpid Dormouse

Phil Rudlin

## Wyre Forest Records

A Dormouse nest was recorded in one of the boxes near Park House. This is the first sign of Dormice since 2002! A possible nest was also found in a box on Wimperhill – so watch this space.

The only established site in Wyre Forest itself is towards the western end of Dowles Brook, recorded by David and Brenda Rea. 18 Dormice boxes are now in this area. These are checked just twice a year in June & October. Unfortunately no Dormice were found in these boxes in 2010. However, 2 nests were found in October, at least confirming they are still there.

For the last 2 years Dormice have been recorded at a property in Button Oak, with a special Dormouse 'hunting'

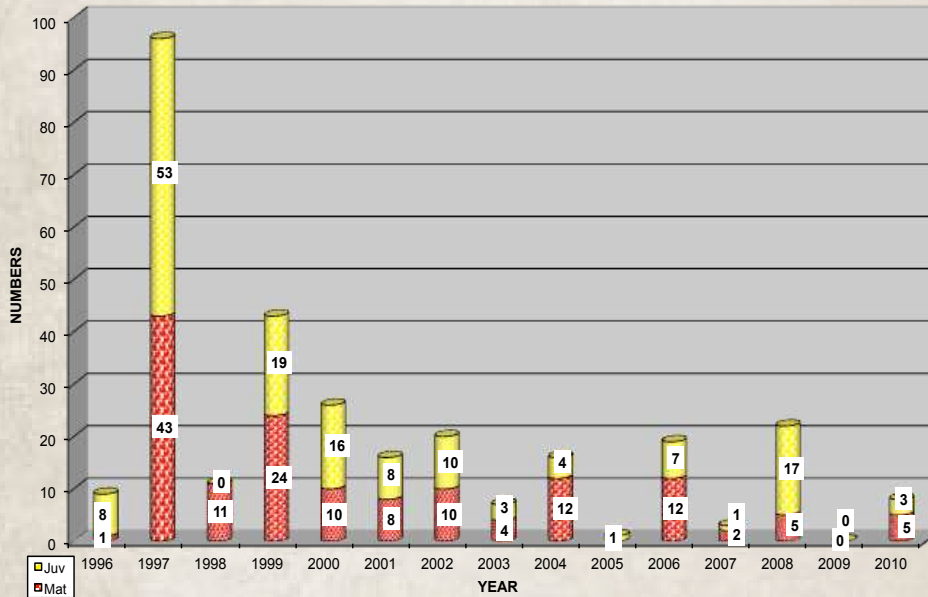


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dog. Well, she has been at it again! The Terrier chased a Dormouse around the garden in June. The house owner also put a number of boxes up around the garden perimeter and found a Dormouse nest in October this year. A single Dormouse has also been observed, using an infra-red camera, feeding on peanuts during the night. It was seen on a number of occasions between 29th October and 4th November, when the camera stopped working!

In 2008 I put 20 boxes in the 10 year old Corsican Pine plantation adjacent to this property and in October I found one nest and an occupied box with 2 youngsters in it. Even though I expected to find Dormice in this area, due to the above records, it is always satisfying to actually see them. The area is well known for its reptiles and butterflies, so it will be a challenge to keep them all happy!

**CHART 1 - OCTOBER OCCUPANCY BY DORMICE 1996 - 2010**



**CHART 2 - TOTAL NUMBERS OF DORMICE FOUND IN BOXES 1996 - 2010**

