

This year signals the beginning of what is hoped to be the long-term study into Dormice behaviour and survival in PAWS. (Planted Ancient Woodland Sites) throughout the country. Forest Research (Forestry Commission) have funded various projects to increase our knowledge on this secretive rodent:

- ❖ Droppings have been taken from boxes wherever possible and will be analysed to give an idea of their diet throughout the year.
- ❖ Radio tracking has taken place to try to establish how far and where they travel to feed, where they nest during the day and to find hibernation sites.
- ❖ Fur clipping has been introduced to identify individuals, to find out movement within territories or any population expansion.
- ❖ Thousands of boxes have been erected throughout England and Wales. These are being inspected on a regular basis in an attempt to establish the extent of the Dormouse population in coniferous woodland.
- ❖ Habitat assessments have been carried out on all the sites with boxes installed to compare woodland type and structure.

It will take many years to gain significant results as nothing on this scale has ever been attempted before. Due to the lack of data on PAWS it was important to find sites with longstanding information on population dynamics to carry out radio tracking. Two such sites were singled out, one in Dorset and the other Ribbesford. The original idea was to radio track for two weeks at each site in August and then again in October to compare different populations. Unfortunately, not enough Dormice could be found in the Dorset site to justify tracking and no other location could be found with enough historical data. It was therefore decided that all the effort would be concentrated in Ribbesford. As it turned out it would not have been practical to work in two sites as radio tracking had never taken place in conifers before and it took over two weeks before even the major problems had been ironed out!

The project is co-ordinated by Dr Roger Trout, (Mammal Specialist at Woodland Ecology branch - Forest Research, who is licensed to handle Dormice and to radio collar them, see fig 1 Most of the tracking has so far been carried out by Darren Smith a Zoologist from Northumberland, with various assistants, including Lorna Bousfield, a Biology undergraduate from Liverpool University, as well as other Forestry Commission staff.

The aim of this part of the project was to establish the importance (or not) of conifers to Dormice survival by;

- ❖ Identifying Dormice feeding habits and preferences
- ❖ Establishing territory sizes
- ❖ Identifying natural nesting sites
- ❖ Finding hibernation nests

It soon became clear that following Dormice in conifer to establish how far they travelled and where they fed was all but impossible. Thicket stage conifer is not conducive to walking through quietly in the daylight and following an agile arboreal creature with a large, ungainly radio aerial in pitch black darkness was just not practical or safe. The Dormouse always seemed to be moving away – surprise, surprise!!



Fig 1

Plan B was to sit near a mouse with a strong signal before dusk and wait for it to leave its nest to feed. The Dormice were certainly not disturbed by this method. However, despite an animal sometimes being directly overhead, it was impossible to determine which tree it was in or what it was doing due to the thickness of cover.

The method finally adopted was to take bearings of the animals from fixed points along the surrounding track to establish their movements during their active period. This method would not unfortunately, give detailed accounts of their exact movements or where they were feeding. For feeding preferences, dropping analysis will probably be the only way forward. The results will, however, help to build a picture of how far animals move over a period of time and give an idea of territory sizes in coniferous woodland.



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Preliminary analysis indicates that Dormice in the study site (17Ha) ranged over an area of about 1Ha during the course of a month. Some animals travelled up to 200m over a period of activity, often moving with some speed!

The daylight work has been far more straightforward and positive. Little was known about natural daytime nest sites in conifers and it was widely thought that they would be of little value for home building. It was therefore fascinating to find that they actually seemed to have a preference for conifers! 73.3% of all daytime positions were found to be in conifers, 12.3% in boxes, 10.6 % in scrub (including 2 nests in Heather) and only 3.8% in broadleaves! It was not surprising to find Dormice utilising birds nests and Squirrel dreys. What was incredible was finding tight nests made of pine needles, usually close to the ground. They were lined with grass within the dense cascades created by the whorls of branches catching falling needles!

One Dormouse had six such nests within 3ft of the ground. He also had four other nests, including two boxes!

As far as hibernation sites are concerned it has been difficult to establish how they choose a site or at what stage they go into hibernation. It was generally thought that Dormice go into hibernation with the first good frosts of the year. This autumn has been very mild and is perhaps not a good sample. However it seems that body weight is more a factor to the timing than just temperature. When the mice were first collared in mid October the larger animals did not seem to be very active and were already in condition to hibernate. The smaller animals, probably this year's juveniles, were extremely active. The assumption is that they still required to put on body fat to survive the winter, despite the fact that they were all above the 12g minimum that is generally thought to be enough for a juvenile to survive. All the hibernation sites identified have been at ground level and not easy to locate without the radio receiver showing its location. They do, however, seem to be quite vulnerable. One nest was found on the edge of an animal track within 4m of the forest road!

Not all hibernation sites were found. Two mice simply disappeared. It is impossible to say for sure what occurred as the batteries in the collar may have run out. It is possible, however that the mice have gone underground to hibernate and the signal would not be strong enough to be audible.

The data from this year's work have yet to be analysed fully and Darren Smith will write a paper in conjunction with Forest Research in the future.

The project is still in its early stages and there is still much to learn, not only about the animals themselves but also about methods of research that will hopefully unlock some of their secrets.

The next stage for this project will be to carry out thinning operations on a small scale, using different methods. The effects on the Dormice population

can then be monitored over both short and long term. This will hopefully allow the Forestry Commission to advise other forest managers on how to manage their conifers to benefit Dormice in the future.

2001 RECORDS

This year has been a strange one in Ribbesford. The foot and mouth outbreak did not, fortunately have any effect on the recording. An extra 60 boxes were erected during the winter months as part of the ongoing Forest Research project. These boxes were checked each month between May and October along with the existing 300. Two fresh nests and one Dormouse were found in these new boxes but they are not included in any charts etc, as they would distort any comparison.

The spring and early summer counts were about average. However both the August and September counts were the highest since the best year of 1997. This seemed to indicate a good breeding year and a high count was expected in October. This did not materialise. In fact only 16 Dormice were found and was the worst October count since 1998, fig. 2.

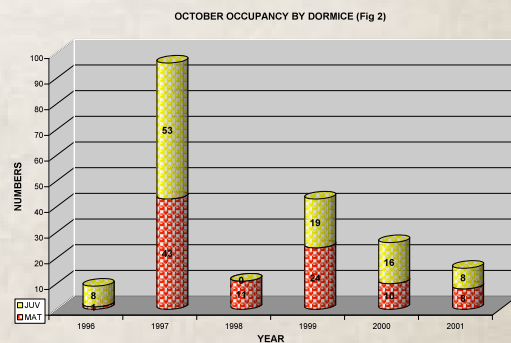


Fig 2

The reasons for this are unclear. There was certainly more disturbance in a small part of the recording area due to the radio tracking. The reduction from September seemed, however, to prevail throughout the whole area. The same thing occurred in 1996, fig 3.

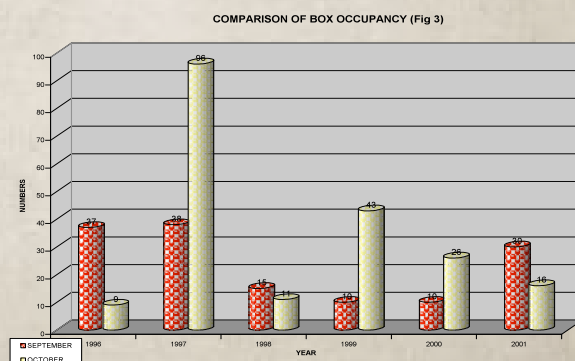


Fig 3



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From the work carried out this year on daytime nests it shows that Dormice have between 3 and 12 different nest sites within their territory. Given this information, box inspections will only give a proportion of the actual population and will not reflect the overall size. This information goes a long way to explain why the numbers “seem” to fluctuate so much.

Also the onset of fur clipping has given a far better idea of movement of individual animals. It has shown how inaccurate monthly box checks actually are. A maximum of 30 animals were counted in boxes at any one time (September) yet 40 individuals were fur clipped and 30 others separately identified (mostly juveniles). A

maximum of 14 boxes were occupied (August and September) but 31 different boxes used over the year.

Wyre Forest mainblock has, again been disappointing. No Dormice were found along the Dowles brook or Parkhouse. The last sign of presence in these boxes was a single mouse in June 1999. A natural nest was, however, found in scrub along the northern edge of the bridleway close to the brook in October.

The only Dormouse found this year was in a box on Wimperhill within conifer. Only one box has been occupied but with the same female in residence four out of five visits.



Dormouse

Phil Rudlin