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Dormice and Conifers in the Wyre Forest – 2023 Update



Dormouse in nest on Longdon Orchard - July 2023 Phil Rudlin

Research aim, treatment methods and areas:

The aim of the research project, which began in 2000 in a 17 ha area of Ribbesford Woods, was to find the best method of reverting coniferous plantations back to native broadleaves, while maintaining Dormice populations. Four treatment types were used and compared:

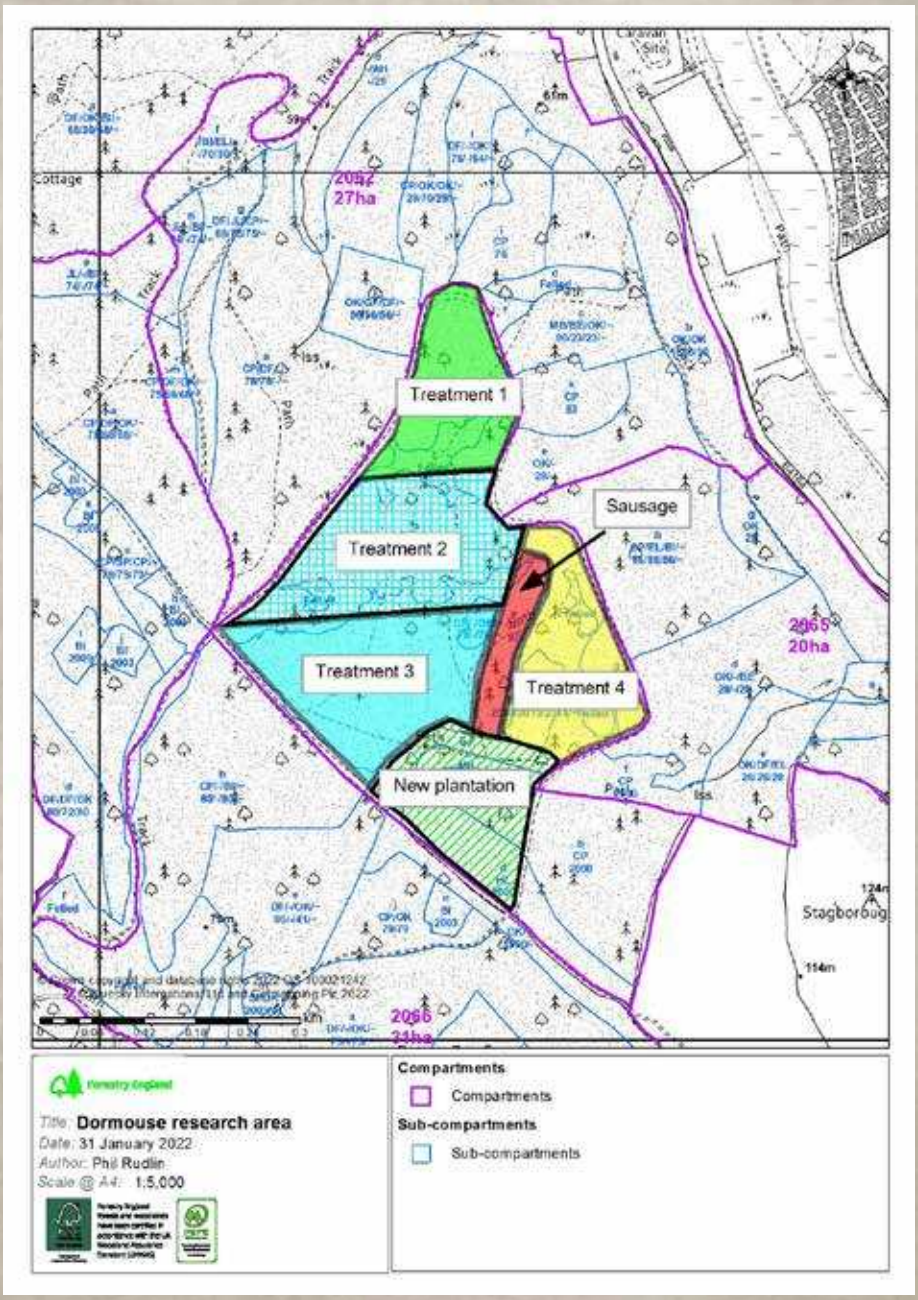
Treatment 1: Hand cut with chainsaws and forwarder extraction in autumn / winter. Small areas of conifers were felled (approx. 20 m x 20 m) to create small glades within the crop. The idea being that these would regenerate naturally in years to come and would provide viable habitat for Dormice by the time of the next operations in five years. Work was carried out during autumn / winter of 2003/04. This area was combined with treatment 2 in 2009/10 as finding chainsaw operators to fell trees proved impossible. Half this area was clear-felled in 2015/16 with the remaining conifers removed in October 2020.

Treatment 2: Harvester operation with forwarder extraction – autumn / winter method as treatment 1. Work was carried out during autumn winter of 2003/04, 2009/10 and half of this area clear-felled in 2015/16 with the remaining conifers removed in October 2020.

Treatment 3: Harvester operation with forwarder extraction in autumn / winter. Normal thinning operation removing 30-35% according to standard thinning tables. Work was carried out during autumn / winter of 2003/04, 2009/10, 2015/16 and remaining conifers removed in October 2020.

Treatment 4: Harvester operation with forwarder extraction in autumn / winter. Two larger areas of conifers were felled during each operation (approx. 0.3 ha). This replicates the normal coppice size in broadleaf 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 five years. Work was carried out during autumn / winter of 2003/04, 2009/10, 2015/16 and remaining conifers removed in October 2020.

Wyre Forest Study Group



Sausage: Area of failed Corsican Pine which has good structure, with Oak, Birch and Bramble. So named as it resembles a sausage shape on the map! 20 nestboxes erected in 2002.

New Plantation: Area planted with Corsican Pine and European Larch in 2000. 40 nestboxes erected in 2004.

Unthinned area: Area adjacent to research site, on other side of forest track. 15 nestboxes erected in 1993 and a further 20 in 2005.

2023 marks 29 years since Dormice were first confirmed in Ribbesford Woods, 24 years of researching the best method of reverting conifer plantations back to native broadleaves and 20 years of comparable data, monitoring 380 boxes between May and October every year, since 2004. In 2021 we recorded a noticeable dip in numbers after the operations to clear-fell the remaining conifers, as part of the project, during the previous winter. There were encouraging signs in 2022, with numbers up considerably, so we were expecting great things when we carried out

our first inspections in May. It was therefore good to find 14 animals, six of which were unchipped and therefore would have been alive in 2022, but not found in the boxes. The following months were fairly consistent (Table 1) peaking in September with 20, which is to be expected when most young are active and dispersing and second litters can sometimes be found. In fact, 13 of these animals were newborn and likely to be 2nd litters, which is encouraging to think there was enough food for the females to recover condition to breed again. Over the six inspections, 84 animals were found which is only the 10th highest over the past 20 years but above the average of 79.9.

Twenty-six young were found during the season, which is only the 13th highest recorded, and below the average of 28.5 (Table 2). It is worth noting that these were the

Table 1. Results from Dormice surveys in Ribbesford Woods 2004- 2023.

	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
April							3	0						
May	6	2	12	2	15	3	20	3	5	2	10	1	7	2
June	11	0	14	2	11	8	16	0	9	11	9	1	11	6
July	19	0	17	5	6	4	8	2	11	1	4	5	9	8
Aug	13	1	8	0	4	1	7	4	16	8	8	0	28	7
Sept	19	0	8	4	10	3	8	0	8	6	8	3	20	8
Oct	28	9	4	16	18	8	2	0	18	2	1	1	30	6
Nov	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Totals	96	12	63	29	64	27	64	9	67	30	40	11	105	37

	2011		2012		2013		2014		2015		2016		2017	
	Dormice	Fresh Nests	Dormice	Fresh Nests	Dormice	Fresh Nests	Dormice	Fresh Nests	Dormice	Fresh Nests	Dormice	Fresh Nests	Dormice	Fresh Nests
April														
May	16	0	4	2	5	4	5	1	17	1	12	11	9	10
June	4	0	6	0	7	1	10	5	21	3	13	3	16	2
July	5	9	5	3	2	3	12	2	17	6	34	0	24	3
Aug	5	1	4	3	5	7	14	2	8	0	19	2	35	9
Sept	8	2	9	2	*	*	26	2	26	7	14	2	26	5
Oct	4	7	4	2	19	3	18	4	26	5	7	3	23	9
Nov	*	*	*	*	1	0	*	*	*	*	*	*	*	*
Totals	42	19	32	12	39	18	85	16	115	22	99	21	133	38

	2018		2019		2020		2021		2022		2023	
	Dormice	Fresh Nests	Dormice	Fresh Nests	Dormice	Fresh Nests	Dormice	Fresh Nests	Dormice	Fresh Nests	Dormice	Fresh Nests
April												
May	12	4	11	3	19	10	2	1	14	3	14	8
June	9	5	18	6	14	8	9	0	14	2	13	9
July	12	9	22	8	16	7	8	6	15	4	17	4
Aug	17	1	28	8	35	3	19	3	14	0	10	6
Sept	18	1	21	8	25	4	13	4	18	1	20	8
Oct	6	11	19	0	16	5	2	0	24	0	10	2
Nov	*	*	*	*	*	*	*	*	*	*	*	*
Totals	74	31	119	33	125	37	53	14	99	10	84	37

* Not Surveyed

Table 2. Number of young Dormice found in Ribbesford Woods 2004- 2023.

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Juveniles	34	11	22	10	34	6	35	5	7	17

Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Juveniles	26	32	47	65	31	53	51	21	38	26

total numbers of juveniles found in boxes and not individuals. Of those found nine juveniles were micro-chipped, but some were too small to chip so may, or may not, have been found again. (17 young were found which were 7 g or less and therefore could not be chipped).

Thirty-seven fresh nests were found in boxes that were not occupied during the survey season. It is not unusual to find empty nests as they have up to five different nests within their home range and we only check them six times a year. However, it is always interesting to know they are present. Interestingly Table 1 shows equal second highest number of unoccupied nests found over the last 20 years, which is a little odd considering such an average year but suggests there may be more animals using the boxes than we found. They just weren't there on the day of the surveys!

Twenty animals were big enough to micro-chip - 11 adults and 9 juveniles (Table 3). The adults were either yearlings, born the year before, or possibly older. However, it is impossible to age without permanent marking, such as micro-chipping.

Although 84 animals were found, we know from micro-chipping that some of these were found on multiple occasions. By identifying individuals, we know there were at least 34 different dormice in the area. This figure is calculated from the individuals chipped during

Table 3. Number of Dormice chipped in Ribbesford Woods 2004- 2023.

Treatment	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	No of Dormice chipped in 2011	No of Dormice chipped in 2012	No of Dormice chipped in 2013
1	4	0	3	1	0	2	8	0	1	1
2	7	4	12	5	11	2	2	4	0	5
3	13	3	9	4	2	3	4	2	2	1
4	8	3	0	0	2	2	4	3	7	5
Sausage	3	0	0	1	2	0	1	1	2	6
New plantation	Not surveyed	3	1	0	4	1	19	3	4	4
Unthinned area	0	0	0	0	3	1	1	0	0	0
Total	**35**	**13**	**25**	**11**	**24**	**11**	**39**	**13**	**16**	**22**

Treatment	No of Dormice chipped in 2014	No of Dormice chipped in 2015	No of Dormice chipped in 2016	No of Dormice chipped in 2017	No of Dormice chipped in 2018	No of Dormice chipped in 2019	No of Dormice chipped in 2020	No of Dormice chipped in 2021	No of Dormice chipped in 2022	No of Dormice chipped in 2023
1	5	0	1	6	1	3	5	7	2	5
2	3	6	12	11	7	3	7	0	9	6
3	1	0	1	0	1	2	1	0	0	0
4	3	9	1	12	2	15	9	2	7	4
Sausage	3	5	3	4	0	3	0	1	3	0
New plantation	15	4	12	15	13	13	12	4	5	5
Unthinned area	0	0	0	0	0	0	0	0	0	0
Total	**30**	**24**	**30**	**48**	**24**	**39**	**34**	**14**	**26**	**20**

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 might be found again later in the year and chipped, therefore duplicating results. This is the 12th highest since 2004 and below the average of 38.65 (Table, 4).

Fourteen animals were recaptured from previous years (Table 5). It has been interesting to see the trend over the last 20 years. The chart in Figure 1 shows the number of captures each year and shows some significant variations, whereas the actual individuals confirmed is more constant. The latter is far more accurate and therefore useful information. It shows the importance of micro-chipping, which is the only way of following animals with any degree of certainty over a long period of time.

We have now been micro-chipping for 22 years (first animal chipped in July 2002) and have therefore followed some individuals for a number of years. Of the 14 recaptures this year, six were over a year old (Table 6). One individual was found on all six visits, one on four visits, four on three visits, five on two visits and three on just one visit. These 14 recaptured animals were therefore seen on 35 occasions and could have been recorded as individuals were it not for micro-chipping. It is interesting to find 703810 again as he was chipped in October 2021 but not seen again until July 2023, in the same box!

In conclusion, after a poor season in 2021, it was a relief to have above average numbers in 2022, but a slight disappointment to find fewer in 2023.

It was encouraging to find two 4-year-old animals who survived the last few years of warm winters and forest operations. Reasonable numbers of animals were found in all treatment types which suggests that Dormice are spread throughout the whole research site as they were when we started in 2000. (Note, the 65 nestboxes in treatment 3 were removed prior to the final felling of the conifers in 2020. These have not yet been replaced as the habitat is unsuitable therefore no animals were recorded. These boxes will be returned next year as the habitat improves and connections to the remainder of the site are created.) The "New plantation", planted with mixed conifers in 2000, remains the most consistent with 26% of animals found here again this year. Interesting though

Table 4. Number of individual Dormice found in Ribbesford Woods 2004- 2023.

Treatment	No of individual Dormice found 2004									
	2004	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**
1	4	1	3	4	3	3	9	4	1	1
2	9	9	14	11	13	3	5	9	1	7
3	16	10	13	9	4	11	5	0	3	1
4	9	4	3	1	4	2	6	3	11	11
Sausage	3	0	2	1	2	0	2	2	1	6
New plantation	Not surveyed	3	1	0	4	1	26	7	4	6
Unthinned area	0	0	1	2	3	2	2	1	1	0
Total	**41**	**27**	**37**	**28**	**33**	**22**	**55**	**26**	**22**	**32**

Treatment	No of individual Dormice found 2004									
	2014	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
1	6	2	1	7	1	4	5	2	4	7
2	4	9	15	14	8	6	10	6	11	11
3	1	4	2	1	2	3	2	0	0	0
4	6	13	3	14	9	22	16	4	7	3
Sausage	6	6	8	4	4	4	2	3	7	1
New plantation	19	14	19	21	18	17	19	10	11	12
Unthinned area	0	0	0	0	0	0	0	0	0	0
Total	**42**	**48**	**48**	**61**	**42**	**56**	**54**	**25**	**40**	**34**

Table 5. Dormouse recaptures by year and treatment in Ribbesford Woods 2004- 2023.

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
1	4	1	4	1	9	2	1	1	3	0
2	23	4	28	9	20	7	36	6	12	3
3	26	5	28	10	21	12	11	3	17	7
4	6	1	2	2	2	1	4	2	5	1
Sausage	0	0	0	0	5	0	10	0	0	0
New Plantation	4	*	2	1	7	0	5	1	1	0
Unthinned area	0	0	1	0	2	0	3	0	2	1
Total	63	11	65	23	66	22	70	13	40	12

Treatment No	Dormice found 2010	Re captures from previous years	Dormice found 2011	Re captures from previous years	Dormice found 2012	Re captures from previous years	Dormice found 2013	Re captures from previous years	Dormice found 2014	Re captures from previous years
1	19	1	7	3	1	0	1	0	15	1
2	13	3	14	2	2	0	8	3	4	1
3	8	1	0	0	3	2	1	0	1	0
4	11	2	3	0	18	3	14	5	19	1
Sausage	2	1	6	2	3	0	7	0	15	4
New Plantation	50	7	10	5	4	0	8	1	31	3
Unthinned area	2	1	2	1	1	1	0	0	0	0
Total	105	16	42	13	32	6	39	9	85	10

Treatment No	Dormice found 2015	Re captures from previous years	Dormice found 2016	Re captures from previous years	Dormice found 2017	Re captures from previous years	Dormice found 2018	Re captures from previous years	Dormice found 2019	Re captures from previous years
1	4	2	1	0	14	1	1	0	14	1
2	26	3	38	3	25	3	12	1	9	3
3	6	4	2	1	2	1	2	1	11	0
4	35	4	14	3	41	2	15	8	32	4
Sausage	1	1	13	4	13	0	5	2	10	2
New Plantation	43	9	31	7	38	6	39	4	43	5
Unthinned area	0	0	0	0	0	0	0	0	0	0
Total	115	23	99	18	133	13	74	16	119	15

Treatment No	Dormice found 2020	Re captures from previous years	Dormice found 2021	Re captures from previous years	Dormice found 2022	Re captures from previous years	Dormice found 2023	Re captures from previous years
1	7	1	3	0	7	2	10	3
2	17	3	8	1	24	2	15	5
3	5	1	0	0	0	0	0	0
4	33	5	11	1	13	0	21	1
Sausage	18	2	7	3	10	4	16	0
New Plantation	45	8	24	6	45	6	22	5
Unthinned area	0	0	0	0	0	0	0	0
Total	125	20	53	11	99	14	84	14

* Not surveyed prior to 2005

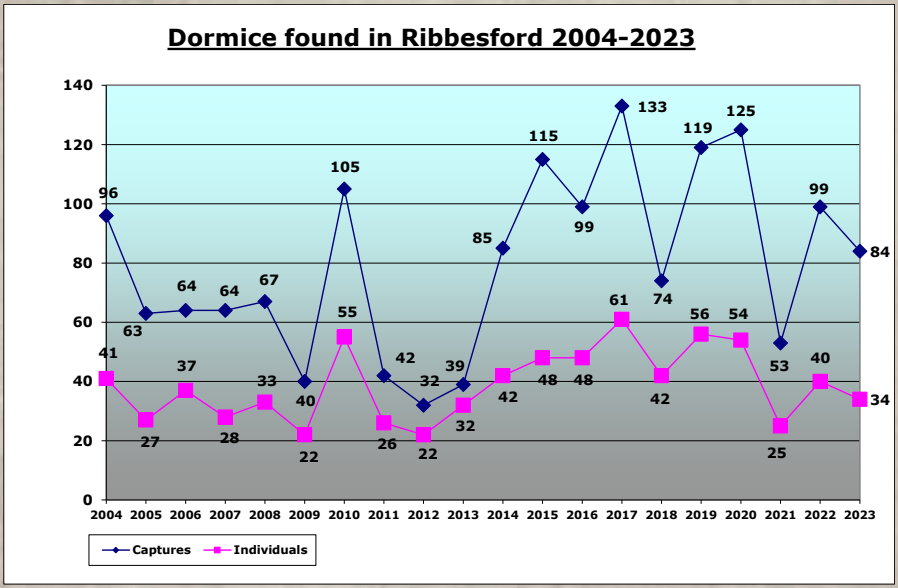


Figure 1.Dormice found in Ribbesford Woods 2004- 2023.

Table 6. Micro-chipped Dormice recaptured in Ribbesford Woods 2004- 2023.

Micro-Chip number	Date micro-chipped	Age when micro-chipped	Sex	Number of different boxes used	Number of recaptures after being chipped	Number of captures in 2023	Approx age in 2023
747180	Aug-19	Juv	Male	12	20	3	4
747038	Jun-20	Mature	Female	6	16	4	4
715505	Sep-20	Juv	Female	4	4	2	3
703828	May-21	Mature	Male	6	11	6	3
715246	Aug-21	Mature	Male	5	8	3	3
703810	Oct-21	Juv	Male	1	2	2	2

that last year there were 45% in this area and this year treatment 4 held 25%, which replicates the old-fashioned coppice coupes and is considered the most sensitive way to revert conifer plantations back to native broadleaves. The New Plantation is also due for its first thinning and suitable Dormouse habitat is starting to degrade as connections reduce and the understorey becomes more barren. Hopefully animals will start to move over to the remainder of the site as the habitat certainly looks more suitable, but only the Dormice know what they really like!!

I would like to thank Roger Trout and volunteers, Andy Bucklitch, Charline Hue and Samantha Faggetter for their continued effort and support in monitoring and micro chipping over the last 23, 12, 9 and 4 years respectively. Without them it would be extremely difficult to maintain this level of monitoring which will continue for the foreseeable future.

Wyre Forest Records:

The five sites monitored in the main block of Wyre Forest continue to frustrate with just two sites showing any evidence of Dormice in 2023 (Table 7). However, it was encouraging to find animals on Longdon Orchard again after their absence in 2022 and one juvenile was recorded which at least shows signs of breeding. A survey of Betts Reserve wasn't carried out in 2023.

Densities of Dormice have always appeared to be low with few historical records and only low numbers found in recent years, even in what looks like prime habitat. Odd records in recent years in Earnwood Copse, Longdon Orchard, Hitterhill and the disused railway line suggest they are widespread across the forest, but extremely difficult to monitor with any certainty.

Table 7. Dormouse records from the Main Block of Wyre 2004- 2023.

	Button Oak		Longdon Orchard		Wimperhill		Parkhouse		Betts Reserve	
Year	Dormice	Fresh Nests	Dormice	Fresh Nests	Dormice	Fresh Nests	Dormice	Fresh Nests	Dormice	Fresh Nests
2013	10	1	3	3	0	0	1	0	0	0
2014	11	4	3	2	0	0	0	1	4	0
2015	10	2	9	3	0	0	1	1	0	1
2016	18	1	2	1	2	2	2	0	1	0
2017	11	2	10	3	1	1	2	1	2	2
2018	27	2	18	2	6	0	3	2	8	3
2019	17	1	8	5	1	1	4	2	0	3
2020	8	1	6	4	0	0	3	0	0	2
2021	10	3	2	0	0	0	0	0	0	0
2022	**6**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
2023	**11**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**?**	**?**



Dormouse in nest made up of Corsican Pine needles on Longdon Orchard – July 2023. Despite most Dormice in the Wyre Forest being found in conifer plantations it is unusual to find their nests made up of needles. Phil Rudlin