Dormice and Conifers in Wyre Forest 2014

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After the mild and very wet winter of 2013/14 expectations were relatively low for a good spring count as these conditions are not favourable for hibernating creatures! It was therefore little surprise that just 5 animals were found in our first inspections in May. However, as the months followed numbers increased and, as the weather improved during the summer, 26 Dormice were found in September, which is the best count since 2010 (see Fig. 1). It was perhaps disappointing to see fewer animals in October as it is often thought this is the best month to find them in the boxes. However, with over 10 years of good data this seems to happen more regularly than expected. In 6 out of the last 10 years (with data) more animals have been found in September. This may be a complete coincidence as finding Dormice in boxes can be quite random. We only check them once a month and they will have a number of other natural nests in the area. However, it will be interesting to see if the trend continues over the next 10 years!

2014 was an improved breeding year, with 26 different juveniles found (see Fig. 2). The long warm, dry summer, which extended into the early autumn, seemed to benefit them greatly as there were some small youngsters found in October which were likely to be second litters. Unfortunately there were also 3 new born and 1 small juvenile found dead in two

Fig. 1

	2004		2005		2006		2007	
	Dormice	Fresh Nests	Dormice	Fresh Nests	Dormice	Fresh Nests	Dormice	Fresh Nests
April							3	0
May	6	2	12	2	15	3	20	3
June	11	0	14	2	11	8	16	0
July	19	0	17	5	6	4	8	2
August	13	1	8	0	4	1	7	4
September	19	0	8	4	10	3	8	0
October	28	9	4	16	18	8	2	0
November	*	*	*	*	*	*	*	*
Totals	96	12	63	29	64	27	64	9

	2008		2009		2010		2011	
	Dormice	Fresh Nests	Dormice	Fresh Nests	Dormice	Fresh Nests	Dormice	Fresh Nests
April								
May	5	2	10	1	7	2	16	0
June	9	11	9	1	11	6	4	0
July	11	1	4	5	9	8	5	9
August	16	8	8	0	28	7	5	1
September	8	6	8	3	20	8	8	2
October	18	2	1	1	30	6	4	7
November	*	*	*	*	*	*	*	*
Totals	67	30	40	11	105	37	42	19

	2012		2013		2014	
	Dormice	Fresh Nests	Dormice	Fresh Nests	Dormice	Fresh Nests
April						
May	4	2	5	4	5	1
June	6	0	7	1	10	5
July	5	3	2	3	12	2
August	4	3	5	7	14	2
September	9	2	*	*	26	2
October	4	2	19	3	18	4
November	*	*	1	0	*	*
Totals	32	12	39	18	85	16

* Not surveyed

Fig. 2

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Juveniles	34	11	22	10	34	6	35	5	7	17	26

Fig. 3

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
1	4	0	3	1	0	2
2	7	4	12	5	11	2
3	13	3	8	4	2	3
4	8	3	0	0	2	2
Sausage	3	0	0	1	2	0
New plantation	Not surveyed	3	1	0	4	1
Unthinned area	0	0	0	0	3	1
Total	35	13	25	11	24	11

Treatment No	No of Dormice chipped in 2010	No of Dormice chipped in 2011	No of Dormice chipped in 2012	No of Dormice chipped in 2013	No of Dormice chipped in 2014
1	8	0	1	1	5
2	2	4	0	5	3
3	4	2	2	1	1
4	4	3	7	5	3
Sausage	1	1	2	8	3
New plantation	19	3	4	4	15
Unthinned area	1	0	0	0	0
Total	39	13	16	22	30

different boxes. Presumably their mothers had died or abandoned them for some reason.

16 fresh nests were found in boxes that weren't occupied during inspections. It is not unusual to find empty nests as Dormice have up to 5 different nests within their home range and they can't be in them all of them at once.

The total of 85 Dormice found in the 17ha research area was far better than in recent years and above the average of 63 over the last 11 years. A further 30 animals were found in the research area that were big enough to microchip - 9 adults and 21 juveniles (see Fig. 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 85 animals were found in the research area and adjacent woodland in 2014, we know from micro-chipping that some of these were found on multiple occasions. From this information we know there were at least 42 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 are big enough to chip, but not those which are too small to chip, as they may be found again later in the year and chipped, therefore duplicating results. This is an encouraging sign as it is above the average of 33.18 over the last 11 years (see fig. 4).

Just 10 animals were recaptured from previous years (see Fig. 5). On the face of it, this seems poor, with a possible 31% winter survival rate. However, we know from micro–chipping that we don't record some animals for over a year and then they pop up in a box sometimes close to where they were last found. Juveniles will also travel some distance to find an unoccupied area to live and this could be out of the research area. However, it is likely that the wet mild winter took a heavy toll this year, but a good breeding season should have helped them to bounce back.

We have now been micro-chipping for 12 years and have therefore followed some individuals for a number of years. Of the 10 recaptures this year, just one of them was over a year old (see Fig. 6).

We have followed this female for 4 seasons now and she has had a least 5 litters and 14 young over this period. She was last seen in August 2014 and was pregnant

Fig. 4

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
1	4	1	3	4	3	3
2	9	9	14	11	13	3
3	16	10	13	9	4	11
4	9	4	3	1	4	2
Sausage	3	0	2	1	2	0
New plantation	Not surveyed	3	1	0	4	1
Unthinned area	0	0	1	2	3	2
Total	41	27	37	28	33	22

Treatment No	No of individual Dormice found 2010	No of individual Dormice found 2011	No of individual Dormice found 2012	No of individual Dormice found 2013	No of individual Dormice found 2014
1	9	4	1	1	6
2	5	9	1	7	4
3	5	0	3	1	1
4	6	3	11	11	6
Sausage	2	2	1	6	6
New plantation	26	7	4	6	19
Unthinned area	2	1	1	0	0
Total	55	26	22	32	42

with her second litter of the year. These young are unlikely to survive the winter as they were born in late August / early September. They would have just 3 months to fatten up for the winter, which is unlikely, but not impossible. They need to reach about 12g to have a chance of surviving and weigh less than 2g at birth. However, we had one female who put on 11g in a month. Chipped on 17th October 2013 weighing 10g she was later recorded in a box over 300m away on 18th November 2013 weighing in at 21g – plenty fat enough to survive hibernation!! It will be interesting to see if we find the old female next year as the rigours of a second litter late in the year take their toll.

Reminder of research aim, treatment methods and areas

The aim of the research project, which began in 2000 in a 17ha area of Ribbesford, 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 - autumn). Small areas of conifers were felled (approx 20mx20m) 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. Carried out during autumn winter of 2003/04. (This has now be carried out using machinery and combined with Treatment 2). Carried out during Autumn winter of 2009/10.

Treatment 2 - (Harvester operation with forwarder extraction – autumn / winter). Method as treatment 1. Carried out during autumn winter of 2003/04 and 2009/10.

Treatment 3 - (Harvester operation with forwarder extraction - autumn / winter. Normal thinning. Operation removing 30-35% according to standard thinning tables. Carried out during autumn winter of

Fig. 6

Micro-Chip number	Date micro-chipped	Age when micro-chipped	Sex	Number of boxes used	Number of recaptures	Approximate age in 2014
340302	Sep-10	Juv	Female	7	13	4

Fig. 5

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

Treatment No	Dormice found 2009	Re captures from previous years	Dormice found 2010	Re captures from previous years	Dormice found 2011	Re captures from previous years
1	3	0	19	1	7	3
2	12	3	13	3	14	2
3	17	7	8	1	0	0
4	5	1	11	2	3	0
Sausage	0	0	2	1	6	2
New Plantation	1	0	50	7	10	5
Unthinned area	2	1	2	1	2	1
Total	**40**	**12**	**105**	**16**	**42**	**13**

Treatment No	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	1	0	1	0	15	1
2	2	0	8	3	4	1
3	3	2	1	0	1	0
4	18	3	14	5	19	1
Sausage	3	0	7	0	15	4
New Plantation	4	0	8	1	31	3
Unthinned area	1	1	0	0	0	0
Total	**32**	**6**	**39**	**9**	**85**	**10**

*** Not surveyed prior to 2005**

2003/04 and 2009/10.

Treatment 4 - (Harvester operation with forwarder extraction - autumn / winter). Two larger areas of conifers were felled (approx 0.3 ha). 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 time. Carried out during autumn winter of 2003/04 and 2009/10.

Sausage: Area of failed Corsican Pine which has a good structure, with oak, birch, bramble. So named as it resembles a sausage shape on the map!

New Plantation: Area planted with Corsican Pine and European Larch in 2000.

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

Conclusions

2014 has been a good year all round. After the disappointing results over the last 3 years the trend seems to be improving. Whether this is because the habitat is getting better as the areas cleared as part of the experiment become established is difficult to prove. It is encouraging that Dormice are still to be found in all treatment types, although treatment 3 (standard thinning) remains the poorest. It is interesting that the New Plantation seems to be such a favoured area. The stage these conifers are at (15 years old) is similar to the age of the experimental area when Dormice were first found in it. In other areas of the forest where Dormice were also found at that time, and in which no work has been undertaken, the animals seem to have disappeared. This suggests that the woodland needs to be worked regularly to maintain an uneven age structure of habitat and connections for the Dormice to feed in and breed. No management is poor management – but care is required to maintain populations that exist.

I would like to thank Roger Trout and Andy Bucklitch for their continued effort and support in monitoring and microchipping.

I would also like to thank all other volunteers who have helped check the 380 boxes, for their sterling efforts in assisting with such a valuable project – without them it would be extremely difficult to maintain this level of monitoring, which will hopefully continue for the foreseeable future.

Wyre Forest Records

A small plantation of 12 year old Scots Pine on Longdon Orchard is now an established Dormouse site with good records for the second year. 2 adults were found in May and a juvenile in October, which is good evidence of breeding! 2 other boxes also had empty nests in.

After a Dormouse was found in a very old box near Parkhouse in 2013, most of the boxes have been replaced with shiny new ones. No evidence of Dormice were seen in them in 2014. However, a nest was found in a rotten, holey box to the west of Park House – maybe they don't like 1st class!

An extra 10 boxes were erected on Wimperhill in July 2013 in a fenced area adjacent to the established site. The conifer was clear felled in 2006 and the site fenced to allow natural regeneration to establish. It is now a tangled web of birch, oak, Douglas Fir, bramble, heather, honeysuckle, etc – perfect looking for Dormice! Unfortunately none were found again in October, but who knows next year!

30 boxes were checked in a 16 year old Corsican Pine plantation at Button Oak. This has also become an established site in young conifer (there is a theme emerging here!) 7 adults were found in June, with 1 empty nest. 1 adult, 3 juveniles and 6 empty nests were found in October.

My son, Ben helps me to monitor these 4 sites and is always excited to find one – see photo below.

The only other established site in Wyre Forest itself is towards the western end of Dowles Brook, recorded by David and Brenda Rea. 20 Dormice boxes are checked twice a year, June & October. 3 juveniles were found in a box in October 2014, which is great news as few animals are found in this area with little evidence of breeding.

Ben Rudlin holding a Dormouse Phil Rudlin