

Title: Wilder Wych Dormouse Research Project: Chapter 3, Population Monitoring. *A Report to the Peoples Trust for Endangered Species, 2011*

Author: M. Ambrose, S. Bennett, S. Bird, S. Tatman, S. Wilson, I. White

Country: England

Background to study

To re-establish dormice within their historical range, a Species Recovery Programme was initiated in 1996 to release captive bred dormice into suitable sites unlikely to be naturally recolonised due to the species poor dispersal ability. As part of this programme, 53 dormice were released into semi natural ancient woodland in the Wych Valley in 1996/7. The population has been monitored for 15 years providing data to assess reintroduction success, monitoring accuracy and disturbance effects.

Method

- A total of 217 nestboxes were placed along irregular transect lines within the reintroduction site. Box checks were conducted once a month in May and June and September and October, annually since 1997. Nest boxes are cleaned out every winter.
- Dormouse presence was recorded when individuals or nests were encountered in the box.
- Each individual was weighed and sexed and from 2005 healthy individuals weighing over 8 g were micro-chipped under anaesthetic and were used to assess the minimum number of animals known to be alive at a given time. Those not encountered in one year but were found alive the following year were included in the dataset. Disturbance was assessed using number of dormice recaptured in the same box in 2 consecutive months.
- Natural nest searches were conducted in April 2011 due to low records of dormice in 2010.

Key results

- Fifteen percent of micro-chipped individuals were recorded using the same nest box in two consecutive months of monitoring. This was not dependent on the individual's sex but reduced the power to detect significant effects on monitoring and box fidelity.
- 36 out of 69 micro-chipped dormice were recaptured suggesting that there does not appear to be an obvious relationship between disturbance through monitoring and nest box use.
- Juveniles were never encountered in the same box the following month; however this is likely to be due to them becoming independent rather than a result of disturbance.
- Encounters of dormice suggest a number of peaks and troughs in population size; however the population grew steadily from the reintroduction to 2007 when 32 individuals were encountered. A steady decline has been observed across the site since 2007 and may be attributable to two cold winters in 2009 and 2010 or that dormice are utilising natural nest sites due to an increased familiarisation with the site and changes in structure (un-recorded).
- Nest searches were unsuccessful in determining presence of dormice in 2011.

Key messages to landowners and managers derived from these results

- Long term monitoring of dormouse populations using nest boxes provide a useful method for establishing trends in population size and utilisation of woodland compartments.
- Monitoring pre and post breeding provides adequate monitoring data and reduces disturbance during breeding. Monitoring does not appear to affect the use of nest boxes by dormice.
- The provision of nest boxes post reintroductions is recommended for monitoring and to provide favourable nesting sites when individuals are unfamiliar with the site.

Key words/phrases

Dormice; *Muscardinus avellanarius*; reintroductions; nest box monitoring; disturbance; micro-chips