

Title: Wilder Wych Dormouse Research Project: Chapter 2, Ranging and Dispersal. *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 the last 15 years and details on their ranging behaviour and dispersal have been studied.

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. Dormouse presence was recorded when individuals were encountered or when a dormouse nest was constructed within a box.
- Each individual encountered were weighed and sexed and from 2005 healthy individuals weighing over 8 g were micro-chipped under anaesthetic to establish range use.
- Natural nest searches were conducted in 2011 due to low records of dormice in 2010.
- Range sizes and distance travelled were calculated based on capture, recapture of micro-chipped individuals and dispersal patterns were assessed using presence data since 1997.

Key results

- Female ranges (n=4) varied from 0.007 ha to 0.02 ha, whilst one male was estimated at 0.07 ha.
- Maximum annual distance travelled was higher for females (293 m) than for males (210 m), but both were further than juveniles (96 m). Males travelled on average further per annum (29.5 m) than females (25.5 m) which were both less than juveniles who travelled on average 32 m.
- Juveniles travelled the furthest average and maximum distance in their lifetime (37.9 m and 376 m respectively) when compared to males and females who travelled on average 36.8 m and 31.1 m and had maximum distances of 213 m and 255 m respectively.
- There was no statistical difference between the range size and distances travelled between demographic groups.
- Post release colonisation of the woodland compartments from the central release site was immediate and all but one area of woodland was colonised by 2007.
- Breeding dormice were recorded in a neighbouring wood to the western side of the study in 2003 but no subsequent records have been obtained.

Key messages to landowners and managers derived from these results

- Woodlands should contain a high density and diversity of species that provide a succession of food sources throughout the year to compensate for short distances travelled by dormice.
- Reintroductions can be successful for reintroducing dormice within their historical range.
- Reintroduction sites should be large (>20 ha) to allow for immediate post release dispersal and should be part of a network of suitable woods connected by hedgerows to allow the population to extend into the surrounding landscape.

Key words/phrases

Dormice; *Muscardinus avellanarius*; reintroductions; ranging patterns; dispersal; micro-chipping