

Title: Spatial orientation and foraging behaviour of wild and captive-bred dormice during reintroductions, *Royal Holloway Individual Research Project, 2008*

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Background to study

Hazel dormice have undergone a rapid decline in the UK and conservation efforts aim to restore populations within their historical range and to secure extant populations to prevent any further losses. Due to the poor dispersal ability of dormice, reintroductions of both captive bred and wild caught individuals are seen as a valuable tool. It is important to understand the factors that may affect the success of introductions, such as whether the individual is captive bred or wild caught.

Method

- 21 wild-caught and 19 captive-bred dormice were released into a 30 ha deciduous woodland dominated by oak with a species rich understorey.
- All individuals were released using a soft release method involving an 8 day acclimatisation phase in pre-release pens located within the new site. Individuals were provided with the same food and water ad lib and were released in the same groups they had been living in pre-translocation.
- Dormice were fitted with radio collars after 6 days of being in pre-release pens and were tracked for 8 nights following their release. Fixes for each individual were obtained every 40 minutes per night and the number of about turns, mean speed, time stood still, and travel distances were used to assess differences in the movement behaviour of individuals (male, female, captive and wild caught) where >15 fixes were obtained.

Key results

- Male dormice had larger home ranges (0.62 ha) than females (0.15 ha) and tended to travel further, faster and spent less time standing still.
- Both male and female dormouse activity was concentrated around two distinct clusters suggesting the exploitation of seasonally available food sources.
- There was no difference observed in the ranging behaviour of wild caught or captive bred dormice.

Key messages to landowners and managers derived from these results

- Reintroductions should be conducted using a 'soft release' method where individuals are kept in release pens to acclimatise for approximately 8 days during which they are given supplementary food of similar composition to their diet at origin.
- Dormice release sites should have a high diversity and density of trees and shrubs which provide seasonal food sources and as such can be exploited by reintroduced individuals. Reintroductions should be conducted when and where preferred food resources are available.
- Both captive bred and wild captured individuals are suitable for reintroductions.

Key words/phrases

Hazel dormouse; *Muscardinus avellanarius*; reintroductions; soft-release; home range; ranging behaviour; radio tracking