

Title: Common dormice in small isolated woods, *Natural Croatia, 1997*

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Background to study

Dormouse populations occupying small isolated woodlands are considered potentially vulnerable and unviable due to the species poor dispersal ability. However dormice are known to occur in small woodland patches in Germany that have been isolated for 150 years, allowing information on the insular ecology of the species to be obtained and the threat that isolation determined.

Method

- Dormice occupying 2 woodland patches of 0.85 ha and 1.5 ha were studied for <6 months during summer 1996. Woodlands were isolated from large deciduous and conifer woodlands by 250 m and 350 m respectively and surrounding land use was agricultural fields.
- 215 nestboxes and 75 live traps were used in capture mark recapture study. Data was obtained fortnightly for each method, and live trapping was carried out for 3 consecutive days for each trapping session. Live traps were placed at a density of at least 20 traps / ha at both sites and nest boxes at 30 m intervals.
- Encountered individuals were uniquely marked, aged, sexed and their breeding condition determined.

Key results

- 71 dormice were captured (41 adults and 30 juveniles) and marked and the majority of encounters were within oak woods with well developed understorey and hazel, ash and wild cherry dominated woodland edges.
- Reproduction was recorded in both woodlands.
- One juvenile born within the smallest woodland was recaptured within the nearest large woodland in September, indicating a dispersal distance of 450m of which 250m was across open ground.

Key messages to landowners and managers derived from these results

- Small (<2 ha) woodlands can support breeding populations of dormice however they are likely to rely on dispersal between neighbouring woods. Improving connectivity between small woodland patches and larger high quality woodlands using hedgerows will help ensure successful dispersal and viability of resident dormouse populations.
- Gaps of <250m of open ground may not be a barrier to the movement of dormice and woodlands isolated to this extent should not be overlooked as potential dormouse habitat.
- Scrubby woodland edges are an important resource for dormice and should be managed sympathetically to maintain diversity and density.

Key words/phrases

Dormice; *Muscardinus avellanarius*; Germany; isolated woods; nest box; live trap; dispersal