

**Title:** Ranging and nesting behaviour of the dormouse *Muscardinus avellanarius*, in coppice-with-standards woodlands, *Journal of Zoology, London, 1992*

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**Country:** England

**Background to Study:**

Dormice are frequently encountered within actively managed coppice-with-standards woodland, however little research has been conducted to establish how dormice exploit such habitats and the impact that clear cutting has on their movement. Previous research suggests that dormice are wholly arboreal, circumnavigating open areas to avoid moving across open ground. Information on how dormice exploit coppiced woodland may provide important guidance on management.

**Method:**

- 22 adult dormice were radio collared and tracked within a 4 ha area of deciduous woodland managed by rotational coppice of small 0.2-0.5 ha blocks. Shrub layers available within study area included bramble, coppice understorey (hazel, oak and field maple) and canopy.
- 4 tracking sessions were undertaken each month from May-October and individuals were tracked every hour per night for 6-7 consecutive nights. Data collected included position, height above ground and tree species. Nest site locations were recorded each day.
- Radio collars had little effect on the condition (weight) of dormice and subsequent recaptures for each tracking session were infrequent due to loss of fur clips.

**Key Results:**

- Dormice were wholly arboreal and exploited all vegetation layers over the full season. There were significant seasonal variations to the height dormice were active and this related to food availability. The least activity (13%) was recorded within the bramble layer.
- Dormice nested in nest boxes and tree hollows most frequently (75%) and infrequently used natural woven nests. The majority of nest sites were in the canopy layer (45%) and the remaining were split between the understorey and bramble layer.
- Mean distance dormice were active away from nests was 55m. Males travelled furthest from the nest and per night compared to females. Activity varied depending on season indicating a change in foraging behaviour associated to food availability.
- Activity patterns indicated use of small areas within total range, which changed over seasons.
- Dormice did not utilize recently felled coppice and circumnavigated it despite previous use before it was felled. Brambles on the edges were utilized and accessed via the canopy layer.

**Key messages to landowners and managers derived from these results:**

- Coppice management should keep understorey un-shaded, diverse and productive whilst maintaining some mature trees to provide seasonal food and nesting sites for dormice.
- Small canopy standards need thinning to one per 100m<sup>2</sup> and larger canopies should be less dense. Try and maintain physical contact between trees and shrubs to enable movement of dormice to different seasonally available food sources.
- Coppicing compartments should be small and newly coppiced blocks, where possible, should have a line of mature trees with interlacing canopies across them to provide corridors for foraging dormice without extra energy costs associated with circumnavigation.

**Key words/phrases**

Dormice; *Muscardinus avellanarius*; England; radio tracking; ranging patterns; nests; coppice management; coppice-with-standards