

Title: Summer nest sites of the common dormouse *Muscardinus avellanarius* L. in young woodlands of Lithuania, *Polish Journal of Ecology*, 2007

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Background to study

Lithuania occurs in the northern part of the distributional range of the common dormice where about 40% of dormice localities are situated in conifer dominated woodlands. Many of these sites lack tree and shrub species such as beech (*Fagus sylvatica*) and brambles (*Rubus spp*) that have been recorded as favourable nest sites for dormice. As such, nest site selection by dormice in Lithuanian woodlands is likely to differ from other parts of their distributional range.

Method

- 120 natural dormice nests were recorded within 16 young woodlands across Lithuania. Each study site had woodland growth of up to 10 years, rarely exceeded 3 m in height and in most cases sites were overgrown clearfell sites.
- Detailed study of nest site selection conducted at one 5 ha overgrown 4/5 yr old study site (A) with young mixed woodland ($\frac{2}{3}$ rd) and grassland cover. Site divided into 504 10 x 10 m squares and locations of 140 nests were recorded in April and November 2006.
- Habitat variables were recorded including habitat type; nest supporting plant; nest position and height; nest material and nest type.

Key results

- Over 70% of nests found outside of study site A were within young spruce trees of c. 2 m. Nests were located on average 1.1 m above ground and were either near the trunk (5-30 cm) on the thickest horizontal branch or attached to the trunk (85%).
- Other nest sites were located within deciduous tree and shrub species including hazel, bramble, ash, oak and birch and a few nest sites were built upon old bird's nests.
- In Site A, dormice showed a preference for nesting in oak trees when spruce was absent but showed a preference for spruce when present in spite of low abundance and presence of oak.
- The average height of nest locations was 1 m and in study site A, the nest site height was positively related to the age and height of young trees.

Key messages to landowners and managers derived from these results

- Overgrown clearfell sites are exploited by dormice for nesting and as such, clearfells in large woodland blocks should be managed as small rotational units that provide contiguous blocks of suitable dormice habitat. Species composition should include areas of thorny plants, conifers and young twiggy trees such as oak and ash.
- Avoid pruning low branches in young conifers as these may support dormice nests.
- Dormice nest site surveys should be conducted from ground level upwards and should not be restricted to deciduous trees and shrubs, prior to carrying out forest operations

Key words/phrases

Dormice; *Muscardinus avellanarius*; Lithuania; spruce trees; mixed woodland; conifer; oak; clearfell sites; nest site;