

**Title:** New data on distribution, habitats and abundance of dormice (*Gliridae*) in Lithuania. *Acta Zoologica Academiae Scientiarum Hungaricae*, 2003

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### **Background to study**

Information on the distribution, abundance and conservation status of dormice in Lithuania is outdated. Present data on the habitats, abundance and new localities have been obtained for four dormouse species and are presented here to the international audience.

### **Method**

- Data on the locality of four dormouse species in Lithuania were obtained by oral records, field visits using nut searches, special searches for rare dormouse species using nest boxes, publication searches and the analysis of owl pellets.
- Data on habitats and population density of common dormice were collected from two study sites. 100 nest boxes were erected at two locations to monitor fat dormice and abundance dynamics were derived from nest box occupation at one site between 1991 and 2002.
- One forest dormouse population was monitored using 200 nest boxes and all localities of rare dormouse species were visited.

### **Key results**

- The number of localities occupied by common dormice in Lithuania has increased from 34 locations in 1988 to over 150 localities covering 125 10 x 10 km squares in 2002.
- Common dormice occupy mixed and deciduous forests but are not present in pure pine or pure spruce forests. As such they occupy few sites in south, south-east and west Lithuania where this habitat is scarce. Young planted spruce trees <1 m with young deciduous trees and shrubs are favourable to common dormice and nest box occupancy increases with density of understorey and of hazel and buckthorn. Increasing canopy cover decreases dormouse nest box occupancy.
- The density of dormice is comparatively low in Lithuania with 1 ind. /ha and 3 ind. /ha in spring and autumn. Populations however appear relatively stable across years.
- Fat dormice occur at nine localities in Lithuania where they typically inhabit mature oak and mixed forests with oak and hazel. Habitat destruction has led to a decline in the species.
- Two populations of forest dormice are known in Lithuania which lies at the north-western edge of its range. Populations live at low density (0.7 adults/ha) within mixed forest stands containing Norway spruce, Scots pine and birch and are likely to be naturally rare within the country.
- The absence of Garden dormice (*Eliomys quercinus*) at a single historic site suggests that the species may be extinct within the country.

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

- Mixed and deciduous forests in Lithuania should be conserved and forest management should encourage the establishment of dense understorey by thinning canopy cover as required.
- Young plantation woodland provides suitable common dormouse habitat and in commercial forests, rotational planting in successive blocks will provide continuous favourable habitat.
- Preserve mature oak and mixed forests to maintain extant fat and forest dormouse populations.
- Further studies investigating Garden dormice presence is required to determine their status within the country.

### **Key words/phrases**

Dormice; distribution; habitats; abundance; Lithuania