

**Title:** Nest site preference of common dormouse (*Muscardinus avellanarius*) in two different habitat types of Central Italy. *Italian Journal of Zoology*, 2007

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### **Background to study**

The common dormouse occupies a variety of habitat types across their distributional range, yet they appear to have specific habitat requirements which provide continuous food and secure nesting sites. Details on what constitutes optimal habitat for the species, has primarily focussed on northern European woodlands, leaving the habitat preferences of common dormice in southern Europe relatively understudied. Details on the nesting preferences of dormice are scarce, despite its importance to the conservation management of the species.

### **Method**

- Dormice were monitored in two different woodlands in central Italy; a temperate beech dominated deciduous woodland and a downy oak dominated deciduous woodland located in the warmer Mediterranean climatic zone.
- 50 nest boxes were placed in a grid at 20 m intervals, 1.5 m above ground within each study site and were inspected monthly for 2 years.
- Habitat variables were recorded within 3 m radius of each nest box and included; height and diameter of canopy, understorey and shrub layer, total canopy cover (canopy and understorey); species presence and diversity.

### **Key results**

- The host plant species did not influence the occupation of nest boxes by dormice at either site.
- Dormouse occupancy was higher in the beech wood than in the oak woodland.
- Dormice showed a significant preference for nestboxes located in sites with lower canopy cover and higher density and cover of understorey.
- Understorey density was the most significant factor influencing nest box choice in the beech wood.
- The density of tree heath (*E. Arborea*) was significantly higher and holm oak, significantly lower, to occupied nestboxes in the downy oak woodland.

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

- Expect lower occupation of nest boxes in the first year of monitoring a site.
- Nest boxes are more likely to be occupied where the understorey is well developed and the canopy cover is not closed.
- Tree heath may be an important resource for dormice within Mediterranean deciduous woods.
- Management of deciduous woodlands for dormice should encourage dense, interconnecting understorey by thinning canopy trees as required.

### **Key words/phrases**

*Muscardinus avellanarius*, nest-boxes, deciduous forest; nesting preferences; habitat choice