

**Title:** Status and Woodland Requirements of the Dormouse in Wales, *A report to Countryside Council for Wales and People's Trust for Endangered Species, 1999*

**Author:** PW Bright

**Country:** Wales, UK

### **Background to study**

Dormice have been historically rarer in Wales than in England and are currently known to be present in 0.5% of 1-km grid squares. However their distribution is poorly known due to low survey effort and half of known dormouse sites are in conifer plantations or oak dominated woodlands which are considered sub-optimal for dormice and as such are likely to support low density populations. To actively conserve dormice in Wales, information on their distribution and threats is required.

### **Methods**

- Data for all woodlands >2 ha in Wales was derived from maps and other sources to classify woodlands landscape types most suitable to focus surveying for dormice.
- Presence/ absence surveys of dormice using 5, 10 x 10 m quadrat searches for gnawed hazel nuts were carried out in 731 woodlands.
- Habitat characteristics recorded included canopy/shrub density, species diversity, honeysuckle abundance, woodland management type, quality of hedgerows within 100 m perimeter of site.
- Dormouse distribution was related to woodland characteristics and climate variables to predict dormouse presence using general linear models.

### **Key Results**

- Mean occurrence of dormice in woodland sites was 8.09% and predicted distribution was strongly concentrated in Gwent and South Powys with an outlier on Dyfed-Gwynedd border. Isolated, scattered populations were predicted in the West and North.
- Area of ancient replanted woodland, October temperature and canopy overlap were the most influential explanatory variables in predicting dormouse presence followed by stock grazing, April temperature, oak and bramble cover and hedgerow diversity.
- Lack of coppicing and lower spring temperatures associated with northern Wales related to a decrease in dormouse abundance. Grazing pressure, canopy tree density and hedgerow management were associated with their Eastern distribution and decreased dormouse abundance in Western Wales may be related to higher incidence of oak dominated woodlands.
- Most dormouse populations occurred in large (>50 ha) replanted ancient woodlands, suggesting that habitat fragmentation has influenced distribution.
- Coppicing is currently practised in <4% of sites and has decreased <70%. Grazing in woodlands by stock is a major threat especially in Powys and Gwent.

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

- Sites known to support dormouse populations should be monitored as part of the National Dormouse Monitoring Programme to gain knowledge of distribution and threats.
- Coppice management should be re-established at sites where it was practised in the past.
- Ancient semi-natural growth should be restored in ancient replanted woodlands.
- Management for dormice should be prioritised in ancient woodland sites >50 ha.
- In Clwyd and Gwynedd, survey effort should be increased to determine distribution and stock should be excluded from woodlands sites.
- In Dyfed, survey effort should be increased to determine distribution, botanical diversity and age structure should be increased in oak-dominated sites where appropriate and hedgerow connecting woodlands should be managed to restore gaps and increase suitability for dormice.

- In Glamorgan, Gwent and Powys, stock should be excluded from woodlands and hedgerows restored to remove gaps and improve suitability for dormice.

**Key words/phrases**

Dormice; *Muscardinus avellanarius*; Wales; distribution; gnawed hazel nuts; woodland management; stock grazing; ancient replanted woodland; hedgerows; temperature