

**Title:** The Success of woodland connectivity enhancements in relation to the dispersal and establishment of the Hazel Dormouse on the Isle of Wight. *Hampshire and Isle of Wight Wildlife Trust Report, 2012*

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### **Background to study**

With the aim of linking and/or enlarging ancient woodlands, DEFRA's Joining and Increasing Grant Scheme for Ancient Woodland (JIGSAW) has led to 225 hectares of woodland being created on the Isle of Wight. The scheme has been successful in expanding red squirrel populations however its effect on the colonisation and dispersal of hazel dormouse has not been studied to date.

### **Method**

- Dormouse and small mammal activity was studied within 1 hectare areas of 5 JIGSAW sites. Each site varied in the length of time since planting (all post 2000) and the composition of trees species and shrubs. Where possible surveying was conducted within hazel plantation areas.
- 25 dormouse nest tubes and nest boxes were placed at 20 m intervals in 5x5 grids within 4 and 1 woodland site(s) respectively. Tubes and boxes were monitored 8 and 6 times between May and October 2012. Captured dormice were sexed and weighed and other species recorded.
- Nut hunts, consisting of 4 x 10 minute searches, were conducted in November within each site.
- Small mammal trapping using 25 Longworth traps was conducted for 3 nights in September at 2 sites representing an old (11 yr) and new (3 yr) plantation. Traps were put at each nest tube/box location and the species, sex and life stage of each individual was recorded. All captures were given a unique semi-permanent fur clip so population size estimates could be calculated.

### **Key results**

- Evidence of dormice (nests in tubes/boxes) were found at all 5 sites and dormice were physically encountered in 2 nest tube sites where the peak count was one individual per visit suggesting low densities of 1 ind/ha. Dormice had not been previously recorded within the study sites.
- The number of nests found at each site ranged from 1 to 5.
- A total of 926 nuts were found and analysed from the nut searches and evidence of dormice nibbled nuts were found at the same two sites where individual dormice were encountered. Evidence of red squirrel was recorded across all sites.
- A total of 5 small mammal species were recorded across the old and new JIGSAW sites. Wood mice were the most abundant species. Pygmy shrews and bank voles were not encountered in the new and old JIGSAW sites respectively. The older plantation had a higher population size and species diversity estimates.

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

- Expanding and/or re-connecting woodland is recommended for the expansion and colonisation of dormouse populations.
- Younger woodland plantations are capable of supporting dormouse populations, and their suitability increases with maturity as fruiting becomes more abundant and the understorey becomes more established.
- Nesting tubes and boxes are the most reliable method for establishing dormouse presence.

### **Key words/phrases**

Dormice; *Muscardinus avellanarius*; JIGSAW; nest tubes; nest boxes; nut searches; ancient woodland plantation; small mammal diversity