

Title: A positive response by hazel dormice to conifer PAWS restoration, *Ecotype No. 49, 2010*

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Background to study

Recent evidence indicates that dormice occupy coniferous woodlands and as such are at potential risk to forest operations, especially during restoration of Plantations on Ancient Woodland Sites (PAWS). Research into the impact of different restoration techniques is required to help direct operations to preserve resident dormice inhabiting such sites.

Method

- Nest box monitoring of dormouse population for 9 years (2002-2010) in PAWS site (Wyre Forest).
- Four treatment methods (2 small group fellings; a standard thinning; and a 0.3 ha mechanised clearfell) were undertaken in 2003 and one third of conifer trees removed during first stage of PAWS restoration.
- Vegetation density of understorey within each treatment was measured in 4th year after felling.

Key results

- Standard thinning produced least amount of suitable habitat but provided understorey vegetation throughout area.
- Mechanised clearfells of 0.3 ha produced the largest amount of suitable habitat.
- Large clearfell areas produced suitable habitat but restricted to 1/3rd of site.
- Dormouse population remained fairly constant over the monitoring period, irrespective of treatment type.

Key messages to landowners and managers derived from these results

- Restoration of PAWS should be carried out at small scale and at staged intervals.
- Wildlife corridors should be retained within large clearfells to avoid habitat fragmentation.
- Standard thinning and small scale clearfells provide continuous and dense understorey respectively and therefore provide the most suitable method to safeguard dormouse populations during PAWS restoration.

Key words/phrases

Plantations on Ancient Woodland Sites; PAWS; dormice; *Muscardinus avellanarius*; nest box; restoration; felling; thinning; clearfell