

Title: Status and conservation of the common dormouse (*Muscardinus avellanarius*) in the Province of Limburg (Flanders, Belgium). *Lutra*, 2006

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Background to study

In Flanders the common dormouse is classified as 'threatened' and is protected by the Flemish decree of 2009. Prior to 2004 however, no standardised census to determine the distribution of common dormice in Flanders had been made prior to 2004. Information on the status of common dormice is required for proposing and implementing conservation measures.

Method

- Historical records of common dormice were obtained from the Mammal Database and verified based on experience of recorder and type of sighting. Wrong classifications were given to nests found made of old man's beard which were presumed to be from wood mouse or bank vole.
- Additional record data was obtained through personal communications with specialists and field workers and by conducting a thorough literature review.
- Locations were visited from 2003-2006 based on the presence of historical data, proximity to forests with recent observations and potentially suitable forests according to forest composition.
- Habitat suitability surveys were conducted in habitat patches and optimal and marginal patches formed part of the search effort for dormouse signs.
- Gnawed hazel nut searches were conducted across all but one site where nest boxes were erected, to determine presence. In years with low hazel harvest, nest searches were carried out. All searches were made between September and November and rarely in March -April.

Key results

- Historical data suggests limited distribution of common dormice in Hasselt, Tongeren and Voeren and surveys found evidence that populations only persist in the Voeren region.
- The amount of suitable habitat based on suitability surveys appeared small.
- In Voeren, dormice signs were found in five neighbouring forests which were all at least partly reserves. Density of dormice seems very low with only 16 nests found in 2005. One adult and sub adult were observed in 2004 and one adult in 2005 where no breeding nests were observed.
- Potential dormouse nests were found in Reimst in 2004 and in Wallony where signs were found in 2004 and not in 2005.

Key messages to landowners and managers derived from these results

- Dormice appear to be very rare and threatened in Flanders and continued searches in all three regions where historical records exist and to include forests within 250 m of a record is recommended to establish distribution.
- Habitat connectivity, expansion and improving the suitability of woodlands through encouraging a more diverse and extensive understorey and woodland edge is recommended. Focus should be placed around the sites where extant populations exist to encourage expansion. These include Teuvenenberg-Gulpdal-Obsinnich, Vrouwenbos-Stroevenbos-Sint-Gillisbos and Veursbos-Roodbos-Vossenaerde.

Key words/phrases

Dormice; *Muscardinus avellanarius*; historical records; distribution; conservation status; nut searches; Germany