OVERTON DORMOUSE SURVEY

Overton Biodiversity Society

Final report

March 2011

Table of Contents

The Dormouse

The dormouse, or hazel dormouse, *Muscardinus avellanarius* is a small mouse-like rodent, native of Britain not to be confused with the introduced edible dormouse, *Glis glis*, a larger squirrel-like rodent.

The dormouse is a very small (20-30g), golden-coloured mouse with a furry tail, living in mixed deciduous woodland and hedgerows. Dormice are active only at night and spend half of the year (October- April) in hibernation so that most of us are unlikely to see them. They spend winter sound asleep in small tightly woven nests in sheltered spots on the ground, protected from excessive temperature fluctuations and desiccation.

In the summer, they remain permanently in trees and shrubs as they are very reluctant to travel on the ground. They feed on the nectar of flowers (hawthorn, honeysuckle, crab apple), on fruit and berries (bramble, yew, chestnut), nuts (hazelnuts), insects (aphids and caterpillars on sycamore, oak, ivy) and buds. They build nests made of honeysuckle bark mixed with various leaves where they sleep in the daytime and raise their young.

Why study dormice?

Although the dormouse is well established in British popular culture, its status in the wild is more precarious. Numbers have declined by at least half during the past 100 years in England and Wales so that now it is present only in the southern counties of England and only in small numbers.

The dormouse is considered a 'flagship species' because it lives in species-rich mixed deciduous woodland and hedgerows, therefore its presence usually means that the habitat is very suitable for a wide range of other species too. Dormice are also important 'bioindicators' as they are particularly sensitive to habitat and population fragmentation, therefore their presence is an indication of habitat integrity and sustainable populations of other sensitive species.

Dormice are included in the UK Biodiversity Action Plan (1995) as a priority species with the objectives of (i) maintaining and enhancing dormouse populations in all the counties where they still occur and (ii) re-establish self-sustaining populations in at least 5 counties where they have been lost.

Threats

Loss of habitat

Many areas of diverse ancient woodland and hedgerows have been destroyed to make way for farmland, roads and urban developments hence considerably reducing the availability of suitable habitats for the dormouse.

Fragmentation of habitat

Severe fragmentation of the hedgerow network impedes dispersal and exchange of animals between local populations. In addition, large areas of woodland have been progressively reduced to smaller copses containing isolated populations sometimes of too few dormice to be considered viable populations.

Decline in coppice management

Coppicing results in a renewed under-storey, supporting plenty of insects and creating a vigorous new growth of shrubs, ideal for providing, food, shelter and travel routes to dormice. Hence, lack of regular coppicing leads to heavy shading, suppression of regrowth and death of the woodland under-storey supporting the dormouse.

Legal protection

The dormouse is a protected species both under British and European law (Wildlife and Countryside Act 1981 and Conservation (Natural Habitats, &c.) Regulations 1994, respectively). It is an offence

- to intentionally kill, injure or take a dormouse
- to intentionally or recklessly destroy, damage or obstruct access to any structure or place used for shelter.
- to intentionally or recklessly disturb a dormouse while it is occupying any structure or place used for shelter

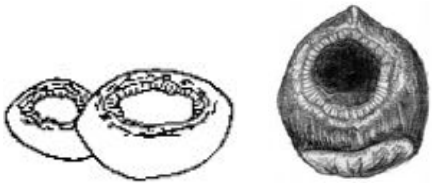
The dormouse is also incidentally protected by the Hedgerow Regulations 1997 protecting important hedgerows from removal since the presence of dormice, a protected species, qualifies a hedgerow as 'important'.

Finding dormice

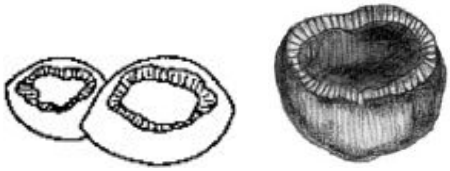
The easiest way to ascertain the presence of dormice is to look for gnawed hazelnuts. If hazel shrubs are present in a dormouse habitat, dormice will invariably feast on the nuts in autumn before going into hibernation and leave gnawed nuts as evidence. Because dormice carve a characteristic hole through the nut shell in order to reach the nut, a simple examination with a magnifying glass of a gnawed hazelnut collected on the ground can reveal whether the nut was gnawed by a dormouse:

The **dormouse** carves a virtually smooth inner rim and the teeth marks on the nut surface are at an angle to the hole.

The **wood mouse** leaves parallel teeth marks on the inner rim and rough marks on the nut surface.



The **bank vole** leaves neat parallel grooves on the inner rim, but no teeth marks on the nut surface.

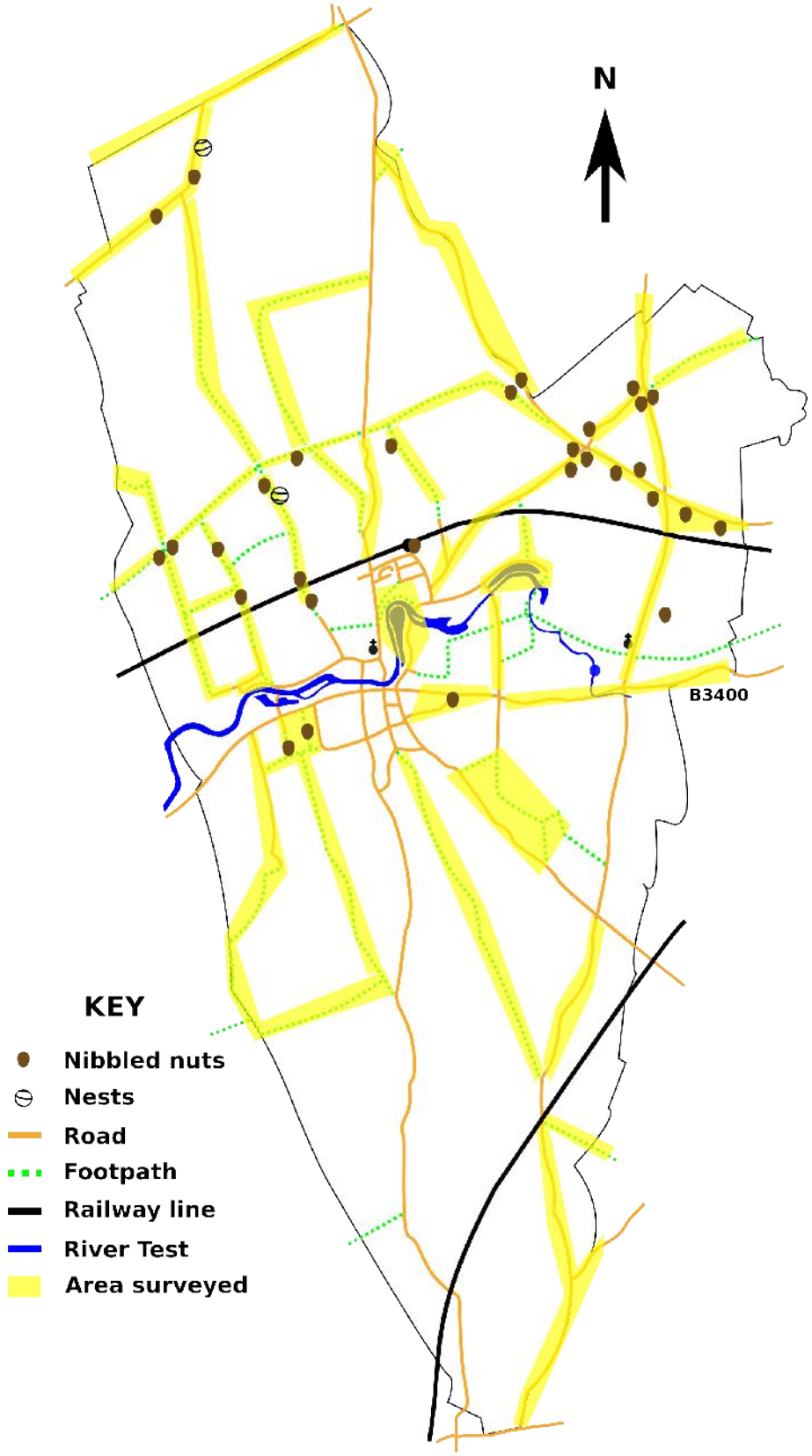


Squirrels prize nuts apart through hole in top of nut: smooth split in two from top to bottom by adult, more of a jagged split by juveniles.

Naturally this method can only apply to areas where hazel is present although dormice may be found elsewhere.

Survey in Overton

OBS volunteers collected gnawed hazelnuts throughout the parish in autumn 2009, 2010 and 2011. After examination, 135 dormouse-nibbled nuts were identified from 30 sites as presented on the map below.



These results demonstrate that the dormouse is still present in Overton possibly in significant numbers.

A local hedgerow survey in 2003-2005 showed that Overton parish includes an extensive network of hedgerows. Furthermore, most of them are classified as species-rich (containing at least 5 shrub species in 30m) and therefore are potentially good habitat for the dormouse. Yet, one may note that in the present survey, dormouse signs were predominantly found along the Harrow Way, an old Roman road. This ancient track resembles an elongated woodland that provides a good habitat for local dormice.

In contrast, more recent hedgerows along roads and farmland, especially in the south of the parish did not seem to provide a strong habitat. Yet, this does not mean that hedgerows are not significant for Overton's dormouse population. Since the hedgerow network is well interconnected it probably provides useful foraging routes or travel corridors, although there are several major cuts through the network that undoubtedly represent major obstacles for dormice movements: 2 railway lines and the two main roads (crossing in the centre of the village).

In addition to nibbled nuts, 3 dormouse nests were also observed, including one from which a dormouse came out in broad daylight to the surprise and delight of the small group of 'nut hunters' present.

Dormouse nest within a hazel shrub

Contributors

Janis Fooks, Véronique Kerguelen, Ken & Jane MacKenzie, David Lancaster, Roy & Margaret Palmer, Margaret Rainford, Mike Scoggins, Fenella Swinscoe, Wendy Taylor, Adam Trickett, Janet Wigney.

Further reading

-The dormouse conservation handbook – second edition (2006). ISBN: 1 85716 219. Available from the Natural England web site: http://www.naturalengland.org.uk/

-UK Biodiversity Steering Group (1995). *Biodiversity: the UK Steering Group report: Volume II: Action plans (Tranche 1)*. London: HMSO. Available from The National Archives web site:

http://tna.europarchive.org/20110303145238/http://www.ukbap.org.uk/Library/Tranche1_Ann_g.pdf − Last visited 17 March 2012.

-Wildlife and Countryside Act 1981. Available from the UK Legislation web site: http://www.legislation.gov.uk/ukpga/1981/69/contents − Last visited 17 March 2012.

-The Conservation (Natural Habitats, &c.) Regulations 1994. Available from the UK Legislation web site: http://www.legislation.gov.uk/uksi/1994/2716/contents/made − Last visited 17 March 2012.

-A study of local hedgerows. Overton Biodiversity Society (2006). Available from Overton Biodiversity Society at: http://www.overton-biodiversity.org/resources/catalogue/surveys.html − Last visited 17 March 2012.