



## REVISED PLAN AUGUST 2016

### COMMON (HAZEL) DORMOUSE *Muscardinus avellenarius*

#### 1. INTRODUCTION

The hazel dormouse is probably most famous for its appearance in one of the best known children's books, Lewis Carroll's '[Alice in Wonderland](#)', as the creature that lived in a tea pot and was always sleeping. In the Harry Potter novels J.K. Rowling notes that the gamekeeper Hagrid has a couple in the pockets of his moleskin overcoat. In truth the dormouse is a specialised arboreal nocturnal small mammal, not to be confused with the edible dormouse (*Glis glis*), an item of the ancient Roman diet and still a delicacy in Croatia and Slovenia (Juskaitis & Buchner, 2013).



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According to the latest taxonomy (Wilson & Reeder, 2005) the dormouse is our smallest species of squirrel. Traditionally placed with the mouse-like rodents in the suborder *Myomorpha*, the dormouse family (*Gliridae*) is now considered to belong in the *Sciuromorpha* on account of the squirrel-like adaptations for arboreal life. Limbs are highly specialised for climbing, the hind foot having both first and fifth digits opposable although the tail is not prehensile as is typical in climbing mammals. Nocturnal climbing may be assisted by using the whiskers to feel around in the dark. These are moved forwards and backwards really fast in a movement called 'whisking' which can occur at around 15 times per second (Grant, 2012).

The behaviour of hibernating through the winter and being active throughout the summer is an adaptation to continental climates with cold winters and hot summers. In Britain, with its maritime climate, the species exists at the edge of its geographical range and favours ancient deciduous woodland with a well-developed understorey dominated by hazel, such as former coppice. Feeding on nutrient rich foods such as buds, flowers, fruits and insects, it is therefore important that habitat conditions remain favourable with a dense and diverse field layer. Dormice have also been recorded in Plantations on Ancient Woodland Sites (PAWS) which are often dominated by conifers, especially when they have good links to more optimal habitat.

Dormice make characteristic summer nests which are woven from strips of honeysuckle bark or similar material and often have an outer layer of leaves. Nests are spherical, roughly the size of a tennis ball and are found in dense vegetation, tree holes or using nest boxes. Although unfortunately prey for many predators, most commonly the stoat (*Mustela erminea*), weasel (*Mustela nivalis*) and tawny owl (*Strix aluco*) (Bright & Morris, 1996), Eden (2009) considers three litters a year, with on average 4 young, quite reasonable in good habitat in the long summers of Britain.

Dormice descend to the ground for hibernation where they spend the winter in a tightly woven nest in the litter layer, under logs or under moss. Their metabolism slows during hibernation and they require a cold place to spend the winter, with stable temperature

and humidity. Winter hibernation should not be confused with daily torpor, where dormice go into a state of inactivity during the day in cool or wet periods of the summer.

Given their diet and nesting characteristics, dormice have a specific set of habitat requirements that are necessary to sustain local populations and there are many aspects of woodland management that benefit them, including appropriate planting, coppicing thinning and felling. Dormice thrive where there is a high degree of species diversity so the aim should be to create a mosaic of age classes and a multi-storied canopy with plenty of links between different levels of the canopy and undergrowth; there should also be links via suitable hedgerows and other scrubby habitats across the whole wooded landscape. While all woodlands require individual prescriptions and plans, their management in this way will benefit other wildlife such as birds, butterflies and ground flora which makes the dormouse a good biodiversity indicator (Bright et al. 2006).

The average population density is only about 2.2 individuals per hectare, thus small woods contain fewer dormice, perhaps not enough to constitute a viable population (Bright et al. 2006). While small woodlands of less than 20ha may provide excellent habitat, if they are not linked to other sites nearby they probably contain too few dormice to sustain a permanent population.

2.	OBJECTIVES	TARGETS
Associated Action Plans are: ' <i>Woodland</i> ' and ' <i>Hedgerows</i> '		
<b>PLEASE CONSULT THE '<i>GENERIC SPECIES</i>' ACTION PLAN IN CONJUNCTION WITH THIS DOCUMENT FOR OBJECTIVES COMMON TO ALL SPECIES PLANS</b>		
<b>A.</b>	<b>To maintain the range of dormice as recorded in 2000.</b>	<b>2020</b>
<b>B.</b>	<b>To maintain extent and maintain / improve condition by active management for dormice at all known sites.</b>	<b>2020</b>
<b>C.</b>	<b>Survey and prepare a plan for the Princethorpe Woodlands cluster to maintain extent and maintain / improve condition by active management.</b>	<b>2014</b>

### 3. NATIONAL BAP OBJECTIVES & TARGETS

The common dormouse is on the current UK Biodiversity Action Plan (BAP) Priority Species list published in 2007 ([Joint Nature Conservation Committee](#)). The targets and objectives for the [Common Dormouse](#) BAP, updated in 2010, may be seen online.

Maintaining and enhancing dormouse populations in all of the counties where they still occur requires a county-based inventory, locating dormouse sites and preparing management plans that take into account dormouse needs. Sites should be listed where active management of dormice is in progress and identify further sites where appropriate action should be implemented. This has been carried out by the [National Dormouse Monitoring Programme](#) (NDMP) run by the [People's Trust for Endangered Species](#) (PTES) since 1988.

## 4. CURRENT STATUS

Once a familiar species widespread throughout the south and west of England and Wales, the dormouse has suffered a substantial decline in numbers and distribution throughout the last century. The first national survey completed in 1993, based on survey of eaten nuts ([The Great Nut Hunt](#)), was used as the flagship for the launch of the English Nature (EN, now [Natural England](#)) [Species Recovery Programme](#) and found 334 sites with dormice in England and Wales. In Warwickshire dormouse status is, historically, poorly recorded, though we might expect that the species would have been present in large deciduous semi-natural woodland that have been traditionally managed for the understorey species. Its recorded distribution in Warwickshire is rare and it is known only from a few sites.

Until a survey was carried out by EN in 1999 and 2000 the dormouse was thought to remain at only one site in Warwickshire, [Weston Wood](#), which lies in the complex to the south-west of Coventry; sadly there have been no records here since 2013. In 1998, 65 individuals were introduced from the Channel Tunnel works in Kent to the nearby [Bubbenhall Wood](#) and monitored by the PTES until 2005 when only one individual was found. It is possible that the dormice are still present and monitoring of the site was resumed by the Warwickshire Dormouse Conservation Group (WDCG) (now called [Dormouse Conservation Warwickshire](#)) in 2014. The 1999/2000 survey by EN revealed another site positive for dormouse in this area, Brandon Wood; it did not find evidence of dormice in suitable habitat in the nearby New Close, Birchley Wood and [Ryton Wood](#), although there is unconfirmed evidence of dormice at the latter location. The 1999/2000 surveys revealed populations at 4 other locations, all of which are isolated from one another: 3 in the south of the county, Long Itchington & Ufton Woods, Wolford Wood and Whichford Wood, and a further site in the north of the county, Kingsbury Wood. In 2008 at Print Wood, about 2 miles from Long Itchington, a site with previously only unconfirmed anecdotal records, a hibernating dormouse was found in a log pile. However, survey work by WDCG since 2009 has found no further evidence of dormice at any of these sites.

A second introduction of dormice to Warwickshire was carried out by the PTES in 2009 and 2010 to a privately-owned [Sites of Special Scientific Interest](#) (SSSI), Windmill Naps, and a third introduction in 2012 at another private woodland, Alne Wood. Annual box checks by PTES reveal that breeding continues to take place at Windmill Naps but never occurred at Alne Wood.

At two woods owned by Warwickshire Wildlife Trust and believed to be negative for dormice from WDCG survey work, a phased release by PTES began in June 2017 with the introduction of 38 captive-bred animals, as part of the Princethorpe Woodlands Living Landscape Partnership Scheme. This landscape scale project aims to restore habitat continuity and create a 320ha tract of woodland.

### 4.1 Legal and Policy Status

The hazel dormouse is native to Britain but is nationally scarce. It is protected under both UK and European legislation: Schedule 5 of the [Wildlife & Countryside Act 1981](#) (as amended), the [CROW Act 2000](#), Schedule 2 of the [Conservation of Habitats & Species Regulations 2010](#), Annex IV ([EC Habitats Directive 1992](#)) and the [Bern Convention](#), Appendix 3. It is a priority species under Section 41 of the [NERC Act 2006](#)

and is on the [IUCN Red List of Threatened Species](#), under the category of 'least concern'.

A wide range of species and habitats are protected under these international and domestic laws, additionally the [Wild Birds Directive](#) (1979) and the [Conservation Regulations](#) (1994). Protection of sites is afforded nationally through SSSI status, [Special Areas of Conservation](#) (SAC) and [Local Nature Reserve](#) (LNR) statutory status. Other sites are offered recognition of their value through Local Wildlife Site status (LWS), Local Character Areas and identified Landscape Scale Areas. The [National Planning Policy Framework](#) (2012) chapter/section 11 states conditions with regard to any development negatively affecting biodiversity, including protected sites, ancient woodland and other irreplaceable habitats (paragraph 118). The Wildlife & Countryside Act and schedule 2 of the Conservation of Habitats & Species Regulations (2010) make it an offence to intentionally kill, injure, take, possess, sell, buy or transport a range of species.

Despite being listed on Schedule 5 of the Wildlife & Countryside Act and Schedule 2 of the Conservation of Habitats & Species Regulations, it is evident that this alone will not be sufficient to check and reverse the decline of the dormouse.

#### 4.2 Current Factors Affecting the Species

- **Lack of coppice management**
- **Lack of thinning in regenerating woodland**
- **Destruction of woodland habitat**
- **Habitat fragmentation**
- **Loss of species rich, infrequently cut hedgerows** - research by [Hedgelink](#) into attitudes to hedgerow management found that 49% of hedges are cut annually and most are cut before the end of October, those on arable land being cut after harvest (British Wildlife, April 2012 p294).
- **Isolation of sites**
- **Lack of control of grey squirrel (*Sciurus carolinensis*)** which competes with the dormouse for resources.

#### 5. LOCAL ACTION

- In 2012- 2014 [Warwickshire Wildlife Trust](#) (WWT) secured two further grants (from [SITA Trust](#) and PTES) for a two year project for the Princethorpe Woodlands landscape area. The SITA Trust-funded project specifically addresses the issue of enhancing connectivity between the woodlands and has obvious potential to enhance the area for dormice. PTES funded survey work and volunteer training by WDCG which began in 2013 with the installation of 300 nest tubes into Wappenbury, Ryton and Shrubs Woods. Another 300 were installed in 2015.
- WWT is undertaking work on other reserves including reinstatement of coppice that will directly benefit dormice, e.g. on the WWT reserve at Hampton Wood. Management at Wappenbury Wood has continued according to the

management plan which will bring diversity and structure to the wood to benefit dormice and bringing woodland that has been unmanaged for 60 year back in to management. There are now 2 cycles of coppice with standards covering about 60% of the wood, the remainder being be left as non-intervention. The rides are also receiving some management, with coppiced edges, funded by SITA.

- Much of the active conservation work in the sub-region has taken place directly from the work by Natural England in 1999-2001 and comprises actions associated with 5 year management plans for dormice in the 5 'newly discovered' woodlands which contain dormice. Conservation work has focussed on nest boxes and appropriate management, in particular coppice management. At Brandon Wood coppice management is undertaken by the [Friends of Brandon Wood](#) (FoBW).
- The Warwickshire Mammal Group took the lead in surveying woodlands not surveyed for dormice between 1999 and 2001, and re-surveying woods where their presence may have been missed, for example, Ryton Wood.
- Weston Wood, owned by the [Forestry Commission](#), has a management plan in place, including provision for dormice; annual monitoring of nest boxes is carried out. A coppicing regime is being established (2012) at both Weston & Waverley Woods by the Forestry Commission.
- An assessment of the connectivity of Weston & Waverley Woods with the surrounding areas was made in 2010 using nest tubes but produced no evidence of dormice using the hedgerows, suggesting that the resident population has limited dispersal (Dunn, 2011). 5km of hedgerow have been restored in the Princethorpe Woodlands cluster (2012).
- The WDCG (now called Dormouse Conservation Warwickshire) has been running an ongoing survey programme since 2009, initially to find out if dormice are still present at the 5 sites discovered in the 1999-2000 survey (Bodnar, 2000, 2001), and also whether they occur in any other woodlands in the county. Despite an effort of c.1000 nest tubes and 100 boxes, installed at 9 woods in 2016, no new sites have been discovered. A newsletter is produced twice a year.
- WWT has implemented the survey plan for the Princethorpe Woodlands Living Landscape scheme; 6.6km of habitat linkages have been created through hedgerow planting and protection.
- In 2016 the organisation of dormouse fieldwork was taken over by the [Warwickshire Mammal Group](#) which will continue to survey further sites as dictated by any new records of dormice. Also in the timetable is the installation of nest tubes and boxes in woodlands close to Alne Wood, to find out if the dormice introduced there in 2012 have moved location.

## 6. PROPOSED LOCAL ACTIONS

ACTION	Lead	Partners	By
<b>PLEASE CONSULT THE '<i>GENERIC SPECIES</i>' ACTION PLAN IN CONJUNCTION WITH THIS DOCUMENT FOR ACTIONS COMMON TO ALL SPECIES PLANS</b>			
<b>Policy, Legislation &amp; Protection</b>			
<b>PL1.</b> Ensure that any site meeting the relevant criteria, but not already an SSSI, is considered for designation as a LWS.	LWSP	RBC NE LAs	ongoing
<b>PL2.</b> Enforce hedgerow protection through implementing the <a href="#">Hedgerow Regulations 1997</a> .	LAs	WCC NE LOs	ongoing
<b>Site / Species Safeguard &amp; Management</b>			
<b>SM1.</b> Establish management agreements that account for the habitat requirements of dormice for all sites on which the species has been identified or re-introduced.	CSG	PTES FC	Done
<b>SM2.</b> Ensure that the Warwickshire Forestry Commission Design Plan continues to account for the needs of the dormouse at Weston & Waverley Wood by appropriate active management.	FC	NE LOs	ongoing
<b>SM3.</b> Implement the survey plan for the woodlands in the Princethorpe woodlands cluster.	WWT	FC DCW FoBW LOs	Done
<b>SM4.</b> Create habitat linkages through hedgerow planting and protection in the Princethorpe woodlands cluster.	WWT	NE WWT WDC RBC SDC	2015-2020
<b>Advisory</b>			
<b>A1.</b> Provide advice to key groups including landowners and managers of woodlands with regard to best practice management for dormice.	PTES	NE WWT DCW	ongoing
<b>Research &amp; Monitoring</b>			
<b>RM1.</b> Monitor all known dormice populations annually.	DCW	NE WWT PTES LOs FoBW WMG FC	ongoing
<b>RM2.</b> Determine the status of the introduced population at Bubbenhall Wood.	DCW	WWT PTES HSC WMG	ongoing
<b>RM3.</b> Continue the survey of Warwickshire's woodlands.	DCW	FoHW WWT FoBW EWP WMG FC SVWAG	ongoing

**Abbreviations:** **CSG** – LBAP Core Steering Group, **EWP** – Earlswood Wildlife Partnership, **FC** – Forestry Commission, **FoBW** – Friends of Brandon Wood, **FoHW** – Friends of Hay Wood, **HSC** – Hanson/Smiths Concrete, **LA**s – Local Authorities, **LO**s – Landowners, **LWSP** – Local Wildlife Sites Project, **NE** – Natural England, **NWBC** – North Warwickshire Borough Council, **PTES** – People's Trust for Endangered Species, **RBC** – Rugby Borough Council, **SDC** – Stratford District Council, **SVWAG** – Stour Valley Wildlife Action Group, **WDC** – Warwick District Council, **WCC** – Warwickshire County Council, **DCW** – Dormouse Conservation Warwickshire, **WMMG** – Warwickshire Mammal Group, **WWT** – Warwickshire Wildlife Trust.

## 7. PROGRESS WITH ACTIONS

From 2015–2020 there will be a rolling programme of reporting on progress, of 10 action plans per year with an annual summary of results. . Progress with this plan up to 2008 can be seen at [www.warwickshirewildlifetrust.org.uk/LBAP](http://www.warwickshirewildlifetrust.org.uk/LBAP).

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## **9. FURTHER INFORMATION**

Dormouse Conservation Warwickshire - for the newsletter, email Ruth Moffatt on [rmof22@yahoo.co.uk](mailto:rmof22@yahoo.co.uk)

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