Distribution and status of the Dormouse *Muscardinus avellanarius* in Hampshire

Photograph by Phil McClean

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Preface

This report provides detail on the distribution and status of the dormouse *Muscardinus avellanarius* in Hampshire. These data have been gathered through collation of existing records and through survey using nut collection in the autumn/winter of 2003.

The results show that dormice are relatively widespread, although still rare in the County, and as such Hampshire should be considered one of the national strongholds for this species in the UK. Recommendations have been made on the management and monitoring of sites where evidence of dormice has been found.

The survey formed part of a high profile campaign to increase awareness amongst the general public and land owners on the importance of this species and its associated habitat. A thousand leaflets have been distributed along with articles in the County press and on the Hampshire and Isle of Wight Wildlife Trust's website.

Acknowledgements

Hampshire and Isle of Wight Wildlife Trust wishes to acknowledge the financial support of English Nature and Hampshire County Council in production of the dormouse leaflet and the 2003 survey. Thanks must also go to the Game Conservancy Trust and the Forestry Commission for identifying potential sites, and to the People Trust for Endangered Species who provided historical data on dormouse distribution in the County.

This survey would not have been possible without the landowners who allowed access to their woodlands, and the volunteers who undertook the survey. Their support for the conservation of threatened species in Hampshire is highly commended.

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1. Introduction

The dormouse is one of Britain's most enigmatic species, immortalised in literature at the Mad Hatter's tea party and used ubiquitously as an example of a woodland creature. Presence of dormice in a woodland or hedgerow is an indication of habitat quality. The habitat they require needs to be large in area, diverse floristically and as a result can support many other species. It has therefore been taken up as a "flagship species" to illustrate the pressures on native woodlands and woodland species.

However, the dormouse is rarely seen even by conservation professionals. Until recently the most reliable method of seeing dormice was through the use of nest boxes. These can monitor population fluctuations within woodlands and are useful as an educational tool. More recently a nest tube methodology has been developed which is useful in monitoring populations in habitats such as hedgerows. However, these methods are time consuming and inappropriate if trying to determine presence/absence on a county wide scale. The preferred method is to look for gnawed hazel nuts.

2. Ecology

Dormice are small mammals. They are conspicuously golden in colour with large black eyes and a big bushy tail, which is about the same length as the body. Individuals are approximately 80mm long and weigh as little as 10g when juvenile, fattening up to 40g as adults, before going into hibernation.

Dormice live at low population densities, less than 10 adults per hectare, even in good habitat. An average litter of four young are produced at two periods in the year, July and August, but normally only one litter is produced. The juveniles must be at least 25g before hibernation in order to survive. Healthy individuals can survive in the wild to age 5 years, which is old compared to other small rodent species (Bright and Morris, 1990).

During the day dormice sleep in a nest of shredded honeysuckle bark, rolled into a grapefruit sized ball, and wrapped in an outside shell of leaves. These nests are found naturally in dense stands of bramble, in bird's nests and in tree holes, at a height of between 1 and 2 meters from the ground (Bright, *et al*. 1996). They also readily use artificial dormouse nest boxes which can help increase population survival and breeding success. It is possible to look for nests during the winter when the animals themselves will be hibernating and therefore there is no risk of disturbance. In woods where there is a strong possibility that dormice might be present but nut hunts have not provided a definitive positive result, it may be possible to use nest tubes. These tubes created and supplied by the Mammal Society, can be left over the summer and then checked in the winter, to determine if dormice have been using them as summer nest sites.

Winter hibernation lasts from October to April. Their hibernation is spent amongst leaf litter often in the base of coppice stools. Hibernation is triggered when temperatures reach below 16^{o}C. On leaving hibernation they must increase their body

temperature by 35^{o}C which requires a lot of energy and the ability to feed soon after (Bright, *et al*. 1996).

In summer when temperatures drop or food becomes scarce, dormice are able to enter a state of torpor. Climate change could cause a number of problems. If summers become wetter and colder then animals will spend more time in torpor, be unable to raise successful litters, and eventually the population would die out. Alternatively if there are milder winters and animals stay active for longer, without going into hibernation, or they wake frequently from hibernation, they will use up valuable fat reserves, be unable to find food and therefore starve (Bright and Morris, 1999).

3. Habitat

Dormice are so rarely seen because of their nocturnal, arboreal nature. During the night dormouse spend most of their time high in the canopy searching for food. Traditionally the favoured habitat was presumed to be deciduous woodland and thick overgrown hedgerows. These habitats support a range of different shrubs, which provide flowers, pollen, fruit, insects and nuts throughout the year, allowing dormice to move on to the next available food source. Therefore, a full spectrum of plants is required within the dormouse territory (Bright and Morris, 1990). Creating a scalloped edge to rides will help to provide a sheltered microclimate, allowing food plants to grow when the canopy closes over in the centre of the wood.

Coppicing can increase the amount of suitable habitat by creating a dense shrub layer and by encouraging woody species such as honeysuckle to grow. Ideally coppice stands need to be around 15 to 20 years old to create the right density of growth and to allow the hazel shrubs to produce nuts. However, cutting all hazel at once will be detrimental, as there will be no suitable habitat in the intervening 15 years. Ideally, blocks of coppice should be small and widely spaced within the wood so that no large blocks of unsuitable habitat develop.

Few woods are large enough to coppice on a rotation long enough to ensure that there is sufficient habitat, at the right age, to support dormice. In most of Hampshire there is also considerable pressure from deer. When woods are coppiced there these animals browse off the soft new shoots and prevent re-growth. Allowing stock into dormice woodlands is unlikely to be a beneficial management practise, because of the browsing away of the shrub layer.

Problems also occur when rides between coppice compartments are too wide with no arboreal connection. A gap as little as 100m will be enough to prevent movement resulting in a non-viable population. An arboreal connection should be created across paths by tying branches together. Mature trees, which can become isolated in newly coppiced blocks, should remain connected via corridors of shrubby species (Bright and Morris, 1990).

Dormice have been recorded in other habitats and there seems to be a growth in the number of records across the country returned from atypical sites. These include coniferous woodland, scrub, reed beds, gardens, within pampas grasses and even on bird tables. It is assumed that these are secondary habitats, in use because of the

declines in deciduous woodlands and ancient hedgerows. Whether these habitats are able to sustain a viable population long-term is unknown.

In Hampshire there is an estimated 75,422ha of broadleaved woodland (HBAP, 2000). About a third of this is considered to be ancient, i.e. that which has existed since 1700. This makes Hampshire one of the most wooded counties in the UK, with over 12% more coverage than the national county average. Important areas of woodland include Harewood Forest, the Forest of Bere, Crab Wood, Pamber Forest and the Hampshire Hangers.

Native broadleaved woodlands in Hampshire have declined by an estimated 50% due to agriculture, planting of both broadleaved and conifers on ancient woodland sites and development. The remaining woodland is under threat from a lack of woodland management, and the lack of a sustainable local economy through which to sell woodland products.

Some 6,000ha of woodland is owned or managed by an organisation with a conservation remit but the greatest percentage is in private ownership. This illustrates the need to provide advice to landowners and land managers to help them manage woodland sites sympathetically for species such as dormice.

The Ancient Woodland Inventory produced by English Nature maps all ancient and semi-natural woodland (ASNW) greater then 2ha in size. In Hampshire almost all of these woodlands are designated at Sites of Importance for Nature Conservation which affords them consideration in the Local Plans of each district.

Hedgerows provide important wildlife corridors across the landscape. Over 15,000km of hedgerow have been mapped in Hampshire. Many have been in existence for hundreds of years and may be remnants of ancient woodlands or parkland features. Ancient hedgerows will have greater diversity in structure and in the number of shrubs they contain, such as hawthorn, hazel, buckthorn, honeysuckle and wild rose.

Hedges have declined in the countryside due to increased field sizes as a result of the intensification of agriculture and development. This decline has been halted though the Hedgerow Regulations 1997. Like woodlands, the greatest threat to hedges is a lack of appropriate management.

4. Distribution

It is assumed that dormouse were once widespread over most of England and Wales (Bright *et al*. 1996). Recent surveys show that its current distribution is restricted to 24 counties, with a strong southerly/south westerly concentration (PTES, 2002). It is known to have become extinct from seven English counties in the last 100 years (UK BAP, 1993). In most of the remaining counties the distribution is sparse and patchy, especially when compared to other woodland species such as wood mouse or bank vole.

Further a field in Europe, dormice are also scarce and widespread. They are found from France and Sweden across to Russia, and south to Sicily and Corfu (Corbet, 1978).

5. Population decline

The Dormouse is classified as Near Threatened (NT) on the IUCN red list (1994) which means it is close to qualifying for Vulnerable in the near future, unless conservation action can reverse the declines.

It is now understood that the reasons for the decline in this species are due to a number of factors. These factors are interconnected and complex but include,

- A reduction in extent of broadleaved woodland habitat
- Fragmentation and isolation of remaining woodlands leading to local extinctions
- Reduction in coppicing as a woodland management technique
- Increase in grazing animals in woodlands arresting the development of the shrub layer
- Climate change leading to starvation

In counties where dormouse have been lost there have been successful re-introduction programmes. These require thorough investigation of the woodland to assess suitability and continual monitoring of the re-introduced dormice. It is unlikely that re-introductions will need to be considered in Hampshire in the first instance. Habitat management being of greater importance.

6. Legal protection

The dormouse is listed on Appendix 3 of the Bonn Convention and Annex IVa of the EC Habitats Directive. It is protected under Schedule 2 of the Conservation (Natural Habitats, etc.) Regulations 1994 (Regulation 38), and Schedule 5 of the Wildlife and Countryside Act 1981.

This legislation makes it illegal to deliberately disturb, harm or exploit dormice or their habitats. This includes surveying for dormice where the methodology involves disturbing the species e.g. monitoring nest boxes. For scientific, educational or for conservation purposes a licence can be sought from English Nature.

No licence is required to undertake a survey for nuts chewed by dormouse. Where woods have been identified that appear to have a dormouse population, future monitoring using nest tubes or nest boxes will be considered under the guidance of a licensed surveyor. For more information on the National Nest Box Monitoring Scheme see appendix B.

7. BAP Actions

By finding out the distribution and location of dormice in Hampshire we can help to achieve the actions of the UK Species Action Plan for the dormouse (1995) and the Hampshire Habitat Action Plan for Ancient and Semi-natural Woodland (2000).

7.1 UK Dormouse SAP

- Seek to ensure that PPG9 guidance is taken into account by Highway Authorities and Local Authorities.
- Sites supporting dormice should be identified and advice provided to land managers on appropriate management.
- Grant-aid and incentive schemes (such as the Woodland Grant Scheme) should be used to encourage owners to manage suitable habitat sensitively.
- Manage woodlands and hedgerows to maintain current populations and prevent further habitat fragmentation.
- Ensure that landowners, agencies and local authorities are aware of the requirements of the dormouse, especially the impact woodland and hedgerow management may have, and the effects of habitat fragmentation.
- Ensure continued public awareness of this species as a key indicator of desirable woodland and hedge conditions.

7.2 Hampshire Ancient and Semi-natural Woodland HAP

- Encourage landowners and advisors to ascertain as far as possible which priority species are found on individual sites, promote/implement favourable management
- Prepare Species Action Plans for species associated with ASNW that are not adequately covered by this Plan or others
- Develop a strategy for monitoring priority species in ASNW
- Select key species that can be used to highlight specific adjustments to standard management of ASNW and produce appropriate management guidelines

8. Hampshire Mammal Group

Hampshire Mammal Group (HMG) is a species group of the Hampshire and Isle of Wight Wildlife Trust with affiliation to The Mammal Society. Our primary aim is to encourage recording of mammals and to raise awareness of mammal conservation to a wide audience.

A survey for dormice is a high priority for HMG. Firstly, because dormice are a priority species in the Hampshire Biodiversity Action Plan and therefore it is desirable to have a better understanding of distribution and status. Secondly, because anyone can take part in a nut hunt survey it has high public appeal, which can help to spread an important conservation message.

Some people in Hampshire had taken part in the national Great Nut Hunt survey in 1993 and 2001 and a pilot survey in Hampshire in 2002, but it was felt that we still only had a fraction of the total number of dormouse sites in Hampshire.

9. Historical records

Prior to this survey some data was available on the distribution of dormouse in Hampshire. A summary of the 2001 UK National Nut Hunt survey showed that Hampshire was amongst the top 8 sites in England and Wales with records of dormouse.

Table 9.1 Counties with positive records from the Great Nut Hunt 2001 (PTES)

County	Number of Sites	County	Number of Sites
Devon	23	Hampshire	11
Somerset	17	Cornwall	11
Sussex	15	Isle of Wight	9
Dorset	13	Kent	4

However, the location of these eleven sites in Hampshire were unknown to the Hampshire Mammal Group, therefore it was not possible to assess if these sites were benefiting from positive management. The results of this survey also only represented recorder effort during that one year and would not have been enough to cover all sites in Hampshire which had the potential for dormouse.

The Hampshire and Isle of Wight Wildlife Trust's MapMate© database, which holds all county records for mammals, was also analysed at the beginning of the survey.

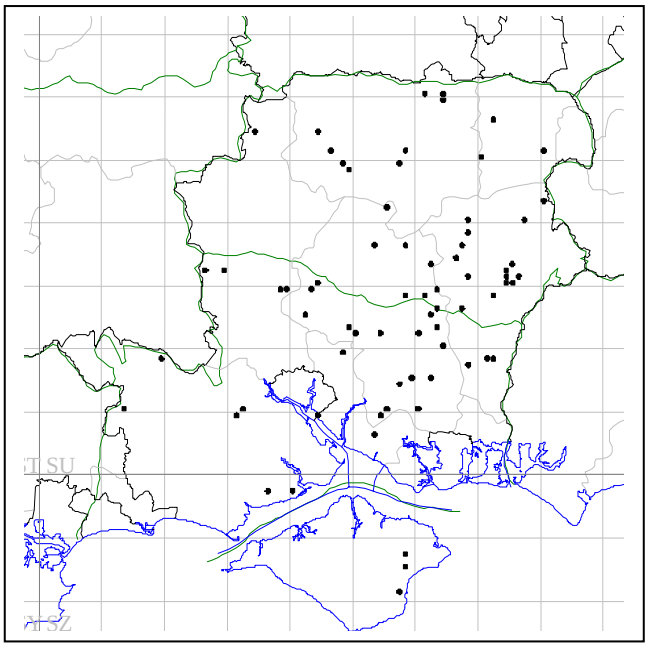


Figure 9.1
Known distribution of dormouse in Hampshire prior to the 2003 Survey

(*each dot represents a 2km grid square with a record of Dormouse*)

Figure 9.1 shows that dormice are widely distributed but still relatively rare in Hampshire. At this point we had 82 records on the database between 1975 and 2002, from 63 2km grid squares. This was only a fraction of the sites that we believed could support dormouse and it was hoped that a survey in 2003 would provide a more accurate and up to date picture.

10.Methodology and site selection

Hazelnuts are a good source of energy for many woodland creatures, and their empty shells are a recognised field sign for presence or absence. Rodents make a small hole, less than 1cm in the shell and leave behind characteristic teeth marks. Other animals, such as squirrels and birds feed on hazelnuts but they tend to smash the shell or leave a jagged edge where they have opened the nut. Some insects also make holes in hazelnuts but these are small (less than 2mm) in diameter.

- **Dormice** feed on fresh nuts whilst they are still on the tree, leaving teeth marks at an angle to the hole they have made. The inner rim of the hole is virtually smooth and circular in shape.

- **Wood mice** leave distinctive parallel teeth marks in the rim of the hole and rough marks on the nut surface. The hole is often irregular in shape, and not as perfectly round as with dormouse.

- **Bank voles** also leave parallel marks on the inner rim of the hole, but they do not leave a mark on the shell. This can sometimes be confused with the clean break that a squirrel might make, and a magnifying glass is often needed to identify the presence or absence of teeth mark.

A leaflet was designed to explain the need for the survey and to give nut hunters the necessary information to undertake the survey (Appendix A). Volunteers were asked to do the following:

- Find a good clump of hazel shrubs and begin searching for nuts at the base of the trees, in the leaf litter and the bottom of the coppiced hazel stools.
- Collect all opened and unopened nuts that were found. Fifteen to twenty minutes searching time was thought to be sufficient at any one clump of trees.
- Sort the nuts using the guide and fill in the survey form.
- Put any dormouse nuts in a container, and send them with the survey form to the Hampshire and Isle of Wight Wildlife Trust.
- Send in the survey form even if there were no positive signs of dormice, so we knew which woodlands had been searched.

Sites were selected by two means. V olunteers were allowed to select their own woodlands or hedgerows, based on their local knowledge. Alternatively we invited landowners and land managers to put forward potential woodlands which we would survey on their behalf using our team of in-house volunteers.

11.Results

The 2003 survey for dormouse in Hampshire has proved very successful. After collation of records and verification of nuts sent in by volunteers we now have the following distribution map for Hampshire.

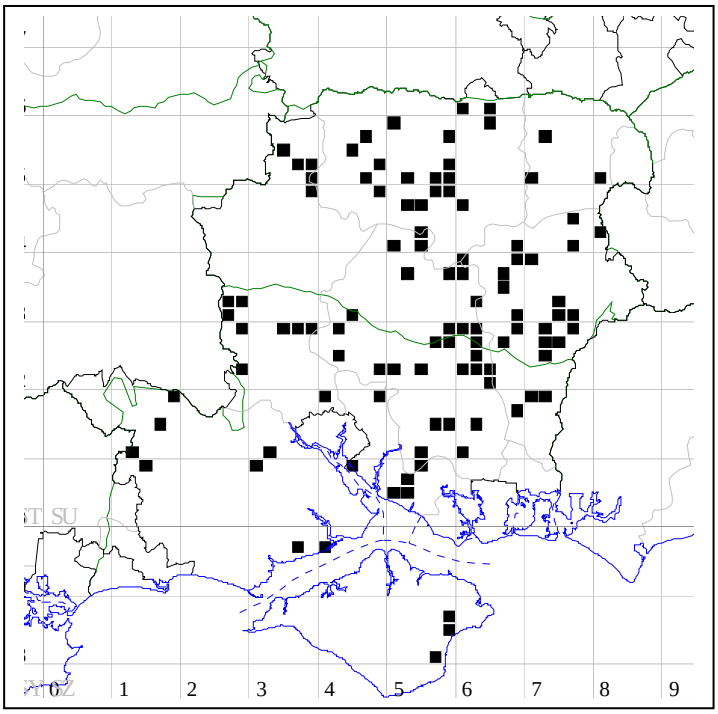


Figure 11.1
Current known distribution of dormouse in Hampshire after the 2003 Survey

(*each dot represents a 2km grid square with a record of Dormouse*)

The results show that we now have a record of a dormouse in 105 2km grid squares in Hampshire as opposed to 63 2km grid squares which we had at the beginning of the survey in the autumn of 2003. Thereby increasing our knowledge of dormouse distribution by 60%.

In the 2003 survey a team of 21 volunteers surveyed a total of 60 locations, with 6 figure grid references (45 named sites). In total 6504 nuts were collected and sorted. Those that were believed to be dormouse nuts were sent to the Wildlife Trust for verification. Table 11.1 shows the proportion of nuts returned nibbled by different rodent species. Over 50% of nuts, had been opened by bird, squirrel or insects, but these were easily identified and discarded.

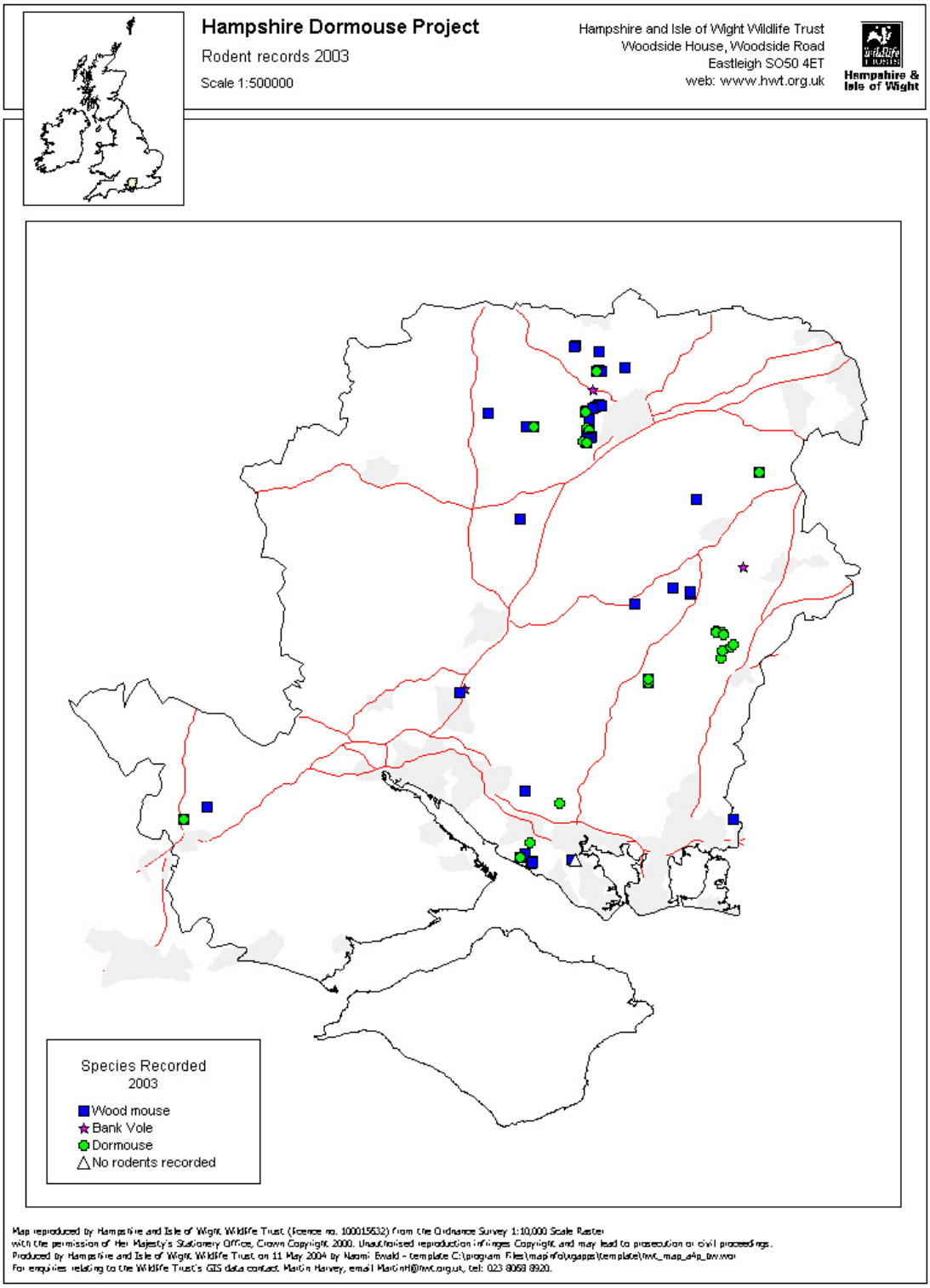
Table 11.1 Analysis of Nuts in the 2003 Survey

	N^{o} of named sites	N^{o} of 6 fig grid refs	N^{o} of 1km grid sq
Dormouse	22	23	19
Wood mouse	40	44	31
Bank vole	32	33	26

Wood mouse was the most common species recorded. Bank vole occurred less frequently but with a similar distribution to wood mouse. Only three sites, Otterbourne Park Wood, Pardown Copse and Wickhill Hanger had records of bank vole and not wood mouse. Only one site, Speedfields Park had no records of any

small mammal. All the nuts from this site had been opened by squirrel or bird. Figure 11.2 shows the distribution of sites surveyed in the 2003 project.

Figure 11.2



The map highlights concentrations of recorder effort, particularly to the east of Basingstoke, east of Fareham and the Hampshire hangers. Table 11.2 provides a summary of the 2003 survey by site.

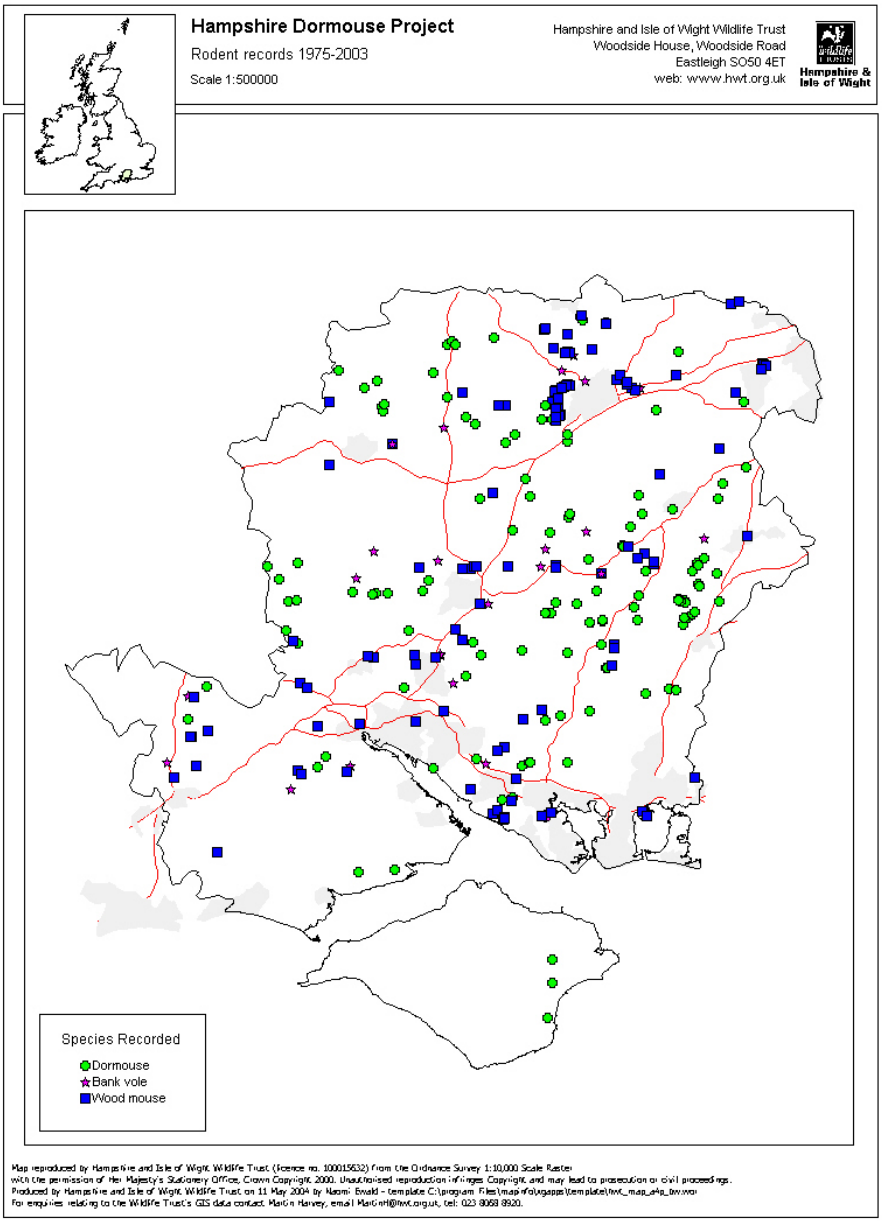
Table 11.2 Summary of Results by Site in the 2003 Survey

	Wood mouse	Bank vole	Dormouse
Balsan's Copse	✔		
Blashford	✔	✔	✔
Brownwich Valley	✔	✔	
Butterhead	✔	✔	✔
Chappett's Copse	✔	✔	✔
Chilling Copse	✔	✔	✔
Curbridge	✔		
East Oakley	✔	✔	
Happeysnapper Hanger			✔
Hollybank Wood	✔	✔	
Hunts Pond Road			✔
Isnage Farm	✔	✔	✔
Jeffrey's Copse	✔	✔	
Juniper			✔
Linwood	✔		
Little Shoulder of Mutton			✔
Lutcombe			✔
Marvel Row Copse	✔	✔	✔
Meon Valley			✔
Mother's Copse	✔		
Near Well's Copse			✔
New Farm, Kings Somborne	✔	✔	
Otterbourne Park Wood		✔	
Pardown Copse		✔	✔
Pitmore Copse	✔		
Plash Wood	✔	✔	
Polhampton Farm	✔	✔	✔
Privett Copse	✔		
Ramsdell Wood	✔	✔	
Ridge Hanger			✔
Rotherfield Park	✔	✔	
Shalden Park Wood	✔	✔	
Small's Copse	✔		✔
Speedfields Park			
Tanners Lane	✔	✔	
Thatcher's Copse	✔	✔	
The Vyne	✔	✔	✔
The Warren			✔
Twinley Manor	✔	✔	
Well's Copse	✔		✔
Wick Hill Hanger		✔	
Wither's Copse	✔		
Wooten Copse	✔	✔	
Wootton Copse	✔	✔	
Worting Wood	✔	✔	

Sites where only dormouse were recorded do not indicate that there were no other rodent species at these sites. Records of dormouse were sent in from known sites that did not use the nibbled nut methodology to determine presence/absence, or if they did a completed form was not sent in for the other species.

These data were combined with records from previous surveys and with data sent by the PTES, who hold the database from the National Nut Hunt Surveys. Figure 11.3 shows the distribution of dormouse, bank vole and wood mouse records in Hampshire. Raw data is included in Appendix C.

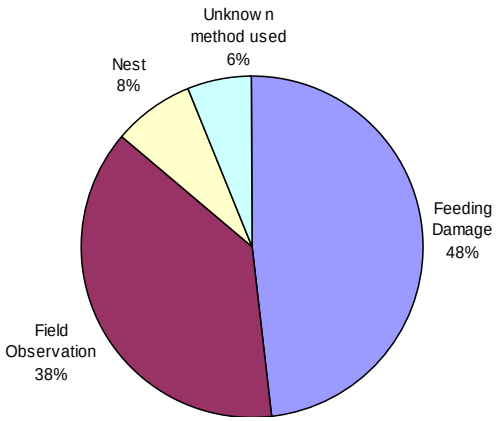
Figure 11.3



The County Recorder for mammals now has 185 records of dormouse, 113 records for bank vole and 191 records for wood mouse. The high percentage of dormouse records compared to the other species is the result of recorder effort, and not an indication of the rarity of the other two species.

Analysis of the dormouse records as shown in figure 11.4 shows that identification of nibbled nuts account for 48% of the records returned, indicating that this is a useful and successful method of survey at a county scale.

Figure 11.4 Method of identification of dormouse presence



All records of dormouse were plotted against ancient and semi-natural woodland sites. In Hampshire most of these ASNW sites have been designated as Sites of Importance for Nature Conservation. Fifty percent of the records were outside of these designated sites. Therefore, highlighting the need to protect biodiversity in the wider countryside.

Figure 11.5

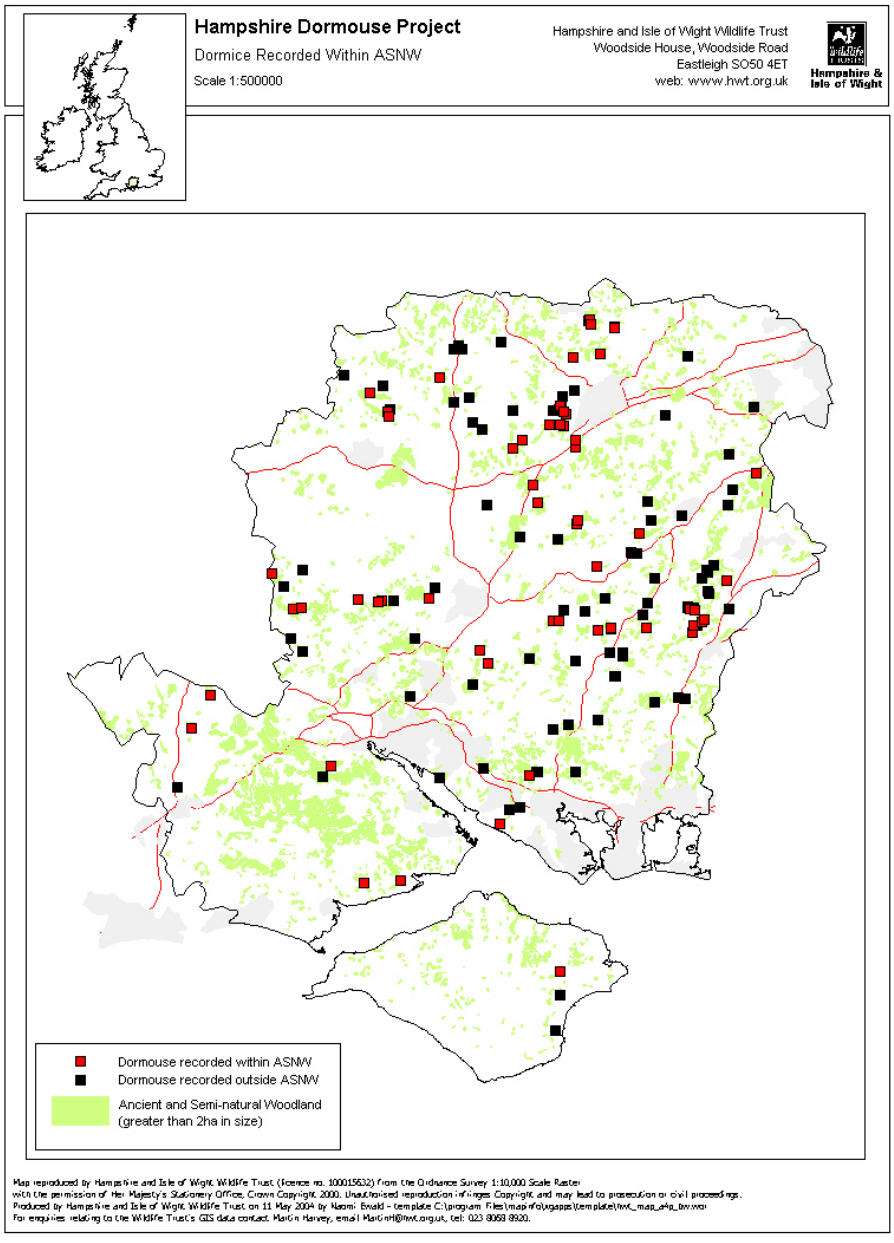
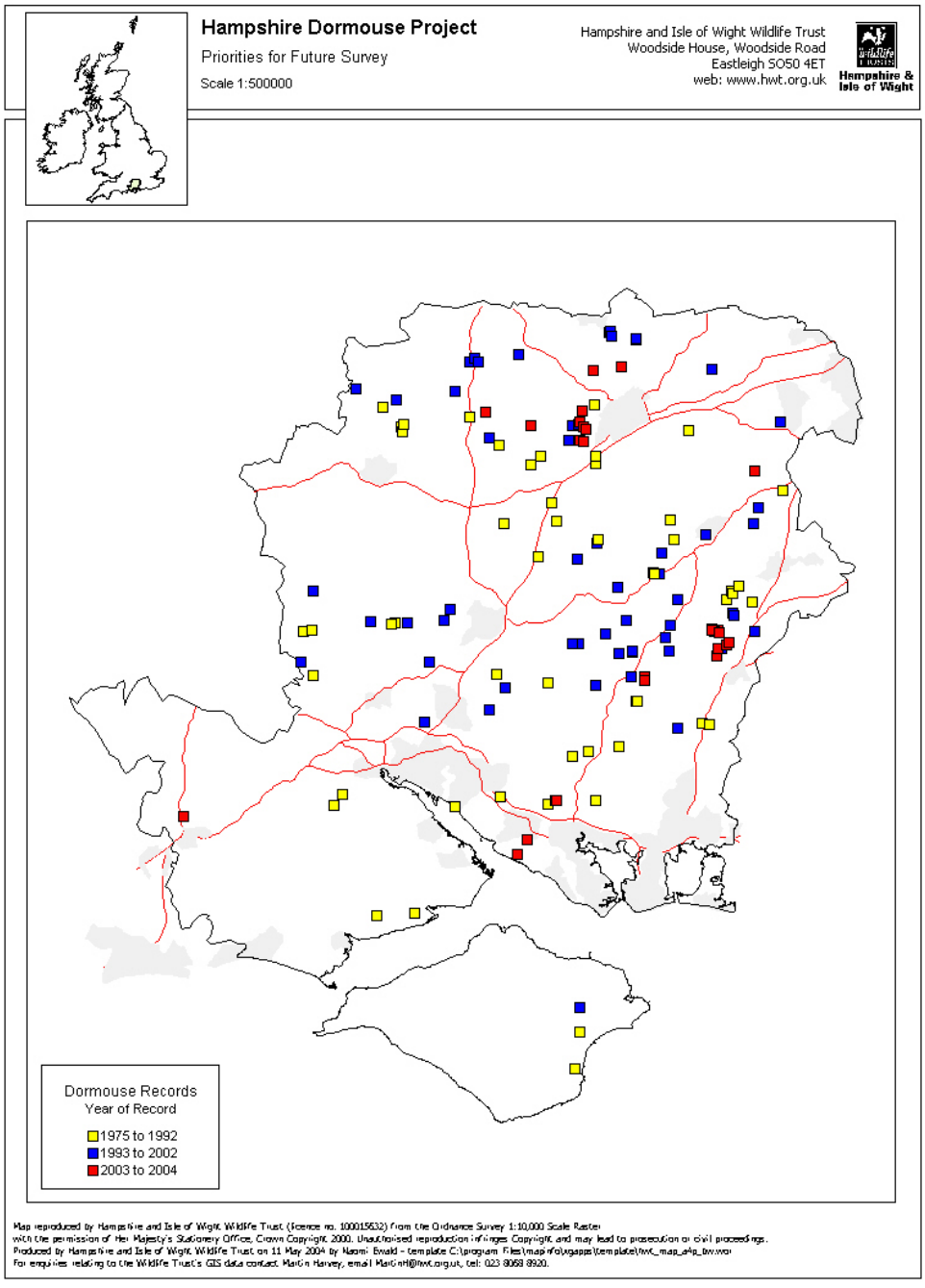


Figure 11.6 classifies the records of dormouse by date. This shows that many records are over 10 years old, and most were one record of a single nibbled nut. It is important to re-visit these sites in future surveys to determine if dormice are still present.

Figure 11.6



7. Discussion

Almost all of the 1,000 leaflets were distributed. It is not possible to judge from this what gains they had in terms of conservation. Those people who read the leaflet may already be aware of the conservation importance of dormouse and their habitats. Landowners who are receptive to this form of media are likely to be involved in other conservation processes, e.g. Countryside Stewardship or Woodland Grant Scheme. Members of the public were likely to pick up the leaflet at conservation walks or talks, and would therefore already be aware of conservation issues. To reach new audiences, conservation advisors said they would find it a useful tool to leave the leaflet with woodland landowners on a first visit. It is therefore recommended that the leaflet is re-printed.

Less than 10% of the leaflets distributed were returned with survey results. The majority of surveys were undertaken by a small number of Wildlife Trust volunteers. The reason for the lack of more general volunteers may be a feeling of uncertainty about how skilled you needed to be to undertake the survey. To broaden participation in future surveys, a training day is proposed for group leaders such as for example:

- HIWWT District Groups
- HIWWT Watch Groups
- School groups
- Cubs and Brownies
- Forestry Commission, education staff

This training day would explain how simple the process of nut collection was, and would give them the skills to identify nibbled nuts. Future surveys could also be accompanied by a more general appeal, with a high level of publicity, asking people to send in any hazel nuts they find, with a small team of sorters at HWT office to do the analysis. This should be focused on trying to re-visit all sites with records greater than 10 years old to determine if dormice are still present and to verify old records.

All records from the 2003 survey have been entered on to the County mammal database and all records will be sent to the national PTES to update the national recording scheme. This survey has achieved many of the aims of the UK Species Action Plan for dormouse and the Hampshire Habitat Action Plan for Ancient and Semi-Natural Woodland. A short article will be produced for the Hampshire BAP website, to publicise progress of the BAP.

Many of the sites for the 2003 survey were suggested by Forest Enterprise and the Game Conservancy Trust. It was not possible to survey all the sites suggested due to a limited number of volunteers to undertake the work, however, landowners were contacted and their details will be kept on file for the next round of survey.

The results of the 2003 survey combined with records from previous surveys confirm that dormice are widespread but still relatively rare in Hampshire, i.e. they do not occur in every woodland where suitable coppiced hazel is found. They strengthen previous assumptions that Hampshire is amongst the most important strongholds in a UK for dormouse. This should be publicised widely in the media as a conservation

success and to highlight the importance, to new and existing woodland owners of woodland management for this and other woodland species.

The continued survival of dormouse in Hampshire, compared to other counties which have seen major declines, is due to the continuity of woodland habitat. Although, the fragmentation and loss of large areas of Hampshire's woodland has almost certainly led to a decline in the distribution and status of dormouse. As the map of woodland sites show many of these woodland blocks are small in size and will eventually suffer from the impacts of deleterious effects along their edge. Although, some new sites, or woodland copses were identified as having positive records for dormouse, they were located adjacent or near to existing dormouse woodland sites. This highlights the importance of conserving local networks between woodland blocks.

The dormice recorded outside of the ASNW sites, were inhabiting woodland blocks less than 2ha in size and were therefore not always protected by SINC status. These populations may be utilising the adjoining hedgerow networks in order to find enough food to survive. Although, no hedgerows were surveyed in the 2003 survey, nationally it is thought that two thirds of the UK dormouse population has been lost from hedgerows (Great nut hunt, 2002). A survey by CPRE and HWT of hedgerows in East Hampshire, Fareham and Basingstoke and Deane districts during 2004, could be used to identify hedges with a diverse flora which could support dormouse. These hedgerows could then be highlighted for nut survey during the autumn of 2004.

Criteria being developed by the Hampshire Mammal Group to designate important sites for mammal species should help to highlight the importance of these sites in local plans. In the interim, Local Authorities will be sent a copy of the dormouse records for their district to help inform the planning process. Where opportunities exist, habitat creation and management, and buffering of sensitive sites should be used to increase the area of favourably managed habitat for dormouse.

All landowners and land managers whose woods were surveyed in the 2003 survey will be sent a summary of the results and advice on woodland management for dormouse, including schemes such as the Woodland Grant Scheme. The 45 sites with records of dormouse in the 2003 survey will be given the opportunity to enter into the National Dormouse Nest Box monitoring scheme. This will help to provide data on the status of dormouse populations at each site and determine if management prescriptions are having a positive or negative affect. This is particularly important for sites which are considering restoring coppice management, as deer damage following initial cropping could prevent re-growth, which would be detrimental to dormouse in the long term. There is a need for training and shadowing of existing licensees to gain experience; to address the need for more licensed dormouse workers for the monitoring scheme.

Where sites were seemed suitable for dormouse but returned no dormouse nuts there may be potential to try the nest tube methodology to determine if dormouse were at such low densities that they were missed in the 2003 survey. This project could form the basis of a BSc dissertation and will be considered in the list of projects for the Hampshire BAP Research Forum.

8. Conclusion

- Dormice are widespread but relatively rare in Hampshire.
- Hampshire is one of the most important strongholds in the UK for dormice. A fact which has the potential for widespread publicity, to raise awareness of the importance of woodlands for threatened species in Hampshire.
- Survey methodology using a search for nibbled nuts is a successful way of determining presence/absence over a large number of sites.
- A summary leaflet of this survey will be made available for the general public and for those who volunteered.
- Land owners and managers with sites identified in the 2003 survey will be offered management advice to benefit dormouse and advice on a Woodland Grant Schemes to undertake management.
- The Hampshire dormouse leaflet should be re-printed and made available to conservation advisors.
- A training day will be held in the autumn of 2004 to disseminate information on the importance of dormice in Hampshire
- All data will be included in the relevant county and national datasets.
- Hampshire Mammal Group will use the results of this survey to develop criteria to designate Sites of Importance for Nature Conservation (SINCs) for dormouse.

9. Future survey and monitoring

- Future surveys will be subject to funding and access permissions.
- Sites identified in the 2003 survey should be considered for inclusion in the National Dormouse Nest Box Monitoring Scheme
- Licensed surveyors will be asked if they could take on a trainee to increase the number of licensed surveyors. This will be organised through the Hampshire Mammal Group.
- Sites with records greater than 10 years old should be a priority for future survey.
- Hedgerows identified in the 2004 CPRE/HWT survey should be a priority for future survey.
- A training day will be held in 2004 to recruit team leaders for a expanded survey in 2004.
- A publicity campaign to get everyone to “Go out and get a nut” should begin in the late summer of 2004, with the aim of covering the maximum number of sites in the autumn/winter of 2004.
- A BSc project will be advertised through the Hampshire BAP Research Forum. This will use nest tubes to identify important sites for dormouse, where the nut methodology has not been successful.

10. References

Bright, P. and Morris, P. (1990) A Practical Guide to Dormouse Conservation. An occasional publication of the Mammal Society – No. 11.
Bright, P. Morris, P. and Mitchell-Jones, T. (1996) The Dormouse Conservation Handbook. English Nature: Peterborough.
Bright, P. and Morris, P. (1999) The Dormouse Monitor: Newsletter of the National Dormouse Monitoring Programme. Report for 1998
English Nature (2001) Dormouse Survey Information Pack. Great Nut Hunt: National Dormouse Survey.
English Nature (2002) The Great Nut Hunt 2001: Summary of Results. PTES.
Hampshire and Isle of Wight Wildlife Trust (2002) Dormouse Nut Hunt 2002. Survey Results.
Hampshire Biodiversity Partnership (1998) Biodiversity Action Plan for Hampshire. Volume One. Hampshire County Council.
Hampshire Biodiversity Partnership (2000) Biodiversity Action Plan for Hampshire. Volume Two. Ancient and Semi-Natural Woodland HAP. Hampshire County Council.
UK BAP Steering Group (1995) Biodiversity: The UK Steering Group Report - Volume II: Action Plans: Dormouse.

Appendix A: Dormouse Nut Hunt Leaflet

Appendix B: National Dormouse Monitoring Programme (UK)

In all the counties of England and Wales where the hazel dormouse, Muscardinus avellanarius, occurs there are now large numbers of volunteers who regularly monitor the dormouse populations each summer. This scheme is known as the National Dormouse Monitoring Scheme. It is organised by Pat Morris and Paul Bright and funded by English Nature.

In a wood where dormice are known to occur, dormouse nestboxes (preferably at least 50 per site) are tied to the trees with the entrance hole facing the tree trunk, spaced in a regular grid. When the volunteers check the boxes they temporarily close the entrance hole and carefully raise the lid to see if there is anyone within. If there is they lift the box down and, inside a plastic bag, release the dormice, count, sex and weigh them to fill in standard recording forms with which they are supplied each year. The dormice are then returned to the box which is replaced on the tree and the entrance unblocked.

These checks are carried out between 15 to 25th of each month from May to October (sometimes April to November) and minimally in June and October. The data is sent in at the end of the year and entered into a database. It is from this that the preliminary analyses are extracted to illustrate the Dormouse Monitor newsletter which is circulated to all volunteers so that they can keep in touch with other monitors.

The Dormouse Monitor - 2 October 1999
Newsletter of the National Dormouse Monitoring Programme

Appendix C: Table of sites and results

Vernacular	Gridref	Date	Recorder	Method
Bank Vole	SU685045	1950	Unknown	Longworth trap
Bank Vole	SU685045	1950	Unknown	Field record / observation
Wood Mouse	SU685045	1950	Unknown	Longworth trap
Wood Mouse	SU528118	1966	Betty Lucas	Field record / observation
Wood Mouse	SU528118	1966	Unknown	Field record / observation
Bank Vole	SU528118	1971	Betty Lucas	Field record / observation
Bank Vole	SU528118	1971	Unknown	Field record / observation
Hazel Dormouse	SU600100	1975	Unknown	Field record / observation
Hazel Dormouse	SU741318	1975	Unknown	Unknown
Wood Mouse	SU176174	1983	Ounsted, Mr J.	Unknown
Bank Vole	SU616608	1985	Unknown	Longworth trap
Wood Mouse	SU616608	1985	Unknown	Longworth trap
Hazel Dormouse	SU616608	1986	Unknown	Field record / observation
Bank Vole	SU364144	1987	Jess Pain	Unknown
Bank Vole	SU176175	1987	John & Irene Ounsted	Field record / observation
Hazel Dormouse	SU616608	1987	Unknown	Field record / observation
Hazel Dormouse	SU715184	1987	Unknown	Field record / observation
Hazel Dormouse	SU723182	1987	Unknown	Field record / observation
Wood Mouse	SU364144	1987	Jess Pain	Unknown
Hazel Dormouse	SU556101	1988	Unknown	Field record / observation
Hazel Dormouse	SU723182	1988	Unknown	Field record / observation
Bank Vole	SU804357	1990	Mike Jordan	Unknown
Hazel Dormouse	SU639261	1990	Unknown	Field record / observation
Hazel Dormouse	SU719388	1990	IAN DICKIE	Live specimen
Hazel Dormouse	SU719388	1990	SPALDING	Live specimen
Wood Mouse	SU427211	1990	Barbara Hillier	Unknown
Wood Mouse	SU804357	1990	Mike Jordan	Unknown
Hazel Dormouse	SU538061	1992	Unknown	Field record / observation
Hazel Dormouse	SU170150	1992	GNH	Conf. hazel nut
Hazel Dormouse	SU273308	1992	Unknown	Conf. hazel nut
Hazel Dormouse	SU190187	1993	Unknown	Feeding damage
Hazel Dormouse	SU280250	1993	Unknown	Feeding damage
Hazel Dormouse	SU340545	1993	Unknown	Feeding damage
Hazel Dormouse	SU396293	1993	Unknown	Field record / observation
Hazel Dormouse	SU4225	1993	Unknown	Feeding damage
Hazel Dormouse	SU435295	1993	Unknown	Field record / observation
Hazel Dormouse	SU442307	1993	Unknown	Feeding damage
Hazel Dormouse	SU485198	1993	Unknown	Feeding damage
Hazel Dormouse	SU485493	1993	Unknown	Feeding damage
Hazel Dormouse	SU502222	1993	Unknown	Feeding damage
Hazel Dormouse	SU5749	1993	Unknown	Feeding damage
Hazel Dormouse	SU602225	1993	Unknown	Feeding damage
Hazel Dormouse	SU616608	1993	Unknown	Field record / observation
Hazel Dormouse	SU617602	1993	Unknown	Field record / observation
Hazel Dormouse	SU623331	1993	Unknown	Feeding damage
Hazel Dormouse	SU633295	1993	Unknown	Field record / observation
Hazel Dormouse	SU644207	1993	Unknown	Field record / observation
Hazel Dormouse	SU644600	1993	Unknown	Field record / observation
Hazel Dormouse	SU671368	1993	Unknown	Feeding damage
Hazel Dormouse	SU679262	1993	Unknown	Feeding damage
Hazel Dormouse	SU726566	1993	Unknown	Feeding damage
Hazel Dormouse	SU728283	1993	Unknown	Field record / observation
Hazel Dormouse	SU7740	1993	Unknown	Feeding damage
Hazel Dormouse	SU8051	1993	Unknown	Field record / observation
Hazel Dormouse	SU736264	1993	BALL	Conf. hazel nut
Hazel Dormouse	SU776417	1993	COLLINS	Conf. hazel nut
Hazel Dormouse	SU6128	1994	Unknown	Field record / observation
Hazel Dormouse	SU669346	1994	E Mills	Unknown
Hazel Dormouse	SU715184	1994	Unknown	Field record / observation
Bank Vole	SU644598	1995	Andrew Cleave	Unknown
Hazel Dormouse	SU644598	1995	Andrew Cleave	Unknown
Hazel Dormouse	SU356294	1995	BRIGHT, Paul	Conf. hazel nut
Hazel Dormouse	SU574270	1995	BRIGHT, Paul	Conf. hazel nut
Hazel Dormouse	SU581270	1995	BRIGHT, Paul	Conf. hazel nut
Hazel Dormouse	SU601379	1995	BRIGHT, Paul	Conf. hazel nut
Wood Mouse	SU644598	1995	Andrew Cleave	Unknown
Bank Vole	SU401462	1996	Dave Beeson	Unknown
Bank Vole	SU607563	1996	Warren Gilchrist	Field record / observation
Bank Vole	SU607563	1996	Warren Gilchrist	Unknown
Bank Vole	SU3509	1996	Mike Jordan	Unknown
Hazel Dormouse	SU614606	1996	Unknown	Field record / observation
Hazel Dormouse	SU574506	1996	A.BUTCHER	Dead specimen
Hazel Dormouse	SU719388	1996	ANTHONY ROBERTS	Live specimen
Wood Mouse	SU536057	1996	R.F.Goodchild	Found dead
Wood Mouse	SU401462	1996	Dave Beeson	Unknown
Wood Mouse	SU3509	1996	Mike Jordan	Unknown
Wood Mouse	SU536057	1996	Ralph Goodchild	Unknown
Hazel Dormouse	SU772283	1997	FINUCANE	Unconf. hazel nut
Hazel Dormouse	SU841231	1997	NICK SCOTT	Unknown
Hazel Dormouse	SU616608	1998	Unknown	Field record / observation
Hazel Dormouse	SU680290	1998	R. LEE	Conf. hazel nut
Wood Mouse	SU329438	1998	Dr John Moon	Field record / observation
Hazel Dormouse	SU581507	1999	Audrey Moss-Bradnam	Nest
Hazel Dormouse	SZ582877	1999	Simon Colenutt	Feeding damage
Hazel Dormouse	SU384534	1999	M.NASH	Dead specimen
Hazel Dormouse	SU463574	1999	RALPH COOK	Unconf. hazel nut
Hazel Dormouse	SU469578	1999	RALPH COOK	Unconf. hazel nut
Hazel Dormouse	SU472575	1999	RALPH COOK	Unconf. hazel nut
Hazel Dormouse	SU415185	2001	GNH 2001	Live specimen
Hazel Dormouse	SU662347	2001	GNH 2001	Conf. hazel nut

Vernacular	Gridref	Date	Recorder	Method
Hazel Dormouse	SU675277	2001	GNH 2001	Conf. hazel nut
Bank Vole	SU507099	2003	Alan Green	Field record / observation
Bank Vole	SU705427	2003	John Poland	Feeding damage
Bank Vole	SU628569	2003	Green + Harman	Unconf. hazel nut
Bank Vole	SU571039	2003	Kay Harman	Conf. hazel nut
Hazel Dormouse	SU525058	2003	Rebecca Longley + Paul Ramsay	Nest observation
Hazel Dormouse	SU726286	2003	BALL	Nest Box Monitoring
Hazel Dormouse	SU732285	2003	BALL	Nest Box Monitoring
Hazel Dormouse	SU726284	2003	BALL	Nest Box Monitoring
Hazel Dormouse	SU731257	2003	BALL	Nest Box Monitoring
Hazel Dormouse	SU732264	2003	BALL	Nest Box Monitoring
Hazel Dormouse	SU741269	2003	BALL	Nest Box Monitoring
Hazel Dormouse	SU744271	2003	BALL	Nest Box Monitoring
Hazel Dormouse	SU734282	2003	BALL	Nest Box Monitoring
Hazel Dormouse	SU557101	2003	BALL	Field Observation
Hazel Dormouse	SU628569	2003	Green + Harman	Unconf. hazel nut
Other	SU574040	2003	Kay Harman	Conf. hazel nut
Wood Mouse	SU589513	2003	D. Jewsbury	Feeding damage
Wood Mouse	SU5716	2003	Alan Green	Field record / observation
Wood Mouse	SU705427	2003	John Poland	Feeding damage
Wood Mouse	SU628569	2003	Green + Harman	Unconf. hazel nut
Wood Mouse	SU571039	2003	Kay Harman	Conf. hazel nut
Bank Vole	SU5128	1966	Bunny Teagle	Found dead
Wood Mouse	SU6521	1966	Bunny Teagle	Unspecified trap
Bank Vole	SU3834	1969	Bunny Teagle	Found dead
Bank Vole	SU3834	1970	Bunny Teagle	Found dead
Hazel Dormouse	SU495485	1975	Unknown	Field record / observation
Hazel Dormouse	SU802435	1975	Unknown	Field record / observation
Hazel Dormouse	SZ577810	1975	Unknown	Field record / observation
Hazel Dormouse	SU747327	1975	Unknown	Burrow, nest-hole
Hazel Dormouse	SZ583850	1975	Unknown	Field record / observation
Hazel Dormouse	SU575148	1975	Unknown	Feeding damage
Hazel Dormouse	SU592154	1975	Unknown	Feeding damage
Hazel Dormouse	SU448094	1975	Unknown	Feeding damage
Hazel Dormouse	SU496104	1976	Unknown	Feeding damage
Hazel Dormouse	SU700500	1976	Unknown	Feeding damage
Hazel Dormouse	SU463515	1976	Unknown	Feeding damage
Hazel Dormouse	SU548096	1976	Unknown	Feeding damage
Hazel Dormouse	SU625158	1976	Unknown	Feeding damage
Hazel Dormouse	SU492237	1976	Unknown	Feeding damage
Hazel Dormouse	SU548228	1976	Unknown	Feeding damage
Hazel Dormouse	SU748324	1976	Unknown	Feeding damage
Hazel Dormouse	SU755332	1976	Unknown	Feeding damage
Hazel Dormouse	SU137105	1977	Unknown	Feeding damage
Hazel Dormouse	SU316095	1977	Unknown	Feeding damage
Hazel Dormouse	SU325107	1977	Unknown	Feeding damage
Hazel Dormouse	SU769315	1977	Unknown	Field record / observation
Hazel Dormouse	SU645207	1977	Unknown	Field record / observation
Hazel Dormouse	SU260323	1978	Unknown	Field record / observation
Hazel Dormouse	SZ404978	1978	Unknown	Feeding damage
Hazel Dormouse	SZ363976	1978	Unknown	Feeding damage
Hazel Dormouse	SU382292	1978	Unknown	Feeding damage
Hazel Dormouse	SU537364	1979	Unknown	Feeding damage
Hazel Dormouse	SU552422	1979	Unknown	Burrow, nest-hole
Hazel Dormouse	SU680404	1979	Unknown	Burrow, nest-hole
Hazel Dormouse	SU685383	1979	Unknown	Feeding damage
Bank Vole	SU4719	1980	HCC Museum Records	Found dead
Wood Mouse	SU5515	1982	HCC Museum Records	Field record / observation
Bank Vole	SU176174	1984	Ounsted, Mr J.	Unknown
Bank Vole	SU176174	1985	Ounsted, Mr J.	Unknown
Wood Mouse	SU5028	1985	HCC Museum Records	Field record / observation
Hazel Dormouse	SU616608	1985	Unknown	Field record / observation
Bank Vole	SU176174	1987	Ounsted, Mr J.	Unknown
Bank Vole	SU146101	1987	Bunny Teagle	Field record / observation
Bank Vole	SU825550	1989	Mark Lawrence	Unknown
Wood Mouse	SU821553	1989	Mark Lawrence	Unknown
Wood Mouse	SU822552	1989	Mark Lawrence	Unknown
Wood Mouse	SU825550	1989	Mark Lawrence	Unknown
Wood Mouse	SU825551	1989	Mark Lawrence	Unknown
Bank Vole	SU460158	1990	John Buckley	Longworth trap
Wood Mouse	SU460158	1990	John Buckley	Longworth trap
Hazel Dormouse	SU616608	1991	Unknown	Field record / observation
Wood Mouse	SU7952	1991	HCC Museum Records	Unspecified trap
Bank Vole	SU460158	1991	John Buckley	Longworth trap
Wood Mouse	SU460158	1991	John Buckley	Longworth trap
Bank Vole	SU3631	1991	HCC Museum Records	Found dead
Bank Vole	SU3631	1991	HCC Museum Records	Found dead
Bank Vole	SU4824	1992	HCC Museum Records	Found dead
Wood Mouse	SU316142	1992	HCC Museum Records	Unspecified trap
Bank Vole	SU620533	1992	David Reed	Field record / observation
Bank Vole	SU4824	1992	HCC Museum Records	Found dead
Bank Vole	SU4824	1992	HCC Museum Records	Found dead
Bank Vole	SU4824	1992	HCC Museum Records	Found dead
Bank Vole	SU4824	1992	HCC Museum Records	Found dead
Bank Vole	SU4648	1992	HCC Museum Records	Found dead
Bank Vole	SU460158	1992	John Buckley	Longworth trap
Wood Mouse	SU460158	1992	John Buckley	Longworth trap
Wood Mouse	SU6904	1992	Andrew Polkey	Unknown
Bank Vole	SU176174	1993	Ounsted, Mr J.	Unknown
Wood Mouse	SU4832	1993	HCC Museum Records	Found dead

Vernacular	Gridref	Date	Recorder	Method
Hazel Dormouse	SU616608	1993	Unknown	Field record / observation
Bank Vole	SU460158	1993	John Buckley	Longworth trap
Wood Mouse	SU460158	1993	John Buckley	Longworth trap
Wood Mouse	SU581043	1994	HCC Museum Records	Found dead
Wood Mouse	SU4824	1994	HCC Museum Records	Found dead
Bank Vole	SU460158	1994	John Buckley	Longworth trap
Wood Mouse	SU460158	1994	John Buckley	Longworth trap
Bank Vole	SU4648	1995	HCC Museum Records	Found dead
Wood Mouse	SU677523	1995	David Reed	Feeding damage
Wood Mouse	SU4824	1996	HCC Museum Records	Found dead
Wood Mouse	SU4824	1996	HCC Museum Records	Found dead
Wood Mouse	SU723540	1996	Mike Jordan	Unknown
Wood Mouse	SU426222	1996	Madge Goodall	Unknown
Bank Vole	SU354097	1996	Mike Jordan	Unknown
Wood Mouse	SU4932	1996	Mike Jordan	Unknown
Wood Mouse	SU4932	1996	Mike Jordan	Unknown
Wood Mouse	SU4932	1996	Mike Jordan	Unknown
Bank Vole	SU4932	1996	Mike Jordan	Unknown
Bank Vole	SU431322	1996	Mike Jordan	Unknown
Wood Mouse	SU431322	1996	Mike Jordan	Unknown
Wood Mouse	SU723540	1996	Mike Jordan	Unknown
Wood Mouse	SU723540	1996	Mike Jordan	Unknown
Bank Vole	SU453329	1996	Mike Jordan	Unknown
Wood Mouse	SU723540	1996	Mike Jordan	Unknown
Bank Vole	SU354097	1996	Mike Jordan	Unknown
Wood Mouse	SU723540	1996	Mike Jordan	Unknown
Wood Mouse	SU723540	1996	Mike Jordan	Unknown
Wood Mouse	SU723540	1996	Mike Jordan	Unknown
Bank Vole	SU625259	1996	Mike Jordan	Unknown
Hazel Dormouse	SU580361	1996	Debbie Jordan	Unknown
Hazel Dormouse	SU625259	1996	Debbie Jordan	Unknown
Hazel Dormouse	SU639262	1996	Debbie Jordan	Unknown
Hazel Dormouse	SU688179	1996	Debbie Jordan	Unknown
Wood Mouse	SU723540	1996	Debbie Jordan	Unknown
Bank Vole	SU4932	1996	Mike Jordan	Unknown
Wood Mouse	SU4932	1996	Mike Jordan	Unknown
Wood Mouse	SU4932	1996	Mike Jordan	Unknown
Bank Vole	SU4932	1996	Mike Jordan	Unknown
Wood Mouse	SU494323	1996	Mike Jordan	Unknown
Wood Mouse	SU3822	1996	Mike Jordan	Unknown
Wood Mouse	SU3822	1996	Mike Jordan	Unknown
Wood Mouse	SU3822	1996	Mike Jordan	Unknown
Bank Vole	SU682526	1996	Debbie Jordan	Unknown
Hazel Dormouse	SU447543	1996	Debbie Jordan	Unknown
Wood Mouse	SU723540	1996	Debbie Jordan	Unknown
Bank Vole	SU426222	1996	Mrs M.A.Goodall	Field record / observation
Bank Vole	SU426222	1996	Mrs M.A.Goodall	Field record / observation
Bank Vole	SU426222	1996	Madge Goodall	Unknown
Bank Vole	SU460158	1996	John Buckley	Longworth trap
Bank Vole	SU460158	1996	John Buckley	Unknown
Wood Mouse	SU460158	1996	John Buckley	Unknown
Wood Mouse	SU460158	1996	John Buckley	Longworth trap
Wood Mouse	SU172130	1996	Doug Crawford	Unknown
Wood Mouse	SU723540	1996	Debbie Jordan	Unknown
Wood Mouse	SU173130	1997	Jean and Doug Crawford	Field record / observation
Bank Vole	SU3509	1997	Mike Jordan	Unknown
Hazel Dormouse	SU750300	1997	Mrs Dickie Finucane	Field record / observation
Wood Mouse	SU3509	1997	Mike Jordan	Unknown
Bank Vole	SU497323	1997	Chris Netherton	Unknown
Bank Vole	SU497323	1997	Chris Netherton	Unspecified trap
Wood Mouse	SU497323	1997	Chris Netherton	Unknown
Wood Mouse	SU497323	1997	Chris Netherton	Unspecified trap
Wood Mouse	SU497323	1997	Chris Netherton	Unspecified trap
Bank Vole	SU497323	1997	Chris Netherton	Unknown
Wood Mouse	SU497323	1997	Chris Netherton	Unknown
Bank Vole	SU574343	1997	Butcher, Mrs A. A.	Found dead
Wood Mouse	SZ203998	1997	Neville and Mary Diserens	Field record / observation
Bank Vole	SU569323	1997	Mike Jordan	Unknown
Bank Vole	SZ203998	1997	Neville and Mary Diserens	Field record / observation
Wood Mouse	SU660540	1997	David and Linda Tagg	Field record / observation
Bank Vole	SU170176	1997	John & Irene Ounsted	Field record / observation
Wood Mouse	SU305185	1997	Dr R M Veall	Found dead
Wood Mouse	SU305185	1997	Dr R M Veall	Found dead
Wood Mouse	SU192136	1997	Sheila Scott	Field record / observation
Bank Vole	SU621363	1997	Butcher, Mrs A. A.	Found dead
Wood Mouse	SU305185	1997	Dr R M Veall	Found dead
Wood Mouse	SU667532	1997	Ali Strange	Field record / observation
Bank Vole	SU4824	1997	HCC Museum Records	Found dead
Wood Mouse	SU667529	1997	Mike & Josie Wall	Found dead
Wood Mouse	SU667529	1997	Mike & Josie Wall	Found dead
Wood Mouse	SU5028	1997	HCC Museum Records	Found dead
Wood Mouse	SU297190	1997	Dr R M Veall	Found dead
Wood Mouse	SU305185	1998	Roger M Veall	Found dead
Wood Mouse	SU586324	1998	Butcher, Mrs A. A.	Found dead
Wood Mouse	SU819546	1998	John Ayres	Unspecified trap
Wood Mouse	SU427147	1998	Nick Orson	Found dead
Wood Mouse	SU427147	1998	Nick Orson	Found dead
Wood Mouse	SU427147	1998	Nick Orson	Found dead
Wood Mouse	SU305185	1998	Roger M Veall	Found dead
Wood Mouse	SU669346	1998	Mrs E Mills	Feeding damage

Vernacular	Gridref	Date	Recorder	Method
Hazel Dormouse	SU748303	1998	Philip Budd	Feeding damage
Hazel Dormouse	SU638234	1998	Philip Budd	Feeding damage
Hazel Dormouse	SU689317	1998	Chris Matcham	Field record / observation
Wood Mouse	SU427147	1998	Nick Orson	Found dead
Wood Mouse	SU427147	1998	Nick Orson	Found dead
Wood Mouse	SU373221	1998	Mrs Elizabeth Pratt	Field record / observation
Wood Mouse	SU305185	1998	Dr R M Veall	Found dead
Wood Mouse	SU305185	1998	Dr R M Veall	Burrow, nest-hole
Wood Mouse	SU305185	1998	Dr R M Veall	Found dead
Wood Mouse	SU305185	1998	Dr R M Veall	Found dead
Wood Mouse	SU655535	1998	David & Linda Tagg	Field record / observation
Wood Mouse	SU673526	1998	Tim & Margaret Carr	Field record / observation
Wood Mouse	SU673526	1998	Tim & Margaret Carr	Field record / observation
Wood Mouse	SU305185	1998	Dr R M Veall	Found dead
Wood Mouse	SU785621	1998	David & Linda Tagg	Field record / observation
Wood Mouse	SU305185	1998	Dr R M Veall	Found dead
Wood Mouse	SU305185	1998	Dr R M Veall	Field record / observation
Wood Mouse	SU329438	1998	Dr John Moon	Field record / observation
Wood Mouse	SU586322	1998	Chris Matcham	Field record / observation
Wood Mouse	SU687338	1998	Mrs E Mills	Found dead
Wood Mouse	SU176175	1999	John & Irene Ounsted	Field record / observation
Hazel Dormouse	SU516583	1999	Book, Ralph	Nest
Wood Mouse	SU532323	1999	Mrs E Mills	Field record / observation
Wood Mouse	SU795623	1999	John Ayres	Found dead
Wood Mouse	SU542082	1999	James J Hobson	Unspecified trap
Wood Mouse	SU373221	1999	Mrs Elizabeth Pratt	Field record / observation
Wood Mouse	SU472251	1999	Paul Green	Field record / observation
Bank Vole	SU456222	1999	David and Madge Goodall	Found dead
Wood Mouse	SU176175	1999	John & Irene Ounsted	Field record / observation
Wood Mouse	SU305185	1999	Dr R M Veall	Found dead
Wood Mouse	SU667529	1999	Mike & Josie Wall	Found dead
Wood Mouse	SU667529	1999	S A Wall	Found dead
Wood Mouse	SU176175	1999	John & Irene Ounsted	Field record / observation
Wood Mouse	SU4907	1999	James J Hobson	Unspecified trap
Wood Mouse	SU4907	1999	James J Hobson	Unspecified trap
Bank Vole	SU4907	1999	James J Hobson	Unspecified trap
Wood Mouse	SU4907	1999	James J Hobson	Unspecified trap
Hazel Dormouse	SU582510	1999	Audrey Moss-Bradnam	Field record / observation
Wood Mouse	SU672526	1999	Tim & Margaret Carr	Field record / observation
Hazel Dormouse	SU582510	2000	Audrey Moss-Bradnam	Field record / observation
Wood Mouse	SU305185	2000	Dr R M Veall	Found dead
Wood Mouse	SU305185	2000	Dr R M Veall	Found dead
Hazel Dormouse	SU582510	2000	Audrey Moss-Bradnam	Field record / observation
Hazel Dormouse	SU582510	2000	Audrey Moss-Bradnam	Field record / observation
Hazel Dormouse	SU582510	2000	Audrey Moss-Bradnam	Field record / observation

Vernacular	Gridref	Date	Recorder	Method
Hazel Dormouse	SU582510	2000	Audrey Moss-Bradnam	Field record / observation
Hazel Dormouse	SU582510	2000	Audrey Moss-Bradnam	Field record / observation
Hazel Dormouse	SU582510	2000	Audrey Moss-Bradnam	Field record / observation
Hazel Dormouse	SU582510	2000	Audrey Moss-Bradnam	Field record / observation
Hazel Dormouse	SU582510	2000	Audrey Moss-Bradnam	Field record / observation
Wood Mouse	SU583510	2001	Audrey Moss-Bradnam	Burrow, nest-hole
Wood Mouse	SU583510	2001	Audrey Moss-Bradnam	Burrow, nest-hole
Wood Mouse	SU583510	2001	Audrey Moss-Bradnam	Burrow, nest-hole
Wood Mouse	SU584570	2001	Audrey Moss-Bradnam	Field record / observation
Hazel Dormouse	SU294327	2001	Emma Foulger	Field record / observation
Bank Vole	SU460158	2001	John Buckley	Longworth trap
Wood Mouse	SU460158	2001	John Buckley	Longworth trap
Bank Vole	SU288238	2001	Barrie Roberts	Feeding damage
Wood Mouse	SU288238	2001	Barrie Roberts	Feeding damage
Hazel Dormouse	SU584510	2002	Audrey Moss-Bradnam	Burrow, nest-hole
Hazel Dormouse	SU582510	2002	Audrey Moss-Bradnam	Field record / observation
Hazel Dormouse	SU582510	2002	Audrey Moss-Bradnam	Field record / observation
Hazel Dormouse	SU582510	2002	Audrey Moss-Bradnam	Field record / observation
Hazel Dormouse	SU583511	2002	Audrey Moss-Bradnam	Burrow, nest-hole
Hazel Dormouse	SU582510	2002	Audrey Moss-Bradnam	Field record / observation
Bank Vole	SU460158	2002	John Buckley	Longworth trap
Wood Mouse	SU460158	2002	John Buckley	Longworth trap
Wood Mouse	SU583510	2002	Audrey Moss-Bradnam	Field record / observation
Hazel Dormouse	SU587282	2002	Mr Collingwood	Nest
Wood Mouse	SU744083	2003	Susan Drewett	Feeding damage
Bank Vole	SU286070	2003	Mark Gammon	Field record / observation
Wood Mouse	SU298087	2003	Mark Gammon	Field record / observation
Hazel Dormouse	SU582510	2003	Audrey Moss-Bradnam	Field record / observation
Hazel Dormouse	SU582510	2003	Audrey Moss-Bradnam	Nest
Hazel Dormouse	SU582510	2003	Audrey Moss-Bradnam	Nest
Hazel Dormouse	SU582510	2003	Audrey Moss-Bradnam	Field record / observation
Hazel Dormouse	SU582510	2003	Audrey Moss-Bradnam	Field record / observation
Hazel Dormouse	SU582510	2003	Audrey Moss-Bradnam	Nest
Hazel Dormouse	SU582510	2003	Audrey Moss-Bradnam	Field record / observation
Hazel Dormouse	SU582510	2003	Audrey Moss-Bradnam	Nest
Hazel Dormouse	SU582510	2003	Audrey Moss-Bradnam	Field record / observation
Hazel Dormouse	SU582510	2003	Audrey Moss-Bradnam	Nest
Wood Mouse	SU294091	2003	M Gammon	Field record / observation
Bank Vole	SU456223	2003	Kay Harman	Feeding damage
Bank Vole	SU590494	2003	D. Jewsbury	Feeding damage
Bank Vole	SU588494	2003	D. Jewsbury	Feeding damage
Hazel Dormouse	SU589502	2003	D. Jewsbury	Feeding damage
Wood Mouse	SU592495	2003	D. Jewsbury	Feeding damage
Wood Mouse	SU590494	2003	D. Jewsbury	Feeding damage

Vernacular	Gridref	Date	Recorder	Method
Wood Mouse	SU589502	2003	D. Jewsbury	Feeding damage
Wood Mouse	SU586502	2003	D. Jewsbury	Feeding damage
Bank Vole	SU653234	2003	Kay Harman	Feeding damage
Hazel Dormouse	SU653234	2003	Kay Harman	Feeding damage
Wood Mouse	SU653234	2003	Kay Harman	Feeding damage
Bank Vole	SU653230	2003	Richard Hedley	Feeding damage
Hazel Dormouse	SU653230	2003	Richard Hedley	Feeding damage
Wood Mouse	SU653230	2003	Richard Hedley	Feeding damage
Wood Mouse	SU179096	2003	Tara Puttock	Feeding damage
Bank Vole	SU529506	2003	Kay Harman	Feeding damage
Bank Vole	SU521505	2003	Kay Harman	Feeding damage
Hazel Dormouse	SU529506	2003	Kay Harman	Feeding damage
Hazel Dormouse	SU529506	2003	Kay Harman	Feeding damage
Wood Mouse	SU529506	2003	Kay Harman	Feeding damage
Wood Mouse	SU529506	2003	Kay Harman	Feeding damage
Wood Mouse	SU529506	2003	Kay Harman	Feeding damage
Wood Mouse	SU521505	2003	Kay Harman	Feeding damage
Bank Vole	SU153083	2003	Blashford Lakes Watch Group	Feeding damage
Hazel Dormouse	SU153083	2003	Blashford Lakes Watch Group	Feeding damage
Wood Mouse	SU153083	2003	Blashford Lakes Watch Group	Feeding damage
Hazel Dormouse	SU586504	2003	D. Jewsbury	Feeding damage
Hazel Dormouse	SU586504	2003	D. Jewsbury	Feeding damage
Bank Vole	SU772457	2003	Rachel Green	Feeding damage
Bank Vole	SU772457	2003	Rachel Green	Feeding damage
Bank Vole	SU772457	2003	Rachel Green	Feeding damage
Bank Vole	SU772457	2003	Rachel Green	Feeding damage
Hazel Dormouse	SU772457	2003	Rachel Green	Feeding damage
Wood Mouse	SU772457	2003	Rachel Green	Feeding damage
Wood Mouse	SU772457	2003	Rachel Green	Feeding damage
Wood Mouse	SU772457	2003	Rachel Green	Feeding damage
Wood Mouse	SU772457	2003	Rachel Green	Feeding damage
Bank Vole	SU698326	2003	Kay Harman	Conf. hazel nut
Bank Vole	SU698328	2003	Kay Harman	Conf. hazel nut
Bank Vole	SU679332	2003	Kay Harman	Conf. hazel nut
Wood Mouse	SU698326	2003	Kay Harman	Conf. hazel nut
Wood Mouse	SU698328	2003	Kay Harman	Conf. hazel nut
Wood Mouse	SU679332	2003	Kay Harman	Conf. hazel nut
Bank Vole	SU368315	2003	Purslow + Harmam	Conf. hazel nut
Wood Mouse	SU368315	2003	Purslow + Harmam	Conf. hazel nut
Bank Vole	SU585521	2003	D. Jewsbury	Feeding damage
Bank Vole	SU590494	2003	D. Jewsbury	Feeding damage
Bank Vole	SU588494	2003	D. Jewsbury	Feeding damage
Bank Vole	SU585521	2003	D. Jewsbury	Feeding damage
Bank Vole	SU590494	2003	D. Jewsbury	Feeding damage
Bank Vole	SU603528	2003	D. Jewsbury	Feeding damage
Bank Vole	SU755355	2003	Mrs A Heather Tait	Feeding damage
Bank Vole	SU515042	2003	Richard Hedley	Feeding damage
Hazel Dormouse	SU515042	2003	Richard Hedley	Feeding damage
Hazel Dormouse	SU585521	2003	D. Jewsbury	Feeding damage
Hazel Dormouse	SU585521	2003	D. Jewsbury	Feeding damage
Hazel Dormouse	SU589502	2003	D. Jewsbury	Feeding damage
Wood Mouse	SU585521	2003	D. Jewsbury	Feeding damage
Wood Mouse	SU600529	2003	D. Jewsbury	Feeding damage
Wood Mouse	SU587523	2003	D. Jewsbury	Feeding damage
Wood Mouse	SU585521	2003	D. Jewsbury	Feeding damage
Wood Mouse	SU589502	2003	D. Jewsbury	Feeding damage
Wood Mouse	SU592495	2003	D. Jewsbury	Feeding damage
Wood Mouse	SU590494	2003	D. Jewsbury	Feeding damage
Wood Mouse	SU586502	2003	D. Jewsbury	Feeding damage
Wood Mouse	SU589513	2003	D. Jewsbury	Feeding damage
Wood Mouse	SU603528	2003	D. Jewsbury	Feeding damage
Wood Mouse	SU599528	2003	D. Jewsbury	Feeding damage
Wood Mouse	SU515042	2003	Richard Hedley	Feeding damage
Wood Mouse	SU520113	2003	Deborah King	Feeding damage
Bank Vole	SU593525	2003	D. Jewsbury	Feeding damage
Bank Vole	SU4852	2003	Rachel Green	Feeding damage
Hazel Dormouse	SU4852	2003	Rachel Green	Feeding damage
Wood Mouse	SU593525	2003	D. Jewsbury	Feeding damage
Wood Mouse	SU4852	2003	Rachel Green	Feeding damage
Bank Vole	SU527036	2003	Richard Hedley	Feeding damage
Bank Vole	SU520046	2003	Richard Hedley	Feeding damage
Bank Vole	SU528038	2003	Richard Hedley	Feeding damage
Bank Vole	SU528037	2003	Richard Hedley	Feeding damage
Bank Vole	SU515042	2003	Richard Hedley	Feeding damage
Bank Vole	SU515406	2003	Richard Hedley	Feeding damage
Wood Mouse	SU527036	2003	Richard Hedley	Feeding damage
Wood Mouse	SU520046	2003	Richard Hedley	Feeding damage
Wood Mouse	SU528038	2003	Richard Hedley	Feeding damage
Wood Mouse	SU528037	2003	Richard Hedley	Feeding damage
Wood Mouse	SU515042	2003	Richard Hedley	Feeding damage
Wood Mouse	SU515406	2003	Richard Hedley	Feeding damage
Bank Vole	SU597565	2003	D. Jewsbury	Feeding damage
Bank Vole	SU573592	2003	D. Jewsbury	Feeding damage
Bank Vole	SU597565	2003	D. Jewsbury	Feeding damage
Hazel Dormouse	SU597565	2003	D. Jewsbury	Feeding damage
Hazel Dormouse	SU597565	2003	D. Jewsbury	Feeding damage
Wood Mouse	SU597565	2003	D. Jewsbury	Feeding damage
Wood Mouse	SU600587	2003	D. Jewsbury	Feeding damage
Wood Mouse	SU602565	2003	D. Jewsbury	Feeding damage
Wood Mouse	SU600567	2003	D. Jewsbury	Feeding

Vernacular	Gridref	Date	Recorder	Method
Wood Mouse	SU602565	2003	D. Jewsbury	Feeding damage
Wood Mouse	SU573592	2003	D. Jewsbury	Feeding damage
Wood Mouse	SU574593	2003	D. Jewsbury	Feeding damage
Wood Mouse	SU600567	2003	D. Jewsbury	Feeding damage
Wood Mouse	SU602565	2003	D. Jewsbury	Feeding damage
Wood Mouse	SU597565	2003	D. Jewsbury	Feeding damage
Bank Vole	SU596527	2003	D. Jewsbury	Feeding damage
Bank Vole	SU596527	2003	D. Jewsbury	Feeding damage
Wood Mouse	SU596527	2003	D. Jewsbury	Feeding damage
Wood Mouse	SU596527	2003	D. Jewsbury	Feeding damage
Wood Mouse	SU4522	2003	Dave Hubble	Feeding damage
Bank Vole	SU582490	2003	D. Jewsbury	Feeding damage
Bank Vole	SU582490	2003	D. Jewsbury	Feeding damage
Bank Vole	SU587493	2003	D. Jewsbury	Feeding damage
Hazel Dormouse	SU582490	2003	D. Jewsbury	Feeding damage
Hazel Dormouse	SU582490	2003	D. Jewsbury	Feeding damage
Hazel Dormouse	SU587489	2003	D. Jewsbury	Feeding damage
Hazel Dormouse	SU587489	2003	D. Jewsbury	Feeding damage
Wood Mouse	SU587489	2003	D. Jewsbury	Feeding damage
Wood Mouse	SU587489	2003	D. Jewsbury	Feeding damage
Wood Mouse	SU587493	2003	D. Jewsbury	Feeding damage
Bank Vole	SU744083	2004	Susan Drewett	Feeding damage
Hazel Dormouse	SU283283		Unknown	Conf. hazel nut
Hazel Dormouse	SU293284		Unknown	Conf. hazel nut
Hazel Dormouse	SU294235		Unknown	Conf. hazel nut
Hazel Dormouse	SU370525		Unknown	Conf. hazel nut
Hazel Dormouse	SU379291		Unknown	Conf. hazel nut
Hazel Dormouse	SU389504		Unknown	Conf. hazel nut
Hazel Dormouse	SU390499		Unknown	Conf. hazel nut
Hazel Dormouse	SU392507		Unknown	Conf. hazel nut
Hazel Dormouse	SU500400		Unknown	Live specimen
Hazel Dormouse	SU529463		Unknown	Conf. hazel nut
Hazel Dormouse	SU540472		Unknown	Conf. hazel nut
Hazel Dormouse	SU557402		Unknown	Other
Hazel Dormouse	SU598528		Unknown	Conf. hazel nut
Hazel Dormouse	SU600465		Unknown	Other
Hazel Dormouse	SU600473		Unknown	Conf. hazel nut
Hazel Dormouse	SU602382		Unknown	Conf. hazel nut
Hazel Dormouse	SU664346		Unknown	Conf. hazel nut

Vernacular	Gridref	Date	Recorder	Method

Appendix D: List of surveyors

Barnett, M. & E.
Blashford Wildlife Watch Group
Butcher, A.
Drewitt, S.
Ewald, N.
Francis, A.
Green, R.
Harden, H.
Harman, K.
Hedley, R.
Hubble, D.
Jewsbury, D.
King, D.
Longley, R.
Matthews, B.
Poland, J.
Purslow, D.
Puttock, T.
Simmonds, S.
Tait, H.

Corrections

Pg21:
Last sentence of paragraph 1 (regarding the National Dormouse Monitoring Scheme) should read:

"It is organised by Peoples' Trust for Endangered Species (PTES), Pat Morris and Paul Bright, and is funded by English Nature and PTES".