



INTO THE WOODS

In woodlands around the UK, the endearing hazel dormouse is making a quiet comeback thanks to a nationwide reintroduction programme

Words **Victoria Williams**

Once a year, a group of volunteers and experts gathers at a secret location somewhere in the UK to release rare dormice. Since 1993, 898 dormice have been released as part of an effort to reintroduce them to areas in the UK where they've gone extinct.

Hazel dormice are also known as common dormice, but this alternative name is no longer very accurate. Having been around for over 10,000 years, Britain's only native dormouse species is in decline and has already gone extinct in 17 counties. They were once so widespread that people, including famous writer and illustrator Beatrix Potter, kept them as pets.

HAZEL DORMOUSE
Muscardinus avellanarius
Class Mammalia



Territory Europe and Turkey
Diet Buds, insects, fruit, nuts, pollen and bird eggs
Lifespan 3-4 years
Adult weight 15-30g (0.5-1oz)
Conservation status

EX EW CR EN VU NT LC

LEAST CONCERN

Surprisingly, dormice are not very closely related to mice; they're both rodents, but dormice belong to the Gliridae family, while mice are members of the Muridae. The 29 dormouse species are spread across Africa, Europe and Asia, all sharing the characteristic fluffy tails and large eyes.

The super-soft coat of the hazel dormouse is not waterproof, so the delicate critters have to avoid bad weather and early morning

mist. Particularly in miserable patches of summer, they go into torpor (a deep sleep similar to hibernation) so as not to waste energy while they're unable to find food.

The dormouse is classified as being of Least Concern on the IUCN Red List because it has stable populations in Europe, but it is recognised as an Endangered species in the UK. Dormice are protected by law, and disturbing or harming one could result in a prison sentence.

A recent analysis of data from 26,000 nest boxes across the country found that there was a 72 per cent decline in hazel dormice between 1993 and 2014, meaning a worrying annual decline of 5.8 per cent. We went along to witness the most recent release, led by wildlife charity People's Trust for Endangered Species (PTES). The

reintroduction took place at the end of June, when 19 breeding pairs and trios were introduced to a woodland in Warwickshire. Ian White, dormouse officer for PTES, explained what's involved in the project to us.

"Our dormouse conservation work involves managing a nationwide dormouse monitoring scheme, coordinating annual reintroductions and advising landowners about sympathetic land management practices.

The reintroductions are important for the long-term conservation of this species, as we're restoring dormice to counties where they've been lost so that they can thrive again. This is a great start in beginning to combat their decline. Our approach also benefits a whole raft of other species including birds, bats and butterflies."

The dormice are arboreal, and life in the trees has given them some remarkable adaptations. Their hind ankles can rotate so their feet face the other way, allowing them to run headfirst down trees. Their feet are also able to grip onto branches while the dormice hang upside-down. Sensitive whiskers allow them to pick a path through the trees in the dark.

Because of the potential dangers of predation and trampling, hazel dormice avoid descending from the trees to the ground except during hibernation. When woodland becomes fragmented and hedgerows are lost, they become isolated in a small patch that is often not big enough to support a viable population. Being cut off also reduces the chance of finding an unrelated mate.

Hazel dormice have a diet that changes throughout the year, going from flowers to insects to fruit and nuts,



ABOVE Ian White, dormouse and training officer at PTES, lays out some nest boxes

so they need an environment with a variety of species. For this reason, they're good indicators of the quality of a wood - if they're happily living somewhere then it must have high plant diversity.

In autumn, they double their weight by gorging on hazelnuts and berries so that they have sufficient fat reserves to get them through winter. When the temperature really begins to drop, they create a nest on or below the ground and settle down for five months of hibernation. During this time their heart rate and breathing rate drop considerably in order to preserve energy.

A mild winter can interrupt their hibernation, waking the dormice up early and wasting their precious reserves. Despite all the precautions, only about half of the sleepy creatures survive and emerge in May. Once they're awake and active again, it's business as usual searching for the emerging spring flowers.

The ancient practice of coppicing - where young trees are repeatedly cut back to near ground level to encourage growth and multiple stems instead of a single trunk - creates a complex understorey beneath the canopy, with plenty of branches to scamper along and food to eat. Selective felling also produces open glades within the wood that encourages the growth of shrubs important to the dormice. Unfortunately, these practices have been largely abandoned, and land maintenance is becoming ever more intensive.

The combination of habitat loss, new land management methods and changing seasons poses a serious threat to the future of the species in the UK. This is why reintroductions are so important to their survival, helping to boost their numbers and re-establish populations in areas where they have been lost.

All of the dormice bred for reintroduction undergo a thorough vet check to make sure they're healthy and ready for release. Tony Sainsbury, senior lecturer in wild animal

LEFT Dormice were so prevalent in the Victorian era that school children traded them in the playground



"Classified as Least Concern by the IUCN, dormice are recognised as being an Endangered species in the UK"

Dramatic decline

Hazel dormice have gone extinct in multiple counties since the Victorian era



A new tail begins
Dormice are bred by the Common Dormouse Captive Breeders Group. Each one is put into quarantine six weeks before their release to prevent the spread of any illnesses.



Health check
Every dormouse undergoes a thorough check to ensure it's fit for release. They're assigned to breeding pairs or trios with as much genetic diversity as possible.



Heading to a new home
After being given the all clear by the vets, the dormice are put into nest boxes so they're safe and snug while they get transported to the secret release site.



A room with a view
The nest boxes are put into 'soft release' mesh cages attached to trees, along with foliage, water and food. The nest boxes are opened and the cage door is shut.



Venturing out
Volunteers monitor and feed the dormice every day for a few weeks while they acclimatise to their new environment. After this time, the cage door is opened so they can explore.



A new life in the wild
Once the dormice no longer return to them, the cages are removed. Volunteers will continue to monitor the new additions to see how the population is doing.

Dormouse delicacies



Hazel

Hazel dormice were given their name because they were often seen in hazel coppices. They eat the nuts in autumn to help fatten up before hibernating and use grasses and hazel leaves to build nests in summer.



Oak

In spring, the dormice feed on the flower buds of tree species including the oak, as well as the insects found on them. They're arboreal creatures, preferring not to be on the ground, so tree canopies let them move around their habitat safely.



Bramble

Bramble flowers provide food when trees have stopped flowering, and the blackberries that follow them are another important autumn food source. The thorns of a bramble bush also offer shelter.



Honeysuckle

This is another plant that flowers later than the trees and grows berries that the hazel dormice can eat. Adults use the stripped bark of the honeysuckle as one of the components of their nests.



Sycamore

Another valuable tree is the sycamore. It's a particularly good source of insects, and dormice can eat the nectar and pollen from the flowers. Dormice often build their nests in holes in trees or in nests abandoned by other animals.



ABOVE A dormouse's diet consists largely of fruit and nuts, but they will also eat bird eggs, insects and pollen

health at the Zoological Society of London (ZSL) said, "There is a risk that conservation translocations could be counterproductive if non-native diseases are introduced with the endangered animals. Our work aims to reduce this risk through monitoring the health of the dormice before and after release." On the day of the release, a team of experts transported the dormice to the site in nest boxes, with the location under wraps to keep them safe. The Sun was shining on the release site, and we joined a group of volunteers and press

keen to celebrate the reintroduction. The cosy boxes were placed inside large mesh cages attached to trees throughout the woodland, where the dormice would spend the next few weeks settling into their new environment. Hazel dormice are very slow to reproduce, with females usually having one litter (occasionally two) of four or five pups a year. Having only a few pups means that mothers can focus on caring for them and teaching them about the woodland, but it also makes it much harder for their numbers to increase quickly. Releasing the dormice in genetically diverse breeding groups encourages the birth of a healthy new generation. Small



A volunteer prepares a soft release cage. With a nest, food and water, the dormice have all they need

Dormice in danger

These little rodents are struggling to keep up with a changing world

Habitat loss

Ancient woodland and hedgerows are being lost from the UK because of development and more intense farming. The remaining fragments are increasingly small and isolated, restricting the dormice's movement.

Woodland management

Coppicing and selective felling is used to create diverse woodland with plenty of nesting spaces, food and travel networks for the dormice, but these practices have declined in recent years.

Climate change

Dormice are incredibly sensitive to environmental conditions, avoiding rain and hibernating to survive the cold winter. Increased rainfall and less predictable seasons are likely to make life harder for an already vulnerable species.

Predation

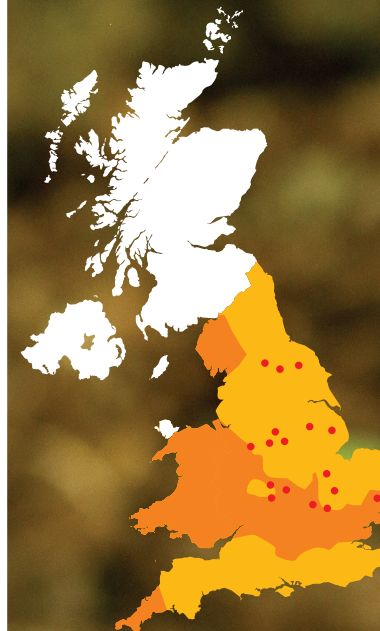
Although not their usual prey, animals like owls, badgers and weasels will eat any dormice they come across. An increase in domestic cats means these predatory pets are now posing an even bigger threat to dormice.



BELOW Weighing up to 30g (1oz) and measuring about 8cm (3.1in), dormice need to be handled with care



Distribution map



● Present in county - Victorian era
● Present in county - today
● Redistribution sites



populations are more at risk from chance factors like bad weather or a season with less food than usual, so the sooner a stable population can be established the better. Ultimately, the hope is that dormice will spread from the release sites and repopulate other areas of woodland.

Alongside the reintroductions, the organisations bringing back the dormice are working with local landowners to help improve their chance of survival. Landowners are encouraged to plant hedgerows and adopt management techniques that won't negatively affect these rare creatures. They also promote the revival of active woodland management to recreate the dormouse's original habitat. Chris Redstall, Warwickshire Wildlife Trust's Living Landscape Scheme manager, explained the purpose of the project.

"This year's reintroduction is part of our Princethorpe Woodlands Living Landscape Scheme, which is supported by the Heritage Lottery Fund and aims to restore ancient wooded landscapes connected by hedgerows and trees – two ideal habitats for growing hazel dormice populations."

Gina Rowe, Living Landscapes manager at Warwickshire Wildlife Trust, summarised the release by saying, "We are delighted and excited to welcome hazel dormice back to the area. They have been absent for too long – for at least 30 years. This is the culmination of over four years of planning and surveying. We know these woodlands have the ideal mix of habitat and food plant species for hazel dormice and they should settle in well."

"Small populations are more at risk, so the sooner a stable population can be established the better"