



Image of a dormouse, captured by one of the camera traps on the arboreal bridge.

Dormouse bridge over the Railway attracts national interest

reports Peter Vail

AN IMPORTANT ASPECT of our Railway work is to ensure we enjoy a positive working relationship with our lineside neighbours. At all times we endeavour to keep them advised of our activities and where possible seek to support any requests.

One of the stranger requests came a few years back when I was approached by the People's Trust for Endangered Species (PTES) which owns much of the woodland adjoining our Railway in Briddlesford Copses. The unusual request was to construct a bridge by which small mammals might be able to cross the line. As reported in *IRN 68* (p5), to protect the railway the bridge was constructed above the unused Bridge 12, half-a-mile from Havenstreet station on the Wootton section. Since being installed, the bridge has attracted much national interest and featured on BBC2's *Autumn Watch*.

Ian White, the PTES Dormouse Officer, takes up the story:

"Hazel dormice are a European species that usually occupy old woodlands and scrub. They are one of our few animals that hibernate over winter and because this creates a very short opportunity for them to breed they usually produce only one litter of young each year. In addition, when they are active they live in the trees and shrub canopy and owing to the difficulty of moving around in this type of habitat, they live in fairly small areas and it is hard for them to disperse over longer distances. Hence dormice are deeply affected by increasing fragmentation and isolation of their woodland homes within the landscape by roads and railways.

"Dormice are a highly protected species and their presence needs to be considered when development or building work takes place. Construction of homes and roads can frequently isolate dormouse groups and this can drive local populations to extinction. We have sought to address this issue by the construction of various bridges that can be used by dormice and other small mammals but, to date, none has actually been shown to work with wild dormice.

"A novel bridge design in Japan however, was shown to be

used nearly 700 times during a three-month trial period by a variety of small mammals including the Japanese dormouse. In the UK, whilst there is evidence that dormice will cross roads, there is no evidence to indicate that they would prefer to do so. In 2015 the PTES constructed the arboreal bridge, based on the Japanese design, and sited it in the Briddlesford Woods nature reserve in where there is known to be a good population of dormice. Although there are no roads on the reserve the Isle of Wight Steam Railway runs through it and provides a suitable gap not dissimilar to the width of a road.

"The arboreal bridge has been suspended from mature trees on either side of the railway line and has six infra-red cameras along its length to record any animals using it. The bridge was put up originally in autumn 2015 just to check that it could be put up easily and that it would stay up. Much to our surprise dormice and red squirrels were recorded on the bridge within nine hours! The bridge was taken down over winter and re-installed in the spring of 2016 when dormice were coming out of hibernation. At the same time plastic fencing with small holes at 30 metres intervals was erected alongside the boundary fences at the top of the railway cutting. This was to concentrate any small mammals on the ground to a small area so that we could use infra-red cameras to record any dormice that weren't using the bridge.

"The question for which we were seeking an answer was whether hazel dormice prefer to cross a wide gap using a bridge or were they happy crossing on the ground. The answer, after seven months' recording and nearly 18,000 videos, was that dormice seem to prefer using the Japanese-style bridge. Dormice were recorded on the bridge at least 30 times while they were seen on the ground only three times. In addition, another rare tree-living mammal also found in the Isle of Wight, the red squirrel, seemed also to prefer using the bridge and was seen using it at least 95 times while it was seen only 43 times on the ground. From the results of this study, the PTES now plans to work with an ecological consultant to develop a commercial version of an arboreal bridge so that at least dormice can choose how they want to cross the road."

Chris Packham (in red) of BBC2's Autumn Watch inspects the dormouse bridge with Ian White of the People's Trust for Endangered Species.



The hazel dormouse or common dormouse (*Muscardinus avellanarius*).