

Survey shows island life suits woodland bats

IN A SURVEY FUNDED BY YOUR DONATIONS TO THE PEOPLE'S TRUST FOR ENDANGERED SPECIES, IAN DAVIDSON WATTS HAS DEMONSTRATED THAT THE ISLE OF WIGHT IS A REAL STRONGHOLD FOR BRITISH BATS, INCLUDING SEVERAL RARE SPECIES.

For centuries, Western superstitions and misconceptions have vilified bats, transforming them from small, elusive mammals into something rather malevolent. Here at PTES we knew better, of course, but unfortunately bats have more to worry about than just their poor reputation. Bats in this country, and across much of Europe, are also suffering more tangibly from a decline in populations due to habitat loss, changes in agricultural practices and the use of pesticides which affect the insects on which they feed. In the UK the rare



The patchwork of woodland and hedgerows at our Bridesford reserve is ideal roosting and foraging territory for barbastelles (inset top) and Bechstein's bats (inset bottom).

stein's bat in particular is vulnerable to light pollution from up areas and poor woodland management, which can result in loss of suitable roosting sites when dead trees are cleared.

Island-wide survey

Together with the Environment Agency, we have been funding work by Ian Davidson Watts of ID Wildlife Ltd to set up the Isle of Wight Woodland Bat Project. Ian aimed to study the island bat population in more detail, locate important roost sites and consider

what might be influencing their distribution. His efforts have now confirmed that the island is a UK stronghold for barbastelles and Bechstein's bats, both Annex II species on the Habitats Directive.

"The results of this study have confirmed the Isle of Wight as the UK's, and possibly Europe's, centre for these rare woodland bats", says Ian.

"This makes the island critically important to the conservation of these species on an international level, and every effort should be made to ensure this precious habitat is appropriately protected."

Ian and his team of volunteers from the Isle of Wight Bat Group have been studying the island bat population within the full range of woodland types (ancient semi-natural, planted ancient and secondary). Bats were harmlessly trapped in mist nets to assess their species, sex and breeding status and some were then fitted with tiny radio transmitters, so that they could be tracked to gather further information on roost location. The transmitters are carefully attached to the back of the bat, between the shoulder blades. The procedure uses surgical glue, and the transmitters cause the bat no trouble and fall off of their own accord in due course.

Locating roosts

Once roost sites had been found by radio tracking, observations of bats emerging at night-time were undertaken the following evening. Observers used infrared imaging equipment to count the bats from 30 minutes before sunset to 90 minutes after.

In 2005, only six breeding populations of Bechstein's bats and nine of barbastelles were known in the UK. One of the known breeding colonies of Bechstein's bats was at Bridesford Woods, the PTES reserve on the Isle of Wight. Several



Bats were captured in mist nets, which snare them securely and harmlessly.

more breeding colonies have been recorded since then, but few people guessed that the new survey would reveal the presence of at least 10 breeding populations of Bechstein's bats and five of barbastelles on the Isle of Wight alone. This makes the area nationally important for these nocturnal mammals. The news encourages us more than ever to maintain our protection of Bridesford.

Woodland habitats

Overall the Isle of Wight Woodland Bat Project recorded the presence of 12 species of bat, nine of which were breeding. Of the 42 woodlands sampled, all contained at least one bat species. Bechstein's bats were captured in 67% of woodlands sampled – indeed, they were the species most frequently caught. This is highly significant given that the species is considered rare throughout its range. The survey identified a total of 28 Bechstein's bat roosts, 21 of which were maternity roosts. Maternity roosts in particular are of high conservation importance because of their role in maintaining bat populations.

All of the Bechsteins' bat roosts recorded in the survey were located in trees (mainly ash), with over 90% of the maternity roosts located in ancient semi-natural woodland or along wooded stream margins. Further investigation

is required into what determines the roost selection of Bechstein's bats, but woodpecker holes in ash trees seem to be particularly important as maternity roosts for this species.

Barbastelles were captured in 26% of woodlands sampled and six maternity roosts were located. Barbastelles were using a range of woodland types, but all roosts bar one were in oak trees.

The data collected provides a baseline distribution of woodland bats for future comparisons and will be of great use to planners, land managers and other agencies helping them to effectively regulate activities potentially affecting these bat populations.

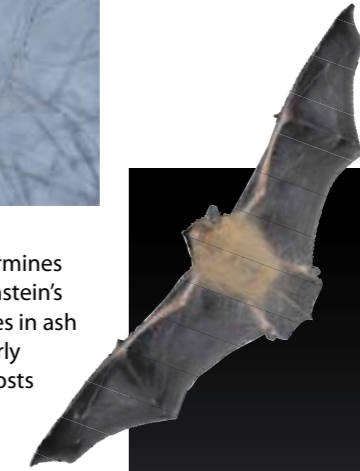
Safe keeping

Quite why the Isle of Wight is such an important habitat for woodland bat species is yet to be understood. Factors such as a warmer climate, sensitive woodland management and woodland connectivity, the lack of invasive species such as grey squirrels and the absence of deer (which tend to eat the woodland understorey) in woodlands across the island, are all potential reasons. Further investigation is also required into what determines the roost selection of Bechstein's bats and their preference for ash trees.

Tim Sykes, Environment Agency Area Biodiversity Technical

Specialist, said: "We are very pleased to support such a worthwhile project and it is great news that woodland bat populations are currently thriving on the Isle of Wight. We will now use the information from the survey to inform our work and the activities of others that we regulate."

Follow-up studies are underway already, again with funding from PTES. The Bat Conservation Trust has begun a new three-year project, which aims to establish the distribution of Bechstein's bats and other woodland bat species in England and Wales.



Bats: fact versus fiction

The order Chiroptera is the largest order of mammals in the UK with 17 native species.

Bats and their roosts are protected by law in the UK.

Bats are the only mammals to truly fly.

"Blind as a bat" is a common saying but a false one – all bats can see.

The true vampire bat, which feeds on the blood of cattle, horses and deer, is native to Central and South America.

Bats that eat insects use echolocation (sonar) to locate and catch prey.

Some bat species can reach the age of 20.

Most bat species have only one baby per year.

Bats groom themselves like cats.

Bats are beneficial because they help to control night-flying insects harmful to us (such as mosquitoes) or crops, in some instances pollinate flowers, and scatter the seeds of plants.

The bumblebee bat, found in Thailand, is the world's smallest mammal and weighs less than a penny. Meanwhile, Indonesian giant flying foxes, so called because of the shape of their head, have a wingspan of nearly six feet.

In the UK, bat diversity is greater in the south than the north.



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