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Dark nights and rare bats

Study reveals the Isle of Wight is the UK's best county for endangered bats

The results of a survey funded by the People's Trust for Endangered Species (PTES) and the Environment Agency show that the Isle of Wight is one of the most important areas for woodland bat species in Europe and more specifically is the best county in the UK for the threatened Bechstein's and Barbastelle species.

For centuries, Western superstitions and misconceptions have vilified bats, transforming them from small, elusive creatures into shape-shifting, blood-sucking villains, as evidenced by the spooky decorations and vampire costumes on display this past Halloween. Bats are not only suffering from this poor reputation, but more tangibly from a decline in populations due to habitat loss, as well as through changes in agricultural practices and the use of pesticides which affect the insects on which they feed. The rare Bechstein's bats in particular are vulnerable to light pollution from developed areas and poor woodland management, which can result in the loss of suitable roosting sites when dead trees are cleared.

However, the survey has recorded the distribution of woodland bats across the Isle of Wight, confirming that the island is a UK stronghold for Bechstein's and Barbastelle bats. Researcher Ian Davidson-Watts, who led the survey, says: "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. The island is of critical importance to the conservation of these species on an international level, and every effort should be made to ensure their 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, secondary). Bats were harmlessly trapped in mist nets to assess their 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. Once roost sites had been found through the radio tracking, observations of bats emerging at night time were undertaken.

In 2005, six breeding populations of Bechstein's bats and nine of Barbastelles were known in the UK, including a colony of breeding Bechstein's in Briddlesford Woods on the Isle of Wight, which is owned and managed by PTES. This new survey now reveals the presence of at least 10 breeding populations of Bechstein's bats and five of Barbastelles on the island, highlighting the importance of this location for these nocturnal mammals.

Results from the survey show that of the 42 woodlands sampled, all contained at least one bat species. Bechstein's bats were captured in 67% of woodlands sampled and were the most frequently caught species which is significant as this species is considered rare throughout its range. Following capture, a total of 28 roosts were identified, with 21 of them being maternity roosts, or roosts with breeding females. All of the roosts were located in trees (mainly ash), with over 90% of the maternity roosts located in ancient semi-natural woodland or wooded streams. Barbastelle bats were captured in 26% of woodlands sampled and six maternity roosts were located.

Jill Nelson, Chief Executive of PTES adds: "The data collected provides a baseline of distribution of woodland bats for future comparisons and will be of great use to planners, land managers and other agencies to effectively regulate activities potentially affecting these bat populations. Altogether, the work encourages us more than ever to maintain our protection of Briddlesford Woods. The maternity roosts in particular are of high conservation importance because of their role in maintaining bat populations."

Quite why the Isle of Wight is such an important habitat for woodland bat species is yet to be determined and further investigation is also required into what determines the roost selection of Bechstein's bats and their preference for ash trees. 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 (and their tendency to eat the woodland understory) in woodlands across the island, are all potential reasons.

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."

Further studies are underway with funding by PTES of a new three year project by the Bat Conservation Trust which aims to establish the distribution of Bechstein's bats and other woodland bat species in England and Wales.

Bats: facts versus fiction

- *Chiroptera* are the largest order of mammals in the UK and make up almost one third of all terrestrial mammal species in Britain
- 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 yet a false one - all bats can see
- 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 true vampire bat, which feeds on the blood of cattle, horses and deer, is native to Central and South America
- 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 heads, have wingspans of nearly 6 feet.

- Ends -

**For more information, to arrange interviews, or obtain images
please call Jane Bevan or Susannah Penn at Firebird PR on 01235 835297/ 07977 459
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Notes for Editors

- Bechstein's and Barbastelle bats have status as Annex II species on the Habitats Directive
- The Peoples Trust for Endangered Species is a UK conservation charity created in 1977 to ensure a future for endangered species throughout the world. Working to protect some of our most threatened wildlife species and habitats, it provides practical conservation support through research, grant-aid and educational programmes, including wildlife surveys, publications and public events
- The Trust owns and manages two of its own habitat reserves – Briddlesford Woods, an area of ancient woodland on the Isle of Wight and Rough Hill, a traditional orchard in Worcestershire
- More information about PTES can be found at www.ptes.org
- Registered Charity, number 274206