

Bat SAP



Photos: Bat Conservation Trust

Objectives

1. To maintain existing bat populations within the National Park, especially by protecting known roosts and hibernation sites
2. To enhance bat habitats by developing a network of wildlife corridors and semi-natural habitats that allows bats to move freely through the landscape
3. To enhance bat populations by encouraging potential roost sites through the planning process and through woodland and wood pasture management
4. To increase knowledge of the distribution and status of bats in the North York Moors

Introduction

At the start of this Action Plan nine species of bat were known to occur in the North York Moors National Park, by the end there were 10, due to the discovery of Alcaethoe bat in 2010. All species are covered by this plan. UK BAP species present include the soprano pipistrelle, the noctule and the brown long-eared. The other species recorded in the Park are the common pipistrelle, Nathusius' pipistrelle, whiskered, Brandt's, Daubenton's and Natterer's bats. Lesser horseshoe and barbastelle bats are both UK BAP species that were once recorded in the Moors, but have not been seen for more than fifty years.

The most frequently seen species is the common pipistrelle, which probably occurs in almost every village. Soprano pipistrelles can be locally common near water. Brown long-eared bats also occur frequently, especially close to woodland; along with Natterer's bats, they often roost in old buildings. Daubenton's bat feeds almost entirely over water, so it tends to roost in bridges and waterside trees. Although whiskered, Brandt's and noctule bats are regularly encountered in flight, few of their roosts have been located. The only known roost of Nathusius' pipistrelle was found in 2007.

Progress (2008-2012)

- To promote and carry out site safeguard works and improvements to roost sites, especially those supporting large bat populations, signs for four of the Ryedale windy pits (fissures in limestone bedrock) were put up by summer 2012. At the entrances to the windy pits they explain their vulnerability and the need for care when caving.
- Many planning applications over the period have been accompanied by bat reports which have resulted in measures to enhance local conditions for bats.
- Funding bids based on improving habitat for all bats, with a focus on Alcaethoe bats, were submitted to EA and NE in 2011 and 2012. The bids were not successful, but raised the profile of bat-friendly measures which influenced the NPA's Improving Habitat Connectivity programme. This is a major theme of the NPA's new Management Plan (started in 2012) to help implement the creation of habitat links

between bat rich areas to facilitate the movement of bats through the landscape. Bats will also benefit from habitat network strengthening that is being encouraged by Butterfly Conservation's limestone grassland project.

- To establish local community projects to record bats in parishes the intention was to organise community bat surveys for spring/summer seasons, with John Drewett from North Yorkshire Bat Group (NYBG) to develop a standardised methodology, however due to a lack of resources and time this action was not achieved, but is on-going.
- Simon Bassindale, NP Senior ranger for the Western Area, promoted bat conservation work and undertook two bat walks for the public during 2008. A bat evening was undertaken at Mount Grace Priory (owned by the National Trust and managed by English Heritage) led by NYBG. Further bat evenings at local English Heritage Sites led by bat experts are planned for the following SAP.
- Surveys and research into bat roosts and important bat habitats within the National Park was carried out including;
 - The recently published discovery of the Alcatheo bat in the windy pits.
 - Swarming research led by Professor John Altringham from Leeds University focusing on the Ryedale Windypits. Equipment funded by NYMNPA was set up to enable year round monitoring.
 - The data logging equipment was then handed over to the North Yorkshire Bat Group to allow monitoring to continue in the long term.
 - Two studies carried out by a Leeds University post-graduate student on modelling bat habitat suitability throughout the NP and AONB.
 - One research study from Leeds University on the use of windy pits by swarming Natterer's bats and the relationship with weather conditions.

Case Study

Alcatheo bat (*Myotis alcatheo*) – A New Discovery

(Adapted from Natural England press release 20 April 2010)

The 'windy pits', a network of roofed-over fissures formed by bedrock movement in the south west of the National Park, support nationally significant numbers of bats. Collectively they represent an important series of swarming sites and hibernation roosts.

Professor John Altringham at the University of Leeds is one of the lead scientists working on the European-wide study of bat population ecology and genetics. Much of his work is centred on the windy pits in the North York Moors, as these underground 'swarming' sites are where bats gather to mate before going into hibernation. A single swarming site such as a cave can attract thousands of bats of ten or more species. This makes them good places to look for rare species.



Alcatheo bat (*Myotis alcatheo*)

Bat species recorded from the windy pits included the newly discovered Alcatheo bat (*Myotis alcatheo*), one of only two known British locations, the second being in Sussex, taking the number of species in the UK from 17 to 18. This discovery was widely celebrated in the media in 2010.

Alcatheo bat was first 'discovered' in Greece in 2001, and has since been identified at a number of locations across continental Europe. However, the English Channel is a

significant barrier to a bat that is the size of the end of your thumb, so its presence in the UK was a little unexpected.

As the Alcatthoe bat is present at sites 350 km apart in the UK this suggests that it is a well-established, resident species. Preliminary evidence shows that it could make up a significant proportion of the small *Myotis* bats at both the Yorkshire and Sussex sites.

The Alcatthoe bat had probably gone unnoticed because of its close resemblance to two other UK species. Genetic analysis places Alcatthoe bat as a very close relative to the whiskered bat (*Myotis mystacinus*) a widespread but relatively uncommon UK species. Both bats, along with Brandt's bat (*Myotis brandtii*), are so similar in appearance that identification based on appearance alone can be difficult even for the unwary expert. Genetic analysis has revealed that the first individual to be confirmed as Alcatthoe bat was sampled back in 2003 and caught again, fit and healthy, in September 2009.

Alcatthoe bat does have a distinctive echolocation call, which terminates at a significantly higher frequency than those of its relatives (43-46 kHz), alongside some subtle physical differences, making identification possible without genetic analysis.

Its presence in the windy pits in Ryedale may reflect the relatively unspoilt, rich wooded valleys that characterise this part of the National Park, and this biologically rich area was home to the north of England's last known colonies of rare barbastelle and lesser horseshoe bats over 50 years ago.