

The BCT Bechstein's Bat Survey Project in Kent

A summary of the presentation given at the 1st Annual Kent Biodiversity Partnership Forum by *Shirley Thompson, Kent Bat Group*

Bechstein's bat

Myotis bechsteinii

- One of Britain's rarest mammals
- Fossil records suggest it was common in prehistoric times
- A UK Biodiversity Action Plan Priority species
- One of the 4 bat species listed in Annex II by the Habitat Directive
- Overall population trends unknown in the UK
- 1996 First maternity roost found in UK

- *Head & body length: 4.3cm – 5.3cm.*
- *Wing span: 25cm. 30cm.*
- An elusive woodland specialist
- Occasionally found hibernating underground
- Difficult to detect because:
 - it rarely leaves cover until after dark
 - forages high in the canopy
 - uses low intensity echolocation calls
- It tends to avoid harp traps and mist nets

Kent's fourteenth bat species

February 2001. The Bechstein's bat to be positively recorded in Kent was seen hibernating in a denhole. One had first been seen at this site two years previously but ID at that time was not confirmed. Up to 4 individuals have been in the same place each winter since then.

August 2008. A male was captured at a swarming site, the first summer record.

The Bat Conservation Trust (BCT) Bechstein's bat survey project

This is a 3.5 year BCT project which relies on the support of bat groups. It is based on a pilot study developed by bat researchers Frank Greenaway and Dr. David Hill, using:

- A model to predict the occurrence of female breeding roosts based on landscape features
- An ultrasound synthesiser to simulate social calls to lure the bats into a harp trap

Aims of the Project

- To deliver systematically acquired baseline distribution data for Bechstein's bat across its entire range in England and Wales.
- To better delineate the species' range and hotspots for conservation action.
- To better understand the habitat associations of the species across its range in the UK.
- To provide conservation management guidelines for land owners and managers of sites where Bechstein's bats are present.
- To provide a baseline against which ongoing presence/absence of the species in 10km squares can be monitored for future BAP reporting and conservation status assessments.

Organisation

In each participating group:

two individuals are trained as coordinators to act as accredited agents under a licence held by Frank Greenaway

Ideally trapping should be carried out in one wood in every 10km square in the county. The chosen wood should be the one most closely fitting the model.

Kent is one of the six counties taking part in 2008, the second year of the project.

November 08. A day's training for coordinators (John Puckett and Shirley Thompson representing Kent) in woodland selection. Groups were asked to visit and assess all woods with over 25 ha. of broad-leaved trees. These were to be ranked according to the model.

Thanks to help from Alison Riggs and Kent Wildlife Trust we identified at least one wood in 38 of Kent's 51 tetrads, 212 woods to be visited in all.

Criteria – the ideal!!

based on extensive survey work in Sussex

Canopy

cover-at least 75%

composition – preferably oak

Understorey

cover – at least 50%

composition – native species, especially holly, hazel and hawthorn

Positive considerations:

- presence of water
- south-facing
- evidence of woodpecker holes
- stands of mixed ages including >100 years
- other suitable woodlands across the wider landscape (20km)

Negative considerations:

- Evidence of recent management to:
 - clear understorey
 - remove older trees
 - reinstate coppicing
- High altitude or excessive exposure

Woodland selection.

Subsequent to the training day, groups of volunteers visited woods with at least one of the coordinators. They were then assigned a tetrad, with details of the woods identified, to visit and assess.

May 09 Coordinators attended a four-day training course in order to be listed as accredited agents on the project licence (held by Frank Greenaway).

Necessary equipment was loaned to the group by BCT.

Trapping *May – September 09*

Prior to the trapping session, coordinators visited the chosen wood in order to ID trap sites

At each trapping session:

- Traps were set up at two sites just before sunset
- Lure was turned on at least 1 hour after civil twilight for 1.5 hours (at each site)
- Team of 3 per trap if possible
- Over 40 volunteers were involved
- A licensed coordinator was present at each trap on every occasion

Results: May – September 2009

- Twenty-four trapping sessions were undertaken
- No bats were caught at two sites
- A total of 90 individuals was trapped
- 10 species were trapped
- We hope to visit more woods next year

Brown long-eared bat

- 40 individuals caught, trapped at 20 sites

Natterer's bat

- 13 individuals caught, trapped at 10 sites

Soprano pipistrelle

- 12 individuals caught, trapped at 7 sites

Whiskered bat

- 11(13) individuals caught, trapped at 7 sites

Daubenton's

- 3 individuals caught, trapped at 2 sites

Noctule bat

- 3 individuals caught, trapped at 3 sites

Common pipistrelle

- 3 individuals caught, trapped at 3 sites

Brandt's

- 1 individual caught, trapped at 1 site

Leisler's bat

- 1 individual caught
- Trapped at 1 site

Bechstein's bat

- 1 individual caught at 1 site. This was a lactating female, confirming the presence of a maternity roost in Kent.

Six counties took part in the 2009 survey. To date 10 males have been trapped and only three females (the other two in Dorset) highlighting the importance of the Kent record

Thanks to all volunteers for the huge amount of time and effort put in enabling us to survey so many woods. Thanks to all who gave permission for us to carry out the survey on their property. These include Kent Wildlife Trust, National Trust, Woodland Trust, Kent County Council, Ministry of Defence, RSPB, Natural England, Dartford Boro' Council and private landowners

Lastly BCT would like to thank funders for supporting the Bechstein's bat project:

- BBC Wildlife Fund
- Countryside Council for Wales (Species Challenge Fund)
- Forestry Commission England
- Forestry Commission UK
- Forestry Commission Wales
- Landfill Communities Fund of Waste Recycling (WRG) administered by the Environmental Body WREN
- People's Trust for Endangered Species/Mammals
- Thames Valley Environmental Records Centre
- The Scottish Forestry Trust

For more details of the project and to download a full report on the results of the 2008 phase of the project visit www.bats.org.uk and enter Bechsteins as your key word.



Figure 1 Bechstein's bat



Figure 2 Harp Trap with lure



Figure 3 Noctule bat climbing



Figure 4 Whiskered bat