

Bat surveys

For those carrying out, organising or contracting bat surveys. Countryside staff, Project Managers, Regional Nature Conservation Advisers, Property Managers.

Key points

- Bats are likely to be found in almost all National Trust buildings.
- Bats and their roosts are protected by law.
- Monitoring bats at their roosts has valuable conservation importance.
- The first stage of any proposed operation that will affect the bats or their roosts should be a detailed bat survey (but also contact the local Statutory Nature Conservation Organisation).

1. BACKGROUND

Bats have been found on almost all National Trust properties surveyed. All bats are protected species, some are endangered and many vulnerable. The national populations of some of the scarce species rely heavily on National Trust properties and land for roosting and feeding. Annual counts of many species are being undertaken as part of the National Bat Monitoring Program (see Further Information, BCT) or as part of a Species Monitoring Program for UKBAP, Priority Species Management. To determine changes in populations then standard surveys need to be undertaken

2. POSITION

The National Trust realises the reliance some species have on its properties and that monitoring bats through surveys enables population changes to be determined. Such data is an essential basis for conservation. Since a number of important bat populations use Trust land it is likely that external bodies will wish to monitor them as part of the government-funded National Bat Monitoring Scheme.

National Trust Act 1907.

The National Trust was established in 1895 for the “permanent preservation for the benefit of the nation of lands and tenements (including buildings) of beauty or scientific interest and as regards lands for the preservation...of their natural aspect features and animal and plant life”.

3. ACTION

The lives of bats are complex: a colony may divide between many different roost sites and use many such places in one season. They may change their feeding behaviour markedly as different insects emerge during the summer. To produce data that can reliably detect change in populations, standard techniques are used that are repeatable in future years.

The Bat Conservation Trust (BCT) has developed techniques for monitoring some species and is presently working on others. It is recommended that their standard survey methods are used.

Roosts

- The BCT standard survey on pipistrelles involves two counts of emergence in June, a time when the roost numbers are relatively stable. Bat detectors are needed to ensure all bats are counted.
- A similar survey on lesser horseshoe bats is more difficult as they frequently emerge from many exits so require a number of trained observers. Their directional calls can also be easily missed on a bat detector.
- Standard roost counts for long-eared bats are just commencing using similar techniques and Natterer's bats surveys have already started. Other species should be counted using similar standards.
- Finding roosts is difficult and a new BCT survey (Sunrise survey) is beginning where observers walk around selected areas at dawn looking out for the swarming of bats which occurs at their roosting sites just before they re-enter. This is a very visible activity and widely used to locate roosts in trees and buildings.
- Entry into roosting sites such as roof voids may be necessary to locate the actual roosting positions, determine the function of the roost and produce other counts. This requires trained, licensed personnel.
- Some roosts (e.g. trees) can be located by trapping a bat and fitting a radio-transmitter, then tracking it back to the roost. Again this requires trained, licensed personnel.

In all but the last two cases the bats are not disturbed so no licence is required.

Habitats

Standard surveys of bats using different habitats are also being co-ordinated by BCT.

- Random 1km squares are selected and trained observers with bat detectors walk a standard route (a triangle within the square), stopping periodically to listen for passing bats. Although designed for monitoring pipistrelles, noctules and serotines this technique can be used for all species, although long-eared bats and Bechstein's bats are unlikely to be detected due to their quiet echolocation calls.
- Daubenton's bats are also monitored when flying along canals and rivers. Again a standard length of the waterway is selected and records made of the "passes" heard on a detector at fixed points.

The use of detectors to identify bats requires training: courses are available through BCT. Risk assessments need to be carried out before undertaking such survey work.

More detailed study of the use of habitats can be made by tracking a radio-tagged bat during the night. This technique is also used to map the regularly-used flight lines of horseshoe bats. Such work requires trained, licensed personnel.

Hibernacula

Standard bat-count forms are available through BCT for surveys which record changes in numbers. Hibernation counts require a licence and usually training for underground work due to Health & Safety implications. A risk assessment needs to be carried out before going underground. Many local Bat Groups have trained and licensed personnel who can arrange a visit.

Data from all surveys are entered into the BCT's bat database and used to monitor national populations as part of a contract with DEFRA and JNCC. At a local level regular counts give an indication of any changes. Copies of all surveys would be very welcome at the Conservation Directorate for entry into their bat database and site files.

Over the years many bat surveys have been carried out using different techniques so it is hard or impossible to compare sites or assess species fluctuations. By using the BCT's standard techniques data will become much more valuable.

Further information

Survey forms and guidelines for the National Bat Monitoring Project (NBMP) of BCT (details on www.bats.org.uk or from 15 Cloisters House, 8 Battersea Park Road, London SW8 4BG)
See National Trust Intranet under Health & Safety for Risk Assessments such as for entry into disused mines (NT Feb 1997/WRK 013) and on lone working, working near water etc..
Bat Group Contacts list, on request from BCT 020 7627 2629

Conservation Directorate Guidance Note Information

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