



## **Bats - Information Requirements and Survey Standards**

Survey for bat roosts is required where bats are known to be present, either roosting or habitually foraging<sup>1</sup> or where their presence is suspected due to habitat suitability and/or existing records in the locality and where the site supports features such as buildings (see Appendix 1), bridges, tunnels, cellars, abandoned mines, caves or mature trees that may provide suitable conditions for bat occupation. Sufficient information must be submitted to ensure that an accurate and reasonable opinion can be reached about the importance of the site to bats and likely impacts should the development or project go ahead. Survey and impact assessment cannot be conditioned except under exceptional circumstances<sup>2</sup>.

Due to seasonal constraints on some elements of bat survey and on works that affect bat roosts, and the potential need to incorporate their requirements into the design of development or projects, bats should be considered early in the project planning stage in order to reduce the likelihood of delay later in the process.

The information submitted in bat survey and impact assessment reports should cover:

- Bat species
- Type of roost-hibernation/maternity/summer/temporary and timing of occupation;
- Foraging habitat and commuting routes used by bats (habitat survey work may need to be carried out between March and October);
- In the case of foraging habitat, its importance to the local bat population;
- Impacts of the development on roosts, foraging habitat, commuting routes;
- Mitigation proposals;
- Monitoring provision for mitigation work.

### **Requirements for survey and assessment for bats**

Survey work and the development of mitigation measures and monitoring work should be undertaken by suitably experienced bat workers or ecological consultants with a track record of working with bats. It is also important that

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<sup>1</sup> Foraging habitat includes woodland and woodland edge, hedgerows, scrub, parkland, gardens, grassland and open water

<sup>2</sup> ODPM Circular 06/2005/Defra Circular 01/2005 Biodiversity and Geological Conservation- Statutory Obligations and their Impact within the Planning System paragraph 99.

the personnel are licensed by Natural England (English Nature) to carry out any survey work that could contravene the legislation protecting bats. Possession of a licence demonstrates that bat workers have undergone appropriate training and work experience. English Nature has published “Bat Mitigation Guidelines” (2004) which should be followed. This document is available in the publications section on the Natural England/English Nature website<sup>3</sup>.

Prior to survey, records should be obtained from Staffordshire Ecological Record (SER) but absence of records should not prevent survey where there are reports of bats and/or the County ecologist has identified the site as having bat roost potential.

There are several elements to survey: inspection of buildings, structures, trees etc. for roost sites; habitat evaluation in the locality; bat activity survey. As part of inspection, endoscopes and torches should be used to examine inaccessible areas, cracks and crevices that could be used by bats. Should areas potentially used by bats be inaccessible for survey, this should be stated.

Where there are no confirmed records, but presence of bats is reported or believed likely, a preliminary **scoping study** should be carried out. This would involve records search; inspection of buildings, structures, trees etc. for roost sites; habitat evaluation in the locality to assess its potential for foraging and bat movement.

Should the presence of bats be confirmed or indicated by the scoping study, or limitations in survey give uncertainty, **bat activity surveys** will be required unless roosts or potential roost sites can be left undisturbed, or, in the case of potential roost sites (i.e. suitable features but with no confirmed signs of bat use), appropriate precautionary measures can be put in place. Activity surveys will also be required where it is important to assess bat numbers and species and roost type and this information cannot be got from the inspection process. Activity surveys should be sufficient in number and scope to satisfy Natural England licensing requirements. Generally this will mean at least three nights’ survey in good weather conditions, spread over several weeks within the period suitable for survey. Timing will depend on species and type of roost site. Evening emergence surveys are the commonest but there are circumstances where dawn survey is required.

### **Timing of survey**

Scoping studies, including habitat evaluation and inspection of buildings, structures and trees can be carried out at any time of year, though signs of bat use may be more difficult to find when roosts are not in use. Inspections of mature trees are rarely conclusive but unsuitable trees can be identified. Activity/emergence surveys should be carried out for buildings and trees<sup>4</sup> between May & early September (June-August most reliable) in suitable

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3 [www.naturalengland.org.uk](http://www.naturalengland.org.uk) (English Nature became part of Natural England on October 1<sup>st</sup> 2006)

4 Sunrise survey should be carried out

weather conditions. For underground sites winter survey is most commonly required, though summer survey may be applicable, depending on environmental conditions. Spring and autumn survey using static detectors can measure hibernation roost activity.

**Survey and assessment reports should include the following:**

- Objective(s) of the survey and assessment;
- Bat records at the survey site and in the local area;
- Description of the survey area and features surveyed;
- Description of the site including detailed description of buildings and other structures including age, wall construction (solid/cavity, materials), cladding, roof covering, loft construction, access points and description of trees;
- Habitat description (based on daytime visit(s); to include the roost/potential roost site and surrounding area)
- Field survey methods, dates, times, personnel (to include experience, licence number), equipment used
- Weather conditions
- Survey results, identifying and describing potential and actual roost sites, to include: species found and how identified, signs of bat use, (to include raw data, any processed or aggregated data, and negative results as appropriate)
- Interpretation and evaluation: presence/absence/potential; roost type (hibernation, maternity, male etc), population size assessment; site status assessment
- Constraints and limitations (factors influencing survey results)
- Map(s) of survey area (with habitat description, marking structures or features examined; summary of survey results marked on map if appropriate. Map should show area on an Ordnance Survey (or similar) base-map)
- Building plans
- Cross-referenced photographs of key features (if appropriate)

They should also include:

- Recommendations for further survey if required;
- Assessment of the impacts of the development/project on:
  - Any roost(s) present or potential if not able to be confirmed due to survey constraints, and bats' use of these;
  - Foraging areas and dispersal/commuting routes;
  - The local bat population;
- Appropriate mitigation with details of design, techniques and timescale;
- Justification of chosen techniques and approach to show that the bat population will not be adversely affected;
- Assessments of alternatives to the approach taken (including feasibility of retaining roosts if the proposal means that these are to be lost and replaced)
- Monitoring provisions

Protection of existing habitat and/or roosting sites is preferred over provision of alternatives. If loss cannot be avoided, incorporation of replacement roost sites/habitat will be required.

Should a bat roost be present, suitable mitigation must be incorporated into the project and carried out under a licence from Natural England. In the case of planning applications, either a full mitigation plan, or strong evidence that mitigation can and will be incorporated into the development, is required prior to consent. In the later case, approval of a mitigation plan prior to commencement of works will be a condition on the consent. The mitigation works themselves will be covered by conditions and/or a planning agreement. Provisions for monitoring of the bat population subsequent to mitigation works will be required.

## **Appendix 1**

### **Factors affecting the probability of buildings being used by bats**

The factors listed below are guidelines only, bats can be found in any type of building should conditions be right, for example in cavity walls in modern buildings or in lined garage ceilings. Proximity of suitable foraging habitat is a useful guide.

- Parts of building are largely undisturbed
- Large roof void with unobstructed flying spaces
- Large dimension roof timbers with cracks, joints and holes
- Uneven roof covering with gaps, though not too draughty
- Entrances that bats can fly in through, though some species crawl through small gaps
- Hanging tiles or wood cladding, especially on south-facing walls
- Gaps round eaves or soffit boards
- Pre-20th century or early 20th century construction
- Roof warmed by the sun
- Rural setting or near to open land
- Close to woodland and/or water

### **Factors affecting the probability of trees being used by bats**

- In ancient woodland or parkland
- Large trees with complex growth form
- Species that typically form cavities, such as beech, willow, oak or ash
- Visible damage caused by rot, wind, woodpeckers, lightning strike
- Loose bark providing cavities