

BATS: Activity Surveys

Luscinia
Ecology

ASSESSING THE SITE

When assessing a development site, one of our specialists will evaluate features on-site and nearby that may support bat flight paths and foraging. These include woodland, scrub, hedgerows, ponds, rivers, and tree lines. Features are graded: No (None), Negligible, Low, Moderate, or High Suitability.

Low suitability: Gappy hedgerows, isolated trees, small scrub patches.

High suitability: Connected woodland edges, river valleys, streams, continuous hedgerows, tree lines.



Once the site has been graded, we consider how a proposed development will impact the features identified. This is to determine if impacts could occur on bat flight paths and foraging habitats. Where suitable habitats are present and impacts are likely, bat activity surveys are required.

SURVEY TYPES

There are two types of bat survey, which are typically undertaken in unison, to determine the relative importance of the site and features within the site.

1. TRANSECT (WALKOVER) SURVEY

The ecologist walks around the site with a bat detector to make visual assessments and audio recordings of the bat behaviour within the site. Recent guideline changes mean that ecologists follow the activity on site with an emphasis on recording new or important behaviours. The transect is where key flight paths can be clearly determined. For example, observing multiple bats flying early during the survey may indicate a roost nearby and the feature being a key part of the flight path. This survey is typically undertaken once per season (Spring Summer & Autumn).

LEGISLATION & POLICY

Surveys follow national guidelines and provide the evidence to inform planning applications and to meet policy and legal requirements.

All UK bat species are protected by law, meaning developments must assess suitability, determine likely presence, avoid harm, and mitigate and compensate for impacts.



DID YOU KNOW?

Surveys are undertaken between April and October.



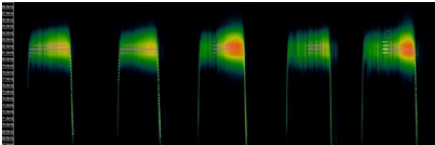
2. STATIC BAT ACTIVITY SURVEY

This survey involves the deployment of bat detectors across the site to record bat activity at a fixed location. Typically activity is recorded for five nights at a time, during each month of the season i.e. from April through to October. The data gathered is then analysed using software to determine the relative abundance of each bat species at each location for each month. Through this process, features within the site can be compared with one another and the overall importance of the site can be determined in line with national guidelines.

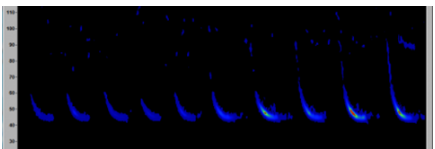
SPECIES ID & SONOGRAMS

Bats use echolocation - the process of emitting an ultrasonic frequency which bounces off surfaces, and when received by the bat, the information is used to map their surroundings.

Sonograms are a visual representation of the echolocation of the bat. The recordings made during these surveys can be analysed and compared back in the office to determine the species present. The images (right) show the differences between two bat species.



LESSER HORSESHOE EXAMPLE



COMMON PIPISTRELLE EXAMPLE

OUTCOMES



Ideally, key flight paths and foraging habitat is retained and enhanced. Where this isn't possible, we seek to mitigate and compensate for harm. Mitigation is where we seek to lessen an impact on the bat flight paths and foraging habitats, while compensation can be in the form of replanting features such as trees, hedgerows and woodland in appropriate locations to form new or replace known flight paths and foraging habitat. Often we consider light spill, screening, canopy cover, the properties of nearby surfaces, long term management and its effects on the structural form of a habitat.

Through the process of mitigation and compensation, we seek to maintain landscape scale connectivity for bats to continue to move across the landscape unimpeded by the proposed development and its effects. Bats are very faithful to their flight paths and so good data ensures positive outcomes.