

Bat Survey Information

Survey Methodology

Daytime Bat Survey

Bat surveys begin with an initial site assessment. This involves a daytime survey of the building(s) / tree(s) to be affected and includes looking for signs of bats such as droppings, feeding remains, scratch marks, urine stains, and actual sightings, as well as potential access points and roost sites, such as holes, cracks and crevices. Surveyors also search for evidence of nesting birds, including barn owl nesting and roosting sites.

Should evidence of bats be found or areas suited to roosting bats identified it may be necessary to complete further evening emergence and / or dawn swarming surveys. These bat activity surveys allow for identification of roost entrance / exit points, the number of bats present and the species of bat using a roost.



Evening Emergence Surveys

Evening emergence surveys involve monitoring a building or tree at dusk using bat detectors, night vision scope and camcorder equipment with infrared light sources. Surveyors monitor a building and record bat exit points and number of bats. Audio clues and sonograms recorded on bat detectors allow identification of the species of bat present.

Dawn Swarming Surveys

Dawn swarming surveys involve monitoring a site during dawn as bats return to roost. This survey method can be more cost effective for larger sites as it allows the surveyor to be mobile, whereas during emergence surveys a surveyor is static and focused on a single area. Bats swarm around a roost entrance prior to entering and so a surveyor can pick up on possible roost sites as they walk around a site. However on larger sites a combination of both evening and dawn survey methodologies would be advised.

Transects and Fixed Point Surveys

Bat surveys can be used to determine whether or not changes in landscapes, such as hedgerow removal, construction of a wind turbine, installation of new lighting (e.g. road lighting) or entire change of land use will affect bats. Bat activity surveys can be undertaken throughout the night to determine bat activity and transit / foraging routes within a site. Surveyors walk transects around a site and record bat activity with detectors. Bat detectors can also be installed at specific locations within a site and set to record all bat activity over a series of nights. These surveys can be useful for identifying the ideal location to site a wind turbine in order to minimise disruption to bat foraging routes, for example, or to help plan a lighting scheme which is sympathetic to bats.

Survey Timings

Although the initial day-time assessment can be completed at any time of year, evening and dawn surveys are constrained by the main bat activity season which runs from May to September inclusive. During the winter months bat activity is reduced and during long periods of cold weather bats hibernate and so evening and dawn bat activity surveys at this time of year are ineffective. The best time to complete evening / dawn surveys is from May to late July / August when bats congregate in large maternity colonies.



J	F	M	A	M	J	J	A	S	O	N	D
				Emergence and dawn swarming surveys							
Daytime surveys can be carried out all year											

Bat activity surveys require night-time site access by surveyors, sometimes with bright torches. Therefore it is important to inform nearby landowners and residents of the surveys and the presence of our surveyors.

Bat Development Licence

If the works are considered likely to cause harm or disturbance to bats or their roost, a European Protected Species (EPS) license is likely to be required. The EPS licence application requires the production of a method statement, completion of an EPS Application Form and the completion of a reasoned statement in support of the application. The method statement will require site specific mitigation.

Mitigation

For a licence to be granted, detailed mitigation would need to be designed to reduce the chances of harming bats during development works and to ensure provision for the species is provided on completion of the scheme. This may involve the provision of bat boxes or the creation of a loft void specifically for bats to roost.



Further information on mitigation methods is available on our website at www.emec-ecology.co.uk



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