Brooks Ecological

Grounded advice

Bat Emergence Tree Survey
Land off Bamford Close, Dodworth
Barnsley

Report reference: BE-R-1295-02
September 2012

Report Title:	Bat Emergence Tree Survey Land off Bamford Close, Dodworth Barnsley
Report Reference:	BE-R-1295-02
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Summary Statement

No evidence of current or historic roosting has been found. The proposed works can go-ahead with minimal risk of impacting upon bats.

Introduction

1. Subsequent to the recommendations made in Brooks Ecological's Ecological Appraisal (BE-R-1295-01) detailed bat survey was commissioned of a tree (BE-R-1295-01 Fig. 6 and 5) that was to be removed from a site off Bamford Close, Dodworth, South Yorkshire (SE 311051).

2. Criteria for classifying bat roost potential with reference to trees is set out in Table 1. This criteria was developed with reference to the Bat Mitigation Guidelines (2004), Bat Workers Manual (2004) and the Bat Conservation Trust Good Practice Guidelines (2012).

Box 1 *Legal background*

Bats are afforded full protection under The Wildlife and Countryside Act (1981) plus amendments, and the Conservation of Habitats and Species Regulations 2010. Under these Acts it is an offence among others, to recklessly kill, injure or disturb bats. It is also an offence to destroy or obstruct a roost even if bats are not in occupancy at the time of the action.

There are no defences against contravention of the Conservation of Habitats and Species Regulations 2010 which means that it is important for detailed and well designed bat surveys to be carried out, prior to carrying out activities that may impact upon bat roosts such as demolition of buildings or removal of trees.

Where bats are found within a potential development site, a license from Natural England may need to be secured if works that could otherwise contravene legislation are to be carried out. These licences are only issued where Natural England is satisfied that works are unavoidable and would not have a negative impact on the favourable conservation status of bats. A Natural England license requires that the potential development site has full planning permission and that bats were a material consideration of the planning permission.

Box 2 *Bat roosts*

Bats roost in buildings and trees in different locations depending upon time of year and environmental factors such as position of the sun, proximity to heat sources and feeding grounds. The following types are commonly referred to:

Transitional roosts:

Bats frequently gather early in the season (March to April) before dispersing to summer roosts. Bats can be found in high numbers in these roosts for a very short period. Transitional roosts can also be found shortly before hibernation in August to October when bats (depending upon species) can gather is roosts not used earlier in the season.

Maternity roosts:

These are among the most important roosts and are normally occupied from May to August. Depending on the species involved, some maternity roosts can contain a very significant proportion of the local population.

Summer (non-breeding) roosts

Small groups of non-breeding female and male bats can gather in these roosts or bats from a local population may choose to roost individually. There are normally a large number of suitable locations for summer non-breeding roosts and these may be routinely used or used only on an occasional basis. Irregularly used summer roosts can be very hard to find without unreasonable survey effort.

Mating roosts

Around September bats will gather in roost to mate; these are often in different locations than summer or breeding roosts.

Hibernation roosts

As bats in hibernation roosts are highly vulnerable to disturbance and bats can be present in large numbers these are considered to be among the most important bat roosts. Many species of bats roost in large and nationally important hibernation roosts associated with underground sites, many of which are well known and protected. However, the most common bat in the UK (the common pipistrelle) is largely unaccounted for in winter but thought to disperse and roost individually or in small groups in thermally stable cracks and crevices in thick walls or trees.

Table 1: Bat roosting potential in trees

Roosting potential	**Criteria**
Good	Trees that have many areas suitable for roosting with a large number of potential roosting features such as fissures, holes and flaking bark. These are normally in areas of good habitat such as close to water or in a landscape with well connected linear features. Trees with good potential could be used for a whole range of roosts including maternity and hibernation roosts.
Moderate	Trees with a smaller range of features suited to roosting in less valuable habitat, but still supporting features that could be attractive to bats and potentially support maternity roosts.
Limited	Trees with limited range or quality of roosting features in poor habitat. They could be used as occasional or transient roosts, but are unsuitable for maternity roosts.
Very Limited	Trees that have few places for bats to roost located in poor foraging habitat, but due to superficial features such as flaked bark etc. could be used on an occasional basis for solitary or small groups of bats.
None	Trees which appear unsuitable for roosting bats due to clear lack of roosting spaces such as voids etc and/or absence of suitable access points.

Method

3. Brooks Ecological specialise in bat surveys ranging from individual trees through to complex sites requiring numerous visits with large teams. In terms of the survey effort, number of personnel required and number of visits required to be able to properly evaluate the building(s) use by bats we refer to the Bat Conservation Trust, Survey Good Practice Guidelines (2012). However these guidelines are not prescriptive and we approach each site individually as required using our professional judgement and significant experience base.

4. In this case, 2 visits with a team of up to 2 surveyors, was deemed necessary to fully evaluate the potential use of the site for roosting. The survey was carried out on the 3rd and 7th of September 2012 with surveyors positioned around the tree to cover all positions where bats could potentially emerge, and to establish activity levels around the specimen.

5. The surveyors, using heterodyne detectors, were in place at least half an hour before dusk and left once all species of bat would be expected to have left a roost and patterns of activity within the site had been appraised. Conditions and dates are summarised in table 1 below:

Table 1: Survey summary

Date of Survey	Temperature	Weather	Invertebrate activity
03.09.12	18˚C	Warm, clear with light breeze	Moderate
07.09.12	19˚C	Warm, clear with light breeze	Moderate

6. The survey team was directed by Peter Brooks BSc (Hons) MA, MIEEM CEnv. Peter has over 15 years experience of carrying out bat surveys in a professional capacity and holds a Natural England license in respect of bats and is a Natural England Roost Warden.

Results

Survey – 03rd September 2012

7. A single common pipistrelle was heard 35 minutes after sunset which was foraging along the hedgerow to the south of the site. It was seen to clearly come from outside the site. The bat foraged along the hedgerow a few times before leaving the site.

8. No bats were seen to emerge from the surveyed tree.

Survey – 7th September 2012

9. The second visit showed near identical activity with only distant foraging recorded along the same hedgerow.

Evaluation

10. Despite the findings of the bat roost potential survey which classified this single tree as containing features which could support roosting bats, the survey that followed showed that roosting here is unlikely. The paucity of bat passes at the peak time for recording activity demonstrates a sparse local population and was used to scope out further survey visits.

11. On this basis it is concluded that bats are very unlikely to roost in the tree and its removal can go ahead as planned with little risk of any harm or disturbance to bats.

General guidance

12. Even where surveys have been carried out which demonstrate absence of roosting, site workers should always be aware that bats can move into roost features previously found not to support them. On this basis work should proceed with care and if a bat is found, works should stop immediately and a professional ecologist and/or the bat helpline on 0845 1300 228 (Bat Conservation Trust) should be contacted. The local office of Natural England could also be contacted to seek advice.

13. If the works on this site are not undertaken before May 2013 an update emergence survey should be undertaken prior to works commencing in order to ensure no roosts have become established in the intervening period.

References

Bat Conservation Trust (2012) Bat Surveys – Good Practice Guidelines

English Nature (2004) Bat Mitigation Guidelines. English Nature, Peterborough.

JNCC (2004) The Bat Workers Manual. 3rd Edition.