



**Bat Roost Potential Survey
Barnsley Road Cottage, Penistone**

Report reference: R-2371-03
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Summary Statement

The building has been found to have *Moderate* bat roost potential in the areas to be affected.

Further survey is recommended in order to establish whether the building is in use by bats prior to works commencing.

Introduction

1. Brooks Ecological was commissioned to carry out a bat survey of a cottage prior to refurbishment works of Barnsley Road, Penistone (Grid Ref: SE 24509 03877)
2. The application site is an extension to a cottage located just off Barnsley Road on the northern edge of Penistone.

Proposals

3. It is proposed to demolish the extension to the cottage returning it to its original form.

Figure 1 Site location



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 in 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.

Local Status

4. The application site is within the natural range of species of bats listed in Table 1.

Table 1 Bat species recorded within 100km of the application site

Species	National status
Pipistrelles (<i>Pipistrellus pipistrellus</i> and <i>P. pygmaeus</i>)	widespread/common
Nathusius' Pipistrelle (<i>Pipistrellus nathusii</i>)	widespread/rare
Noctule (<i>Nyctalus noctula</i>)	widespread/frequent
Leisler's (<i>Nyctalus leisleri</i>)	widespread/rare
Brown long-eared (<i>Plecotus auritus</i>)	widespread/common
Natterer's (<i>Myotis nattereri</i>)	widespread/frequent
Daubenton's (<i>Myotis daubentonii</i>)	widespread/common
Whiskered/Brandt's (<i>Myotis mystacinus</i> and <i>M. brandtii</i>)	widespread/scarce
Alcathoe's (<i>Myotis alcathoe</i>)	local/unknown
Serotine (<i>Eptesicus serotinus</i>)	south restricted/uncommon

Method

5. A thorough daytime inspection of the site was made in August 2015 in order to look for evidence of bats and assess bat roosting potential. Evidence of bats may take the form of droppings, feeding remains, live bats, dead bats, stains on masonry or timber from the oils in bats' fur and claw marks made by bats regularly roosting in the same location.
6. Bat roosting potential of the building was classified according to the following criteria set out in Table 2, developed with reference to the Bat Mitigation Guidelines (2004), Bat Workers Manual (2004) and the Bat Conservation Trust Good Practice Guidelines (2012).

Table 2 Bat roosting potential in buildings

Roosting potential	Criteria
Good	Buildings that have many areas suitable for roosting with a large number of potential access points. These are normally in sheltered locations, subject to low variation in temperature. Buildings with good potential could be used for a whole range of roosts including maternity roosts.
Moderate	Buildings with a smaller number of areas suitable for roosting, but still supporting features that could be attractive to bats and potentially support maternity roosts.
Limited	Buildings with limited roosting opportunities. These may be in locations that are subject to wide temperature fluctuations and drafts. They could be used as occasional or transient roosts, but are unsuitable for maternity roosts. Buildings that would otherwise be moderate to good potential but have reduced value due to other factors such as exposed location, separation from nearby foraging, or presence of strong lighting.
Very Limited	Buildings that have no obvious places for bats to roost, but could be used on a sporadic or occasional basis for feeding or solitary day roosting.
None	Buildings which appear unsuitable for roosting bats due to clear lack of roosting spaces such as voids etc and/or absence of suitable access points.

7. Surveys were directed by Rob Weston BSc (Hons) MSc MIEEM. Rob has many years' experience of carrying out bat surveys in a professional capacity and is registered to use the new Class Survey Licence WML CL18 (Bat Survey Level 2). He is a member of the West Yorkshire Bat Group, the Bat Conservation Trust and runs training in bat surveys for student ecologists.

Records

8. The local records provider; Sheffield Biological Records Centre (SRBC) was asked to provide all records within 1km of the application site. A total of 35 records have been returned the most recent of which is from 2002, 12 of these records relate to roosts including maternity roosts. Species recorded include common pipistrelle, soprano pipistrelle, daubenton's, whiskered, and brandt's.
9. All of the roost records relate to common pipistrelle, the nearest of which is of a possible roost from 1997 c. 300m south east of the site. The most recent roost record is of a maternity roost of an undisclosed sized c.1.5km south east of the site.
10. Five large roost records have also been provided the largest of which is for a maternity roost of 76 individuals, with 3 other maternity roosts given for the same six figure grid reference centred 315m south east of the site. Records are indicative of a good population of bats in the area, comprised of a number of species.
11. During the survey the neighbour to the north east of the surveyed property stated that he had a small roost of approximately 3-4 bats of an undisclosed species, within a stone wall on his property.

Results

12. The application site makes up a part of a larger cottage. The building is c.50m north of the River Don and c.180m south of the Nether Mill fishery and a small reservoir along Scout Dike further north still. These features provide good bat foraging and commuting habitat.
13. The building is an addition to an existing cottage, and as such is of a more modern construction than the surrounding buildings - though still appears dated. The building has rendered, likely cavity walls with wooden fascia / gutter boards, whilst the roof is of a shallow pitch, stone tile construction with lead flashing running along the join to the original cottage.
14. The older adjoined section of cottage is of a similar construction but with a variety of rendered and stone walls. Immediately adjacent to the surveyed area a small section of the original roof is tied into, and likely connected to, the interior loft space of the survey area. The stone of walls of this original section appear in good condition, and the large stone copings on the gables

appear well sealed. The roof pitches of this section have been raised to a shallow pitch and adjoin other roof sections at each side – it presents very little opportunity for roosting.



Figure 2

Stone gable of adjacent building seen on the right of this picture.

15. The walls of the surveyed building have been rendered up to a well fitted wooden fascia / gutter board allowing little opportunity for roosting along this feature. The rendered walls are well sealed, with no apparent large cracked or flaking areas which may be used for roosting.
16. The shallow pitch of the surveyed roof and adjacent areas reduces the value of the interior space for roosting of species which prefer to fly internally before emergence.

Figure 3 General view of the extension from the North West.



17. The stone tile roof of the building is slightly uneven creating multiple narrow gaps between the tiles throughout, providing multiple small crevices for roosting between tiles, furthermore any larger gaps may provide access to the loft space. However, access to the interior was not possible during the time of survey to confirm this. The stone tiles of the adjacent roof section are of a similar condition.



Figure 4

Showing uneven roof with gaps between tiles and gap below ridge.

18. Though generally well-sealed, some gaps within the roof can be found along the ridge and hip ridges where small pieces of mortar have fallen away, allowing access to these areas.
19. The flashing between roof sections appears generally well sealed, with only one small slightly lifted area, lower down the roof this may offer some limited roost potential.

Table 3 Bat Roosting Potential checklist

Feature	Notes
Walls	No accessible cavities
Roof tiles	Multiple mainly narrow gaps
Ridge tiles	Some small gaps in mortar
Eaves	Well sealed
Loft	Possible access via gaps between uneven roof tiles, though none obviously apparent. Internal inspection not possible during surveys.
Flashing	Generally well-sealed, with one small gap.

Evaluation and Recommendations

20. The buildings location near several features of good foraging and commuting value to bats, alongside a large number of general sightings and roost records for the area, is suggestive of healthy bat populations. As there are multiple gaps between roof tiles suitable for roosting the building is evaluated as having *moderate* roost potential.
21. As such a further two emergence surveys are recommended, with at least one taking place in the optimal survey period May – August, in order to establish the status of roosting bats.

General advice

22. Even where surveys have been carried out which demonstrate absence of roosting, site workers should always be aware that bats can move into buildings previously found not to support them. On this basis work should proceed with care and if a bat is found during the conversion, 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 should also be contacted to seek advice.

Enhancement

23. The UK government's guidance on nature conservation in relation to development (NPPF) makes it clear that opportunities should be sought through their planning system to use development as an opportunity to enhance sites for wildlife where possible.
24. Bat boxes which provide roosts sites for bats could be installed within the area. It is possible to retro fit bat boxes, such as the Schwegler 1FF to nearby trees or the exterior of the building, whilst the Schwegler 1FQ is specifically designed for use on buildings.

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.

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