

# WILDLIFE SURVEY FOR BATS AND OWLS

AT

**Hill House Barn  
Chipping Road  
Chaigley  
Clitheroe  
Lancs.  
BB7 3LS**

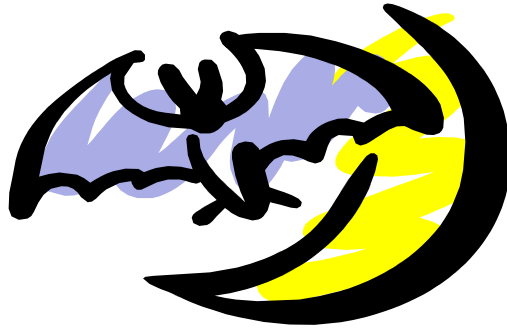


## Document Reference:

1504

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## **BAT SURVEY & REPORT**

### **Commissioned By:**

Mr D Pennington

### **Address**

D Pennington  
Mill House Farm  
Chipping Road  
Chaigley  
Clitheroe  
BB7 3LS

### **Contact Details:**

Tel: 07885 798083  
e-mail: david.pennington@btinternet.com

### **Instruction Method:**

Written

### **Bat Survey Address:**

Mill House Barn  
Chipping Road  
Chaigley  
Clitheroe  
BB7 3LS

### **Visit Date:**

24<sup>th</sup> September 2013 at 12.00 hours  
24<sup>th</sup> September 2013 at 18.30 hours

### **Weather**

A dry but overcast afternoon with a temperature of 10 °c

### **Architect**

Eric Smith  
ericsmith@consultant.com



## **BAT SURVEY & REPORT**

### **Survey Brief**

To inspect buildings, assess the value of the site for bats, and compile a report prior to a Planning Application being submitted.

The report will identify if bats have ever used the buildings at any time, or not as the case may be.

If bats have used the buildings, assess the importance of the site for bats and bat conservation.

### **Objectives of the report:**

The purpose of the survey is to look for evidence confirming that bats use, or have used the buildings for resting, feeding, roosting or winter hibernacula.

When evidence of bats is found, the report will include recommendations and mitigation to prevent disturbance to bats.

### **Survey Guidelines**

This survey follows guidelines recommended by:

Bat Conservation Trust: The Conservation of Habitats and Species Regulations 2010.

Natural England: (Survey objectives, methods and standards- Bat Mitigation Guidelines, 2004)

JNCC Bat Workers Manual

### **Daytime Survey Methods**

The size of the site or the complexity of the buildings may make daytime searches for bats very difficult.

Photographs will be taken of the outsides and insides of all buildings and structures.

Ladders will be used to access all parts of buildings for detailed inspection.

An endoscope camera with an LCD monitor will be used to examine niches and cavities in structures with limited access.

# **BAT SURVEY & REPORT**

## **Signs of Bat Use**

Evidence of use by bats will include one of the following;

Presence of live or dead bats

Bat droppings.

Moth and insect wings

Faint scratch marks on roof timbers.

Grease staining marks on roof timbers.

Odour of bats

## **Evening Survey Methods**

Detection of the presence of bats is often undertaken at bat emergence time on evenings when bats are likely to be flying.

Bat emergence time may start half an hour before sunset, to one hour after.

To give greater coverage and scope, the survey is normally conducted by a minimum of two persons.

A bat detector is used to detect ultra-sound emitted by bats into sounds audible to the human ear from roof areas where human access is limited or impossible.

Species may be identified by the frequency on which they 'transmit' and by the sonargraph of their sounds.

Up to three evening surveys may be necessary on evening during summer months when bats are flying to confirm the presence or absence of bats.

Dawn swarming surveys may also be required to enhance or confirm evidence of bat presence.

## **Analysis of results**

Negative results from the bat detector may only indicate that bats are not present at the time of the survey.

If the bat detector detects sonar but the source of the noise remains unidentified, further inspection of the site may be needed.

## **Bat habits**

Bats frequently use the shelter of buildings and trees for feeding.

The presence of feeding bats does not indicate that the roost is close by.

Insects are found at most sites, and their presence attracts bats, which may travel up to five kilometres or more, to feast in insect rich habitat.

# **BAT SURVEY & REPORT**

## **Adverse weather**

Adverse weather conditions may affect the ability to collect data on night visits.

Cold nights, strong wind or heavy rain may prevent bats from flying, and numbers of insects may be likewise very limited.

Subsequent visits should provide sufficient data and prove positive or negative results.

## **Surveying Equipment**

Million candle power re-chargeable torches

Petzl headlamp torches

A variety of folding aluminium ladders

10 x 43 Hawke binoculars

Bat box 'duet 'bat detector, a heterodyne type sonar receiver.

Bat Scanner, a heterodyne type instrument which actively scans ultrasound for bats.

Telescopic inspection mirrors, large and small.

Handheld Endoscope camera with LCD colour monitor

## **Limitations of the report**

The aim of the survey is to prove use by bats, but does not guarantee their absence.

Surveys undertaken when bats are hibernating will have to be re-assessed during summer months when bats are most active.

Roof voids, attics and lofts will only be inspected when safe access is possible.

Building's whose structure is unsafe in any way, will only be inspected from a safe distance with the use of a pair of binoculars.

A bat detector will be used in all cases but daytime visits may only produce limited success.

When buildings are inspected during winter months, a bat detector will have very limited results.

Buildings with no signs of bats on the date of the survey may be used by individuals or small numbers of bats, in subsequent months or years.

Small bats, like pipistrelles, may leave evidence of occupation in small inaccessible crevices which may be extremely difficult to detect if the bats are not present when the survey is being conducted.

With changing climatic conditions, surveys and reports are valid for one year only.

# **BAT SURVEY & REPORT**

## **Proposed Development**

The proposal is to develop the building

## **External Survey Results**

### **Building type**

Barn:  
Lean-to:  
Other:

YES	NO
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments:

The building is a traditional two storey barn with an apex roof with two single storey lean-tos either side of the rear main door.

### **Construction**

Stone  
Brick  
Concrete:  
Bat Access Places

<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Comments:

The building is mainly stone but brick has been used to alter doorways and has open access through doors and windows.

### **Roof**

Slate  
Tile:  
Corrugated sheeting  
Bat Access Places

<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Comments:

Corrugated sheeting has been used to cover all roof areas.

### **Bat Signs**

Bats seen  
Droppings  
Bat detector Results

<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments:

A careful visual examination was made around the outside of the property.

Access points that could be used by bats occur where there are ventilation holes in the walls.

All cavities were examined with the endoscope camera and colour screen.

### **External Conclusions:**

No evidence of bats using or having used the building could be found.

# BAT SURVEY & REPORT

## Internal Survey Results

**Building use:** The barn is in daily use.

### Construction

Stone  
Concrete block  
Other/plaster  
Bat Access Places

YES	NO
✓	✓
	✓
	✓
✓	

Comments:

### Roof space, attic or loft

Beams  
Trusses  
Lined roof  
Bat Access Places

✓	
✓	
✓	✓
✓	

Comments:

The buildings have a timber framed roof, the main building has no lining but the lean-tos have a hardboard lining.

### Bat signs

Bats seen  
Droppings  
Bat Detector Results  
Staining on beams  
Moth + insect wings present  
Suspect summer roost  
Suspect winter hibernacula

	✓
	✓
	✓
	✓
	✓
	✓
	✓

Comments:

The building had very recently housed sheep and signs of the presence of bats was impossible to detect

The endoscope camera was used to investigate all cracks and crevices that could be used by bats.

No signs or evidence of use by bats was found in the building.

### **Internal Conclusions:**

No signs of occupation or use by bats could be found.

# **BAT EMERGENCE SURVEY & REPORT**

**Date;** 24<sup>th</sup> Sept 2013

**Start Time:** 18.30 hours

**End Time:** 20.00 hours

**Sunset at Preston** 19.04 hours

## **Weather:**

The evening had a light cloud covering, no breeze and a temperature of 15.5<sup>0</sup>C.

## **Bat Suitability Evening:**

The evening was good for foraging bats, with plenty of insects and midges.

## **Survey Details:**

The survey was conducted by D. Lambert and using two 'bat detectors' set at 45 Khz. and 55 Khz to allow for different species of bat sonar.

Continuous observation of the building was achieved by positioning myself at the corner of the barn looking towards the evening sky.

## **Survey Findings:**

At 19.26 hours, a pipistrelle bat emitting sonar on 45 khz was detected and observed approaching the buildings from down the lane.

It proceeded to forage around the farm buildings for the next eight minutes.

Another pipistrelle appeared at 19.48 hours and proceeded to forage around the same area, before it too moved away.

Fine tuning of the bat detectors confirmed the species to be Common Pipistrelle, echo locating on 45 khz.

Over the next ten minutes, two bats returned to feed inside the barn before flying away down the drive.

Despite careful and continuous observation, no other bats were seen or detected emerging from the barn and the survey concluded at 20.00 hours

## **Evaluation of the Survey Results:**

There was no evidence of bats using the barn as a roost site or emerging from the barn.

The bat behaviour observed is characteristic of normally two or three individuals which forage together around buildings and trees and treat that area as their feeding patch. Other bats choose different places and spread out from the roost to all points of the compass.

They become familiar with the layout of the trees, buildings, overhead wires and obstructions and know where the best feeding areas are at the different times of year.

The bat roost site may be up to five or eight kilometres away, though frequently it is much closer, so the presence of foraging bats does not mean they live at the site



# **BAT SURVEY & REPORT**

## **SURVEY SUMMARY**

### **Proposed Development**

The proposal is to convert the barn to residential use.

### **Site Description**

The barn is at over 100 metres above sea level on a northerly facing hillside and is part of a farm buildings complex with other agricultural and residential properties nearby.

Agricultural land surrounds the buildings, with fields and boundaries having mature hardwood trees and hedges and a large softwood plantation higher up the hillside

### **Survey Results**

The survey found no evidence of bats occupying or having occupied the building as a roost site.

Bats were detected flying onto the site from elsewhere and foraging around the buildings.

### **Conclusions**

The building is considered to be suitable as bat habitat but the survey found no evidence of previous or present occupation by bats in any part of the structure

With no evidence of bats using the property for roosting, a licence from Natural England is not required to proceed with the work and no further survey work is required.

### **Mitigation and Enhancement**

With the presence of foraging bats confirmed at the site, it would be advisable to undertake all building work during summer months when bats are free flying, just in case the building is used as a hibernacula during winter months.

No other bat mitigation or bat habitat enhancement is required.

**Author: Denis Lambert**

**Signed:** *Denis Lambert*

**Dated:** 24<sup>th</sup> September 2013

## **SURVEYOR'S DETAILS**

Denis Lambert is a registered and licensed Bat Warden No. 20130275 for Natural England since 1981, and a voluntary Bat Warden for the Bat Conservation Trust.

Dedicated to conservation and environmental issues, he has been a keen bird watcher and mammal specialist all his life and was involved with the formation of the Lancashire Badger Group and acted as its chairman for ten years.

Working as a qualified arborist (tree surgeon) he has been actively involved in protecting many species of flora and fauna over the years.

# **BAT LEGISLATION AND RECOMMENDATIONS**

## **Bats and the Law**

Deliberate disturbance of bats during the breeding season, the exclusion of bats and the destruction of a bat roost is now a criminal offence under the Conservation of Habitats and Species Regulations 2010.

The onus lies on the applicant to satisfy him/her that no offence will be committed if and when the development goes ahead.

Natural England now advises, *“Operations to known breeding sites should be timed to avoid the months of June, July and August if possible, the best times for building or re-roofing operations are spring and autumn”*.

## **The Need for a Survey**

Bats are protected by European Legislation and a survey of the building due for change or development may identify the presence of bats and prevent a criminal offence occurring.

## **Survey Types**

The external and internal fabric of any building due for change or development must be examined for the presence of bats.

Evening emergence and dawn swarming surveys during summer months when bats are active may confirm the presence of bats and access points used.

Additional survey work may be necessary, especially in the evenings or early morning to determine the exact extent of use by bats.

## **.How to proceed if bats are found**

When bats are present and the works have to be done at a time when bats are resident, a Licence will be required.

If the proposed work can be timed to not affect or disturb the bats in any way, and bats are not present, then the work may possibly be done without a licence.

Each site has different requirements and Natural England, the Licensing Authority have the final say.

As a licensed bat person, I can apply on your behalf for a licence to enable the works to proceed. Natural England requires a minimum six weeks to process any licence application.

The granting of a license is not guaranteed, but when the application is a matter of health and public safety and supporting mitigation enhances the habitat for continued use by bats, a license may be approved.

Mitigation will include detailed information for the retention, enhancement and preservation of the population of European Protected Species in the locality.

## **How to proceed if bats are not present**

The report may conclude that bats are not present at the time of the survey, and work may proceed without a licence, mitigation or habitat enhancement.

## **BAT LEGISLATION AND RECOMMENDATIONS**

### **General recommendations:**

Being aware of how bats move from site to site, and the possibility that bats may occur in any building at any time of year, the following points should help developers.

Bats may use buildings at any time of the year for feeding or refuge.

Work to the roof should be undertaken when bats are free flying between April to early May and September to October.

Care must be taken when removing slates, tiles, ridge tiles, roof beams and associated stonework.

During completion of roof works, bat access points may be built into the new structure.

Pointing of walls should not be carried out from mid-November to mid-March (dependent on seasonal variations, eg, prolonged cold weather in March and April) to avoid entombing bats, which may be hibernating within.

When hibernating, bats become torpid and appear lifeless but do not assume they are dead.

During very cold weather, it may take up to two hours before a bat has "warmed up" sufficiently for it to be able to move or fly.

Handling and rescuing of bats must be done by a bat consultant, with thick leather gloves worn by the rescuer to avoid being bitten.

If any timber treatment is carried out, only chemicals safe for bats must be used.

New timbers used in new build or the renovation of older properties must be treated with preservatives using the CCA method (Copper, Chrome Arsenic), which is safe for bats.

Tool box talks can be given to operatives engaged in roof works, to make them aware of their legal obligations to European Protected Species, and their responsibilities to wildlife.

I am available to offer further advice if any of the above needs an additional explanation.

In the unlikely event that bats are found during building operations, work must cease immediately in that area and then please contact your bat consultant **Denis Lambert** on **07813 140682** for advice.

# **BARN OWL SURVEY & REPORT**

## **Survey Brief:**

To inspect buildings, assess the value of the site for barn owls, and compile a report prior to a Planning Application being submitted.

The report will identify if barn owls have ever used the buildings at any time, or not as the case may be.

Barn owls are protected under the Wildlife and Countryside Act 1981, Habitats and Species Regulations 1994 and Countryside & Rights of Way Act, 2000.

## **Objectives of the report:**

To thoroughly inspect all structures, and record findings which indicate that barn owls are present or have used them in previous years.

When evidence of use by barn owls is discovered, make appropriate recommendations to enhance and protect the species.

## **Limitations of the report:**

External walls and internal rooms are inspected from ground level only.

Roof voids, attics and lofts will only be inspected when safe access is possible.

Building's whose structure is unsafe in any way, will only be inspected from a safe distance with the use of a pair of binoculars.

## **Survey Details**

The purpose of the survey is to look for evidence that barn owls use, or have used the buildings for resting, feeding or nesting, or not, as the case may be.

Evidence of use by owls will include the following;

- White streaks down roof timbers and walls
- Barn owl pellets, new and old
- Barn owl feathers
- Signs of nest
- Access for barn owls

## **SURVEYING EQUIPMENT**

10 x 43 Hawke binoculars,

3 Cree LED headlamp and other torches..

A variety of folding aluminium ladders.

## **Survey Methods**

The buildings were inspected, looking for signs of use by barn owls, as mentioned above, using ladders for access and torch and binoculars when required

# **BARN OWL SURVEY & REPORT**

## **Site description:**

The barn is situated on a north facing hillside surrounded by agricultural land. The area creates a rich feeding habitat for owls.

Open access is available to the building.

## **Survey results**

	<b>YES</b>	<b>NO</b>
<b>External:</b>		
White streaks down roof timbers + walls	✓	
Owl pellets		✓
<b>Internal:</b>		
White streaks down walls	✓	
Owl pellets new		✓
Owl pellets old		✓
Owl feathers	✓	
Signs of nest		✓
Access for owls	✓	

## **Comments:**

Barn owl feathers and white streaks were identified inside the building, but no pellets.

## **Importance of the site**

The survey found evidence of barn owls using the building.

## **Conclusion:**

Barn owls use the building, but none were present at the time of the survey

## **Recommendations:**

The recommendations are to construct and erect two Barn Owl nest boxes (chalet style seem to work best) to the outside of the buildings or nearby mature trees.

This would enhance the population of barn owls in the area

**Author: Denis Lambert**

**Signed:** *Denis Lambert*

**Dated:** *24<sup>th</sup> September 2013*