

WILDLIFE SURVEY FOR BATS AND OWLS

**Leagram Lodge
Chipping
Preston**



Document no

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BAT SURVEY & REPORT

Commissioned By:

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Address:

Leagram Hall,
Chipping,
Lancs.

Tel No:

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Instruction Method:

Written

Bat Survey Address:

Leagram Lodge,
Chipping,
Lancs.

Visit Date/Time:

1st July 2013 @ 20.00 hours

3rd July 2013 @ 20.00 hours

Architects

Judith Douglas Bsc Hons Dip TP MRTPI
Janet Dixon Town Planners Ltd
10A Whalley Road
Clitheroe
Lancs

Tel No: 01200 425051

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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 or works being undertaken.

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, 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.

On larger buildings the survey is normally conducted by a minimum of two persons to give better coverage and scope.

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

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

Up to three evening and one dawn swarming survey may be necessary on evenings during summer months when bats are flying to confirm the presence or absence of bats.

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

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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

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

FLIR thermal imaging binoculars and camera

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

External Survey Results

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

Property type

House
Extension:
Other

Comments:

The structure is single storey and the extension forms an "L" shaped dwelling.

Construction

Stone
Brick
Timber
Bat Access Places

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

Comments:

Roof

Slate
Tile
Corrugated sheets
Bat Access Places

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

Comments:

Bat access points were identified at the end of ridge tiles where mortar was missing.

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:

An endoscope with a colour screen was used to examine all niches and cavities that had the potential to be used by bats.

No clues or evidence of bats were found to the outside of this property.

External Conclusions:

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

BAT SURVEY & REPORT

Internal Survey Results

Building use: The property is vacant at present.

Construction

Stone
Brick
Other/plaster
Bat Access Places

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

Comments:

There is no access for bats inside the living quarters of the house

Roof space, attic or loft

Beams
Cracks in beams
Lined roof: Underfelt
Bat access Places

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

Comments:

A single hatch allows access into the attic. The roof apex of the circular roof is festooned with spiders cobwebs, indicating that it is not used by bats

Bat signs

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

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

Comments:

No evidence of occupation by bats could be found inside the attic.

An evening survey at bat emergence time may provide further clues as to whether bats are occupying the building or not.

Internal Conclusions:

No signs of bat use could be found.

BAT SURVEY & REPORT

External Survey Results

Property type

Garage:
Outbuilding:
Store:

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

Comments:

These structures are all single storey.

Construction

Stone
Brick
Timber
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:

All the buildings have a timber frame with boards and corrugated sheeting used as cladding.

Roof

Slate
Tile
Corrugated sheets
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:

With open access to all buildings bat access points could be anywhere inside the structures.

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:

An endoscope with a colour screen was used to examine all niches and cavities that had the potential to be used by bats to the outside of the buildings

The thermal imaging camera was used to examine these structures after sunset.

No clues or evidence of bats were found to the outside of this property.

External Conclusions:

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

BAT SURVEY & REPORT

Internal Survey Results

Building use: The buildings are used for storage.
Construction

Stone
Brick
Other/plaster
Bat access Places

YES	NO
	✓
	✓
	✓
✓	

Comments:

There is open access for bats into all the buildings, through windows, doors and where cladding is missing.

Roof space, attic or loft

Beams
Cracks in beams
Lined roof: Underfelt
Bat access Places

	✓
	✓
	✓
	✓

Comments:

None of the buildings are lined, making for a good careful examination.

Bat signs

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

	✓
	✓
	✓
	✓
	✓
	✓
	✓

Comments:

No evidence of occupation by bats could be found inside any of the buildings.

An evening survey at bat emergence time may provide further clues as to whether bats are occupying the building or not.

Internal Conclusions:

No signs of bat use could be found.

BAT EMERGENCE SURVEY & REPORT

Date: 1st July 2013

Start Time: 21.00 hours

End Time: 22.45 hours

Sunset at Preston 21.44 hours

Weather:

The evening was bright with high cloud and a light easterly breeze and a temperature of 9.5°C.

Bat Suitability Evening:

The evening was excellent for foraging bats, with flying insects and midges annoying the surveyor.

Survey Details:

The survey was conducted by myself Denis Lambert using two 'bat detectors' set at 45 Khz.

The bat detectors were occasionally tuned to 55 Khz to allow for different species of bat sonar.

Continuous observation of the buildings was achieved by looking towards the evening sky and moving around either side of the property.

Survey Findings:

At 21.48 hours, a pipistrelle bat emitting sonar on 45 khz flew over the site from the village and proceeded to fly and forage around the trees for 30 seconds before moving away to the east.

A second pipistrelle appeared at 21.52 hours following the same flight path and proceeded to forage around the trees, before it too moved away.

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

As the evening progressed, a steady stream of pipistrelle bats flew high over the buildings, all moving in an easterly direction.

A total of 25 bats were recorded during the evening and the survey concluded at 22.45 hours

No bats were seen or detected emerging from any of the buildings under surveillance.

Evaluation of the Survey Results:

There was no evidence of bats emerging from any of the buildings.

BAT EMERGENCY SURVEY & REPORT

Date: 3rd July 2013

Start Time: 21.00 hours

End Time: 22.45 hours

Sunset at Preston 21.42 hours

Weather:

The evening was cloudless with a light westerly breeze and a temperature of 14⁰C.

Bat Suitability Evening:

The evening was excellent for foraging bats, with flying insects and midges annoying the surveyor.

Survey Details:

The survey was conducted by myself Denis Lambert using two 'bat detectors' set at 45 Khz.

The bat detectors were occasionally tuned to 55 Khz to allow for different species of bat sonar.

Continuous observation of the buildings was achieved by looking towards the evening sky and moving around either side of the property.

Survey Findings:

At 21.56 hours, a pipistrelle bat emitting sonar on 45 khz flew over the site from the village and proceeded to fly and forage around the trees for 30 seconds before moving away to the east.

A second and third pipistrelle appeared at 22.02 hours following the same flight path and proceeded to forage around the trees, before moving away.

At 22.08 hours following the same flight path, two more pipistrelle bats appeared and moved away to the east away.

No other bats were recorded during the evening and the survey concluded at 22.45 hours

No bats were seen or detected emerging from any of the buildings under surveillance.

Evaluation of the Survey Results:

There was no evidence of bats emerging from any of the buildings.

BAT SURVEY & REPORT

SURVEY SUMMARY

Proposed Development

The proposal is to extend the house and tidy up the wooden buildings.

Site Description

The property is sited in the middle of agricultural land and is surrounded by mature woodland and parkland.

Many residential properties occur in the nearby village

Survey Results

The endoscope survey found no evidence of bats using cracks or cavities accessible from the outside of the building.

The thermal imaging camera found no evidence of bats outside or inside any of the buildings.

The two bat emergence surveys concluded with no bats emerging from any of the buildings under surveillance.

Wildlife Importance of the Site

No evidence of European Protected Species could be found at the site.

Conclusions

The survey could find no evidence of previous or present occupation by bats.

The overall conclusion confirms that bats are not using any the buildings.

Mitigation and Enhancement

No mitigation or habitat enhancement will be necessary.

Author: Denis Lambert

Signed: *Denis Lambert*

Dated: *15th July 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 (Natural Habitats &c.) (Amendment) Regulations 2007.

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 between mid November to early March 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 or have been using them.

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,

Petzl headlamp 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 buildings are sited on a south facing hillside and are surrounded by agricultural land. Mature woodland and parkland create a rich feeding habitat for owls.

Open access is available to all the outbuildings.

Survey results

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

	✓
	✓
	✓
	✓
	✓
	✓
	✓
	✓

Comments:

No evidence of barn owls using the building could be found.

Importance of the site

The survey could find no evidence of barn owls using the building.

Conclusion:

Barn owls do not use the building

Recommendations:

There are no recommendations necessary.

Author: Denis Lambert

Signed: *Denis Lambert*

Dated: *15th July 2013*