

**Report
of
Preliminary Ecological Bat Survey**

**Sack Lane Barn
Lidsey**

18th June 2013



Survey undertaken by:-

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Natural England Bat Licence Number 20122242

1 Contents

1	Contents	2
2	Executive Summary	3
3	Background	4
4	Experience of Ecologist	4
5	Location	4
6	General description of building	4
7	Surrounding Habitat	4
8	Legislation related to bats	5
9	Objectives of the survey	6
10	Methodology of survey	6
11	Weather during daytime survey	6
12	Outcome of Preliminary survey	7
12.1	Internally	7
12.2	Eaves	7
12.3	Roofing	8
12.4	External Walls	8
12.5	Timber cladding	8
13	Summary of survey	9
14	Conclusions and recommendations	9
15	Bibliography	10

2 Executive Summary

- Planning permission is sought to convert a barn, now disused, to a dwelling house. The barn had been actively used for the management of a cows for many years but the farm is reducing the herd and will not be keeping cows in the future. The barn is unsuitable for modern farming
- A preliminary ecological bat survey was undertaken in the daytime by Sue Harris, ecologist on 18th June 2013 to support a planning application
- The rectangular, flint and brick, gable ended barn with a pitched roof lay beside farm buildings in a rural location but foraging was limited in the area
- There was potential for bats to roost under the lined slate tiled roof but the roof is not planned to be replaced. If at any time it is decided to replace the roof further investigations in the form of dusk emergence and or pre-dawn re-entry surveys will be required to consider if it is used for roosting
- There was no evidence of bats roosting under lifting timber cladding or in a small number of crevices in the walls. It is advised that the crevices in the walls are checked for single bats before they are filled and if any evidence of bats roosting is found further advice should be sought
- A large area covered with corrugated metal sheeting butted up to the northern side of the building. There was no potential for bats to roost in this simple structure
- There were no indications to suggest that any further investigative work would be required unless the roof is to be replaced. If it is decided to replace the roof it is essential that dusk emergence and or pre-dawn re-entry surveys are undertaken to consider if the roof is used as a bat roost before work commences.
- There was no evidence to suggest that the proposed conversion would destroy or disturb a bat roost or affect the local ecological functionality related to bats as long as the care detailed regarding cracks in the walls and roofing is adhered to

Bats are a mobile species and if work is not commenced within the following two years the building should be checked again for bat activity before work commences

This report has been completed for the building as it was seen during the survey and discussed in this report. The survey is only valid for the building as seen at during this survey

3 Background

Planning permission is sought to convert a barn, now disused, to a dwelling house. The barn had been actively used for the management of a cows for many years but the farm is reducing the herd and will not be keeping cows in the future. The barn is unsuitable for modern farming.

A preliminary ecological bat survey was undertaken in the daytime by Sue Harris, ecologist on 18th June 2013 to support a planning application.

The Bat Conservation 'Bat Surveys – Good Practice Guidelines 2nd edition' have been taken into account to determine the extent of the investigative work required on this site.

4 Experience of Ecologist

Sue Harris holds a Natural England science, education and conservation bat licence (licence number 20122242) and has considerable experience surveying buildings and land for bats and monitoring bat activity on a consultancy basis. She also has considerable experience planning mitigation and has been the named ecologist in many Natural England European Protected Species Licences.

Sue also is a Natural England roost visitor, rescues and rehabilitates bats in West Sussex and takes part in the Bat Conservation Trusts National Bat Monitoring Program during the summer and the winter hibernation counts.

5 Location

Map reference

SU 945 023

Address

Barn in Sack Lane

Lidsey

West Sussex

6 General description of building

The rectangular, gable ended barn with a pitched roof lay beside farm buildings in a rural location. The long sides of the building faced north west /south east. The building was of a two storey height.

The walls were of flint and brick with some blocks. The pitched roof was made up of lined slates.

The building was divided into one large area and a smaller area on the western end and was open to the roof internally.

Timber cladding was featured on the gable ends and two small areas on the western end.

A large area covered with corrugated metal sheeting butted up to the northern side of the building. There was no potential for bats to roost in this simple structure.

7 Surrounding Habitat

The building lay amongst more modern farm buildings which were surrounded by fields. A railway line lay approximately 500m to the east with a small river beyond the railway.

Hedging lined the lane leading to the barn and connected to hedging around fields which were very flat and open. There is no woodland in the vicinity.

There are no Sites of Special Scientific Interest (SSSI) in the vicinity.

8 Legislation related to bats

All species of bats and their roosts are legally protected in England. All bats in England are listed as a European Protected Species. The following provides a guide to the legislation.

The Conservation of Habitats and Species Regulations 2010 (the "Habitats Regulations") consolidate and update the Conservation (Natural Habitats, &c.) Regulations 1994 ("the 1994 Regulations").

The Conservation of Habitats and Species Regulations 2010 fully protect bats and their roosts, making it an offence to:-

- Deliberately kill, injure or capture a bat
- Deliberately disturb bats
- Damage or destroy a breeding or resting place of bats (even if bats are not occupying the roost at the time)
- Possess or advertise/sell/ exchange a bat (dead or alive) or any parts of bats or transport a bat or any part of a bat
- Intentionally or recklessly obstruct access to a bat roost

Disturbance of animals includes in particular any disturbance which is likely:-

- (a) to impair their ability—
 - (i) to survive, to breed or reproduce, or to rear or nurture their young, or
 - (ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate; or
- (b) to affect significantly the local distribution or abundance of the species to which they belong

In addition, the Wildlife & Countryside Act 1981 (as amended) makes it an offence to: Intentionally or recklessly

- disturb any bat whilst it is occupying a structure or place which it uses for shelter or protection;
- obstruct access to any structure or place which any bat uses for shelter or protection.

Natural England, European Protected Species Licence would be required if an individual wishes to undertake works/activities that would affect bats and would involve one or more of the following: capture, kill, disturbance, transport and/or damage/destroy the roosts or resting places of bats.

Under Regulation 53(2)(e-g) & 53(9)(a-b) of The Conservation of Habitats and Species Regulations 2010 Natural England, under powers conferred by the Secretary of State, has authority to issue licences. In determining whether or not to grant a licence Natural England must apply the requirements of Regulation 53 of the Regulations and, in particular, the three tests set out in sub-paragraphs (2)(e), (9)(a) and (9)(b).

(1) Regulation 53(2)(e) states: a licence can be granted for the purposes of "preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment".

(2) Regulation 53(9)(a) states: the appropriate authority shall not grant a licence unless they are satisfied "that there is no satisfactory alternative".

(3) Regulation 53(9)(b) states: the appropriate authority shall not grant a licence unless they are satisfied "that the action authorised will not be detrimental to the maintenance of the

population of the species concerned at a favourable conservation status in their natural range."

Evidence of the proposed provisions to accommodate the bats in the future would be required for a licence to be granted where needed—for example, an alternative roost may need to be provided. Details of the conduct of the proposed activities would be required in detail.

9 Objectives of the survey

- To establish if there is any evidence of bats roosting in the building
- To establish if there are potential opportunities for bats to roost within the building
- To investigate the species of bat using the building for roosting if relevant
- To consider the type of bat roost if relevant
- To consider access points used by bats if relevant
- To consider the implications of the proposed building work to any bat roosts identified or to potential roosting opportunities
- To provide recommendations, information and mitigation if evidence of bats roosting or evidence of potential bat roosting is identified in the building

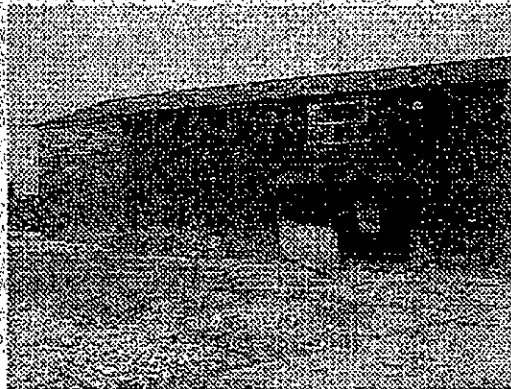
10 Methodology of survey

- A detailed inspection of the building was undertaken for evidence of bat activity and for bats
- The building was surveyed carefully and thoroughly from the ground and from a ladder by eye with torches and where appropriate with binoculars
- Consideration was given to any possible access points open to bats
- The surveyor checked for any evidence of bats including oil stains formed during entry and exit of possible roost sites, urine stains, droppings and for bats
- Equipment used included torches (Exposure single joystick, Petzl duo 14 head light, spot light), Canon G11 digital camera, Opticon Oregon LE WP binoculars and five piece ladder. Equipment available for use included an Aardvark wireless inspection camera with recordable monitor and mirrors
- The surrounding habitat was considered during the survey to consider its suitability for bats to forage and commute to foraging
- A desk top study of the surrounding habitat was undertaken accessing appropriate websites, maps etc. for suitable habitat for bats in the area

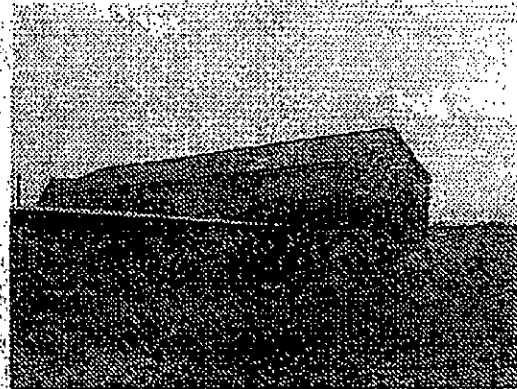
11 Weather during daytime survey

20C, calm, dry, overcast.

12 Outcome of Preliminary survey



South eastern elevation

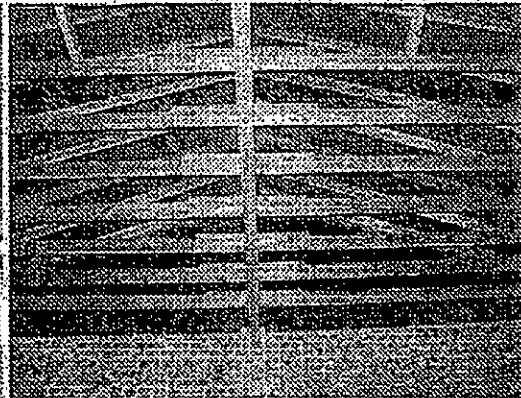


Northern western side and south western end

12.1 Internally



Barn internally



Trussed roof

The barn had originally had a mono-pitched roof and at some time the walls had been raised on one side and a pitched roof fitted. The timbers supporting the roof were, unusually for a barn, of a trussed construction impairing flight to bats in the roof.

The barn was divided into two areas, the western end was a much smaller area. There were three large open doorways allowing access to animals.

The walls were largely absent of any roosting opportunities but there were a small number of crevices in the end walls of the larger area. These were around old timbers in the wall and in cracks in the flint. There was no evidence to suggest that bats were roosting in these crevices and most were cobwebbed suggesting animals were not accessing them.

There were no mortice and tenon joints in the barn.

12.2 Eaves

There was good access to bats into the building at the eaves.

12.3 Roofing

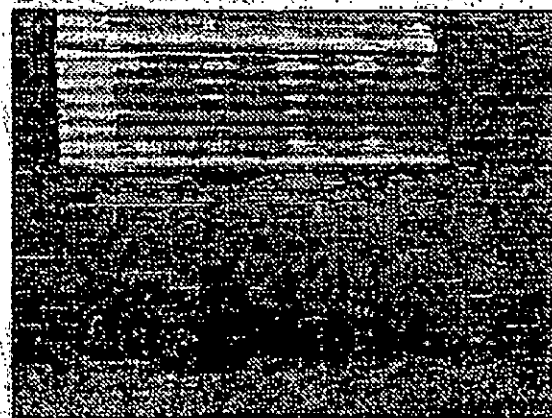
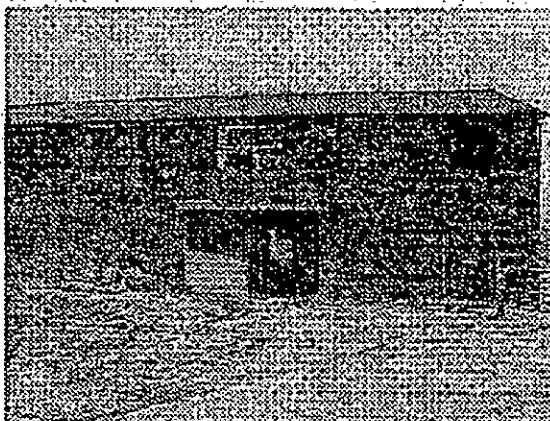
The roof was covered with slates lined with traditional bitumen roofing felt. There was good access to bat under many of the tiles which were lifting although some had a good coating of undisturbed lichen over them. There were also some missing slates.



Access under slate roof

12.4 External Walls

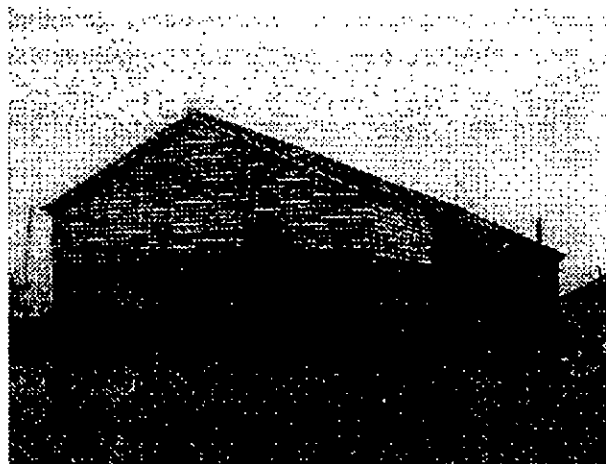
The walls were a mixture of brick and flint. There were some crevices in the brick south eastern wall. There were no bats or bat droppings seen in these opportunities.



Crevices in external wall

12.5 Timber cladding

The western end was clad in lapped, light weight timber planks over the higher levels. The timber planking was fixed directly onto timber board with a roofing felt lying over it. The timber was lifting in many places and it was possible to see under large areas of the timber. There did not appear to be roosting opportunities available to bats as the planks were fixed directly onto board. There were no bat droppings, bats seen or marking suggesting that bats were accessing the timber.



Timber over western end

The eastern gable end was also clad in timber. The timber was thicker and appeared well sealed.

13 Summary of survey

- The rectangular barn had a pitched roof covered with slate tiles which were lined with traditional roof lining. There was access available to bats under lifting slates.
- The barn was divided into a large and a smaller area internally and was open to the roof. Timber roof trusses restricted the availability of a flying area in the roof. The building had been actively used until relatively recently for managing a herd of cows and there was lighting internally.
- There were a small number of crevices in the walls both internally and externally but there was no specific evidence that bats were accessing these crevices.
- There was no evidence to suggest that bats were roosting under lifting timber cladding.
- A large area covered with corrugated metal sheeting butted up to the northern side of the building. There was no potential for bats to roost in this simple structure.

14 Conclusions and recommendations

The barn lies in a flat open rural location with limited foraging to bats in the area.

There were a small number of crevices in the end walls internally and in the external south east facing wall. There was no evidence to suggest that bats were roosting in these crevices and in view of the high level of activity including lighting to manage cows they are likely to have been unsuitable for use by bats but now the building is not used single bats could roost in these from time to time. It would be advisable to check any crevices in the walls for bats before filling or covering and if a bat is seen to seek further advice.

There were a number of slates lifting on the roof. This was lined with a traditional roofing felt. It is understood that the roofing will not be replaced during the proposed conversion and therefore potential roosting would remain available to bats. If it is decided to replace the roof it is essential that dusk emergence and or pre-dawn re-entry surveys are undertaken to consider if the roof is used as a bat roost before work commences. If the roof is identified as a roost the roof could be replaced but at a suitable time of year which would usually be in March/April or September/October and roosting would need to be retained between slates and roof membrane with appropriate access to bats.

There was no evidence to suggest that the roofing was used by bats for roosting internally. The active use of the barn and lighting together with a trussed roof would have deterred use.

There was low to no potential for the timber cladding on the eastern end to be used for roosting by bats due to the construction. There was no evidence under lifting planks which could be seen well to suggest that roosting was available.

There were no indications to suggest that any further investigative work would be required unless the roof is to be replaced.

There was no evidence to suggest that the proposed conversion would destroy or disturb a bat roost or affect the local ecological functionality related to bats.

15 Bibliography

- *Bat Surveys – Good Practice Guidelines – Bat Conservation Trust*
- *Bat Workers Manual – Joint Nature Conservation Committee*
- *Bat Mitigation Guidelines – English Nature (now Natural England)*
- *A Field Guide to British Bats – Frank Greenaway & A. M. Hutson*
- *British Bats – John Altringham*
- *Long-Eared Bats – Susan M Swift*
- *Bats of Britain, Europe and Northwest Africa – Christian Dietz, Otto von Helverson, Dietmar Nill.*