SW/092827/F

HEREFORDSHIRE FWAG
Home Farm, Madresfield,
Malvern, Worcs.
WR13 5AJ
Tel: 01684 578857

BAT SURVEY, JUNE 2009

Aim: To survey, and assess the importance of a barn for bats at Lower Llanon Farm, Urishay, near Peterchurch, where development is proposed.

Prepared by: Janet Lomas, CEnv MIAgrE
Herefordshire FWAG
Telephone: 01684 578857 **Fax:** 01684 578857
E-Mail: janet.lomas@fwag.org.uk

Mr J. Byard
Lower Llanon Farm
Urishay
Peterchurch
HR2 0SY

23 October 2009

Contents

1 Conclusions

The barn at Lower Llanon Farm has features which are well suited to bats. The building lies surrounded by semi-natural habitat and unimproved farmland. The thick stone walls of the barn have many holes, and the stone slate roof is uneven, and provides many small crevices.

The area is known to have good foraging habitat for bats, and Pipistrelle bats were foraging around the barn on the survey evenings. There is a Lesser Horseshoe bat roost at nearby Urishay Castle.

One or two Pipistrelle bats were seen leaving the building, apparently roosting between roof slates on the south-east half of the barn's roost. No more than one bat appeared from any one point on the roof. There was no evidence of presence of a maternity roost, and as the survey took place at the optimum time for activity for breeding bats, the existence of a maternity roost at least in 2009 is therefore very unlikely.

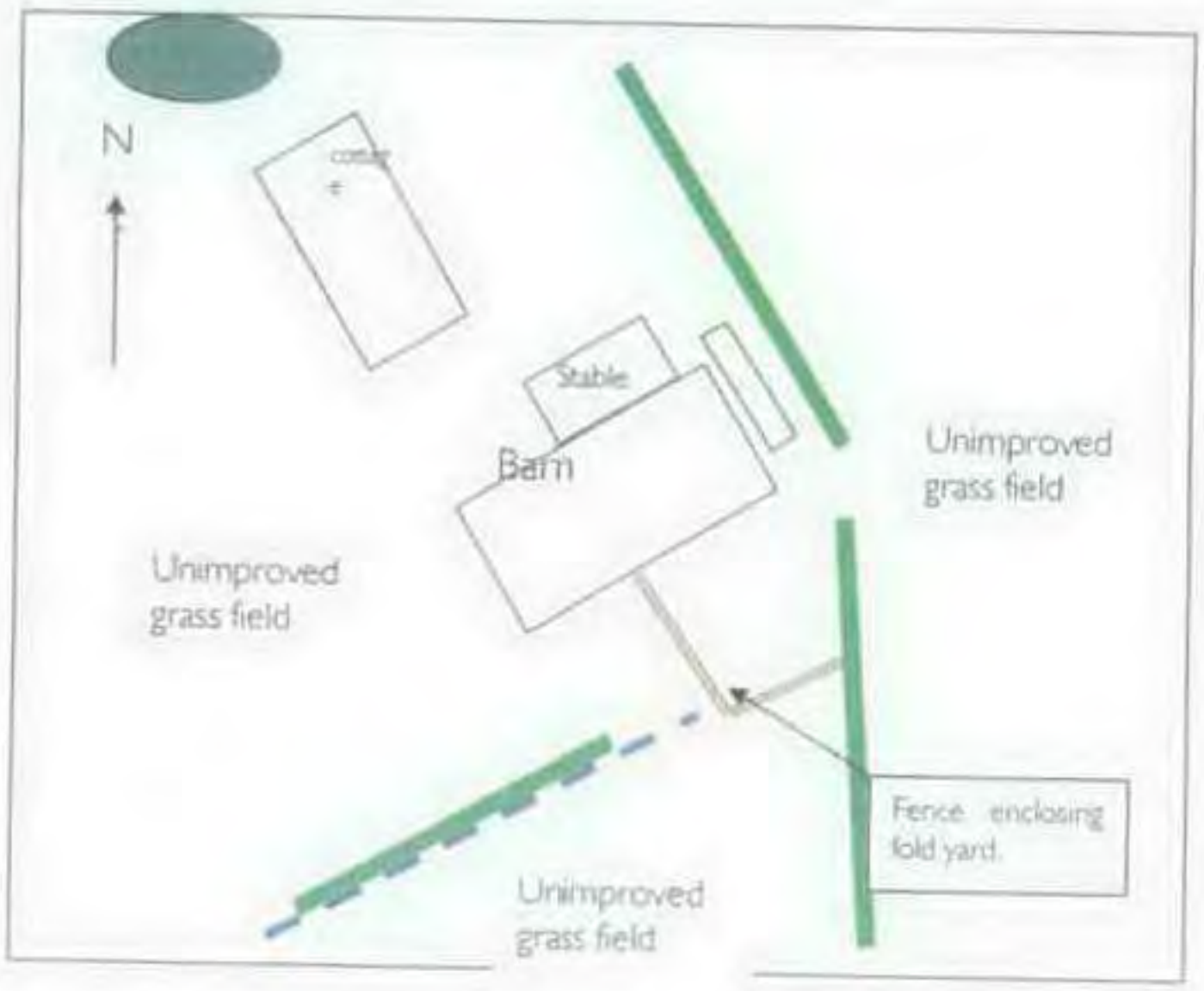
Bat droppings belonging to Lesser Horseshoe bats were found in the barn a month before the survey. No bats of this species were seen or heard on the survey, and it can be assumed that this species makes use of the barn occasionally, especially as they are known to live close by. It is an unlikely maternity roost for this species, and the barn may sometimes be used by them to forage and hang up to feed.

The stable attached to the barn was also surveyed but there was no evidence that bats use that part of the building.

If any work to the roof takes place, it should take place in winter, to avoid any chance of disturbance to the bats which undoubtedly use the building in summer. The walls of the barn could be providing winter hibernating conditions and this should be taken into consideration if any work to the walls takes place.

2 Location and description of barn

The large threshing/hay barn at Lower Llanon Farm lies close to the original farm cottage. Attached to the barn is a small stable which was included in the survey. There was also a modern breeze block building with sealed roof of modern materials, a few feet north-east of the barn, and parallel with the barn, which was not worthy of survey. See diagram below.



KEY

- Hedge with trees
- Other trees/fruit trees
- Wet ditch

The barn was surrounded by unimproved grassland, in an area where farming is largely sheep farming. Tall thick hedges and a ditch are found within 10 metres of the barn. Some mature trees including fruit trees lie north of the cottage and in the hedgerows.

The barn and the stable were constructed by local sandstone. The internal walls were rendered, and this covering had only been removed in 2009, so the holes between stones in the inside of the barn have only recently been exposed. The open area within the barn was likely to have been for storage of hay, as the barn has slit windows (west and east elevations), built in barns to provide ventilation for stored hay/straw. It is currently used for general storage.

Probably in order to accommodate sheep, a wall was built within the barn, and a corrugated tin ceiling (probably at one time wooden) lay on the timbers. This "inner room" is shown in photograph 1 which was taken within the building. The light rendering on walls remains to some degree, inside the inner room. This part of the building had a regular type of door (open) on the east elevation.

The barn had big double doors, in the centre of the south-east and north-west elevations. Wooden boards, with visible gaps formed the wall above the latter. See Photo 2. The doors were kept closed, and the inside of the barn was fairly dark.

The external walls of the barn had many holes, shown in photographs of the barn. The stone slate roof had been repaired using original materials and was in good condition, and roofing felt had been added. A tin plate over the roof's ridge was replacing original ridge tiles.

The stable (joined to the north-west elevation of the barn) had a tin roof, and was single storey, currently used for storage. See photo

3 Survey methodology and results

3.1 Methodology

In daylight, on 9th June, 2009, an inspection of the buildings and structural features was made and the buildings' surrounding habitat was noted. The internal and external structure of the buildings were explored in daylight, and a search for bat droppings was made. Note was made of the parts of

the building most likely to provide conditions to attract bats. These areas were then closely monitored during dusk.

As darkness approached, closer observation of the most suitable areas of the buildings was made, to see whether bats emerged from roosts.

On 9th June, from 9.30 pm, the buildings were closely observed; (sunset was 9.14 pm). A Bat Box III detector was used by Janet Lomas to pick up bat sounds on each survey occasion, and the building was observed to establish the direction from which early-emerging bats came. Janet Lomas stood at vantage points around the building, assisted by FWAG colleague, Caroline Hanks with Magenta Mk11b detector, and one volunteer. The buildings were observed until it was too dark to trace bats visually, at 10.30pm.

On 11th June, from 9.30 pm, the buildings were observed from 9.30 pm, and particular attention was given to the south-east elevation. Janet Lomas was assisted by two volunteers, and continued until 10.30 pm.

On 18th June, a dawn survey took place in order to use a different perspective, carried out by Janet Lomas. She was in place, concentrating on the south-east elevation, at 3.45 am (sunrise at 4.45 am), until 4.45 am.

3.2 Results

Date and conditions	Location	Bats	Droppings	Notes
BARN				
9/06/09 daytime Fine.	In barn		A few old pipistrelle droppings	
9/06/09 dusk Cloudy, light breeze. 15 degrees C.	Exiting from under roof tiles, south-east elevation.	1 bat at 9.45 pm		Hornets seen leaving south elevation apex. Two common pipistrelle bats seen at one time circling around barn, foraging for insects. They reappeared and disappeared up hedgerow, south of barn, many times.
	Door on east elevation.	1 bat at 9.55 pm		Bat entered, and then immediately exited from door, believed to be pipistrelle bat.
11/06/09 dusk Still, no cloud. 12 degrees C.	Exited from under roof tiles, south-east elevation.	1 bat at 9.45 pm		
	Exited from under roof tiles, south-east elevation.	1 bat at 9.50 pm		Two pipistrelles seen leaving roof, from under tiles at different points on the roof. Bat foraging in fold yard, south-east of barn, coming and going through whole period of survey.
18/06/09 dawn Few clouds, and still. 10 degrees C	Entered roof, south-east elevation.	1 bat at 4.20 am		Common pipistrelle seen re-entering roost under tile at high point on roof. No other bats seen or heard.

Date and conditions	Location	Bats	Droppings	Notes
STABLE				
9/06/09 daytime				No signs, and building not very well suited to bats.
9/06/09 dusk				No bats.
11/06/09 dusk				No bats.
18/06/09 dawn				No bats.

Bridget Symons had found a small scattering of bat droppings, believed to be those of a lesser horseshoe bat, on the floor of the barn, under the ridge, left of the centre of the barn, on her visit before this survey. No droppings were found by Janet Lomas, but there had been movement of stored articles and generally use of the barn, and these are likely to have been crushed.

There is a Lesser Horseshoe bat roost at Urishay Castle, one km north of Lower Llanon Farm.

4 Impact of work on bats and recommendations

The single-storey stable had a low tin roof and walls with 2 metre high eaves, and provided little opportunity for bat roosting, and no signs of bats were seen.

The barn had features which may well suit bats. The very thick walls, and large number of holes in stonework on the walls provides potential hibernation habitat. It is difficult to determine whether bats use the holes for hibernation. The holes may also be used in summer by single bats, either occasionally or regularly.

The stone slate roof had recently been repaired using original materials and was in good condition, and roofing felt had been added. A tin plate over the roof's ridge was replacing original ridge tiles. This half of the roof which faces south-east was providing roosting habitat for single bats, either in spaces between tiles on the roof, or between tile and roofing felt.

If the roof will be removed during development of the barn, bats could be protected from disturbance, as the law requires, if the work is carried out at a time of year when bats are not present. The roof provides conditions which are warm in summer, but also very likely to fluctuate in winter. It is therefore very unlikely to be providing roosting habitat in winter, so any work to the roof should take place at that time of year. Otherwise, an European Protected Species Licence would be required.

Since the location is ideal for bats, and there is an opportunity to improve habitat for bats when buildings are developed, it is recommended that additional roosting habitat is incorporated in any design of the development.

Generally

- Ensure that timbers are only treated with approved remedial timber treatments.

- Roof voids with access by bats should have roof felt of the traditional bitumastic with Hessian type, rather than the modern plastic smooth surfaced roof felt.

- Do not fill and seal all crevices. Create crevices when roofing, under ridge tiles by lifting some to create a gap underneath, and wherever it is possible to create a weatherproof crevice such as into a restricted area of a cavity wall.

- Bat boxes in roof spaces with access bats can provide a crevice roost within a void.

- Try to locate access points to any newly created roosts, close to access points used by bats before development of the building.

5 Photography

Photo 1: inner room.

Photo 2 boards above door on north west elevation. Note the original rendered walls (rendering now removed).

Photo 3: west elevation

Photo 4: Second storey created by added floor.

Photo 5: internal roof.

Photo 6: south-east elevation

Photo 7: Stable, attached to barn.