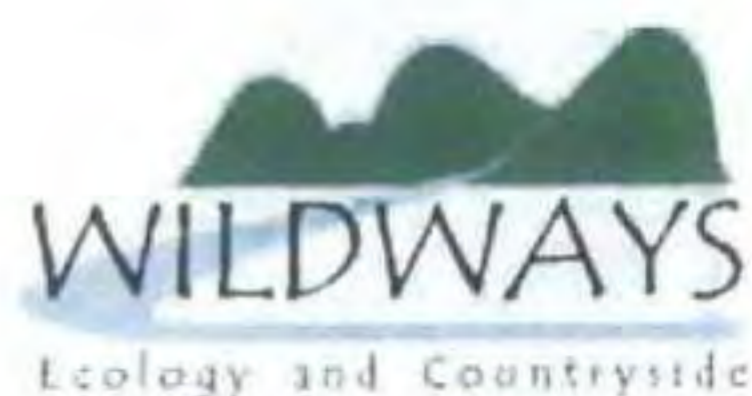


UPDATED BAT SURVEY REPORT FOR THE NURSERY BUILDING, LANE HEAD FARM
MARCH 2011



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**UPDATED BAT SURVEY REPORT FOR THE NURSERY
BUILDING, LANE HEAD FARM, EATON BISHOP,
HEREFORDSHIRE**

30TH MARCH 2011



FOR: CHERRY ORCHARD DEVELOPMENTS LTD,

ARCHITECT: TIM FORD, AXYS DESIGN, 30 GROVE RD,
HEREFORD

UPDATED BAT SURVEY REPORT FOR THE NURSERY BUILDING, LANE HEAD FARM, EATON BISHOP

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REVIEW OF THE CURRENT SITUATION WITH REGARD TO THE DEVELOPMENT OF THE NURSERY BUILDING

- Wildways was instructed to carry out a bat survey and assessment of the Nursery Building in 2007, based on an initial development proposal which would involve minimal changes to the external structure of the building.
- Planning Permission granted April 2010, expiring April 2011.
- The building was bought by Cherry Orchard Developments Ltd, in 2010 and Wildways was instructed by them in August 2010 to ensure compliance with Condition 11 of the planning permission. There appeared to be little change in the status of bats use of the building.
- An application to Building control was submitted in October 2010 and a trial hole excavated against the south elevation to check on existing foundations. This was backfilled and no other work done. In February 2011 a planning application to deal with the planning conditions was submitted – determination is due shortly. Condition 11 is an over-arching ecology condition, not requiring information to be submitted to Planning, but requiring on-going management by a Licensed Ecologist.
- To comply with the condition for timing of work it was essential to remove the roof before any bats and birds would be present and be disturbed. Wildways were requested to supervise this operation on 17th March 2011.
- In order to be able to change roof covering of the extensions to slate, changes in roof pitches are necessary, and it is proposed that a free standing garage is erected on the site. These and other minor changes require a new planning application, and this updated ecology report has been prepared to accompany this application.

1 INTRODUCTION

Wildways carried out an ecological survey of the Nursery Building in 2007, to accompany the application for planning permission. Limited bat activity was found, and recommendations given for mitigation measures and habitat enhancement.

Planning permission was granted for the conversion of the Nursery Building into a residential dwelling. The building has been sold to Cherry Orchard Developments, and work was originally programmed to begin in October 2010. An updated assessment of the site was carried out in September 2010 with a working method statement prepared to guide the development. Work was started to remove the roof under ecological supervision in March 2011, and the results of this survey are included in this report, with revised recommendations.

Changes in design of the development require a new planning application, and this report has been prepared to accompany this application.

2 SURVEY AND SITE ASSESSMENT

The 2010 survey was designed to identify if there has been a change in bat and bird use of the building. Additional information was gathered during the roof removal in 2011.

Bat survey: Daylight search of the building for evidence of use by bats including droppings, feeding remains, carcasses and potential roost sites. This was done by close searching of the ground, walls, and roofs of the building with the aid of binoculars and torch. Bat activity surveys were carried out at dusk.

Bird survey: A daylight search of the building was made noting nests, potential crevices used by birds and the presence of droppings, owl pellets or feathers which would indicate use by owls.

Timing of the surveys

All bat activity surveys were for at least one and a half hours after sunset.

Date	Time	Weather conditions
29/1/2007	Daylight survey of buildings and habitat	
9/5/2007	Dusk survey	13C, cloud, wind
21/5/2007	Dusk survey	10C, clear, still
Wed. 1 st Sept 2010	Building inspection 19.00 – 19.30	
	Dusk Survey 19.55 – 21.25	Dry, still, clear 13°C – 11°C

March 17th: Destructive survey during roof removal.

Personnel

Hilary Smith (Licensed bat worker No.20110438), and Martin Hales of Wildways and a volunteer.
Bat detectors: Petterson D240x Batbox Duet

3 RESULTS

♦ HABITAT DESCRIPTION

The surrounding habitat and building have not changed since the initial surveys in 2007. There is still dried manure in the stable.

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♦ **PROTECTED SPECIES**

SEARCH FOR EVIDENCE OF BATS:

2007: No bats were seen in the building. The plastic sheeting which was lining the roof in the main building was removed in May and the contents examined and only one old bat dropping was found. There were some butterfly wings on the floor.

2010: One old bat dropping was found on the northern wall of the main room of the building. In the stable on the north side there were individual small bat droppings scattered around and stuck to the walls, but not under any particular crevice or roost site. There were also 3 old droppings on the western stable wall. None could be seen on the lean-to walls.

BAT ACTIVITY SURVEYS

2007

First Survey: Sunset 20.38

Time	Species	khz	Activity
21.05	Common pipistrelle	45	Emerged from N lean-to, flew E
21.26	Common pipistrelle	45	As above
21.19	?	50	Not seen, on S side
21.22	Common pipistrelle	45	Flying to N
21.44	Common pipistrelle	45	Foraging round trees to N

The only obvious crevice from where the bats seemed to emerged contained a roosting bird, on top of the wall of the lean-to. No bats were seen inside the building after dark.

Second Survey: Sunset 21.08

Time	Species	khz	Activity
21.35	Pipistrelle	50	Appeared from area of stable, and not seen to S, therefore assume it emerged from the stable.
21.37	Common pipistrelle	45	Flew from N into lean-to and out towards farm
21.38	2 common pipistrelle	48	From N towards farm and oak tree, and around E of building.
21.48	? Myotis/BLE	45	From N, under lean-to and towards farm
21.51-22.07	?Myotis x 2	43 – 69 Pk.53	From W, foraging around back of building, lean-to and stable.
22.15	Common pipistrelle	45	Flying past

SUMMARY OF BAT SURVEYS

It appeared that **two common pipistrelle bats** (*Pipistrellus pipistrellus*) emerged from a roost on the north side of the building in the first survey, and one from the stable on the second survey. Two bats appeared to fly into the area, probably **Myotis** species, from the north. There is a group of trees here, one of which is dead and may contain a bat roost.

2010

TIME	KHZ	SPECIES	ACTIVITY
20.17	50	Pipistrelle	Emerged from lean-to and flew east
20.32	46	Common pipistrelle	Flew E-W past back of building
20.34	45	Common pipistrelle	Emerged from W stable door
20.39	55	Soprano pipistrelle	Heard, not seen
20.40	38-60	?Long-eared bat	Flew around west side of building going N
To end	45	Common pipistrelle	Flying around north side of building

One **common pipistrelle** emerged from the lean-to, and it is possible that another emerged from the stable, although there is a possibility that the same one flew in unobserved, as the emergence

noted was 17 minutes after the first one. Soprano pipistrelle and long-eared/Myotis sp bat were seen in the area.

The droppings in the stables indicate that pipistrelle bats fly into these areas to forage and may occasionally roost here. The likely roost sites are at the north-west corner of the lean-to where there is some rotten wood, and droppings may fall into interior of breeze block wall, or between east wall of lean-to and main building where there is a crevice.

2011 Search during roof removal

Bat droppings of two sizes were found in the cavities of the block work on both sides of the stable extension, in greater numbers than originally expected indicating the possibility of a larger roost site. They also were located in the middle of the walls, rather than at the outside edges, with droppings falling into the cavities. There was little evidence of where the access points into these roost sites were.

Roost sites in east wall of stable



Yellow marks show location of blocks with droppings



Location of bat droppings in west wall of stable

The builders then covered the block work with sterling board to retain roost sites undisturbed.

No other evidence of bats was found in the remainder of the building.

BIRDS

2007: There are house sparrow nests between wall and roof on the south side and in the lean-to area, and a swallow nest in the stable at the northern end of the building. There was some white staining on a beam which might indicate use by an owl but no owl pellets were visible in this area, and there was no obvious access for owls currently

2010: Active swallow nests were present in the lean-to, the west stable and west end of main building. Sparrows were nesting in western gable apex and the top of the chimney.

2011: There were a number of sparrow nest sites in the breeze blocks under the roof eaves all round the building.

- Swallows and house sparrows are still nesting in the building.

4 ASSESSMENT

4.1 CONSTRAINTS ON THE SURVEYS

- The surveys were carried out early and late in the year when maternity roosts may not have been occupied.
- Manure obscured possible droppings in the stables.

4.2 POTENTIAL IMPACTS OF THE DEVELOPMENT 2011

The proposal is to convert the building into a residential dwelling. Ground works are scheduled for April 2011, with building reconstruction starting with planning approval (July?).

The amended design, and the location of the bat roosts which were only possible to find following the roof removal means that there is the potential for damage of a roost site, or obstruction of access into the roosts. The impact is therefore potentially greater than originally concluded in 2010 and based on the original designs for the development.

Timing of work affecting the northern extension of the building is critical to avoid disturbance to bats, should they continue to use the roost sites in spring/summer 2011.

Lighting can have an effect on foraging bats, and extra lighting of the building must be avoided.

Birds:

Sparrows and swallows may use the extension for a nesting site, due to change in conditions of the main building. They nest through the summer months, and may be disturbed by building on site. The proposed garage will provide alternative nest sites for both swallows and sparrows which are not going to be available in the main building.

Potential impact of initial ground works

Noise and disturbance from machinery, people and radios around the rear of the building is likely to affect the bats, and also probably nesting birds. It is therefore essential to avoid this at all times, especially from the end of May (or earlier if sparrows are nesting here).

4.3 LEGISLATION AND POLICY GUIDELINES

Bats

Bats are protected under the Conservation and Habitats and Species Regulations 2010. In summary, it is a criminal offence to:

- Capture or kill a bat
- Disturb a bat whilst in a place of shelter or rest
- Damage or destroy a bat's breeding site or resting place

Birds

Bird's nests are protected under the Wildlife and Countryside Act 1981 from damage or destruction whilst in use or being built.

5 RECOMMENDATIONS AND MITIGATION

5.1 PROTECTION AND ENHANCEMENT OF EXISTING ROOST SITES:

The walls of the northern stable extension have been marked in yellow paint to indicate roost sites and possible access points.

- a) Retention of existing access points. Access into these cavities from under the weather-boarding and through the battens, builders paper, boarding will be created by forming a timber tunnel leading to blockwork. This will provide a 25 mm high by 100 mm wide tunnel,

sloping up from under the board edge. Two will be needed on each wall in locations to be agreed with builders on site.

- b) The blockwork above will need to be cut to accommodate the tunnels, and then continued up to the top of the wall in such a way that the vertical cavity is continuous down to the existing roosting block. Block work with holes through must be used in this section of the walls. Access under the eaves needs to be constructed in a similar way, but also to give access into the small roof void above the single storey extension. Access into the tunnel will be from behind the barge/soffit boards.

5.2 HABITAT ENHANCEMENT

At a minimum the following will be provided as well as existing roost sites:

- o Four built in bat boxes between the weather boarding and breeze block inner wall with access at the eaves.
These will be constructed under the weather-boarding within the space created by the battens and cross battens, and access into them created under the boarding of 25 mm x 100 mm. Bitumen felt will be used to line the rear of the box, over the builders paper. (Location as shown on plan)
- o There will be a small loft space above the eastern section of the building (over bedroom 2). Access into this area will be via a larger slot at the gable apex, under the boards of 50 mm by 150 mm, sloping and lined with Perspex or lead to deter birds from accessing the space. Wooden bat boxes will be created within this area.
- o Two woodcrete bat boxes (1FF) will be installed inside the free standing garage.
- o Raised ridge tiles will also be included at three points along the roof.

Details of exact locations and designs for the mitigation measures must be agreed with an ecologist before work commences.

- o Bats are affected by strong outside lighting and it is recommended that any outside or security lighting is of low intensity, and focussed downwards away from possible roost sites on the house, in garage and in foraging habitat in the lane.
- o Two swallow ledges and three sparrow terraces will be erected in suitable places in/on the garage building.

5.3 PROGRAMME FOR WORK

Initial ground works are planned to commence in April with the installation of drainage, excavation for foundations and the construction of the brick plinth to support new walls.

- o Initial excavations around the stable extension should be done by the beginning of May if at all possible, and machinery/radios not left operating in this area longer than necessary.

Revised plans for the development will be agreed with the ecologist to allow continuation with the building in July or whenever planning permission is granted. This is will be after further bat activity surveys in June which will make the situation clearer with regard to bats and birds.

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PLAN 1: LANE HEAD FARM BARN SHOWING BAT ROOST PROVISION

R = Raised ridge tile

BB = built in bat box

