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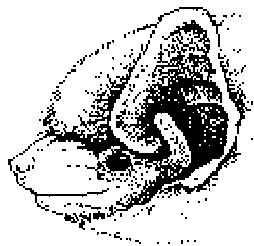
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Bat Report

Hunsbury Hill Centre, Northampton,

27th September 2006



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Summary

Hunsbury Hill Centre contained roosts of three species of bats, all in the main building (old farm-house).

A special licence will be required to carry out any works in or to the roofs of the wings of that building.

1. Introduction

- 1.1. This report, on behalf of DEK Architects, sets out the findings of a bat survey at the farmhouse and farm buildings at Hunsbury Hill Centre, Northampton (Grid reference SP733588).
- 1.2 The site consists of a two-storey farmhouse with attic rooms and two wings on one side of an old farmyard with single storey stables on two other sides and a cottage and threshing barn along the forth side. All now have been converted as offices, function rooms and storage areas. The Centre is set on top of a hill overlooking the flood plain of the R Nene at west Northampton with a copse of mature trees along the north and west sides, but surrounded otherwise with roads and housing estates.
- 1.3 The need for a survey was due to a development application and production of a conservation plan.
- 1.4 Legislation protects bats and their roosting places. Advice and licences must be obtained before disturbing bats or damaging their roosts. This report sets out suggested mitigation. Also some advice about improving the site for bats.

2. Methodology

2.1 The survey was carried out on 27th September 2006 by Phil Richardson and Jalna Donaldson, licensed bat workers. This is a time when signs of summer use of buildings by bats will be apparent.

2.2 Weather: sunny spells, light wind. Temperature of 14°C in day, 11°C at night.

2.3 The building survey consisted of searching externally and internally using torches, ladders, endoscopes and binoculars for

- bat droppings
- stains around roosting places and entrance points
- urine marks
- prey remains
- areas devoid of cobwebs
- live or dead bats
- suitable cracks and crevices for bats to enter

Interpretation of such findings, coupled with over 20 years of experience of bats' roosting habits, can provide evidence or indications of roosting positions, roost use, roost size and species of bats present. They also give an indication of potential use by bats if no bats are present, especially when linked to external features of landscape, geographical situation and aspect.

2.4. An emergence survey was conducted by standing underneath possible roosting places outside the buildings with electronic bat detectors to see and hear if any bats emerged in the hour from sunset.

❖ **Low probability of bat interest.** Buildings in this category fall in to two main types: Generally well maintained without cracks and crevices, no gaps between bargeboard or soffit and wall or without an attic space. Or those which contain some or all of the above features, but are both draughty and thick in cobwebs or contain strong odours such as solvents, diesel etc.

It must be borne in mind that a building from this latter group can become suitable for bats due to refurbishment. This often happens to houses once the attic space has been cleaned and under-felted prior to timber treatment.

Trees with low bat interest are usually young trees without any deadwood or holes. Most conifers fall into this category as they are usually planted as a crop and are then felled prior to becoming old, although once old age is attained as in a landscape tree, suitable bat roosts may develop.

No licence is required for development to a building classified as Low probability of bat interest

❖ **Medium probability of bat interest.** The buildings here contain many sites suitable for roosting bats although no obvious signs were recorded during the survey. In exposed conditions on large buildings the signs of bat usage such as droppings and urine marks can be obliterated by heavy rain.

Occasionally a light scattering of droppings will be recorded in an attic or a semi derelict building, which is considered by the surveyor unsuitable for use as a bat roost. The medium probability of bat interest category can be used based on the surveyor's experience.

Whilst no licence is required for development to a building classified as Medium probability of bat interest, it is often best practice to conduct sensitive roof stripping or architectural salvaging to minimise any possible disturbance

Trees in this category will have holes, cracks and crevices and loose bark suitable for roosting bats but no obvious roost signs such as staining and droppings at entrances.

- ❖ **High probability of bat interest.** This group includes buildings with known roosts or signs of bat occupancy such as droppings and staining at a roost entrance. The description of high probability buildings will also contain an indication as to the time of the year when it will be occupied by bats ie Summer – nursery roost. Winter – hibernation

Trees here will contain all the obvious roost features such as holes, cracks and crevices and loose bark but will also contain staining and droppings at the roost entrance or have been identified as a roost via a visual sighting of an exiting bat.

If the building or trees fall in to the high probability group then the area of bat interest should be identified on site with the contractors to ensure that work does not affect the bats roost.

If it is thought the work will have a direct effect on the bat roost and is unavoidable then advice must be sought from the Species Office for English Nature or DEFRA prior to the work proceeding.

3. Results and assessment

The buildings, a former model farm designed over 200 years ago, are arranged almost in a square with two arms of stables branching off (see Plan in Appendix). They are built mainly of local sandstone with some brick, under slate and pantile roofs. They were converted into a centre for local charities and rooms for functions.



Farm-house and Low Barn from south

3.1. Farm-house (1-3 on Plan)

A high-roomed two-storey house with attic rooms, built of brick and some stone with a slate roof (not lined). There are slightly lower wings attached at the north and south ends at 45°. All now used as offices.



From west – facing farmyard

3.1.1. South wing (1 on Plan, on right in above photograph)

Roof void has a summer roost of whiskered/Brandt's bats. The signs (droppings) show that the roost has been present for a number of years. Favoured roosting place is where the hip rafters meet the ridge beam. Access point is likely to be from gaps under ridge tiles.

High probability of bat interest

Externally, a pipistrelle roost was discovered over the top of the upper floor end window (at extreme right on above photograph). The bats squeeze between the top of the frame and the brick lintel. This roost was active in early summer 2006.



upper floor window – gap above frame

High probability of bat interest

3.1.2. Main house (2 on Plan)

Attic rooms are now mainly open to the roof as the ceiling has collapsed for 2/3rds of its length. The area is quite light due to attic windows. Now used as an archive room. No signs of use by bats. A few signs of mice. Plenty of signs of cluster flies. Cellar: the only external entrances are covered or grilled. No signs of bats. Externally: a few gaps exist above window frames, but no signs of bats were discovered.

Low probability of bat interest

3.1.3. North wing (3 on Plan, on left in above photograph)

Roof void used for summer-roosting brown long-eared bats. Three were still in residence. The bats roost from a number of places along the ridge, especially the junction of the ridge beam and hip rafters, and near the junction with the main house. One possible entry point is where this roof's ridge meets the main house gable end wall.

Two large wasp nests (inactive) present.

An uncovered water tank is present in the side (west) extra section of this roof void.

Externally: a few gaps exist in mortar gaps, but no signs of bats were discovered.

High probability of bat interest

3.2. Mrs Burman's cottage (4 on Plan)

A brick and slate semi-detached cottage. Has stood empty for a number of years and unused.



From south – right end of row

There is no human access into the roof void, so that area could not be checked for bats.

Internally, below roof level, no suitable day-roosting crevices were discovered.

Externally no suitable roosting crevices could be located.

Low probability of bat interest

3.3. Lily Rose room (5 on Plan, left cottage in above photograph)

A brick and slate cottage attached to Mrs Burman's cottage. Now converted to use as a function room. The roof void was checked, but no signs of bats noted. Unusually sheets of heavy duty black plastic have been tacked across the underside of the roof, so any bat droppings would tend to be trapped by that.

Externally no suitable crevices for roosting bats could be found and no signs of bats were discovered.

Low probability of bat interest

3.4. High Barn (6 on Plan)



From south

A large barn in stone with an unlined slate roof. This old threshing barn has been converted to a large meetings room. It is open to the roof with a small void (1.5m

high) under the ridge. No signs of bats were found in the void. The rest of the building is unsuitable for bats and no signs were found. Externally there were few suitable crevices for bats to use for roosting and no signs of bats were discovered.

Low probability of bat interest

3.5. Bar (7 on Plan).

This single-storey barn in brick with a membrane-lined pantile roof is now used as a seating area and bar for functions. It is open on the south side. Inside there is no roof void and is very light.



From south

A night-perch for a long-eared bat was discovered at the east end (prey remains). This area is well-used by the public so other signs may have been lost. No day-roosting places for bats were discovered inside or out.

Low/medium probability of bat interest

3.6. Far end barn (8 on Plan)

A single-storey stone barn with a pantile and corrugated asbestos roof, partly lined with plastic. Open on the west side.



View from north-east - barn on right

A small night-roost for long-eared bats (prey remains found).
No day-roosting places for bats were discovered inside or out.

Low/medium probability of bat interest

3.7. Glass and furniture store (9 on Plan, left barn on above photograph)

A single-storey brick barn with an unlined pantile roof. Open on the north side.
There were a few signs that bats flew around in here at night, but no suitable day-roosting places inside or out.

Low probability of bat interest

3.8. Low barn (10 on Plan)

A single-storey building in brick with a felt-lined slate roof, now converted to a kitchen and function room.



From north

The roof void over the kitchen (east end of building) is quite large, but no signs of use by bats were discovered. The void over the function room is very small (less than a metre in height) and is light. No signs of use by bats.
Externally no suitable roosting places for bats were discovered.

Low probability of bat interest

3.9. South stable (11 on Plan)

A stone stable with unlined pantile roof. Used as a store for a number of decades.



From north – stable on left

No signs of use by bats and no suitable day-roosting places inside or out.

Low probability of bat interest

3.10. Chicken stable (12 on Plan, right stable on above photograph)

Stone single-storey stable with unlined pantile roof. Used for wood storage from the farm and as a chicken shelter.

No signs of bats inside or out. Some stone crevices were checked and could be suitable for single hibernating bats, but no signs of bats were discovered.

Low probability of bat interest

3.11. Duck and chicken shed (13 on Plan)

Stone, single-storey stable with unlined roof. Now used to house geese and chickens. No signs of bats inside or out.

Low probability of bat interest

3.12. Emergence survey.

Observers returned at dusk and set up at the south and north-east ends of the Farm House, and inside the main courtyard.

A common pipistrelle flew across the site from the tree belt to the north soon after dusk.

Two long-eared bats were seen to emerge from the roof of the north wing – one from the east face, probably near the ridge by the junction with the main house, the other seemed to appear from the north hipped slope.

A small number of common pipistrelles and one soprano pipistrelle passed the south end of the farm-house, but no bats emerged (too late in the season now). One myotis species also passed by, probably a whiskered/Brandt's bat. One or two common pipistrelles were foraging in the tree belt to the north of the farm-house, between the A45 and the buildings.

4. Mitigation and conclusions

- Bat roosts were discovered in the roof voids of both wings of the main farm-house, and another roost above the end window on the first floor of the south wing. Any work in these areas, such as roof repairs, window maintenance, electrical or plumbing works in the void will require advice and licences from the statutory nature conservation organisation, English Nature (soon to be called Natural England). Since mitigation is required it is best to seek this advice early on in the planning process as it could affect proposed works.
- The open water tank in the north wing roof void should be covered as soon as possible to prevent bats or other creatures dropping in (no licence required for that)
- Wasps have used the north wing roof void on more than one occasion (two large nests). If these have to be exterminated in the future, then first seek advice from English Nature as the poisons and fumes sometimes used, and the disturbance, could affect the bats in the void.
- Long-eared bats use open buildings at night to rest in and digest food. There are a number of such buildings around the site where they can do this.
- Mortar gaps in walls of the stables may be used by single bats in winter for hibernation. If they are to be filled, then they should first be carefully checked for bats. Preferable to leave some open for bat use – especially those that lead to deeper wall cavities.
- The mature trees adjacent to the north are important to the bats – they provide cover very close to the roosting places as well as foraging opportunities and, no doubt, other roosting opportunities. To this end dead wood should be left in situ on the trees and this should be part of a management plan. Erecting a number of woodcrete bat boxes around this woodland belt would also be beneficial as it would increase the roosting opportunities (www.alanaecology.com). Best to erect two per tree facing south and west, and on trees exposed to the warming sun in glades or rides.
- The attic rooms of the main farm-house presently have little roof void as the ceiling has collapsed. If the ceiling is replaced it would provide a void for bats as well as extra working areas for staff. Insulating the new void at ground/ceiling level would also benefit the bats. Bat access into the roof void would have to be designed, probably under a ridge tile at one end.

Appendices

1. Bat legislation

The Wildlife and Countryside Act 1981 (WCA) transposes into UK law the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention). Amendments were made under the Countryside and Rights of Way (CRoW) Act 2000 which added the word “recklessly”. All species of bats are listed under Schedule 5 of the 1981 Act so it is an offence to

- intentionally kill, injure or take a bat
- possess or control any live or dead specimens or anything derived from a bat
- intentionally or recklessly disturb a bat while it is occupying a structure or place which it uses for that purpose

The Conservation (Natural Habitats &c.) Regulations 1994 (the Habitats Regulations) transpose into UK law Council Directive 92/43/EEC of 1992 (often referred to as the Habitats Directive). All bats are listed under Annex IV and some (horseshoe bats, Bechstein’s and barbastelle) are also listed under Annex II which relates to Special Areas of Conservation. These Regulations make it an offence to


- deliberately capture or kill a bat
- deliberately disturb a bat
- damage or disturb a breeding site or resting place of a bat
- keep, transport, sell or exchange, or offer for sale or exchange a live or dead bat or any part of a bat.

Penalties are fines of up to £5000 per bat and up to 6 months custodial sentence. The CRoW Act made these arrestable offences.

Exceptions and licenses

- A defence may be that the action was “the incidental result of a lawful operation and could not reasonably have been avoided”.
- Bats and roosts in dwelling houses: a defence cannot be relied upon unless English Nature has been asked for advice.
- Licences can be obtained to disturb bats or damage a roost from Department of Environment, Food and Rural Affairs (DEFRA).
- Licences can also be obtained for scientific study and conservation through English Nature.

2. Extract from *Bat Mitigation Guidelines 2004, English Nature.*

Low	Roost status	Mitigation/compensation requirement (depending on impact)
Conservation significance 	Feeding perches of common/rarer species	Flexibility over provision of bat-boxes, access to new buildings etc. No conditions about timing or monitoring
	Individual bats of common species	
	Small number of common species. Not a maternity site	
	Feeding perches of Annex II species	Provision of new roost facilities where possible. Need not be exactly like-for-like, but should be suitable, based on species' requirements. Minimal timing constraints or monitoring requirements
	Small numbers of rarer species. Not a maternity site	
	Hibernation sites for small numbers of common/rarer species	Timing constraints. More or less like-for-like replacement. Bats not to be left without a roost and must be given time to find the replacement. Monitoring for 2 years preferred
	Maternity sites of common species	
	Maternity sites of rarer species	Timing constraints. Like-for-like replacement as a minimum. No destruction of former roost until replacement completed and usage demonstrated. Monitoring for at least 2 years
	Significant hibernation sites for rarer/rarest species or all-species assemblages	
	Sites meeting SSSI guidelines	Oppose interference with existing roosts or seek improved roost provision. Timing constraints. No destruction of former roost until replacement completed and significant usage demonstrated. Monitoring for as long as possible
High	Maternity sites of rarest species	

Appendix 3 Plan of Hunsbury Hill Centre

