

curious ECOLOGISTS

Curious Ecologists
Ecological Consultants
156, Meadow Lane
Coalville
LE67 4DP
Tel. 01530 457440
curiousecologists@yahoo.co.uk

Report for Stud Farm, Carlton, Yorkshire

Bat Survey in buildings and trees **(Those affected by the development proposals)**

Date of Report – 11th August 2011

Proprietors

Bern Gibney (Ecologist) – 07875 484342 (mob)

Karen Headley (Ecologist) – 07913 873904 (mob)

Martin Randall (Woodland and Arboricultural Consultant) – 07968 297893 (mob)

Report Contents:

<u>Page</u>	<u>Title</u>
3	Details
4	Site Description
4	Aim of Study
5	Survey Methodology
6	Results
8	Conclusion
8	Legislation
9	Recommendations
9	References

Bat Survey at Stud Farm, Carlton, nr Barnsley, Yorkshire

Name of Client: Jaguar Estates Ltd and Wortley Construction Ltd JV

Address of Client: Chris Carr Associates, 6A Eastgate, Barnsley, S20 2EP

Dates of Surveys: 5th August 2011, between 1200hrs and 2300hrs, sunset time 2050hrs

Weather: Dry, still, warm, temperature at start of emergence survey 16⁰c, at finish 14⁰c

Address of survey site: Stud Farm, Spring Lane, Carlton, S71 3EU

Grid Reference of survey sites: SE 366 100

Name of Surveyors: A.B. Gibney BSc (Hons), MIEEM, M. Randall

Licence Numbers: Bat 20103625 issued by Natural England to A.B. Gibney

Site Description

The site measured approximately 2 acres (0.8ha), and was in the centre of Carlton, to the north east of Barnsley, Yorkshire. It comprised of residential accommodation, agricultural outbuildings, commercial size greenhouses, garden, yard and some agricultural land (permanent grassland), with boundary stone walls, internal stone walls and one internal hedge. There were a number of large trees within the garden.

Beyond the boundaries were residential properties and their gardens beyond the west boundary, a churchyard (some overgrown) and church beyond the northern boundary and Spring Lane beyond the southern boundary and Church Street beyond the western boundary.

There were no ponds on site, and no field ponds within the area bounded by Church Street, Spring Lane and Carlton Road, outside the site boundary. These roads would act as significant barriers to any newts, or other amphibians and reptiles.

Aims of Study

The Curious Ecologists have been commissioned by Jaguar Estates Ltd and Wortley Construction Ltd JV to undertake a bat emergence survey, as recommended in the extended Phase 1 survey carried out in September 2010. They were also commissioned to undertake a bat survey on any trees which are to be removed within the development proposals.

Survey Method:

1. Each tree that is affected by the development proposals was examined by binocular from ground level prior to being climbed; cavities and other evidence of protected species were searched for. On climbing each tree, the majority of cavities and sections of lifted bark was probed with an endoscope for signs of bats (particularly droppings, insect remains (where bats have fed), lack of spiders' webs (where bats have roosted), the bats themselves and body oils stains (where bats have squeezed through gaps) and other protected species. The climber was directed to cavities by the person on the ground or by their own searching. This survey was carried out by Bern Gibney and Martin Randall.
2. All records from the above surveys were carefully logged.
3. The buildings were searched in a systematic pattern, all available spaces were searched, looking for signs of bats, in particular droppings, insect remains (where bats have fed), lack of spiders' webs (where bats have roosted), the bats themselves and body oils stains (where bats have squeezed through gaps). Particular attention was paid to undisturbed surfaces, walls (where bat droppings sometimes stick) and window sills (both inside and outside the buildings). The search was carried out with a high power torch inside the building and binoculars on the outside (particularly searching under eaves and ridge tiles). All cavities were checked using an endoscope to establish if anything was within them.
4. Bats would be active at this time of year so would be likely to be present at any potential roosts.
5. An emergence survey was carried out over the period for about half an hour before sunset to about one and a half to two hours after sunset. This consisted of two surveyors positioning themselves so that all the buildings, particularly the roofs could be viewed. A bat detector was used with headphones to alert the surveyor and identify any bats using the area. A note was made of where and at what time any bats appeared. Batbox Duet and Pettersson D-230 detectors were used to carry out the survey.

Results: Tree Survey

Tree No	Tree Species	Tree size	Binocular survey	Endoscope Survey	Comments
T1	Leyland Cypress	Med	No cavities	N/A	Potential for nesting birds in the heavy foliage of this tree, so remove outside bird nesting season.
T2	Birch	Med	No cavities	N/A	Young specimen, deadwood plugs still in place.
T3	Cedar	Med	No cavities	N/A	Young specimen, no deadwood
T12	Ash	Med	No cavities	No cavities	4 trees in total, 2 ivy clad. Ivy tight to stems/branches. Carry out work spring/autumn as precaution for bats. Young specimens, no cavities.
T13	Sycamore	Lge	Cavity, lifted bark and deadwood	Nothing found	Cavities either blind or blocked
T14	Sycamore	Lge	One small cavity, deadwood	Nothing found	Cavity blind
T22	Sycamore	Lge	No cavities	No cavities	Ivy clad. Ivy tight to stems/branches. Carry out work spring/autumn as precaution for bats.
T24	Cherry	Lge	No cavities, deadwood	No cavities	2 trees, ivy clad. Ivy tight to stems/branches. Carry out work spring/autumn as precaution for bats.
T25	Sycamore	Med	No cavities, deadwood	No cavities	Ivy clad. Ivy tight to stems/branches. Carry out work spring/autumn as precaution for bats. Trunk clean under ivy.
T26	Ash	Med	No cavities	No cavities	Dead tree, shallow canker wounds, no cavities.
T27	Willow	Med	No cavities	No cavities	Weeping willow
T28	Whitebeam	Med	No cavities	No cavities	Cavities blocked
T29	Cherry	Lge	No cavities, deadwood	No cavities	Light ivy clad. Ivy tight to stems/branches. Carry out work spring/autumn as precaution for bats.
T31	Sycamore	Med	Cavity	Nothing found	Cavities blind, young vigorous tree. Other side of boundary fence

Scientific Names for species used in table:

Leyland cypress- *xCupressocyparis leylandii*, Birch- *Betula pendula*, Cedar- *Cedrus atlantica*,
Ash – *Fraxinus excelsior* Weeping Willow – *Salix chrysocoma sepulcrolis* Ivy – *Hedera helix*,
Whitebeam- *Sorbus intermedia*, Cherry- *Prunus avium* Sycamore - *Acer pseudoplatanus*

Bat Emergence Survey- Buildings

Date	Weather	Time of survey	Sunset/sunrise time	Species/Numbers of bats, emerging or entering
5/8/11	40% cloud, dry, still, 16°C>14°C	2035- 2300hrs	2055hrs	No bats emerged

Bats – While undertaking the inspection survey on the 5th August 2011, there was a small amount of evidence of bats found during the survey, there were several droppings sticking to some of the windows of the main house, just below the eaves. There were no concentrations of droppings, as one would expect to locate, if a large roost was present in the building. There were however access points for bats to gain access into the buildings and roofs. The evidence from the emergence survey indicated that there were no bats roosting in any of the buildings. However bats were foraging around the garden, which were flying up to the side of the buildings as they hunted for insects, which explained the droppings found on the windows

Bats were seen flying by outside the building, particularly in the rear garden; all were identified as common pipistrelles *Pipistrellus pipistrellus*; and all were feeding and foraging around the outside of the building, none of these emerged from the building. The first bat that was seen was at 2105hrs, and then there was constant foraging/feeding in the garden until 2125hrs. After this there was occasional bats foraging and feeding until 2140hrs. No bats were observed after 2140hrs until the end of the survey. There was a mix of adults and juvenile bats observed.

The front garden of the property was brightly lit from the street lighting, which appeared to limit the amount of bat activity in this area. The majority of the outbuildings were in this area, and no evidence of bats was found in any of these outbuildings, and no evidence of emerging bats was found in these outbuildings.

Conclusion:

Tree Survey: In total 14 trees were surveyed, this is the total number of trees that are affected by the development proposals. There was no evidence of bats found in any of the trees surveyed. Some had potential for nesting birds and some old nests were located.

Bats: There was no evidence of roosting bats found on site. The site was heavily used as a foraging/feeding area for bats, with the numbers of native trees and scrub areas providing ideal feeding sites. Also the rear garden was dark, providing ideal conditions for bat activity.

Legislation

Nesting Birds: Nesting Birds are protected under the Wildlife and Countryside Act 1981, which makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy its nest whilst in use or being built, or take or destroy its eggs. In addition to this, for some rarer species (listed on Schedule 1 of the Act), it is an offence to intentionally or recklessly disturb them while they are nest building or, at or near a nest with eggs or young, or to disturb the dependent young of such a bird.

All bats and their roosts are protected under the Wildlife & Countryside Act 1981 (*as amended*) and The Conservation of Habitats and Species Regulations 2010. You must not:

- deliberately capture (or take), injure or kill a bat;
- intentionally or recklessly disturb a group of bats; where the disturbance is likely to significantly affect the ability of any significant group of animals of that species to survive, breed or rear or nurture their young or likely to significantly affect the local distribution or abundance of the species, whether in a roost or not;
- damage or destroy the breeding or resting place (roost) of a bat;
- possess a bat (alive or dead), or any part of a bat;
- intentionally or recklessly obstruct access to a bat roost;
- sell (or offer for sale) or exchange bats (alive or dead), or parts of bats.

PPS 9: The Government's Biodiversity Strategy for England includes the aim that 'planning, construction and development should have minimal impacts on biodiversity and enhance it wherever possible', this strategy can be a material consideration in the planning process and is summarised in PPS9 ('Planning Policy Statement 9: Biodiversity and Geological Conservation'). The Natural Environment and Rural Communities Act 2006 came into force on 1 October 2006. Under Section 40 of the Act, all public bodies (including planning authorities) now have a legal duty to consider biodiversity in their work. As such, in order to increase the likely success of any planning application, consideration should be given to enhancing the biodiversity value of the site following redevelopment.

Recommendations:

Bats: Licensing – The proposed development is unlikely to require a European Protected Species Licence to carry out the proposed works.

Timing of the Tree Works- Spring and Autumn are the recommended times to carry out tree works, as any accidental disturbance at this time is less critical, avoiding the times when bats have dependent young. It is therefore advised that the tree works be undertaken through these periods, i.e. March/April or after September.

Further surveys- Bats are very mobile animals, which can move roost sites at any time, particularly through the summer months, so it is recommended that if the works proposed for this site are delayed beyond 2012, a further survey should be undertaken prior to the works commencing.

Nesting Birds- Works should be completed outside the bird nesting season, and if any evidence of bird nesting activity is found, works should be suspended in that area until the birds have completed the fledging of their young.

Mitigations- Due to the loss of potential nest sites for birds and potential roost sites for bats by the proposed works, a number of bat and bird boxes should be erected to replace these. A minimum of 5 bird and 6 bat boxes should be erected around the site.

References:

K.Parsons (ed.) (2007) *Bat Surveys Good Practice Guidelines* Bat Conservation Trust

Report Produced by A.B.Gibney BSc (Hons), MIEEM
Curious Ecologists Ecological Consultancy