Bat & Owl Survey
of
Apton Hall
Rochford

On behalf of:

e & m design partnership
26/28 The Square
West Street
Rochford
Essex
SS4 1AJ

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Contents

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1) Summary

As part of a planning proposal involving outbuildings at Apton Hall, Brays Lane, Canewdon, Rochford, Essex SS4 3RH, a site visit was conducted on 14th May 2015 to determine whether the buildings had been used by bats and barn owls.

Photo 1: The buildings bordering the southern and western sides of the farm courtyard

The buildings comprised single-storey structures bordering three sides of a courtyard, a dove cote building currently being refurbished, a small stables (due for demolition) and a line of buildings forming the eastern side of the site. The survey found that the buildings bordering the courtyard received daylight illumination via missing doors, conditions in which bats seek out dark areas or crevices in which to roost. The lack of such features made these buildings less suitable as roosting places for bats. Additionally, there was a covering of cobwebs along the ridge in parts of the roof, again, conditions that are usually a deterrent to colonisation by bats. No evidence of their presence was found in these buildings.

Of the buildings along the eastern side, the single-storey lock-ups were secure buildings and had no evidence of the presence of bats. The ground floor of the cart lodge was open to the west and had a ceiling formed from the joists and floor boards of the upper floor. There was a lack of crevices in this part of the building that was exposed to wind and rain from the west. The upper floor had been used for storage and there was a covering of dust on the former farm machinery stored on this floor. The building had several butterfly wings on the floor beneath the ridge beam, the evidence indicating that the upper floor is occasionally used as a feeding perch, probably by a single brown long-eared bat (*Plecotus auritus*). However, such perches are part of a bat's foraging rather than roosting behaviour and are not protected. A

two-storey brick building attached to the southern end of the cart lodge was in a derelict condition with missing windows and roof slates. The interior was exposed to damp and draughts and was unsuitable as a roosting place for bats.

There is no vegetation affected by the project that has crevices, loose bark or woodpecker holes that might be colonised by bats.

The buildings receive regular disturbance and have a lack of suitable nesting sites. This means that they are unsuitable for occupation by barn owls. **No** evidence of this species was found.

The lack of potential day roosting places and absence of any evidence of the presence of roosting bats means that **no** further surveys are required for these buildings.

Since there was no evidence of day roosting bats, a European Protected Species Licence will **not** be required for this project. The use of a building by bats as a feeding perch (house porches, lean-tos, church porches, beams in barns are all examples of structures that are used) is part of a bat's foraging rather than roosting behaviour.

Although no evidence of roosting bats was found in the survey buildings, it is probable that bats from nearby roosts will forage across the site. This behaviour would be expected to occur after any building work is completed and therefore it is considered that the planning proposal for this site will not have a detrimental effect on the local bat population.

Please note that this survey records the status of the buildings at the time of the survey. However, if more than a year were to elapse before the start of the building work, it is considered unlikely, due to the level of daylight illumination and the lack of potential roosting places, that bats would colonise the site during the intervening period.

2) Introduction

Essex Mammal Surveys were requested to carry out a survey of outbuildings at Apton Hall, Rochford to investigate for signs indicating the presence of barn owls, bat colonies and their roosts. The identification of protected species is vital in the proposed development of a site to comply with existing legislation and also allows any work that may otherwise be detrimental to bats to be appropriately scheduled. John Dobson, a bat worker and trainer licensed by Natural England (Licence No. CLS 3465) and author of *Mammals of Essex* (2014), carried out the survey on 14th May 2015. John Dobson has been elected a Fellow of the British Naturalists' Association and received the David Bellamy Award for natural history in 2015. The site is located at Grid Reference: TQ888929.

John Dobson has extensive experience of barn owl nest sites and pellets, having collected pellets from a site at Canewdon for 24 consecutive months during 1995-1997. The data from this study formed part of the total of 6,950 pellets analysed for prey items, the results of which were published in *Mammals of Essex* (Essex Field Club, 2014). Most recently, in September 2011, in the company of a licensed bird ringer, five barn owl nest sites were visited on Foulness and 277 pellets recovered for analysis. The results of this research will be submitted for publication in the *Essex Naturalist* in 2015. Pellets collected ranged from

recent, black, shiny examples, through shades of grey to crumbling, dusty examples of greater age.

3) Legislation and planning policy relating to bats & barn owls in the UK

All bat species in Britain are protected under the Wildlife and Countryside Act 1981 through inclusion on Schedule 5. They are also protected under the Conservation (Natural Habitats &c.) Regulations 1994 (which were issued under the European Communities Act 1972), through inclusion on Schedule 2. On 1st April 2010, these Regulations, together with subsequent amendments, were consolidated into the Conservation of Habitats and Species Regulations 2010.

European protected animal species and their breeding sites or resting places are protected under Regulation 39. It is an offence for anyone to deliberately capture, injure or kill any such animal or to deliberately take or destroy their eggs. It is an offence to damage or destroy a breeding or resting place of such an animal. It is also an offence to have in one's possession or control, any live or dead European protected species.

The threshold above which a person will commit the offence of deliberately disturbing a wild animal of a European protected species has been raised. Now, a person will commit an offence only if he deliberately disturbs such animals in a way as to be likely significantly to affect (a) the ability of any significant groups of animals of that species to survive, breed, or rear or nurture their young, or (b) the local distribution of abundance of that species. However, please note that the existing offences under the Wildlife and Countryside Act (1981) as amended which cover obstruction of places used for shelter or protection (for example, a bat roost), disturbance and sale still apply to European protected species.

This legislation provides defences so that necessary operations may be carried out in places used by bats, provided the appropriate Statutory Nature Conservation Organisation (in England this is Natural England) is notified and allowed a reasonable time to advise on whether the proposed operation should be carried out and, if so, the approach to be used. The UK is a signatory to the Agreement on the Conservation of Bats in Europe, set up under the Bonn Convention. The Fundamental Obligations of Article III of this Agreement require the protection of all bats and their habitats, including the identification and protection from damage or disturbance of important feeding areas for bats.

Paragraph 98 of Circular 06/2005 states that '*the presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat*'.

Section 9 of the National Planning Policy Framework 2012 (NPPF) states that '*the planning system should contribute to and enhance the natural and local environment by ….minimising impacts on biodiversity and providing net gains in biodiversity where possible.*'

Since August 2007, building development that affects bats or their roosts needs a Protected Species Licence under The Conservation (Natural Habitats &c.) (Amendment) Regulations 2007 administered in England by Natural England.

The barn owl is protected under Schedule 1 and Schedule 9 of the Wildlife and Countryside Act 1981. It is therefore an offence to injure, kill or capture the bird, to disturb nesting birds, to take eggs, and to release captive owls into the wild without a licence. The barn owl is also recognised by the UK Biodiversity Group as a "Species of Conservation Concern".

4) Methods

4.1 Bat Survey

The exterior surfaces of the buildings were examined for any signs of use as bat roosts, such as the presence of droppings on walls, windows or staining around roost entrances. The use of a crevice by a colony of bats produces droppings on brickwork and adjacent surfaces close to the crevice, together with an accumulation of droppings beneath the roost entrance. However, upon examination, many surfaces will have one or two droppings, randomly placed, caused by bats seeking out new roost sites.

The internal survey was conducted using a powerful torch. The roofs of the buildings were searched for evidence of roosting, the floor areas for droppings and the beams for crevices and staining indicative of the presence of roosting bats. An Xtend & Climb Pro Ladder and a ProVision 300 endoscope were available to inspect crevices in brickwork and around beams.

4.2 Barn owls

The building was inspected for roof voids and cavities that might form potential nesting sites. The floor areas of the buildings were searched for feathers, nest debris and pellets – the remains of small mammals and other prey items that are regurgitated from a perch. Where owls are present, there is usually splashing of excreta on beams and floors as this is expelled whilst perching.

5) Results

5.1 Bat Survey

5.1.1 Courtyard buildings

These buildings border the northern, southern and western sides of the courtyard. Those to the south and west (see Photo 1) had a corrugated asbestos roof slope facing the courtyard, and metal sheeting on the other slope. Both buildings received daylight illumination via missing doors (the building to the west was a 3-bay cart lodge with brick pillars) and both had a covering of cobwebs in parts of the roof. Some stud work had been erected in the south-western corner, and the external southern wall was covered by ivy that was growing into the building. There was a lack of crevices in the brickwork and cut timber rafters, and no evidence of bats was found on the walls and floor of the buildings.

A former livestock shed is located on the northern side of the courtyard. The building is of brick construction with a corrugated asbestos roof. The interior receives daylight illumination via two windows in the northern wall, one to the west and two corrugated, transparent panels in the roof. There was a lack of crevices in the brickwork and cut timber rafters, and no evidence of bats was found on the walls and floor of this building.

Photo 2: Interior of southern building

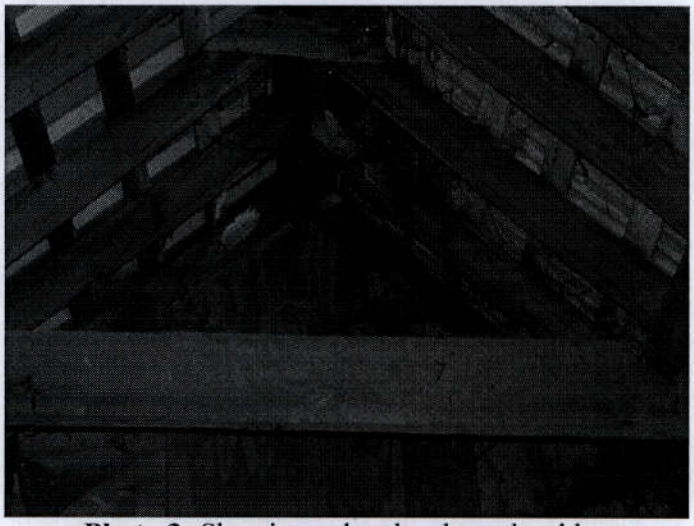

Photo 3: Showing cobwebs along the ridge

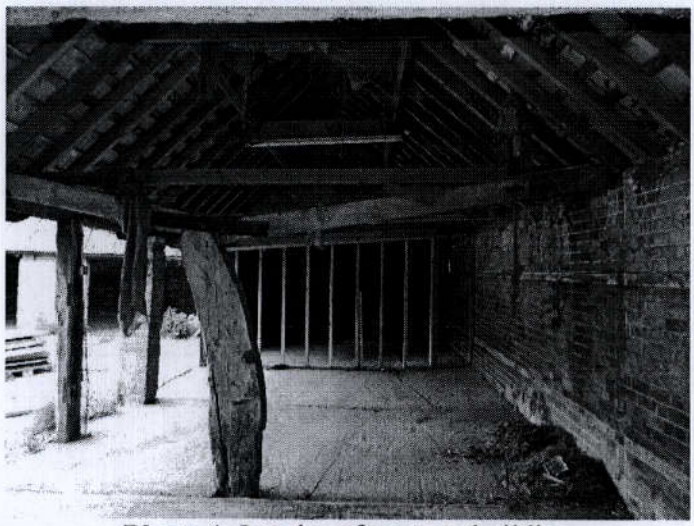

Photo 4: Interior of western building

Photo 5: Former livestock shed on northern side of courtyard

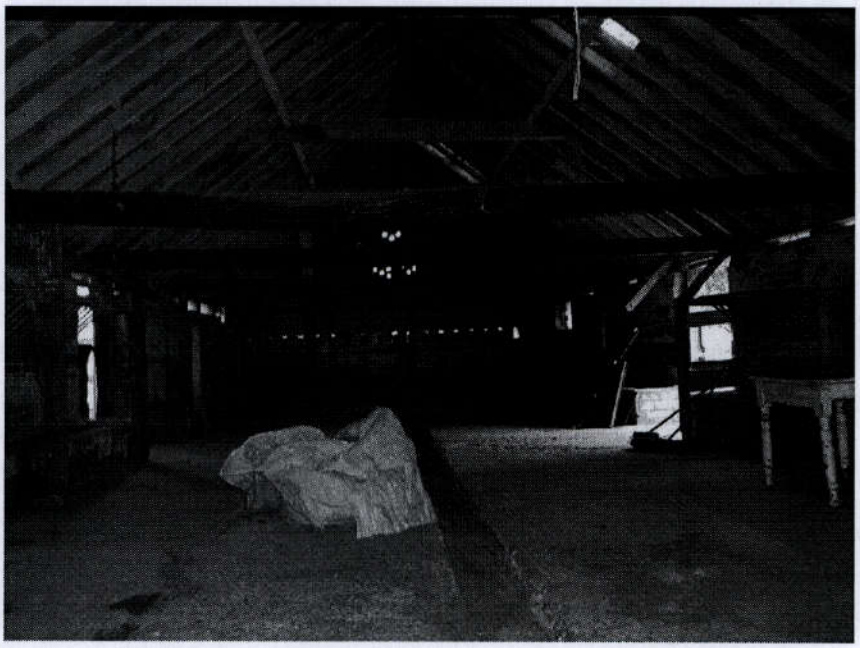

Photo 6: Interior of livestock shed

5.1.2 Former stables

This small, brick building with an unlined, tiled roof is located in the central apart of the site. The interior is divided into three sections, all with approximate dimensions of 4m x 3.5m. There was an abundance of cobwebs on the walls and ceilings, conditions that would be unsuitable as a roosting place for bats. No evidence of their presence was found to be associated with this building.

Photo 7: Stables due for demolition

Photo 8: Cobwebs on ridge and rafters

5.1.3 Dove cote building

This is a brick building in the south-east corner of the courtyard. The building is covered by a scaffold and is the subject of a major refurbishment, with the roof having been replaced and the walls rebuilt. The interior is open to the wind and receives daily disturbance as the work progresses. No evidence of bats was found in this building.

Photo 9: Dove cote building

5.1.4 Buildings along the eastern boundary

Photo 10: The cart lodge (with upper floor) and brick building

Of the buildings along the eastern side, the single-storey lock-ups were secure buildings and had no evidence of the presence of bats. The ground floor of the cart lodge was open to the west and had a ceiling formed from the joists and floor boards of the upper floor. There was a lack of crevices in this part of the building that was exposed to wind and rain from the west.

The upper floor had been used for storage and there was a covering of dust on the former farm machinery stored on this floor. The building had several butterfly wings on the floor beneath the ridge beam, the evidence indicating that the upper floor is occasionally used as a feeding perch, probably by a single brown long-eared bat. However, such perches are part of a bat's foraging rather than roosting behaviour and are not protected. A two-storey brick building attached to the southern end of the cart lodge was in a derelict condition with missing windows and roof slates. The interior was exposed to damp and draughts and was unsuitable as a roosting place for bats.

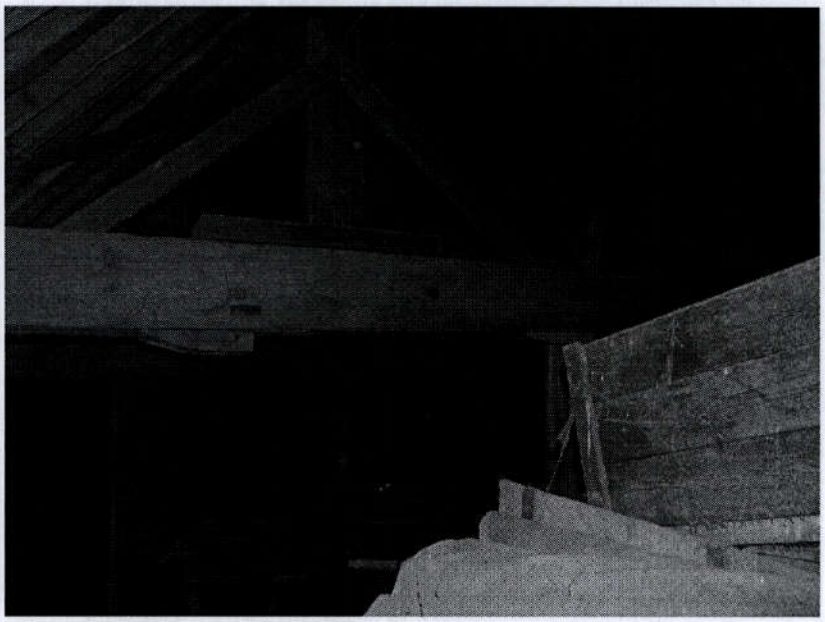

Photo 11: Upper floor of cart lodge

Photo 12: Upper floor of brick building – the roof is lined with plasterboard

Photo 12: Upper floor showing missing windows

The upper floor of the brick building was open to the roof part of which was lined with plasterboard. The floor received daylight illumination via missing windows and lacked crevices that might offer potential roosting places for bats.

There is no vegetation affected by the project that has crevices, loose bark or woodpecker holes that might be colonised by bats.

No evidence of the presence of roosting bats was found in this building.

5.2 Barn owls

The buildings receive regular disturbance and have a lack of suitable nesting sites. This means that they are unsuitable for occupation by barn owls. No evidence of this species was found.

6) Discussion

Bats are inquisitive, highly mobile animals, which constantly investigate their surroundings, evaluating good feeding areas and potential roosting opportunities. Where suitable habitat such as woodland, woodland edge or sheltered pasture occurs, bats will travel up to several kilometres to take advantage of this resource. To reach favoured sites, small bats will follow linear landscape features such as hedgerows, streams and lanes etc. The absence of such features can make an otherwise suitable site inaccessible to bats. In addition, new roosts will become established in such areas - examples being the rapid colonisation of artificial roost boxes placed in conifer forests or the occupation of new houses by nursery colonies of pipistrelle bats within a year or two of their completion.

Since there was no evidence of day roosting bats, a European Protected Species Licence will **not** be required for this project. The use of a building by bats as a feeding perch (house porches, lean-tos, church porches, beams in barns are all examples of structures that are used) is part of a bat's foraging rather than roosting behaviour.

Although no evidence of roosting bats was found in the survey buildings, it is probable that bats from nearby roosts will forage across the site. This behaviour would be expected to occur after any building work is completed and therefore it is considered that the planning proposal for this site will not have a detrimental effect on the local bat population.

Please note that this survey records the status of the buildings at the time of the survey. However, if more than a year were to elapse before the start of the building work, it is considered unlikely, due to the level of daylight illumination and the lack of potential roosting places, that bats would colonise the site during the intervening period.

7) Review of existing records of bats in the area

Since the early 1980s, the Essex Bat Group has monitored the status and distribution of bats in this area. Records occurring within a 3km radius of the site are as follows:

TQ901918	28 Jul 1988	Pipistrelle roost in building
TQ888929	01 Jul 2005	Pipistrelle droppings in building
TQ888929	01 Jul 2005	Brown Long-eared Bat droppings in building
TQ870920	22 Apr 1985	Noctule recorded foraging