

Ecological Survey and Assessment for Dunwell Broxted

On behalf of:

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1) Summary

In October 2018, as part of a planning proposal involving Dunwell, Chapel End, Broxted, Dunmow, Essex CM6 2BW, a site visit was conducted to determine whether the site had the potential to be occupied by protected species, which would be affected if any proposed development were to go ahead. At that time, the survey found no evidence of protected species at the site and the report concluded that: *'...therefore it is considered that the proposal for this site will not have a detrimental effect on the local bat population, or on protected species.'*



Photo 1: Looking SE-NW at the site. The proposal is to store containers at the site. Note short grass and hardstanding covering the site

Following a lapse of over four years, a second survey was undertaken on 3rd March 2023 to see if protected species had colonised the site during the intervening period. This follow-up survey confirmed the results of the earlier visit and found no evidence of protected species at the site.

There are no buildings or trees at the site that might offer potential roosting places for bats.

The site is a rectangular plot that is of short, maintained grass and hardstanding for the parking of vehicles. There are no buildings on the site that might offer potential roosting

opportunities for bats and barn owls. There is no vegetation at the site that might offer potential roosting places for bats or nesting sites for birds.

The lack of suitable trees and buildings, together with the location of the site, made it unsuitable for occupation by barn owls and no evidence of this species was found.

The site is bordered to the north-east by residential properties with maintained gardens; to the south-west by a residential property and light industrial site; to the south-east by a residential property (Dunwell) with extensive hardstanding, and to the north-west by an arable field with woodland beyond. The woodland is immediately below a flight path into Stansted Airport. The site is laid to grass and regularly mown. There are no features that might be attractive to basking by reptiles, and there is no suitable habitat nearby from which the site could be colonised by reptiles. There is no standing water at the site or in adjoining gardens, and there is no suitable terrestrial dispersal habitat for great crested newts.

There were no latrines or digging by badgers found at the site, or within 30m of its boundaries.

Although no evidence of bats was found, it is probable that bats from nearby roosts will forage over the site and in the gardens of adjacent properties. This foraging behaviour would be expected to continue after the completion of any building work and therefore it is considered that the proposal for this site will not have a detrimental effect on the local bat population, or on protected species.

It is recommended that any artificial illumination introduced at the site should be cowed downwards.

According to the latest guidance (December 2017) from CIEEM, the following is advised:

Very occasionally it might be possible to carry out a robust Preliminary Ecological Appraisal without obtaining LERC/NBDC/CEDaR data; this will usually only apply to low impact or small-scale projects (e.g. by virtue of size, extent, duration of works, magnitude and locality), and should be determined on a case-by-case basis. In all cases, the decision not to obtain these data should be justified in the report. The following is not intended to be an exhaustive list, but gives examples of the type of sites where such data might not be needed:

- **a field in active arable cultivation where there is no impact on any hedges, trees or waterbodies;**
- **small areas of cultivated garden/amenity grassland, as above; or**
- **small urban sites comprising mostly asphalt or compacted hardstanding.**

CIEEM (December 2017) Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.

The survey area just relates to the survey site. It is an area of maintained grass bordered by gardens, a light industrial site and an arable field. This is a low impact project that will have no impact on any designated sites.

2) Introduction

Essex Mammal Surveys was requested to carry out a survey of a proposed development site at Dunwell, Broxton to investigate for signs indicating the presence of protected species. The identification of protected and priority 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 these species to be appropriately scheduled.

The objectives of the survey were to:

- assess the habitats on the site (noting any Priority habitats) including the potential of the site to support protected species (bats, reptiles, water voles, great crested newts and badgers) or any other species that may act as a constraint on development eg Priority species (s41 NERC Act 2006)
- determine any impact of development on any wildlife of conservation concern within the area
- produce a strategy for avoiding, mitigating and compensating for any potential impacts identified with reasonable enhancements for biodiversity.

John Dobson, a bat worker and trainer licensed by Natural England (Licence No. 2015-15258-CLS-CLS), and author of *Mammals of Essex* (Essex Field Club, 2014) carried out the survey on 3rd March 2023. 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: TL565250.

This report has been compiled in accordance with the Bat Conservation Trust's *Bat Survey Guidelines for Professional Ecologists: Good Practice Guidelines*.

Ref: Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edn). The Bat Conservation Trust, London.

However, the first page of all three editions includes the following: *The guidelines should be interpreted and adapted on a case-by-case basis according to site-specific factors and the professional judgement of an experienced ecologist. Where examples are used in the guidelines, they are descriptive rather than prescriptive.*

3) Legislation and planning policy relating to bats, badgers, barn owls, reptiles and NERC 2006 and s41 Priority species and habitats

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. From January 31st 2020 these Regulations were consolidated into the Conservation of Habitats and Species (Amendment) (EU exit) Regulations 2019.

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 or 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 15 of the National Planning Policy Framework 2018 (NPPF) states that *'the planning system should contribute to and enhance the natural and local environment by ...minimising impacts on and providing net gains for biodiversity....'*

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.

Schedule 12, paragraph 13 of the CROW Act (2000) makes an offence under Section 9 of the Wildlife & Countryside Act (1981) an arrestable offence. As a result, the police gain additional power to aid the investigation and enforcement of the legislation protecting bats.

In relation to the badger, the Wildlife and Countryside Act (1981) and its subsequent amendment (1985) made it an offence to take, kill, injure or ill-treat a badger. The badger gained further protection under the auspices of The Protection of Badgers Act (1992) which consolidates all former protective legislation in relation to badgers, except their inclusion on Schedule 6 of the Wildlife and Countryside Act 1981.

Under the 1992 Act, the badger sett is protected against obstruction, destruction, and damage; furthermore the animal's access to and from the sett must not be impeded. It should be noted that the concept/definition of the sett extends beyond the main sett to include annexe, subsidiary and outlying setts. However, it must be noted that although the badger and its sett are protected (including access to the sett), the wider habitat and foraging ground is not.

With legal responsibilities and planning implications, it is essential that any ecological assessment of a potential development site, including the area of this report, must determine the possible presence or absence of any protected species as part of any planning development consideration.

Without this assessment the potential developer would be unable to demonstrate due diligence in his responsibilities. Furthermore the local planning authority would not have been provided with sufficient information for a planning decision to be made. This could result in the application being designated incomplete and not determined, or simply refused.

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”.

Reptiles such as common lizard, slowworm, grass snake or adder (the species recorded in Essex), are protected under Section 9 of the Wildlife & Countryside Act (1981) as amended. The legislation makes it illegal to deliberately or recklessly kill or injure any native reptile. This protection therefore requires that reasonable effort be made to avoid harm to reptiles during developments on land occupied by reptiles.

Priority species likely to be present and affected by this development and therefore require consideration are Common Toad and Hedgehog. The Essex Field Club has no records of Great Crested Newt, Common Toad or Stag Beetle for this tetrad. There are no records of Hedgehog within a 1km radius since 1995.

The site has no suitable habitat to support Harvest Mouse, Otter, Water Vole, Hazel Dormouse or White-clawed Crayfish.

4) Methods

4.1 Bats

There are no trees or buildings at the site that might be occupied by bats.

4.2 Badgers

The survey area (extending 30m beyond the site boundary) was investigated for evidence of badgers such as setts, well-worn paths, footprints, guard hairs caught on wire or vegetation and latrines.

4.3 Reptiles

The site was inspected for any feature that might support reptiles such as sheltered refuge features (e.g. logs, compost heaps) open sunny areas for basking and varied habitats such as rockeries and grassy areas for feeding.

4.4 Barn owls

There are no trees or buildings at the site that might be occupied by bats. The ground area adjacent to neighbouring buildings was 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 the ground as this is expelled whilst perching.

4.5 Priority species

Hedgehog and Common Toad are likely to be present as the adjacent garden habitat is compatible. Field-based surveys would be unreasonable, and a desk top data search revealed no records of Hedgehog within 1km of the site.

5) Results

5.1 Bats

There are no trees or buildings at the site that might be occupied by 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 their presence was found at this site.

5.2 Badgers

There were no latrines or digging by badgers found at the site, or within 30m of its boundaries.

5.3 Reptiles

The site is bordered to the north-east by residential properties with maintained gardens; to the south-west by a residential property and light industrial site; to the south-east by a residential property (Dunwell) with extensive hardstanding, and to the north-west by an arable field with woodland beyond. The woodland is immediately below a flight path into Stansted Airport. The site is laid to grass and regularly mown. There are no features that might be attractive to basking by reptiles, and there is no suitable habitat nearby from which the site could be colonised by reptiles. There is no standing water at the site or in adjoining gardens, and there is no suitable terrestrial dispersal habitat for great crested newts.



Photo 2: Looking south-eastwards at the drive to the site. Note extent of hardstanding. The *leylandii* to the left are in a neighbouring garden



Photo 3: Looking NW along SW boundary with a light industrial site



Photo 4: Looking SE along SW boundary with a light industrial site



Photo 5: The NW boundary with arable field beyond



Photo 6: The NW boundary with arable field beyond



Photo 7: Looking NW-SE along the site



Photo 8: Looking SE along NE boundary fence. The hedge is unaffected by the proposal



Photo 9: Looking SW-NE across the site



Photo 10: Showing extent of hardstanding adjacent to Dunwell



Photo 11: Showing access to site with Dunwell to right

5.4 Barn owls

The lack of suitable trees and buildings, together with the location of the site, made it unsuitable for occupation by barn owls and no evidence of this species was found.

5.5 Priority species

Both Hedgehog and Common Toad are likely to be present in the area.

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.

Although no evidence of bats was found, it is probable that bats from nearby roosts will forage over the site and in the gardens of adjacent properties. This foraging behaviour would be expected to continue after the completion of the building work and therefore it is considered that the proposal for this site will not have a detrimental effect on the local bat population, or on protected species.

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 2km radius of the site are as follows:

The pipistrelle has recently been separated by DNA and sound analysis into two distinct species – the common and soprano pipistrelle.

TL561253	16 Sep 2008	Soprano Pipistrelle recorded foraging
TL561253	27 Aug 2008	Brown Long-eared Bat recorded foraging
TL568251	12 Jul 2008	Common Pipistrelle recorded foraging
TL564249	29 Aug 2008	Brown Long-eared Bat roost in house
TL565265	16 Aug 2013	Pipistrelle roost in building
TL565265	16 Aug 2013	Brown Long-eared Bat roost in building
TL569251	13 Nov 2008	Pipistrelle roost in building
TL565257	12 Jul 2006	Common Pipistrelle recorded foraging
TL565257	12 Jul 2007	Natterer's Bat recorded foraging
TL565257	12 Jul 2006	Brown Long-eared Bat recorded foraging
TL570261	04 May 1997	Common Pipistrelle recorded foraging
TL571252	12 Jul 2008	Common Pipistrelle recorded foraging
TL571249	12 Jul 2008	Common Pipistrelle recorded foraging

TL570251 18 Jul 2008 Brown Long-eared Bat roost in building

8) Review of existing records of badgers in the area

Since the early 1980s, the author has monitored the status and distribution of mammals in Essex and has a database of over 33,000 records. The only records of a badger within a 1km radius of the site are as follows:

TL560251	30 Nov 2011	Badger latrine in woodland
TL566247	04 Oct 2014	Badger found dead on minor road
TL559249	24 Mar 2017	Badger found dead on minor road

9) Assessment of impacts

The site is a maintained grass area and has no Priority habitats. Although Hedgehogs and Common Toads are not known to be in the area, it is possible that they are present. It is therefore recommended that any trenches that may be dug are covered at night, or, if open, that sloping planks are left in the trench such that any mammals and amphibians are able to escape. All open trenches should be checked for mammals and amphibians each morning.

The site has no suitable habitat to support Harvest Mouse, Otter, Water Vole, Hazel Dormouse or White-clawed Crayfish.

10) Recommendations for reasonable biodiversity enhancements

1: It is recommended that any existing gaps along site boundaries are retained to allow hedgehogs and common toads to forage across the site as, potentially, at present. However, if any new boundary fences are to be introduced, then see below.



Photo 12: Hedgehog pathway at base of fence

Hedgehogs travel around **one mile** every night through our parks and gardens in their quest to find enough food and a mate. If you have an enclosed garden this can prevent hedgehogs from dispersing throughout their territory. It is now known that one of the main reasons why hedgehogs are declining in Britain is because our fences and walls are becoming more and more secure, reducing the amount of land available to them. Developers can make their life a little easier by removing the barriers within their control – for example, by making holes in or under our garden fences and walls for them to pass through.

A gap 13cm by 13cm is sufficient for any hedgehog to pass through. This will be too small for nearly all pets.

Alternatively:

- Remove a brick from the bottom of the wall
- Cut a small hole in your fence if there are no gaps
- Dig a channel underneath your wall, fence or gate

2: Two bird nesting boxes to be sited along the boundaries of the site.

3: A Hedgehog nesting box to be sited along the north-western boundary hedge.

4: Two solitary bee hives (bug hotels) to be sited along north-eastern boundary.