ELLENDALE
ENVIRONMENTAL

Little Tyning, Box Hill
Preliminary Roost Assessment (PRA) and Nesting Bird Survey

For Sam Smith

26th February 2024

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Version

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Executive Summary

Ellendale Environmental Limited was commissioned by Sam Smith to undertake a Preliminary Roost Assessment (PRA) and a nesting bird survey of an existing bungalow ('the target building) at Little Tyning, Box Hill, Corsham, SN13 8HG ('the site'). It is proposed to remove the existing roof structure and add an additional timber structure to the second floor and roof to the existing bungalow footprint ('the proposed development').

A daytime physical survey of the target building was undertaken on Friday 16th February 2024. Full access was provided to the target building for the survey.

The target building is a rectangular-shaped single-story bungalow with walls of Bradstone block and a traditional timber roof covered with felt, batten and tiles. There are two additions, the first to the eastern side of the building being a small Bradstone block storage area and car port. The second on the western elevation is a single-story utility structure with a flat roof.

The external walls of the target building were found to be in good condition with no gaps or crevices in which bats could gain access for roosting. The windows and doors were also found to be in good condition with no gaps where bats could gain access to the internal spaces for roosting. The external roof structure was also found to be in a good condition with no loose, lifted or missing tiles that could be suitable for roosting bats or provide access to the internal loft space.

The internal loft space was converted by the previous owners into two halves – one half is a fully boarded and decorated bedroom with storge in the eaves, so there was no access available to inspect the underside of the roof and felt. The other side is used as a storage area. In this area some of the panelling was loose and allowed access to inspect the felt. There were no signs of ingress/egress and the felt was in a good condition.

The bungalow stands in a mature garden with hard landscaping to the eastern and southern sides of the property. There is a wrap-around lawn to the north and eastern elevations of the property.

During the survey of the target building, no evidence of bat activity was found on the external or internal surfaces such as droppings, staining or feeding remains. As such, the target building is assessed as providing Negligible Roost Potential for bat species. No evidence of bat activity was found during the survey and no further surveys are recommended.

The trees around the target building did not have any features present that could support roosting bats and no evidence of roosting was found. The trees are therefore assessed as providing Negligible Roosting Potential.

Furthermore, no evidence of nesting birds was found during the survey.

Some recommendations have been made for modest post-construction ecological enhancements for the target building that are proportionate with the low level of environmental impact from the proposed development. These measures aim to increase the diversity of species present after the completion of future development works.

1. Introduction

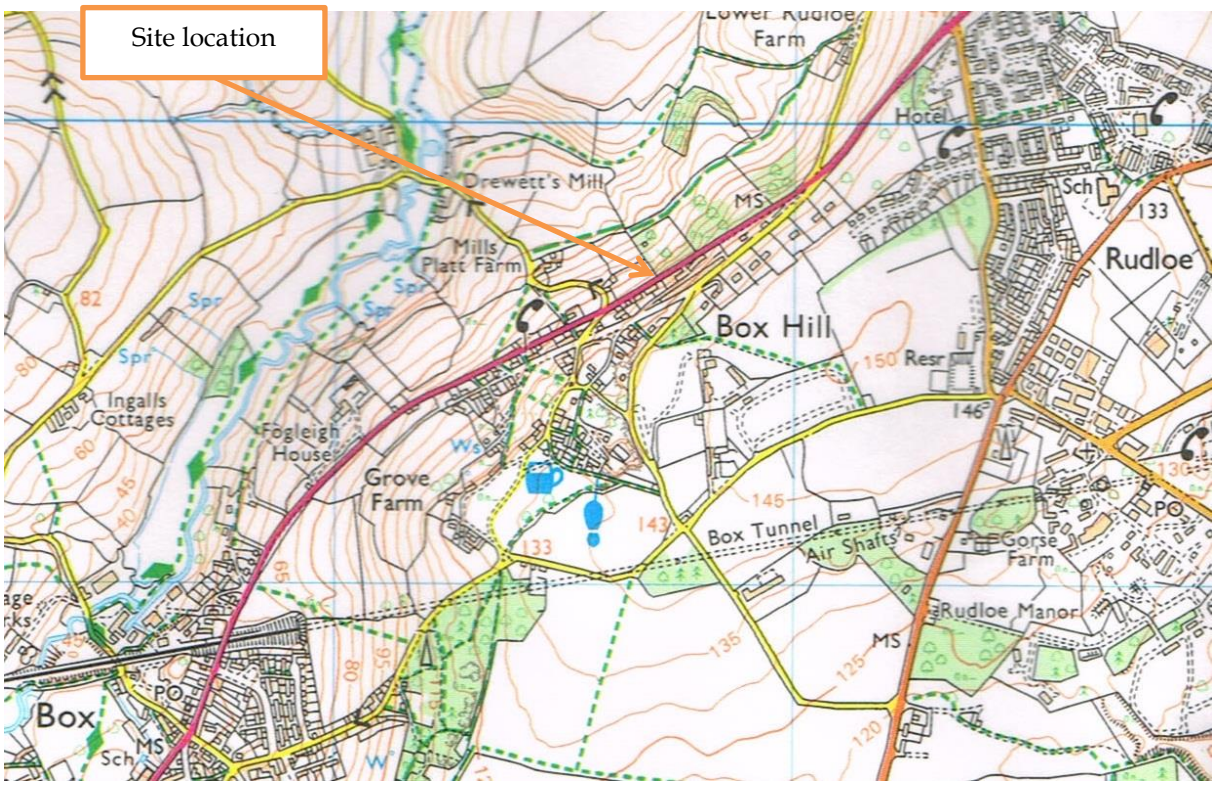
1.1 Commission

Ellendale Environmental Limited was commissioned by Sam Smith to undertake a Preliminary Roost Assessment (PRA) and a nesting bird survey of an existing bungalow ('the target building) at Little Tyning, Box Hill, Corsham, SN13 8HG ('the site'). It is proposed to add an additional floor and new roof onto the existing footprint of the existing bungalow ('the proposed development').

1.2 Site Details

The site is located to the north-east of the city of Bath, at OS grid reference ST 83699 69649.

Figure 1: Site location



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1.3 Bat Conservation

British Bats

There are 17 species of bats resident in Britain. These are from two families, namely the Rhinolophidae (the two horseshoe bat species) and the 15 species of vesper/evening bats (the Vespertilionidae). All British bats are insectivorous and locate their prey using ultrasonic calls through a biological system known as echolocation.

During summer months, female bats form nursery colonies in trees and buildings, where they raise infants. In the winter, males and females hibernate in trees, buildings and underground structures.

Conservation Status of British Bats

The general consensus in Britain and Europe is that virtually all bat species are declining and are vulnerable. Our understanding of population status is poor, as there is very little historical data for most bat species. Certain species, such as the horseshoe bat, are better understood and have well documented contractions in range and population size.

Given this general picture of decline, the UK Government (within the UK Biodiversity Action Plan) has designated five species of bats as priority species (these being greater and lesser horseshoe bats, barbastelle, Bechstein's and pipistrelle). These plans provide an action pathway whereby the maintenance and restoration of former population levels are envisaged.

Legal Status of British Bats

All bats and their roosts in England were originally protected under the Wildlife & Countryside Act 1981. Subsequent amendments to the legislation for England (and Wales) has removed bats from most of the provisions of the Act; however, it remains an offence to:

- Intentionally or recklessly disturb a bat while it is occupying a structure or place which it uses for shelter or protection; and/or

- Intentionally or recklessly obstruct access to any structure or place that a bat uses for shelter or protection.

All British bat species are listed in Annex IV of the EC Habitats Directive and are fully protected through The Conservation (Natural Habitats, &c.) Regulations 1994. All bat species found in England are classed as European protected species. They receive full protection under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended).

These regulations make it an offence to:

- Deliberately capture, injure, or kill a bat;
- Harass a bat or group of bats;
- Disturb a bat in a roost (any structure or place it uses for shelter or protection);
- Disturb a bat while it is rearing or otherwise caring for its young
- Obstruct access to a bat roost or otherwise deny an animal use of a roost;
- Disturb a bat in a manner or in circumstances likely to significantly affect the local distribution or abundance of the species; and/or
- Disturb a bat while it is migrating or hibernating.

The legislation, although not strictly affording protection to foraging grounds, does protect bat roost sites. Bat roosts are protected at all times of the year, regardless of whether or not bats are present at the time.

It's also an offence to:

- Damage or destroy a breeding site or resting place of such an animal (whether or not deliberately or recklessly); and/or
- Keep, transport, sell or exchange, or offer for sale or exchange any wild bat (or any part or derivative of one) obtained after 10th June 1994.

Where development is proposed that would result in an offence under the Habitats and Species Regulations, a European Protected Species (EPS) licence needs to be granted by Natural England (NE) to permit an act that would otherwise be unlawful.

This provides for a specific derogation from the legislation, to prevent a legal infringement occurring.

To obtain an EPS licence for development it must be demonstrated that the purpose of the act to be licensed is for:

- *"Preserving public health or public safety or other imperative reasons of overriding public interest including those of social or economic nature and beneficial consequences of primary importance for the environment"* (Regulation 55(2)(e)).

In addition, NE will not grant an EPS licence unless they are satisfied that:

- *"There is no satisfactory alternative"* (Regulation 55(9)(a)); and
- *"The action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range"* (Regulation 55(9)(b)).

1.4 Nesting Bird Legislation

The Wildlife and Countryside Act (WCA) 1981 (as amended) affords all wild breeding birds protection by making it an offence to intentionally or recklessly:

- Kill, injure or take a bird;
- Take, damage, destroy or interfere with a nest of any bird while it is in use
- or being built;
- Obstruct or prevent any bird from using its nest; and/or
- Take or destroy an egg of any bird.

Reckless acts would include disregard of mitigation aimed at protecting birds, resulting in the killing, injury and/or disturbance of any bird or bird resting place.

This legislation means that birds are fully protected in England, and that any planned activity, which may affect them, requires prior consultation with the appropriate statutory nature conservation organisation (in this case NE).

2. Methodology

Survey work undertaken in relation to a development needs to be conducted under a scientific/conservation licence issued by, in this case, NE. The work is normally conducted by an environmental consultant on the behalf of the developer and the consultant will advise on the necessary course of further action with respect to licences, mitigation and compensation measures. A number of recognised survey techniques are available to the consultant, such as:

- Natural England guidelines (A.J. Mitchell-Jones [2004], *Bat Mitigation Guidelines*, English Nature. ISBN 1 85716 781 3), which provide generic technical advice on bat mitigation; and
- Hundt L (2023). *Bat Surveys for Professional Ecologists: Good Practice Guidelines*, 4th Edition, Bat Conservation Trust, London.

For development proposals requiring planning permission the developer must:

- Demonstrate that adequate surveys have been undertaken to establish the presence or absence of bats, to predict the potential impact on them, their resting sites or breeding roosts;
- If bats or their roosts are discovered, bring proposals forward that will integrate provision for bats into any design that will compensate and mitigate for any impact during development; and
- Provide sufficient survey information that will support a licence application under the Habitats Directive should bats be discovered.

Where bat species are using a site, it will be necessary to mitigate the impacts of the development upon the population(s). These would include measures that remove or reduce any damaging effects on the animals or their roosts. In most cases a package of compensation measures will be required to accommodate any loss of breeding or resting-places, and the timing of works will need to be synchronised with the life-cycles of the effected species.

This collective package of mitigation and compensation measures should allow the conservation status of the animals to be at least maintained by the development. With careful thought, the conservation status may even be enhanced by development. This is usually most easily achieved by early ecological input into the design of the project.

In the case of sites where bats are present, a development licence from NE will be required to conduct works affecting bats.

2.1 Bat Survey Licence

The survey was undertaken by Christopher Parsons, an associate and licenced bat worker for Ellendale Environmental. Christopher holds a bat survey licence (Bat Survey Class Licence CL18 (Bat Survey Level 2), registration number CLS-2019-42561), with respect to the Conservation Regulations 1994. The licence is valid for all counties of England, valid until June 2025. Christopher has over 10 years' professional experience of undertaking ecological surveys and working with bat species across the UK.

2.2 Survey Objectives

On the basis of the brief provided by the client, Ellendale Environmental conducted survey work to fulfil the following needs:

- Obtain baseline information on the habitat features suitable for bat species;
- Determine the presence/likely absence of bat species; and
- Obtain any evidence of nesting birds.

In practice this has been achieved by a physical inspection of the target building, a search for live animals and/or other signs indicating their current or previous presence.

2.3 Survey Methodology

A daytime physical internal and external survey of the target building was undertaken on Friday 16th February 2024.

Weather was not a limiting factor in the survey and the conditions are summarised in Table 1.

Table 1: Survey weather conditions

SURVEY DATE	TEMPERATURE (°C)	WIND SPEED (MPH)	CLOUD COVER / PRECIPITATION
16/02/24	10.1	Avg. 4.5 Max. 3.3	5% cloud cover, sunny, dry and calm

All suitable features were assessed externally and internally. A telescopic surveyor's ladder was used to gain access to various points and a CLU-10 searchlight was used to search dark areas. A Visual Optics VO36-10ww Endoscope was utilised to assist inspection of internal spaces.

The physical search included a search for live animals and a search for other signs that give an indication of past or present occupancy. In the case of bats, typical indicators include droppings (which are characteristic and can often be speciated), signs of staining, characteristic odours, and accumulations of prey items.

An inspection of the trees surrounding the target building was also undertaken. In examining the trees for bats, particular attention was given to any crevice in which bats may roost. These were inspected for bat droppings, bat urine, feeding remains, oil staining from the fur of bats (indication of frequent use of a particular site), and/or wear of substrates caused by the movement of bats in and out over a long period of time.

2.4 Constraints

The survey was not restricted and full access to the target building was possible.

Whilst no biological survey can guarantee that all cues and signs of protected or notable species will be recorded, Ellendale Environmental are confident that all key fauna present during the survey were noted.

3. Results

3.1 Desk Study

The following bat species were identified within 5km of the site boundaries by the data search:

- Lesser horseshoe bat *Rhinolophus hipposideros* (205 records, the closest of which is located 645m south of the site and was recorded in 1985. The most recent recording within 5km of the site was in 2023);
- Greater horseshoe bat *Rhinolophus ferrumequinum* (193 records, the closest of which is located 150m south-east of the site recorded in 2021 and is the most recent recorded within 5km of the site);
- Natterers bat (125 records, the closest of which is located 150m south-east of the site recorded in 1993, the most recent recorded in 2015);
- Daubenton's bat *Myotis daubentonii* (92 records, the closest of which is located 645m south of the site and was recorded in 1993. The most recent recording within 5km of the site was in 2023);
- Brown long-eared bat *Plecotus auritus Myotis nattereri* (28 records, the closest of which is located 711m south of the site and was recorded in 1985. The most recent recording within 5km of the site was in 2021);
- Serotine bat *Eptesicus serotinus* (25 records, the closest of which is located 711m south of the site and was recorded in 1985, The most recent recording within 5km of the site was in 2021);
- Common pipistrelle *Pipistrellus pipistrellus* (25 records, the closest of which is located 915m south-west of the site and was recorded in 2000. The most recent recording within 5km of the site was in 2023);
- Noctule bat *Nyctalus noctula* (15 records, the closest of which is and most recent recording is located 3.8km south-west of the site and was recorded in 2023);
- Whiskered bat *Myotis mystacinus* (13 records, the closest of which is located 711m south of the site and was recorded in 1985. The most recent recording within 5km of the site was in 2021);

- Brandt's bat *Myotis brandtii* (seven records, the closest of which is located 645m south of the site and was recorded in 1985. The most recent recording within 5km of the site was in 2000).
- Bechstein's Bat *Myotis bechsteinii* (seven records, the closest of which is located 645m south of the site and was recorded in 1985. The most recent recording within 5km of the site was in 2000).
- Soprano pipistrelle *Pipistrellus pygmaeus* (five records, the closest of which is and most recent recording is located 3.8km south-west of the site and was recorded in 2023);
- Leisler's bat *Nyctalus leisleri* (one record, located 650m west of the site, the most recent recorded in 2018); and
- Bechstein's bat *Myotis bechsteinii* (six records, the closest of which is located 711m south of the site and was recorded in 2000. The most recent recording within 5km of the site was in 2015).

Bird Species

Approximately 78 bird species have been recorded within 2km of the site and are shown on the NBN Atlas; however, none of these records are within the site boundaries.

3.2 Site Description

The site is located on Box Hill, to the north of the village of Box and to the north-east of the city of Bath in Somerset and comprises a bungalow (the target building) with two single-story extensions to the side. The bungalow sits within a mature garden of hard landscaping and a lawn which has been cut into the natural stone hill. It is proposed to remove the existing roof and add a timber frame second floor and a new roof structure.

Photograph 1: showing a view of the target building.



3.3 Physical Bat Survey

The target building is a rectangular-shaped bungalow with a pitched roof covered with traditional terracotta tiles. It is adjacent to an area of amenity grassland and an area of hardstanding which provides access to the building.

Externally the walls of the building were found to be in a good condition with no gaps or crevices in which bats could gain access for roosting. The walls were found to be smooth and no evidence of bat activity, such as droppings or feeding remains, was found.

The windows and doors of the building were found to be in good condition with no gaps where bats could gain access to the internal spaces for roosting. No evidence of bat activity such as droppings or feeding remains was found around the doors or windows, and there was no evidence of bat activity within the main living areas of the building.

The external roof structure of the building was found to be in a good condition with no loose, lifted or missing tiles that would allow bats to access the internal spaces. Lichens and moss were found to be present across the roof structure indicating that it is wet. No evidence of bat activity, such as droppings or staining, was found.

Photograph 2: showing a view of the target building.



The loft space was converted by the previous owners into two halves. One half is a fully boarded and decorated bedroom with storage in the eaves, therefore it was not possible to inspect the underside of the roof and felt. The other side is used as storage area where some of the panelling was loose, thereby allowing access to inspect the felt. There were no signs of ingress/egress and the felt was in a good condition. Furthermore, no signs of bats were present such as droppings or bat urine.

Photograph 3: showing a view of the loft space



No evidence of roosting bats was found within the target building during the survey and bats are not considered to be present. The target building is thus assessed as providing Negligible Roost Potential for bats and no further surveys for bats are recommended.

The trees around the target building did not have any features present that could support roosting bats (such as cracks or crevices) and no evidence of roosting was found. The trees are therefore also assessed as providing Negligible Roosting Potential.

3.4 Nesting Bird Survey

No evidence of nesting birds was found within the target building or trees during the survey.

4. Conclusions

4.1 Conclusion

Ellendale Environmental Limited was commissioned by Sam Smith to undertake a Preliminary Roost Assessment (PRA) and a nesting bird survey of an existing bungalow at Little Tyning, Box Hill, Corsham, SN13 8HG. A daytime physical survey of the target building was undertaken on Friday 16th February 2024 and full access was provided for the survey.

The building is a rectangular-shaped bungalow constructed from Bradstone block walls with a pitched roof covered with traditional terracotta tiles. The site sits within an area of amenity grassland and an area of hardstanding which provides access to the building.

The external walls of the target building were found to be in a good condition with no gaps or crevices in which bats could gain access for roosting. The windows and doors were found to be in a good condition with no gaps present where bats could gain access to the internal spaces for roosting. The external roof structure was also found to be in a good condition with no loose, lifted or missing tiles that could be suitable for roosting bats or provide access to the internal loft space.

The loft space was found to be in a good condition due to a previous conversion into a bedroom and storage area. The areas that were accessible showed a membrane present between the roof and the external tiles. No gaps or rips were found to be present in the membrane and no gaps were noted where bats could gain access to the internal spaces. Cobwebs were also found to be present and looked undisturbed, indicating that bats are not present.

During the survey of the target building, no evidence of bat activity was found on the external or internal surfaces such as droppings, staining or feeding remains. Overall, the target building is assessed as providing Negligible Roost Potential for bat species. No evidence of bat activity was found during the survey and no further surveys are recommended.

Trees present around the buildings did not have features present that could support roosting bats and no evidence of roosting was found. The trees present are therefore assessed as providing Negligible Roosting Potential.

Furthermore, no evidence of nesting birds was found during the survey.

4.2 Main Recommendations

Given the findings of the survey, it is very unlikely that bats are roosting in the target building. However, it is advised that precautionary working methods are undertaken during works to the building, including:

- Site personnel will be made aware of the potential presence of bats through a toolbox talk;
- If a bat is found, or the presence of bats is suspected, all work must stop immediately, and a licensed bat worker must be contacted for advice;
- Bats must not be handled under any circumstances; and
- An ecologist will assess a potential roost space (if identified/found) and inform NE of the proposed actions to be undertaken.

4.3 Suggested Biodiversity Enhancements

The following recommendations are made for modest post-construction ecological enhancements at the site which are proportionate with the low level of environmental impact from the proposed development:

- Bird nesting boxes (both small-hole and open-fronted) should be placed within the site, if possible, to create nesting opportunities for small bird species; and
- A bat box should be placed on the building, if possible, to create roosting opportunities for bat species.