



BAT EMERGENCE SURVEY REPORT

CLIENT: Amal Patel

SITE: 29 Nicholas Way, Northwood, Middlesex, HA6 2TR.

CONSULTANT: Margarita Smoldareva BSc PGDip

CHECKED BY: Oliver Tong ND Arb TechArborA

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This report is valid for one year from the date of the survey visit. Should works be delayed to later than one year after the survey then a further update survey of the site would be required as habitats change over time, along with their potential to support protected species.

This report was written by a suitably qualified ecologist, Rita Smoldareva. Rita is a qualifying member of Chartered Institute of Ecology and Environmental Management (CIEEM), and associate member the Landscape Institute and Institute of Environmental Management and Assessment (IEMA). Rita has 8 years' experience (within the last 8 years) and gained a wide range of ecological skills through academic and professional experiences. She has worked in ecological consultancy during several survey seasons and has experience undertaking protected species surveys and Phase 1 Habitat Surveys. Margarita gained a Great Crested Newt Level 1 Licence in 2019, Bat Level 1 Licence in 2022 and has been involved in multiple reptile translocation projects. Margarita's qualifications include BSc (Hons) in Landscape Management (Land Use) in 2013 (University of Greenwich), Postgraduate Diploma in Landscape Ecology with GIS in 2018 (University of Greenwich) and she is presently studying MSc Connected Environments (part-time) at University College London (UCL East).

1. Introduction

Project Description

In August 2022, Amal Patel instructed Greenwood Environmental Ltd to undertake a nocturnal emergence bat survey at 29 Nicholas Way, Northwood, Middlesex, HA6 2TR.

A Preliminary Ecological Appraisal and Preliminary Bat Roost Assessment of the site was undertaken in June 2022 by Greenwood Environmental Ltd, and the finding can be found in GEL_1482 report. During the assessment of the residential building on site, numerous external potential roosting features were noted that could potentially be utilised by bats and the residential building and the garage were classed as low potential to support roosting bats. As such, one dusk emergence or dawn-entry survey was recommended.

This report details the finding of dusk emergence bat survey undertaken on 25th August 2022.

Development Site Description and Context

The site is a rectangular shaped parcel of land located in a semi-urban setting. The site measures to 0.17 ha and located off Nicholas Way, Northwood. The site is centred at National Grid Reference TQ08279067.

At the time of the survey, the site comprised of residential building, garage, introduced shrubs, plantation woodland and amenity grassland. The plantation woodland to the rear garden has mature trees with limited understorey growth and it is proposed to retain all of this habitat.

The site is outside Hillingdon Greenbelt but is near the site. To the south, Ruislip Woods National Nature Reserve is present which spreads out further to Mad Bess Wood and Park Wood which is also designated as Site of Special Scientific Interest (SSSI).

Further green spaces include Northwood Golf Course to the east, The Gravel Pits to the north, and to the east large agricultural fields with hedgerows are present.

Proposed Works

The proposed works comprise of demolition of existing building and garage on site and facilitating construction of new residential building.

2. Relevant Legislation

Bats

Bats and the places they use for shelter or protection (i.e. roosts) receive European protection under The Conservation of Habitats and Species Regulations 2017 (as amended) (Habitats Regulations 2017). They receive further legal protection under the Wildlife and Countryside Act (WCA) 1981, as amended. This protection means that bats, and the places they use for shelter or protection, are capable of being a material consideration in the planning process.

Regulation 41 of the Habitats Regulations 2017 (as amended), states that a person commits an offence if they:

- deliberately capture, injure or kill a bat;
- deliberately disturb bats; or
- damage or destroy a bat roost (breeding site or resting place).

Disturbance of animals includes in particular any disturbance which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young, or in the case of animals of a hibernating or migratory species, to hibernate or migrate; or to affect significantly the local distribution or abundance of the species to which they belong.

It is an offence under the Habitats Regulations 2017 for any person to have in his possession or control, to transport, to sell or exchange or to offer for sale, any live or dead bats, part of a bat or anything derived from bats, which has been unlawfully taken from the wild.

Whilst broadly similar to the above legislation, the WCA 1981 (as amended) differs in the following ways:

- Section 9(1) of the WCA makes it an offence to *intentionally* kill, injure or take any protected species.
- Section 9(4)(a) of the WCA makes it an offence to *intentionally or recklessly** damage or destroy, *or obstruct access to*, any structure or place which a protected species uses for shelter or protection.
- Section 9(4)(b) of the WCA makes it an offence to *intentionally or recklessly** disturb any protected species *while it is occupying a structure or place which it uses for shelter or protection*.

*Reckless offences were added by the Countryside and Rights of Way (CRoW) Act 2000.

As bats re-use the same roosts (breeding site or resting place) after periods of vacancy, legal opinion is that roosts are protected whether or not bats are present.

The following bat species are Species of Principal Importance for Nature Conservation in England: Barbastelle Bat *Barbastella barbastellus*, Bechstein's Bat *Myotis bechsteinii*, Noctule Bat *Nyctalus noctula*, Soprano Pipistrelle *Pipistrellus pygmaeus*, Brown Long-eared Bat *Plecotus auritus*, Greater Horseshoe Bat *Rhinolophus ferrumequinum* and Lesser Horseshoe Bat *Rhinolophus hipposideros*.

3. Bat Survey Methodology

General information

The survey methodology for the surveys carried out followed the guidelines as set out in the Bat Conservation Trust publication, Bat surveys for Professional Ecologist (Good practice guidelines), 3rd edition, 2016.

Type of survey carried out

Presence/absence survey (emergence/re-entry)

The survey involved one dusk nocturnal visit to watch, listen for and record bats exiting bat roosts. The aim of the survey is to determine the presence or likely absence of roosting bats at the time of surveys and the need for mitigation.

Equipment used

Bat detector types used included Echo Meter Touch 2 Pro (for ios), Batscanner and Bat Box baton.

Constraints

All areas required to be surveyed were visible and accessible. Therefore, there were no constraints to surveying.

4. Bat Survey Results

Weather conditions

Date	Survey	Times	Weather conditions
25/08/2022	Dusk	19:45 – 21:30 sunset at 20:02	Temp: 21 C Cloudy: 0% Wind: F0 Rain: None

Survey results

Description of emerging bats.

No bats emerged from the any features associated with the residential building on site.

Description of other bat behaviour.

Total of two bat species were recorded during the survey. These were Common pipistrelle (*Pipistrellus pipistrellus*) and Noctule (*Nyctalus noctula*) bats.

Bat survey results

Date	Surveyor and survey position	Building (Elevation covered)	Activity
Survey visit 1			
25/08/2022	Margarita Smoldareva (1)	Residential Building and garage (Eastern elevation)	<p>First bat call was detected at 19:55 (7 minutes before sunset), this was noctule bat however no visual contact was made. Second noctule call was detected at 20:01, this bat was not observed. The third bat was detected at 20:32 (30 minutes after sunset) this was common pipistrelle commuting from west towards the east. This bat remained on site to forage for approximately 9 minutes above the trees located along the eastern site boundary. After foraging, it exited the site to the south-west.</p> <p>All bats recorded did not emerge from any features associated with the eastern and southern elevation of the main building.</p>
	Deqa Mohamed (2)	Residential Building (Southern elevation)	<p>First bat call was detected at 19:55 (7 minutes before sunset), this was noctule bat however no visual contact was made. Second noctule call was detected at 20:01, this bat was not observed. The third bat was detected at 20:32 (30 minutes after sunset) this was common pipistrelle commuting from west towards the east. This bat remained on site to forage for approximately 9 minutes above the trees located along the eastern site boundary. After foraging, it exited the site to the south-west.</p> <p>All bats recorded did not emerge from any features associated with the eastern and southern elevation of the main building.</p>
	Hamza Mohamed (3)	Residential Building and garage (Western elevation)	<p>First bat call was detected at 19:55 (7 minutes before sunset), this was noctule bat however no visual contact was made. Second noctule call was detected at 20:01, this bat was not observed. The third bat was detected at 20:32 (30 minutes after sunset) this was common pipistrelle commuting from west towards the east.</p> <p>All bats recorded did not emerge from any features associated with the eastern and southern elevation of the main building.</p>

Surveyors

The lead surveyor (1) for nocturnal emergence survey was Margarita Smoldareva BSc (Hons) PGDip, an experienced bat surveyor, with over 8 years' experience of bat surveys and holds level 1 bat licence since July 2022.

Assistant surveyor (2) was Deqa Mohamed. Deqa is an experienced bat surveyor who has four years of experience in conducting bat surveys.

Assistant Surveyor (3) was Hamza Mohamed. Hamza is an experienced bat surveyor who has undertaken bat surveys over the last two years.

Bat Survey Map

Nocturnal Bat Survey Results Map (25th August 2022)



Map 1: Nocturnal Bat Survey Results Map

Recommendations

Further surveys

No further surveying or precautions relating to roosting bats are currently required. Should works be delayed, if they are to start later than one year after the date of the last survey visit (25th August 2022), then a further update bat survey would be required as bats often change roost sites and in a years' time the status of the building in relation to bats may change.

In the unlikely event of a bat being found underneath tiles or in any other part of the building, works should stop immediately, and an ecologist consulted as to what measures should then be taken.

European Protected species mitigation licence

No licence would be required to carry out the works.

Lighting

The survey found two species commuting and foraging within the site boundary, and utilising surrounding areas. If any additional lighting is to be installed on site, this should be designed so as to avoid increasing the levels of lighting on to adjacent trees, hedges and shrubbery. The most current guidance on lighting and bats had been issued by the Institution of Lighting Professionals (ILP). This guidance is available on the ILP website as a Guidance Note (GN) and can be downloaded at: <https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/>

Enhancement Recommendations

Roosting Bats: It is recommended to install one built-in bat box on-site along with other roosting features. If possible, the box should be incorporated into the design of the new dwelling to ensure that a permanent roosting feature is created on-site. The box should be suitable for crevice dwelling species which are most likely to utilise existing PRFs. The box should be positioned 3-5 metres above ground level, orientated south or westwards. There should be a clear path to the entrance.

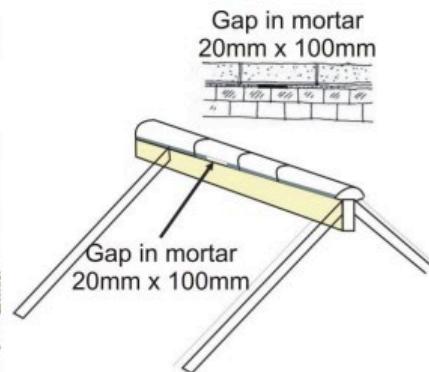
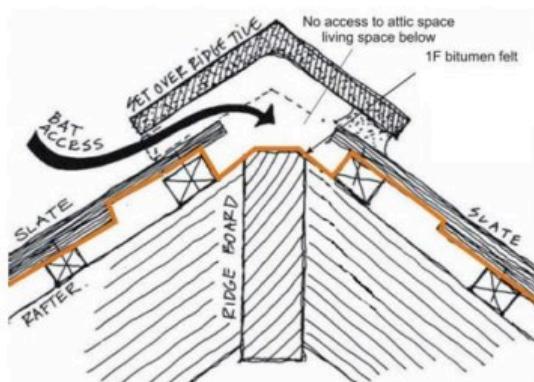
Bat boxes will be installed at a minimum height of 4 m to prevent disturbance, with clear flight access into the entrances.

The box is designed to be maintenance free. Should any future bat monitoring be required, only a suitably qualified ecologist should check the bat boxes. If bats are found to be present, any subsequent checks need to be undertaken by a licensed bat surveyor.

No external lighting should be situated near to the bat box. If external lighting is required within close proximity to the box, the lighting should be directed away from the box in order not to deter bats.

Proposed bat box and other built-in bat roosting features specifications are detailed below.

Bat Box	Notes	Bat Box Image
Habitat built-in bat box 001 1 no.	<p>The Habitat Bat Box is a large, solid box made of insulating concrete which provides an internal roost space, and can be seamlessly integrated into the fabric of a building as it is built or renovated. Suitable for most species commonly found in the UK, this single chambered unit features an integrated V system to increase the surface for bats to roost against, whilst allowing them to move around.</p> <p>The Habitat Bat Box can be faced with a number of products to suit the design build. This includes, brick, block, stone, wood or a rendered finish, ensuring the box is unobtrusive and aesthetically pleasing.</p> <p><u>Unfaced</u>- There are a choice of 3 plinth colours are available: smooth blue, smooth red, or buff.</p> <p><u>Standard Facing</u>- This box is faced in standard smooth blue or red brick and is ideal for new builds.</p> <p><u>Bespoke Facing</u>- This box is made to order with a choice of finishes.</p> <p>Dimensions: 215 x 440 x 102 mm plus facing bricks Material: Concrete plus facing Weight: approximately 7 kg</p>	
<p>Notes: Images obtained from https://www.wildcare.co.uk/habitat-built-in-bat-box-001.html</p> <p>*or suitable alternative depending on availability.</p>		



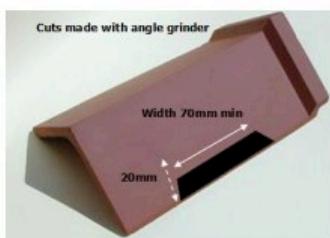
Bat Access Via Gap in Ridge Tile



Passageway Maintained Between Ridge Tiles



A lead saddle can be installed in exposed situations to prevent any risk of water ingress.
It is recommended that the minimum width of the lead is code 6. Thinner lead will most likely require strengthening.



It is important that sufficient gap is left in the mortar so that a minimum gap of 15mm by 50mm by 150mm is left for bats to accommodate. Ideally, just the ends of the tile are bedded leaving the central area clear.

Opening made on one side only to reduce draughts. Good practice to alternate sides to maximise usage by bats.

Depth measurement sufficient to give 20mm max.

Other permanent built-in roosting features are recommended. Details and requirements to be agreed with Local Planning Authority Ecologist.

References

Collins, J. (ed), (2016), Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd Edition, BCT, London
Mitchell-Jones, A.J. (2004), Bat Mitigation Guidelines, English Nature, Peterborough

