HalpinRobbins

Ecology & Environmental Services

Ecological Appraisal

Upalong, Sidford EX10 9SY

SY 12571 90057



Project No.: **02/004/001/01**

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REVISION AND AMENDMENT REGISTER

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CONTENTS

EXECUTIVE SUMMARY

This summary is an extract of the report, please ensure the report is read in its entirety for detailed survey findings and recommendations.

This survey report details the findings of a desk study, ecological building survey and a bat survey assessment conducted of a property known as Upalong in Sidford, Devon in support of a planning application to demolish an existing bungalow and construct a two-storey house within the footprint.

Following the ecological building survey, the bungalow was assessed as having moderate potential to support roosting bats. Outbuildings located to the east of the bungalow were also inspected and were assessed as having negligible potential to support roosting bats.

No bat roosts have been identified within the bungalow therefore the proposed demolition works are not anticipated to result in impacts to bat species.

No evidence of nesting birds was identified within the bungalow, however the bungalow and outbuildings hold some low potential for birds during future nesting seasons. Measures to avoid harm to nesting birds and avoid disturbance to foraging bats are provided in Section 4.

1.3 Site Location

The site is centred upon Ordnance Survey (O.S.) Grid Reference SY 12569 90058 on the northern edge of the village of Sidford, located to the north of Sidmouth in Devon. The location of the site is shown in Figure 1.

The site is accessed via Elm Way to the west. Land immediately north of the site comprises agricultural fields bordered by broadleaved woodland and hedgerows. Residential properties and gardens border the site to the south, east and west. The wider landscape comprises pasture and arable fields bordered by hedgerows, woodland copses and residential properties.

1.4 Limitations and Considerations

1.4.1 Desk Study

Desk study results only give an indication of species presence in a location. The absence of recent records for certain species in an area may be due to low levels of biological recording or the non-submission of records, rather than absence. Many species records are also at low geographical resolution and do not indicate their exact location and often provide little detail about abundance.

1.4.2 Ecological Building Survey

The hipped sections of the roof were not accessible during the ecological building survey, however as the main loft void was accessed and subsequent bat surveys were undertaken, this is not considered a constraint to the assessment.

1.4.3 Bat Survey Assessment

Surveys were carried out during optimal weather conditions considered suitable for conducting robust data collection with temperatures suitable for bat activity to be recorded.

Analysis of bat species from echolocation call analysis alone is not a definitive guide to species present. It is known that both common and soprano pipistrelle bats do vary their echolocation calls and therefore species determination should be treated with a degree of caution.

1 INTRODUCTION

1.1 Background and Purpose of Survey

HalpinRobbins Limited was commissioned to undertake a desk study, ecological building survey and a subsequent bat survey assessment of a property known as Upalong in Sidford, Devon in support of a planning application for the demolition of an existing bungalow and construction of a two-storey house within the footprint.

The methodology used for the appraisal has been designed to examine the ecology of the site based on a field survey and an appraisal of the surrounding biodiversity using data obtained from a variety of sources to meet the following objectives:

- Examine baseline data of existing flora and fauna of the site and identify their conservation importance.
- Identify any evidence of protected species or species of ecological importance and evaluate the likely impact on these species.
- Identify any environmentally designated sites at or near the location and evaluate the likely impact on these sites.
- Establish the role the site plays in the surrounding biodiversity.
- Inform the proposed site development, including the requirement for bat mitigation and Protected Species Licence requirements.
- Provide evidence that an assessment has been made as to the potential for the site building to support roosting bats in order to demonstrate compliance with wildlife legislation protecting bats and planning policy.
- Give an indication of the population size of each species of bat present on site, if observed and recorded.
- Recommend further mitigation where assessed as necessary and suggest potential enhancements.

1.2 Proposed Development

The client is seeking planning permission for the demolition of the existing bungalow and construction of a two-storey house within the footprint.

2 METHODOLOGY

2.1 Desk Study

Biological records from the Devon Biodiversiry Record Centre (DBRC) were obtained comprising bat species records within a 2km radius of the site.

Web-based DEFRA resource Multi-Agency Geographic Information for the Countryside was also consulted to identify statutory designated nature conservation sites within or immediately adjacent to the site surveyed and any Protected Species Licences within 5 km of the site.

2.2 Ecological Building Survey

The bungalow and its surrounding grounds, including three outbuildings (a garage, a wooden shed and an open-fronted outbuilding located to the east of the bungalow) were inspected externally and internally using a surveyor's ladder, high powered torch, Batbox Duet bat detector and video endoscope where necessary to assess potential for the structures to support roosting bats and nesting birds.

Evidence of roosting bats could include live animals, carcasses, droppings and feeding remains. Evidence of nesting birds could include feathers, nesting material, eggs and potentially pellets.

A rating of between negligible and high suitability was assigned to the structures based on their likelihood of supporting roosting bats. If a bat was identified in a structure during the survey the structure was recorded as a confirmed roost (Collins, 2016).

- **Negligible:** Negligible habitat features to be used by roosting bats.
- **Low:** A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).
- **Moderate:** A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status.
- **High:** A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

2.3 Bat Survey Assessment

In accordance with the Bat Conservation Trust Good Practice Guidelines for Bat Surveys (Colins, 2016) the bungalow was assessed as having moderate potential to support roosting bats and therefore subject to one dusk emergence and one pre-dawn re-entry bat survey. The survey details are presented in Table 1 below.

Outbuildings within the site were assessed as having negligible potential to support roosting bats, therefore no further surveys were necessary.

Bat survey recording equipment used included Batbox Duet, Anabat Walkabout and Echo Meter 3+ bat detectors.

Analysis of recorded bat echolocation calls was undertaken using Analook software in Microsoft Windows. Echolocation calls were assigned to bat species by comparison of sonograms with a library of known bat calls and reference of echolocation call parameters. Where calls could not be assigned to a species, identification to genus level was made.

When assigning calls to pipistrelle species, calls with a peak frequency of 42-48KHz were assigned to common pipistrelle *Pipistrellus pipistrellus*, calls with a peak frequency of >48-52KHz assigned as *Pipistrellus* spp. and calls with a peak frequency of >52KHz were assigned to soprano pipistrelle *Pipistrellus pygmaeus*.

2.4 Personnel

Table 1 details the personnel, dates and types of surveys undertaken at the site.

Table 1. Details of the personnel, dates and types of surveys undertaken at the site.

Survey	Date	Personnel
Ecological Building Survey	06 October 2020	Bethan Withey, (Ecologist), ACIEEM, Natural England Bat Class Licence CL18 (Level 2) 2016-20644-CLS-CLS
Dusk Emergence Bat Survey	11 May 2021	Bethan Withey, (Ecologist) Sophia Priddle, (Ecologist), ACIEEM, Natural England Bat Class Licence CL18 (Level 2) 2015-12642-CLS-CLS Beth Wright (Assistant Surveyor)
Dawn Re-entry Bat Survey	01 June 2021	Bethan Withey, (Ecologist) Beth Cross, (Assistant Ecologist)

3 RESULTS

3.1 Desk Study

3.1.1 Statutory Nature Conservation Designations

No Statutory Nature Conservation Designations were identified within 1km of the site. The site lies on the border of the East Devon Area of Outstanding Natural Beauty (AONB).

3.1.2 Non-Statutory Nature Conservation Designations

No non-Statutory Nature Conservation Designations were identified within 1km of the site.

3.1.3 Protected Species Mitigation Licences

Eight protected species mitigation licences have been granted in relation to bats within 5km of the site, the closest being approximately 0.9km to the northwest of site. Species comprise brown long-eared bat *Plecotus auritus,* soprano pipistrelle *Pipistrellus pygmaeus,* lesser horseshoe bat *Rhinolophus hipposideros* and common pipistrelle *P. pipistrellus*.

3.1.4 Data Search

Thirty-nine records of bats were identified within 2km of the site. Species comprise barbastelle *Barbastella barbastellus* (two records), brown long-eared bat (two records), common pipistrelle (four records), greater horseshoe bat *Rhinolophus ferrumequinum* (five records), lesser horseshoe bat (seven records), serotine *Eptesicus serotinus* (one record), unidentified long-eared bat *Plecotus spp.* (four records), whiskered bat *Myotis mystacinus* (one record) and records only given as "a bat" (ten records). The closest known record to the site is of a barbastelle located approximately 665m to the east.

3.2 Species

3.2.1 Birds

No evidence of nesting birds was identified within the bungalow or outbuildings surveyed, however there is potential for the buildings to be used during future nesting seasons.

3.2.2 Bats

<u>Ecological Building Survey</u>

Table 2 provides a description of each of the buildings.

Table 2. Description of buildings within the site.

Building Reference	Description
Bungalow	Vacant, one-storey building comprising rendered walls and a moderately sloping roof with two hips, comprised of slate tiles with clay ridge tiles. There is a small flat section of roof comprised of bitumen on the northern elevation. The chimney is concrete and brick with lead flashing present. There are wooden barge boards and soffits. The loft void is lined with wooden sarking and the void was cobwebbed at the ridge and rafters. Very small gaps were noted at the eaves on the northern elevation providing potential access points for bats. Potential roosting features noted externally include an area of damage to the soffit on the eastern gable, damage to slate tiles on the eastern elevation of the south facing hip, gaps under ridge tiles on the eastern roof face of the south facing hip, a gap under the roof tile possibly leading to the space behind the barge boards in the south eastern corner, a gap under slate in the roof valley on the eastern roof face, gaps under ridge tiles on the southern roof face, raised roof tiles on the southern roof face and a gap behind the render on the western elevation. Internal conditions within the loft void were recorded as 14.7°C and 55% relative humidity (rh). No evidence of bats was identified. Mouse droppings were noted within the loft void. The bungalow was assessed as having **moderate** potential to support roosting bats.
Garage	Small, redundant, single-storey building comprised of concrete, pebble-dashed walls and an asbestos sheet roof. Building assessed as having **negligible** potential to support roosting bats.
Shed 1	Single skinned small wooden shed.
Shed 2	Open-fronted timber structure with a flat, bitumen felt roof. Building assessed as having **negligible** potential to support roosting bats.

Bat Survey Assessment

No bats were recorded emerging from the bungalow. The survey details are provided below.

Table 3. Dusk emergence survey results – 11 May 2021.

SURVEY TYPE	Dusk emergence				
DATE	11 May 2021				
SUNSET TIME	20:49				
START TIME	20:35	FINISH TIME	22:20		
LEAD SURVEYOR	BW	EQUIPMENT	Echo Meter 3+, Batbox Duet, Anabat Express		
TEMPERATURE	Start: 12.6°C				
	End: 9.2°C				
RAIN	Start: 0	WIND (BEAUFORT):	Start: 2.3	CLOUD (%):	Start: 30
	End: 0		End: 1		End: 80

Time	Bat Species (No.)	Behaviour	Figure Ref.
Notes:	No bats were recorded emerging from the bungalow.		

Table 4. Dawn re-entry survey results- 01 June 2021.

SURVEY TYPE	Dawn re-entry				
DATE	01 June 2021				
SUNRISE TIME	05:06				
START TIME	03:36	FINISH TIME	05:21		
LEAD SURVEYOR	BW	EQUIPMENT	Echo Meter 3+, Echo Meter Touch		
TEMPERATURE	Start: 11.5°C				
	End: 11.0°C				
RAIN	Start: 0	WIND (BEAUFORT):	Start: 0	CLOUD (%):	Start: 10
	End: 0		End: 0		End: 10

Time	Bat Species (No.)	Behaviour	Figure Ref.
Notes:	No bats were recorded re-entering the bungalow.		

Moderate bat activity was recorded within the site during surveys with pipistrelle bats recorded foraging and commuting in the garden to the southeast of the bungalow.

3.2.3 Other species

The gardens surrounding the property have potential to be used by hedgehog *Erinaceus europaeus,* a Priority species and construction works have potential to harm this species.

4 CONCLUSION AND RECOMMENDATIONS

4.1 Conclusions

Site evaluation has been undertaken based on the current level of survey findings including a desk study, ecological building survey, a dusk emergence survey and pre-dawn re-entry bat survey.

Recommendations with regards likely impacts and requirements for mitigation, compensation or protected species licensing (where necessary) have been given based on the outline proposals given in Section 1.2 and current best practice guidance documents where appropriate.

If the site or habitats within it (or immediately adjacent to it) changes (or if development proposals alter) the potential impacts on bat and bird species may change accordingly. The ecologist listed within this document should be contacted for advice in such situations.

4.1.1 Birds

No evidence of nesting birds was identified at the time of the survey, however the bungalow and outbuildings have the potential to be used by birds during future nesting seasons. Demolition works have low potential to impact nesting birds.

4.1.2 Bats

No bat roosts have been identified within the bungalow therefore there are no anticipated impacts to roosting bats arising from the site proposals. Bats were observed foraging and commuting within the garden, and in the absence of mitigation increases in artificial illumination has potential to disturb foraging bats.

4.1.3 Other species

In the absence of mitigation, construction activities have potential to harm hedgehogs.

4.2 Recommendations

The following recommendations are based on the principles of established survey techniques and comply with relevant best practice guidelines set out by the Chartered Institute for Ecology and Environmental Management (CIEEM), Natural England, Bat Conservation Trust, the National Planning Policy Framework and other relevant organisations.

The following recommendations are broken down into key and additional recommendations for the project.

4.2.1 Key recommendations

Key recommendations are measures that should be adopted to enhance and protect flora and fauna and the ecological value of the site to comply with the criteria in current UK legislation relating to protected species and habitats.

- Any external lighting will comprise the lowest number of units for safe use of the site and be angled downward and on a short duration motion timer to avoid disturbance to foraging and commuting bats.
  Reason: To protect bats under the Wildlife and Countryside Act 1981 (as amended) and Conservation of Species Habitats and Species (Amendment) (EU Exit) Regulations 2019.

- A check for nesting birds will be undertaken prior to building demolition if works are to be carried out during the main bird nesting season (March- September inclusive). Any birds identified nesting should be left to complete their breeding until the young have fully fledged.
  Reason: Protection of nesting birds in accordance with the Wildlife and Countryside Act 1981 (as amended).

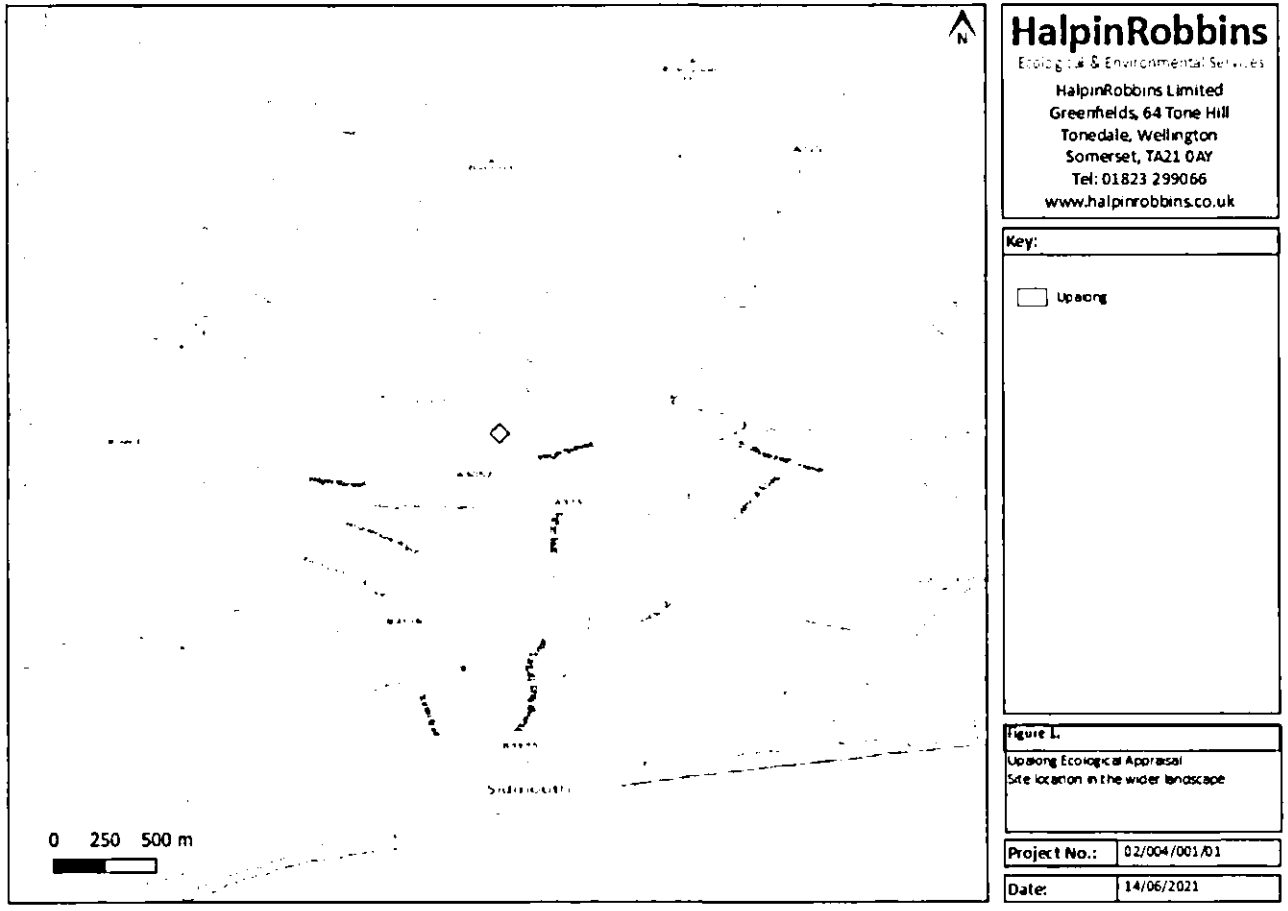
- Any exposed construction trenches should be covered over at night or provided with a means of escape for hedgehogs (e.g. ramp).
  Reason: Protection of a Priority species.

4.2.2 Additional recommendations

Additional recommendations are measures that could be adopted to enhance the ecological value of the site and go beyond the criteria in current UK legislation relating to protected species and habitats.

- Suggested biodiversity enhancements could include integrated/ externally mounted bird, bat and bee boxes within/on the proposed house. Wildlife boxes can be purchased from www.wildcare.co.uk or www.nhbs.com.

5 FIGURES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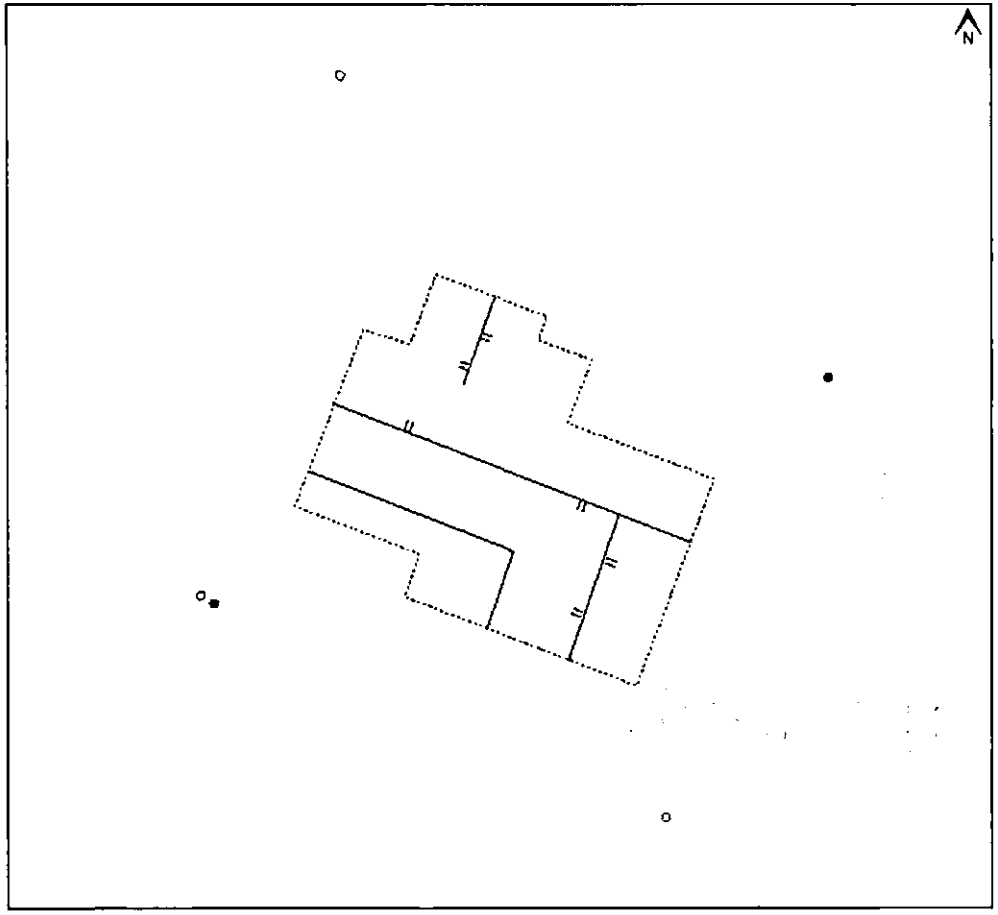
Key:
Upalong
Figure 1.
Upalong Ecological Appraisal
Site location in the wider landscape
Project No.: 02/004/001/01
Date: 14/06/2021



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Key:

- Site boundary
- Surveyor location, Dusk Bat Emergence Survey
- Surveyor location, Pre-Dawn Bat Re-entry Survey

Figure 2.
Upalong Ecological Appraisal
Surveyor location during Dusk Bat Emergence Survey 01/06/2021 and Pre-Dawn Re-entry Survey 11/05/2021

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