

Bats & Trees Survey Report



Project: Hylton Terrace, Bedlinog

Instructed by: Ruby Housing Solutions Ltd

Reported by: Ecological Services Ltd
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Contents

1. Introduction
2. Ground Based Visual Roost Assessment of Trees
3. Bat Activity Emergence Survey
4. Recommendations and Mitigation

Reference List

Appendix 1 - Tree Photographs

Appendix 2 - Tree Locations

1. Introduction

The proposed development site encompasses a parcel of land to the north east of Hylton Terrace, adjacent to Bedlinog Community Primary School, within Bedlinog (grid reference: SO 09148 01312). The site encompasses a steeply sloping banking and is approximately 0.1 Hain size. It is proposed to create four semi detached properties with parking and garden areas within the site boundary.

A Preliminary Ecological Assessment (PEA) of all land within the development boundary was completed by Ecological Services Ltd on the **7th March 2024**. The Site Assessment Survey report highlighted a single tree appeared to have features suitable for bat roosting use. The tree is located in the southeast corner of the site (approximate grid reference: SO 09142 01298). Direct access to all trees on site was hampered by the dense scrub understory, however a broad visual inspection was possible from the road side.

An attempt to undertake a survey of the potential roost feature was made on the 3rd July 2024 by Ecological Services Ltd. The dense understory surrounding the tree made it impossible to access the tree during this survey visit. Given the suitability of the trees and scrub habitat for nesting bird use, vegetation clearance at the time was not recommended.

Ecological Services Ltd were instructed to undertake a further bat survey of the tree within the proposed development site. Advice on surveying trees for bat use can be found in the BCT Survey Guidelines 2023 (4th Edition).

1.1 Site Description

The development site is located to the west of the town of Bedlinog. The site is a parcel of land that slopes steeply upwards from Commercial Street. Commercial Street is located along the south west boundary of the site and the site rises up towards the north east where it meets a unnamed single lane. Immediately south east of the site is Bedlinog Community Primary School. North east of the site runs a tarmac, single lane road for Hylton Terrace houses and north west a number of terraced properties extend along Commercial Street.

Further south of the site lies woodland, scrub and open grassland and bracken. The Taff Bargoed is located approximately 90 m south of the site within the woodland area. The land then extends up over a valley hill towards a large area of woodland approximately 1.2 km away, near Merthyr Vale. Further east of the Primary School lies a small area of scrub and trees and a residential area along the B4255. Approximately 500 m east is the Nant Llwynog waterbody which connects to the Taff Bargoed further south. An area of tussocky grassland and bracken scrub lies north of the access lane for Hylton Terrace. Where the mountain extends upwards Bedw Road leads further north to residential houses within Bedlinog. Grassland and a patchwork of fields extends onto the mountain. Hylton Terrace and Maes Y

Bedw road runs west through the valley following the Taff Bargoed approximately 720 m away towards a lake approximately 0.4 Ha in area.

1.2 Desktop Study

A data search was undertaken via Aderyn (LERC Reference: 0234-929) for the proposed development site and surrounding area. The data search was requested in March 2024 and full results are outlined within the Ecological Services Ltd Preliminary Ecological Appraisal (March 2024). A 1 km buffer zone was searched and the bat species results include:

- Nine records of bat commuting and foraging activity were returned within 1 km of the site for species: Common pipistrelle (*Pipistrellus pipistrellus*), Myotis species (*Myotis sp.*), Noctule (*Nyctalus noctula*), Soprano pipistrelle (*Pipistrellus pygmaeus*)- closest record being a Pipistrelle species 40 m east.
- Two records of bat roosts were returned within 1 km of the site. Both were Common pipistrelle bat roosts approximately 190 m east and 420 m southeast.

There are no statutory protected sites within 10 km of the site that are designated for bats.

1.3 Survey Constraints

Given the dense scrub within the site boundary, access to the south and western areas of the site to assess trees up close was difficult. However, good vantage points from less-dense areas of vegetation within the site and from the road side were gained.

The optimal time period to carry out ground-based visual assessments of trees for bat roosting potential is between December to March inclusive, when broad-leaved trees are devoid of leaves and features are more readily visible. It should be noted that ground based assessments are inherently constrained and potential roosting features present upon the skyward facing surfaces of limbs and branches will most likely be missed.

1.4 Surveyor Experience

Beth Lewis is an associate member of Chartered Institute of Ecology and Environmental Management (CIEEM). Beth is an ecologist with 6 years experience undertaking a wide range of flora and fauna surveys. Beth is also an experienced bat surveyor. All survey work is undertaken following JNCC Phase 1 Survey Guidelines and CIEEM Guidelines for Preliminary Ecological Appraisal (2nd Ed 2017).

Aislinn Harris is a full member of Chartered Institute of Ecology and Environmental Management (CIEEM). Aislinn is an ecologist with 14 years experience undertaking a wide range of flora and fauna surveys. All survey work is undertaken following JNCC Phase 1

Survey Guidelines and CIEEM Guidelines for Preliminary Ecological Appraisal (2nd Ed 2017).
Aislinn is a licensed bat, great crested newt and

1.5 Legislation

All British bats are a European protected species and are protected under the Conservation of Habitats and Species Regulations 2017. In summary, they are protected from:

- Deliberate capture, killing and injuring,
- Deliberate disturbance of a breeding site or resting place,
- Damage or destruction of a breeding site or resting place.

Schedule 5 of The Wildlife and Countryside Act (1981) also protects all species of British bat and their roosting locations. British bats are protected from intentional or reckless disturbance and or obstruction of their roosting places. Barbastelle, Bechstein's, Noctule, Brown long-eared, common pipistrelle, soprano pipistrelle, greater horseshoe and lesser horseshoe bats are also listed in section 7 of the Environment (Wales) Act 2016 which makes them a key species to sustain and improve biodiversity.

2. Ground Level Tree Assessment for Bat Roost Suitability

An assessment of trees for their potential bat roosting suitability should start with a ground level tree assessment (GLTA). The aim is to assess a tree, via visual inspection and binoculars, for features which bats could use. The surveyor is looking for any cavity, gap or crack in the tree which bats could use for roosting purposes.

A tree in the southeast corner of the site (approximate grid reference: SO 09142 01298) was noted to have bat roost suitability with potential roost features (PRFs) for bats present in its main trunk approximately 2 m high. A small amount of vegetation clearance around the base of the tree was undertaken on the 10th September using hand tools to clear a route and enable full access around the tree.

2.1 Survey Methodology

A GLTA of T1 undertaken on **11th September 2024** to assess the features within this tree up close. This is a suboptimal time of year to undertake such surveys as the leaf cover is not at its minimum so any potential features high up within the tree canopies can be difficult to view. However good access around the tree was possible during the survey visit.

The surveyor stood at the base of each tree and visually inspected it using close focusing binoculars. The tree is then categorised into NONE, FAR or PRF bat roost potential based on the features observed. An extract of Table 4.2 and 6.2 from the BCT Bat Surveys for Professional Ecologists - Good Practice Guidelines 2023 (4th Edition) is given below on how trees should be categorised.

Table 1 - Bat Roost Categories for Trees

Suitability	Description of Roosting Features
NONE	Either no PRFs in the tree or highly unlikely to be any
FAR	Further Assessment Required to establish if PRFs are present in the tree
PRF	A tree with at least one PRF present
PRF-I	Tree with PRFs which are only suitable for individual or very small numbers of bats due to size of lack of suitable surrounding habitat
PRF-M	Tree with PRFs which are / is suitable for multiple bats. Maternity colony maybe present

2.2 Survey Results

T1 (approximate grid reference: SO 09142 01298) was assessed from the road side as having features present within it that could be suitable for use by roosting bats. Upon closer inspection using an endoscope, after vegetation clearance was possible to gain access to the

base of the tree, T1 was assessed as having two PRFs present of which both had **NONE** bat roost potential. Full details of the features surveyed are provided in Table 2 below.

Table 2 - Tree Assessment Information

Tree No.	Species	DBH of tree	PRF information	Bat Roost Suitability	Notes	Photograph
T1	Hawthorn (<i>Crataegus monogyna</i>)	Approx 15 cm	FEATURE A- Callous roll. 2 m high on SW aspect of tree	NONE	Callous roll within main trunk of tree. Approximately 3 cm x 10 cm and extends into the tree approximately 3 cm. the features did not create a cavity in which a bat could utilise.	
			FEATURE B- Split. 2 m high on E aspect of tree	NONE	Upward facing split at base of branch where it meets main trunk, extending out eastwards. Approximately 12 cm long x 1.5 cm wide. Extends into cavity approximately 2 cm deep. Damp within with multiple woodlice present in split. Cavity open to the elements with gap too small to allow bat to enter comfortably or roost within.	

3. Bat Activity Emergence Survey

3.1 Survey Methodology

A bat activity emergence survey was undertaken on Tree 1. The bat activity survey was conducted from half an hour before sunset until two hours post sunset. The surveyors used are experienced bat counter who have undergone sufficient training in basic bat ecology and bat activity. All sound analysis was undertaken by Richard Watkins. The best viewing conditions were obtained. Echo-meter Touch 2 Pro bat detectors were present to acoustically record any bat calls. Nightfox Night Vision Goggles with record features were also used alongside additional infrared spotlights. These were positioned with the surveyors.

3.2 Survey Results

During the emergence surveys, no bats were observed emerging from Tree 1. Throughout the surveys, a very low number of bat calls were recorded and no bats were observed using the tree. Therefore it is suggested that the removal of T1 will have a negligible impact on the local bat population.

The tree does not offer significant hibernation potential for bats due to the aperture being too small for bat access and does not provide sheltered conditions. The tree and site is located within an area of good ecological connectivity for bats to the wider environment. There was high amounts of ambient lighting along Hylton Terrace to the south of the site.

Table 3 - survey Details

Survey Date	Survey Time	Temperature	Cloud Cover	Surveyors	Survey Notes
13/09/2024	Survey Start time: 19:00 Sunset time: 19:32 Survey End time: 21:10	Start of survey: 11°C	Full cloud cover	Hannah Evans, Tyrone Evans	No bats emerged from T1. Very little bat activity was observed during the survey period. 1 x Noctule bat call was recorded. 1 x Common Pipistrelle observed commuting along Commercial Street.

3. Conclusions and Recommendations

Survey work has been undertaken to establish the presence or likely absence of roosting bats within T1 in the development site. The proposed development works within the site boundary will result in the loss of some trees make way for the properties and garden spaces within the site.

T1 has been subject to a GLTA and one bat activity survey during September. Whilst it is recognised that the bat activity survey was undertaken late within the bat survey season, given the limited suitability of the tree for bat roosting use this is not considered to be a significant constraint to the survey effort.

T1 is considered to have NONE bat roost suitability. No further survey effort for bats is recommended for this tree. **No recommendations are made in regards to bats for T1 and the tree can be removed without further consideration to bats.**

Reference List

- Bat Conservation Trust (2023) '*Bat Surveys for Professional Ecologists; Good Practice Guidelines*' (4th Edition)
- Henry Andrews (2018) '*Bat Roosts in Trees: A Guide to Identification and Assessment for Tree-care and Ecology Professionals*'
- Ecological Services Ltd (5th July 2024) '*Site Assessment Survey*' V3

Appendix 1 – Tree photographs



Tree view from road side.



Tree view from south western elevation.



Feature A. Callous roll on southwestern elevation of tree.



Feature B. Split on branch extending out eastwards.

Appendix 2 – Site And Tree Location

