

BAT SURVEY OF TREES AT HOLLINCROSS LANE, GLOSSOP, DERBYSHIRE

2020



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1.0 INTRODUCTION

- 1.1 Rachel Hacking Ecology Limited was commissioned in 2020 by WSP Planning to assess the trees identified for felling within a proposed development of a site of Hollincross Lane, Glossop, Derbyshire. The site will be the subject of a planning application for a residential development with associated access and landscaping.
- 1.2 An initial ground level assessment of the trees on site was conducted to identify any trees with Potential roost features (PRFs) for bats. The trees identified to have such features were then the subject of a targeted survey to assess the trees PRF/s for the presence/likely absence of a bat roost.
- 1.3 The site is located off Hollincross Lane in Glossop, Derbyshire (O.S. grid reference: SK 03110 93579). The site comprises three buildings and grounds, which were formerly used for care facilities. Building 1 is a triple-height residential building which is currently empty. Building 2 is a single-story former gymnasium, also currently empty (see Figure 1). Building 3 is a garden shed and is not the subject of this study. The site is surrounded by woodland with rough grassland, dense scrubland and residential dwellings. This offers good bat foraging and commuting opportunities.
- 1.4 Biodiversity is a material consideration to the planning process and consideration must be given to protected species. The proposed works to the trees will be destructive and therefore consideration should be given to roosting bats and other protected and notable species, which could potentially utilise the trees.
- 1.5 All bat species are protected under the Conservation of Habitats and Species Regulations 2019 (Amendment) (EU Exit) and the Wildlife and Countryside Act 1981 (as amended).

2.0 METHODOLOGY

- 2.1 A daytime bat survey including an aerial tree climbing assessment, was undertaken to search for, and to assess the potential for, a bat roost to be present within the trees.
- 2.2 The trees were given a ground-level assessment to search for any potential roosting features that could be utilised by bats. Potential roosting features (PRFs) include suitable branch splits, knot holes, woodpecker holes, rot holes, lightning strikes and flaked bark.
- 2.3 The trees were climbed with the use of rope and harness and the PRFs were inspected using an endoscopic camera. A pair of close-focussing binoculars and a high-powered torch were used to search for evidence of bats. The assessment of the trees was carried out as per the guidelines in BTHK, 2018 and Collins, 2016.

Personnel and Timing

- 2.4 Joel Hacking (Senior Ecologist) and Ben Crossthwaite (Ecologist) carried out the bat surveys on the 29th July 2020. Both surveyors are experienced and fully trained in protected species surveys. Joel and Ben hold Natural England Level 2 Class Survey Licence for bats (Licence References: 2016-24701-CLS-CLS and 2020-48541-CLS-CLS) and Ben is trained to NPTC Level 2 Tree Climbing and Aerial Rescue. The weather on the day of the surveys was warm and dry.

Survey Constraints

- 2.5 Daytime bat surveys can be undertaken at any time of year. The trees were accessible.

3.0 RESULTS

DAYTIME BAT SURVEY

- 3.1 Photographs of the trees and their PRF's can be found in Appendix 1. The trees were assessed against the criteria in Table 1 (taken from Collins, 2016).

TABLE 1. ASSESSING TREES FOR BAT ROOSTS		
Roost Suitability	Features	Further Work
Negligible	Generally used where a tree offers no suitability for bats. This category is also used where a feature has been inspected and found not to contain any features of use to bats.	No further surveys required.
Low	A tree of sufficient size or age to contain potential roost features but only with very limited roosting potential once inspected.	No further surveys required.
Moderate	A tree with one or more potential roost sites but unlikely to support a roost of high conservation status.	At least one emergence or re-entry survey.
High	A tree with one or more potential roost sites that are suitable for use by a large number of bats on a regular basis and for longer periods of time.	At least two emergence and/or re-entry surveys.

- 3.2 For the location of the trees please refer to Tree Protection Plan (Drawing number 6004.02) TBA landscape Architecture, Arboriculture. Table 2 below shows the results of the survey.

Table 2 Showing the Results of the Ground Level Assessment

Tree Number	Tree Species	PRF Type	PRF Height	Direction Facing	Further Information
G1	Lime (<i>Tilia x europaea</i>)	-	-	-	-
T6	Holly (<i>Ilex aquifolium</i>)	-	-	-	-
T7	Lawson's Cypress (<i>Chamaecyparis lawsoniana</i>)	-	-	-	-
T8	Lawson's Cypress (<i>Chamaecyparis lawsoniana</i>)	-	-	-	-
T12	Holly (<i>Ilex aquifolium</i>)	-	-	-	-
T13	Deodar Cedar (<i>Cedrus Deodara</i>)	-	-	-	-
T14	Yew (<i>Taxus baccata</i>)	-	-	-	-
T15	Copper beech (<i>Fagus sylvatica f. purpurea</i>)	Weld	5m	NW	No further survey
T16	Holm Oak (<i>Quercus ilex</i>)	-	-	-	-
T19	Flowering Cherry (<i>Prunus sp.</i>)	-	-	-	-
G20	Mixed Species	-	-	-	-
T21	Sycamore (<i>Acer pseudoplatanus</i>)	Knot hole/drop-out	5m	S	-
T22	Variegated Holly (<i>Ilex aquifolium var.</i>)	-	-	-	-
T23	Sycamore (<i>Acer pseudoplatanus</i>)	Knot Hole	7m	NE	No further survey
T26	Beech (<i>Fagus sylvatica</i>)	-	-	-	-
T27	Lime (<i>Tilia x europaea</i>)	Ivy with a stem <5cm	0-13m	Multiple	No further survey
T28	Lime (<i>Tilia x europaea</i>)	Ivy with a stem <5cm	0-13m	Multiple	No further survey

Tree Number	Tree Species	PRF Type	PRF Height	Direction Facing	Further Information
T29	Mixed	-	-	-	-
G41	Sycamore (<i>Acer pseudoplatanus</i>) x 3	1x Drop out	4m	S	No upward continuity
T42	Yew (<i>Taxus baccata</i>)	-	-	-	-
T43	Lime (<i>Tilia x europaea</i>)	-	-	-	-
T44	Sycamore (<i>Acer pseudoplatanus</i>)	-	-	-	-
T45	Lime (<i>Tilia x europaea</i>)	-	-	-	-
T55	Lime (<i>Tilia x europaea</i>)	-	-	-	-
T60	Lime (<i>Tilia x europaea</i>)	Ivy with a stem <5cm	0-2m	S	No further survey
T62	Horse Chestnut (<i>Aesculus hippocastanum</i>)	-	-	-	-
T63	Lawson's Cypress (<i>Chamaecyparis lawsoniana</i>)	-	-	-	-
T76	Ash (<i>Fraxinus excelsior</i>)	-	-	-	-
T77	Elm (<i>Ulmus</i> sp.)	-	-	-	-
T78	Elderberry (<i>Sambucus nigra</i>)	-	-	-	No longer present
G79	Goat Willow (<i>Salix caprea</i>)	-	-	-	-
T80	Holly (<i>Ilex aquifolium</i>)	-	-	-	-
T81	Flowering Cherry (<i>Prunus</i> sp.)	-	-	-	-
T82	Lawson's Cypress (<i>Chamaecyparis lawsoniana</i>)	-	-	-	-
T83	Ash (<i>Fraxinus excelsior</i>)	Ivy with a stem >5cm	0-7m	Multiple	No evidence
T98	Sycamore (<i>Acer pseudoplatanus</i>)	Ivy with a stem <5cm	0-3m	Multiple	-

Tree Number	Tree Species	PRF Type	PRF Height	Direction Facing	Further Information
T99	Ash (<i>Fraxinus excelsior</i>)	Ivy with a stem <5cm	0-2m	Multiple	-
T100	Goat Willow (<i>Salix caprea</i>)	Ivy with a stem <5cm	0-2m	Multiple	-
G101	Group of Goat Willow (<i>Salix caprea</i>)	-	-	-	Juvenile within scrub
T106	Ash (<i>Fraxinus excelsior</i>)	-	-	-	-
T108	Ash (<i>Fraxinus excelsior</i>)	Ivy with a stem <5cm	0-7m	Multiple	-
T111	Ash (<i>Fraxinus excelsior</i>)	-	-	-	-
G115	Group of Goat Willow (<i>Salix caprea</i>)	-	-	-	Juvenile within scrub
T117	Sycamore (<i>Acer pseudoplatanus</i>)	Drop out /pruning scars	0-5m	Multiple	No evidence
G118	Mixed	Ivy with a stem <5cm	0-3m	Multiple	No further Survey
	Sycamore (<i>Acer pseudoplatanus</i>)	Drop out /pruning scars	3-7m	Multiple	
		Ivy with stem <+> 5cm	0-5m	Multiple	No evidence

- 3.3 No evidence of bat occupancy was found at any of the PRF's assessed on the trees on site. Many trees on site had PRFs that were Ivy stems >5cm (Collins, 2016). Ivy present on trees with a stem <5cm were deemed unsuitable for a roosting bat due to the lack of cover provided. The use of Ivy by roosting bats is still imperfectly understood with no definitive guidance or research (BTHK, 2018). Many of the stems of Ivy >5cm inspected were damp/wet and providing little/no cover, resulting in unfavourable roosting habitat for bats. The cavities did not extend further into the tree to cavities that may provide more cover.

4.0 SUMMARY AND RECOMMENDATIONS

- 4.1 No evidence of bat activity or occupancy was found within/on the trees on site. Many of the PRFs were tear-outs and features due to decay. These features were found to offer sub-optimal roosting habitat for bats. Given the lack of evidence found, the trees on site are considered to offer **negligible bat roost suitability**.
- 4.2 It is the opinion of the author of this report that the works to the trees can proceed without further survey work (e.g. bat activity surveys) or bat mitigation due to the negligible potential of the features to support bats. However, if the work is delayed by longer than two years from the date of this survey, a further bat survey will be required to update the findings.
- 4.3 It should be noted that bat absence is very difficult to prove definitively due to their mobility and size, and single or small numbers of bats are able to roost in extremely small spaces. The tree work should be undertaken with care, with section-felling used where appropriate.
- 4.4 **If during tree works a bat (or an accumulation of bat droppings) is discovered at any time, work is to temporarily cease whilst an experienced bat ecologist is contacted for guidance and assistance.** This can be Rachel Hacking Ecology (0161 465 8971) who undertook the initial survey, any licensed bat worker, or the Bat Conservation Trust (BCT) helpline (0845 1300 228).
- 4.5 All bird species are protected at the nest under The Wildlife & Countryside Act 1981 (as amended) and therefore, it is recommended that the tree felling takes place outside of the bird nesting season (the nesting season is generally March to August), or a nest check is undertaken immediately prior to work commencing.

REFERENCES

BTHK. (2018). *Bat Roosts in Trees: A Guide to Identification and Assessment for Tree-Care and Ecology Professionals*. Exeter. Pelagic Publishing.

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

Mitchell-Jones, A. J. (2004). *Bat Mitigation Guidelines*. English Nature

APPENDIX 1 – PHOTOGRAPHIC PLATES



Plate 1 showing T6 – T8



Plate 2 showing G1



Plate 3 showing T12



Plate 4 showing T19



Plate 5 showing G115



Plate 6 showing G119



Plate 7 also showing G119

