

DAYTIME BAT SURVEY OF TREES AT FORMER BOLTON HALL NURSING HOME, CARRHEAD LANE, ROTHERHAM

2017



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1.0 INTRODUCTION

- 1.1 Rachel Hacking Ecology Limited was commissioned in 2017 by Hall & Co. to undertake a daytime bat survey of two mature trees at a construction site at the former Bolton Hall Nursing Home, Carrhead Lane, Rotherham, Yorkshire. The site received planning permission from Barnsley Metropolitan Borough Council in 2016 for 28no. dwellings, access and associated works (planning reference: 2016/0926).
- 1.2 The two trees comprise a Turkey Oak *Quercus cerris* and an Ash *Fraxinus excelsior* and are due to be felled to facilitate the development of the site. The trees were inspected in 2016 by The Tyrer Partnership and suitable bat roosting features were found during the survey.
- 1.3 The site is surrounded by residential dwellings and amenity land to the south, offering limited potential bat commuting and foraging 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 trees.
- 1.5 All bat species are protected under the Conservation of Habitats and Species Regulations 2010, the Wildlife and Countryside Act 1981 (as amended), the Countryside and Rights of Way Act 2000, the Natural Environment and Rural Communities Act 2006 and the Environmental Damage Regulations 2009. It is illegal to disturb or damage a bat roost whether bats are present or not.

2.0 METHODOLOGY

- 2.1 A daytime bat survey of the trees 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 initially surveyed from the ground using close-focussing binoculars to search the trunk and the canopy for any cavities or other potential roosting features (PRFs). Ladders were used to inspect the lower parts of the tree more closely.
- 2.3 The Ash tree was fully climbed using ropes. A high-powered torch and an endoscope were used to inspect all cavities or shaded areas of the tree. Features of trees commonly used by bats for roosting and shelter, and field signs that may indicate use of trees by bats were searched for. This included:

Potential bat roosting features in trees	Signs indicating possible use by bats
- Natural holes - Woodpecker holes - Cracks/splits in major limbs - Loose bark - Hollow/cavities - Dense epicormic growths - Dense Ivy - Bat and bird boxes	- Tiny scratches around entry points - Staining around entry point - Bat droppings in, around or below entrance - Audible squeaking at dusk or in warm weather - Flies around entry point - Distinctive smell of bats - Smoothing of surfaces around cavity

Personnel and Timing

- 2.4 Joel Hacking carried out the daytime bat survey, with climbing assistance from Stewart Bradshaw, on the 19th & 20th July 2017. Joel holds a Natural England Level 2 Class Survey Licence for bats (Licence Ref: 2016-24701-CLS-CLS). Stewart also holds a Natural England Level 2 Class Survey for bats. The weather on the days of the surveys was dry and clear.

Survey constraints

- 2.5 Daytime bat surveys can be undertaken at any time of year. The trees could be climbed or inspected fully from the ground and all cavities could be accessed. There were negligible constraints to the survey.

3.0 RESULTS

- 3.1 No evidence of bat activity was found within the trees. The cavities were considered to offer low or negligible suitability for a bat roost. The tree numbers below refer to the numbering used by Cheshire Woodlands in their Tree Constraints Plan.

T27 ASH TREE - Potential Roosting Features (PRF)	
	A mature ash tree in the south-west corner of the site. The tree is approximately 18m in height, with a DBH of 90cm. There are three lead stems above 4m, each with a number of features present. The features described below, have a minimum of low potential for use. There are also features present on the tree, which are superficial, and have no potential for use by roosting bats
	PRF – 1 Height - 8.5m Orientation - south Feature type - woodpecker hole Entrance diameter - 10cm Cavity description - cavity in main stem 30cm deep with no upward travel, linked to cavity in branch on north side of stem. Used by nesting birds, and / or squirrels. No evidence of use by bats. Low potential
	PRF - 2 Height - 8.5m Orientation – north Feature type – Series of rot holes in dead branch. Entrance diameter 10cm, 10cm, 15cm. Cavity description – dead branch on north side of stem, hollow from union to tip, series of rot holes and woodpecker holes. Open to the elements. No evidence of use by bats found. Low potential

	PRF – 3 Height – 9.5m Orientation – southeast Feature type – woodpecker hole Entrance diameter – 7.5cm Cavity description – small 10cm test hole, no upward or downward travel, open to the elements. No evidence of bat use found. Low potential
	PRF – 4 Height – 6m Orientation – upward, north, and south. Feature type – x 3 rot holes into main stem. Entrance diameter – 20cm, 10cm, 15cm Cavity description – open cavity in main stem, with three entrance holes. No upward or downward travel. Bird nesting material present. Open to the elements. No evidence of bat use found. Low potential
	PRF – 5 Height – 4.5m Orientation – south Feature type – knot hole on underside of horizontal branch. Entrance diameter – 7cm Cavity description – knot hole on underside of horizontal branch. Horizontal cavity, 30cm deep, wet, and dusty inside, open the elements. No evidence of bat use found. Low potential
	PRF – 6 Height – 10.5m Orientation – north. Feature type – rot hole in main stem. Entrance diameter – 10cm x 30cm. Cavity description – rot hole with small callus roll. Heartwood still present, 5cm of upward travel, above the open part of the feature. Open to the elements. No evidence of bat use found. Low potential

	PRF – 7 Height – ground level – 1m. Orientation – northwest. Feature type – large rot hole in base of main stem. Entrance diameter – 50cm x 70cm. Cavity description – large rot hole in base of main stem. Wet, rotting heartwood present. 30cm of upward travel behind bark, into damp, cavity, slugs and woodlice present. No evidence of bat use found. Low potential
Superficial Features	
	No suitable cavity for bats present Negligible potential
	No suitable cavity for bats present Negligible potential

T33 TURKEY OAK TREE - Potential roosting features

A mature Turkey Oak tree in the south-east corner of the site. The tree is approximately 20m in height, with a DBH of 80cm.

The trunk splits at 4m.

Significant open cavity from the ground upwards for approximately 2m. Showing signs of decay. This was endoscoped and was found to be damp with slugs and woodlice present.

No other cavities present in the tree. No peeling bark or limb damage present, or other PRF.

No evidence of bat use found.

Low potential

4.0 SUMMARY AND RECOMMENDATIONS

- 4.1 No evidence of bat activity was found within the trees at the former Bolton Hall Nursing Home site, Rotherham. The cavities within the Ash tree were all reached by climbing the tree with ropes and were all fully inspected with an endoscope. The cavities are shallow and not considered to be optimal bat roosting habitat. The low cavity within the Turkey Oak was inspected from the ground. This is damp and is not considered to be optimal bat roosting habitat. No other potential roosting features were found within either tree. Given the survey findings, the Ash tree is considered to offer **low bat roost suitability** and the Turkey Oak tree is considered to offer **negligible bat roost suitability**.
- 4.2 It is the opinion of the author of this report that the trees can be felled without the need for further survey work (e.g. bat activity surveys) due to the low/negligible potential of the trees to support bats. This follows best practice guidelines (BCT, 2016). The trees should be felled as soon as possible following this survey. If a significant delay occurs to the felling (i.e. more than a year) then a follow-up survey will be required.
- 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. It is recommended that the trees are section-felled.
- 4.4 **If during the tree felling 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 427 3548) who undertook the initial survey, any licensed bat worker, or the Bat Conservation Trust (BCT) helpline (0845 1300 228).

REFERENCES

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.