

45 Harrop Street, Gorton Bat Survey

April 2017



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consultant ecologists

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1 Introduction

1.1 Background

1 1 1 Dunelm Ecology Ltd was commissioned by B & A Susca Ltd to carry out a bat survey of 45 Harrop Road, Gorton. The survey was requested by Manchester City Council in support of a planning application to demolish the existing buildings and create three terraced houses within their footprint. The site currently comprises three adjoining buildings/structures, which for the past ten years, have been used for light engineering works but are now unoccupied.

1 1 2 The main objective of the survey was to identify if bats are using the current buildings as roost sites, and if so, the species and numbers of bats present, and type of roost. This report provides a brief overview of the ecology and legal protection afforded to bats in the UK. It includes a detailed description of the survey methods used and the results of the study. The implications of the survey findings are discussed; with an assessment of potential impacts provided and recommendations given as to what further measures are considered necessary.

1.2 Bat Ecology

1 2 1 There are 17 species of bat known to be resident (i.e. breed) in the British Isles, five of which regularly occur in and around Greater Manchester. Habitat requirements vary widely, both on an individual and species level, although certain features, such as woodland, parkland, traditional pasture, marshes and areas of freshwater, are often focal points for foraging as insects are plentiful in these areas (Mitchell-Jones 2004). Bat roosts tend to be more common in areas where such habitats are present. Bats use linear features such as rivers, hedgerows, roads and woodland edges as landmarks in order to commute from one location to another (Schofield and Mitchell-Jones 2003).

1 2 2 Bats utilise different roosts at different times of the year. Between late October and March, bats hibernate; this requires an unexposed roost with a stable temperature, typically a cave, cellar or tunnel. Around March, the bats emerge and gradually move to their summer roosts, typically within man-made structures or suitable crevices in trees. During the spring and summer period, female bats gather together at maternity roosts to give birth and rear their young. Most births occur between late-June and mid-July, with the young able to fly within three to five weeks (Altringham 2003). By the end of August, most of the young bats are independent and the colony begins to break up (Schofield and Mitchell-Jones 2003). Mating takes place between August and December, either at the winter hibernation site or at autumn mating sites. The numbers of bats utilising these various roosts can range from single bats to hundreds of bats in a nursery colony or hibernation site (Altringham 2003).

1.3 Legislative and Planning Context

1 3 1 All British bat species are protected under the Wildlife and Countryside Act (WCA) 1981, which has been amended by later legislation, including the Countryside and Rights of Way (CROW) Act 2000 and the Conservation of Habitats and Species Regulations 2010. Bats are listed on Schedule 5 of the

WCA and are, therefore, subject to some of the provisions of Section 9 which, with the amendments, make it an offence to:

- Intentionally or recklessly disturb a bat while it is occupying a structure or place which it uses for shelter or protection (S9:4b).
- Intentionally or recklessly obstruct access to any structure or place used for shelter or protection by a bat (S9:4c).

- 1.3.2 Bat species are also listed under Annexes IIa and IVa of the EC Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora, also known as the 'Habitats Directive'. Inclusion on Annex IVa means they are consequently identified as European Protected Species (EPS) and protected under the Conservation of Habitats and Species Regulations 2010. These regulations make it an offence to:
- (a) deliberately capture, injure or kill any wild animal of a European protected species,
 - (b) deliberately disturb wild animals of any such species, in such a way as –
 - (i) to impair their ability to survive, to breed or reproduce, or to rear their young, or
 - (ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate, or
 - (iii) to affect significantly the local distribution or abundance of the species to which they belong;
 - (c) damage or destroy a breeding site or resting place of such an animal.
- 1.3.3 Under these Regulations it is an offence to damage or destroy a breeding site or resting place whether a bat is in occupation or not.
- 1.3.4 In addition, under the UK's Biodiversity Action Plan (BAP), seven native British bat species, including the soprano pipistrelle and the brown long-eared bat, that are frequently found in buildings, are listed as a 'Priority Species'. UK BAP Priority Species are also referred to as 'species of principal importance' for the conservation of biodiversity in England and Wales within Section 74 of the CROW Act 2000 and Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.
- 1.3.5 The effects of developments on protected species are considered in the National Planning Policy Framework (NPPF). Under the NPPF, LPAs in England are required to take measures to protect the habitats of such species from further decline, protect the species from the adverse effect of development and refuse planning permission for development that harms these species unless the need for, or benefit of, the development clearly outweighs that harm.
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2 Methods and Approach

2.1 Field Survey

- 2.1.1 A detailed inspection survey of the buildings was carried out during daylight hours on 26 April 2017 following the methodology outlined in the *Bat Mitigation Guidelines* (Mitchell-Jones 2004) and *Bat Surveys Good Practice Guidelines* (Collins 2016). The survey involved systematically searching the exterior and interior of the buildings for bats and their field signs with the aid of ladders, endoscope (Snakevision), close-focusing binoculars (Opticron Countryman BGA 8x42) and a powerful torch (Clulite 1M candle-power). Such signs may include insect remains, droppings, grease marks, urine stains and smoothing or lack of cobwebs. In addition, the buildings were assigned to a roost potential category, based on their suitability for supporting roosting bats (see Table 1). These criteria have been devised using information obtained from the *Bat Mitigation Guidelines* (Mitchell-Jones 2004) and *Bat Surveys Good Practice Guidelines* (Collins 2016), as well as through professional experience.

2.2 Personnel

- 2.2.1 The survey was carried out by Jon Guarnaccio MCIEEM who has 14 years experience as a professional ecologist and has held a Natural England bat survey licence since 2005 (2015-15066-CLS-CLS).

2.3 Survey Constraints

- 2.3.1 The survey was carried out at an appropriate time of year (Mitchell-Jones 2004) although it was not possible to access the rear elevation of B2. However, the interior of this building could be inspected and given the dilapidated condition of the building (see Table 2), it is considered unlikely that this access restriction will have affected the conclusions of this report.

Table 1 Building Assessment Criteria

Roost Potential Category	Category Description	Indicator
Confirmed Roost	Building with evidence of current use by bats i.e. confirmed roost	- Sighting/hearing of bats (including emergence) - Presence of fresh droppings/staining.
	Building with evidence of recent use by bats	- Small numbers of old droppings/old staining, smoothing and lack of cobwebs - Roosts identified by personal communication from reliable source (e.g. property owner)
High	Building has high potential to support bat roost(s).	- Buildings of early or pre 20th century origin with numerous access points for bats e.g. gaps under eaves, loose lead flashing and/or roof tiles - Agricultural buildings of traditional, stone or timber construction and/or with exposed large wooden beams (>200mm thick) and mortise joints, cracks and holes - Large and complicated roof voids, with unobstructed flying spaces - Roof warmed by the sun, especially south facing roofs, free of strong draughts - Undisturbed roof spaces - Weatherboarding and/or hanging tiles with gaps - Buildings in proximity to each other providing a variety of roosting opportunities - Within 200m of good foraging habitat, particularly trees, parkland, woodland or waterbodies. - Well connected to wider landscape through presence of continuous linear features such as hedgerows, watercourses, farm-tracks etc
Medium	Building has moderate potential to support bat roost(s)	Buildings with some of the above features but are considered to be less suitable on account of their age, location and disturbance levels.
Low	Building has low potential to support bat roost(s)	- Modern well maintained buildings with few or no access points for bats - Small cluttered roof space - Buildings comprised predominantly of prefabricated steel and sheet materials - Roof sections with a dense cover of cobwebs and no sections of clean ridge board. - High levels of regular disturbance - Buildings with exposed roosting features which are open to the elements - Location with few or no mature trees, parkland, woodland or water features and isolated due to a lack of commuting routes
None	Building has no potential to support bat roost(s)	Buildings with no features that could be utilised by bats for roosting

3 Results

3.1 Field Survey

Daytime Inspection Survey

The results of the bat survey are shown in Table 2 below but in summary no evidence of bats was recorded and it is considered that there is a low risk of bats being present due to a paucity of suitable roost features. Notwithstanding this, the site is located approximately 100 m north of a large expanse of semi-natural habitat which includes Gorton Reservoir. This area provides good foraging habitat for bats meaning roost sites are likely to be present in the vicinity.

Table 2 Daytime Inspection Results

Building Ref	Description	Roosting Opportunities & Signs of Bat Use	Roost Potential
B1	Victorian building recently used as an engineering workshop and before that a bakery. The building is constructed from solid brick walls (the south and east sides of which have been re-built) set under a pitched roof clad with slate tiles. The tiles have been covered with felt, only the ridge tiles being fully visible from the outside. The roof is supported by kingpost trusses with timber sarking beneath the slates. Measuring 6.4 m high, the building is open from floor level to the apex. Externally, timber weatherboarding runs around the sides of the building although this is in a poor state of repair.	No evidence of bats was recorded and there are very few potential roost features present. The end row of tiles are partly visible at the southern gable where the felt has perished. However, these represent superficial and exposed potential roosting features. Gaps are present behind weatherboarding but this is in such poor condition that there are also gaps present above resulting rainwater ingress and unsuitable roosting habitat.	Low
B2	Almost identical in age and construction to B1 but slightly smaller. The building is split over two levels with a floor to apex height of 3 m at first floor level. The roof is of close coupled structure. A small gable section is present on the southern elevation.	No evidence of bats was recorded. Like B1, a covering of felt prevents access to roof slates although a section of missing mortar was recorded under a ridge tile. Additionally, gaps are present at the east gable end providing access to the first floor of the building although an absence of droppings inside the building suggests these features are not used by bats. Dilapidated timber weatherboarding results in unsuitable roosting habitat.	Low
B3	Mid – late 20 th century addition most recently used as a garage. The walls are constructed from brick and the roofs consist of flat corrugated metal and a mono-	No evidence of bats was recorded and apart from rotten timber fascias which are open to the elements, there are no potential roosting features.	None

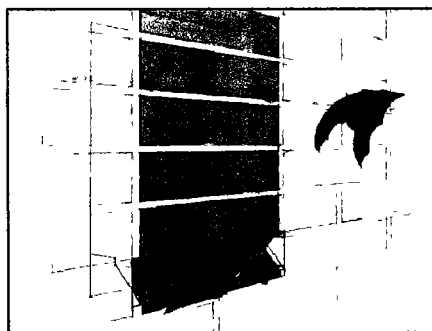
Building Ref	Description	Roosting Opportunities & Signs of Bat Use	Roost Potential
	pitched felt clad section		

4 Discussion

4.1 Assessment and Recommendations

- 4.1.1 There is no evidence to suggest that the buildings are used by roosting bats and overall they are assessed as having low/no roost potential due to the sub-optimal nature and limited number of potential roost features. As such, no further survey work (i.e. nocturnal survey) is considered necessary. However, in the unlikely event of a bat being discovered during demolition, works must cease immediately and a licensed bat ecologist contacted for advice. Under no circumstances must contractors handle bats.

- 4.1.2 Given the close proximity of suitable foraging habitat it is recommended that artificial bat roosting facilities are incorporated into the new dwellings. This could be achieved by installing a Habitat roosting unit within the gable end of each end terrace. These provide contained roosting zones for bats and are available in a wide range of colours to ensure they blend in with most brick types. The roosting units should be positioned no lower than 1 m from the apex. Such measures are in accordance with the NPPF which advises that planning decisions should aim to conserve and enhance biodiversity by applying a number of principles, including the encouragement of opportunities to incorporate biodiversity in and around developments.



5 References

Altringham JD (2003). British Bats. Collins, London.

Collins J (2016). Bat Surveys Good Practice Guidelines. Third Edition. BCT, London.

Mitchell-Jones AJ (2004). Bat Mitigation Guidelines. English Nature, Peterborough.

Schofield HW & Mitchell-Jones AJ (2003). The Bats of Britain and Ireland. The Vincent Wildlife Trust, Ledbury..



Plate 1 First floor of B2



Plate 2 Gaps at gable end of B2



Plate 3 Inside of B1



Plate 4 Internal view of B3



Plate 5 Dilapidated timber weatherboarding is typical



Plate 6 Missing mortar under ridge tile