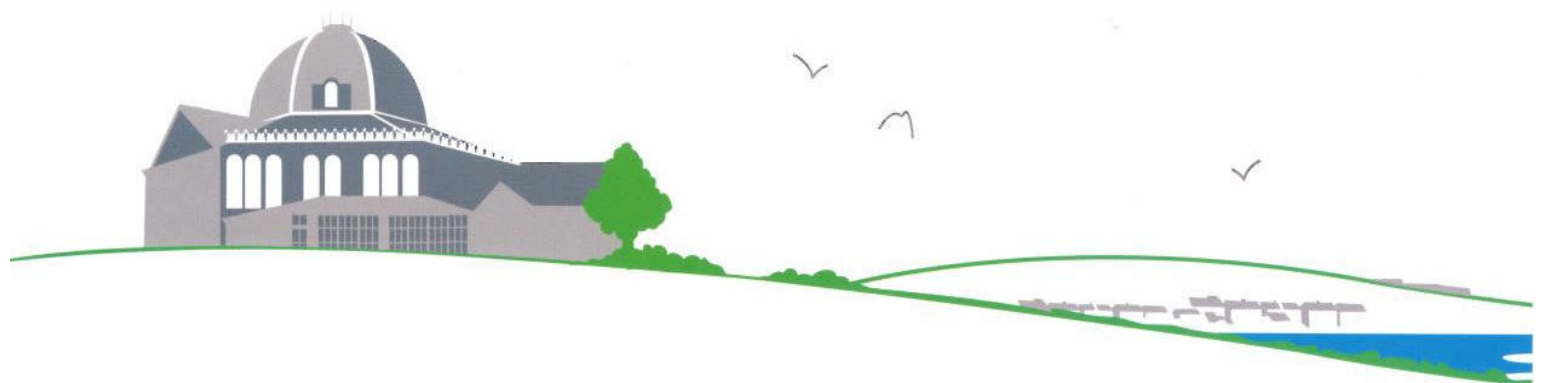




WILDE CONSULTANTS

MILLTOWN FOOTBRIDGE AREA

BAT ACTIVITY SURVEY REPORT



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This project has been undertaken in accordance with PAA policies and procedures on quality assurance.

Signed: _____



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1. INTRODUCTION

- 1.1 Penny Anderson Associates Ltd (PAA) was initially commissioned by Wilde Consultants to carry out an inspection for bats of a building at the Milltown Footbridge Area near Bury, referred to as the 'site'. The initial building inspection was carried out in March 2022 and the results are presented in a separate report (see PAA 2022).
- 1.2 Following the results of the building inspection, which found the main structure to have Low potential to support roosting bats, a further bat activity survey was recommended. Further inspection of the internal of the structure was also recommended. This report details the methods and results of these further surveys and makes any further recommendations as required.

Legislative Context

- 1.3 A range of international and national legislation has been established in the UK to protect important nature conservation sites and priority species. At the international level, European Union (EU) Directives require individual member states to implement their conservation provisions nationally for the benefit of Europe as a whole. These Directives have been transposed into UK law by the Conservation of Habitats and Species Regulations 2017 (amended).
- 1.4 Other international conventions include: the Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979), which requires the maintenance of populations of wild flora and fauna, giving particular protection to endangered and vulnerable species; and the Bonn Convention on the Conservation of Migratory Species of Wild Animals (1979), which requires the protection of migratory species throughout their entire range. The above conventions are implemented in England and Wales via the Wildlife and Countryside Act (WCA), 1981 (as amended) and Countryside and Rights of Way (CROW) Act 2000. This legislation also protects important habitats and sites such as Sites of Special Scientific Interest (SSSI).
- 1.5 At the national level, Biodiversity 2020 (Defra 2011) forms England's national biodiversity strategy. Building on the Natural Environment White Paper¹ published in 2011, this provides a means of delivering the UK's commitments to maintaining and protecting biodiversity. Under Biodiversity 2020, the Priority Species and Habitats referred to are those of 'Principal Importance' for the conservation of biodiversity in England as listed on Section 41 (England) of the Natural Environment and Rural Communities (NERC) Act 2006 (amended).
- 1.6 More recently, the Environment Act 2021 further supports this commitment to, and strengthens the legislation in respect of, maintaining and also enhancing biodiversity in England, and Part 6 Nature and Biodiversity includes the following key areas:
- Strengthened biodiversity duty for public authorities in England;
 - Biodiversity net gain to ensure developments deliver at least 10% increase in biodiversity;
 - Local Nature Recovery Strategies to support a Nature Recovery Network;
 - Duty upon Local Authorities to consult on street tree felling;

¹ www.gov.uk/government/publications/the-natural-choice-securing-the-value-of-nature

- Strengthen woodland protection enforcement measures; and
 - Protected Site Strategies and Species Conservation Strategies to support the design and delivery of strategic approaches to deliver better outcomes for nature.
- 1.7 Finally, the National Planning Policy Framework (NPPF 2021) provides guidance for local authorities on the content of the Local Plans and is a material consideration in determining planning applications. Briefly, with an overall focus on sustainable development, the NPPF states that developments should aim to engender positive outcomes for habitats and biodiversity, with a particular focus on the maintenance and creation of ecological networks.
- 1.8 The NPPF identifies the following principals that should be applied by local planning authorities when determining planning applications:
- a. If significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
 - b. Development on land within or outside a SSSI, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of SSSI;
 - c. Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons, and a suitable compensation strategy exists; and
 - d. Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.
- 1.9 The NPPF states that the planning system should contribute to and enhance the natural environment through a range of actions, including:
- Protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils;
 - Recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services; and
 - Minimising impacts on biodiversity and providing net gains for biodiversity including establishing coherent ecological networks that are more resilient to current and future pressures.
- 1.10 To protect and enhance biodiversity and geodiversity, plans should:
- Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping-stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
 - Promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

Bat Biology

- 1.11 There are 17 species of native bats known to be resident (i.e. breed) in the British Isles. British bats feed entirely on insects and have developed a complex sonar system, known as echolocation, which enables them to find prey and navigate around their environment at night.
- 1.12 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). 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).
- 1.13 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 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; Waters and Warren 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 breeding sites. The numbers of bats utilising these roosts can vary from single bats to hundreds of bats in a nursery colony or hibernation site (Altringham 2003).
- 1.14 Bats play an important role in many environments around the world, including pollination and insect control. In the UK, bats can tell us a lot about the state of the environment as they are top predators of common nocturnal insects and are extremely sensitive to changes in their surroundings, for example; climate, landscape, agricultural intensification, development and habitat fragmentation. Populations of British bats have suffered severe declines in the past century, influenced by these factors.

Protected Species

- 1.15 Details of the protected species legislation relevant to this report can be found in Appendix 1.

2. METHODS

Internal Building Inspection

- 2.1 The building was previously inspected for bats (as detailed in PAA 2022), however, internal access was not available at that time.
- 2.2 A follow-up internal inspection was completed prior to the dusk emergence survey on 10th May 2022 by Senior Ecologist Rob Lamb (RL- Level 1 Bat Licence Registration No. 2020-44441-CLS-CLS).
- 2.3 The survey followed accepted best practice guidance (Collins 2016). To summarise, a systematic search was made of the of the building internal to identify potential or actual bat access points and roosting places. Where identified and accessible, potential features were investigated more closely using ladder and torch.

Dusk Emergence Survey

- 2.4 The survey was undertaken by RL and Assistant Ecologist Stephen Griffith (SG) on 10th May 2022. Both members of the survey team have the necessary experience of surveys for protected species, including bats, and are appropriately qualified to carry out this work based on the CIEEM² competencies for survey (CIEEM 2013).
- 2.5 The surveyors were positioned at vantage points with a view of potential roost features and recorded any bat activity heard or seen. Each surveyor had a Batbox Duet bat detector to aid detection in the field, and an Anabat SD1 to record echolocation calls and enable sonogram analysis for confirmation of species identification.
- 2.6 Following good practice guidance (Collins 2016), the dusk survey commenced 15 minutes prior to sunset, and continued for 1h 30m, taking into account the typical emergence times for the species considered likely to be present.
- 2.7 Survey times and weather conditions are detailed in the Results section of this report.
- 2.8 Bat calls recorded by the surveyors were analysed using specialist sound analysis software 'Analook W'. Based on parameters such as peak frequency and call duration, each call was assigned to a particular bat species to confirm the identification recorded by surveyors in the field.

Limitations

- 2.9 The emergence survey was undertaken within the active bat survey season (typically May to August inclusive). The survey was completed in suitable weather and temperature conditions.

² Chartered Institute of Ecology and Environmental Management



3. RESULTS

Internal Building Inspection

- 3.1 No evidence of bats was recorded within the interior of the structure. Walls comprised whitewash painted brickwork, with only small mortar gaps present in places (Photo 1). It was assessed that there was access for bats to the interior of the structure through gaps on the underside of the eaves.

Photo 1 The building interior



- 3.2 In combination with the previous external inspection (PAA 2022), the structure was assessed as having Low potential to support roosting bats and, therefore, requiring a further activity survey as per good practice guidance (Collins 2016).

Dusk Emergence Survey

- 3.3 The dusk emergence survey was undertaken on 10th May 2022. The findings and conditions of the survey are summarised in Table 1.

Table 1 Dusk Emergence Survey Results, 10th May 2022

Species	First Recorded	Notes
Common pipistrelle	21:24	Common pipistrelle (CP, <i>Pipistrellus pipistrellus</i>) was first heard and seen at 21:24, observed by RL (south-west of the structure). A single bat was seen first, occasionally commuting and foraging in the area. Two CP were then seen and heard using the area for foraging by both surveyors from 21:29 onwards. No emergences from the structure were recorded during the survey.
Surveyors and Location: RL: south-west of structure, SG: north-east of structure		
Start time: 20:40	Sunset: 20:55	End time: 22:10
Conditions: Dry with light wind with ~90% cloud cover throughout survey.		
Temperature: 12.9°C decreasing to 11.1°C. Humidity: 51% increasing to 67%.		

Bat Activity on Site

- 3.4 Common pipistrelle (*Pipistrellus pipistrellus*) was the only bat species detected during the survey. At least two individuals were recorded occasionally commuting/foraging in the area.

4. SUMMARY AND RECOMMENDATIONS

Survey Summary

- 4.1 The survey recorded no evidence of use by roosting bats during the building inspection or bat activity survey. A low level of common pipistrelle foraging and commuting activity was recorded, with no more than two bats recorded on site during the evening survey.

Recommendations

- 4.2 Based on the results of the survey, it is assessed that bats are likely absent from the structure. No further recommendations are made in respect of bats and their roosts at this time.
- 4.3 In the unlikely event that bats are found during demolition, works should stop immediately and advice be sought from a professional bat ecologist on how to proceed.

Survey Validity

- 4.4 The findings of the survey should be considered valid for a period of two years from the date of survey (May 2022). If works have not commenced by May 2024, then the survey should be updated to ensure the ecological advice given is based on up-to-date information.

5. REFERENCES

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6. ABBREVIATIONS

CIEEM	Chartered Institute of Ecology and Environmental Management
CRoW	Countryside and Rights of Way
EU	European Union
NERC	Natural Environment and Rural Communities
NPPF	National Planning Policy Framework
PAA	Penny Anderson Associates Ltd
RL	Rob Lamb
SG	Stephen Griffith
SSSI	Site(s) of Special Scientific Interest
WCA	Wildlife and Countryside Act

APPENDIX 1

Summary of the Legislation Relating to Bats

SUMMARY OF THE LEGISLATION RELATING TO BATS

All wild species of bat are protected under the Wildlife and Countryside Act (WCA) 1981, which has also been amended by later legislation, including the Countryside and Rights of Way (CROW) Act 2000. Bats are listed on Schedule 5 of the WCA and are therefore subject to some 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).

There are additional offences in relation to buying and selling (S9:5) any live or dead animal of this species or anything derived from them.

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 2017 (amended).

The Conservation of Habitats and Species Regulations 2017 (amended) state that a person commits an offence if they:

- (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) deliberately take or destroy the eggs of such an animal, or
- (d) damage or destroy a breeding site or resting place of such an animal.

Under these Regulations it is an offence to damage or destroy a breeding site or resting place whether the animal is in occupation or not, and protection extends to all life stages of the animal in question. There are additional offences relating to possession, control and sale of a live or dead bat or part of such an animal.

In addition, seven native British bat species, including the soprano pipistrelle (*Pipistrellus pygmaeus*) and the brown long-eared bat (*Plecotus auritus*), are listed as 'species of principal importance' for the conservation of biodiversity in England under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 (amended). In Wales, Section 7 of the Environment (Wales) Act 2016 provide a list of organisms of 'principal importance for maintaining and enhancing biodiversity' and lists several species of bat including the common pipistrelle (*Pipistrellus pipistrellus*) which is absent from England's S41 list.

Please note: the above text provides a brief summary of the legislation in relation to bats and their roosts and the original Acts, Regulations and any amendments should be referred to for the precise wording.

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