

BAT SURVEY REPORT

62 St Clements Road, Chorleywood

For Maria Zelenskaya

**NB. Information on legally protected, rare or vulnerable species may appear in ecological reports.
In such cases, it is recommended that appropriate caution be used when circulating copies.**

August 2023

Steven Archer/ Robert Taylor

STAR Ecology



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Summary

Following a preliminary bat roost assessment on 17th April 2023 by Andy Swan (The Bat Surveyor) it was recommended that a single bat emergence survey should be carried out at 62 St Clements Road, Chorleywood, Hertfordshire, WD3 5JT before the end of August 2023. The emergence survey was completed on Saturday 26th August by Steven Archer and Robert Taylor. The survey did not detect any bat species emerging from the property. The report recommends the proposed demolition and rebuild of the premises to proceed without the risk of disturbing roosting bats.



Introduction

The client Maria Zelenskaya of 62 St Clements Road, Chorleywood commissioned The Bat Surveyor (Andy Swann) to carry out a Preliminary Bat Roost assessment on 17th April 2023. The findings of the report found that the property had a number of potential roost features. These included loose tiles, raised flashing and gaps in the mortar. The extent of the features are minimal and were categorised as low on the Bat Conservation Trusts Roost Assessment Criteria, please see highlighted section in table below for an explanation. Assigning a suitability score of low recommends one emergence survey before the end of the main surveying season at the end of August. The emergence survey took place on 26th August 2023.

Suitability	Description of Roosting Habitats	Commuting and Foraging Habitats
Negligible	Negligible habitat features on site likely to be used roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely be suitable for maternity or hibernation). A tree of sufficient size and age to contain PRFs but none seen from the ground or features seen with only very limited roosting potential.	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or un-vegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by another habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions, and surrounding	Continuous habitat connected with the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back



	habitat, but unlikely to support a roost of high conservation status ⁵	gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland, or water.
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions, and surrounding habitat.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses, and grazed parkland. Site is close to and connected to known roosts.

Methodology

Two surveyors were positioned at the front of the property in the positions recommended by the Preliminary Roost Assessment. An infra-red and thermal image camera were positioned on the rear of the property. The surveyors were equipped with Elekon Bat Scanners and Echo 2 EMT devices. All bat activity was recorded. This included species, time, behaviour and direction of flight (if seen). Infra-red and thermal image recordings were reviewed the following day. The survey ran from 30 minutes before sunset and an hour and half after sunset. Due to the time that had lapsed between Preliminary roost Assessment and the first and only emergence survey, it was felt appropriate to survey the exterior of the building for evidence of bats emerging.



Survey Equipment

Survey equipment used for 62 St Clements Road, Chorleywood, Hertfordshire

Echo Meter Touch



Bat Scanner



Infra red Scope (IR)

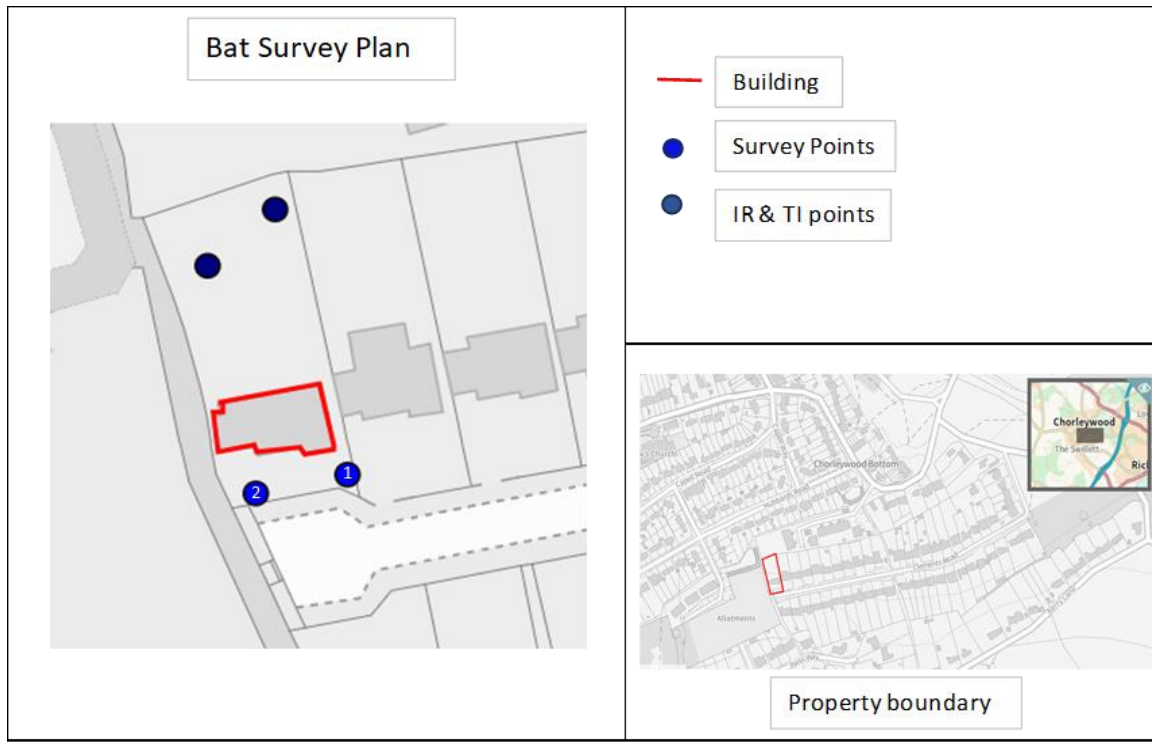


Thermal Imaging Scope (TI)





Plans



Client: Maria Zelenskaya
Site: 16 St Clements Rd, Chorleywood, WD3 5JT
Title: Bat Survey Plan
Ref: TQ 02680 95556
Date: August 2023

*Please note this plan is intended only to indicate the approximate location of features and should therefore should not be treated as an accurate plan.



Survey Results

Start time: 19.30 **End Time:** 21.32

Sunset: 20.01

Start Temperature: 16° C/ **Finish Temperature:** 15°C

Cloud Cover: 60%

Lux Readings: (@21.15) **Rear:** 0.015/ **Front:** 0.01

No secondary evidence of bat emergence was found.

Surveyor Position 1					
Time	Species	Detection Method	Behaviour	No. of Passes	Seen
19.31	Noctule	EMT + Bat Scanner	Foraging	1	N
19.55	Noctule	EMT + Bat Scanner	Foraging	1	N
20.29	C. Pipistrelle	EMT + Bat Scanner	Feeding	2	N
20.31	C. Pipistrelle	EMT + Bat Scanner	Feeding	1	N
20.35	C. Pipistrelle	EMT + Bat Scanner	Feeding	3	Y
20.52	C. Pipistrelle	EMT + Bat Scanner	Feeding	2	Y
20.56	C. Pipistrelle	EMT + Bat Scanner	Foraging	2	Y
21.12	C. Pipistrelle	EMT + Bat Scanner	Feeding	1	N
21.16	C. Pipistrelle	EMT + Bat Scanner	Feeding	1	Y

Surveyor Position 2					
Time	Species	Detection Method	Behaviour	No. of Passes	Seen
20.21	Noctule	EMT + Bat Scanner	Foraging	1	N
20.31	C. Pipistrelle	EMT + Bat Scanner	Commute from the back, over roof to front	1	Y
20.38	C. Pipistrelle	EMT + Bat Scanner	Commute from front over roof to the back	1	Y
20.39	C. Pipistrelle	EMT + Bat Scanner	Foraging around trees	1	Y
20.46	C. Pipistrelle	EMT + Bat Scanner	Foraging around and over the property roof	2	Y
20.51	C. Pipistrelle	EMT + Bat Scanner	Commute from front over roof to the back	1	Y
20.56	C. Pipistrelle	EMT + Bat Scanner	Foraging along tree & hedge line	1	Y
21.15	C. Pipistrelle	EMT + Bat Scanner	Foraging	1	N



Discussion

There were two potential constraints that may have impacted on the results. A small part of the roof was not visible due to the position of vegetation. The location was subjected to steady rain prior to the survey commencing. The rain stopped thirty minutes before survey start time. This may have impacted negatively on the abundance of available food. These constraints were considered minor and would have not influenced the final results.

Bats were detected in low numbers. This was surprising given the amount of suitable habitat available within 2km of the property. This included Chorleywood Common and golf course, an abundance of mature deciduous trees and hedgerows in gardens and the general environment. Light levels around the property and neighbourhood were low and would have been beneficial to bats.



Chorleywood Common Information Board

The first bat detected was a Noctule (*Nyctalus noctule*) at 19.31 and identified on a further two occasions, the last being at 20.21. This is not surprising given the quality of the habitat. They are early emergers and are usually the first bat species to emerge from their roosts. The only other bat species to be detected and seen were Common Pipistrelles (*Pipistrellus pipistrellus*)

The first Common Pipistrelle was detected at 20.29 and then recorded periodically up until 21.16. They were observed foraging and feeding along the hedge that leads to property and were then seen flying over the roof into the back garden where they took advantage of the potential feeding opportunities that may have presented themselves within the excellent habitat. A small number were also seen commuting in between the neighbouring houses and flying directly over the roof.

A review of the thermal imaging and infra- red footage revealed no bat emergence from the rear of the property. The search for secondary evidence found that there were no obvious signs of bat activity such as faeces, urine stains, insect remains, particularly moth wings and scratch marks.

Given the evidence that presented itself on the survey it is reasonable to assume that no bats occupy a roost in the property.



Survey Position 2

Visual sightings of Common Pipistrelle were observed (Flight paths *marked in the red, blue & yellow arrows*)

The Yellow flight path was used more frequently, with 3 separate passes.



Recommendations

It is recommended that the demolition and re-build of 62 St Clements Road, Chorleywood, Hertfordshire, WD3 5JT proceed with no evidence to suggest that bats and their roosts would be harmed or destroyed. However, it is recommended that the project proceeds with caution, Although, bats were detected in relatively low numbers the habitat in and around the property is of high value to bats and it is for this reason we suggest that an Ecological Clerk of Works or appropriately trained ecologist be present when the chimneys are removed and when the roof space is breached. Extreme caution should be taken when removing loose tile, flashing, soffit and fascia boards.

It is also recommended that bat boxes and other artificial bat roosts be installed into the build and in the garden. These are illustrated in the Preliminary Roost Assessment produced by Andy Swan Appendix 4. Examples of suppliers are:

NHBS

[NHBS - Wildlife, Ecology & Conservation](#)

And

Wildcare

[Bat Boxes - Nesting Boxes \(wildcare.co.uk\)](#)

In order to promote suitable bat habitat, it would be good practice to retain all the tree, hedges and mature shrubs within the property boundary and enhance the immediate habitat by planting suitable species to attract pollinators, particularly those plants that give off scent at night. Such plants include, honeysuckle, evening primrose, nicotiana species,

night scented stock and night blooming jasmine. Bats are also attracted by some species of aromatic herbs such as spearmint, lavender and sage. The artificial light levels were low which is attractive to bats. Again, it would be best practice to retain current artificial light intensity in the new build.



Conclusion

Although no bats or threats to their roost were detected on the day of the survey it is worth remembering that any bat survey has a limited period of credible viability. Like an M.O.T. on a car it is a snapshot, a moment in time. The transient nature of bats using roosts, particularly in the Spring and the Summer makes it imperative that work begins as soon as possible following appropriate planning approval. The report will have a limited longevity and delays in commencing the build may render to survey obsolete and new one having to be commissioned.



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- Advisory Note. These are non-statutory guidelines by a voluntary but well-respected bat charity. Whilst welcomed and useful, they have no legal status per se and may not be universally approved or adopted. They should therefore be used with



Bat Signs

Signs of bat activity may include the following:

- **Faeces** — these typically contain fragments of insect exoskeleton and crumble (unlike those of small rodents, which typically harden with time). Bat droppings will stick to surfaces including walls, windows and window ledges. They may also become caught in cobwebs below a roost site or feeding perch.
- **Feeding remains** — these include the discarded wings of flying invertebrates, which may accumulate under a well-used feeding perch. Some species, such as the brown long-eared bat, have a well known penchant for moths of the noctuid family. Hence the accumulated wings of these moths assist in suggesting the presence of this bat.
- **Oil staining** — the fur of bats may leave an oily residue on surfaces close to occupied roost sites and access/egress points.
- **Diurnal vocalisations** — these are most pronounced at larger roost sites during periods of hot weather.
- **Absence of cobwebs** — a well used bat roost and its access points are typically clear of cobwebs.
- **Scratchings** — scratch marks produced by the claws of many bats may be apparent close to the access point for a well-used roost.
- **Dead bats.**
- **Tracks in dust.**
- **Odour** — most bats have a distinctive odour and certain species, such as the noctule and soprano pipistrelle, are noted for their pungent roosts resulting from their urine scent marking activity and oily fur.



Bats & Their Protection

There are eighteen species of bats recorded as resident in the UK. The greater mouse-eared bat (*Myotis myotis*) was regarded as extinct until a hibernating individual was recorded in a Sussex hibernaculum in December 2002 and Alcatheo's bat (*Myotis alcathoe*) was found here in 2010.

The pond bat (*Myotis dasycneme*) may currently be in the process of colonising the country, based on an increase in recent sightings. All British bats are insectivorous, feeding on a range of invertebrates from gnats to ground beetles and spiders.

Two families of bats occur in the UK, the Rhinolophidae or “horseshoe bats” and the Vespertilionidae or “vesper bats”. Bats are believed to have declined in range and numbers in the UK, due primarily to loss of roosts and suitable habitats (JNCC, 2004). All British bats use high frequency sound (range 20—130 kHz approx.) as a form of echolocation. This allows bats to orientate themselves within their environment, detect and catch prey and communicate with other bats.

Bats use a variety of different structures for the purposes of roosting, including mature trees, caves, mines, buildings (both modern and ancient), bridges and tunnels. In addition, many bat species will occupy purposebuilt bat-boxes or even boxes designed to house nesting birds (English Nature, 2002).

Bats use different types of roost at different times of year. Maternity roosts, where large numbers of female bats congregate to give birth and rear their young, are typically associated with warm, sheltered conditions. Hibernation sites are characterised by stable temperatures and humidity approaching 100%. The use of roosts is rather unpredictable, particularly amongst tree-roosting species, but female bats are typically loyal to maternity roosts.

All British bats are afforded legal protection under the Wildlife and Countryside Act 1981 (WCA). The WCA has been amended on several occasions, most recently by the Countryside and Rights of Way (CROW) Act 2000 and the Natural Environment and Rural Communities (NERC) Act 2006. Intentional or reckless damage of roosts is also specifically proscribed. Owing to the tendency of bats to remain loyal to certain roost sites, sites known to be used by roosting bats are regarded as roosts regardless of whether they contain bats at the time of survey.

Very strict protection with strict liability was also afforded to bats under EU legislation which was been subsumed into British law. It is understood that this is being broadly retained even under the new relationship with the EU from 2021.

Convention on the Conservation of Migratory Species of Wild Animals. Pipistrelles receive a lower level of protection under the Bern Convention than other UK bat species.



Section 74 (2) of the CRoW Act 2000 (now updated by Section 41 of the NERC Act 2006) requires the publication of lists of habitats and species that are of principal importance for the purpose of conserving biological diversity in accordance with the requirements of the United Nations Convention Environmental Programme Convention on Biological Diversity (CBD) 1992.

The list is regularly updated, and many bats appear on it. The NERC Act consolidates the requirements of the CRoW Act in placing duties upon government agencies, including local authorities, to ensure the conservation of Biodiversity.



Legislation & Policy

There are many active pieces of legislation which are aimed at protecting wildlife and habitats within the UK. These are summarised below

Legislation	Description
<p>The Wildlife and Countryside Act (WCA) 1981</p>	<p>The WCA is the primary piece of legislation relating to nature conservation in Great Britain. The Act is supplemented by provisions in the CRoW Act 2000 and the NERC Act 2006. It provides for the notification and confirmation of Sites of Special Scientific Interest by Natural England. It also sets out, in schedules, important and invasive species which are legally protected or require active management. The WCA consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the conservation of wild birds (Birds Directive) in Great Britain (NB Council Directive 79/409/EEC has now been replaced by Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (codified version)).</p>
<p>Natural Environment & Rural Communities (NERC) Act 2006</p>	<p>The NERC places a duty on authorities to have due regard for biodiversity and nature conservation during their operations. The NERC Act requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England. The list replaces the UK Biodiversity Action Plans (UKBAP) and has been drawn up in consultation with Natural England, as required by the Act. The S41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of NERC Act, to have regard to the conservation of biodiversity in England, when carrying out their normal functions. Fifty-six habitats of principal importance (HPI) are included on the S41 list. These are all the habitats in England that were identified as requiring action in the UK Biodiversity Action Plan (UK BAP) and continue to be regarded as conservation priorities in the subsequent UK Post-2010 Biodiversity Framework. Of most relevance to the Site, they include ponds, open mosaic habitats on previously developed land and lowland heathland. There are 943 species of principal importance (SPI) included on the S41 list. These are the species found in England which were identified as requiring action under the UK BAP and which continue to be regarded as conservation priorities under the UK Post2010 Biodiversity Framework</p>
<p>The Countryside and Rights of Way (CRoW) Act 2000</p>	<p>The CRoW applies to England and Wales only, received Royal Assent on 30 November 2000, with the provisions it contains being brought into force in incremental steps over subsequent years. Containing five Parts and 16 Schedules, the Act provides for public access on foot to certain types of land, amends the law relating to public rights of way, increases measures for the management and protection for Sites of Special Scientific Interest (SSSI) and strengthens wildlife enforcement legislation, and provides for</p>



	<p>better management of Areas of Outstanding Natural Beauty (AONB). The Act is compliant with the provisions of the European Convention on Human Rights, requiring consultation where the rights of the individual may be affected by these measures.</p>
The Conservation of Habitats and Species Regulations 2017	<p>The Conservation of Habitats and Species Regulations 2017 consolidate the Conservation of Habitats and Species Regulations 2010 with subsequent amendments. The Regulations transpose Council Directive 92/43/EEC, on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive), into national law. They also transpose elements of the EU Wild Birds Directive in England and Wales. The Regulations came into force on 30th November 2017 and extend to England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters).</p>



Analysis

When reviewing the Thermal Imaging footage, there appeared to be an object flying from behind the chimney at 19:47 (*Image 1*). After careful review and a second opinion this was soon identified as a bird. Firstly, because although the image seems as if it is dark, in fact at 19:47 it was still light. Some bats emerge during daylight, so this could not be ruled out. Secondly, the shape of the object, (*See image 2*) is unlike any bat and is more like a swallow or house martin.

Image 1

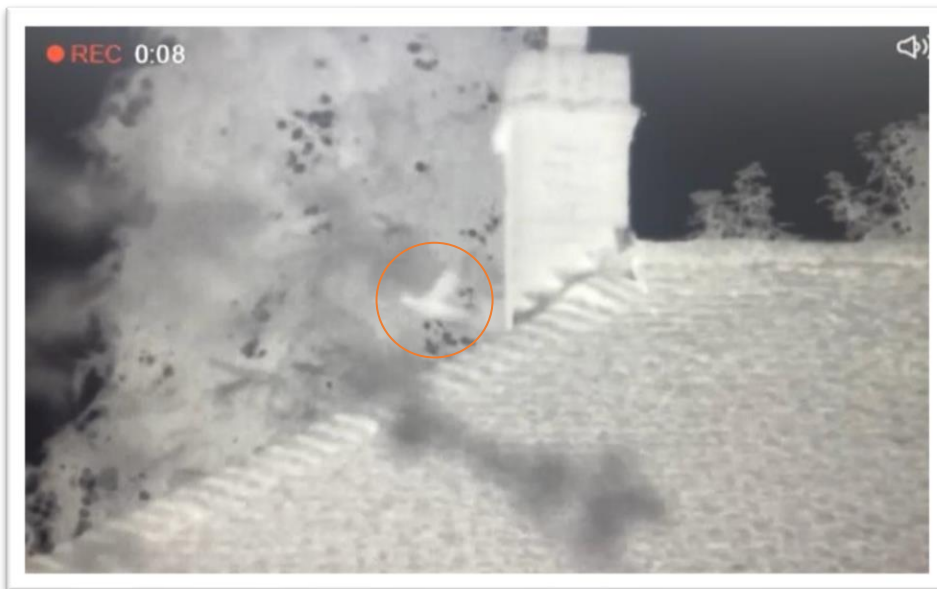


Image 2





Personal Statements

Steven Archer has worked in the environment and conservation sector for over thirty years. He has a BSc (Hons) degree in Applied Environmental Science. Steve is currently site manager on Cannock Chase Country Park which is a Special Area of Conservation and Site of Special Scientific Interest. He has been in this role for the last twelve years. During the last three years Steve has also been working with a number of ecological consultancies as a freelance ecologist.

Robert Taylor has worked in the environmental sector for over 24 years. He has a HNC in Environmental & Countryside Management and has worked on a number of projects from reptile & GCN translocation to delivering a higher-level stewardship scheme. He has been a freelance consultant for a number of years whilst working as a Countryside Officer in Staffordshire.