Date: August 2018

Contract Ref: 1402

BAT SURVEY REPORT

LION COURT, 25 NEW STREET, LEOMINSTER

for

LEOMINSTER PROPERTIES LTD

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CONTROL SHEET

Leominster Properties Ltd
Lion Court, 25 New Street, Leominster
Bat Survey Report

	Name	Position
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Contract No.	Project Contact	Revision No.	Date of Issue
1402	Natalie Walsh	01	27 August 2018

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1. RECOMMENDATIONS

1. No further presence/absence surveys are required to support the planning application for this site as the potential for bats to occur and significant impacts to arise during works is considered to be negligible.

2. As a precautionary approach, it is recommended that a licensed bat worker remains 'on call' during the demolition works. Roof materials (*e.g.* slope and ridge tiles) must be removed by hand by the roofing contractors. **In the event that roosting bats are discovered, works must cease immediately and Natural England must be contacted to advise on any licensing requirements to allow lawful completion of the work.**

3. In line with Government policy on biodiversity, the following opportunities to compensate for development impacts and enhance the site for bats should be realised:
    - At least two bat boxes should be installed within the landownership of the site. The boxes should be fixed to new built structures (*e.g*. Schwegler Wall-mounted Bat Shelter 2FE or Ibstock Enclosed Bat Box Unit). The boxes should be installed at least 4m above ground-level, and not placed above windows.

    - Strict control over the use of artificial night-lighting is recommended to prevent unnecessary illumination of wildlife habitats (*e.g*. hedgerows, new roosting features, *etc.*). Lighting should be low level (*e.g.* light bollards) and of the minimum wattage. Please refer to the following for guidance; Institute of Lighting Professionals (2011) and Bat Conservation Trust (2009).

4. This report is deemed valid for 12 months. Should any demolition commence after this time has elapsed an update survey will be required to determine the status of the site during the intervening period.

2. SUMMARY OF RESULTS

1. Development proposals are for redevelopment of the site to include terraced houses and flats with associated car parking. The development is part of a wider scheme for Lion Court. Focus Ecology have been appointed by Hook Mason Ltd on behalf of Leominster Properties Ltd to provide advice on the potential impact of the proposals upon bats and make recommendations as appropriate to ensure compliance with wildlife legislation and recognised best practice.

2. A Preliminary Ecological Appraisal (including Preliminary Roost Assessment) of 25 New Street, Leominster, Herefordshire (centred on Ordnance Survey grid reference SO 4946 5914) was undertaken on the 14 August 2018. The survey site comprises a residential property with a detached dwelling and associated garden, including areas of lawn and ornamental planting. The property is enclosed by a mixture of ornamental hedgerows, walls and wooden fencing. Part of the existing car park for Lion Court is also included within the survey site boundaries.

3. The house was identified as having 'low' suitability for bats with reference to published guidelines (Collins, 2016) due to a small number of favourable roosting features through gaps where mortar is missing along the gable verges. Therefore, further specialist bat surveys were recommended.

4. One dusk emergence survey was undertaken of the building on the 22 August 2018 by two experienced and appropriately licensed surveyors.

5. No bats were observed roosting within the building.

6. A low amount of bat foraging and commuting activity was observed on site during the survey, primarily by common pipistrelle. A small number of passes by brown long-eared and noctule bats was also recorded.

3. DISCUSSION & CONCLUSIONS

3.1 Interpretation of Results

The daytime and nocturnal survey information collected by Focus Ecology has found no evidence of roosting bats within property at 25 New Street, Leominster. A low amount of foraging and commuting activity was recorded during the survey, primarily by common pipistrelle.

Taken collectively the survey results obtained have confirmed that the property at 25 New Street, Leominster, does not support roosting bats.

3.2 Predicted Impact in Absence of Mitigation

No bat roosts have been recorded during the daytime or nocturnal surveys at the site. Therefore no short or long-term impacts on bat species at the site are predicted.

The majority of the vegetation within the site will be lost to facilitate the proposed development which may result in the loss of foraging and commuting habitat for bats. However, it is unlikely to result in significant fragmentation or isolation. Given the current use of the site and surrounding built-up area, including the presence of street lighting, it is not considered that there would be a significant increase in night lighting associated with the proposals.

3.3 Predicted Scale of Impact

No bat roosts have been identified during the surveys. As such, demolition of the property is considered highly unlikely to impact upon roosting bats.

Provided a sensitive night-lighting scheme is implemented, together within new landscape planting, the proposed development is unlikely to have any significant impact upon foraging or commuting bats.

3.4 Compliance with Three Licensing Tests

No bat roosts have been recorded within the property during the daytime or nocturnal surveys. The prior acquisition of a bat mitigation (development) licence is therefore

not required as the potential for bats to occur and significant impacts to arise during works is considered to be negligible.

4. ANNEXES

4.1 Photographs

4.2 Survey Data

4.3 Plans

4.4 Survey Objectives

4.5 Limitations

4.6 Methods & Parameters

4.7 Background Data

4.8 References & Bibliography

4.9 Bat Ecology & Legislation

4.1 Photographs

All photographs taken on the 14 August 2018.

Plate 1: Showing a view of the front of the house. Photograph looking south-west.

Plate 2: Showing a typical view within the roof void of the house.

Plate 3: Showing missing verge mortar on the eastern gable of the house.

Plate 4: Showing missing verge mortar on the western gable of the house.

4.2 Survey Data

A brief summary of the results of the nocturnal survey is provided below, along with sonograms. Full survey recording sheets are held by Focus Ecology and are available on request.

Dusk Emergence Survey (22 August 2018):

Surveyor 1 was positioned north-east of the property.

Surveyor 2 was located to the south-west of the property.

The survey started at 20:07. The first bat was a noctule, heard at 20:33. During the survey low levels of bat activity was recorded, primarily by common pipistrelle foraging within the garden of the property. A single pass by a brown long-eared bat was also recorded. No bats were observed emerging from the property. The survey ended at 21:52.

Dusk Survey Count: 0 bats

4.2.1 Sonograms

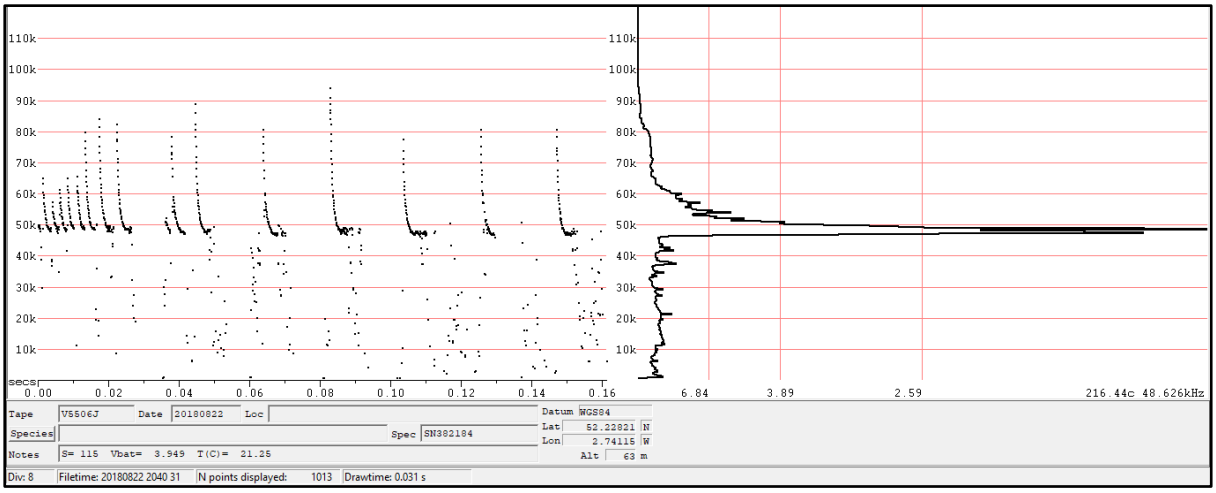


Figure 1: Showing a common pipistrelle bat echolocating at 20:40 during the dusk emergence survey on the 22 August 2018 at Lion Court, 25 New Street, Leominster.

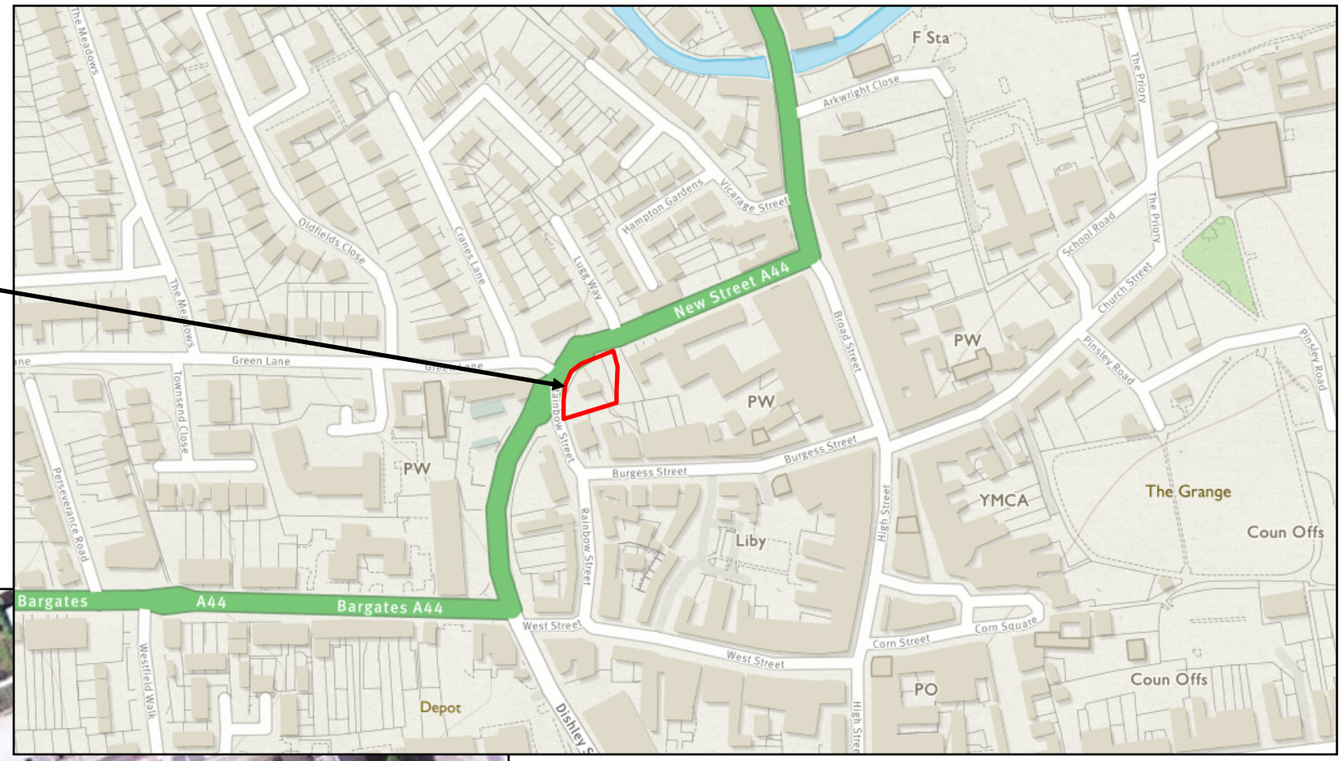
4.3 Plans

Plans:

4.3.1 Location Plan

4.3.2 Dusk Emergence Survey Plan

4.3.1 Location Plan

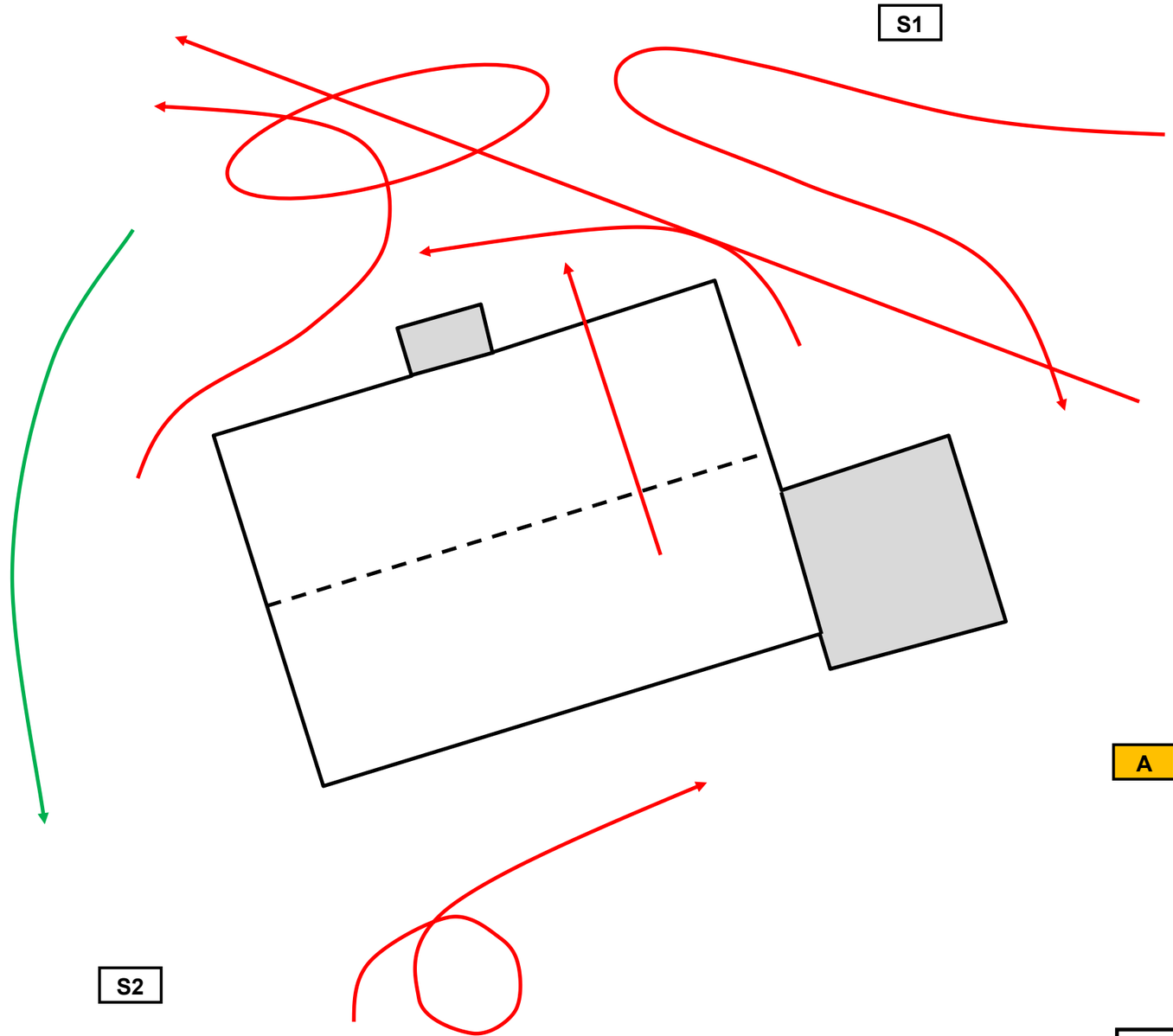


NORTH

Contains Ordnance Survey data © Crown copyright and database right 2018. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings.
Please note: this plan is intended only to indicate the approximate location of features and should therefore, not be treated as an accurate scale plan.

Client: Leominster Properties Ltd
Site: Lion Court, 25 New Street, Leominster
Title: Location Plan
Contract: 1402
Date: August 2018

4.3.2 Dusk Emergence Survey Plan



KEY:

- Ridge line
- Single-storey structure
- S# — Surveyor number / location
- A — ANABAT Express location
- Common (45kHz) pipistrelle activity
- Brown long-eared activity

NORTH

Client: Leominster Properties Ltd
Site: Lion Court, 25 New Street, Leominster
Title: Dusk Emergence Survey Plan
Contract: 1402
Date: 22 August 2018

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

4.4 Survey Objectives

The objectives of the survey were:

- to undertake a daytime preliminary roost assessment for bats, following best practice survey guidelines (Mitchell-Jones, 2004; Collins, 2016);
- to carry out nocturnal bat roost surveys based on the suitability of the building for bats and previous daytime survey work completed;
- to provide specialist advice on the possible presence of bats in relation to the planning process;
- to report survey results, likely development impacts and make appropriate recommendations for further surveys and/or works as necessary to ensure compliance with wildlife legislation and standard best practice; and
- to identify appropriate avoidance, mitigation, compensation and enhancement measures as required to demonstrate compliance with the 'mitigation hierarchy' and requirements of local and National biodiversity policies (*e.g.* the 'biodiversity duty' enshrined within S.40 of the NERC Act 2006, NPPF paragraph 109 *etc*).

4.5 Limitations

No limitations to the survey were encountered.

4.6 Methods & Parameters

Preliminary Roost Assessment:

An internal and external inspection of the building was carried out following recognised best practice guidelines (Collins, 2016; Mitchell-Jones, 2004; Natural England & DEFRA, 2015) to identify any possible exit and entry points of bats and to search for evidence of bats.

Within the building, particular attention was paid to areas suitable to support roosting bats, including joints and crevices within the beams and gaps between roofing materials. Field signs that would indicate the presence of bats were searched for. These included:-

- bat droppings on the floor and walls of the buildings;

- feeding remains (particularly butterfly & moth wings) usually on the floor of buildings;
- evidence of urine staining around possible roost entrances;
- presence of areas cleared of cobwebs;
- oily stains around possible roost entrances.

Taking into account the presence of such features in any structures on site, as well as their height, aspect, isolation, potential impact of wind, rain and artificial lighting, building were then assessed as having either 'high', 'medium', 'low' or 'negligible' potential to support roosting bats, and categorised using Collins (2016) (see Table 1, below).

Table 1: Guidelines for Assessing the Potential Suitability for Roosting Bats of Structures within a Development Site[1]

Suitability	Description: Structure
Negligible	Negligible features on the structure that are likely to be used by roosting 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 appropriate conditions (*i.e*. space, protection, shelter) and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (*i.e*. unlikely to be used as a maternity roost).
Moderate	A structure with one or more potential roost sites that could be used by bats due to their appropriate condition (*i.e*. size, shelter, protection) and surrounding habitat. However, it is unlikely to support a roost of high conservation value (with respect to roost type only).
High	A structure 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 conditions (*i.e*. size, protection, shelter) and surrounding habitat.
Confirmed Roost	Structure with confirmed bat roost.

Emergence and Activity Surveys:

The nocturnal survey was conducted by experienced and appropriately licensed surveyors using a variety of equipment with the aim of providing maximum confidence in the presence or absence of roosting bats. Surveyors were situated at strategic

[1] Taken and adapted from: **Collins, J. (ed.) (2016)**. *Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd Edition*. The Bat Conservation Trust, London, UK.

points around the site, to ensure full visual coverage of potential bat emerge points and roosting locations. The property was observed for the duration of the survey, in order to record the emergence of any bats. The site was also walked to assess its importance as a foraging resource for bats, using the same techniques and equipment.

Survey Parameters:

Table 2: Details of survey parameters for Lion Court, 25 Newt Street, Leominster.

Date	Survey Type	Sunset / Sunrise	Survey Start & End Times	Weather Conditions	Surveyors & Licence No.	Equipment
14 August 2017	Daytime	n/a	n/a	Warm, dry and still.	N. Walsh (2016-23549-CLS-CLS)	Ladder, high-powered torch with red filter, endoscope.
22 August 2018	Dusk Emergence	Sunset: 20:22	Start: 20:07 End: 21:52	Warm, overcast and dry. Start: 19°C End: 18°C Beaufort scale: 0 Cloud cover: 100% Relative humidity: 87%	N. Walsh (2016-23549-CLS-CLS); F. Flanagan (CLS 2709)	1x ANABAT Express, 1x Echo Meter 3, 1x ANABAT Walkabout, 1x Echo Meter Touch

4.7 Background Data

Pre-existing Information on the Bat Species at the Survey Site:

A Preliminary Roost Assessment was completed at the site on the 14 August 2018 by an experienced and appropriately licensed ecologist from Focus Ecology (see Focus Ecology, 2018). Please refer to this report for full descriptions of the site and scope of works.

As part of the Preliminary Ecological Appraisal (Focus Ecology, 2018) for the site, a 2km third-party data search was completed. The author refers the reader the Preliminary Ecological Appraisal for full details of the data search.

Table 3: Summary of bat data provided as part of the third-party data search conducted for the site at Lion Court, 25 New Street, Leominster.

Source	Information Provided
Herefordshire Biological Records Centre	**Bats:** The third-party data search returned 144 records for bats from within the 2km search radius, including the following species: common pipistrelle, soprano pipistrelle, Daubenton's, Noctule, Natterer's, *Myotis* sp., whiskered, brown long-eared and Bechstein's. None of these records are for significant roosts (*e.g.* hibernation, maternity).

Status of Bat Species:

Survey results have confirmed that the property at 25 New Street, Leominster, does not support any active bat roosts.

Bat activity recorded across the site was primarily from common pipistrelle. Common pipistrelle are a relatively common species locally and nationally and population estimates for the UK are between 1 – 3 million individuals.

4.8 References & Bibliography

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4.9 Bat Ecology & Legislation

Only two different families of bats occur in the UK, of which the most numerous are the "vesper bats" or ***Vespertilionidae***. Only two members of the ***Rhinolophidae*** or "horseshoe bats" occur in the UK, namely the greater and lesser horseshoe bat. The UK currently supports 17 different resident species of bat from these two family assemblages. One of these, Alcathoe's bat (*Myotis alcathoe*) has only been discovered as resident in 2010. The greater mouse-eared bat (*Myotis myotis*) was previously thought to be extinct as a UK mammal species until a single individual was discovered in 2002 at a known hibernation site in Sussex, this may yet turn out to be resident species but is currently regarded by the Bat Conservation Trust as a vagrant/occasional winter visitor. Another species, the pond bat (*Myotis dasycneme*) is increasingly being identified in the UK and may currently be in the process of colonising the country from continental Europe.

British bats are entirely insectivorous, and consume a variety of invertebrate species of various shapes and sizes from the smallest gnats and midges to cockchafers, ground beetles and spiders. Bats are increasingly regarded as being species of conservation concern owing to a decline in both numbers and range. The reasons for these declines are thought to relate primarily to changing agricultural practices (in particular intensification of agriculture and increased use of pesticides) and direct loss of foraging habitats and roosts from human development such as infrastructure projects and conversion of agricultural buildings (see *e.g.* JNCC, 2004; www.bats.org.uk). All UK bats utilise echolocation to navigate within their environment and hunt for food. It is increasingly being discovered that echolocation calls can also have an important 'social communication' function between bats.

Bats are strictly nocturnal unless disturbed, diseased or starved of food due to adverse weather conditions. Consequently bats require a place of shelter and protection (commonly termed a roost) from predators during the daytime. Bat roosts can be found in a variety of both natural and anthropogenic situations including buildings (residential, agricultural, industrial, modern and ancient), mature trees, bridges, tunnels, caves and mines. Purpose built bat boxes are now commercially available and bats will use these, as well as taking advantage of unoccupied bird boxes if available.

Bats are mobile throughout the year and may use different types of roost according to the particular needs of their lifecycle. Different roost types include maternity roosts, hibernation roosts, satellite roosts, day roosts, night roosts, transitional roosts, feeding perches and mating roosts. The most significant roosts in terms of bat numbers and conservation significance are 'maternity roosts' and 'hibernation roosts'. Pregnant female bats will aggregate in maternity roosts to give birth and rear their single offspring (twins occur rarely). These types of roost are normally associated with warm, protected sites. During colder months of the year, bats go into hibernation and require sites with stable temperatures high humidity levels. Bats do not always use roosts in a predictable fashion and tree-dwelling species are notoriously nomadic and will move between a variety of different tree roost sites. By contrast maternity roosts tend to be the most loyally occupied from year to year, although again this differs between the different bat species.

Council Directive 92/43/EEC ("The Habitats Directive") is transposed into UK law through the Conservation of Habitats and Species Regulations 2017. Bats are a European Protected Species (EPS), and are listed in Annex IV of the Habitats Directive. This affords both the bats and their roosts with strict protection. Some bat species have a higher conservation concern in Europe. The habitats supporting these species can be designated as Special Areas of Conservation (SACs) and the bat species concerned are listed under Annex II of the Habitats Directive. Bats listed on Annex II include the greater and lesser horseshoe bats, the Bechstein's bat and barbastelle. Actions and activities that are prohibited by this legislation are:

- deliberate capture, injury or killing of a bat;
- deliberate disturbance of a bat and in particular disturbance which is likely to; impair their ability:
    - to survive, to breed or reproduce, or to rear or nurture their young, or
    - in the case of animals of a hibernating or migratory species, to hibernate or migrate;
    - or to affect significantly the local distribution or abundance of the species to which they belong.
- damage or destruction of a breeding site or resting place;
- possessing, controlling transporting, selling or exchanging, or offering for sale or exchange, any bat or any part of a bat or anything derived from one.

Substantial penalties including fines and custodial sentences are now in place for offenders under the Conservation of Habitats and Species Regulations 2017.

The primary legislative Act covering wildlife in the UK is the Wildlife and Countryside Act 1981 (WCA), which affords protection to all bat species. The WCA has seen numerous amendments since it was brought into force, of which the most recent and arguably significant have been the Countryside and Rights of Way (CRoW) Act 2000, the Natural Environment and Rural Communities (NERC) Act 2006 and the Conservation of Habitats and Species Regulations 2017 (described above). The intentional or reckless damage of roosts or disturbance of bats is specifically prohibited under the WCA as amended. The offence of 'reckless' disturbance and damage is not contained within the Conservation Regulations and has thus been retained within WCA.

Because bats are known to use many roost sites on a regular basis year on year, legal precedent indicates that these roosts should be regarded protected regardless of whether bats are present at the time they are inspected. Legislative changes and amendments have now completely removed the defence of harmful actions being "the incidental result of an otherwise lawful operation" for EPS, which was previously afforded under the Wildlife and Countryside Act 1981 (as amended).

A number of British bat are described as being of 'of principal importance for the purpose of conserving biological diversity' under Section 41 of the Natural Environment and Rural Communities Act 2006 (NERC). The NERC Act places a specific 'biodiversity duty' upon all national and local government departments to ensure the conservation of Biodiversity.

The National Planning Policy Framework (NPPF) sets out the government's planning policies for England and how they should be applied to achieve the over-arching goal of 'sustainable development'. Section 11 Paragraph 109 of the NPPF specifically requires the planning system to:

"*contribute to and enhance the local and natural environment by:*

- *minimising impacts on biodiversity and providing net gains in biodiversity where possible…*"

5. QUALIFICATIONS & EXPERIENCE

Focus Ecology was formed in 2010 and has the expertise to provide sure-fire ecological and arboricultural solutions to a wide range of projects. The company ethos forges the highest standards of professional scientific practice with a best value approach for our clients. Our core area of expertise is in the production of specialist ecological and arboricultural reports and advice to support planning applications. However, our flexible approach, range of skills and broad project experience from major infrastructure contracts to smaller projects allows us to adapt to your individual requirements. Focus Ecology is situated in Worcestershire, providing a convenient and central UK location.

Natalie Walsh BSc (Hons) MCIEEM

Natalie is an Ecologist joined Focus Ecology in 2015 and has over five years' professional experience in the field of ecology. Prior to joining Focus Ecology Natalie worked as an Assistant Ecologist at a leading ecological consultancy firm. She holds a BSc (Hons) degree in Wildlife Conservation from the University of Plymouth. Her ecological experience includes Preliminary Ecological Appraisals and surveying for European Protected Species including great crested newts, bats and hazel dormice. Natalie is also a competent surveyor of badgers, reptiles, barn owls, water voles and otters. Natalie holds Natural England and Natural Resources Wales survey licences for great crested newts and bats (Class 2) and is a Full member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

Sub-Consultants

Focus Ecology occasionally employs sub-consultants to assist with survey work during the busy summer period. All of our sub-consultants are experienced ecologists, many of which are also licensed. For more details, please contact Focus Ecology on 01905 780 700.