

Report of Bat survey

**Mearley Lodge,
Primrose Road,
Clitheroe,
Lancashire
BB7 1DR**

Provided for:

Mrs. K. Jackson,
Mearley Lodge,
Primrose Road,
Clitheroe,
Lancashire
BB7 1DR

12th June 2020



www.ecologyservice.co.uk
Chipping | Lancashire | PR3 2GH
T 01995 61492 E info@ecologyservice.co.uk
Registered in England and Wales no. 5329675

Summary

This report has been produced on behalf of Mrs. K. Jackson to inform proposed works to a property known as Mearley Lodge at Clitheroe, Lancashire BB7 1DR.

Surveys carried out in 2020 comprised daytime building inspections and emergence surveys. A data search was also undertaken.

A total of 4 species of bats were recorded during surveys; Common pipistrelle *Pipistrellus pipistrellus* (in flight), soprano pipistrelle *Pipistrellus pygmaeus* (in flight and roosting), Nathusius pipistrelle *Pipistrellus nathusii* (in flight) and noctule *Nyctalus noctula* (in flight).

The Mearley Lodge building was confirmed as supporting a bat roost in one location – a flat roof extension at the north east corner of the ground floor of the building. **The survey results confirmed that Mearley Lodge supports a spring day roost of soprano pipistrelle bats.**

Based on the survey results and professional judgement, it is considered that there is **no reasonable likelihood** that Mearley Lodge supports a bat maternity roost in 2020 or a winter roost in any year. Based on the survey results and professional judgement, it is considered that there **is a reasonable likelihood** that Mearley Lodge supports a roost of soprano pipistrelle bats throughout the active season (April to October).

The proposed development work (construction of extension to north east corner of building) involves sufficiently disturbing and damaging activities to cause breaches of legislation as regards bats and a bat roost at Mearley Lodge. **The proposed work has the potential to disturb and harm at least 5 soprano pipistrelle bats (based on maximum numbers of the species recorded during surveys).**

In order to address breaches of legislation, the proposed development will require a licence to be undertaken lawfully. The works, bat species and numbers and the number of bat roosts meet the criteria for a Bat Mitigation Class Licence (CL21). The Bat Mitigation Class Licence was formerly known as the Bat Low Impact Class Licence.

To satisfy the requirements of the Bat Mitigation Class Licence (CL21), the following are proposed:

- One bat box will be installed on a tree in the garden of the property.
- All bat-related measures will be supervised by the Project Ecologist; this will include toolbox talks to site personnel and supervision of all disturbing works likely to impact on bats and the known bat roost.

No nesting bird activity was found at Mearley Lodge during the surveys.

Report contents

1. Introduction	4
2. Objectives, methodology and rationale	7
3. Site description	11
4. Results of surveys	14
5. Limitations of survey	19
6. Conclusions	20
7. Advice and recommendations	22
8. Bibliography	25

Appendices

App 1 –Data search results

App 2 – Diagram of bat evidence and bat roost

App 3 – Photographs of survey area

1 Introduction

- 1.1** This report has been produced on behalf of Mrs. K. Jackson to inform proposed works to a property known as Mearley Lodge at Clitheroe, Lancashire BB7 1DR.
- 1.2** Following an initial inspection in February 2020, during which Mearley Lodge was confirmed as a bat roost, Ecology Services UK Limited was commissioned to carry out further bat surveys in May and June 2020.
- 1.3** The information contained within this report comprises:
- The methodology employed to survey for bats at Mearley Lodge
 - A brief description of the survey area
 - The results from the bat surveys
 - Conclusions drawn from the results of the surveys
 - Advice and recommendations for further action in relation to bats at Mearley Lodge
- 1.4** The surveys, assessment of potential and advice in this report comply with national best practice guidance as outlined in:

Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*. The Bat Conservation Trust, London.

1.5 Personnel

Pat Waring and Janette Gazzard led the surveys and compiled the bat survey report.

Pat is a licensed bat worker (class 2 licence), a Registered Consultant of the Bat Mitigation Class Licence in England, a Chartered Environmentalist and a full member of the Chartered Institute of Ecology and Environmental Management, with a Bachelor of Science degree in Biology.

Pat has been working as an ecological consultant, including his current post as Director of Ecology Services UK Limited, for over twenty two years. This work includes provision of expert advice, guidance and training to bodies such as Statutory Nature Conservation Organisations, Local Planning Authorities and Lancashire Police Authority, as well as the delivery of professional training courses about bats at a national level.

Pat has recognised and extensive experience and knowledge of ecological survey, monitoring, condition assessment and impact assessment techniques. He has extensive knowledge of bat ecology relating to buildings and trees including the requirements and condition necessary for bat roosting. He also has recognised skills relating to bat surveys and assessment.

Pat has extensive experience of designing mitigation, compensation and enhancement for a range of bat species. He provides professional training at a national level in mitigation design, compliance audits for mitigation and in measuring success of mitigation schemes. He has acted as the sole Project Ecologist for over 45 licensed mitigation schemes for bats in England and Wales.

Janette is a full member of Chartered Institute of Ecology and Environmental Management, with a Bachelor of Science degree in Environmental Management.

Janette has over sixteen years' experience working in ecology and nature conservation, including roles as a Senior Ecologist for a large multidisciplinary company and as a lead adviser for Natural England throughout the North West of England. She has a range of demonstrable skills relating to professional bat work, including building and tree surveys, assessments and judgements of value in relation to bats, as well as selection and monitoring of mitigation features.

Pat and Janette have extensive experience and a high level of competency in the operation and use of all bat detectors and other equipment utilised during the work described in this report.

Pat and Janette meet the requirements for knowledge, skills and practical experience as outlined in the CIEEM technical guidance (Chartered Institute for Ecology and Environmental Management (2013) *Competencies for Species Survey: Bats*. CIEEM, Winchester, Hants).

The survey work was carried out under a Natural England Class 2 licence.

1.6 Advisory note

The information in this document represents the professional opinion of Ecology Services UK Ltd and does not constitute professional legal advice. You may wish to seek professional legal interpretation of the wildlife legislation associated with this area of work.

Ecology Services UK Ltd states that the information, opinion and advice which have been prepared are true, and have been prepared and provided in accordance with the CIEEM Code of Professional Conduct. Ecology Services UK Ltd confirms that the opinions expressed are our true and professional bona fide opinions.

Ecology surveys are time-limited; as a rule survey findings can generally be relied on for the season in which surveys took place. However, mobile species such as bats and birds may increase or decrease in numbers and change behaviours over time. Statutory agencies will often accept survey results for 12-18 months, but this varies around the country.

Ecology Services UK Ltd personnel make a professional judgement as to how long the results of our surveys will remain current. Advice and recommendations as regards currency and its impacts on decision making are included in section 7 of this report.

2 Objectives, methodology and rationale

2.1 General background

The brief for this work was to survey a single building known as Mearley Lodge, to inform proposed development work (construction of an extension to the north east corner of the existing building).

Objectives – building surveys

- a) To identify any potential bat roosting habitat.
- b) To identify whether bats were present in Mearley Lodge at the time of survey
- c) To identify whether bats had used Mearley Lodge prior to the survey
- d) To enable an assessment to be made of the likely use of Mearley Lodge by bats and its importance for bat conservation
- e) To provide advice and recommendations accordingly

Objectives – emergence surveys

- a) To identify whether bats were emerging from Mearley Lodge at the time of survey and, if so, to identify bat numbers and species
- b) To enable an assessment to be made of the likely use of Mearley Lodge by bats and its importance for bat conservation

Information gathering involved two phases; a desk-based study and field-based surveys.

2.2 Desk-based study

The following sources were consulted as part of the desk-based study:

Source	Data	Rationale
Lancashire Environmental Records Network (LERN)	All bat roost records, within 2 km of the survey site held by LERN.	LERN holds bat records from East Lancashire.
MAGIC website – EPS schemes within 2km of the proposed development site (2020)	Details of the European Protected Species mitigation schemes.	EPS mitigation schemes for bats deal with impacts on bat roosts. This type of data enables the predicted impacts on the Mearley Lodge roost to be put into context.

Table 1 – sources for desk-based study

It is recognised that East Lancashire Bat Group do not currently have a mechanism in place for supplying bat records held by the group.

2.3 Methodology for surveys

The general approach to surveys, assessment of potential and advice in this report complies with national best practice guidance as outlined in:

Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*. The Bat Conservation Trust, London.

The approach deviated from the guidance as follows:

In this instance, a decision was made to undertake a series of emergence surveys rather than a mixture of emergence and re-entry surveys. The reason for this approach was that professional judgement dictated that emergence surveys would provide surveyors with much better opportunities to find bat roosts, leading to greater confidence in survey results and mitigation measures. This approach does, however, comply with other statements in the guidance, as follows:

It is accepted that departures from the guidelines (e.g. either decreasing the number of surveys carried out or using alternative methods) are often appropriate. However, in this scenario, an ecologist should provide documentary evidence of (a) their expertise in making this judgement and (b) the ecological rationale behind the judgement. An ecologist should use their professional judgement to design the most appropriate survey regime.

2.3.1 Daytime inspection surveys

In 2020, four daytime surveys of Mearley Lodge were carried out as follows:

21st February 2020 (internal and external survey of building)

2nd May 2020 (external survey of building)

21st May 2020 (external survey of building)

7th June 2020 (external survey of building)

Daytime inspections were carried out as follows:

- Internal and external parts of Mearley Lodge were subjected to examination for signs of bats, including droppings, urine staining, grease marks and feeding remains. A search was also made for live and dead bats.

- An endoscope (Ridgid CA-300) and cold-light, narrow beam torches (Led Lenser TT) were used to investigate areas out of reach for hand searching, such as narrow gaps and other confined spaces. Ladders (Zarges professional 3.8 m telescopic) were used to access potential bat access and roost features at height.
- Potential access/egress points and roosting features for bats were examined in detail where accessible.
- A 1000 lumens Led Lenser X21 torch and close-focussing Zeiss Victory FL 8x42 binoculars were used as aids to visibility.
- Notes were made of potential disturbance factors for bats

2.3.2 Emergence surveys

Three emergence surveys were carried out as follows:

2nd May 2020 (external survey of building)

21st May 2020 (external survey of building)

7th June 2020 (external survey of building)

- Due to the very localised nature of the bat access features and the proposed works, no more than two surveyors were required for emergence surveys.
- At the start and end of each survey, a range of environmental readings, including temperature, humidity and wind speed, were taken using a Kestrel 4000 Weather Meter.
- Each survey started at least 30 minutes prior to sunset and continued until at least 90 minutes after sunset.

Bat detectors used externally during emergence surveys were as follows:

Date	Detector models	Detector functions
2 nd May 2020	Batbox Griffin Batlogger M Anabat Express	Time expansion Time expansion Frequency division
21 st May 2020	Batbox Griffin Batlogger M Anabat Express	Time expansion Time expansion Frequency division
7 th June 2020	Batbox Griffin Batlogger M Anabat Express	Time expansion Time expansion Frequency division

Table 2 – bat detectors used during emergence surveys

- Both surveyors were equipped with a hand-held bat detector and headphones. All bat detectors had fully charged batteries to ensure optimum performance.
- Surveyors were positioned so that on each occasion, all those areas predicted to be affected by the proposed works (i.e. where removal of potential bat roost features such as roof coverings and soffit boards was proposed) could be observed by at least one person.
- During emergence surveys, observers stood close to locations that were judged most likely to act as access points for bats, as determined during the building surveys and previous emergence surveys.
- Bat echolocation was recorded onto internal memory cards of the Batbox Griffin, Batlogger M and Anabat Express detectors.
- Sony HDR-XR 520VE and Canon XF100 camcorders (set on 0 lux Nightshot), each with two IRLight6 infra-red illuminators, were focussed on external sections of the building throughout the emergence surveys to assist with observations. All activity was recorded onto the internal hard drives of the camcorders for further analysis.

2.3.3 Bat identification

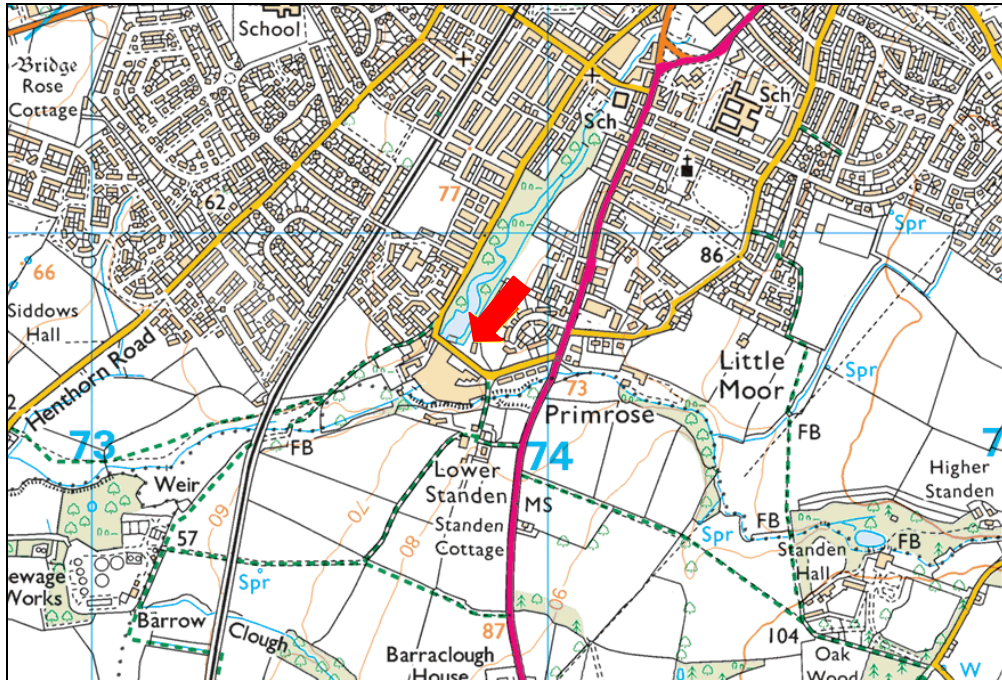
The identification of bat species was confirmed by a combination of droppings analysis, location and type of roost features, direct observation (e.g. the behaviour of bats when seen flying), use of bat detectors and analysis of bat recordings using computer software (Batsound v3.31, BatExplorer version 2.1.7.0 and AnalookW).

Analysis of bat recordings involved a series of measurements, including inter pulse interval, pulse duration, characteristic slope and frequency of maximum energy; all of these were compared to a number of known references in order to arrive at an identification of each bat species.

3 Site description

3.1 The site subject to survey

The survey site location (SH 7368 3635) and context are shown below.



Map 1 - 1:25 000 map of site and context - location shown by red arrow to centre of map

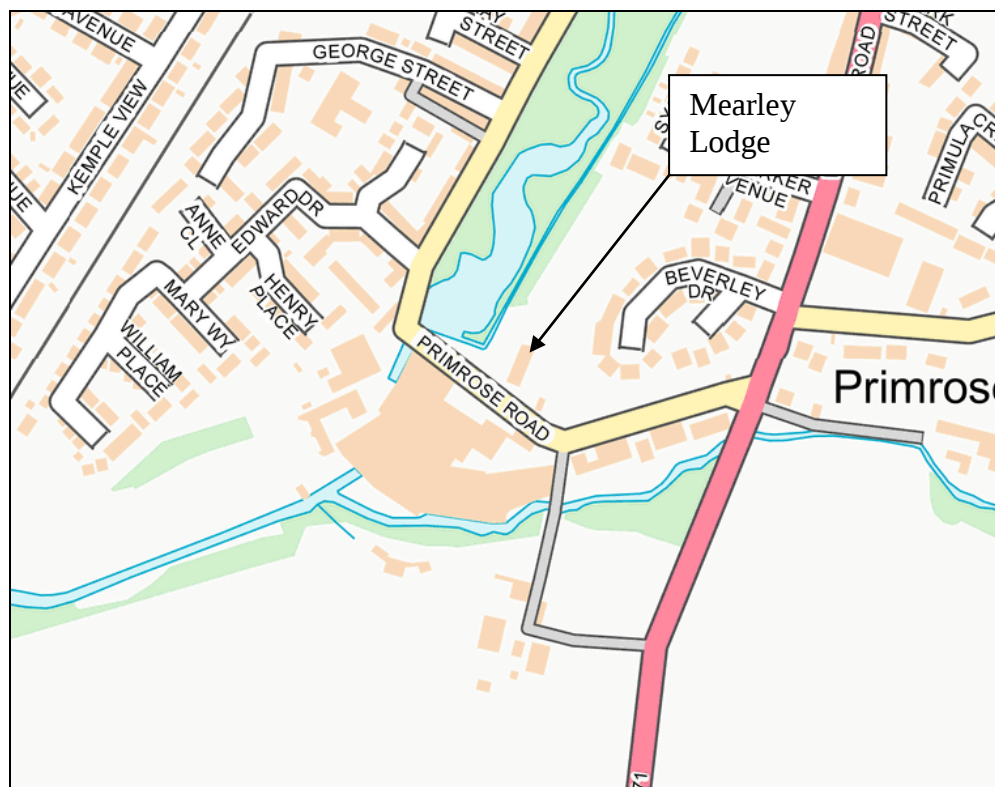


Image 1 – Wide aerial view of proposed development site (marked with white arrow) showing context



Image 2 – Close aerial view of Mearley Lodge (outlined in red) and immediate surroundings

The proposed development area is less than 0.01 hectares, and comprises a single building known as Mearley Lodge, as shown on the aerial image above and on map 2 below.



Map 2 – Mearley Lodge and immediate surroundings

Mearley Lodge is a large, detached dwelling house, located to the south of Clitheroe Town Centre.

The dwelling is a two storey building with an asymmetric roof, covered with cement tiles. There is an adjoining single garage to the north, with hipped roof, also covered with cement tiles; and a flat roofed, single extension to the north covered with felt. All roof coverings are intact and the upvc soffits are sealed tight with no gaps visible.

The first floor rooms utilise most of the internal roof space with only small voids remaining as a narrow corridor along the eaves on the west elevation. These voids comprise block and brick internal walls with bitumastic roof liner, rock wool insulation and part boarded floors. The space is cluttered with ventilation pipes, electrical cables, a water tank and TV aerials. The roof supports are part cut and pitch and part steel support beams.

The external walls are constructed of block with a smooth white rendered finish, apart from two, stone wall clad sections located to the north and south extremities of the building. There are upvc soffit boards along the roof edges at these locations, and there are gaps behind these soffit boards that are suitable for use by bats.

3.2 The survey site and its surroundings

Mearley Lodge is situated within a large mature garden comprising mown lawns, hard standing driveways, patio areas and established ornamental shrub planting throughout and around the boundaries. There is a detached double garage and garden buildings located within the site boundary but these buildings will not be affected by the proposed works.

The immediate surroundings provide suitable shelter for insects to gather and for bat species to forage.

External lighting is present at Mearley Lodge and directly adjacent to the bat access point to the north east roof edge. However, artificial lighting is not regarded as a potential constraint to bat activity and movement within the survey site, or between the survey site and its surroundings.

The wider habitats within 1km are dominated by Primrose Lodge Biological Heritage Site (BHS) which comprises a former mill lodge, Mearley Brook and broad leaved woodland habitat. There is residential housing to the east and west and a light industrial area to the south, beyond which is open countryside.

There is a high degree of connectivity between habitats likely to be used by bats, mainly as a result of garden vegetation and other urban greenspace in Clitheroe. The wider surroundings therefore offer at least a range of high value resources suitable for use by commuting, foraging and possibly roosting bats.

The close and wider surroundings comprise a range of habitats that provide high potential shelter and foraging resources to local bat and bird populations.

4 Results of surveys

4.1 Results and interpretation of desk-based studies

Bat roost data for the area of 2km around Mearley Lodge, provided by Lancashire Environmental Records Network is as follows:

Bat species	Number of roosts	Roost type and max number of bats	Date range
Pipistrelle species (not identified to species)	5	144	1986-2018
Soprano pipistrelle	2	178	2011

Table 3 – data search results

Bat roost data for the area of 2km around Mearley Lodge, from Magic maps is as follows:

Bat species	Number of roosts	Roost type and max number of bats	Date range
Common pipistrelle	1	Unknown	2014

Table 4 – data search results

Interpretation

- The single bat roost at Mearley Lodge accounts for 12.5% of all known bat roosts known from the search area.
- The single bat roost at Mearley Lodge accounts for 33% of soprano pipistrelle bat roosts known from the search area.
- The single bat roost at Mearley Lodge accounts for 2% of the soprano pipistrelle bats roosting in the search area.
- It is recognised that the limited number of bat records in the data search is very unlikely to be a true reflection of bat presence and status in the local area.

4.2 Results and interpretation of field-based surveys

4.2.1 Daytime surveys

Building surveys

No live or dead bats were found during the daytime building surveys.

Evidence of bat presence from daytime surveys was as follows:

Bat droppings, typical of those produced by pipistrelle bats, were found scattered on the external stone walls on the north west and north east corners of Mearley Lodge.

On the north west and north east walls, two of the many gaps below the soffit boards had signs of staining consistent with access points used by bats when entering and exiting a roost.

Interpretation

- The lack of visible bats is not unusual for crevice-dwelling bat species that are often difficult to see in small, confined spaces.
- The presence of droppings and staining in the above locations is regarded as (not necessarily current) evidence of roosting bats.
- The presence and extent of bat droppings show that bats have used gaps below the soffit board as access to a bat roost in Mearley Lodge.
- The lack of fresh evidence in other parts of Mearley Lodge during 2020 surveys does not demonstrate absence of bats; evidence may have been left in places that were inaccessible to surveyors (e.g. internal roof edges and narrow wall cavities).

4.2.2 Emergence surveys

The weather during the evening surveys was as follows.

Date	Temperature °C (start/end)	Humidity % (start/end)	Cloud cover % (start/end)	Rain	Wind mph (start/end)
2/5/2020	14.2/9.5	58.9/75.6	20/20	None	0.0/0.0
21/5/2020	19.4/16.6	54.8/55.1	100/100	None	0.0/0.0
7/6/2020	15.2/11.3	62.2/67.8	60/0	None	0.0/1.2

Table 5 – weather during surveys

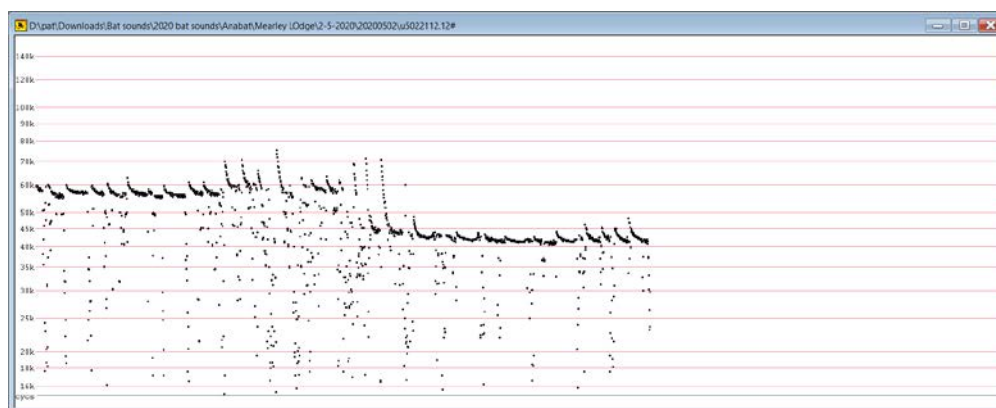
Interpretation

Environmental conditions were suitable for bat occupation and for undertaking surveys throughout the 2020 survey period.

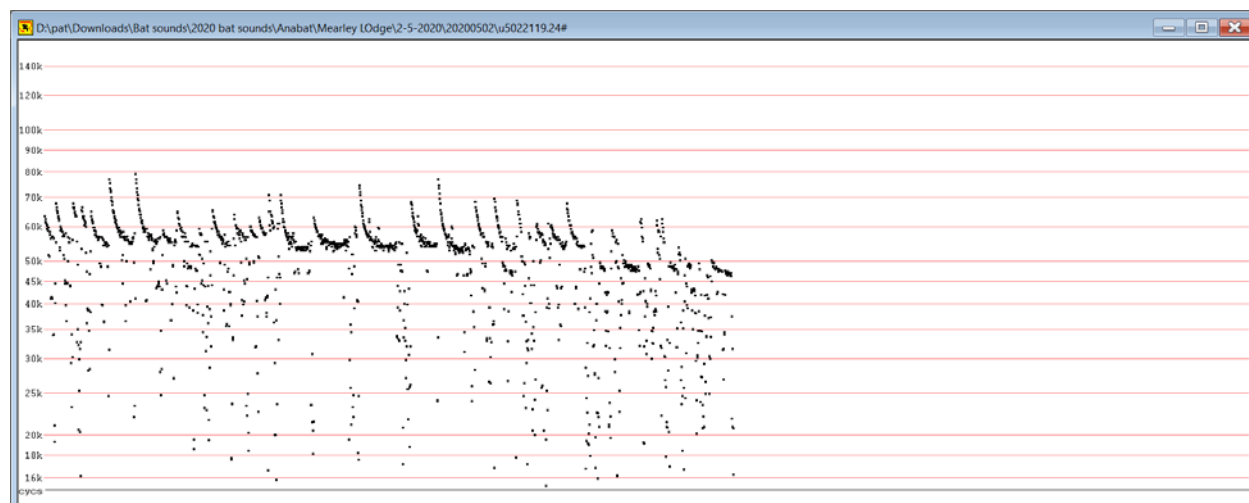
Date of emergence survey	Bat species and location of activity
2/5/2020	Sunset = 2044hrs Survey timing = 2010 - 2215hrs 1st bat observed at 2055hrs (noctule flying over site) 1st emerging bat observed at 2119hrs (soprano pipistrelle) Final results: Common and soprano pipistrelle flying around garden throughout most of survey. 1x soprano pipistrelle bat emerged from NE corner of ground floor elevation of property.
21/5/2020	Sunset = 2115hrs Survey timing = 2040 - 2230hrs 1st bat observed at 2123hrs (soprano pipistrelle emerging from building) 1st emerging bat observed at 2123hrs (soprano pipistrelle) Final results: Common and soprano pipistrelle flying around garden throughout most of survey. 5x soprano pipistrelle bats emerged from NE corner of ground floor elevation of property.
7/6/2020	Sunset = 2131hrs Survey timing = 2000 - 2310hrs 1st bat observed at 2055hrs (noctule flying over site) 1st emerging bat observed at 2119hrs (soprano pipistrelle) Final results: Common, soprano and nathusius pipistrelle flying around garden throughout most of survey. 5x soprano pipistrelle bats emerged from NE corner of ground floor elevation of property.

Table 6 – results of emergence surveys

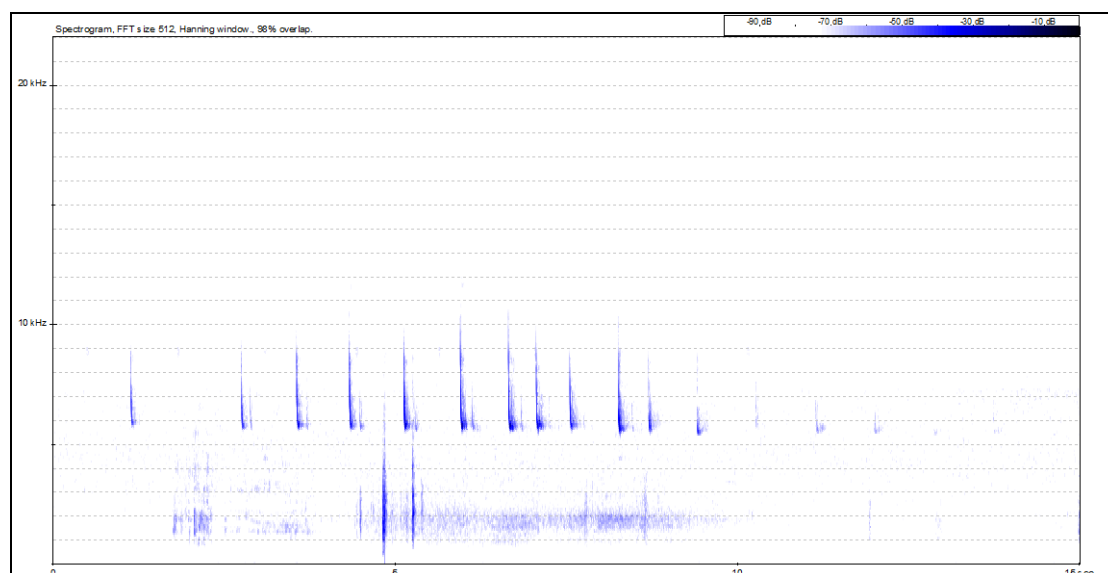
Example sonograms from emergence surveys



Common pipistrelle and Soprano pipistrelle, recorded on Anabat Express, flying around garden of Mearley Lodge on 2nd May 2020



Soprano pipistrelle, recorded on Anabat Express, emerging from north east corner of Mearley Lodge (ground floor) on 2nd May 2020



Soprano pipistrelle, recorded on Batbox Griffin, emerging from north east corner of Mearley Lodge (ground floor) on 21st May 2020

Interpretation

- The findings confirm that soprano pipistrelle bats were roosting in Mearley Lodge throughout the 2020 survey period.

4.2.3 Bat identification

A total of 4 species of bats were recorded during surveys; Common pipistrelle *Pipistrellus pipistrellus* (in flight), soprano pipistrelle *Pipistrellus pygmaeus* (in flight and roosting), Nathusius pipistrelle *Pipistrellus nathusii* (in flight) and noctule *Nyctalus noctula* (in flight).

4.2.4 Roost types confirmed at Mearley Lodge

Roost type	Bat species	Evidence
Day roost	Pipistrelle species	Daytime surveys (bat droppings on north east and north west external walls)
Spring roost	Soprano pipistrelle	Emergence surveys

Table 7 – roost types known to be present at Mearley Lodge

An assessment of the likelihood of use by roosting bats is as follows:

Roost type	Bat species	Assessment, evidence and rationale
Maternity roost	Soprano pipistrelle	Based on the survey results and professional judgement, it is considered that there is <u>no reasonable likelihood</u> that Mearley Lodge supports a bat maternity roost in 2020. The above judgement is made whilst recognising that: A small number of soprano pipistrelles were present leading up to the maternity roosting period And There is historical evidence to suggest former bat activity (not necessarily during the maternity period)
Winter/hibernation roost	Soprano pipistrelle	Based on the survey results and professional judgement, it is considered that there is <u>no reasonable likelihood</u> that Mearley Lodge has previously supported or will support a winter roost. The above judgement is made whilst recognising that: A small number of soprano pipistrelles were present in 2020 And There is historical evidence to suggest former bat activity (not during the wintering period)

Table 8 – potential for other roost types to be present at Mearley Lodge

4.3 Other species

No nesting bird activity was found associated with the building.

The building has low potential for use by nesting birds.

5 Limitations of survey

Surveys took place on four occasions in February, May and June 2020. It is recognised that limiting the survey period to visits in these months does not take account of bat activity on the survey site through the whole of the active season (April to October) or at other times of the year.

5.1 Daytime surveys

5.1.1 Some bat species are typically crevice dwellers. Droppings and other field signs of the presence of such species are often not visible, as they accumulate in hidden areas which may not be found during routine, non-invasive surveys. This is a frequent limitation when surveying buildings.

5.1.2 As with most buildings, the Mearley Lodge roof coverings could not be closely examined due to limits on access and concerns about the safety of surveyors. However, all of the roof coverings were visible at a distance from vantage points and ladders. The roof underside was visible from inside the roof voids.

5.2 Emergence surveys

5.2.1 The echolocation used by some bats is very quiet and difficult to detect; species such as brown long eared bat may have been present without registering on the bat detectors used during the emergence surveys. However, given the small area subject to survey and the techniques used by surveyors, this is regarded as highly unlikely as regards bats emerging from the roost area.

6 Conclusions

6.1 Data search

- 6.1.1 The data providers do not hold any records of bat roosts at Mearley Lodge.
- 6.1.2 Only very few records of bat roosts are held by Lancashire Environment Records Centre, for the area within 2km of Mearley Lodge.
- 6.1.3 Only one record of a previous bat licence scheme is held on Magic maps, for the area within 2km of Mearley Lodge.
- 6.1.4 Based on the data search (which is noted to have limitations), the bat roost at Mearley Lodge accounts for 12.5% of all known bat roosts for the area within 2km of Mearley Lodge.
- 6.1.5 It is recognised that the limited number of bat records in the data search is very unlikely to be a true reflection of bat presence and status in the local area.

6.2 Daytime surveys

- 6.2.1 The evidence strongly suggests that Mearley Lodge has been used by bats over at least two years. Although the evidence only confirms that bats have been present in 2020 and at some other previous time, it is quite possible that this is a long-established roost.
- 6.2.2 Based on the evidence available, professional judgement, experience and the precautionary principle, there is **no reasonable likelihood** that Mearley Lodge will support a bat maternity roost in 2020, or a wintering roost at any time.
- 6.2.3 Mearley Lodge has features suitable for use by multiple species of roosting bats (including species other than soprano pipistrelle) throughout the bat active season.

6.3 Emergence surveys

- 6.3.1 Soprano pipistrelle bats were roosting at Mearley Lodge throughout the emergence survey period.
- 6.3.2 It is not possible to draw any definite conclusions about the type of bat roost from the number of bats emerging alone. However, the presence of a maternity roost in this building in 2020 is regarded as very unlikely (i.e. there is **no reasonable likelihood**), given the bat numbers and bat activity.

6.4 Landscape and lighting

- 6.4.1 Mearley Lodge and its immediate surroundings support habitats and physical features known to be of value to bats, including mature trees.
- 6.4.2 Artificial lighting is not a limiting factor to bat activity both at the survey site and in the close surroundings at the current time.

6.5 Licensing and mitigation

- 6.5.1 The proposed work **will involve** the complete destruction of one bat roost. In addition, there is a risk of disturbance or damage to at least 5 soprano pipistrelle bats; this is contrary to the Wildlife and Countryside Act (1981 as amended) and the Conservation of Habitats and Species Regulations 2017. This has recently been amended by the Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations 2019 which continue the same provision for European protected species, licensing requirements, and protected areas after Brexit. **A licence will therefore be required** for works to be undertaken lawfully.
- 6.5.2 Certain aspects of mitigation will be a minimum requirement of the licence. To fulfil the licence conditions, mitigation will need to include careful management of works associated with bat roosting features, including supervision of contractors by a licensed ecologist. Further details are provided in section 7 of this report.

6.6 Birds

- 6.6.1 There are no issues with nesting birds.

7 Advice and recommendations

7.1 Actions, advice and rationale

Advice and action required – legislation and licensing
It is advised that offences under legislation will be triggered by the proposed development works (particularly the Conservation of Habitats and Species Regulations 2017 – as amended), it will be necessary to carry out the proposed activities under a licence. It is advised that bat numbers and species, as well as the roost types, meet the criteria for a Bat Mitigation Class licence. The licence will need to be in place prior to the removal or disturbance of the bat roost features, for works to proceed lawfully.
Rationale - legislation and licensing
All bat species are afforded full protection under UK and European legislation, including the Wildlife and Countryside Act 1981 (as amended), the Countryside and Rights of Way Act 2000 and the Conservation of Habitats and Species Regulations 2017. This has recently been amended by the Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations 2019 which continue the same provision for European protected species, licensing requirements, and protected areas after Brexit. Together and in brief, this legislation makes it illegal to: • Intentionally or deliberately take, kill or injure a bat • Damage, destroy or obstruct access to bat roosts • Deliberately disturb bats. Prosecution could result in imprisonment, unlimited fines and confiscation of vehicles and equipment used. A bat roost is defined in the legislation as “any structure or place which a bat uses for shelter or protection”. Roosts are protected whether or not bats are present. At least 5 soprano pipistrelle bats roosted at Mearley Lodge in 2020. As a bat roost, the building is subject to strict legal protection at all times; this is in relation to disturbance and demolition, as well as covering of the roost access points or other changes to the roost environment. The proposed works will involve the destruction of a bat roost, as well as risks to at least 5 roosting bats. The proposed works will affect the continued ecological functionality of roost features and the favourable conservation status of bats.

Table 9 – advice as regards legislation and licensing

Advice and action required – mitigation and compensation measures

Undertake the following **mitigation measures** under licence:

- Engage an appropriately experienced and licensed Ecologist to oversee all bat-related aspects of the process. For a Bat Mitigation Class Licence, this will include making the licence application and overseeing all aspects of licensable work.
- All development-related works must only be undertaken **after** an appropriate licence is in place; this will include scaffolding installation and use, soft strips and building deconstruction.
- All bat-related mitigation works must be undertaken under licence; this will include any necessary scaffolding and soft-stripping.
- In order to safely and appropriately house any bats found during the proposed works, one suitably designed and specified bat box should be installed under the direct supervision of the Project Ecologist, in close proximity to Mearley Lodge, prior to any disturbance to any bat roost features. The bat box should be of a suitable design for use by pipistrelle species, and should be installed in or on an undisturbed structure on an appropriate aspect, at a suitable height for use by the target species. The bat box must be maintained for a period of at least 5 years. If within the 5 year period bats use the bat box, then the box will be regarded as a bat roost and must be retained until it is no longer usable by bats as a result of natural processes.
- Before any works start, all contractors to attend a toolbox talk, confirming that bats are present; the legislation relating to bats; measures that will be used to protect bats; good working practices; licensable activities and what to do should bats be found.
- The tool box talk will be delivered by the licensed Ecologist.
- All contractors to adhere to working practices as outlined in the toolbox talk and any accompanying method statement
- All disturbing and damaging activities (as regards bats and their roosts) to be carried out carefully by hand, under the close supervision of a licenced and suitably experienced ecologist
- All disturbing and damaging activities (as regards bats and their roosts) to be carried out over as short a timescale as possible

Rationale - mitigation and compensation measures

All measures listed are a standard part of the mitigation required under a Bat Mitigation Class licence.

A bat box is required so that functional roost features are available at all times. If bats are found during the development works, they can be placed in the bat box, and the box will act as a safe sheltering and resting feature.

Table 10 – advice as regards mitigation and compensation measures

Advice and action required – additional bat surveys
Undertake further bat surveys (e.g. as per section 2.3 of this report), if proposed works are not undertaken by May 2021.
Rationale - additional bat surveys
For this site, it is advised that if proposed works are not undertaken by May 2021, further surveys will be necessary. This approach will ensure that informed decisions can be made using up to date information, and will also satisfy the requirements of the Local Planning Authority and their consultees, as well as the licensing body.

Table 11 – advice as regards additional bat surveys

7.2 Other species

Advice and action required – other species
There are no issues with nesting birds or other protected species.
Rationale – other species
No evidence of nesting birds or other protected species was found during surveys.

Table 12 – advice as regards other species

8 Bibliography

Chartered Institute for Ecology and Environmental Management (2013) *Competencies for Species Survey: Bats*. CIEEM, Winchester, Hants.

Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*. The Bat Conservation Trust, London.

Mitchell-Jones, A. J. (2004) *Bat Mitigation Guidelines*. English Nature, Peterborough.

Mitchell-Jones, A. J. & McLeish, A. P. (1999). *The Bat Workers' Manual (2nd Ed.)*. JNCC, Peterborough. ISBN 1-86107-462-X. [3rd edition in 2004].

Bat Survey

-

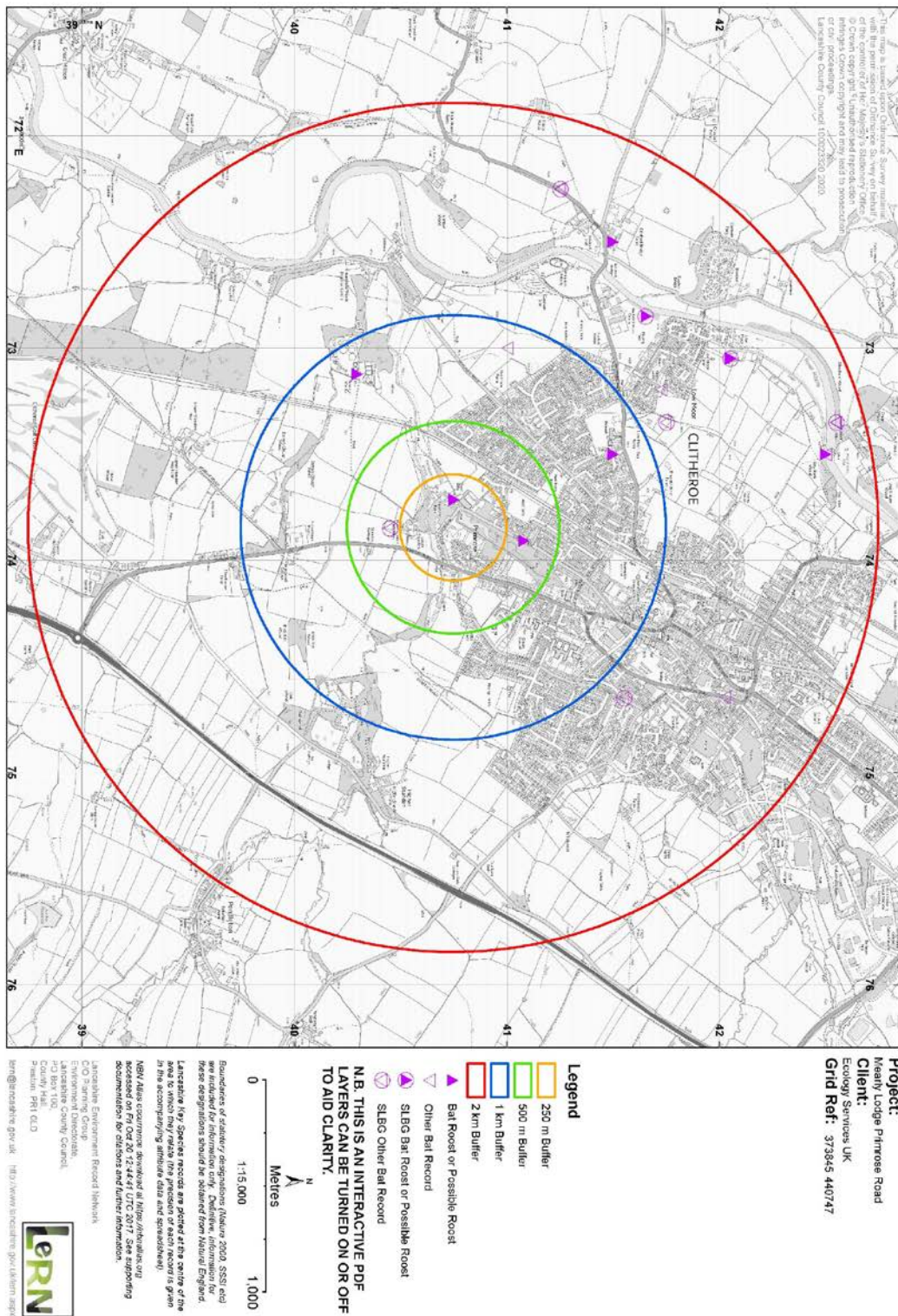
Mearley Lodge, Clitheroe, Lancashire BB7 1DR

Appendices

App 1 –Data search results

App 2 – Diagram of bat evidence and bat roost

App 3 – Photographs of survey area



Bat droppings stuck on
external building wall

Bat access point = Max number of
5x soprano pipistrelle emerging
from lower soffit edge

Most likely location for bat
roost = beneath flat roof

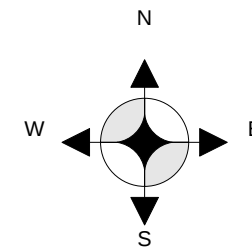


Diagram of Bat Evidence and Bat Roost at Mearley Lodge, Clitheroe – 2020

Photographs of Mearley Lodge, Clitheroe, Lancashire



North east elevation of Mearley Lodge. Bat emergence point marked by red arrow. Image from February 2020



View of Mearley Lodge from north. Bat emergence point marked by red arrow. Image from February 2020.

Photographs of Mearley Lodge, Clitheroe, Lancashire



**Internal view of roof void, showing roof supports and felt underlining.
February 2020.**



**Internal view of roof void, showing roof supports and partial boarding.
February 2020.**

Photographs of Mearley Lodge, Clitheroe, Lancashire



Internal view of roof void, showing internal walls and insulation. February 2020.



External view of north part of building. Bat emergence point (white arrow) and bat droppings (red arrow). May 2020

Photographs of Mearley Lodge, Clitheroe, Lancashire



External view of north part of building. Bat emergence point marked by white arrow. May 2020



Bat droppings on external wall to north of building. Note that colours are accentuated by rain at time of survey. Image from February 2020

Photographs of Mearley Lodge, Clitheroe, Lancashire



Previous bat access point in north part of building, below soffit edge, showing clear staining from fur oils. May 2020



Mature garden vegetation, offering bat foraging. May 2020