

**Proposed conversion of outbuilding
at Fir Tree House**

Cloy Lane, Overton, Wrexham

Bat and bird survey

July 2021



Produced by

**Wildbanks
Conservation** 

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REPORT VERIFICATION AND DECLARATION OF COMPLIANCE

Report Version	Date	Completed by:	Checked by:	Approved by:
Draft	14/06/21	Clare Smith Director Wildbanks Conservation	Mick Smith Director Wildbanks Conservation	
Amended	22/7/21	Clare Smith Director Wildbanks Conservation	Mick Smith Director Wildbanks Conservation	

The information we have prepared is true and we confirm that the opinions expressed are our true and professional bona fide opinions.

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INTRODUCTION

- 1.1 The report has been prepared on behalf Mr G. Mason and provides the results of a Preliminary Bat Roost Assessment of a two-story outbuilding, conducted on 8th June 2021 and two emergence surveys on the 18th June 2021 and 14th July 2021. A survey for the potential use for breeding birds was also undertaken.
- 1.2 The proposed development site is in a rural setting on the outskirts of Overton, Wrexham. Adjacent to the outbuilding is a residential property (Fir Tree House) and gardens with areas of hardstanding and parking. Outside the boundary of this property are large pastoral agricultural fields with hedgerows in all directions, scattered woodland, and ponds.
- 1.3 Development proposals for the site are for the conversion of the outbuilding into a residential home with a two storey extension with separate access off Cloy Lane and gardens.
- 1.4 The aim of the survey was to provide sufficient ecological information for the local planning authority (LPA) to determine the associated planning application. The objectives of the study were to:
 - Provide baseline information on the current habitats and ecological features both on-site and in the immediate surrounding area;
 - Identify the presence or potential presence of any protected species or habitats and provide an appraisal of any potential effects that the proposed development may have on these;
 - Provide recommendations for further pre-construction survey work and / or mitigation measures if required and present opportunities for habitat enhancement.

2.0 SURVEY METHODOLOGY

Desk Top Study

- 2.1 A desktop study was undertaken by Wildbanks Conservation during the ecological assessment. Protected species records within a 1km radius of the site were obtained from COFNOD, North East Wales Local Biological Records centre. The following other online resources were also used for background information of the Site.

- Ordnance Survey maps
- Aerial photographs

Bat Building Assessment

External and Internal Visual Assessment

- 2.2.1 The exterior of all aspects of the building were visually assessed for potential access points and evidence of bat activity on 8th June 2021. With the aid of binoculars and borescope, features such as small gaps under barge/soffit/fascia boards, raised or missing roof/ridge tiles or gaps at gable ends, which have the potential for use as access points, were sought. Evidence that bats actively used these potential access points would include staining within the gaps, or bat droppings or urine staining under gaps; a note being made wherever these were present. The presence of cobwebs and / or general detritus within and around potential access points was used as an indicator that bats had not recently used the area to access the building. Following the external assessment, an internal assessment of the building was undertaken, searching for the same evidence.
- 2.2.2 All buildings were classified as being one of either a confirmed roost or having high, moderate, low or negligible roosting potential for bats. Trees if present with low or negligible potential were classed as not requiring further surveys in relation to bats. Buildings with a rating of low or above would be subject to additional nocturnal surveys in line with current national guidelines.
- 2.2.3 The surveys were undertaken by Mick Smith MCIEEM (NRW bat licence S08944/1) and Clare Smith of Wildbanks Conservation following methodology set out in the Bat Conservation Trust Handbook Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2016).

Bat Emergence Survey

- 2.3.1 Following the external and internal visual assessment, one dawn survey and one nocturnal survey were carried out. The emergence surveys were undertaken on the building to observe any potential bats roosting in the building not identified during the visual assessment. The dawn survey was carried out by two experienced bat surveyors including NE licensed bat worker and the dusk survey was carried out with three experienced bat surveyors overseen by Mick Smith, led by Jack Halpin, Team Leader Wildbanks Conservation and 5 years experience conducting bat surveys. Surveyors were positioned strategically so that good coverage of all aspects of the building was achieved. The surveys were undertaken within the optimum time for bat activity and under optimum conditions.
- 2.3.2 The surveyors each used an Anabat Walkabout with the additional aid of a FLIR SCION thermal monocular. Any recordings were analysed using Analook Insight.
- 2.3.3 The surveys were undertaken following methodology set out in the Bat Conservation Trust Handbook Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2016). Dusk surveys commence 15min prior to sunset and continued for 2hr post sunset. The dawn survey started 2 hr prior to sunrise and commenced until 15min after sunrise.

2.4 *Buildings-Birds-Visual Assessment*

The building was assessed for nesting birds within the same timeframe as the bat visual assessment of the building on 8th June 2021, and during the nocturnal bat surveys. All birds, their eggs and their nests are protected by law under the Wildlife and Countryside Act 1981 (as amended) and therefore it is an offence to take, damage or destroy the nest of any wild bird whilst it is in use or being built. All cracks, gaps and potential nesting areas were checked for the presence of nests/nesting material/live birds, and 10 minutes was spend listening for any noise of nestlings whilst inside the building. The exterior of the building was watched for approximately 1 hour to locate any birds entering or exiting the building.

Survey Limitations

- 2.5 July is within the optimal survey season to observe recent signs of bats and nesting birds, with this and the additional ability to assess a property's potential to be used by bats and birds can be made at any time of the year. Therefore, there were no limitations to the survey in terms of assessing the buildings potential to be used by bats or birds. All areas of the building could be checked.

3.0 RESULTS

Desk Study

- 3.1 A data request was submitted to COFNOD during the desktop study. One record of bats was provided within 1km of the development site.

- 783m south, an unknown bat in 2005. Record provided by BASC

Other notable records include the presence of Barn Owl. One recorded 479m West in 2008 and another recorded 252m South East in 2003. The presence of Great Crested Newts are recorded within 150m of the building and this will be dealt with in a separate Method Statement document.

Wider habitat

- 3.2 Habitat surrounding the development Site is land owned by Fir Tree House comprising gardens, shrub borders, mown grass and long grassed areas and areas of scrub. Wider habitat consists of farmland and hedgerows and wooded streams with small lanes connecting dispersed rural properties. Figure 1 shows the site in relation to the wider environment.

- 3.3.1 *Buildings – Bat Visual Assessment – June 2021*
External assessment

- 3.3.2 The building is a two-story former stables and hayloft for the original Fir Tree Farm. The construction of building consists of brick ground floor with corrugated steel sheets forming the walls of the first floor. The roof is a barrel-vaulted corrugated steel construction with steel frame work. There is a single storey lean-to garage building attached to the northern gable end of building. The lean-to is constructed with brickwork elevations and asbestos roofing sheets and has a metal garage door for access.

- 3.3.3 Potential roosting features are limited within the building. Potential roosting features consist of gaps between corrugated metal sheets and brickwork on southern, western and eastern building aspects (Plate 1-6); However, these were predominantly covered with dead ivy or heavily covered in cobwebs. The number of gaps suitable for roosting bats are limited to those on the southern elevation and further limited to only 18 in number due to the presence of cobwebs. The western aspect is heavily cluttered by vegetation growth and roosting features are limited to 3 gaps within brickwork around the windows (plate 7). A gap behind the

asbestos/concrete sheet facia board on the lean to also provides a potential roosting opportunity (plate 6).

- 3.3.4 Overall, the building appeared to provide limited external roosting opportunities for bats; however, during the preliminary visual assessment on the 8th June, a single pipistrelle bat was seen to be roosting between the corrugated metal sheeting and brickwork on the southern elevation (plate 1 and 4). This roost is called Roost R1. The full depth of the roost can be checked externally from the ground.

3.3.5 *Internal assessment*

Access routes into the outbuilding are through timber stable doors to the ground floor and via a ladder to the first floor through a corrugated steel sheeted door. No internal access from the ground floor to the first floor exists. The building is currently used as storage to the ground floor and the first floor is empty (plate 8 and 6). All doors are kept shut. Access to the adjoining lean-to building is through a metal retractable garage door.

- 3.3.6 The corrugated sheeted roof of the barn is supported by a steel frame internally which has four columns to each corner. The steelwork is exposed internally. See plate 5

- 3.3.7 Internally the building provided negligible opportunities for roosting bats. No bat droppings or other signs of bat use was seen within the inside of the building. There are no opportunities for hibernation roosts within the building.

- 3.3.8 Habitat surrounding the Site is good for foraging bats, numerous mature trees and hedgerows forming corridors to wooded streams and fields in the wider area. Farmland is mostly pasture for livestock with fields being predominantly semi improved.

3.4 *Building – Birds*

During the visual assessment, no evidence of use of the building by birds was identified. Opportunities for nesting birds do exist within the outbuilding in the form of cracks in the brick works around the windows.

Other notable species

Barn Owl

- 3.5 There are historic records of sightings of Barn Owl in the immediate area. The outbuilding holds limited potential for Barn Owl. There are no access routes in to

the building as all doors and windows remain closed and due to its close proximity to the main residence, the levels of potential disturbance will be high.

3.6.1 *Bat Emergence surveys*

Two bat emergence surveys were undertaken on 18/06/2021 and 14/07/2021, dawn and dusk, respectively. Two bat activity surveys were carried out to inform conclusions as to how bats are using the building.

3.6.2 The following table provides details of the surveys undertaken.

Date	Survey type	Time started	Time finished	Sunrise/ Sunset time	Temp (Start)	Weather conditions
18/06/2021	Dawn	02.45	5.00	04.45	12	Mild, clear morning with gentle breeze
14/07/2021	Dusk	21.15	23.30	21.45	18	Warm, clear sky, light wind

3.6.3 *Dawn survey 18th June 2021*

The Survey was undertaken by Jack Halpin and Chris Gosset (NE bat license 2019-39258) of Wildbanks Conservation, each surveyor was positioned to be able to view all aspects of the outbuilding. A Flir Scion thermal imaging camera was also used to aid identification of a roost.

3.6.4 No bats were seen entering the outbuilding. Bat activity was as expected throughout the survey. High levels of activity by ~4 Whiskered/Brandts Bat (*Myotis mystacinus*/ *M.brandti*), were present with a potential re-entry of 3 into the ridge line of Fir Tree House (Residential building adjacent to site). Common pipistrelle (*Pipistrellus pipistrellus*) and Noctule (*Nyctalus noctula*); were seen foraging along the lane and within the garden throughout the survey. Two common pipistrelle bats re-entered a roost in the porch of Fir Tree House. The first bat heard/seen was a Whiskered/Brandts Bat bat at 03.30.

3.6.5 *Dusk survey 14th July 2021*

The Survey was undertaken by Jack Halpin, Luke Osman and Clare Smith of Wildbanks Conservation, each surveyor was positioned to be able to view all aspects of the outbuilding and be able to take in to account the section of Fir Tree House where the roosts were previously identified or may be present.

- 3.7.6 Two individual Soprano pipistrelles (*Pipistrellus pygmaeus*) emerged from between corrugated sheet metal and brickwork on southern aspect of the outbuilding at 21.52 & 21.59, from the same position as was seen during the Visual Assessment (Roost R1). No roosts were identified within Fir Tree House. Activity within the survey consisted of moderate levels of foraging activity of two Common pipistrelle, and a few brief passes of a myotis species. Too brief to analyse with confidence as to species. A single pass of a Brown long-eared bat (*Plecotus auritus*) was heard at 22:34.

- 3.8 A further Visual Assessment of the outbuilding was carried out on the 22nd July 2021 and in particular to check whether bats were still roosting at Roost R1.

4.0 DISCUSSION, RECOMMENDATIONS AND SUMMARY

Bats

- 4.1 This property has been subject to a bat Preliminary Roost Assessment survey and a Visual Assessment on 8th June 2021 by Mick Smith MCIEEM (NRW bat licence number: S086043/1) and Clare Smith of Wildbanks Conservation. Evidence of bats using the building was seen during the assessment through the presence of a single pipistrelle bat roosting in between the corrugated metal sheeting and brickwork on the southern elevation at approx. 7ft in height
- 4.2 The two nocturnal surveys were carried out in June and July 2021 in optimal conditions by experience bat surveyors with the aid of Anabat Walkabout detectors and a thermal imaging camera.
- 4.3 Two common pipistrelle bats were seen returning to a roost within the porch of the neighbouring property of Fir Tree House during the June dawn survey and not on the dusk survey in July. In addition a potential Whiskered/Brandts bat roost was identified within Fir Tree House during the first survey of the barn (n=3 individuals). But this can not be confirmed as the focus of that survey was on the

barn and not the house. This potential roost was watched during the second nocturnal survey (conducted with an extra person) and no bats were seen using it.

- 4.4 No bats were seen returning to a roost within the outbuilding on the June dawn survey. Two common pipistrelle bats were seen emerging from the outbuilding during the dusk survey in July (Roost R1). No bats were seen roosting in Roost R1 on the 22nd July during a second Visual Assessment. It is considered that the outbuilding to be converted is being used occasionally by individual common pipistrelle bats to roost during the day. Bats are known to move between a number of roost through the year depending upon weather conditions, feeding opportunities etc. The roost in the outbuilding is between brick and steel corrugated sheets and faces Fir Tree House. The size, location, susceptibility to temperature variations and type of roost space does not provide opportunities for a high conservation status roost. There are no opportunities for hibernation roosts within the building. The outbuilding has a day roost of individual common pipistrelle bats and has a low conservation status. Other roosting opportunities are limited to occasional gaps in brickwork on the western aspect within the barn.
- 4.5 The roost identified within the porch of Fir Tree House is of common pipistrelle bats that are able to withstand higher levels of disturbance than other bat species. The fact it is above the porch, that gets used daily suggest some tolerance of regular disturbance is already accepted. The roost in the porch is some 12m away from the development site and as such would not be impacted by the development.
- 4.6 Due to the low conservation status of the roost within the outbuilding and the distance from the development of the roost within the porch it is considered appropriate that the development can continue following a Precautionary Non Licensed Method Statement and that an EPS license from Natural Resources Wales is not required.

Recommendations

- 4.7 Prepare a Precautionary Non Licensed Method Statement to facilitate the development of the outbuilding to be agreed by Wrexham Council and NRW prior to works commencing on Site. A summary of what the RAMS would include is below.

- When planning external lighting, consideration is to be given to the commuting and dispersal routes used by bats. External lighting is to be directed away from the potential roosting features and commuting routes.
 - Prior to the commencement of works a toolbox talk will be provided to on site personal by a NRW licensed ecologist. The talk will include information regarding the protection of species, habitats, legal implications, their responsibilities and what to do if a protected species are encountered.
 - The initial works will be carried out under "soft works" technique to include removal of roost features by hand. A licensed ecologist will provide a watching brief during the initial works and during works to areas where a potential bat roost is present and will be available throughout construction on an 'on call' basis.
 - If works to the outbuilding are scheduled in the bat activity season (May to September, inclusive) A dawn return to roost survey will be conducted the morning before works to potential roost features takes place. A licensed ecologist will be present during the roof stripping.
 - It isn't anticipated that bats will be encountered but if they are they will be caught by hand and transferred to the bat boxes installed prior to the development commencing.
 - If bats or birds, or any other animal are found during works, works must stop immediately, and the site ecologist will be contacted, and advice sought.
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- 4.8 In accordance with the National Planning Policy Framework (NPPF, Para 170(d) and Para 175(d)), to increase biodiversity at the proposed development site, it is recommended a mitigation/compensation scheme should be devised. This will include the installation of artificial roosts on suitable trees within the client's land ownership and roosts built within the new development.

Ecological Enhancements

- 4.9 One month prior to the development commencing two bat boxes, (i.e., 1FF Schwegler bat box and 2F Schwegler Bat Box (General Purpose) will be installed on suitable trees within the clients ownership to provide alternative roosting features during the construction phase.
- 4.10 An integral bat box (Ibstock bat box C or similar) will be installed within the southern gable end of the barn. This is in the same orientation and is the same roost type that is present currently. A bat slate will also be installed immediately below

the ridge line on the western aspect allowing access to a roosting space. Bitumen F1 felt will be installed beneath this roost covering an area of 2m².

4.11 *Breeding birds*

No evidence of nesting birds was found in the building or lean to building, opportunities do exist for nesting birds. The disturbance and/or destruction of bird nests is prohibited under the Wildlife and Countryside Act 1981 as amended. If the development (including works to structures and vegetation/hedgerow removal) is to commence during the nesting bird season (March-August inclusive), there is potential for nesting birds to be disturbed and nests to be destroyed during the process.

Recommendations

To avoid impacts on nesting birds, a nesting bird survey will be undertaken by a qualified ecologist prior to any works taking place within the above-mentioned breeding season. If nests are identified, the nests must remain intact and undisturbed until young have fledged. The demolition of the buildings will result in long-term loss of nesting opportunities for birds. Mitigation will be required to compensate for the loss of nesting habitat and to facilitate the development.

- 4.12 Two replacement nesting boxes (one Schwegler 1N Deep general bird nesting box and one Schwegler 1B or similar) will be installed within the site replacing features for passerine birds). These will be positioned by vegetation between 2-4m in height and facing between north and east.

4.11 *Other notable species*

Barn Owl are recorded within the area historically. However, the Site offers no opportunities for these species and as such the development can continue without further recommendations.

5.0 LEGISLATION

- 5.1 All bat species are protected in the UK under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). The species is also protected under Annex II of the Council Directive 92/43/EEC 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora (the EC Habitats Directive). This has been transposed into UK law by the Conservation of Habitats and Species Regulations 2010 (as amended) in England and Wales. Bats are referred to as European Protected Species (EPS).
- 5.2 It is an offence to deliberately capture, injure or kill a bat; intentionally or recklessly disturb in a way that would affect their local distribution or abundance, or affect their ability to survive, or breed. It is also an offence to damage or destroy a bat roost and to possess, advertise, control, transport, sell, exchange or offer for sale/exchange any live or dead bat or any part of a bat.
- 5.3 If work is proposed that would affect an EPS then a licence will be required. Natural England (NE), in exercise of the powers conferred under regulation 53(1) and 56(3) (a) of the Conservation of Habitats and Species Regulations 2010, may issue licences for the following purposes:
- Preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment;
 - Preventing the spread of disease;
 - Preventing serious damage to livestock, foodstuffs for livestock, crops, vegetables, fruit, growing timber or any other form of property or to fisheries; to allow people to carry out activities which would otherwise be illegal.
- 5.4 Before issuing a licence under the Habitats Regulations, the licensing authority must be satisfied that “there is no satisfactory alternative” to the work as proposed and, that the proposed actions “will not be detrimental to the maintenance of the population of the species at a favourable conservation status (FCS)”.
- 5.5 To ensure these requirements are met, the licensing authority must have enough information to complete an assessment of the application. This includes sufficient

survey data so that the roost and how it is used by bats is understood and impacts upon the roost are appropriately assessed so that mitigation and/or compensation can be designed into the proposed development that will ensure the bat population can be incorporated and maintained in the long term. 4

5.6 Seven bat species are UK BAP Priority Species. These are as follows:

- Barbastelle *Barbastella barbastellus*
- Bechstein's *Myotis bechsteinii*
- Brown long-eared *Plecotus auritus*
- Greater horseshoe *Rhino ferrumequinum*
- Lesser horseshoe *Rhinolophus hipposideros*
- Common noctule *Nyctalus noctula*
- Soprano pipistrelle *Pipistrellus pygmaeus*.

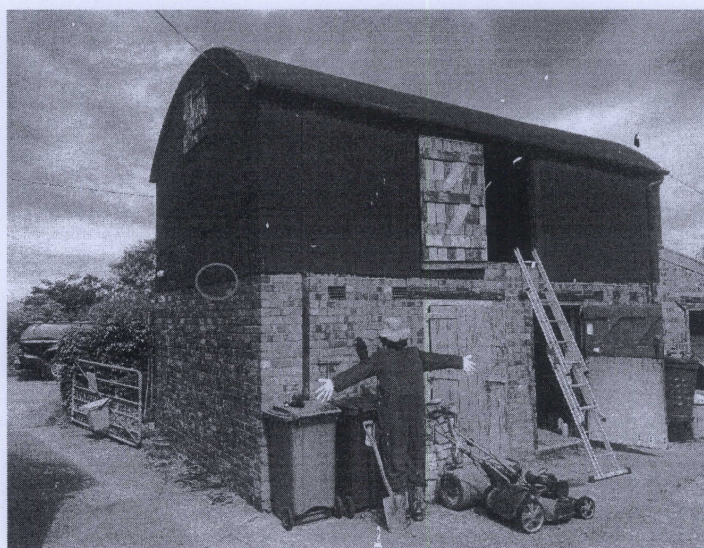
5.7 Under the NERC Act, local authorities (and other public bodies) have a duty to conserve biodiversity the local authority must take the protection of the priority habitat into consideration when it is making a planning decision.

6.0 REFERENCES

- CIEEM (2013). *Guidelines for Preliminary Ecological Appraisal*. Winchester. CIEEM.
- Collins, J (ed.). 2016. *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*. The Bat Conservation Trust. London.
- Department for Communities and Local Government (2012). *National Planning Policy Framework*.
- Mitchell-Jones, A.J. 2004. *Bat Mitigation Guidelines*. English Nature, Peterborough
- Natural England (2010). *European Protected Species and the Planning Process*.
- Altringham, J (2003). *British Bats*. Harper Collins, London

A1 APPENDIX – SITE PHOTOGRAPHS

A1.1 Plate 1: View of Eastern (front) aspect of the outbuilding. Note location of roosting bat marked with red circle.



A1.2 Plate 2: View of Western (back) and Southern gable end of the outbuilding



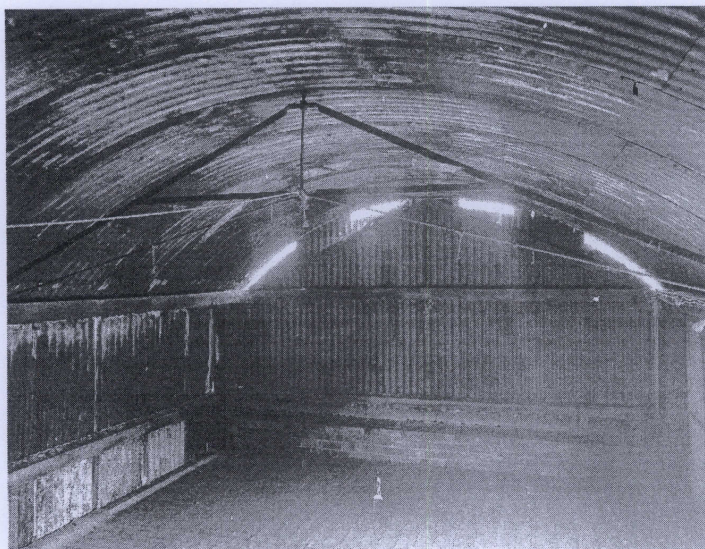
A1.3 Plate 3: View of Northern gable end of outbuilding and adjoining lean to shed



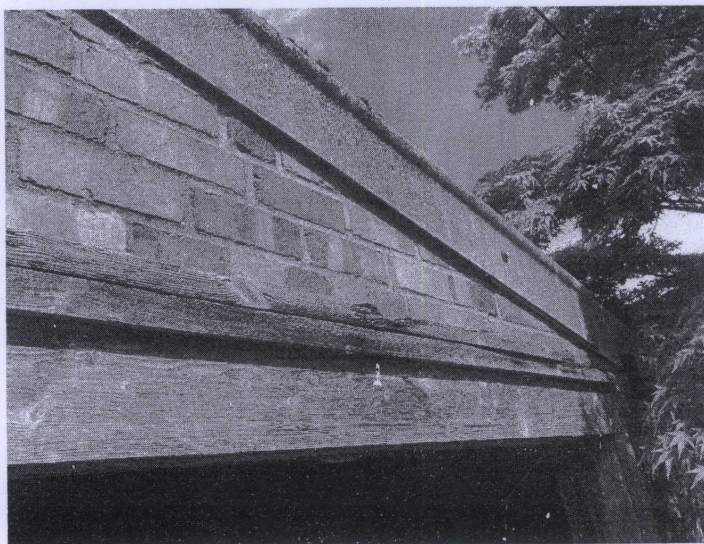
A1.4 Plate 4: View of Southern gable end where bat was found during visual assessment and identified during nocturnal survey



A1.5 Plate 5: Internal view of northern gable end of outbuilding



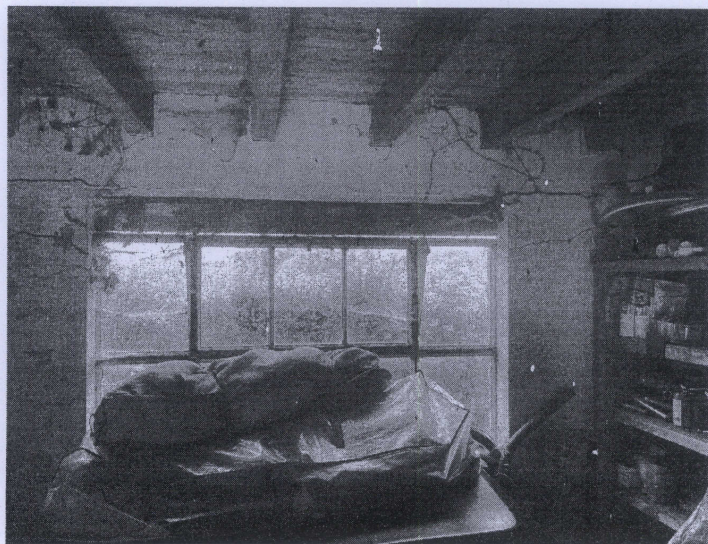
A1.6 Plate 6: View of adjoining lean to shed on eastern aspect (front) showing gap between barge board and brick



A1.7 Plate 7: Dislodged brickwork showing voids and crevices



A1.8 Plate 8: ground floor stable used for storage



Figures

Figure 1: Site location plan



Figure 2: Bat Survey Results Plan

