

**Survey for Bats, Barn Owls & Breeding Birds,  
Workshop Conversion, Pagedcroft, Haydon Bridge,  
Northumberland, NE47 6JX.**



View of workshop, house & cottage from the northeast

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## Introduction

This report has been produced to identify any protected species of animal in particular, bat, barn owl or any nesting bird from being disturbed in their roost, nest or feeding areas during the proposed work to be carried out on the property.

### A1 Bats and their requirements

All British bats and their roosts are afforded protection under the 1981 Wildlife & Countryside Act (as amended) and are listed under Annex IV of the Habitats Directive as in need of protection. NPPF (National Planning Policy Framework) acts as a guide to local authorities in relation to wildlife issues where developments may affect protected species and how conservation and any appropriate mitigation measures should be implemented. Furthermore where the presence of a European protected species (all British bats) may be affected by development then a licence to derogate from the habitats directive 2014 Regulations would be required from the Department of the Environment, Food and Rural Affairs (Defra). Licences are processed by Natural England, the statutory body for nature conservation.

A bat roost may be defined in several ways:

- A) Summer breeding roost
- B) Hibernation roost.
- C) Transitional or temporary roost.

As bats have a variety of roost sites that fulfil different requirements at different times of the year, and these sites are returned to regularly, then the roost is protected even if the bats are not present. Roost selection is often closely correlated to suitable foraging habitat within a reasonable commuting distance from the roost and different sites are used depending upon insect densities and abundance. Climatic conditions can also affect their ability to successfully forage. All British bats are insectivorous.

**The Bat Year**, indicated below, shows work on trees and roofs is best done in spring or autumn (red) while work on roosting sites are best avoided from June-August and hibernation sites from December- February, this avoids periods when they are particularly vulnerable to disturbance.

January, February	Bats Hibernate, Individually or in small groups.
March, April, May	Occasionally wake. Bats hungry and active, torpid in bad weather. Move roost sites
June, July, August	Females in large maternity groups. Young born, suckle for 6 weeks. Mothers leave roost first, young later.
September, October, November	Mating takes place. Bats put on fat. Look for good wintering sites. Gradually become torpid for longer periods.
December	Hibernate

*Table from the Bat Conservation Trust*

## A2 Barn Owls and their requirements

Barn Owls are listed in Schedule 1 of the Wildlife and Countryside Act (1981) (as amended). Should barn owls be present in the barn then a licence would be required from Defra and licenced by Natural England to derogate from the Act, and mitigation for the disturbance would be required. NPPF acts as a guide to local authorities in relation to wildlife issues where developments may affect protected species, the presence of a protected species is a material consideration when a local planning authority is considering a development proposal which if carried out, would be likely to result in harm to the species or its habitat.

## A3 Breeding Birds

All wild birds, their nests, eggs and young are protected under the Wildlife and Countryside Act 1961 (as amended) during the nesting season. Work must not begin if nesting birds are present on site and should occur outside of the bird nesting season (March through to August, although weather dependant). If building works are undertaken during the bird breeding season, a check for any active nest sites should be undertaken by a suitably qualified ecologist. If breeding birds are found during the survey, the nest should not be disturbed and works should be delayed until nesting is complete and any young birds have fledged.

## B1 Background to activity

A planning application is to be made to develop the workshop into a dwelling, a bat, barn owl and breeding bird survey was commissioned for the application.

## Survey and site assessment

### C1 Pre-existing information on species at the site

None.

### C2 Status of species in the local/regional area

Species	Local Status	Habitat
<b>Noctule</b> <i>Nyctalus noctula</i>	Widespread but uncommon, mobile populations, breeding roosts recorded.	Tree dweller; predominantly in lowlands. Occupies woodpecker & rot holes. Seldom in buildings. Will utilise bat boxes. Feeds over deciduous woodland, parkland, pasture, water & forest edges.
<b>Daubenton's bat</b> <i>Myotis daubentonii</i>	Widespread; hibernacula & breeding roosts recorded	Bridges, tunnels, caves, mines, stone buildings & trees. Has been found hibernating underground at high altitude (550m). Feeds over rivers, canals & other water bodies. Will forage in riparian woodland.
<b>Natterer's bat</b> <i>Myotis nattereri</i>	Widespread; hibernacula & breeding roosts recorded. Less common than Daubenton's.	Similar to Daubenton's & can be found together; bridges, old buildings, barns, trees & underground sites. Feeds in woodland & parkland. Has recently been recorded in some upland areas, mainly using riparian habitats.
<b>Whiskered bat</b> <i>Myotis mystacinus</i>	Widespread but uncommon; breeding roosts & hibernacula recorded	Older, mainly stone buildings, old churches, trees & often in bat boxes. Feeds mainly in deciduous woodland.
<b>Brandt's bat</b> <i>Myotis brandtii</i>	Widespread but uncommon; breeding roosts & hibernacula recorded. 'Swarming' sites recorded.	Similar to Whiskered.
<b>Brown Long-eared bat</b> <i>Plecotus auritus</i>	Widespread; hibernacula & breeding roosts recorded	Old buildings, churches, barns (often with trees close by), underground sites & trees. Often found in bat boxes. Feeds in deciduous & coniferous woodland often within the canopy, around parkland trees, gardens, along hedgerows

<b>Common Pipistrelle</b> <i>Pipistrellus pipistrellus</i> (45kHz)	Widespread & common; breeding roosts recorded but species recognition only recently recorded.	Wide age range of buildings; favours modern structures, trees occasionally & bat boxes. Feeds over diverse habitat; rural & urban gardens, woodland, farmland or near water. Found hibernating behind wooden cladding on buildings, in soffits, behind fascia boarding & in gaps in wooden window frames, also hibernates in
<b>Soprano Pipistrelle</b> <i>Pipistrellus pygmaeus</i> (55kHz)	Widespread and common; breeding roosts recorded but species recognition only recently recorded	As Common Pipistrelle. Favours riparian habitat & roosts in larger maternity colonies than the Common Pipistrelle. Found hibernating behind wooden cladding on buildings, in soffits, behind fascia boarding & in gaps in wooden window frames, also hibernates in
<b>Nathusius Pipistrelle</b> <i>Pipistrellus nathusii</i>	Rare. Three UK breeding sites known.	Tree dweller, hollow trees, cracks, bat boxes & buildings. Sometimes shares nursery roost with Pipistrelle or Brandt's bats. Feeds mainly around riparian & woodland edge habitats.
<b>Leisler's bat</b> <i>Nyctalus leisleri</i>	Rare. Unconfirmed bat detector record in Cumbria. Present in Yorkshire	Woodland bat, similar to Noctule but will roost in buildings. Feeds in open deciduous and coniferous woodland, over water bodies, parkland and around street lamps in suburban areas.
<b>Alcathoe's bat</b> <i>Myotis alcathoe</i>	Rare. Present in Yorkshire	Woodland bat, similar to Whiskered. Feeds in mature deciduous woodland with streams. Often uses dead/decaying trees for roosting.

(adapted from the Wildlife Trust BAP report)

The Mammals atlas compiled by Northumbria Natural History Society which records reported sightings of bats (the majority being from populated areas) Brown Long Eared, Daubenton, Pipistrelle & Whiskered bats are reported in this Tetrad NY8464 (4km square) and Noctule bats within 6km. A survey 1km to the south in 2019 found Pipistrelle and Myotis bats.

Tyto alba (barn owl) is considered widespread but scarce. The Northumberland Breeding Birds Atlas 2007-2011, indicates the species breeding 6km to the northeast and is present to the south and northwest.

### C3 Objective of Survey

The objective of survey was to ascertain whether there were any signs of use of the site by bats, barn owls and other breeding birds.

Signs of bats include droppings, insect remains, wear marks on beams, egress points smoothed by continuous use, or the presence of bats. Areas that have potential for bats to roost in, but no actual signs of bats or inaccessible area's to survey are also noted.

Signs of owls include :- pellets, faeces remains ('whitewash'), feathers, dead chicks, prey remains or the presence of owls.

Signs of breeding birds :- bird activity, nest material and eggs/chicks, feathers and faeces.

### C4 Survey area

The survey area was the exterior & interior of the workshop, while buildings alongside were also observed.

### C5 Habitat description

The Workshop is over the road to the southeast of Pagecroft house at grid reference NY845653, 900m to the northeast of Haydon Bridge, which is 10km west of Hexham and 5.5km to the east of Bardon Mill. It sits 100m to the east of Cruel Sike this flows south 700m into the River Tyne, both have deciduous tree margins. Boundaries are stone walls and timber & wire fences. It sits within an agricultural area.

## Site description

The workshop is single storey with storage in the beams it has a slate roof with a tile ridge on battens, rafters, purlin & truss, felted below. Walls are local stone mortar built, white. Floors are concrete.

### C6 Field survey

**C6.1 Methods:** The byre was surveyed on the 16<sup>th</sup> May 2022, with a torch, binoculars and ladder. Areas that had potential for bats, owls or other birds but were inaccessible were noted.

**C6.2 Timing-** a bat emergence survey was carried out on the same evening and on the 8<sup>th</sup> June 2022.

**C6.3 Weather conditions- heavy rain hampered the May survey**, in June temperature was 16degC, dry with a light west breeze and 5% cloud. Sunset was approx 21:45.

**C6.4 Personnel-** survey was conducted by Steve Wake (Bat Licence 2019-42366) and Lesley Grey using Magenta Bat5 & Duet detectors .

### C7 Results:-

No barn owl other bird or bat evidence was seen in the workshop. Bat flight at 2-3m unless stated.

21:30 Start of survey.

22:06 a Noctule bat foraged SE over house and workshop at 20m height.

22:16 two Common Pipistrelle (CP) foraged over garden to the N at 3-6m height, also at 22:18, 24 & 37, **also heard in the rain on the May survey.**

22:18 to 22 CP foraged and light sampled along the road to the E of the house & cottage (8 passes).

22:23 a CP foraged E to S of house then N to E of house.

22:27 two CP foraged to the W of garden in trees beside Cruel Sike (**CS**) at 2-5m height, also at 22:52.

22:28 a CP foraged E up road & back from **CS**, also at 22:50,51 &54 with 3 at 53, & over garden at 29.

22:28 a CP foraged E then N over field around workshop.

22:33 two CP foraged E up road passing either side of workshop then heading N.

22:37 a CP foraged N from the field into the N garden.

22:38 a CP foraged W along the road to the E, **also seen in the rain on the May survey.**

22:47 a CP foraged up the E hedge then down the road to the E of **CS**.

22:48 a Pipistrelle (P) commuted S over W garden.

22:49 a CP foraged N into W garden from roadside hedge.

22:52 two CP foraged S around corner of house , heading W down road and over garden.

23:00 Survey ended.

CAPITALS refer to bat types, compass directions & locations.

### Potential

Bats tend to roost in crevices and can access into gaps as little as 15x30mm, stone walls are often built with two facing stones with a rubble filled internal cavity, there is potential for bats to roost in any voids here entering through an access crack (potential access cracks marked on photographs):-

In any opening cracks in roof /ridge finish. **O---**.

In open cracks or joints in the walls **O---** and between roof & wall **----**

In joints between timbers in roof, lintels & boarding.

### C8 Interpretation and evaluation

**C8.1 Presence/Absence:** There were no indications of barn owls other birds or bats using the workshop.

**C8.2 Population size class assessment:** No large bat roosts were found in the workshop, initial bat activity suggests a small roost to the north of the house with early foraging in the north garden, progressing along the road and then along the wooded Cruel Sike.

**C8.3 Site status assessment:** In their present condition, the workshop has a low roosting status for bats, Barn Owls and other birds adjoining a moderate foraging habitat for bats in the garden and along Cruel Sike in accordance with the BCT Good Practice Guidelines.



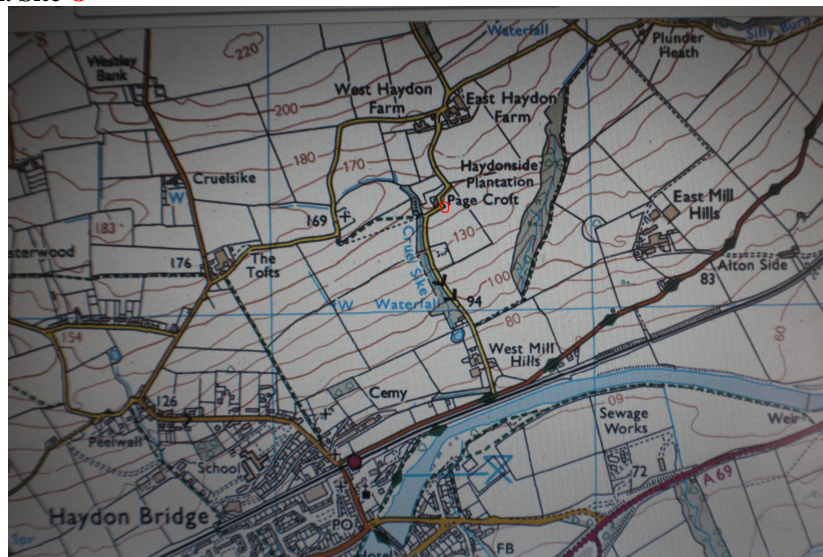
### C9 Map of survey area

Site Plan, Bats Flight areas **H** House, **W** Workshop, **C** Cottage, **CS** Cruel Sike

Pipistrelle bats ---, Noctule bat --- new bat box **O**.



Location Plan. Site **O**



### Impact assessment

**D1 Pre- and mid- activity impacts:** None for barn owls other birds or bats.

**D2 Long-term impacts:** Conversion can offer opportunities for roosting bats with ridge & eaves access to roosting areas in the roof or into wall cavities.

**D3 Post activity interference impacts:** Lighting around the workshop to be kept at a minimum at low level to encourage the area to continue to be used as a feeding area for bats.

**D4 Other impacts:** none.

**D5 Summary of impacts at the site level:** None, if there are no bats, owls or other nesting birds present at the time of works.

**D6 Summary of impacts in a wider context:** A bat box and specific bat access in the proposed works could help the current bat population and encourage other types of bats.

#### **Mitigation**

**E1 Mitigation strategy:** None required for Barn Owls, roost box provided for bats.

**E2 Replacement roost site selection:** None required.

**E2.1 Existing species status:** Pipistrelle bats are common and widespread, Barn Owls & Noctule bats are widespread but scarce.

**E2.2 Location, ownership and status:** The Workshop is over the road to the southeast of Pagecroft house at grid reference NY845653, 900m to the northeast of Haydon Bridge, which is 10km west of Hexham and 5.5km to the east of Bardon Mill. It sits 100m to the east of Cruel Sike this flows south 700m into the River Tyne, both have deciduous tree margins. The property is owned by Anna Coulson.

#### **E3 Habitat creation, restoration and/or enhancement:**

Bat roosts can be created by:-

Erecting bat boxes around the site and allowing access to wall & roof cavities.

Habitat can be enhanced by encouraging insect life and:

Planting and maintaining broad-leafed native tree species.

Planting night-flowering species such as honeysuckle.

Planting native flowering species such as dog rose.

Any external lighting to be low level and output and only if essential.

**E3.1 Terrestrial habitats:** Building is adjoining open fields and agricultural countryside with the wooded sike close by.

**E4 Timing , effort, methods, capture/exclusion methods:** In case of bats major work to roof and walls would be better to undertake from March to May or September to October, see Bat Year. Bird nesting activity is mainly between April and August.

**E5 Post development safeguard.** None.

**E5.1 Habitat management and safeguard:** the site is adjoining open countryside with no threat to adjoining habitat.

**E5.2 Population monitoring:** N/a

**E5.3 Mechanism for ensuring delivery:** Any sign of bat or bird activity in the barn during works should be notified **immediately!**

#### **F1 Summary of development and mitigation:**

There were no signs of Barn Owl other bird or bat activity in the building, no bats or birds showed any signs of interest in using the workshop and no roost was obvious.

Extreme care must be taken when carrying out roofing work and any demolition or sealing up external wall, crevices should be checked with a torch or endoscope, any bats found should be relocated by a Licenced Bat Worker any bird nestlings found should be allowed fledge, any joints being pointed to be sleeved to allow egress but prevent re-access or fitted with mortar ramps to allow bat re-entry.

Bats can be encouraged on site by providing boxes and allowing them access to the building post-works. Provided works are carried out as recommended, then it should not be necessary to apply for an EPS (European Protected Species) Licence for bats or barn owls.

#### **References**

Bat Conservation Trust. Bats and the Law BCT & RSPB joint publication.

Bat Conservation Trust 2007 Bat Surveys - Good Practice Guide.

The Natural History Society of Northumberland.



Birds in Northumberland 2007-11 Report.

Woodland Management for Bats. Forestry Commission England



Google Earth..

Mitchell-Jones, A J & McLeish. 2004 Bat Workers Manual

Wildlife Trust Biodiversity Action Plan.

Natural England. Nature on the Map.

**Photographs (with potential bat roosting areas)**

Workshop viewed from the north with potential bat roosting  and bat box 



View of workshop from the west with potential bat roosting **O --**



View of workshop from the south with house behind, with potential bat roosting **O ---**



Interior of workshop looking southeast

