

Bat Survey Report: Burnside Poultry Shed, Clinterty



CLIENT

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Control Sheet

General Report Information	
Report title	Bat Survey Report
Client	G Buchan
Location	Burnside Poultry Shed, Clinterty
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A Introduction

A.1 Background

Black Hill Ecology was commissioned by G Buchan to carry out a bat survey at a proposed development of the Burnside Poultry Shed, Clinterty. This report describes the works undertaken during the assessment of possible effects of the development on bats at the specified site.

A.2 Bat Ecology

There are 17 species of bat currently resident in the UK. Nine species are known from Scotland. All are believed to be in continuing decline as they face many threats to their highly developed and specialised life cycles. In general, their dependence on insects has left them vulnerable to habitat destruction, land drainage, habitat fragmentation, agricultural intensification and increased use of pesticides. Their reliance on buildings and decaying trees has also made them vulnerable to sanitation felling, repairs and the use of timber treatment chemicals.

In the UK, bats are generally active from late March to mid-October, hibernating from late October to mid March. In early summer, females gather in “maternity” roosts to give birth, normally producing a single offspring per year. This slow rate of reproduction inhibits repopulation in areas of rapid decline. Bats are generally born in June/July and are dependent on their mothers for about six weeks. In autumn and winter, male and females gather for mating. The females are able to store sperm until spring when an egg may be fertilised. In winter, bats hibernate in sites that have a cool, humid and stable climate. Bats generally return to the same roost sites every year which makes them particularly vulnerable to disturbance or destruction of these sites. Some species of bat move roost frequently and use a number of different roost sites.

A.3 Legislation

The information below is intended only as guidance to the legislation relating to these species. The Acts themselves should be referred to for the correct legal wording and legal advice sought where required.

All bats are included in Schedule 2 of the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended), which implement the requirements of the Habitats Directive in England, Scotland and Wales.

It is an offence for anyone without a license to:

- Intentionally or recklessly/deliberately injure, take or kill a bat;
- To possess a bat (unless obtained legally) whether alive or dead;
- Intentionally or recklessly/deliberately damage, destroy or obstruct access to any place that bats use for shelter or protection whether bats are present or not;
- Intentionally or recklessly/deliberately disturb a bat while it is occupying a structure or place that it uses for shelter or protection.
- deliberately disturb bats in such a way as to be likely significantly to affect—
 - (i) the ability of any significant group of bats to survive, breed, or rear or nurture their young; or
 - (ii) the local distribution or abundance of that species;

Prosecution could result in imprisonment, fines per animal affected and confiscation of vehicles and equipment used.

Exemptions can be granted from the protection afforded to bats under the Habitat Regulations, by means of an EPS (European Protected Species) Habitats Regulations licence obtained from Scottish Natural Heritage.

An ‘EPS Habitats Regulations Licence’ could be required for:

- Removal of trees known to be used by bats as well as tree pruning
- Significant alterations to roof voids known to be used by bats
- Road building or widening
- Bridge strengthening

There are three tests, which must be satisfied, before a licence can be issued to permit otherwise prohibited acts;

- Regulation 44(2)(e), for the purpose of 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; or 44 (2) (f) for the purpose of preventing the spread of disease; or 44(2)(g) for the purpose of preventing serious damage to livestock, foodstuffs for livestock, crops, vegetables, fruit, growing timber or any other forms of property or to fisheries; subject to Scottish Natural Heritage being satisfied that the application additionally meets:
- Regulation 44(3)(a) that there is no satisfactory alternative; and
- Regulation 44(3)(b) that the action authorised will not be detrimental to the maintenance of the species concerned at a favourable conservation status in their natural range.

A European Protected Species Licence is required before the commencement of any development that requires one due to its impact on bats or their roosts.

B Survey and site assessment

B.1 Pre-existing information on the bat species at the survey site.

Within ca. 5km of the site there are six records of pipistrelle bats (*Pipistrellus* spp.), a single record of brown long-eared bats (*Plecotus auritus*) and a single record of Daubenton's bats (*Myotis daubentonii*). Although there are no records of Natterer's bats (*Myotis nattereri*) they are known from the area and may possibly be encountered!

B.2 Status of species that may be encountered

B.2.1 Bats which may be roosting within the site and UK Status

Common pipistrelle (*Pipistrellus pipistrellus*): Locally widespread and common. Nationally widespread and common.

Soprano pipistrelle (*Pipistrellus pygmaeus*): Locally widespread and common. Nationally widespread and common.

Nathusius' pipistrelle (*Pipistrellus nathusii*): Possibly locally widespread but rare. Possibly nationally widespread but rare.

Daubenton's bat (*Myotis daubentonii*): Locally widespread and common. Nationally widespread and common.

Natterer's bat (*Myotis nattereri*): Locally widespread but not common. Nationally widespread but not common.

Brown long-eared bat (*Plecotus auritus*): Locally widespread and common. Nationally widespread and common.

B.3 Objective(s) of survey

The survey set out to assess:

- a) what species of bat were present at the site;
- b) what types of bat roosts were found within the site;
- c) what population levels of bats (size and importance) were present or used roosts at the site.

B.4 Survey area description

The site of the proposed development, Burnside Poultry Shed, Clinterty, is around 80m above sea level and located in a rural Aberdeenshire setting surrounded by improved and arable farmland, a considerable distance from the nearest major watercourse and a kilometre from the nearest woodland block, accessed by a farm track half a kilometre south west of Blackburn (OS LR: NJ832119). The Burnside Poultry Shed Site consists of a gable ended, single storey, timber clad, pitched sheet roofed Poultry Shed (Figures 1-4). There are a number of roof vents and the inside is lined. Plans are to demolish and new build on site.



Figure 1. The Shed from front.



Figure 2. The Shed from rear.



Figure 3. The Shed internal view



Figure 4. The Shed roof condition

B.5 Field Survey

B.5.1 Methods

On the 29th of August 2016 the site at Burnside Poultry Shed, Clinterty was surveyed for potential roost sites and signs of use by bats. An evening emergence survey was carried out on the 29th of August 2016 to observe and record any emerging bats. A dawn return survey took place on the morning of the 16th of September 2016 in order to observe and record any returning bats.

B.5.2 Timing

On 29th of August 2016 a dusk emergence survey was carried out at Burnside Poultry Shed, Clinterty. On the 29th of August 2016 an internal and external survey of Burnside Poultry Shed was carried out. On the 16th of September 2016 a dawn return survey was carried out.

B.5.3 Weather conditions

The temperature at the start of the dusk emergence survey was 15°C and it was 14°C at the time of the dawn return survey. Cloud cover was 100% on the night of the emergence survey and 100% for the return survey, there was no rain and wind speed was low during the surveys other than light rain for ten minutes starting ten minutes before sunrise on the morning of the dawn return. Bats were active during both survey periods and weather conditions were suitable for carrying out bat surveys.

B.5.4 Personnel

All work was carried out by licensed bat workers (IM and RMS : Roost Conservation Licence 44706) with the assistance of an experienced ecological surveyor (AJB) with over two decades of combined experience surveying bats.

B.6 Results

B.6.1 Day Survey

Internal

On the 29th of August 2016 no bats were seen roosting and no signs of use were observed in any of the internal space or on any internal storage items or fixtures surveyed.

External

All external areas of the Burnside Poultry Shed were surveyed for physical evidence of use by bats (Figure 4). There was no evidence of bat droppings on or under any of the sheets, ridge or pointing or any other external structure or in or around any external fixtures surveyed.

B.6.2 Dusk/Dawn Surveys

Dusk Emergence

An emergence survey was carried out to visually observe any bats emerging from roost sites and if present confirm species identity with the use of a Pettersson D1000x bat detector, D980 Bat Detector and an Ultrasound Advice U30 bat detector and recorder. Surveyors positioned themselves so the site remained in the detection envelope of the bat detectors at all times, all aspects could be observed and maintained contact with two-way radios (Motorola T80s). Thirty minutes before sunset no social calls from roosting bats could be heard from any part of Burnside Poultry Shed, Clinterty. The emergence survey began 15 mins before sunset and continued for one and a half hours after sunset. No bats were observed or recorded emerging from any part of the Burnside Poultry Shed, Clinterty.

Dawn Return

A dawn return survey was carried out to visually observe bats returning to roost sites and if present confirm species identity. The dawn return survey began one and a half hours before sunrise and continued until just after sunrise. No bats were observed or recorded returning to roost at the site at Burnside Poultry Shed, Clinterty.

Overall bat activity on site was low with only a few faint bat passes heard during both surveys.

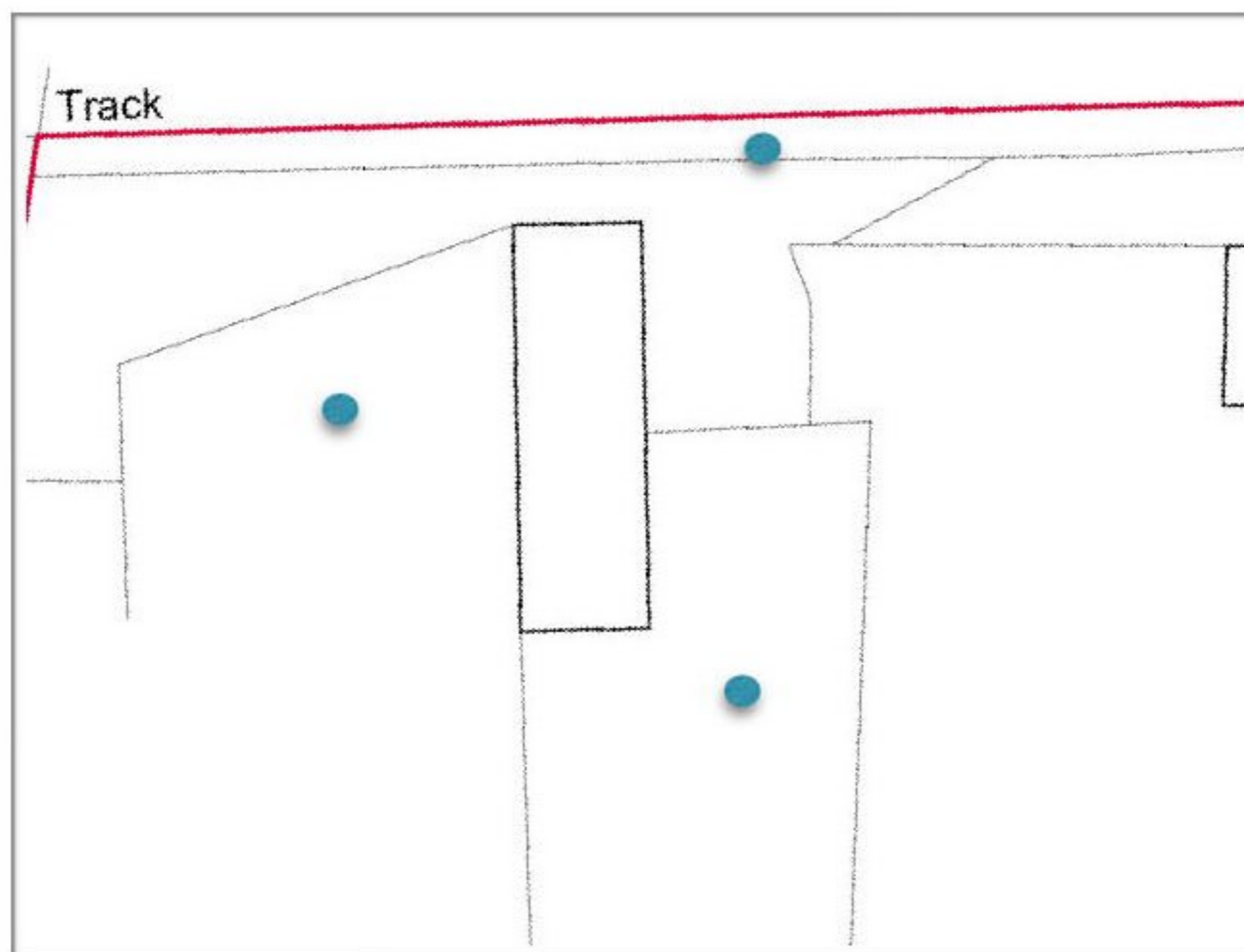


Figure 5. Plan of Burnside Poultry Shed with locations of surveyors as blue circles (original courtesy of AKA).

B.7 Interpretation and evaluation of survey results

B.7.1 Presence/absence

The survey observed no signs of use by bats and found no bats roosting in any of the physical structure of the dwelling due for development at Burnside Poultry Shed, Clinterty. The area has records of bat roosts and the inspection was carried out in detail and at close order. There was no indication from a daylight, dusk emergence and dawn return survey that the property is used by bats.

B.7.2 Site status assessment (combining quantitative, qualitative, functional and contextual factors)

There is no evidence to suggest the site is used by roosting bats despite a thorough daylight, dusk emergence and dawn return summer bat survey.

B.7.3 Constraints (factors influencing survey results)

There were no constraints to close inspection of all parts of the site externally and internally however, there are no accessible roof voids. Weather conditions were suitable for an appropriate summer dusk emergence and dawn return bat survey as per BCT guidelines.

C Conclusions

C.1 Conclusions

- No signs were found to indicate bats use the site at Burnside Poultry Shed, Clinterty as a roost site.
- The results indicate that no mitigation is required.
- The results indicate an EPS licence will not be required to carry out works.

However, as bats change roosts regularly their presence at the site in the future cannot be completely ruled out. In the event that bats are encountered during works, all works should cease and Scottish Natural Heritage contacted. If the period of time between this survey and commencement of development work extends to a further bats' breeding season another survey to identify possible use is recommended.

D References

Bat Records for Scotland 1970-2007. Scottish Natural Heritage¹.

Harris, S. & Yalden, D. 2008. Mammals of the British Isles. 4th Edition. The Mammal Society.

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

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