



Arnol Blackhouse, Lewis

**Preliminary Roost
Assessment Survey Report**

(November 2015)



The Wildlife Survey Unit
an ecological consultancy

Clachan
Boat of Garten
Inverness-shire PH24 3BX

Tel: 01479 420101
Email: info@thewildlifesurveyunit.co.uk
Website: www.thewildlifesurveyunit.co.uk/

Registered No. 6807319

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1 EXECUTIVE SUMMARY

The Wildlife Survey Unit Ltd were commissioned by Historic Scotland in October 2015, to undertake a preliminary roost assessment survey for bats of their property, the Arnol Blackhouse, at Arnol, Lewis, Outer Hebrides

The survey is being undertaken as the traditional thatched roof of the black house is proposed to be renovated and replaced. No other works to the visitor centre and white house are currently proposed.

No evidence of current or past use of any of the building, by bats, was found during the survey.

The preliminary roost assessment survey assesses the Black house and White house as of having *negligible bat roost potential*. The Visitor centre is assessed as of having *low* bat roost potential due to the potential roosting areas within the slate roof and ridgetile.

No further surveys or mitigation measures are required of the black house. However, should roof works be proposed for the visitor centre it is recommended further emergence/re-entry surveys are undertaken.

2 INTRODUCTION

2.1 Background

The Wildlife Survey Unit Ltd were commissioned by Historic Scotland in October 2015, to undertake a preliminary roost assessment survey for bats of their property, the Arnol Blackhouse, at Arnol, Lewis, Outer Hebrides

2.2 Site description

Arnol black house is a National Trust for Scotland property located on the west coast of Lewis, northwest of Stornoway and centred on Ordnance Survey grid reference NB310492.

Arnol Blackhouse is a traditional thatched house, which forms part of an interpretation centre for crofting life in the Outer Hebrides. There are three roofed buildings within the complex; the black house; the white house and the visitor centre.

2.3 Full details of proposed works

The traditional thatched roof of the black house is proposed to be renovated and replaced, this is traditional undertaken every 10 years.

No works are currently proposed to the White House and Visitor Centre.

2.4 Aims of the survey

The aims of the preliminary roost assessment bat survey were to:

- Undertake an external and internal bat inspection survey of the black house, white house and visitor centre at Arnol to identify whether bats are, or have been, present and, if so, which species.
- Identify the need for any further surveys and measures needed to be taken to ensure legal compliance.

2.5 Planning and legislative context

The full legal and planning framework relating to bats can be found in Appendix 1. This includes the current national and international legislation protecting all species of bat in Scotland.

3 METHODS

3.1 Pre-survey data search

A desk study was undertaken to identify any bat records from the site or within the surrounding area, as well as identifying potential bat roosting, feeding and commuting habitats and protected sites.

As the scale of the survey is small, a datasearch from the Local Biological Records Centre was not undertaken, however the following source was used:

- The National Biodiversity Network (NBN) website (www.nbn.org.uk) for records from the 10km square in which the site sits.

3.2 Surveyor information

The bat surveys were undertaken by Wildlife Survey Unit Ltd surveyor, Peter Stronach MIEEM (SNH licence no.22656).

Peter Stronach is a terrestrial and marine ecologist with a specialist interest in bats, protected mammals and ornithology.

As owner and director of The Wildlife Survey Unit Ltd he has managed, designed and undertaken bat inspection, emergence surveys and activity surveys across Scotland, England and Wales. He has a working knowledge of the national and international legislation protecting bats and how that relates to development. He has been a licensed batworker for eight years, including handling of bats for identification and survey of hibernation sites.

3.3 Preliminary roost assessment survey

All bat surveys are undertaken in accordance with current best practice guidance with reference to:

- Hundt, L. (2012) *Bat Surveys. Good Practice Guidelines*. Bat Conservation Trust, London.
- Mitchell-Jones, A. J. & McLeish, A. P. (2004) *The Bat Workers' Manual*. 3rd ed. JNCC, Peterborough.

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

The following equipment was used during the inspection survey:

- High power T7 LED Lenser torch
- 10 x 42 binoculars
- 3.8m ladder
- Sample bags

3.4 Weather, survey dates and timing

The preliminary roost assessment was undertaken on the 2nd November 2015. The weather was mild (13c) and dry, with a force 3 southwesterly wind and 1/8 cloud cover.

4 RESULTS

4.1 Desk study

A search on the National Biodiversity Network website recorded no bat records within the 10km square that the site lies within (<http://www.nbn.org.uk/> accessed November 2015).

There are very few bat records from Lewis itself, with Common Pipistrelle records from the Stornoway area. There are additional Pipistrelle sp. records not defined to species from the wider Stornoway area, and a single record from Shawbost approximately 6km southwest of the site.

4.2 Bat Inspection Survey Results

Bat habitat and surrounding area

The site is located on a ridge above the atlantic coast of Lewis. This is an exceptionally exposed location, with very few trees or above ground vegetation. The area is subject to strong winds and exposure, and has very limited potential for bat foraging and roosting habitat.

There are many lochs and lochans in the area and a large watercourse the Abhainn Arnol that runs northwest towards the coast. These are the only real potential foraging areas for riverine species.

Potential access points and roosting areas

Black house (Photograph1-3)

This two buildings joined by a corridor, both are loose stonebuilt walls, with a thatched roof above. The thatched roof is tied down by numerous ropes weighed down attached to stones. There are a couple of windows panes which have been inserted into the thatch to allow light into the interior.

The roof is built on supporting timbers and is not sarked internally. In the interior a traditional peat fire is burnt, there is no chimney and as such the whole of the interior is smoke filled.

There are no potential roosting locations. Bats do not tend to roost in thatch due to the sharpness of the thatch ends, which could easily pierce a wing membrane. The

interior space is smoke-filled, and subject to large amounts of disturbance from visitors.

White house (Photograph 4-5)

The white house is stone built, with harling covering the walls. The windows and doors are wooden framed with wooden lintels.

The roof is tarred and well sealed; the only potential roosting locations are the gaps between the roof and the wall on the east and west facing sections of the building. There is also a missing section of timber on the west side of the building. All these areas were thoroughly checked using a ladder, most of the areas were cobwebbed and those that were not were fully visible and no bats or evidence of bats could be found.

Visitor centre (Photograph 6-7)

This is a ceramic brick building with cement harling on the outside. There are cement gable ends, and a ceramic ridgetile with cement underneath. All the windows and doors and their lintels are well sealed and weathertight, with no access points.

The roof is a traditional slate roof on sarking and as such offers suitable roosting locations for Pipistrelle sp. bat species. There was no evidence of bats using the roof and no droppings could be seen on the slate surfaces. There is no loft space in the building.

Evidence of bats

No evidence of bats was recorded during the entire survey.

5 ASSESSMENT

5.1 Survey constraints

The bat inspection survey was undertaken in November, at the very end of the main bat survey season, at a time when bats would be in transition roosts between maternity or non-breeding summer roost and hibernation sites.

All areas could be surveyed within the buildings.

5.2 Impact assessment

The preliminary roost assessment survey assesses the Blackhouse at Arnol as of having *negligible bat roost potential* given the roofing materials, constant interior fire, regular visitor use and lack of suitable roosting locations.

The white house is also assessed as of having *negligible* bat roosting potential.

The visitor centre has very limited bat roosting opportunities, the only area on the whole building is the traditional slate roof. This is a suitable roosting location for pipistrelle sp. bat species, however given the scarcity of records from this area, the exposed location and lack of vegetation in the surrounding area it is unlikely that bats would be present. The building is assessed as of having *low* bat roosting potential.

In relation to the proposed works on the Blackhouse, no further surveys are required and works may proceed without mitigation.

6 CONCLUSION

6.1 Recommended approach

Given the assessment of the Blackhouse as having *negligible* bat roost potential, no further surveys are recommended and as such the works may proceed without any mitigation.

The survey identified that the visitor centre had *low* bat roost potential, it is recommended that in the future if any works are proposed to the slate roof further surveys are undertaken to identify whether bats are present prior to works.

7 REFERENCES

HMSO (1981) *The Wildlife and Countryside Act 1981*. HMSO, London.

Hundt, L. (2012) *Bat Surveys. Good Practice Guidelines*. Bat Conservation Trust. ISBN-13 9781872745985.

CIEEM (2011) *Code of Professional Conduct*. CIEEM, Winchester.

Mitchell-Jones, A. J. & McLeish, A. P. (2004) *The Bat Workers' Manual*. 3rd ed. JNCC.

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

National Biodiversity Network website - <http://www.nbn.org.uk/> accessed November 2015

The Conservation of Habitats and Species Regulations 2010

The Scottish Government (2010) *Scottish Planning Policy*

The Scottish Government (2000) *Planning for Natural Heritage: Planning Advice Note 60*

8 APPENDIX 1 - LEGISLATION AND PLANNING POLICIES

Legislation for Bats

Annex II of the Council Directive 92/43/EEC 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora (EC Habitats Directive) lists animal and plant species of Community interest, the conservation of which requires the designation of Special Areas of Conservation (Sacs); Annex IV lists animal and plant species of community interest in need of strict protection, all bat species are listed in Annex IV; some are listed in Annex II (None of the species listed in Annex II occur in Scotland).

In Scotland, the EC Habitats Directive has been transposed into national law by means of the Conservation (Natural Habitats,&c.) Regulations 1994 (as amended).

As a result of this legislation, it is an offence to:

- Deliberately capture, injure or kill a bat
- Deliberately disturb a bat, in particular any disturbance which is likely: to impair bats ability to survive, to breed or reproduce, or to rear or nurture their young or; in the case of hibernating or migratory species, to impair their ability to hibernate or migrate, or; to affect significantly the local distribution or abundance of the species to which they belong.
- Damage or destroy a breeding site or resting place of a bat
- Possess, control, transport, exchange or sell a bat or parts of a bat, alive or dead.

European Protected Species (EPS) licensing is used to permit illegal activities relating to bats and their roosts for specific purposes, they are issued under the Habitats Regulations.

When the licensing authority decides whether to grant an EPS licence it must apply three tests to the proposed action:

- The main reason for undertaking the action must be one for which a licence can be issued, for example for the purpose of preserving public health or public safety, or other imperative reasons or overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment.
- There must be no satisfactory alternative

- The proposed action must not be detrimental to the maintenance of the species concerned at “favourable conservation status” in its natural range.

In order for these tests to be correctly applied it is essential that survey information of a sufficient quality and standard is supplied, without this information a licence or planning application can't be assessed or issued.

More information can be found on the SNH website (<http://www.snh.gov.uk/protecting-scotlands-nature/protected-species/legal-framework/habitats-directive/euro/>) and on the Online Bat Planning Protocol (http://www.biodiversityplanningtoolkit.com/stylesheet.asp?file=211_interactive_bat_protocol)

Planning policies for protected species

Scottish Planning Policy (SPP) superseded NPPG14 Natural Heritage and states the following in relation to protected species:

“If there is evidence to suggest that a protected species is present on site or may be affected by a proposed development, their presence must be established, the requirements of the species factored into the planning and design of the development and any likely impact on the species fully considered prior to the determination of the planning application.

Planning permission must not be granted for development that would be likely to have an adverse effect on a European protected species²¹ unless the planning authority is satisfied that:

- *there is no satisfactory alternative, and*
- *the development is required for preserving public health or public safety or for other*

imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment.

In no circumstances can development be approved which would be detrimental to the maintenance of the population of a European protected species at a favourable conservation status in its natural range.

Planning permission must not be granted for development that would be likely to have an adverse effect on a species protected under the Wildlife and Countryside Act 1981 unless the development is required for preserving public health or public safety.

Applicants should submit supporting evidence for any development meeting these tests, demonstrating both the need for the development and that a full range of possible alternative courses of action have been properly examined and none found to acceptably meet the need identified.”

PAN60 Planning for Natural Heritage commits the Scottish Government to safeguarding Scotland's natural heritage and integrating the principles of sustainable development into all Government policies.



Photograph 1: Black house exterior



Photograph 2: Interior of Black House



Photograph 3: Interior of Black House



Photograph 4: East side of White house



Photograph 5: West facing roof and wall of the white house



Photograph 6: Visitor centre



Photograph 7: Roof and ridge on visitor centre showing gaps in mortar and underneath slates.