Urquhart Castle, Drumnadrochit, Highland

Preliminary Roost Assessment Survey Report

(October 2015)

The Wildlife Survey Unit
an ecological consultancy

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Project no.	P15023	Document version	FINAL
Project name	Urquhart Castle		
Location	Urquhart Castle, Drumnadrochit, Highland		
Document reference	Preliminary Roost Assessment Survey Report		
Date	7th October 2015		
Prepared by	Peter Stronach		
Qualifications	Full Member of the Chartered Institute of Ecology and Environmental Management BSc(Hons) in Environmental Science and Agricultural Ecology		
Quality Assurance	All staff employed by The Wildlife Survey Unit Ltd are full members of the Chartered Institute of Ecology and Environmental Management and follow the Institutes' Code of Professional Conduct (CIEEM 2011) whilst undertaking ecological survey work and reporting. This survey report follows the standard bat report template produced by the Bat Conservation Trust in their 2012 publication *Bat Surveys – Good Practice Guidelines 2nd Edition*, the industry standard.		

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1 EXECUTIVE SUMMARY

The Wildlife Survey Unit Ltd were commissioned by Historic Scotland in September 2015, to undertake a preliminary roost assessment survey for bats of the Grant Tower at Urquhart Castle, Drumnadrochit, Highland.

The survey is being undertaken to inform renovation works that are to be done to the structure of the Grant Tower to conserve the building.

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

The preliminary roost assessment survey assesses the Grant Tower at Urquhart Castle as of having *negligible bat roost potential* given the condition of the stonework, the night lighting, constant visitor use and lack of suitable roosting locations.

No further surveys or mitigation measures are required.

2 INTRODUCTION

2.1 Background

The Wildlife Survey Unit Ltd were commissioned by Historic Scotland in September 2015, to undertake a preliminary roost assessment survey for bats of their property, Urquhart Castle, near Drumnadrochit, Highland.

2.2 Site description

Urquhart Castle is a National Trust for Scotland property located 13 miles southwest of Inverness centred on Ordnance Survey grid reference NH530286.

Urquhart Castle is a historic building, dating from the 13th century and built on older mediaeval fortifications. It is a popular tourist attraction throughout the year.

2.3 Full details of proposed works

Works are proposed to further strengthen the remaining ruins of the Grant Tower, replacing previous temporary scaffolding.

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 Grant Tower 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
- Sample bags

3.4 Weather, survey dates and timing

The preliminary roost assessment was undertaken on the 22nd September 2015. The weather was mild and dry, with a light force 1 wind and 6/8 cloud.

4 RESULTS

4.1 Desk study

A search on the National Biodiversity Network website returned the presence of bat records within the 10km square that the site lies within (http://www.nbn.org.uk/ a*ccessed October 2015)*.

The records included the following species: Daubenton's, Common Pipistrelle and Brown Long-eared Bat.

4.2 Bat Inspection Survey Results

Bat habitat and surrounding area

The site is located on Loch Ness, in a very wooded, rural area. The lochside location and the river coming in to the loch at Drumnadrochit provide a very bat rich feeding and commuting habitat.

The site is lit at night, with the ruins spotlight from below. Also adjacent to the site is the A82 a busy road corridor running alongside. These are the only two negative features for bats on the site.

Potential access points and roosting areas

A full inspection was undertaken of the Grant Tower.

The exterior (Photographs 1-4) is sandstone blocks with mortar, it is in excellent condition and there are no cracks or crevices on the exterior large enough for a roosting bat. Even the broken ends of the ruined walls have been mortared so there are no cavities present whatsoever.

The basement (Photograph 5) is accessed form the ground floor by the internal stone staircase. It is also open to the exterior through a door opening. The basement is a large arched stone ceiling and walled room. All the stonework is in good condition with mortar in excellent condition with no gaps whatsoever. The basement is lit internally and as such is unsuitable for a roost. There is a gap in the lintel above the entrance door, however this is not enclosed enough and susceptible to disturbance from tourists coming in and out of the building.

The ground floor (Photograph 7) has a wooden ceiling, but is open to the elements on the southeast side; it also has two door openings. All the stonework is in good condition with no gaps or missing mortar present. There are gaps around the edges of the wooden celling, however this is lit and open to the elements above.

The first floor (Photograph 8) is completely open without a ceiling, but with three walls surrounding it. The stonework again is in good condition on this floor and the floors above. The whole area is very exposed to the weather, there are two sheltered areas but these again are very exposed and lit at night.

The second floor doesn't have a floor or ceiling, as does the third floor (Photograph 9), which is again accessed by the stone internal staircase.

The staircase (Photograph 6), which runs the height of the tower, has no suitable roosting locations within it.

The building is lit externally at night and internally during the day; this fact makes it highly unlikely that any bat species would roost within it. Light tolerant species such as Common and Soprano Pipistrelle may be attracted to feed in the area on the insects attracted to the lights.

As a hibernation roost, it is superficially suitable, however the lack of roost sites of a sufficient depth into the stonework make it unsuitable. The disturbance from internal lighting and the noise and vibrations of regular visitors make it even less suitable for hibernation.

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 September, at the 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 building.

5.2 Impact assessment

No evidence was found of current or past bat use of the building. There is no potential for roosts to be present and as such there would be no impact on bats from the proposed renovation works.

6 CONCLUSION

The preliminary roost assessment survey assesses the Grant Tower at Urquhart Castle as of having *negligible bat roost potential* given the condition of the stonework, the night lighting, constant visitor use and lack of suitable roosting locations.

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/ a*ccessed October 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) superceded 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.

10 APPENDIX 2 – PHOTOS

Photograph 1: Southwest face of the tower

Photograph 2: Grant Tower looking from the south.

Photograph 3: Southwest face and northwest face to the left.

Photograph 4: Northeast face

Photograph 5: The store room in the basement.

Photograph 6: The internal staircase.

Photograph 7: Ground floor.

Photograph 8: First floor

Photograph 9: View from the third floor.