



Proposed demolition of existing leisure centre building.

Buncrana, Co Donegal

Bat Survey and Assessment Report

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Introduction

- 1.1 Nelson Ecology Ltd were commissioned by Donegal County Council to undertake a bat survey and assessment of the proposed demolition of Buncrana Leisure Center at Buncrana, Co Donegal, hereafter referred to as “the proposed site” (figures 1 and figure 2 at appendix 3). The site comprises of a dilapidated leisure centre; the proposed site is intact with roof space and walls intact (see photographs 1-2 Appendix 2). A bat roost potential survey was carried out on the 28/08/22 and 13/09/22 by Nelson Ecology staff.
- 1.2 The BRP survey indicated: “The existing building within the proposed site boundaries will be demolished. The existing leisure centre was determined to have moderate bat roost potential within the BRP classification. The existing leisure centre space and structure including internal space was accessible and is of a size that could potentially support a maternity roost. It has been classed as moderate roost potential. Moderate roost potential is described as: ***A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status.***¹”
- 1.3 The proposed physical site comprises of an estimated 0.2ha centred at C34478/31615 of existing leisure center building.
- 1.4 The aim of the bat survey was to provide a description of the existing habitat types and building structures, determine the existence, location and classification of bat roosts and areas of bat activity levels. The surveys included all lands within the site boundary, where accessible and the adjacent lands buffer zone.

Statement of Authority

- 1.5 Tyrone Nelson is the director and principal ecologist of Nelson Ecology Ltd. He holds an Honours degree in Environmental Science (University of Ulster 2005). He is a full member of both the Chartered Institute of Ecology & Environmental Management (CIEEM) and Association of Ecological and Environmental Clerk of Works (AEECoW). He has been trained in bat survey techniques, mitigation, identification, legislation, survey technology and roost assessment by CIEEM. He has been trained by Bat Conservation Ireland in bat roost assessment, legislation, identification and survey. He has been trained in roost assessment by the Northern Ireland Bat Group. He has been completing professional bats surveys since 2007. William Mc Cauley has a freshwater and marine biology degree and is a former scientific officer with the Loughs Agency. He has been completing bat surveys with Nelson Ecology since 2019. He has been trained by Nelson Ecology Ltd in bat survey methodology, equipment and data management. He is a full member of CIEEM. All surveys where supervised by principal ecologist Tyrone Nelson.

Legislation

- 1.6 Bats are a protected species by law. In Ireland bats are protected under the Wildlife Act 1976 and amendments (ROI). In Northern Ireland, bats are protected under the Wildlife (NI) Order 1985.
- 1.7 Bats are protected under the EU Habitats Directive (92/43/EEC). All Irish bats are listed in Annex IV of the directive except the lesser horseshoe bat (*Rhinolophus hipposideros*) which is listed in Annex II giving it a higher level of protection, this relates to designation of Special areas of Conservation (SACs) for important populations of lesser horseshoe bats.

It is an offence to deliberately or recklessly:

- capture, injure or kill a wild bat;
- harass a wild bat or group of bats;
- to disturb a wild bat in a roost (any structure or place it uses for shelter or protection);
- to disturb a wild bat while it is rearing or otherwise caring for its young (this would be a 'maternity' roost);
- to obstruct access to a bat roost or to otherwise deny the animal use of the roost;
- to disturb such a wild bat in a manner that is, or in circumstances which are, likely to significantly affect the local distribution or abundance of that species;
- to disturb a wild bat in a manner that is, or in circumstances which are, likely to impair its ability to survive, breed or reproduce, or rear or otherwise care for its young.

It is also an offence to:

- damage or destroy a breeding site or resting place of such an animal (note: this does not need to be deliberate or reckless to constitute an offence);
- keep, transport, sell or exchange or offer for sale or exchange any wild bat or any part or derivative of one.

Legislation ensures that any structure whether man-made or natural which bats use for shelter or protection is protected.

Methodology

Desk Study and Pre-Survey Data Search

- 1.8 A desk study was carried out to establish historical records of bats within the proposed site area and local adjacent area. The National Biodiversity Data Centre¹ was sourced for potential bat records. The Bat Conservation Ireland website² species records for Ireland and Northern Ireland by location, information on historical bat species were sourced from these websites. Records were located for the Co. Donegal area. Relative designated sites were sourced from the NPWS (National Parks and Wildlife Service).

Field Surveys

- 1.9 A daytime bat roost potential survey was carried out on the 28/08/22 and 13/09/22. Emergence and re-entry surveys were carried out by two surveyors covering each VP at VP1 and VP2 (see figure 2 at appendix 3) was completed as per Table 7.3 of the BCT guidelines which states: **Two survey visits. At least one dusk emergence and one dawn re-entry survey.** One surveyor was used to cover VP1 covering the back of the existing leisure centre appropriately and one used for VP2 at the front of the building as illustrated in figure 2 at appendix 3. The surveyors completed a dusk (emergence) and dawn (re-entry) each night to complete two surveys at each VP on each survey night thus completing two surveys at each VP over the survey period as per BCT guidelines.
- 1.10 If there is a high level of bat activity, then further surveys may be necessary. Methods were taken from the Bat Conservation Trusts, Bat Survey Guidelines 2016³ and the Bat Workers Manual 2004⁴.
- 1.11 The size of the buildings being assessed for bat activity and surrounding habitat would require two surveyors to cover the site sufficiently completing one dusk emergence survey from each of

¹ <http://maps.biodiversityireland.ie/#/Home>

² <http://www.batconservationireland.org/>

³ Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practise Guidance (3rd edn). The Bat Conservation Trust, London.

⁴ Mitchell-Jones, A.J. & McLeish, A.P. Ed., (2004), 3rd Edition Bat Workers' Manual, 178, ISBN 1 86107 558.

the VPs as per guidelines. A surveyor was positioned at the north-eastern back side of the leisure centre at VP1 giving good views of the barns from an north-eastern aspect (figure 2 at appendix 3). A surveyor was positioned at VP2 at the south-western aspect of the leisure centre giving good views of the south-western side of the building. Completing one dusk emergence survey and one dawn re-entry survey at each side of the leisure centre using two surveyors to give the best views of the building and view the most likely bat exit/entry points if there was a potential roost within the leisure centre.

- 1.12 Surveys were carried out by Tyrone Nelson and William McCauley.
- 1.13 Access to the site was possible from Aileach road and position for viewing bats potentially entering/exiting the buildings was good. The leisure centre was a substantial size.
- 1.14 Bat detecting equipment used was an Echo Meter Touch and Ipad mini (see appendix 4). Other equipment included, Garmin GPSmap 62s, Swarovski EL8.5x42 binoculars, compass, recording forms, clipboard and torch.

Table 1 Emergence/Re-entry Survey Details

Date	Sunset/Sunrise	Start Time	Finish Time	Survey Type
28/08/2022	06:28	04:55	06:55	Re-entry
13/09/2022	19:50	19:35	21:35	Emergence

Note: 2 surveys completed from each VP for moderate roost potential.

Table 2 Weather Conditions

Date	Start Temp (°C)	Finish Temp(°C)	Wind /Dir	Cloud Cover (%)	Precipitation
28/08/2022	15	13	1/SW	70	None
13/09/2022	14	11	3/4 - NW	40	None

Results

Desktop Study

- 1.15 Historical records of bats in Co. Donegal gained from a desk study revealed a number of species records for the County, below is a species list gained from a data search of historical records.

Table 3 Desk Study Results of Data Search for Species List for Co. Donegal

Species (common name)	Latin Name
Common Pipistrelle	<i>Pipistrellus pipistrellus</i>
Soprano Pipistrelle	<i>Pipistrellus pygmaus</i>
Nathusius Pipistrelle	<i>Pipistrellus nathusii</i>
Leislars	<i>Nyctalus leisleri</i>
Daubentons	<i>Myotis daubentonii</i>
Natterers	<i>Myotis nattereri</i>
Brown long-eared	<i>Plecotus auritus</i>

Habitat Description

- 1.16 The proposed site is within an urban setting (see figure 1 at appendix 3). There are some mature trees within and next to the boundary of the site that may be felled as part of the planned development. Bat habitat quality was assessed as being moderate. Mature trees potentially planned for felling near the buildings were taken into consideration and viewed as part of the VPs.

Building Condition and Suitability for Roosting Bats

- 1.17 Photographs 1-2 in appendix 2 show the existing leisure center. The site consists of an intact leisure center in delapidated condition. There was bat roost potential within the building and internal space. The leisure centre space and structure was suitable to house a moderate numbers of bats and could potentially hold a maternity roost. The site was covered in overgrown vegetation.

Emergence and Re-Entry Survey Results

- 1.18 Emergence survey on the 13/09/22 recorded a single leisler foraging within the site boundaries. No bats were recorded emerging from the leisure centre.
- 1.19 No species of bats were recorded during the re-entry survey on the 28/08/22.

Table 6 Species, timing and activity

Date	Time	Activity	Passes	KHz	Species
28/08/2022	none	none	none	none	none
13/09/2022	20:30	passing	1	23	Lei

Assessment and Evaluation

Limitations

- 1.20 There were no limitations to survey, the site was accessible and the inside of the proposed site was also accessible.

Designated Sites

- 1.21 No impact on designated sites will be caused as a result of this development concerning bat species.

Roosts

- 1.22 The leisure centre was classed as having moderate potential for roosting bats based on the bat roost potential survey carried out prior to full survey. There is moderate spaces within the leisure centre attic space which could hold individual or moderate numbers of bats. The leisure centre was in a dilapidated condition with potential emergence/re-entry points identified. There was moderate roosting potential for bats within the leisure centre either in the attic space or within the structure of the walls despite the delapidated condition.
- 1.23 No bats were recorded roosting within the leisure centre.

Foraging and Commuting Habitat

- 1.24 Bats were recorded foraging once (Leislars) within the proposed site area and within the adjacent local habitats. Recordings were infrequent with periods of foraging near the site along the adjacent amenity parkland within the site. The habitat surrounding the proposed site is of moderate quality foraging habitat for bats with amenity grassland and some semi-mature and mature trees.

Recommendations and Mitigation

Further Survey

- 1.25 No further survey is necessary.

Mitigation

- 1.26 No further mitigation is necessary.

European Protected Species (EPS) Licensing

- 1.27 No licensing will be necessary.

Conclusions

- 1.28 The leisure centre was surveyed as appropriate in good conditions. No bats were recorded roosting within the leisure centre.

Appendix 1 References

- <http://maps.biodiversityireland.ie/#/Home>
- <http://www.batconservationireland.org/>
- Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practise Guidance (3rd edn). The Bat Conservation Trust, London.
- Mitchell-Jones, A.J., & McLeish, A.P. Ed., (2004), 3rd Edition Bat Workers' Manual, 178, ISBN 1 86107 558

Appendix 2 Photographs

Photograph 1 Existing leisure centre



Photograph 2 Existing leisure centre



Appendix 3 Figures

Figure 1 Site Location and Habitat

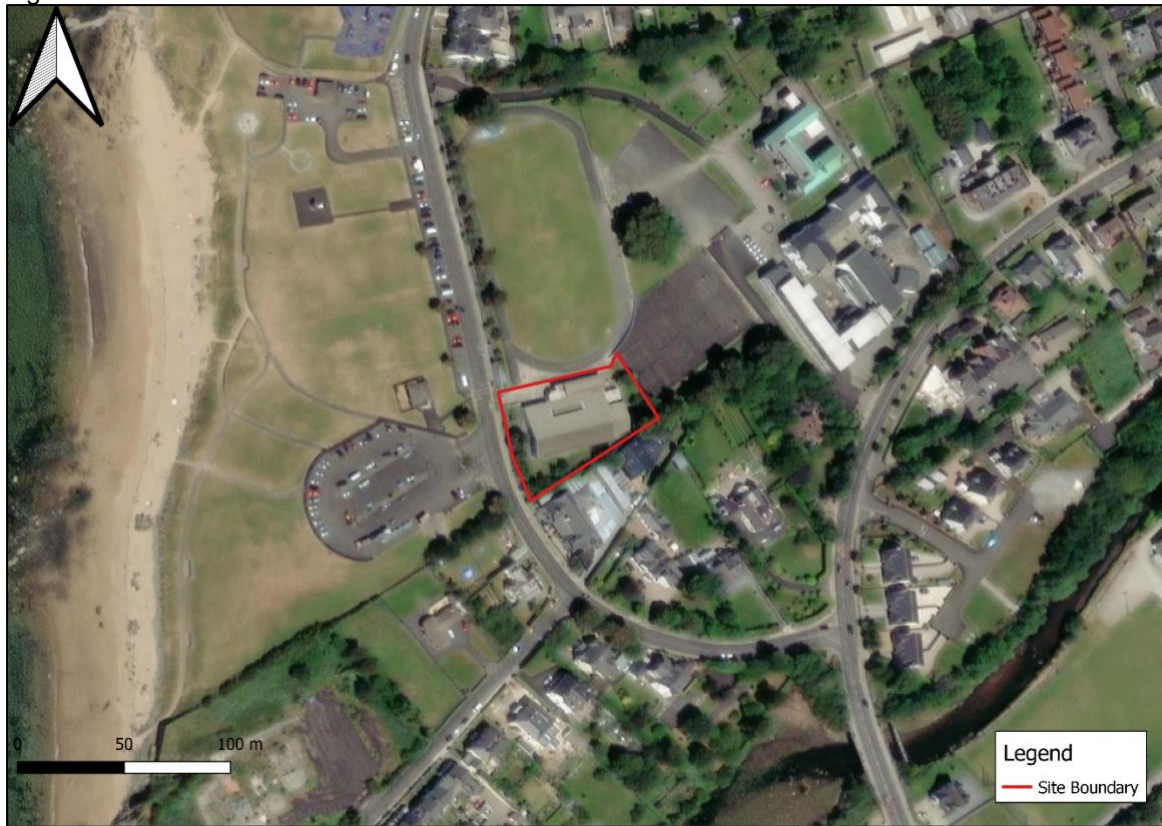
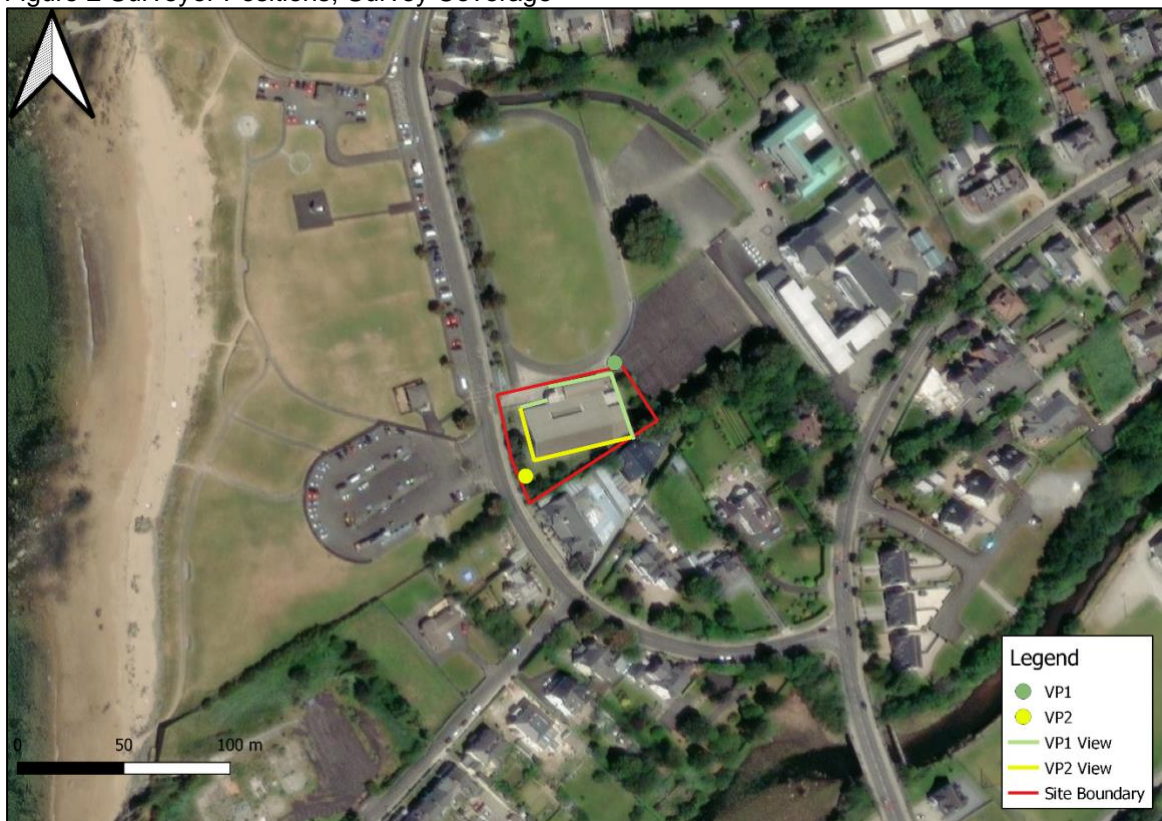


Figure 2 Surveyor Positions, Survey Coverage



Appendix 4 Sonograms

Leislars Bat (*Nyctalus leisleri*) Sonogram

