



Visitor Centre
Bat Survey Report and
Preliminary Ecological
Appraisal

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by

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CONTENTS

DECLARATION.....	4
EXECUTIVE SUMMARY	5
1 INTRODUCTION	6
1.1 SITE LOCATION.....	6
1.2 DESCRIPTION OF DEVELOPMENT	6
1.3 LEGISLATION AND POLICY	8
1.3.1 ENVIRONMENT (WALES) ACT 2016	8
1.3.2 LDP POLICY EN6.....	8
1.4 SCOPE OF SURVEY	9
1 BASELINE SURVEY RESULTS.....	10
1.1 BATS.....	10
1.1.1 LEGISLATION	10
1.1.2 PRELIMINARY SURVEY METHOD	10
1.1.3 SURVEY RESULTS.....	10
1.1.4 ACTIVITY SURVEY METHODOLOGY	12
1.1.5 LIMITATIONS	12
1.1.6 ACTIVITY SURVEY RESULTS.....	12
1.2 EXTENDED PHASE 1 HABITAT SURVEY	13
1.2.1 SURVEY METHODOLOGY.....	13
1.2.2 SURVEY LIMITATIONS.....	13
1.2.3 SURVEY RESULTS	13
1.2.4 CORE SUSTENANCE ZONES.....	15
1.2.5 BADGER.....	16
1.2.6 BROWN HARE	16
1.2.7 OTHER MAMMAL SPECIES.....	16
1.2.8 BIRDS	16
2 RECOMMENDATIONS FOR MITIGATION.....	16

2.1	SITE WORKS METHOD	17
2.2	ECOLOGICAL ENHANCEMENT	18
3	REFERENCES	19
4	APPENDICES	20

DECLARATION

The information, advice and opinions which we have prepared and provided is true, and has been prepared and provided in accordance with the CIEEM's Code of Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

Signed:

X L Badham

Lewis Badham

Planning Ecologist

A handwritten signature in black ink, appearing to read 'M Price'.

Megan Price

Ecologist (Planning & Consultancy)

The following report is considered a reasonable and true representation of the ecological situation on the site assessed. The report is however just a snapshot assessment therefore the authors are unable to guarantee that all biodiversity interest has been identified. In addition, if works are not undertaken, a programmed re-assessment will be required. The survey information is considered applicable for two years from the date of the survey.

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EXECUTIVE SUMMARY

Gnoll Country Park is currently the focus of a Levelling up Fund grant which has been approved to improve multiple features in the Park (for full details please see The Stage 2 Report. Rev_B. Hiraeth).

The project has been subdivided up into multiple planning applications and the focus of this report is the Visitor Centre demolition and rebuild.

The finalized design is not yet available however this report is based on the most up to date plans received.

The new visitor centre will use the same footprint as the existing one so the footprint of works is not greatly increased; however, there will be some small losses of amenity grassland and some woodland that are directly adjacent to the visitor centre to allow for the new access bridge.

During the course of 2022, a bat survey was carried out on the visitor centre which showed that no bats were observed to be using the structure as a roost. It is important to note though that numerous house sparrows do use the building for nesting. Despite this, we feel that there are no constraints to the development from bats or nesting birds provided the works are carried out outside bird nesting season (March to September). The same applies in terms of works to be carried out to trees and any removal should be carried out outside of bird nesting season and should follow a soft felling methodology where tree cracks and crevices have been observed.

The new design for the visitor centre also includes a green roof which will consist of native, wildlife friendly plant species. The exact species list is not yet specified but will need to be agreed with the NPTC Ecologist prior to any works commencing. The rain gardens/ raised beds to be created around the visitor centre are expected to be planted with a mix of ornamental and amenity species. As per above, the exact species list is yet to be finalized and agreed with the NPTC Ecologist to ensure no potential invasive species are incorporated as part of the design. The removal of trees will require the work to be carried out at the appropriate time and mitigation planting will need to be included. The exact location along with tree selection will need to be agreed and finalised taking into account tree species, size and age.

As part of the final design, the visitor centre is to include bird boxes; their exact location will be determined and agreed with NPTC Ecologist prior to completion of construction.

1 INTRODUCTION

1.1 SITE LOCATION

At the time of writing this report, the existing Visitor Centre of Gnoll Country Park is due to be demolished and re-constructed. Below is an aerial photograph of the site; the grid reference is: SS 76504 97489.



Figure 1 The Gnoll Visitor Centre Location

The Visitor Centre building is located at the centre of the country park and is set in an area surrounded by hard standing pathways and car parking areas. Several scattered trees are sporadically found across the immediate vicinity with areas of woodland situated to the north and south-east. A large lake is situated immediately opposite on the south of the building.

1.2 DESCRIPTION OF DEVELOPMENT

The finalised plans for the development are yet to be agreed. The plan shown on the following page illustrates the current design at this time. It is expected that there could be some minor changes to the plans at a later stage but not to the extent of affecting the planned external structure/ location.



1.3 LEGISLATION AND POLICY

1.3.1 ENVIRONMENT (WALES) ACT 2016

Under Section 6 of the Environment (Wales) Act 2016 (Environment Act), NPTC has a statutory duty to maintain and enhance biodiversity in the exercise of its functions.

Section 7 (S7) of the Environment (Wales) Act 2016 lists habitats and species that the Welsh Government consider are of key significance to sustain and improve biodiversity in Wales.

1.3.2 LDP POLICY EN6

This policy states:

Policy EN 6

Important Biodiversity and Geodiversity Sites Development proposals that would affect Regionally Important Geodiversity Sites (RIGS), Local Nature Reserves (LNRs), Sites of Interest for Nature Conservation (SINCs), sites meeting SINC criteria or sites supporting Local Biodiversity Action Plan (LBAP) or S42 habitats or species will only be permitted where:

1. They conserve and where possible enhance the natural heritage importance of the site; or
2. The development could not reasonably be located elsewhere, and the benefits of the development outweigh the natural heritage importance of the site.

Mitigation and/or compensation measures will need to be agreed where adverse effects are unavoidable.

NPTC usually requires mitigation/compensation to be provided at double the size of the habitat lost. However, with careful planning a smaller area could be sufficient provided it was higher quality than that lost.

1.4 SCOPE OF SURVEY

The survey comprised a walkthrough of the proposed development by an NPTC Ecologist to determine any ecological constraints to the development. The objectives of the survey were to obtain sufficient data to:

- Identify any protected habitat and species present/likely to be present that may pose potential constraints to redevelopment of the site e.g. birds, reptiles, or mammals in and around the surrounding area.
- Assess whether the proposed development would be likely to have an impact upon those species.
- Identify potential bat activity levels and use of buildings on site e.g. roosting within the buildings identified and/or foraging in and around the surrounding area;
- Assess whether the proposed redevelopment of the buildings on site would be likely to have an impact upon those species, if present;
- Recommend a mitigation strategy (where possible) for those habitats/species present that pose a constraint to the redevelopment of the site.
- Identify any opportunities for enhancement of the ecological value of the site.

1 BASELINE SURVEY RESULTS

1.1 BATS

1.1.1 LEGISLATION

All British bat species have statutory protection under the Conservation of Habitats and Species Regulations 2017 (as amended) and Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This affords complete legal protection to all bats and their roosts.

1.1.2 PRELIMINARY SURVEY METHOD

An external building assessment was undertaken which assessed the suitability of the building to support roosting bats.

Externally the building was surveyed, with the aid of binoculars where necessary, for evidence of access points and droppings, grease marks and urine staining. The buildings were examined in order to identify features that are favoured by bats as roosting sites, including pitched roofs with a void/loft, behind fascia boards and soffits, in and through gaps around windows and hanging tiles or weatherboarding. Any potential access points are recorded, along with any external physical evidence of use by roosting bats, such as urine staining and/or droppings around access points, on windows and on window ledges.

An assessment of the potential of the building to support nesting birds was carried out at the same time.

1.1.3 SURVEY RESULTS

Due to the lack of roof voids suitable of supporting roosting bats, an internal inspection was not deemed necessary for the current assessment. Please see Table 1 below for indicative photos providing an external overview of the overall structure of the building.



North-eastern and portion of north-western elevations.



North-eastern elevation.



North-eastern and south-eastern elevations.



Southern elevation.



Western elevation.



Northern and north-western elevations.

Table 1. Photos highlighting roof structure of Visitor Centre building

The areas of the roofline associated with lifted lead flashing were considered to offer roosting potential for crevice dwelling species. Lifted ridge tiles which are known to support nesting house sparrows were also of interest for their ability to support roosting bats. Overall, the building was considered to be of Moderate potential to support roosting bats, given the features present and the environment in which the building is situated, namely parkland with immediately adjacent woodlands and large waterbody.

1.1.4 ACTIVITY SURVEY METHODOLOGY

The surveys were conducted in accordance with the Bat Conservation Trust guidelines (Collins J. 2016). The building was assessed as having Moderate potential to support roosting bats. Two emergence surveys were carried out.

The first dusk emergence survey was undertaken on the 21st July 2022 (by Marie Fowler, Rose Revera, Chloe Angelone and Megan Price) in weather conditions conducive to bat activity, i.e. little or no rain and temperatures in excess of 10° C. The emergence survey began approximately 30 minutes before sunset and continued for approximately 2 hours after sunset. Four surveyors were positioned to cover the majority of elevations of the building.

The second dusk emergence survey was undertaken on the 29th September 2022 (by Beth Parker, Marie Fowler and Megan Price) in weather conditions conducive to bat activity i.e. little or no rain and temperatures in excess of 10° C. The emergence survey began approximately 30 minutes before sunset and continued for approximately 2 hours after sunset. Three surveyors were positioned strategically around the building to have a clear view of the building.

Each surveyor was equipped with either a SSF Bat 2 detector, Echometer Touch Pro detector and iPad or an Elekon Batscanner bat detector.

1.1.5 LIMITATIONS

There were no limitations to the survey as it was carried out at the correct time of year in conducive weather conditions.

1.1.6 ACTIVITY SURVEY RESULTS

21st July 2022

Moderate levels of activity were recorded on site during the initial emergence survey. No bats were observed emerging from the building. Soprano Pipistrelle (*Pipistrellus pygmaeus*), Common Pipistrelle (*Pipistrellus pipistrellus*), Noctule (*Nyctalus noctula*),

Daubenton's Bat (*Myotis daubentonii*) were observed foraging and commuting within the immediate vicinity of the visitor centre building. A plan highlighting surveyor positions and bat activity over the course of the survey can be found at Appendix A, summary table of the data collected over the course of the survey can be found at Appendix C.

29th September 2022

Low levels of bat activity were recorded on site during the emergence survey. No bats were observed emerging from the building. Soprano and Common Pipistrelle, Noctule, Daubenton's and Brown Long-eared Bat (*Plecotus auritus*) were all observed foraging within the immediate area of the visitor centre building. A plan highlighting surveyor positions and bat activity over the course of the survey can be found at Appendix B summary table of the data collected over the course of the survey can be found at Appendix D.

1.2 EXTENDED PHASE 1 HABITAT SURVEY

1.2.1 SURVEY METHODOLOGY

The site was surveyed on 23rd June 2022 by Megan Price (Ecologist) and further notes taken during subsequent site visits and bat surveys. All visits were undertaken in dry weather conditions.

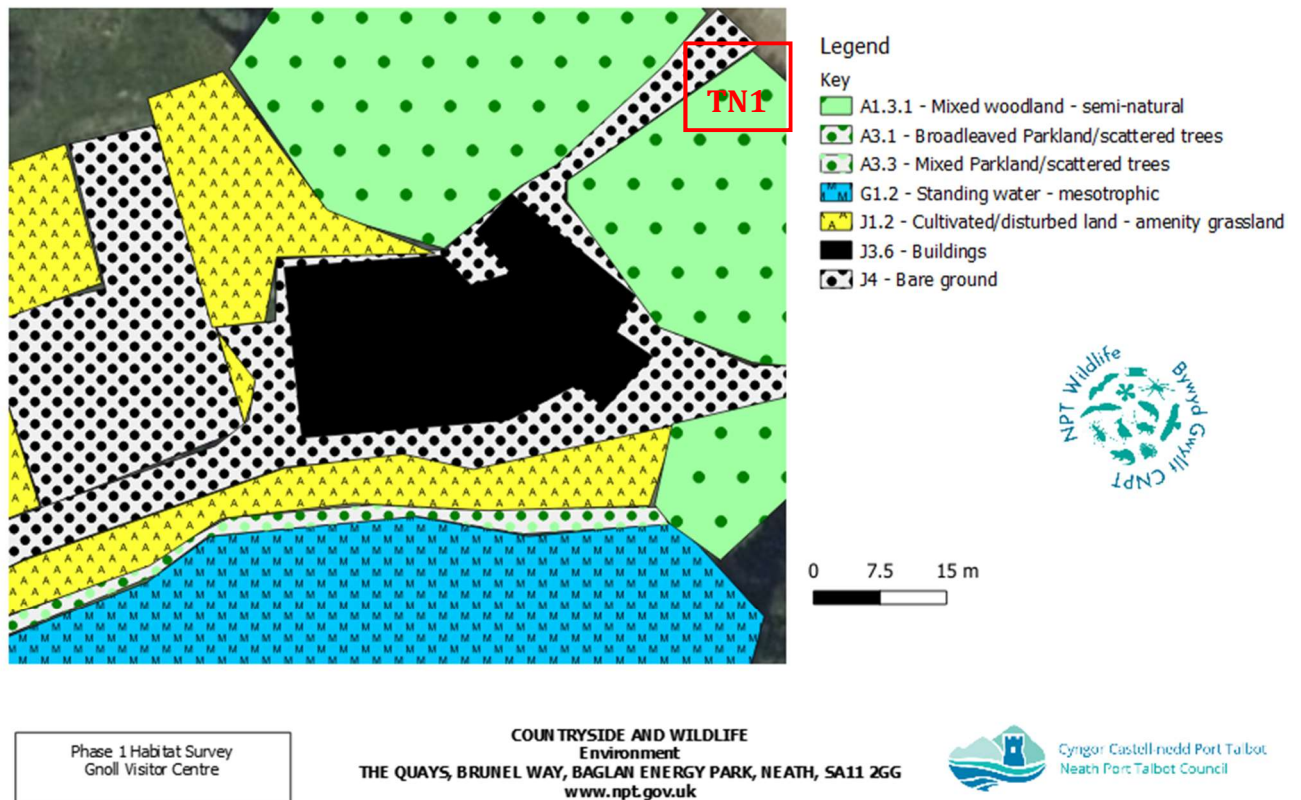
An extended phase 1 habitat survey was undertaken for the site. The habitat types present on the site were assessed using the habitat classification system as set out in the Joint Nature Conservation Committee Handbook for Phase 1 habitat survey – a technique for environment audit (JNCC, 2010). Habitats were mapped and classified based largely on vegetation composition, with target notes used to demarcate features of interest. In addition to the habitats, conspicuous fauna particularly protected species, were also recorded.

1.2.2 SURVEY LIMITATIONS

There were no limitations to this survey as it was undertaken during appropriate weather and at the appropriate time of year.

1.2.3 SURVEY RESULTS

The results of the phase 1 habitat survey are presented on the plan below (Figure 3). The below sets out descriptions of each habitat type represented on the site.



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Figure 3 Phase 1 habitat plan

Buildings

The visitor centre has bat and bird potential as discussed in more detail in the previous section.

Bare ground

A large proportion of the site is bare ground – tarmac paths and a children’s play area.

Standing water – Pond

There is a large pond/lake to the south of the visitor centre, the pond is surrounded by some ephemeral vegetation such as Yellow Flag Iris (*Iris pseudocorus*), reeds (*Phragmites australis*), water mint (*Mentha aquatic*) and hemlock water dropwort (*Oenanthe crocata*). The pond is not going to be affected by the works.

Amenity Grassland

A large area of the land surrounding the visitor centre is amenity grassland containing species such as dandelion (*Taraxacum*), daisy (*Bellis perennis*), selfheal (*Prunella vulgaris*), Yorkshire fog (*Holcus lanatus*) and perennial rye grass (*Lolium perenne*) as

well as other common amenity grassland species as shown in the below photo (Figure 4).



Figure 4 common amenity grassland species

Scattered trees – Parkland

The very nature of Gnoll Country Park means that there are several large trees scattered in the amenity grassland. These consist of ornamental cherries, beech trees and a large oak known as the ‘Hollow Tree’ which is also a veteran tree (located to the west of the children’s playground).

Mixed Woodland – semi-natural

There are several clumps of mixed woodlands in the vicinity of the visitor centre. The most common species in these woodland areas are: Oak, Beech, Sycamore, Scots Pine and Willow (amongst other common species). There is a very large, old Oak tree to the east of the existing path to the visitor centre from the car park. It is paramount that this tree be protected and retained (TN1).

Overall, the trees in the immediate vicinity of the visitor centre are at various stages of maturity and condition/ health. Those trees which are deemed to be of poor condition or at risk of posing future health and safety issues have been identified for removal as well as those trees which would interfere with some of the construction works.

1.2.4 CORE SUSTENANCE ZONES

It is not anticipated this works will have any impact on the core sustenance zones of the local bat populations in the Gnoll Country Park due to it being such a small footprint, the works being mainly to a building that does not support a roost, and it not affecting any significant areas of vegetation that would support important foraging resources.

1.2.5 BADGER

Legislation: The Protection of Badgers Act 1992 makes it an offence to:

- to willfully kill, injure, take, possess or cruelly ill-treat a badger, or attempt to do so
- damaging or destroying a sett
- obstructing access to a sett
- disturbing a badger when occupying a sett
- plus, offences in relation to persecution.

Any development to be carried out within the vicinity of a sett may require a license from Welsh Government. Generally, use of heavy machinery within 30m of an active sett would need a license.

There are known badger setts in Gnoll Country Park. However, there are no setts within the immediate vicinity of the works, there are also no paths or foraging signs which would indicate the works could affect a badger sett.

1.2.6 BROWN HARE

Brown hare are listed on S7 of the Environment Act.

Gnoll Country Park contains habitats which could support brown hare however, there are no such habitats near the visitor centre.

1.2.7 OTHER MAMMAL SPECIES

Dormouse and Water vole are not a consideration for this project as there is no habitat suitable for these species in the vicinity.

1.2.8 BIRDS

Legislation: Section 1 of the Wildlife and Countryside Act 1981 (as amended) affords general protection to all species of wild birds whilst nesting.

As already identified, there are multiple house sparrows nesting in the visitor centre. Consequently, any works to include the demolition of the building will be carried out outside of nesting bird season defined as the period between September to February (inclusive) to ensure no bird nests are disturbed/destroyed in the process. This also applies to tree works.

2 RECOMMENDATIONS FOR MITIGATION

2.1 SITE WORKS METHOD

Demolition of the visitor centre is currently programmed to start January 2024.

The site compound is currently anticipated to be located on the amenity grassland to the North of the visitor centre (see below indicative plan).



Figure 5 Proposed site compound location

Illustrated above as a blue square is the compound area and the yellow edged path is the access to and from the compound.

Appropriate Root Protection Zone (RPZ) will be put in place to protect any retained trees that could possibly be impacted and floating pathways will also be used to protect any tree roots.

After the site compound is dismantled, an appropriate seed mix will be used to make good the site and enhance local biodiversity.

2.2 ECOLOGICAL ENHANCEMENT

In line with the general principles set out in SPG: Biodiversity and Geodiversity (May 2018) and the Environment Act, the applicant is required to demonstrate how biodiversity enhancement is to be achieved.

As part of the new visitor centre design, a green roof will be installed which will consist of native, wildlife friendly species (exact species list is not specified at this time but it will be agreed with the NPTC Ecologist to ensure it is appropriate). The rain gardens/ raised beds around the visitor centre will consist of a mix of ornamental and amenity species, the details are to be finalized and agreed with the NPTC Ecologist to ensure no invasive species are used.

Replacement tree species are still to be agreed/ determined along with their planting location to mitigate the losses due to construction works. The selection will be dependent on the size and age of trees due to be felled.

As part of the mitigation, bird boxes will be included on the visitor centre – final design and location are yet to be decided and agreed with NPTC ecologist prior to completion of construction.

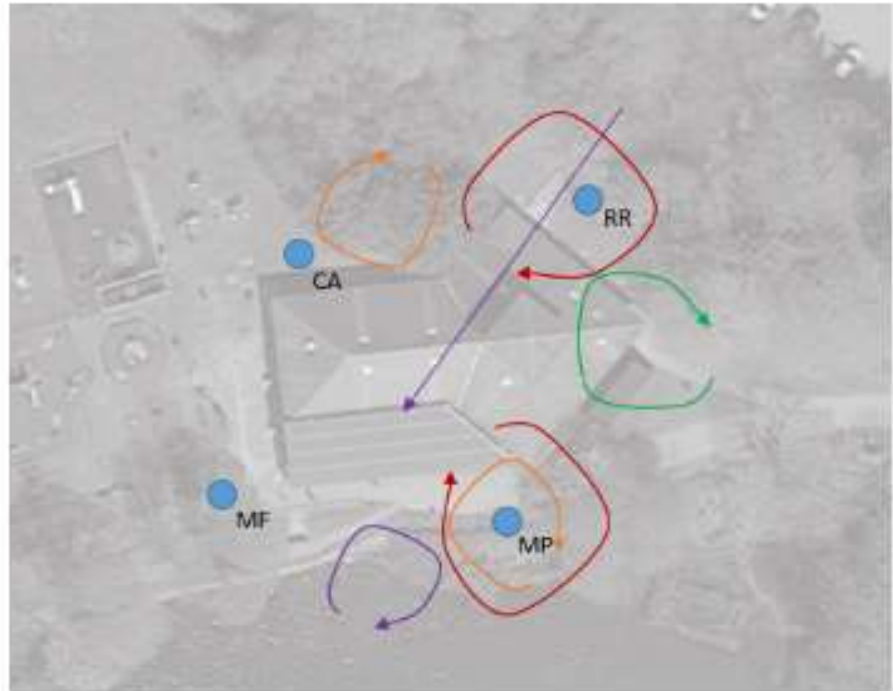
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4 APPENDICES

APPENDIX A – 2022-07-21: FLIGHT LINES & SURVEYOR POSITIONS

2022/07/21 Emergence Survey: Visitor Centre



Key

 Surveyor	 Nn
 Commuting	 Pp
 Foraging	 Ppy
	 Myd

APPENDIX B – 2022-09-29: FLIGHT LINES & SURVEYOR POSITIONS

2022/09/29 Emergence Survey: Visitor Centre



Key

- | | |
|-----------|----------------|
| Surveyor | Nd |
| Commuting | Pp |
| Foraging | Ppy |
| | Pa |
| | Myd |

APPENDIX C – 2022-07-21 SURVEY SUMMARY TABLE

<u>Dusk Emergence/ Dawn Re-entry Survey Form</u>			
Surveyors:	Rose Revera, Marie Fowler, Megan Price, Chloe Angelone		
Date:	21/07/2022		
Location/ Project:	Gnoll Visitor Centre		
Feature/s being surveyed:	Visitor Centre		
Time Start:	20:55	Time Finish:	22:25
Sunset time:	21:19	Detectors Used:	Echometer Touch; Petterson; SSF2
Temperature Start (°C):	18	Temperature Finish (°C):	16
Cloud Cover (%):	40%	Cloud Cover Finish (%):	40%
Humidity Start (%):	–	Humidity Finish (%):	–
Wind Start:	Calm	Wind Finish:	Calm
Precipitation:	None.		
Land Use:	Country Park		
Surrounding Land Use:	Parkland / Outdoor Recreation		
Surveyor:	Time:	Species:	Activity & Direction:
MF	21:15	Nn	HNS
RR	21:27	Ppy	Foraging above steps down to centre

MP	21:31	Nn	HNS
MP	21:33	Ppy	HNS
MP	21:35	Nn	Foraging above visitor centre and car park
CA	21:39 - 21:57	Pp / Ppy	Foraging
MP	21:46	Md	Foraging over pond
MP	21:58	Nn	HNS
RR	22:08	Md	Commuting towards pond
MF	22:17	Nn	HNS
CA	22:24	Pp / Ppy	HNS

APPENDIX D – 2022-09-29 SURVEY SUMMARY TABLE

<u>Dusk Emergence/ Dawn Re-entry Survey Form</u>			
Surveyors:	Beth Parker, Marie Fowler, Megan Price		
Date:	29/09/2022		
Location/ Project:	Gnoll Visitor Centre		
Feature/s being surveyed:	Visitor Centre		
Time Start:	18:40	Time Finish:	20:10
Sunset time:	18:58	Detectors Used:	Echometer Touch; Petterson; SSF2
Temperature Start (°C):	15	Temperature Finish (°C):	14
Cloud Cover (%):	5%	Cloud Cover Finish (%):	5%
Humidity Start (%):	–	Humidity Finish (%):	–
Wind Start:	Light Wind	Wind Finish:	Light Wind
Precipitation:	None.		
Land Use:	Country Park		
Surrounding Land Use:	Parkland / Outdoor Recreation		
Surveyor:	Time:	Species:	Activity & Direction:
MP	18:50	P	Foraging
BP	19:04	Ppy	Commuting south

MF	19:06	Pp	Foraging
BP	19:13 - 19:36	Pp	Foraging
MP	19:28	Nn	HNS
BP	19:48	Ppy	Foraging
MP	19:51	Pa	Foraging
MP	19:52	Md	Foraging