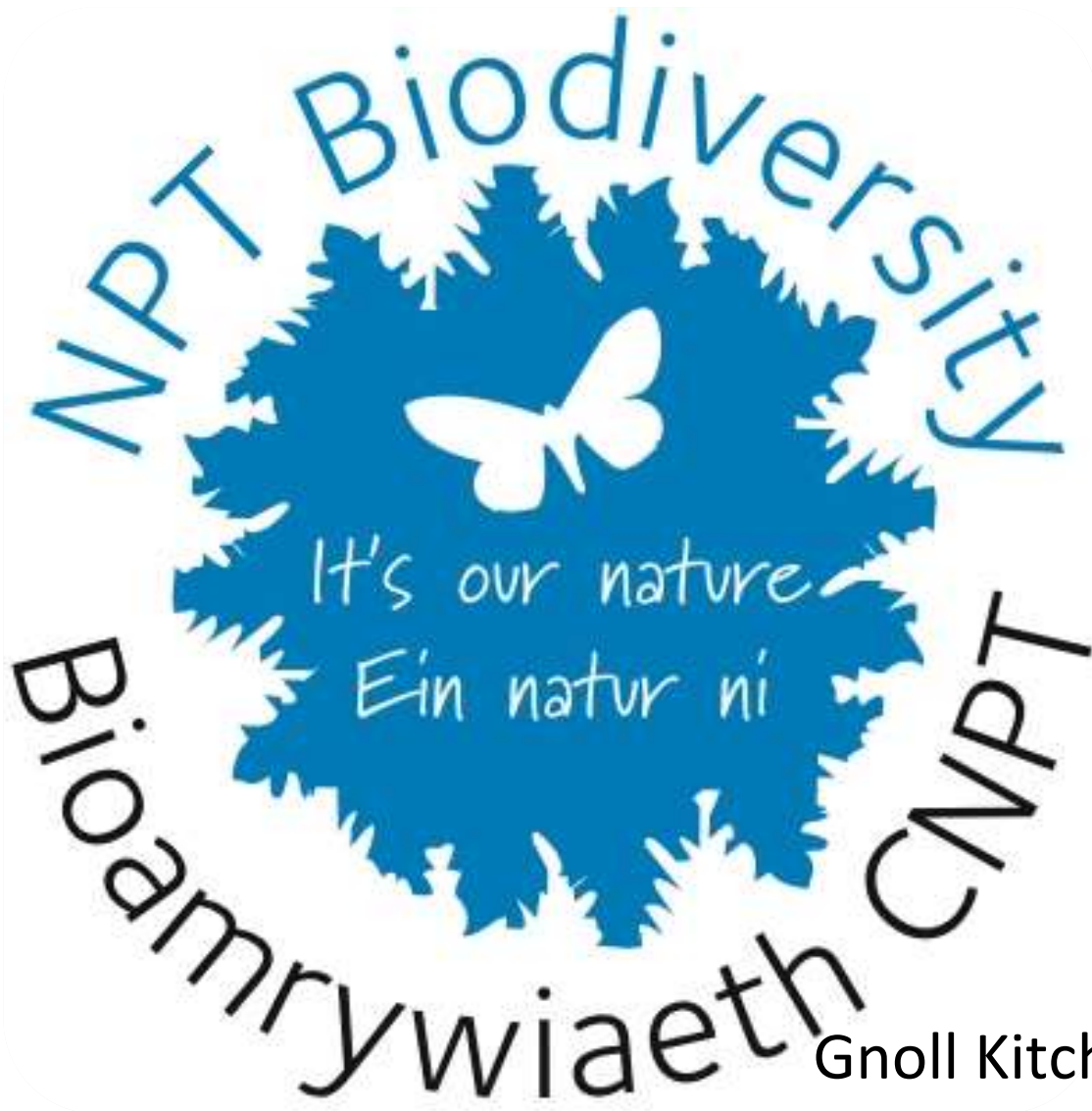




Gnoll Kitchen Gardens &
Service Yard
Bat Survey Report &
Preliminary Ecological
Appraisal

by Date: October 2023

Lewis Badham & Megan Price
Ecologist (Planning) / Ecologist
(Planning and Consultancy)
Countryside and Wildlife Team
Neath Port Talbot CBC

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	13
1.1.6 ACTIVITY SURVEY RESULTS.....	14
1.2 EXTENDED PHASE 1 HABITAT SURVEY	15
1.2.1 SURVEY METHODOLOGY.....	15
1.2.2 SURVEY LIMITATIONS.....	15
1.2.3 SURVEY RESULTS	15
1.2.4 CORE SUSTENANCE ZONES.....	17
1.2.5 BADGER.....	17
1.2.6 BROWN HARE	18
1.2.7 OTHER MAMMAL SPECIES.....	18
1.2.8 BIRDS	18
2 RECOMMENDATIONS FOR MITIGATION.....	18

2.1	SITE WORKS METHOD	18
2.2	ECOLOGICAL ENHANCEMENT	19
3	REFERENCES	20
4	APPENDICES	21

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.

This report remains the copyright and intellectual property of the Countryside and Wildlife Team, Neath Port Talbot CBC. The report is not permitted to be reproduced other than in full.

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 Kitchen Garden and Service Yard area.

Over the course of 2023, bat surveys were carried out on the buildings in both areas, no bats were recorded roosting in these buildings so there are no constraints from bats to the works.

All of the buildings in the kitchen garden area are to be demolished and replaced with a number of accommodation 'pods' along with a restored and planted kitchen garden designed to provide fruit and vegetables as well as wildlife friendly plant species.

The buildings do provide bird nesting habitat, the loss of this will be mitigated for by the provision of bird and bat boxes in the kitchen garden / service yard development, exact number and location of boxes to be agreed in conjunction with NPTC ecologist.

An area of scrub is being lost as a result of the kitchen garden development however that will be replaced to the south of the development with an area of native shrub planting and also an area of woodland planting with an understory of wildflowers. This area will be managed appropriately in future (exact species mix to be agreed in conjunction with NPTC ecologist).

The Service yard area will become a car parking area to accompany the Kitchen garden development, a small number of trees will be lost along with some scrub. However areas of native scrub planting and woodland flora grassland will form part of the design of the car park area.

There is Japanese Knotweed and Himalayan Balsam present in this area. The Japanese Knotweed will be managed under the guidance of a specialist.

The Himalayan Balsam will be controlled with appropriate biosecurity control measures during construction and a management and eradication scheme will be put in place for the future, ensuring that this species is removed, allowing the native plant species to recolonise the area.

1 INTRODUCTION

1.1 SITE LOCATION

At the time of writing, areas of land currently used as storage yards to the south of the Lake of Gnoll Country Park, are proposed to be converted into a kitchen garden complex with an assortment of: visitor dwellings of varying cabin types; communal amenity facilities; storage facilities and accompanying car parking areas. The site location is shown on the aerial photograph below (Fig 1). Grid reference for the centre of the building is SS 76346 97220.



Figure 1. Kitchen Garden Location

The site is situated south-west of Gnoll Country Park lake. The buildings are surrounded by hard standing pathways and car parking areas for pedestrian and vehicle access. Habitats within the site include woodland, scrub, ruderal, amenity grassland, stands of invasive non-native species, namely Japanese Knotweed (*Fallopia japonica*) and bare ground.

1.2 DESCRIPTION OF DEVELOPMENT

At the time of writing, the full extent of the proposed works are not yet finalised; however, it is known that the development will include the demolition of the majority of buildings in the Kitchen Garden and Service Yard areas. The Kitchen Garden complex

Figure 2. Kitchen Garden Area – current proposals



NPTCBC usually requires that the area of replacement mitigation/compensation, for any habitat loss, is to be provided at a 2:1 ratio; however, a smaller area can be sufficient, provided it can be demonstrated that the mitigation habitat is of higher quality than what was previously present, and that it can be preserved and managed in perpetuity.

1.4 SCOPE OF SURVEY

The survey comprised a walkthrough of the proposed development site 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; and
- Identify any opportunities for enhancement of the ecological value of the site.

1 BASELINE SURVEY RESULTS

1.1 BATS

1.1.1 LEGISLATION

In the U.K. all bat species and their roosts are legally protected, by both domestic and international legislation (Wildlife & Countryside Act 1981 (as amended) & Conservation of Habitats and Species Regulations (2017) (as amended)).

It is an offence to:

- deliberately take, injure or kill a wild bat;
- intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats;
- damage or destroy a place used by bats for breeding or roosting (even if bats are not occupying the roost at the time);
- possess or advertise/sell/exchange a bat of a species found in the wild in the UK (dead or alive) or any part of a bat;
- intentionally or recklessly obstruct access to a bat roost.

1.1.2 PRELIMINARY SURVEY METHOD

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

Externally the buildings were 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 buildings to support nesting birds were carried out at the same time.

1.1.3 SURVEY RESULTS

Given the age of the buildings, their location and the number of access points present, an internal inspection of the roof voids was not deemed necessary as bats were already considered to be likely present within the structures. See Table 1 below for photos

providing an overview of the overall structure of the buildings in the Kitchen Garden area. Table 2 shows photos of the Service Yard area.



Southern elevation of main central building.



Eastern elevation of main central building.



Northern elevation of main central building.



Southern elevation of small building



Eastern elevation of northern building



South-western elevation of building in south-east corner of site

Table 1. Photos highlighting roof structure of buildings

 Southern elevations of northern building	 Overview of garages in east of the site
 Garages in south-east of site	 Overview of garages in east of the site

Table 2. Photos highlighting roof structure of buildings

The areas of the roofline with gaps into the internal structures were considered to offer roosting potential. Most of the structures were open with free accessibility to potential roosting bats. Overall, the buildings were considered to be of Moderate potential to support roosting bats, given the features present and the environment in which the buildings are situated, namely parkland with immediately adjacent woodlands and a large waterbody.

1.1.4 ACTIVITY SURVEY METHODOLOGY

The surveys were conducted in accordance with the Bat Conservation Trust guidelines (Collins J. 2016). The buildings were assessed as having Moderate potential to support roosting bats. Five emergence surveys were carried out in 2023.

Kitchen Gardens

The first dusk emergence survey was undertaken on the 2nd May 2023 (by Rebecca Sharp, Laura Palmer 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 so as to cover the majority of elevations of the buildings.

The second dusk emergence survey was undertaken on the 23rd May 2023 (by Lewis Badham, 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 buildings so to have a clear view of the buildings.

The third dusk emergence survey was undertaken on the 7th June 2023 (by Chloe Angelone, Lewis Badham 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 buildings so to have a clear view of the buildings.

Service Yard

The first dusk emergence survey was undertaken on the 3rd May 2023 (by Beth Parker, Chloe Angelone, Catherine Turner 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 strategically around the buildings so to have a clear view of the buildings.

The second dusk emergence survey was undertaken on the 24th May 2023 (by Beth Parker, Rebecca Sharp 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 buildings so to have a clear view of the buildings.

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

Kitchen Gardens

2nd May 2023

Moderate levels of activity were recorded on site during the initial emergence survey. No bats were observed emerging from any of the buildings. Soprano Pipistrelle (*Pipistrellus pygmaeus*), Common Pipistrelle (*Pipistrellus pipistrellus*), Noctule (*Nyctalus noctula*) were observed foraging and commuting within the immediate vicinity of the buildings. A plan highlighting surveyor positions and bat activity over the course of the survey can be found at Appendix A. A summary table of the data collected over the course of the survey can be found at Appendix F.

23rd May 2023

Moderate levels of bat activity were recorded on site during the emergence survey. No bats were observed emerging from any of the buildings. Soprano Pipistrelle, Common Pipistrelle and Daubenton's Bat (*Myotis daubentonii*) were observed foraging and commuting within the immediate vicinity of the buildings. A plan highlighting surveyor positions and bat activity over the course of the survey can be found at Appendix B. A summary table of the data collected over the course of the survey can be found at Appendix G.

7th June 2023

Low levels of bat activity were recorded on site during the emergence survey. No bats were observed emerging from any of the buildings. Soprano Pipistrelle and Common Pipistrelle were observed foraging and commuting within the immediate vicinity of the buildings. A plan highlighting surveyor positions and bat activity over the course of the survey can be found at Appendix C. A summary table of the data collected over the course of the survey can be found at Appendix H.

Service Yard

3rd May 2023

Moderate – High levels of bat activity were recorded on site during the emergence survey. No bats were observed emerging from any of the buildings. Soprano Pipistrelle, Common Pipistrelle and Daubenton's Bats were observed foraging and commuting within the immediate vicinity of the buildings. A plan highlighting surveyor positions and bat activity over the course of the survey can be found at Appendix D. A summary table of the data collected over the course of the survey can be found at Appendix I.

24th May 2023

Moderate – High levels of bat activity were recorded on site during the emergence survey. No bats were observed emerging from any of the buildings. Soprano Pipistrelle, Common Pipistrelle and Daubenton's Bats were observed foraging and commuting within the immediate vicinity of the buildings. A plan highlighting surveyor positions and bat activity over the course of the survey can be found at Appendix E. A summary table of the data collected over the course of the survey can be found at Appendix J.

1.2 EXTENDED PHASE 1 HABITAT SURVEY

1.2.1 SURVEY METHODOLOGY

The site was surveyed on 14th July 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 environmental 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 conditions and at an appropriate time of year.

1.2.3 SURVEY RESULTS

The results of the phase 1 habitat survey are presented on the plan below (Figure 4). The below sets out descriptions of each habitat type represented on the site.



Figure 4 Phase 1 habitat plan

Buildings

The buildings have bat and bird potential as discussed in detail in the previous section. A large stone-wall forms an internal boundary to the north of the Kitchen garden area.

Bare ground

A large proportion of the site is bare ground – tarmac roads, compacted ballast and stone.

Amenity Grassland

The grassland present 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.

Tall Ruderal Vegetation

The vegetation around the buildings of the Kitchen Garden area are ranker and relatively unmanaged, with ruderal species such as broad-leaved dock (*Rumex obtusifolius*), sow thistle (*Sonchus* sp.) and spear thistle (*Cirsium vulgare*), amongst other species, dominating. The invasive non-native species, Himalayan Balsam (*Impatiens glandulifera*) is also present amongst the ruderal vegetation within the site.

Woodland

Areas of semi-natural mixed broad-leaved woodland are situated in the south of the Kitchen Garden area, and the north-west corner of the Service Yard area. Species include Pine (*Pinus* sp.), Ash (*Fraxinus excelsior*) and Sycamore (*Acer pseudoplatanus*).

An area of semi-natural broad-leaved woodland is situated along the eastern boundary. Species present include Sycamore, Ash, Poplar, Beech (*Fagus sylvatica*), Alder (*Alnus glutinosa*).

Dense Scrub

A dense area of scrub is situated in the north-west corner of the Kitchen Garden Area. Species present include bramble (*Rubus fruticosus* agg.), blackthorn (*Prunus spinosa*), hawthorn (*Crataegus monogyna*) and buddleia (*Buddleja davidii*). The invasive non-native species Himalayan Balsam (*Impatiens glandulifera*)

Japanese Knotweed

A large stand of Japanese Knotweed is situated in the south of the Service Yard area.

1.2.4 CORE SUSTENANCE ZONES

It is not anticipated these 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 supports bat roosts but will not have any impact on those roosts, 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 Kitchen Garden or Service Yard areas.

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.

Swallow nest were observed in the buildings situated in the Kitchen Garden Area. House Sparrows were seen within the ivy attached to one of the buildings also in this area. As such, any buildings to be demolished will be removed prior to bird-nesting season, 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

Any buildings to be demolished will be done over the Winter 2023/2024 period to avoid the nesting bird season.

Scrub clearance works will be conducted outside of the reptile hibernation period (November – March – temperature dependent).

Any vegetation to be cleared will also be done outside the nesting bird season. The clearance will be done in a controlled and systematic manner, working from east to west, allowing any arising reptiles or small mammals to move out of the work area.

Japanese Knotweed will be treated separately, under the guidance of a specialist contractor. Himalayan Balsam will be dealt with appropriately, i.e. no reckless spreading of seed, and appropriate bio-security measures will be followed.

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.

Kitchen Garden

Himalayan Balsam will be eradicated from the Kitchen Garden and Service Yard areas over the next several years, allowing native vegetation to recolonise the areas and improve biodiversity.

Proposed enhancements will occur as shown in Figure 2 above.

An area of dense scrub will be lost to the development, although it is currently unmanaged and of limited biodiversity value. To mitigate and enhance for this loss, the area to the south of the Kitchen Garden area will be planted with a native scrub planting (exact species mix and management to be provided in consultation with NPT Biodiversity team).

An area to the south of the Kitchen Garden area is proposed for native woodland planting, with a wildflower grassland area below (exact species mix and management to be provided in consultation with NPT Biodiversity team).

Bat and bird boxes will also be provided as part of the development, the exact number and location will be agreed with the NPTC ecologist.

Service Yard

A small number of proposed trees will be planted to replace trees removed for health and safety concerns, with an accompanying area of native scrub and woodland ground flora (exact species mix and management to be provided in consultation with NPT Biodiversity team).

Proposed enhancements will occur as shown in Figure 3 above.

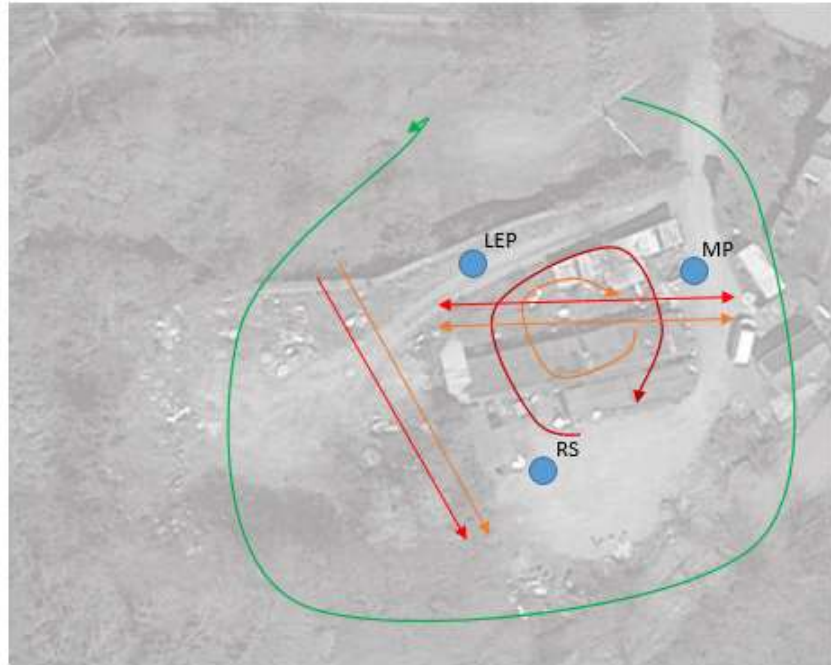
3 REFERENCES

- Anon.** HMSO, London. All legislative references. www.legislation.gov.uk
- CIEEM.** (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine
- CIEEM.** (2017). Guidelines for Preliminary Ecological Appraisals. 2nd Ed
- Collins, J. (ed.) (2016)** Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London.
- Joint Nature Conservation Committee.** (2010). Handbook for Phase 1 Habitat Survey. A technique for environmental Audit.
- Wales Biodiversity Partnership.** Environment (Wales) Act 2016: Section 7 List of Species of Principal Importance for Conservation of Biological Diversity in Wales.
- Wales Biodiversity Partnership.** Environment (Wales) Act 2016: Section 7 List of Habitats of Principal Importance for Conservation of Biological Diversity in Wales.
- Wales Biodiversity Partnership.** (2008). Wildlife Sites Guidance Wales. A guide to develop local wildlife systems in Wales.

4 APPENDICES

APPENDIX A – 2023-05-02: FLIGHT LINES & SURVEYOR POSITIONS

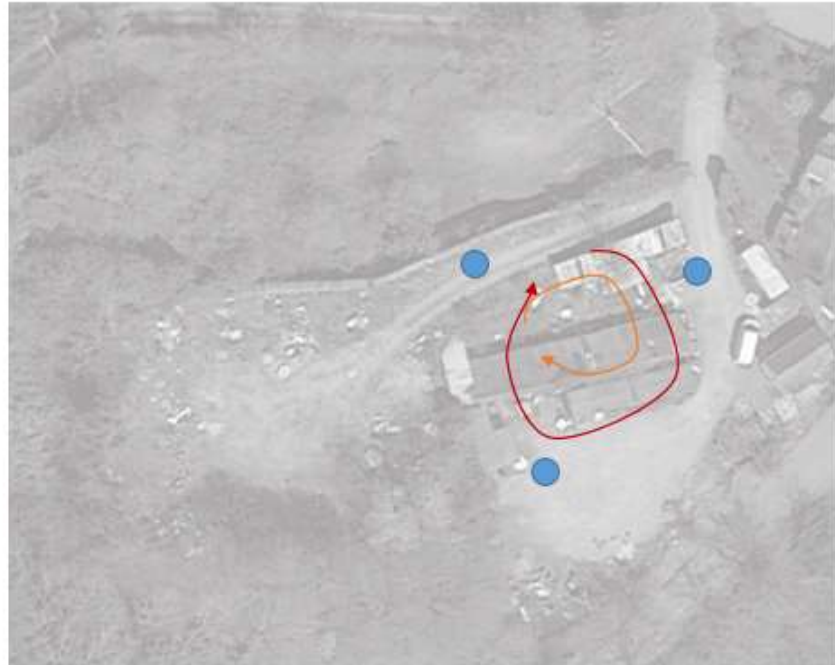
2023/05/02 Emergence Survey: Kitchen Gardens



Key	
Surveyor	Nn
Commuting	Pp
Emergence	Ppy
Foraging	Myd
	Unidentified

APPENDIX B – 2023-05-23: FLIGHT LINES & SURVEYOR POSITIONS

2023/05/23 Emergence Survey: Kitchen Gardens



Key

	Surveyor		Nn
	Commuting		Pp
	Emergence		Ppy
	Foraging		Myd

APPENDIX C – 2023-06-07: FLIGHT LINES & SURVEYOR POSITIONS

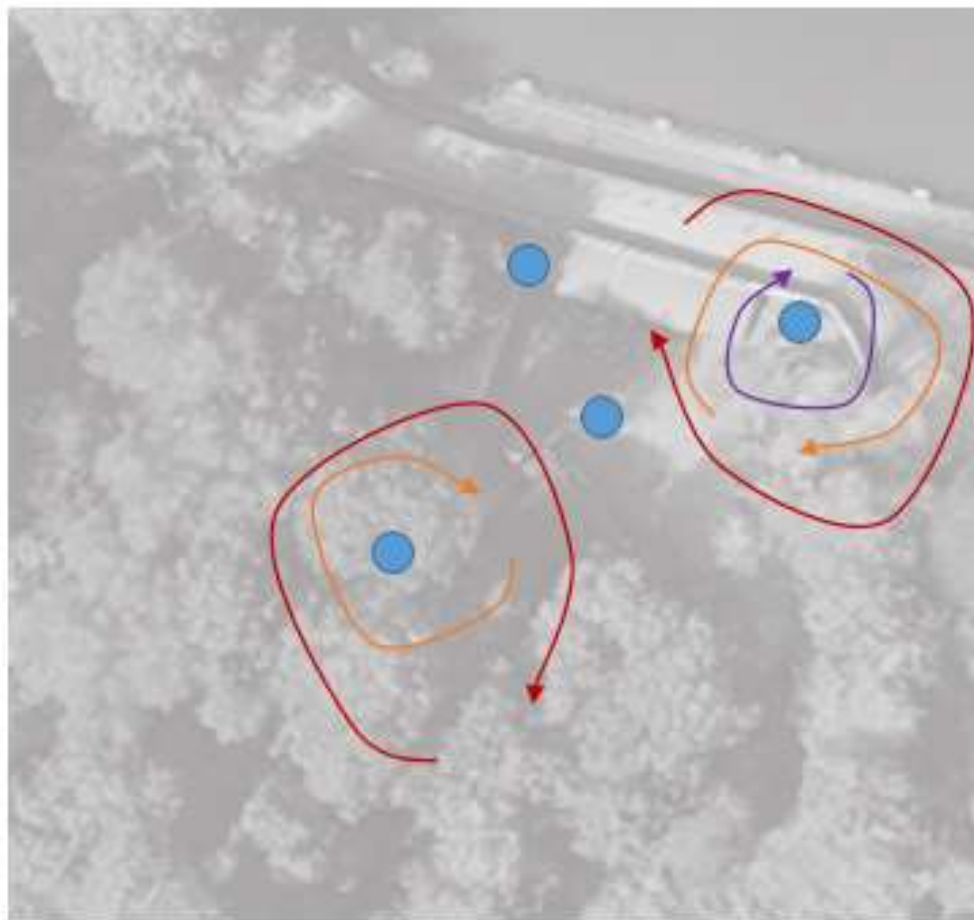
2023/06/07 Emergence Survey: Kitchen Gardens



Key

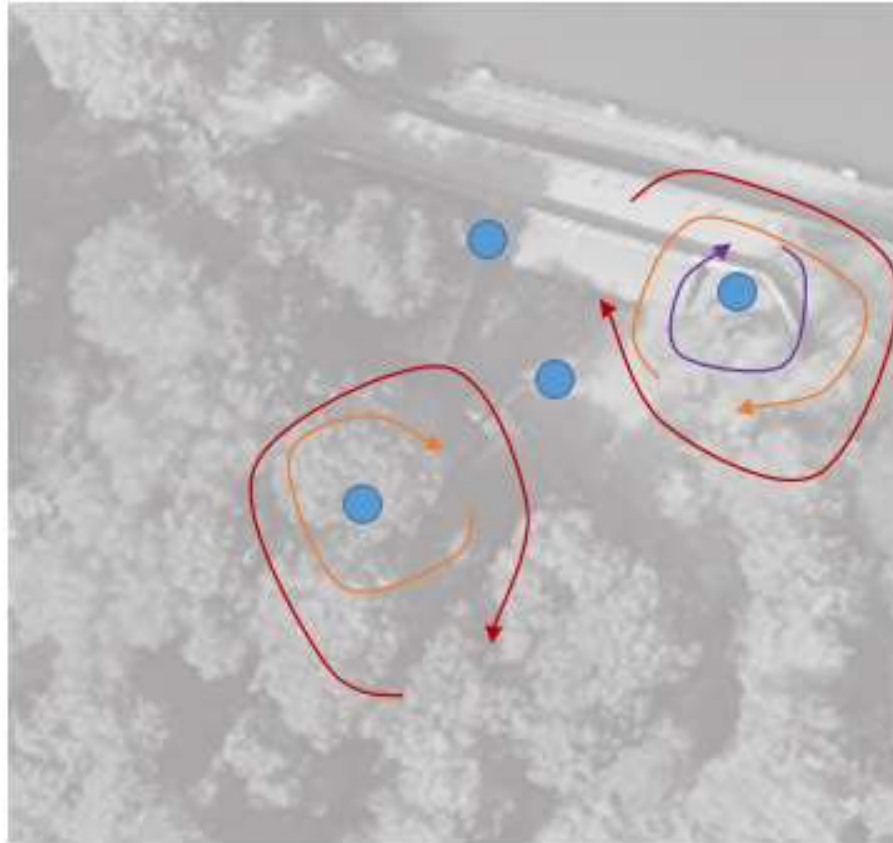
- | | |
|---|---|
|  Surveyor |  Pp |
|  Commuting |  Ppy |
|  Emergence | |
|  Foraging | |

APPENDIX D – 2023-05-03: FLIGHT LINES & SURVEYOR POSITIONS



APPENDIX E – 2023-05-24: FLIGHT LINES & SURVEYOR POSITIONS

2023/05/24 Emergence Survey: Service Yard



Key

	Surveyor		<u>Myd</u>
	Emergence		Pp
	Foraging		<u>Ppy</u>
	Continuing		

APPENDIX F – 2023-05-02 SURVEY SUMMARY TABLE

<u>Dusk Emergence/ Dawn Re-entry Survey Form</u>			
Surveyors:	Rebecca Sharp, Laura Palmer, Megan Price		
Date:	02/05/2023		
Location/ Project:	Gnoll Kitchen Gardens		
Feature/s being surveyed:	Asbestos / Slate Roof Shed; Metal Roof / Brick Shed; Concrete Rendered Metal Roof Extension		
Time Start:	20:25	Time Finish:	22:15
Sunset time:	20:40	Detectors Used:	Echometer Touch; Petterson; SSF2
Temperature Start (°C):	17 Celsius	Temperature Finish (°C):	13.8 Celsius
Cloud Cover (%):	25%	Cloud Cover Finish (%):	–
Humidity Start (%):	70%	Humidity Finish (%):	–
Wind Start:	None	Wind Finish:	None
Precipitation:	None.		
Land Use:	Gnoll Country Park		
Surrounding Land Use:	Parkland / Outdoor Recreation		
Sketch of position: See individual survey forms for further details.			

Surveyor:	Time:	Species:	Activity & Direction:
MP	20:39	Nn	HNS
LEP, RS	20:53	Pp	Commuting from North-west heading South
RS	21:12	Ppy	Commuting from North-west heading South
MP	21:14	Ppy	Commuting from west to east
LEP	21:15	Pp	Commuting West
MP	21:18	Nn	HNS
RS	21:19	Nn	Commuting north-west
MP	21:23	Pp	HNS
MP	21:26	Pp	Commuting west to east
LEP	21:35	Pp	Commuting east
MP	21:37	Nn	Foraging
MP	21:42	Pp / Ppy	Foraging
MP	21:57	Pa	HNS
RS	22:02	Ppy	Commuting south
RS, MP	22:05	Ppy	Foraging
MP	22:15	Pp / Ppy	Foraging

APPENDIX G – 2023-05-23 SURVEY SUMMARY TABLE

<u>Dusk Emergence/ Dawn Re-entry Survey Form</u>			
Surveyors:	Beth Parker, Chloe Angelone, Catherine Turner, Megan Price		
Date:	23/05/2023		
Location/ Project:	Gnoll Kitchen Gardens		
Feature/s being surveyed:	Asbestos / Slate Roof Shed; Metal Roof / Brick Shed; Concrete Rendered Metal Roof Extension		
Time Start:	20:50	Time Finish:	22:40
Sunset time:	21:12	Detectors Used:	Echometer Touch; Petterson; SSF2
Temperature Start (°C):	16	Temperature Finish (°C):	14
Cloud Cover (%):	0%	Cloud Cover Finish (%):	0%
Humidity Start (%):	65%	Humidity Finish (%):	65%
Wind Start:	Still	Wind Finish:	Slight
Precipitation:	None.		
Land Use:	Gnoll Country Park		
Surrounding Land Use:	Parkland / Outdoor Recreation		
Sketch of position: See individual survey forms for further details.			

Surveyor:	Time:	Species:	Activity & Direction:
MF	21:39 - 22:38	Pp / Ppy	Occasional foraging around surveyor - no emergences
LB	21:37 - 22:35	Pp / Ppy	Occasional foraging around surveyor - no emergences
MP	21:14 - 21:50	Pp / Ppy	Occasional foraging around surveyor - no emergences
LB	22:19	Myd	HNS
MF	22:33	Nn	Heard not seen (HNS)

APPENDIX H – 2023-06-07 SURVEY SUMMARY TABLE

<u>Dusk Emergence/ Dawn Re-entry Survey Form</u>			
Surveyors:	Chloe Angelone, Lewis Badham, Megan Price		
Date:	07/06/2023		
Location/ Project:	Gnoll Kitchen Gardens		
Feature/s being surveyed:	Asbestos / Slate Roof Shed; Metal Roof / Brick Shed; Concrete Rendered Metal Roof Extension		
Time Start:	21:20	Time Finish:	22:52
Sunset time:	21:29	Detectors Used:	Echometer Touch; Petterson; SSF2
Temperature Start (°C):	18	Temperature Finish (°C):	16
Cloud Cover (%):	0%	Cloud Cover Finish (%):	0%
Humidity Start (%):	67%	Humidity Finish (%):	70%
Wind Start:	Still	Wind Finish:	Still
Precipitation:	None.		
Land Use:	Gnoll Country Park		
Surrounding Land Use:	Parkland / Outdoor Recreation		
Sketch of position: See individual survey forms for further details.			

Surveyor:	Time:	Species:	Activity & Direction:
MP	21:26 - 22:06	Ppy	Occasional foraging around surveyor - no emergences
CA	21:45 - 22:52	Pp / Ppy	Occasional foraging around surveyor - no emergences
LB	22:06 - 22:50	Pp / Ppy	Occasional foraging around surveyor - no emergences

APPENDIX I – 2023-05-03 SURVEY SUMMARY TABLE

<u>Dusk Emergence/ Dawn Re-entry Survey Form</u>			
Surveyors:	Beth Parker, Chloe Angelone, Catherine Turner, Megan Price		
Date:	03/05/2023		
Location/ Project:	Gnoll Service Yard		
Feature/s being surveyed:	Asbestos / Slate Roof Shed; Metal Roof / Brick Shed; Concrete Rendered Metal Roof Extension		
Time Start:	20:30	Time Finish:	22:15
Sunset time:	20:40	Detectors Used:	Echometer Touch; Petterson; SSF2
Temperature Start (°C):	14	Temperature Finish (°C):	13
Cloud Cover (%):	95%	Cloud Cover Finish (%):	95%
Humidity Start (%):	62%	Humidity Finish (%):	60%
Wind Start:	Slight	Wind Finish:	Slight
Precipitation:	None.		
Land Use:	Gnoll Country Park		
Surrounding Land Use:	Parkland / Outdoor Recreation		
Sketch of position: See individual survey forms for further details.			

Surveyor:	Time:	Species:	Activity & Direction:
MP	20:41	Ppy	HNS
MP	20:44	Pp	Commuted east
CA	20:44 - 21:45	Pp / Ppy	Foraging around surveyor, from beginning to end of survey
BP	20:46 - 21:30	Pp	Occasional foraging
MP	20:54	Pp	HNS
MP	20:55	Ppy	Foraging around service yard
CT	20:55 - 21:46	Pp / Ppy	Foraging around surveyor, from beginning to end of survey
BP	21:10	Ppy	Foraging around surveyor
MP	21:22	Pp / Ppy	Foraging around service yard
MP	21:26	Md	Foraging above wall nearest to pond
CA	21:39	Md	Foraging amongst pipistrelles

APPENDIX J – 2023-05-24 SURVEY SUMMARY TABLE

<u>Dusk Emergence/ Dawn Re-entry Survey Form</u>			
Surveyors:	Beth Parker, Megan Price, Rebecca Sharp		
Date:	24/05/2023		
Location/ Project:	Gnoll Service Yard		
Feature/s being surveyed:	Asbestos / Slate Roof Shed; Metal Roof / Brick Shed; Concrete Rendered Metal Roof Extension		
Time Start:	20:58	Time Finish:	22:40
Sunset time:	21:12	Detectors Used:	Echometer Touch; Petterson; SSF2
Temperature Start (°C):	18	Temperature Finish (°C):	16
Cloud Cover (%):	0%	Cloud Cover Finish (%):	0%
Humidity Start (%):	63%	Humidity Finish (%):	65%
Wind Start:	Still	Wind Finish:	Slight
Precipitation:	None.		
Land Use:	Gnoll Country Park		
Surrounding Land Use:	Parkland / Outdoor Recreation		
Sketch of position: See individual survey forms for further details.			

Surveyor:	Time:	Species:	Activity & Direction:
MP	21:13 - 22:26	Pp / Ppy	Occasional foraging around surveyor - no emergences
MP	22:26	Md	Foraging
BP	21:52 - 22:30	Pp / Ppy	Occasional foraging around surveyor - no emergences