

A Walkover Preliminary Ecological Appraisal
on behalf of

Mr. Aneurin James
for
Land at Celtic Bunkhouse
10 School Road
Troedyrhiw
Merthyr Tydfil
CF48 4JS



Produced by: **Little Wing Ecology CYF (A Not-for-profit Company Limited by Guarantee)**
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Project Overview

Client	Mr. Aneurin James
Site / Job	Land at Celtic Bunkhouse
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1	Draft	17.07.2023	Elizabeth Winstanley	Sam Haycock	Nic Aldridge

Limitations

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The assessments made assume that the site(s) and facilities will continue to be used for their current purpose without significant change. The conclusions and recommendations contained in this Report are based upon information provided by others and upon the assumption that all relevant information has been provided by those parties from whom it has been requested. Information obtained from third parties has not been independently verified by Little Wing Ecology (CYF).

Executive Summary

Background

Little Wing Ecology (CYF) was commissioned to undertake a Walkover Preliminary Ecological Appraisal of a site known as, 'Land at Celtic Bunkhouse, 10 School Road, Troedyrhiw, Merthyr Tydfil, CF48 4JS.' For the purposes of this report this will be referred to as 'the Site.' This survey was undertaken to inform the client of any constraints, and associated planning requirements with regards to habitat and species, and to inform a planning application.

About the Site

The Site measures $\approx 15\text{m} \times \approx 15\text{m}$. The plot constitutes an urban garden, bordered by residential property on two sides. The Site is managed as an amenity space and garden, with a small lawn area, hard surfaces, and shrubbery. The Site is located within the boundary of Troedyrhiw. The plot is accessed off School Road and sits 4km south of Merthyr Tydfil Town Centre and 600m east of the A470. The Afon Tâf lies 300m to the west.

Proposed Development

Planning permission is sought for a pair of semi-detached dwellings.

Summary of Results

No part of the Site contains, or is within, any statutory sites of nature conservation interest, such as a Site of Special Scientific Interest (SSSI), Special Area of Conservation (SAC), National Nature Reserves (NNRs) or Local Nature Reserves (LNRs) etc. Therefore, the proposed scheme of works will not impact on any rare or valuable habitats as the works are due to remain within the Site boundary. Four habitat types were recorded during the survey; amenity grassland (J1.2), introduced shrub (J1.4), bare ground (J4) and scrub (A2.2). No evidence of protected species was identified on-site. There were no buildings, and two mature trees contained no features suitable for roosting bats. Opportunities for hibernating bats on the Site are considered absent. The Site is considered to offer limited potential to support priority species in regard potential refugia/hibernacula and the habitats found on site are of limited ecological value (in their current condition). Outline recommendations have been provided that have taken a cautionary approach to the limited potential offered to priority species and to enhance the biodiversity value of the on-site habitats (post development).

Recommendations

Recommendation 1 (Lighting During Development)

As a European Protected Species, disturbance of bats during foraging/commuting, even if accidental, is to be avoided. It is therefore recommended that the use of artificial lighting during the development of the Site is avoided and/or works to be restricted to daylight hours.

Recommendation 2 (A Bat Friendly Lighting Scheme)

A sensitive lighting scheme is recommended and should be created. The sensitive lighting scheme should follow advice details in 'Bats and Artificial Lighting in the UK: Technical Guidance Note 08/23' (2023) and comprise of:

Recommendation 3 (Hedgehogs) It is recommended that precautions are incorporated during the construction phase. This will be to create provisions for hedgehogs to escape, in the form of creating slopes or the inclusion of ramps at the end of each working day - from all trenches dug into the ground. Additionally, any pipework left on-site that is greater than 150mm in diameter will need to be planked off. Should this information be strictly adhered to, then the development works will not negatively impact this local mammal population.

Recommendation 4 (Nesting Birds)

An inspection by a suitably experienced person is required no more than 24 hours before this process commences. If at any point an active nest is encountered on-site (or evidence of), it is essential that all work is to cease and that a suitably experienced ecologist is contacted for advice.

If a nest of any species is discovered during works, and is active, it must be left undisturbed until all the chicks have fledged. If these features associated with nesting birds are required to be altered during the bird breeding season, then a further inspection by a suitably qualified ecologist is required no more than 24 hours before this process commences. If an active nest is found by a site inspection, an exclusion zone around the nest will be necessary to preserve this feature until the chicks have fledged the nest.

Recommendation 5 (Finger-tip search) A suitably competent ecologist is required to carry out a careful, detailed check of all features likely to be impacted, no more than 24 hours prior to works commencing at any time of year for hedgehogs, other mammals and amphibians/reptiles.

Recommendation 6 (Enhancements Features)

Bats: To support the local bat population and increase roosting opportunities locally; post-development, the inclusion of a F2 Schwegler Bat Box (or similar - Appendix) on the mature ash tree at the south of the site. These to be fitted at a height of $>3\text{m}^*$.

No1 Integrated Eco Bat Box (or similar - Appendix) on south-west gable of each new unit. These to be fitted at a height of >3m*.

Hedgehogs: Enhancement for the local hedgehog population to be provided in the form of; No1 Vivara Pro WoodStone Hedgehog House (or similar) at the southern corner of the Site*. No1 Eco Hedgehog Hole Plate (or similar) to be fitted at the base of each garden fence* to mitigate against defragmentation locally (Appendix).

Birds and Invertebrates: To support the local sparrow population and increase roosting opportunities locally; post-development, the inclusion of; 1SP Schwegler Sparrow Terrace (or similar - Appendix). on the eastern elevation of each new unit. These to be fitted at a height of >3m*. To support invertebrates and provide enhancement for nesting birds on-site; the inclusion of native trees and shrubs should be considered particularly along boundaries. Any areas of planting/lawns should include native wildflowers. Habitat/nest boxes should also be incorporated for these species (Appendix). *The location of these enhancement features to be identified under the direction of a suitably qualified ecologist.

This Executive Summary is intended to provide an overview of the assessment of the site based on information received by Little Wing Ecology (CYF) at the time of production. This Executive Summary should be read in conjunction with the full report.



CONTENTS

	Page
Section One: Introduction	1
Section Two: The Survey Method	3
Section Three: Results of the Desktop Survey	4
Section Four: Results of the Field survey	5
Section Five: Impact Assessment & Conclusions	6
Section Six: Recommendations & Enhancements	8
Section Seven: Additional Information	8
References and Bibliography	9
List of Figures	
Figure 1 Site Location	1
Figure 2 A Site Plan	2
Figure 3 Phase 1 Map	5
Appendices	
A. Site Photographs	
B. Target Notes	
C. Meet the Team	
D. Field Survey Details – Weather, Time & Temperature	
E. Enhancement Features	
F. Species List	

SECTION ONE: INTRODUCTION

1.1 Background

- 1.1.2 Little Wing Ecology (CYF) was commissioned to undertake a Walkover Preliminary Ecological Appraisal of a site known as, 'Land at Celtic Bunkhouse, 10 School Road, Troedyrhiw, Merthyr Tydfil, CF48 4JS.' For the purposes of this report this will be referred to as 'the Site.' This survey was undertaken to inform the client of any constraints, and associated planning requirements with regards to habitat and species, and to inform a planning application. Grid reference: SO 07187 02456 (Figure 1).
- 1.1.3 This report contains the results from a desktop study and field survey. Following these investigations an assessment of the likely impact of proposed works on protected and priority species at the Site was carried out. This report has been prepared with recommendations for enhancement features to improve opportunities for local species post-development.



1.2 Proposed Works

- 1.2.1 Planning permission is sought for a pair of semi-detached dwellings.

1.3 Site Description

- 1.3.1 The Site measures $\approx 15\text{m} \times \approx 15\text{m}$. The plot constitutes an urban garden, bordered by residential property on two sides. The Site is managed as an amenity space and garden, with a small lawn area, hard surfaces, and shrubbery. The Site is located within the boundary of Troedyrhiw. The plot is accessed off School Road and sits 4km south of Merthyr Tydfil Town Centre and 600m east of the A470. The Afon Tâf lies 300m to the west.
- 1.3.2 Habitat in the immediate vicinity of the plot is mainly residential, habitat is comprised of other buildings and made surfaces such as roads, and pavements. The plot is surrounded by roads: School Road,

Tyntaldwyn Road, Chapel Street and the A4054. To the east beyond Chapel Street, there is an area of woodland which leads to the slopes of Mynydd Cilfach Y Encil. Near continuous urban development extends to the north, east and south. Artificial lighting impacts all boundaries of the Site.

- 1.3.3 To the west and east (beyond the settlement boundaries), open countryside continues for several kilometres (running north south). The Bannau Brycheiniog National Park is located ≈9km north of the Site and dominates the landscape to the north.



1.4 Policy and Legislation

- 1.4.1 The framework for this protection is provided within several pieces of legislation from the Government of Wales and the UK Government. Furthermore, several pieces of legislation exist that are specifically relevant to individual species (refer to the appendix). These include:
- Conservation of Habitats and Species Regulations 2010.
 - The Conservation of Habitats and Species Regulations (2017) - as amended.
 - The Environment (Wales) Act 2016.
 - The Wildlife and Countryside Act (1981) - as amended.
 - Natural Environment and Rural Communities Act 2006.
 - Conservation of Habitats and Species Regulations 2017.

1.5 Survey Aims and Objectives

- 1.5.1 Considering the legal framework and local planning requirements, the objectives of this survey were to:
- Consider the Site's position in relation to local habitat features, connectivity, and the wider environment.
 - Establish any potential direct or indirect effects upon the Site by the proposed development.
 - Provide an informed overview of the habitat(s) on the Site.

- Identify the potential use of the Site by protected/priority species through the identification of supporting habitat features, field signs, or other relevant information.
- Consider if there will be impacts on protected/priority species from the proposed works.
- Consider if protected/priority species are present which might be affected by the proposed development.
- Gather sufficient information to be able to make appropriate recommendations, inform mitigation and further species-specific survey (if necessary).
- Provide solutions to enhance the development by suggesting features to create a net-gain for biodiversity.

SECTION TWO: THE SURVEY METHOD

2.1 Field Survey

- 2.1.1 A habitat assessment was made using standard phase 1 habitat techniques as the guiding principle. The surveyor(s) walked a rough zig-zag style pattern, making notes systematically and methodically of the habitat and conditions of the Site. This was then followed by a circuit/loop of the relevant site boundaries with additional notes being made where necessary. Photographs were taken of the Site's boundaries along with areas of interest and areas that characterised the habitat present on Site.
- 2.1.2 During the survey, the potential for protected species was assessed and any signs and/or evidence of its use was noted. This included, but was not limited to:
- Nesting potential for birds at the time of the survey, with the surveyor(s) looking for signs of bird activity, nests, nest building, feeding at nest sites, and evidence of collections of bird droppings, feathers, or any other indications of use by birds.
 - Features such as piles of rubble, banks or tree roots that could be used as refugia or hibernacula for reptiles and hedgehogs.
 - Water bodies that could provide opportunities for amphibians and/or reptiles.
 - Physical signs of other relevant species (if seen), such as droppings and/or latrines, footprints, hair, food remains or foraging marks.
 - Features that could be utilised by bats e.g., hollows in trees, peeling bark etc.
 - Any flora or fauna that may be endangered or protected under the Countryside Act.
 - Identify potential commuting and foraging corridors, and suitable foraging sites. This enables the suitability of the Site for bats to be determined.

2.2 Desktop survey

- 2.2.1 A review of aerial photography was undertaken to assess the provision of suitable foraging and commuting habitat within proximity to the Site. This information was used in combination with a review of statutory designated sites, via the MAGIC website, including Special Areas of Conservation (SAC) and Sites of Special Scientific Interest (SSSI), to help in confirming the presence of protected and priority species locally.

N.B. Due to the nature and proximity of the Site to local habitat features, care was taken to identify foraging and commuting potential and identify connectivity with the surrounding habitat.

2.3 Bat Inspection

- 2.3.1 A nest and roost assessment survey was carried out with the purpose of identifying potential use of the Site by protected and priority species and inform both local habitat quality and enhancement features for the Site. Any features deemed to provide potential for roosting bats and nesting birds were inspected including any buildings and mature trees. Any inspections to be carried out by a suitable experienced and qualified bat worker.

- 2.3.2 Due to the nature of this development, consideration was also made for any impacts on the commuting and foraging behaviour of bats. The results of this assessment were used to categorise the Site's potential to support roosting and hibernating bats.

2.4 Constraints

- 2.4.1 During the survey the western section of the plot was inaccessible. A high wooden fence restricted the view of this area. Effort was made to identify habitat type as accurately as possible.

SECTION THREE: RESULTS OF THE SURVEY

3.1 Designated Areas

- 3.1.1 No part of the Site contains, or is within, any statutory sites of nature conservation interest, such as a Site of Special Scientific Interest (SSSI), Special Area of Conservation (SAC), National Nature Reserves (NNRs) or Local Nature Reserves (LNRs) etc. Therefore, the proposed scheme of works will not impact on any rare or valuable habitats as the works are due to remain within the Site boundary.

3.2 The Field Survey

- 3.2.1 A habitat and site assessment was carried out on 25th August 2023 by Elizabeth Winstanley. A record of the survey including weather conditions is presented in the Appendix.

3.3 Phase 1 Habitat Survey

- 3.3.1 A habitat map and target notes describing the habitats recorded on site are provided in the Appendix. Four habitat types were recorded during the survey; amenity grassland (J1.2), introduced shrub (J1.4), bare ground (J4) and scrub (A2.2). A species list is presented in the appendix.
- 3.3.2 **Amenity Grassland (J2.1)** - The Site contains an area of species poor grassland, currently a managed lawn. These areas are short sward and characterised with species such as dandelion (*Taraxacum sp.*), ragwort (*Jacobaea vulgaris*) and creeping buttercup (*Ranunculus repens*).
- 3.3.3 **Introduced Shrub (J1.4)** - Adjacent to the lawn on the southern boundary is a small area of *Spirea japonica* and *Hypericum calycinum*.
- 3.3.4 **Bare Ground (J4)** - There are two main areas of bare ground on the Site. One of which is a hard standing that extends from the rear door of the property into the centre of the plot, this has sections of a soft rubber asphalt covering and is currently used as a seating area. The other area is just within the entry gate and is made up of soil, stone, rubble and hardcore.
- 3.3.5 **Scrub (A2.2)** - Along the northern boundary is an area of scrub. This consists of bramble (*Rubus fruticosus*), small sycamore saplings (*Acer pseudoplatanus*), small cherry trees (*Prunus avium*) and ivy (*Hedera helix*).

3.4 Protected Species

- 3.4.1 No evidence of protected species was identified on-site. There were no buildings and mature trees contained no features suitable for roosting bats. Opportunities for hibernating bats on the Site are considered nil.

3.5 Other Species

- 3.5.1 A flock of house sparrow (*Passer domesticus*) were observed during the habitat survey, foraging along the northern boundary amongst the scrub. No evidence of protected species was recorded, although all areas

of scrub have the potential for use by nesting birds. The Site has very little potential providing hibernacula/refugia for reptiles, amphibians, invertebrates or mammals.



SECTION FOUR: DISCUSSION & CONCLUSIONS

- 4.1 No part of the Site contains, or is within, any statutory sites of nature conservation interest, such as a Site of Special Scientific Interest (SSSI), Special Area of Conservation (SAC), National Nature Reserves (NNRs) or Local Nature Reserves (LNRs) etc. Therefore, the proposed scheme of works will not impact on any rare or valuable habitats as the works are due to remain within the Site boundary.
- 4.2 The Site is a small area of land located within the boundaries of a residential property and is currently used as an amenity space/garden. Five habitat types were recorded during the survey, these comprised of amenity grassland (J1.2), scattered trees (A3.1), introduced shrub (J1.4), scrub (A2.1) and bare ground (J4). The Site is currently lacking in biodiversity (this could be improved by incorporating enhancement features - refer to section five). Scrub is located along the northern boundary which offers limited potential as a linear features or foraging corridor for bats. These also provide potential nesting sites for birds, cover for hedgehogs and other mammals. There are areas of hard surfaces such as hardstanding and paths and an area of mown lawn. There are no garden buildings on site.
- 4.3 The area that currently holds the most ecological value is found at the northern boundary of the Site, an area of scrub with a large sycamore tree (*Acer pseudoplatanus*). During the survey, house sparrows (*Passer domesticus*) were observed foraging in this feature. It currently provides limited potential for mammals, reptiles, amphibians and invertebrates; however, this can be enhanced post development by clearing rubbish from within the area and planting a native hedgerow. The Site is unsuitable for breeding animals and lacks connectivity to suitable habitat.

- 4.4 The area of lawn is managed as short sward and is species poor. However, this can easily be enhanced post development, if lawn areas are sown with an appropriate wildflower mix and managed more sympathetically for wildlife, with a less frequent mowing regime.
- 4.5 The introduced shrubs on site provide little benefit to wildlife in comparison to native shrub and small tree species. Consideration should be given to removing non-native shrubs during winter and replacing these with native species.
- 4.6 No evidence of protected species was recorded during the survey. To further enhance the Site for bats, recommendations will be made to installing bat boxes onto buildings, providing access behind barge boards, within soffits or incorporating bat access tiles into the roof of the new development.
- 4.7 The Site is considered to offer limited potential to support priority species in regard potential refugia/hibernacula and the majority of habitats found on site are of limited ecological value (in their current condition). The Site could be enhanced to support priority species, including mammals such as Hedgehog, Bats, invertebrates, birds and reptiles. Refer to section five.
- 4.8 Outline recommendations have been provided that have taken a cautionary approach to the limited potential offered to priority species and to enhance the biodiversity value of the on-site habitats (post development).

SECTION FIVE: RECOMMENDATIONS & ENHANCEMENTS

Based on the results of this report the following recommendations have been made. These recommendations include enhancement features. These enhancement features are designed to support the Local Authority's commitment to provide, 'net gain' for biodiversity on-site, or off-site (if the proposed development cannot accommodate such requirements *in-situ*).

Recommendation 1 (Lighting During Development) As a European Protected Species, disturbance of bats during foraging/commuting, even if accidental, is to be avoided. It is therefore recommended that the use of artificial lighting during the development of the Site is avoided and/or works to be restricted to daylight hours.

Recommendation 2 (A Bat Friendly Lighting Scheme)

A Bat Conservation Trust study of the impacts of lighting on bats has considered the increased risk of bats being preyed on in well illuminated areas. Also, lighting was found to be harmful when present near woodland edges and hedgerows. Inappropriate lighting can result in the isolation of bat colonies and can affect insect behaviour which then adversely affects bats.

As additional external lighting is to be installed on the Site (as part of the proposed development), this must be limited, specifically along the southern elevation, and its use restricted to the safe access to and from the dwelling. Light fixtures should be directed downwards with additional canopy protection and must be on a passive infrared (PIR) sensor to restrict light usage to the minimum required.

A sensitive lighting scheme is recommended and should be created. The sensitive lighting scheme should follow advice details in 'Bats and Artificial Lighting in the UK: Technical Guidance Note 08/23' (2023) and comprise of:

Light fixtures, filaments, light spill and artificial light must be directed away from bat roost entrances, both existing and those to be created as part of the mitigation.

- Luminaries are to be LED only, due to their sharp cut-off, lower intensity, good colour rendition and dimming capability Luminaires should have a warm white spectrum (ideally <2700 Kelvins), reducing the blue light component and increasing the red-light component.
- Luminaries should feature peak wavelengths high the 550nm to avoid the component of light most disturbing to bats.

- Heights of fixtures should be carefully considered to minimise light spill. Only luminaries with an upward light ratio of 0% and with good optical control should be used.
- Luminaries must always be mounted on the horizontal, i.e., no upward tilt.
- Any external security lighting should be set on motion sensors and short (1 min) timers.
- As a last resort, accessories such as baffles, hoods or louvres must also be used, and directed away from any natural features and must not encroach outside the Site boundaries, particularly the surrounding trees, hedgerows and other vegetation in the landscape.

Recommendation 3 (Hedgehogs) It is recommended that precautions are incorporated during the construction phase. This will be to create provisions for hedgehogs to escape, in the form of creating slopes or the inclusion of ramps at the end of each working day - from all trenches dug into the ground. Additionally, any pipework left on-site that is greater than 150mm in diameter will need to be planked off. Should this information be strictly adhered to, then the development works will not negatively impact this local mammal population.

Recommendation 4 (Nesting Birds) All nesting birds, their chicks' eggs and active nests are protected under the Wildlife and Countryside Act 1981 (as amended). This would apply if any works were to impact the shrubbery on site, such as Cherry Laurel (*Prunus laurocerasus*) along the boundary of the Site.

An inspection by a suitably experienced person is required no more than 24 hours before this process commences. If at any point an active nest is encountered on-site (or evidence of), it is essential that all work is to cease and that a suitably experienced ecologist is contacted for advice.

If a nest of any species is discovered during works, and is active, it must be left undisturbed until all the chicks have fledged. If these features associated with nesting birds are required to be altered during the bird breeding season, then a further inspection by a suitably qualified ecologist is required no more than 24 hours before this process commences. If an active nest is found by a site inspection, an exclusion zone around the nest will be necessary to preserve this feature until the chicks have fledged the nest.

These measures will allow the development to conform to current protective legislation as laid out in the Wildlife and Countryside Act 1981 (plus amendments).

Recommendation 5 (Finger-tip search) A suitably experienced ecologist is required to carry out a careful, detailed check of all features likely to be impacted, no more than 24 hours prior to works commencing at any time of year for hedgehogs, other mammals and amphibians/reptiles.

Recommendation 6 (Enhancement Features) Under the Environment (Wales) Act 2016, public authorities (including local councils and the National Parks), 'must seek to maintain and enhance biodiversity in the exercise of functions; in relation to Wales, and in so doing promote the resilience of ecosystems, so far as consistent with the proper exercise of those functions.' This replaces the section 40 duty in the Natural Environment and Rural Communities Act 2006 (NERC Act 2006), in relation to Wales, which states that; 'All public authorities have a statutory duty to conserve biodiversity in all of their functions.'

Local authorities are legally required to make efforts to protect and enhance wildlife and its habitat and this is executed, in part, through the requirement of an ecological assessment for planned development sites and, therefore, we recommend the following principles of design should be followed.

Bats: To support the local bat population and increase roosting opportunities locally; post-development, the inclusion of a F2 Schwegler Bat Box (or similar - Appendix) on the mature ash tree at the south of the site. These to be fitted at a height of >3m*. No1 Integrated Eco Bat Box (or similar - Appendix) on south-west gable of each new unit. These to be fitted at a height of >3m*.

Hedgehogs: Enhancement for the local hedgehog population to be provided in the form of; No1 Vivara Pro WoodStone Hedgehog House (or similar) at the southern corner of the Site*. No1 Eco Hedgehog Hole Plate (or similar) to be fitted at the base of each garden fence* to mitigate against defragmentation locally (Appendix).

Birds and Invertebrates: To support the local sparrow population and increase roosting opportunities locally; post-development, the inclusion of; 1SP Schwegler Sparrow Terrace (or similar - Appendix). on the eastern elevation of each new unit. These to be fitted at a height of >3m*. To support invertebrates and provide enhancement for nesting birds on-site; the inclusion of native trees and shrubs should be considered particularly along boundaries. Any areas of planting/lawns should include native wildflowers. Habitat/nest boxes should also be incorporated for these species (Appendix).

*The location of these enhancement features to be identified under the direction of a suitably qualified ecologist.

SECTION SEVEN: ADDITIONAL INFORMATION

7.1 ENCOUNTERING A PROTECTED SPECIES DURING WORKS

7.1.1 If at any point during works a protected species is encountered on-site, it is essential that all work is to cease and that a suitably experienced ecologist is contacted for advice.

7.2 EXPIRATION OF THIS REPORT

7.2.1 Should works not start within two years (i.e., June 2025) further survey and assessment will be necessary to qualify the results of this report and its recommendations.

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Appendix A: Site Photographs

Habitat Types	Photography
Scrub (A2.1)	
Amenity Grassland (J1.2)	
Bare Ground (J4)	
Introduced Shrub (J1.4)	

Appendix B: Target Notes

Photographs	Description
	Target note 1: Broadleaved Tree

Appendix C: Meet the Team

Nic Aldridge (NA) is an ecologist with Little Wing Ecology and the author of this report. He is a licensed bat worker with over 20 years' experience in education and conservation and over five years' experience surveying built-structures, open habitats, and woodlands for bats. Following a degree in Botany and Zoology, Nic completed an MSc in Wildlife Management, Conservation and Control, at the University of Reading. He has practical experience in field-based research with a focus on invertebrate and vegetation diversity and producing phase 1 habitat surveys and habitat management plans. He has carried out the ringing of Daubenton's bats as part of a multi-year project on the species and has undertaken monitoring work on several important lesser horseshoe bat roosts. He has attended courses with the Bat Conservation Trust to improve his knowledge and skills and has led voluntary projects to develop habitats and collect species data. Nic founded Little Wing Ecology in 2021 as a social enterprise, to use the skills and expertise of an ecological consultancy to work with the local community, support local conservation projects and provide training and education for the next generation of ecologists.

Elizabeth Winstanley (LW) is a Nature Recovery Officer with the large Conservation Organisation and a wildlife surveyor with Little Wing Ecology. She has over seven years' experience working in practical conservation. Following a degree in Outdoor Education, Liz volunteered with a Wildlife Trust before taking on her current responsibilities. She has held her current position since 2015. During this time, Liz has undertaken numerous surveys and monitoring projects, including work on butterfly transects, phase 1 habitat surveys, reptile and amphibian surveys, upland monitoring, BTO bird box round, dormouse training and recording, bumblebee conservation – bee walks and many more. Currently Liz is responsible for the management of seven Nature Reserves including four SSSI 's. Liz has also attended several training sessions to develop her knowledge, understanding and practical skills in bat monitoring and bat ecology.

Appendix D: Field Survey Details – Weather, Time & Temperature

Date	Survey Type	Surveyor	Variable	Start	End
25/08/23	Site walkover Preliminary Ecological Appraisal	E. Winstanley	Survey Times (BST)	09:45	11:05
			Temperature (°C)	15	15
			Cloud Cover (Oktas)	90%	90%
			Wind (Beaufort scale)	F1	F1
			Humidity	40	40
			Precipitation (%)	0	0

Appendix E: Enhancement Features

Product	Information
	<u>F2 Schwegler Bat Box</u> NHBS Accessed 29/03/2023. Available at: www.nhbs.com N.B. this is given as an example only. Many other suitable products are available.
	<u>Integrated Eco Bat Box</u> The Nestbox Company Accessed 20/11/2022. Available at: www.nestbox.co.uk N.B. this is given as an example only. Many other suitable products are available.
	<u>1SP Schwegler Sparrow Terrace</u> NHBS Accessed 20/11/2022. Available at: www.nhbs.com N.B. this is given as an example only. Many other suitable products are available.
	<u>Vivara Pro WoodStone Hedgehog House</u> NHBS Accessed 29/03/2023. Available at: www.nhbs.com N.B. this is given as an example only. Many other suitable products are available.



Eco Hedgehog Hole Plate

Available from: The NestBox Company*

Accessed on 29/03/2023.

Available at: <https://www.nestbox.co.uk/>

N.B. this is given as an example only. Many other suitable products are available.

Common Name	Scientific Name	Percentage (%)
Blackthorn	<i>Prunus spinosa</i>	25%
Buckthorn	<i>Rhamnus cathartica</i>	2%
Dogrose	<i>Rosa canina</i>	2%
Field maple	<i>Acer campestre</i>	15%
Hawthorn	<i>Crataegus monogyna</i>	50%
Holly	<i>Ilex aquifolium</i>	2%
Wild Privet	<i>Ligustrum vulgare</i>	2%

Table 6.2: Traditional Hedgerow Mix

Common Name	Scientific Name
Dogwood	<i>Cornus sanguinea</i>
Elder	<i>Sambucus nigra</i>
Hazel	<i>Corylus avellana</i>
Honeysuckle	<i>Lonicera sp.</i>

More information: Hedge link <https://hedgelink.org.uk/hedgerows/hedgerow-biodiversity/>

Appendix F: Species List

Common Name	Scientific name	Bare Ground	Amenity Grassland	Scrub	Introduced Shrub	Scattered Trees
Ash (European)	<i>Fraxinus excelsior</i>			X		
Bittercress	<i>Cardamine hirsuta</i>	X	X			
Bramble	<i>Rubus fruticosus</i>			X		
Buttercup (Creeping)	<i>Ranunculus repens</i>		X	X		
Cherry spp.,	<i>Prunus sp.</i>			X		
Cleavers (Common)	<i>Galium aparine</i>	X		X		
Dandelion spp.,	<i>Taraxacum sp.</i>	X	X			
Hedge Mustard	<i>Sisymbrium officinale</i>	X	X			
Herb Robert	<i>Geranium robertianum</i>	X	X	X		
Ivy	<i>Hedera Helix</i>			X		
Oxeye Daisy	<i>Leucanthemum vulgare</i>		X			
Ragwort sp.	<i>Senecio spp.</i>	X	X			
Ribwort Plantain	<i>Plantago lanceolata</i>		X			
Rose of Sharon	<i>Hypericum calycinum</i>				X	
Spiraea spp.,	<i>Spiraea</i>				X	
Strawberry spp.,	<i>Rosaceae sp.</i>				X	
Sycamore	<i>Acer pseudoplatanus</i>			X		X
Willowherb (Broad-leaved)	<i>Epilobium montanum</i>	X	X	X		
Willowherb (Rosebay)	<i>Chamaenerion angustifolium</i>			X		
Wood Avens	<i>Geum Urbanum</i>			X		

*X = Present at this location



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About Us

Little Wing Ecology is a not-for-profit ecological consultancy based in the South Wales Valleys. Specializing in bat surveys for housing developments, but providing a wide range of ecological services, it provides appropriate expertise on behalf of a range of clients.

We are a small ecological consultancy dedicated to providing an easy-to-use and jargon-free service. We produce the following products:

- Preliminary Ecological Appraisal
- Preliminary Roost Assessment
- Bat Surveys
- Mitigation Planning
- European Protected Species License Applications
- On-site Services to Support Planning Applications and Development

As a Consultancy, we use our experience, expertise, and love of wildlife to provide an easy to access and pragmatic service, that upholds the highest standards of conservation.

As a Not-for-Profit Social Enterprise, we reinvest our profits. We work with valleys communities, conservation groups, local authorities, and other groups to support these three key areas:

A. Helping Nature

Developing and supporting habitat gain in the valleys through:

- Habitat improvement.
- Developing the built environment for the benefit of wildlife.
- Long-term monitoring projects for wildlife populations in the valleys.

B. Working with People

- Providing employment, training and voluntary opportunities for the local community and young people to help them build their skills, develop a stronger relationship with nature and build confidence in themselves.

C. Supporting Communities

- Reinvesting in nature and people, locally.
- Supporting education within communities to promote a positive relationship between people and wildlife.
- Providing pro-bono surveys for worthwhile causes.

Adroddiad Arolwg gan



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