

Land at Victoria
Street

**Pontycymer
Bridgend
CF32 8NW**



An Ecological Survey
Report by:



On Behalf Of:



May 2021

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Status	Name	Position	Date
Author	Phoebe Williams BA (Hons) Student CIEEM	Assistant Ecologist	17th May 2021
Reviewer	Phillip L. Morgan CEnv MCIEEM	Assistant Principal Ecologist	19th May 2021

Directors: Diane Morgan BA (Hons) ACIEEM Carola Hoskins BA (Hons) MSc ACIEEM Robert Morgan
Registered Office: Suite 131 – 136, Plas y Ffynnon, Cambrian Way, Brecon LD3 7HP
Web Site: www.justmammals.co.uk **Email:** maja@justmammals.co.uk **Telephone:** 01874 623616
Registered In: Cardiff **Registration Number:** 13099914 **VAT No:** 821 6376 35

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1 Executive Summary

- 1.1 A 0.75 hectare area of land adjacent Victoria Street, Pontycymer is a former coal mine within the village. Situated within the Bridgend County Borough, Kyle Spiller Ltd are currently exploring options for developing the land for tourism or residential use; although no formal plan had been settled at the time of writing this report.
- 1.2 To inform the feasibility study a Preliminary Ecological Appraisal (PEA) of the site was undertaken in January 2021. This included an extended Phase-1 habitat survey of the site, comprising an assessment of habitats and their suitability for protected species. Following that assessment, recommendations were made for the completion of a reptile survey at the site.
- 1.3 The site is a disused brownfield site, which was formerly occupied by a number of buildings associated with the workings of the Ffaldau Colliery. Most of the site consists of early successional vegetation growth with hardstanding and fragmented areas of coarse grassland. None of these on-site habitats represent notable or Section 7 habitats, and are all locally common and nationally widespread. None of these habitats therefore represent a significant constraint to any future on-site development.
- 1.4 Reptile survey was undertaken in suitable weather conditions in spring 2021, and following recognised guidelines. A total of 20 refugia were distributed on site and checked on a total of seven occasions. In total of 8 slow-worms were found under the refugia during the survey, with a maximum count of 2 animals found on a single visit. With reference to the Froglife reptile survey advice sheet 10, the site is assessed to support a 'low' population.
- 1.5 Slow-worm is afforded legal protection under the Wildlife and Countryside Act 1981 (as amended); it is also a UK Biodiversity Action Plan species and included on the Environment (Wales) Act 2016, Section 7. The extent of the proposed works will result in disturbance and potential harm to reptiles. It will therefore be necessary to design and create mitigation habitat for the animals, and this must be included in the planning proposals. Furthermore, a reptile fence must be installed and an Ecological Method Statement written with avoidance measures employed in order to ensure that no animals are killed or harmed. Recommendations for mitigation and enhancement are also made for the site, retaining and providing additional features and habitats for reptiles.
- 1.6 As per the initial Preliminary Ecological Appraisal report dated March 2021. The steep-sloping area of semi-natural broadleaved woodland to the immediate west of the site, as well as the area of marshy grassland to the south, are possibly Section 7 habitats. These habitats are more ecologically valuable than any of the on-site habitats and represent a more important constraint to development because of their sensitivity to indirect impacts. Typical construction-phase impacts must be avoided by the design and implementation of a robust Construction and Environmental Management Plan (CEMP).
- 1.7 The large retaining wall along the eastern boundary has, at least, a 'medium' level of suitability for day-roosting bats in accordance with best practice guidelines. However, since no follow-up night-time surveys have been completed, the presence of any bat roosts is currently unknown. It is proposed that the wall will be retained, protected and safeguarded throughout the construction and operation phases of a future development, therefore further survey work for bats is not considered necessary at this time. If plans change, and the impacts to the wall cannot be avoided, further survey work will be required. Recommendations are provided regarding how a future layout may avoid direct and indirect impacts completely.

2 Introduction

- 2.1 An area of land, adjacent Victoria Street, is a brownfield site located at a former coal mine. The site is approximately 0.75 hectares (ha) in size and heavily overgrown with scrub. It is situated near the centre of Pontycymer village, in the Garw Valley area of Bridgend County Borough. The site's centre has a National Grid Reference (NGR) of SS 90300 91743, and lies at an altitude of approximately 161m Above Ordnance Datum (AOD).
- 2.2 Kyle Spiller Ltd are currently exploring options for developing the land for tourism or residential use. Bridgend County Borough provided a pre-application consultation in December 2020 in response to a concept layout for 22 holiday chalets with associated parking and turning facilities. However, other options are also being considered and no formal plans have been agreed at the time of writing

this report. The most recent concept at the time of writing this report, reflected use of the site for residential purposes.

- 2.3 Just Mammals Limited were commissioned to complete a Preliminary Ecological Appraisal (PEA) as part of the scheme's ongoing feasibility study. This included an extended Phase-1 habitat survey of the site during the daytime on 8th January 2021 in accordance with current guidelines (CIEEM 2017). This comprised an assessment of habitats and their suitability for protected species. This assessment highlighted the need for a reptile survey, due to the suitability of the site.
- 2.4 This report details the findings of the reptile survey and it make recommendations concerning the protection of the reptiles with mitigation and enhancement measures. It must be read in conjunction with the Preliminary Ecological Appraisal dated March 2021.

3 Survey Team Experience

- 3.1 Lead surveyor and author of this report is Phoebe Williams, assisted by Carola Hoskins. Additional survey staff assisted with the survey effort, as detailed in Table 1 below.

Table 1: Survey Team Experience

Name/Position	Experience
Diane Morgan BA (Hons) ACIEEM Senior Ecologist	Licensed bat ecologist of over 25 years with considerable experience of surveying built structures for bats. She has carried out ringing of Daubenton's bat as part of a multi-year project on the species and has undertaken monitoring work on several important lesser horseshoe bat roosts and assisted in radio tracking projects on the same species. She also holds a licence for ringing greater horseshoe. Prior to her work as a consultant ecologist, Diane was the Director of Brecknock Wildlife Trust and was involved in a wide range of nature conservation work including species and habitat protection and conservation land management. Other areas of interest include otter, dormice, water voles, reptiles, amphibians, fungi and crayfish. Diane is a Senior Ecologist with Just Mammals Limited, and an Associate Member of the Chartered Institute for Ecology and Environmental Management
Phoebe Williams BA (Hons) Student CIEEM Assistant Ecologist	A Geography graduate from the University of Exeter, and a former trainee at Gwent Wildlife Trust she has completed a Natural Talent trainee programme, studying Hemiptera at the National Museum of Wales. Practical experience includes survey work for dormice, botany, newts, reptiles, and invertebrates. She has also carried out practical habitat management work whilst volunteering for Gwent Wildlife Trust. Phoebe is undertaking a MSc in Wildlife and Conservation Management at the University of South Wales and is an Assistant Ecologist with Just Mammals Limited
Maja Hudej BA (Hons) MSc QCIEEM Trainee Ecologist	Maja is an MSc graduate in Wildlife and Conservation Management and is a Qualifying Member of CIEEM. She is a Trainee Ecologist with Just Mammals Limited

4 Survey Methodology

- 4.1 In order to ascertain reptile presence, or likely absence on the site, 20 refugia were distributed across the site on Wednesday the 3rd March 2021. Refugia comprised a combination of corrugated metal sheeting (also known as tins), and large pieces of roofing felt, which were scattered around suitable habitats on site. Refugia varied in size between 0.5m x 0.75m – 1.0m x 0.75m. Metal sheets were painted black on one side to maximise solar gain. Pieces of roofing felt, sized between 0.5m x 0.75m, were also used as a refuge.
- 4.2 Refugia were distributed across the site all around the site in areas of suitable habitats, complying with national survey guidelines (*Froglife Advice Sheet 10*). All sheets were numbered, and all were mapped on a site location plan (see Appendix I).
- 4.3 After placement, refugia were left in situ for more than 14 days without disturbance, in order to give reptiles the opportunity to find them. Following this bedding-in period, seven monitoring visits were undertaken throughout March and April 2021. These were, where possible, undertaken between 8:30 hours and 11:00 hours, and between 16:00 hours and 18:30 hours, as well as at temperatures between 9°C and 18°C. Where the two parameters could not be achieved at the same time, precedence was given to survey being undertaken at the right temperatures. During each survey occasion, each refuge was carefully lifted to check specifically for the presence of reptiles. A scan of the site in general was also undertaken. Photographs and notes were taken of any reptiles found. Any other animal found under the refugia was also noted in a field notebook.

5 Site Description

- 5.1 The site is located adjacent Victoria Street, near the centre of Pontycymer, in the Garw Valley. The site is a disused brownfield site, but was formerly occupied by a number of buildings associated

with the workings of the Ffaldau Colliery. Most of its 0.75 ha area comprises extensive overgrown scrub with a smaller area of hardstanding at its northern entrance off Victoria Street.

- 5.2 Its southern and western boundaries are defined by steeply sloping embankments, which separate the site from an extensive area of grassland, formerly part of the main colliery workings; which in turn has been the subject of a land reclamation scheme. A rugby club and doctor's surgery are located immediately to the north of the site. The eastern boundary of the site is defined by a large retaining stone wall beneath Victoria Street, a primarily residential part of the village. Pontycymer, is located in a highly rural location surrounded by grassy valley slopes, watercourses and forests.

6 Survey Constraints

- 6.1 The entire site was accessible for survey and access to the site was possible at all times. Disturbance was noted on site, five of the tins were missing during the first visit and some had been moved. This was not considered a major constraint, as missing tins were replaced and no other disturbance was noted for the duration of the survey.

7 Survey Results

- 7.1 Survey was conducted throughout March and April 2021. Details of the conditions under which survey was carried out are given in Table 2 below. Wind speeds given employ the Beaufort scale.

Table 2: Summary of Reptile Survey Activity and Weather Conditions

Date	Survey Type Activity	Timing	Weather Conditions
03/03/2021	Installation of reptile refugia (1 – 20) (AR)	N/A	N/A
30/03/2021	Monitoring of reptile refugia (PW, MH)	10:00 – 10:45 hours British Summer Time (BST)	Air temperature: 12.3°C Cloud cover: 5/8 oktas Wind speed: F1, light air Conditions: Dry
14/04/2021	Monitoring of reptile refugia and replacement of missing tins (PW, MH)	15:45 – 16:20 BST	Air temperature: 11.2°C Cloud cover: 7/8 oktas Wind speed: F2, light breeze Conditions: Dry
16/04/2021	Monitoring of reptile refugia (MH)	17:15 – 17:45 BST	Air temperature: 10°C Cloud cover: 8/8 oktas Wind speed: F2, light breeze Conditions: Dry
20/04/2021	Monitoring of reptile refugia (MH)	10:15 – 10:45 BST	Air temperature: 15.5°C Cloud cover: 8/8 oktas Wind speed: F2, light breeze Conditions: Dry
22/04/2021	Monitoring of reptile refugia (MH)	17:05 – 17:25 BST	Air temperature: 16.7°C Cloud cover: 0/8 oktas Wind speed: F3, gentle breeze Conditions: Dry
26/04/2021	Monitoring of reptile refugia (MH)	16:55 – 17:10 BST	Air temperature: 15.5°C Cloud cover: 0/8 oktas Wind speed: F3, gentle breeze Conditions: Dry
29/04/2021	Final monitoring and removal of refugia (MH, DM)	13:30 – 13:45 BST	Air temperature: 10°C Cloud cover: 8/8 oktas Wind speed: F3, gentle breeze Conditions: Dry
Surveyors	Andrew Ross (AR), Phoebe Williams (PW), Maja Hudej (MH), Diane Morgan (DM)		

- 7.2 Refugia were checked underneath during each visit and inspected for reptiles. During the survey a number of slow-worms (*Anguis fragilis*) were encountered. No other reptile species was found.
- 7.3 A total number of eight slow-worms were recorded over the survey period, two of which were found under a tin positioned in the grassland outside of the site's boundary. Both sexes were observed, with adults and subadults found. The maximum count of slow-worms during a single visit was two. Full results are shown in Table 3 (see Appendix II).
- 7.4 Slow-worms were found mostly within a localised part of the site, within the grassland to the south. Although on two separate occasions slow worms were noted to the east (Tin 2) of the site on an area of fragmented grassland and just north (Tin 7f) of the grassland area.
- 7.5 The regularity of the animals found beneath the refugia within the same small part of the site suggests a small population focused on this area. Only a small proportion of reptiles present are

usually identified in surveys of this type. An evaluation following the Froglife survey guidance assesses the site to have a low population. This is a count based on the number of adult animals seen by observation or under refugia, by one person in one day. All the observation counts of adults are a maximum of one. The majority of the population recorded are sub adults.

8 Discussion and Conclusions

- 8.1 The land proposed for development is a brownfield site, that has recently been cleared of scrub, with discrete areas of grassland habitat and rubble piles considered suitable for reptiles. The locations where the slow-worms were found beneath refugia during the survey were the southern grassland area, and a discrete area of habitat to the east of the site. A third location was noted just north of the grassland area at the base of a rubble pile, in an area of disturbed ground. The rubble piles across the site are features often favoured by reptiles.
- 8.2 A robust survey effort was carried out, and across the survey, eight slow-worms were found, six of which were on the site itself, no other reptile species such as grass snake or common lizard were found. A presence/likely absence survey is only ever designed to ascertain whether reptiles are present on site, and which species. The highest number of slow-worms found during a single visit was two individuals. Reptiles are elusive and it is considered that a low population is present.
- 8.3 The reptiles survey was conducted in accordance with national guidelines, with more than a suitable number of refugia for the size of the site. The survey was conducted within the optimum time of year for reptile surveys and was conducted within suitable weather parameters.
- 8.4 It is anticipated that the development of the site, will result in ground disturbance and the loss of suitable reptile habitat. All reptile species are protected under British Legislation, in particular the Wildlife and Countryside Act 1981 (as amended). The legal protection afforded to the species makes it an offence to kill, injure or sell the animals. Measures are recommended below to avoid an offence occurring and killing or harming reptiles, and also retain resting places and likely breeding locations from direct impacts of the development. Advice is given to retain important features and provide enhancements.

9 Recommendations

- 9.1 The legal protection for reptiles means that every effort must be made to ensure that they are not harmed during the development. Due to the discrete areas of suitable habitat on site, and the predominant presence of the reptiles in the grassland to the south, a relocation effort is not proposed in this instance. Instead, a reptile fence installed and destructive search will be undertaken for which an Ecological Method Statement (EMS) must be provided, this will set out the various processes including a timetable for works.
- 9.2 As mentioned, due to the presence of reptiles on site, careful destructive searching supervised by an ecologist, is required in order to prevent killing and injury of reptiles. This typically involves the installation of reptile-proof fencing around part of the site and working areas. For any reptiles found during the destructive search, it is important that a local 'donor' site is available to receive any reptiles removed from the working area. It is suggested that the area of marshy grassland to the south would be ideal if formal consent can be agreed. Once the reptile fence is installed, under the supervision of an Ecological Clerk of Works (ECW), a supervised destructive search of suitable working areas, particularly the extensive rubble piles on site must be carried out. Following development, the reptile fence can be removed and reptiles can re-colonise the gardens of the new properties. Use of close-board fencing must be discouraged or suitable gaps or underpasses be included. The proposed reptile habitat to be included as part of the proposals, as mentioned below, must not form part of the residential gardens. It is likely a fence is needed to keep this habitat separate from the proposed gardens, but fencing must allow for the movement of reptiles across the site.
- 9.3 At least 450m² of tussock/type grassland will need to be integrated into the layout. This would represent a 1:1 compensation ratio for the extent of suitable basking habitat present on site during baseline conditions. Although this could either be a linear feature along the site's periphery or a stand-alone area, it must be continuous with the adjacent area of marshy grassland to the south. This is proposed to extend along the western boundary of the site as a linear strip, down into a patch of habitat to the south. This would go some way to compensate for any reptile habitat removed on site. Mixes of tussock-type grassland such as Emorsgate EM10 seed mix are able to recreate reptile basking with minimal management and aftercare. The numerous rubble piles on

site would also need to be used and integrated into this habitat area to create hibernation features. Such recommendations will form the basis of the measures to be including in an EMS for the site, in order to protect the reptile population and ensure its future viability.

- 9.4 The original PEA report set out a number of requirements with respect to bats, with particular reference to the large retaining wall along the eastern boundary of the site. All of the recommendations original stated in that report still have relevance and must be complied with.

10 References

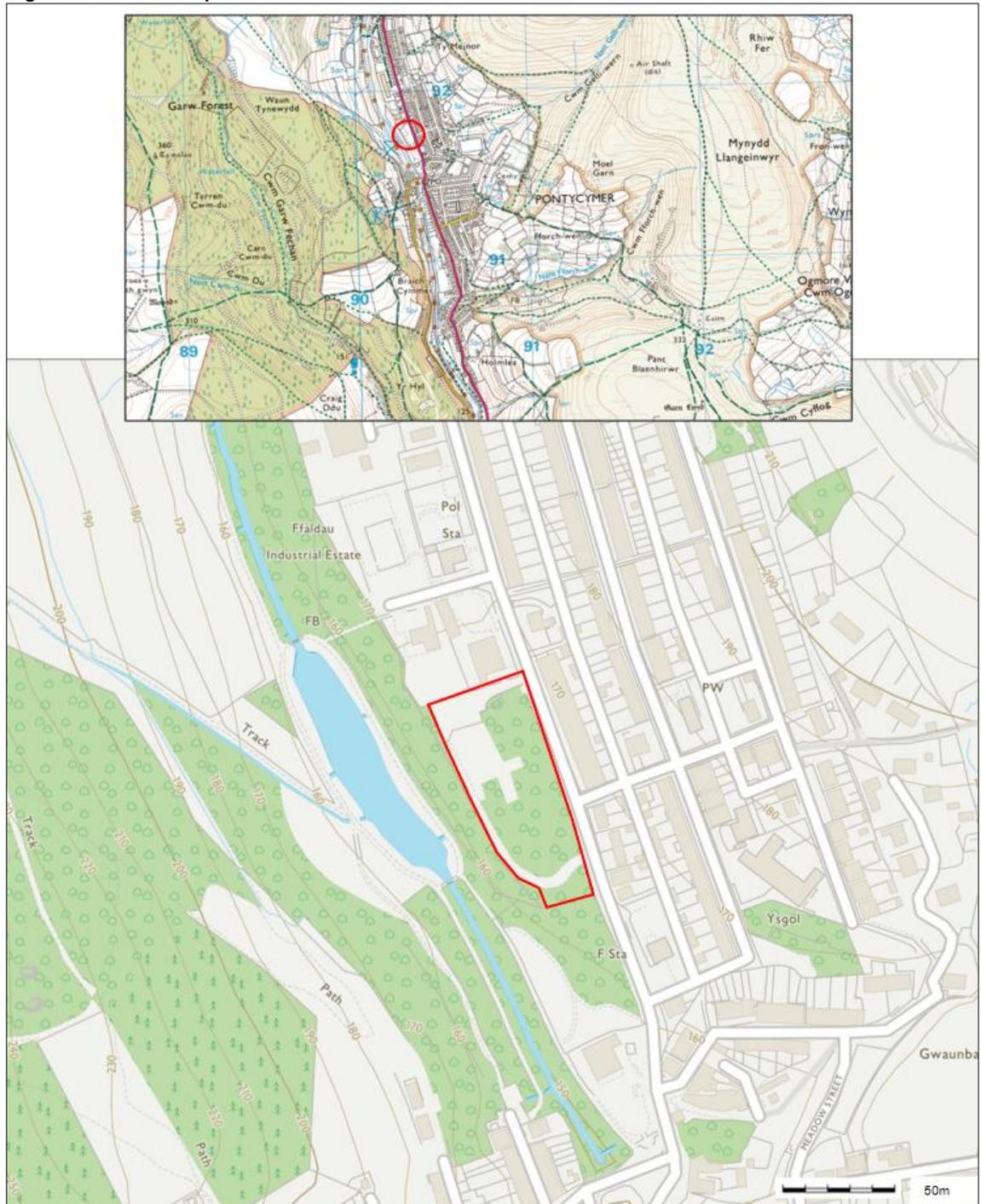
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Appendix I: Site Plans

Figure 1: Site location plan



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Figure 2: Aerial photograph



(Source: Google Satellite Imaging 2021)

Figure 3: Location of reptile tins

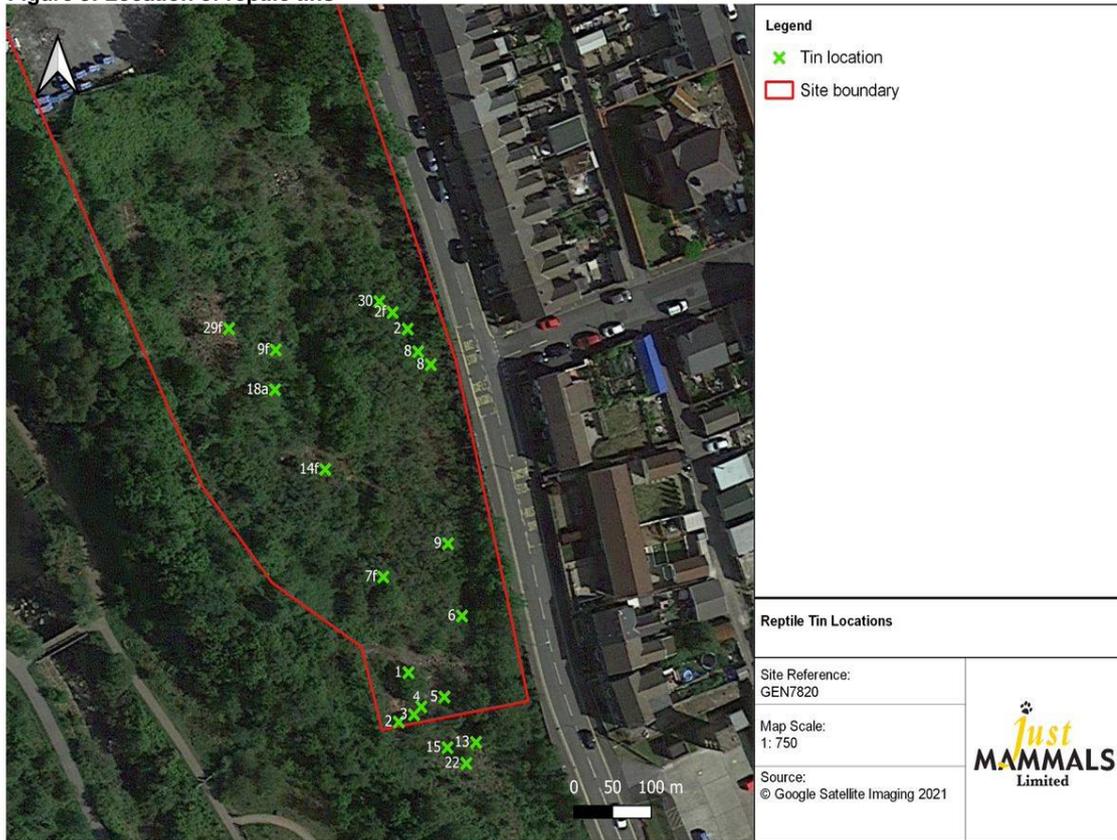
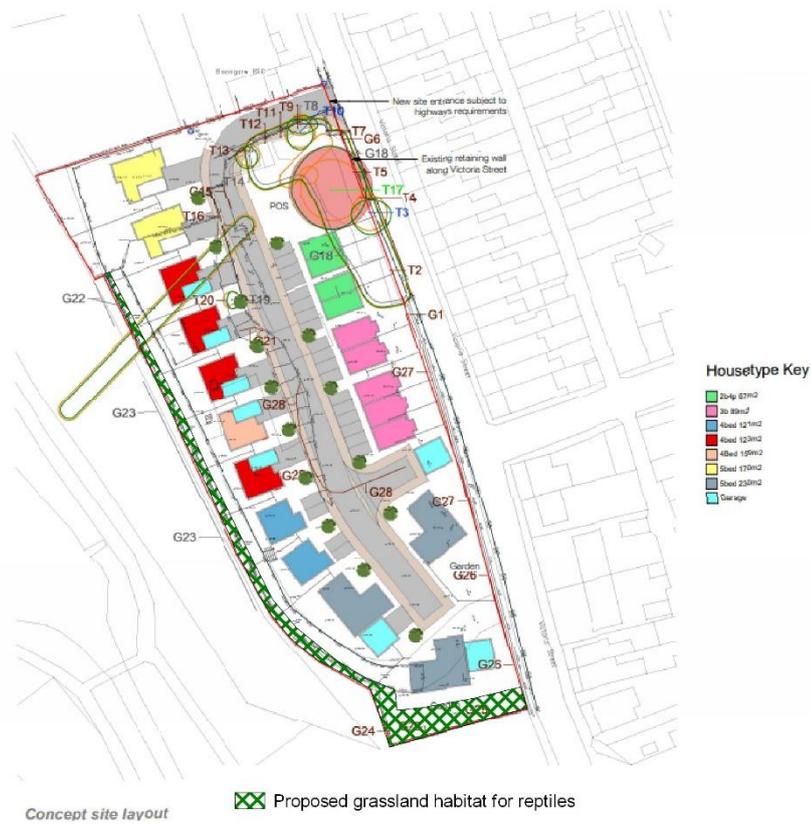


Figure 4: Proposed location of grassland habitat for reptiles



Appendix II: Results

Table 3: Summary of Reptile Survey Results

Tin	Marker	30/03/21	14/04/21	16/04/21	20/04/21	22/04/21	26/04/21	29/04/21
1	1A	Missing	29 f	-	-	-	-	-
2	20	Missing	9 f	-	-	-	-	-
3	8	Missing	18a	-	-	-	-	-
4	9	Missing	14 f	-	-	-	-	-
5	21	Missing	7 f	-	Slow-worm sub adult ♀	Slow-worm sub adult ♀	-	-
6	30	-	-	-	-	-	-	-
7	2F	-	-	-	-	-	-	-
8	2	-	-	-	-	Slow-worm ♂	-	-
9	8	-	-	-	-	-	-	-
10	8	-	-	-	-	-	-	-
11	9	-	-	-	-	-	-	-
12	6	-	-	-	-	-	-	-
13	1	-	-	-	-	-	-	-
14	2	Moved	-	-	-	-	-	-
15	3	-	-	-	-	-	-	-
16	4	-	Slow-worms 2 sub adults	Slow-worm sub adult	Slow-worm sub adult ♂	-	-	-
17	5	-	-	-	-	-	-	-
18	15	-	-	Slow-worm sub adult	-	-	Slow-worm sub adult	-
19	22	-	-	-	-	-	-	-
20	13	-	-	-	-	-	-	-

Appendix III: Site Photographs

Plate 1: Slow-worm beneath refuge



Plate 2: Slow-worm found beneath tin



Plate 3: Slow-worms found beneath tin



Appendix IV: Appendix V: Ecology of Reptiles

Reptiles are scaled animals which live on land. They start life as eggs, which are either laid in safe areas and hatch out, or are incubated inside the body, with adults giving birth to live young. Reptiles are secretive, fast moving animals that can be incredibly hard to spot – they prefer quiet and secluded areas but may be seen basking in the sun on paths, rocks and logs. Both snakes and lizards are reptiles.

They are cold blooded, vertebrate animals, and therefore have back bones, but also require some time to get warm. They therefore like to bask in sunlight in order to help them raise their body temperature to a level where they can become active. They tend to practice a foraging strategy of sitting and waiting for a prey item, when they can then strike and kill, rather than actively move around seeking food. Their skins are dry to the touch, although because the skin comprises scales, it often appears damp to the eye.

During the past 60 years, reptile populations have been reduced throughout most of Europe due to changes in land use, development, intensified management, persecution, fires and habitat fragmentation. Consequently, in Britain, all six species of reptiles are protected by law.

The potential for reptiles to be present must always be taken into consideration when any likely habitats are identified. Planning authorities need to take all protected species into account during the planning process.

Reptiles need plenty of undisturbed ground cover within tall herbs and grasses for refuge, shelter and foraging. They also require open sunny basking areas such banks, wood piles, stone features, walls and wooden fences. In winter, they seek out hibernacula in compost heaps, stone or wood piles and also dry stone walls. Grass snakes are strongly associated with freshwater habitats especially ponds, lakes, rivers and streams.

The slow-worm is a lizard, albeit a legless one. They have eyelids, which sets them apart from snakes, and if threatened, can drop their tails in order to make good their escape.

Appendix V: Relevant Legislation

Reptiles

Common lizard (*Zootoca vivipara*), slow-worm, adder (*Vipera berus*), and grass snake (*Natrix natrix*) are all listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and the Countryside Rights of Way Act 2000. These species are protected from intentional killing, injuring and sale. This legislation aims to protect them from persecution and also exploitation in the pet trade. In addition to the above, sand lizard (*Lacerta agilis*) and smooth snake (*Coronella austriaca*), receive additional protection under Schedule 2 of the Conservation of Habitats and Species Regulations (Amendment) (EU Exit) 2019. In addition, all five species present in Wales (excluding smooth snake) are listed under Section 42 of the Natural Environment and Rural Communities (NERC) Act (2006).

This explanation must be regarded only as a guide to the law. For further details, reference must be made to the Wildlife and Countryside Act 1981 (as amended), and the Countryside and Rights of Way Act 2000.

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***Natural* Problem Solvers**

Just Mammals Consultancy LLP, Suite 131-136, Plas y Ffynnon, Cambrian Way, Brecon LD3 7HP Tel: 01874 623616