

Reptile Survey Report



Project: Haydn Terrace, Penydarren

Instructed by: Merthyr Tydfil Housing Association

Reported by: Ecological Services Ltd
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1. Introduction

The applicant is seeking permission to develop a parcel of land south of the A465, north-east of Penybryn, in Merthyr Tydfil, South Wales. The site is located on the northern fringes of the town. Preliminary development plans are not available at the time of writing, however it is assumed that any future development will be of a residential nature.

This report will assess the potential of the land within the site boundary to support protected habitats and species and the implications that any future development proposals could have on them.

1.1 Site Description

The proposed development site comprises a parcel of land which is centred at NGR SO 05776 08008. The site is largely sloping from its highest point in the west to its lowest in the east. The area is landlocked on all sides by residential development with areas of associated infrastructure and garden landscaping, with no continuous connectivity with other vegetated habitats in the local area.

The wider landscape largely comprises areas of residential development. The green open space of Ifor Park lies to the north-east.

Habitats within the site include garage buildings, semi improved neutral grassland, tall ruderal vegetation, standard trees, with gorse, bramble and dense scrub. The site also has a stand of Japanese Knotweed, a highly invasive non-native species.

1.2 Survey Constraints

The reptile refugia survey was subject to a significant level of human interference, with only 11 out of 37 refugia remaining in situ after the two week bedding-in period, with a further 6 mats removed over the interim visits, leaving a total of 5 remaining at the end of the survey period. Reptiles, namely slow-worm, were detected on site over the course of the survey period; therefore, any total numbers detected are likely to reflect an underestimate of the total population.

The reptile survey was carried out in April and May which is within the optimum timeframe for such surveys; however, the weather during April and May of 2022 has been unseasonably cold. Whilst each survey visit was completed during suitable weather temperatures of 9°C and above, the surveys were completed later within the day occasionally than survey standards recommend, to accommodate for the low temperatures.

1.3 Surveyor Experience

Scott Watkins completed the reptile survey at the site. Scott is an ecologist with at least four years experience. Scott has worked for Ecological Services Ltd completing a range of reptile surveys and providing support on bat activity surveys throughout the survey season.

All survey work is undertaken following guidelines in the Surveying for Reptiles booklet.

2. Reptile Survey

2.1 Legislation

Reptiles such as slow worm, common lizard, adder and grass snake are protected under the Wildlife and Countryside Act 1981 (as amended). They are protected from killing, injuring and sale. In Wales sand lizard, smooth snake, adder, grass snake, slow worm and common lizard are listed in section 7 of the Environment (Wales) Act 2016 which makes them a key species to sustain and improve biodiversity.

2.2 Survey Methodology

A standard approach to presence/absence reptile surveys is to complete a minimum of seven site visits in suitable weather conditions and check artificial reptile refugia spread out across the survey site. Survey refugia for reptiles can be made from a variety of materials but the most common material used is roofing felt cut into squares measuring at least 0.75m by 0.5m.

Suitable weather conditions for reptile surveys are dry and cloudy or just after a period of rain. The weather conditions during these times must be between 9°C and 19°C which is optimal for reptiles to use the tins as reptiles bask to gather heat from the sun and surrounding habitat or direct sun. Once animals are sufficiently warm they become very active and more difficult to observe during reptile surveys. Reptile surveys should ideally be completed in the early morning or late afternoon in Spring or Autumn.

37 reptile refugia were laid out across the proposed development site on the 23rd March 2022. The refugia were deployed in areas thought suitable for use by reptiles such as the juncture between different habitat types. The approximate location of the reptile mats can be found in Appendix 2.

The refugia were allowed to bed in for 17 days. Survey visits were completed during suitable times of day in favourable weather conditions, when reptiles are considered most likely to occur underneath the refugia. The surveys began on the 9th April and finished on the 2nd May 2022.

2.3 Survey Results

Full details of each survey visit and results are provided within Appendix 1. A map of refugia locations provided in Appendix 2.

Reptiles, namely slow-worm were detected on site. The largest number of individuals observed on a single day was three, a combination of adult males and females, in the north-

east of the site. Juveniles were also observed on two occasions, most likely indicating breeding activity on site. Based on Froglife Advice Sheet 10 a population of less than 5 slow worm would be considered a low population.

Overall, only small numbers of slow-worm were observed using the site; this is thought to be a direct consequence of the progressive reduction of refugia over the course of the survey period, and if more mats were left in situ it is assumed that a greater number of individuals would have been observed. **We suggest that the site is treated as having a moderate slow worm population of between at least 5 - 20 individuals.**

3. Recommendations and Mitigation Measures

In the absence of definitive development proposals, it is recommended that areas of existing suitable habitat within the site are retained, to accommodate any potential reptiles present during construction operations. The retained habitats will be safely fenced off and retained undisturbed during the construction works. Any proposed site layout will then need to include measures to allow reptile colonisation of green spaces once the development is completed, for example habitat connectivity, suitable management of green spaces and gas within close board fencing.

If this is not achievable, then a reptile translocation will need to be undertaken, which will involve the finding of suitable receptor site for the resident population. A suitable reptile translocation site in the local area is preferable. Surveys will need to be undertaken of the receptor site to assess its suitability to support the population of reptiles. If a suitable receptor site is located, a Section 106 Agreement is then likely to be required to identify the persons responsible and cost for the ongoing management of the habitats for reptiles in perpetuity.

However the reptile population within the site boundary is dealt with it is likely that reptile fencing and habitat manipulation measures will also be required. Should off site translocation of the reptile population be required it is likely the entire site boundary will require reptile fencing and the interior be subject to refugia trapping to catch animals. The habitat within the site boundary can be subject to high level cutting to reduce the suitability for reptiles and encourage the use of the artificial refugia. Trapping out a reptile site can take a number of days, generally around 60 days or until 5 consecutive days of no animals being found

When definitive developments plans are being formulated for the site, it is recommended that further ecological input, with particular regards to reptiles, will be needed to inform the design process.

Appendix 1 - Reptile Survey Results

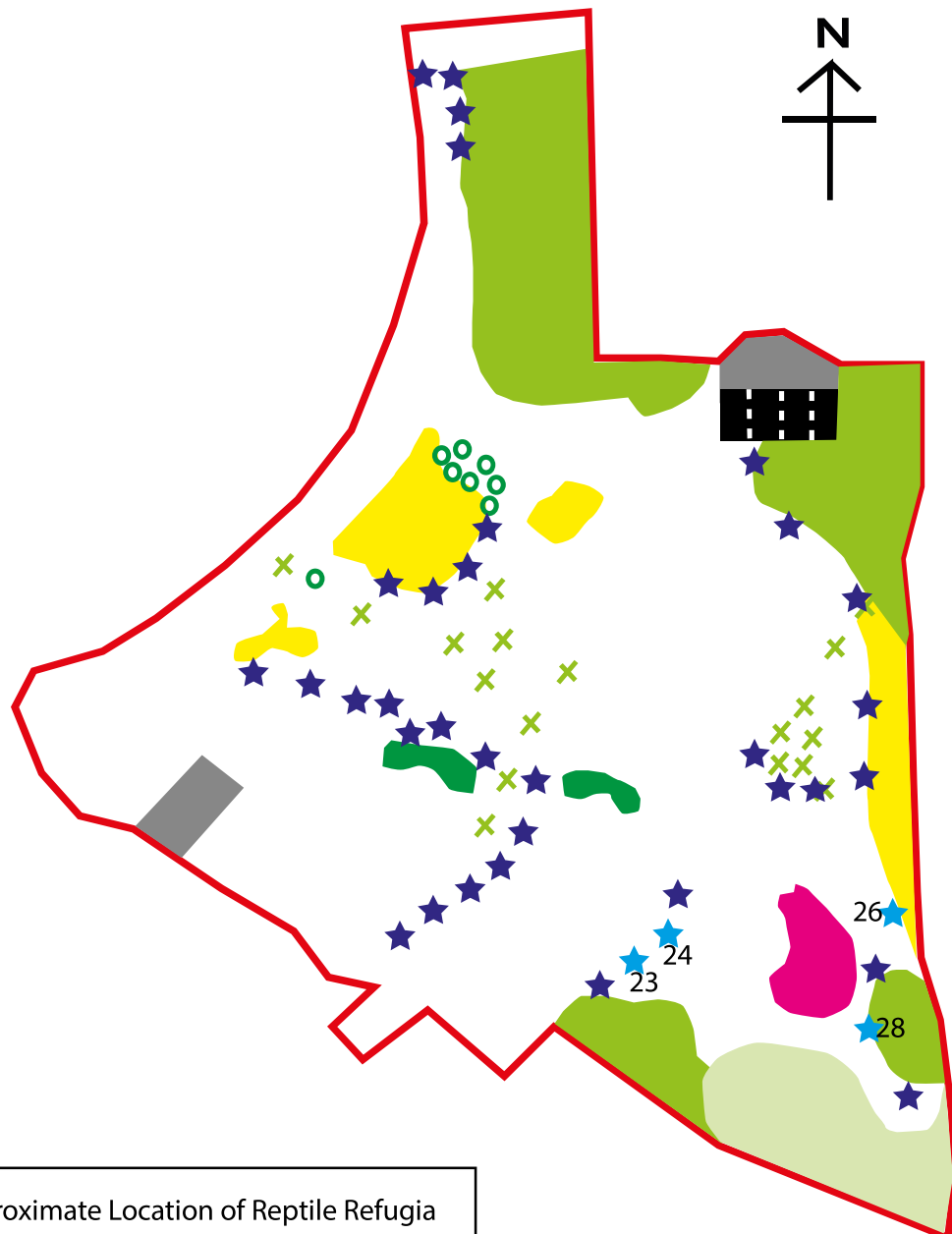
Date	Conditions	Results	Comments
23/03/2022			37 Refugia set out across site
09/04/2022	9,35am, 13.4°C, 80% cloud, no wind.	3 x slow worms. 2x males, 1x females. Mats - 26, 28, 24.	All refugia removed by locals from site, except mats - 1, 37, 36, 22, 23, 24, 25, 26, 27, 28, 29
11/04/2022	8,03am, 12.5°C, 10% cloud cover, sunny & dry.	1x slow worms. female. Mat - 24.	Mats 1, 37, 36, removed by locals from site.
13/04/2022	5,30pm, 12.1°C, 100% cloud cover, breezy, showers.	2x slow worms. 1x female, 1x juvenile male. Mats 24, 23.	- Wet
19/04/2022	8,30am, 11.6°C, 5% cloud cover, sunny, dry.		
21/04/2022	15,15pm, 16.8°C, 20% cloud cover, sunny.	1x slow worms. Male. Mat 26.	- damp ground. Mats 29, 22, 25. Removed from site by locals.
23/04/2022	10,45am, 16.3 °C, 30% cloud, dry.	1x slow worms. female. Mat 24.	
02/05/2022	10,05am, 12.3 °C, 80% cloud, dry.	1x slow worms. Juvenile male. Mat 23.	- damp ground, mats collected.

Appendix 2 - Approximate Refugia Locations

HAYDN TERRACE, PENYDARREN

Reptile Refugia Map

Spring 2022



- ★ Approximate Location of Reptile Refugia
- ★ Refugia used by reptiles