Reptile Survey Report

Project: Goitre Field School, Merthyr Tydfil

Instructed by: Morgan Sindall

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1. Introduction

The applicant is seeking permission to develop a parcel of land adjacent to Goitre Lane, Merthyr Tydfil. The site is located on the northern outskirts of Merthyr Tydfil town in the county borough of Merthyr Tydfil. The development proposals were not refined at the time of instruction for the reptile survey. Therefore this report covers a large parcel of land. A planning application is proposed for a new school within a smaller parcel of land to the south of the site. A site specific Ecological Impact Assessment (EcIA) will be provided for the full planning application for the new school in the future.

A Preliminary Ecological Assessment (PEA) of the proposed development site was completed by Ecological Services Ltd in September 2021. Proposals at the time included the construction of a new school, although exact plans were not available.

An additional site visit was undertaken in July 2022 to help inform the development proposals being discussed at that time. Habitats were found to be the same as in the previous survey in 2021. The site visit highlighted that the site had potential for use by common reptile species based on the habitat observed within and adjacent to the site. A refugia survey of the development site was recommended to establish the presence or likely absence of reptiles from within the site boundary. An invertebrate survey was also recommended and undertaken by Christian Owen Bio-Surveys in August 2022.

A reptile survey was undertaken during August/September 2022, by Ecological Services Ltd. The reptile survey focused on land within the northern half of the site only. No reptiles were found during this survey.

A further PEA was undertaken on the 12th July 2023. Habitats were found to be the same as in the previous surveys namely; neutral semi improved grassland, marshy grassland, tree lines, scattered trees, woody scrub, dense bramble scrub and Japanese Knotweed. However Bramble scrub and Japanese Knotweed had increased since the last survey.

After consultation with the Local Planning Authority an updated reptile survey covering the entire development boundary has been requested. The 2023 survey methodology, results and broad recommendations are provided within this report. Detailed and site specific recommendations for reptiles will be included within any future planning application for the site when it comes forward.

1.1 Site Description

The proposed development site comprises a parcel of land which measures approximately 8 ha and is centred at NGR SO 05040 08306. The site is roughly square in shape; the southern section is flat while the northerly section slopes downwards from north to south. The site lies adjacent to Pen Y Dre School in the north and Goitre Lane in the south and west, beyond which lies the Gurnos Estate. To the east lies Galon Uchaf Housing Estate. There are pathways within the site used by the general public, with evidence of fly-tipping in the east of the site.

In the south, south east and south west the wider landscape is dominated by residential dwellings and associated infrastructure with the town of Merthyr Tydfil approximately 1.8km to the south of the site. To the north just beyond Pen Y Dre School lies the A465, the landscape beyond comprises open countryside with hedge bound fields, small areas of woodland and open moorland.

The nearest watercourse, Taf Fechan, lies approximately 1km away to the north west at its nearest point. The River Taff lies approximately 1.6km away to the south west at the confluence of the Taf Fechan and Taf Fawr.

1.2 Survey Constraints

Access was gained across all areas of the proposed development site. The reptile survey was carried out in September which is within the optimum time frame for such surveys. The weather during September 2023 has been particularly wet. Each survey visit was completed during suitable weather temperatures of above 9°C and favourable weather conditions when it was expected that reptiles would be present.

The site is quite popular with members of the general public for use by dog walking and children playing. Some anti-social behaviour was noted with quad bikes using the site during one visit and fences around exploratory ground works being damaged. Four of the 150 reptile refugia set out across the site went missing towards the end of the survey period. With such a small percentage of refugia going missing, it was thought this does not alter the survey results.

1.3 Surveyor Experience

Lee Gregory has been undertaking Ornithological surveys and species protection for 35 years, Lee is a fully trained A Permit Bird Ringer for the British Trust for Ornithology with several schedule 1 species permits, Lee has worked as Assistant Warden of Fair Isle and Dungeness Bird Observatories, Lee's ecological surveys cover a wide spectrum of taxa including; Botany, Mammals, Entomology, Reptiles and Amphibians.

All survey work is undertaken following guidelines in the Froglife Advice Sheet 10.

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 0.5m 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.

150 reptile tins were laid out across the proposed development site on the 22nd August 2023. The refugia were placed across the site in areas thought suitable for use by reptiles such as the edge of different habitat types. The approximate location of the reptile mats can be found in Appendix 1.

The tins were allowed to bed in for a minimum of 10 days. 7 survey visits were completed at site during suitable times of day when it is expected that reptiles would be present and also in favourable weather conditions. The survey started on the 1st September and finished on the 29th September 2023.

2.3 Survey Results

Full details of each survey visit and results are provided within Appendix 1. **No reptiles were detected on site**. A map of refugia locations provided in Appendix 2.

3. Recommendations and Mitigation Measures

No evidence of reptile presence was found during reptile survey work. However the neutral semi improved grassland, marshy grassland, tree lines, scattered trees, woody scrub, and dense bramble scrub are suitable for reptile use. Although the habitats within the site boundary are suitable for reptile use, given the negative survey results from 2022 and 2023 it is considered that a low density population of reptiles may be present. The site is well used by locals and tampering with reptile refugia skewing the survey results cannot be ruled out. Whilst no evidence of the presence of reptiles was found during the reptile survey completed, a precautionary approach to site clearance will be adopted.

The ***hibernation season*** runs from ***November to February inclusive*** but depends on temperatures at the time of year. **No ground disturbance ie root or woody scrub removal works will take place during the core reptile hibernation period of November to February.**

The below enhancement features will be incorporated into the development to enhance the development site for reptiles and other wildlife post construction completion.

- The provision of integrated bat boxes to be incorporated into the new buildings. Exact types of boxes to be agreed once external finishes to the proposed buildings have been agreed and locations to be agreed by an ecologist once plans have been finalised.
- The provision of integrated bird boxes to be incorporated into the new buildings. Exact types of boxes to be agreed once external finishes to the proposed buildings have been agreed and locations to be agreed by an ecologist once plans have been finalised.
- All fencing around the site will be hedgehog friendly in design. A friendly design is considered to allow the passage of small animals across the site. It should provide either a continuous gap between the bottom of the fence and ground of approximately 13cm or gaps cut a set distance along fencing.
- Any soft landscaping within the site to use native species where possible, of local (at least UK) provenance.
- The creation of at least 1 pond would create an additional habitat type within the site boundary. A pond would help provide a water source for local wildlife and provide aquatic habitat.

- An invasive non native species strategy to eradicate Japanese knotweed from within the site boundary would be beneficial. If left untreated the knotweed will spread reducing native habitat types available within the site.
- The provision of native species hedgerow planting instead of fencing, especially around the solar array, would help create additional habitat within the site boundary. Hedgerow can create foraging and commuting corridors around the site for a variety of animals.
- The creation of at least 1 reptile hibernaculum within the site boundary is recommended.
- The creation of at least 1 butterfly bank within the site boundary is recommended.

4. Reference List

- Ecological Services Ltd (dated 10th February 2022) *'Preliminary Ecological Assessment: Land adjacent to Goetre Lane, Merthyr Tydfil) V1.0*

- Ecological Services Ltd (dated 4th July 2022) *'Ecological Appraisal: Proposed Solar Panel Development)*

- Ecological Services Ltd (dated 10th October 2022) *'Reptile Survey Report; Proposed PV Array at Land of Goetre Lane, Merthyr Tydfil)* V1.0

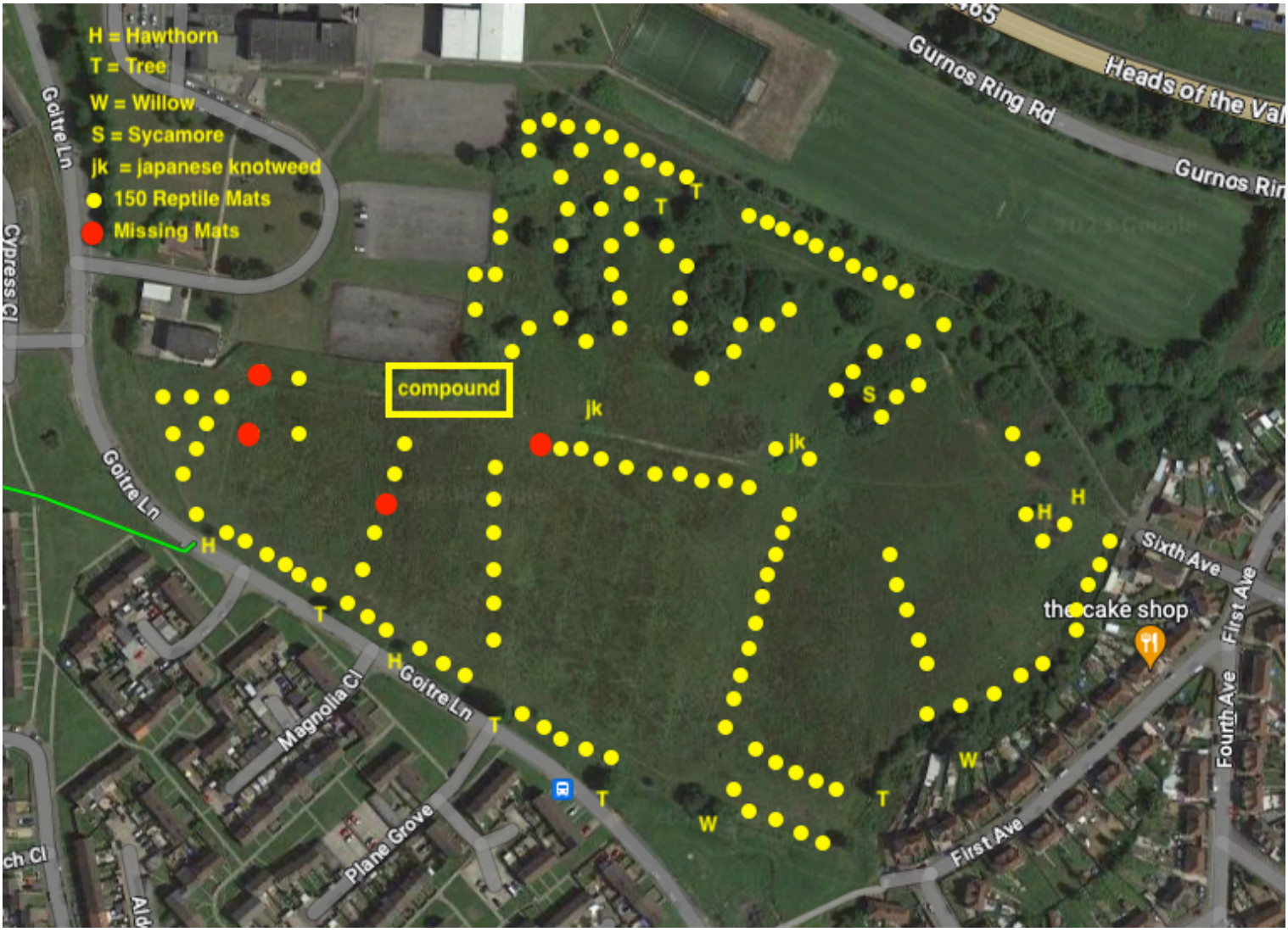
- Ecological Services Ltd (dated 13th December 2023) *'Updated Preliminary Ecological Assessment; Goitre Field School)* V3.0

- Christian Owen Bio-Surveys (dated October 2022) *'Invertebrate Survey Report; Goetre Field - Merthyr)*

Appendix 1 – Reptile Survey Results

Date	Time	Conditions	Results	Comments
22/08/2023				150 Refugia set out across site
01/09/2023	10:20 - 11:20	16°C, 90% cloud, warm	0	
03/09/2023	08:25 - 09:25	16°C, 5% high wispy clouds, sunny	0	
05/09/2023	09:00 - 10:00	18°C, clear and sunny	0	
18/09/2023	16:10 - 17:10	13°C, 50% cloud, westerly breeze	0	Refugia warm
22/09/2023	10:10 - 11:10	12°C, 90% cloud, sunny spells	0	Refugia warm
25/09/2023	16:00 - 17:00	15°C, 90% high cloud, calm	0	
29/09/2023	10:45 - 11:45	13°C, 20% cloud, westerly breeze	0	146 mats collected.

Appendix 2 – Approximate Refugia Locations



Appendix 3 - Site Photographs

Southern plateau viewing east

Site viewing north

Site viewing west

Site viewing south

Tree line with scrub along eastern boundary

Access to site in north east corner

Site looking north towards areas of woody scrub

North west boundary with Pen Y Dre School

Area of marshy grassland in north west of site

Scattered trees in north of site

Area of bare earth adjacent to south of Pen Y Dre School

Trees along south boundary of site