



**WREXHAM TECHNOLOGY PARK
REPTILE SURVEY 2014
(Report Ref: 4571.001)**

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1.0 INTRODUCTION

- 1.1 TEP was commissioned in May 2014 by Ramboll UK Ltd to carry out a reptile survey of land at Wrexham Technology Park, Wrexham.
- 1.2 This report details the methodology and results of the surveys and identifies the implications of developing the site with regards to reptiles. Site proposals are for the land to accommodate a residential development.
- 1.3 The objectives of the reptile survey were to:
 - identify the presence/absence of reptiles within land at the former Wrexham Technology Park site;
 - recommend further survey requirements if deemed appropriate to obtain an estimate of the population size(s) of the species identified;
 - provide preliminary recommendations in light of the survey findings and the legal status of the species involved.

2.0 SITE DESCRIPTION

- 2.1 The reptile survey area is located along Croesnewydd Road in Wrexham. Land use around the immediate vicinity of the site includes roads, residential and industrial areas to the east and mixed use, arable and grazed pasture to the north, south and west. The approximate central grid reference is SJ 31739 50438. The site area and location relative to the immediate surroundings are shown in Figure 1 below:

Figure 1: Aerial photograph of the site and surrounding habitat



- 2.2 Although the habitats within the site have relatively low structural diversity, they are considered to provide some habitat suitability for reptiles. In addition, there are a number of features within the site such as rubble and brick which could be used as refugia or hibernacula.

3.0 STATUTORY AND PLANNING CONTEXT

- 3.1 All species of reptile native to the UK are protected, to some degree, under national and/or international legislation, which provides mechanisms to protect the species, their habitats and sites occupied by the species.
- 3.2 Sand lizards and smooth snakes are European protected species and are afforded full protection under The Conservation of Habitats and Species Regulations 2010, as amended, as well as Section 9 of the *Wildlife and Countryside Act 1981*. However, these species are rare and highly restricted in distribution and the proposed development site is outside the current range of both species.
- 3.3 The remaining widespread species of native reptiles (adder, grass snake, slow worm and viviparous lizard) are protected under part of Section 9(1) and all of Section 9(5) of the *Wildlife and Countryside Act 1981*. They are protected against intentional killing and injury and against sale, transporting for sale etc. The habitats of these species are not protected. However, in terms of development, disturbing or destroying reptile habitat during the course of development activities while reptiles are present is likely to lead to an offence under the *Wildlife and Countryside Act 1981*. It is therefore important to identify the presence of these species within a potential development site. If any of these species are confirmed, all reasonable measures must then be taken to ensure they are removed from any threat of injury or death created by development activities.
- 3.4 Each species of native reptile has specific habitat requirements, but general shared features include a structurally diverse habitat that provides conditions suitable for shelter, basking, foraging and hibernating.
- 3.5 All five native reptile species are listed as Species of Principal Importance under S41 of the Natural Environment and Rural Communities (NERC) Act 2006.

4.0 SURVEY METHODS

General methods

- 4.1 The site was subjected to a presence/absence survey using artificial refugia or 'tins', according to Froglife guidelines (1999).
- 4.2 Artificial cover objects (ACOs), or refugia, using a combination of corrugated onduline, metal sheeting and roofing felt in 0.5m x 0.5m sheets, as recommended by Froglife and the HGBI for reptile surveys (Appendix A). A total of 80 tins were placed across the site, locally sited in the most appropriate position for use by basking/sheltering reptiles. This was considered a suitable density¹ for a 10ha site of this nature.
- 4.3 The tins were left to 'bed in' for approximately one week. Once the tins had bedded in, seven non-consecutive survey visits were carried out to determine the presence/absence of reptile species on site. During each visit, the tins were checked visually from a distance to determine whether reptiles were basking on their surface. The tins were then carefully approached and lifted to check for reptiles sheltering beneath them.
- 4.4 Between tin locations the site was also walked carefully and slowly in an attempt to detect reptiles that may be basking away from the artificial refugia supplied. Other

¹ Froglife Advice Sheet 10 recommends an average density of 5-10 ACOs per hectare.

potential refugia/basking sites present within the site were visually checked in addition to the tins during the walkovers (such as rubble/brick piles, scrub, embankments and wooden pallets).

Timing

- 4.5 The seven survey visits were conducted between 30th May and the 9th July 2014. Surveys were not conducted during periods of rain. Visits to the site were made between 9:30am and 11:00am in suitable weather conditions.

Weather conditions

- 4.6 Weather during the survey visits was conducive for surveying for reptiles, being dry and warm or mild, although some days were overcast. Froglife guidelines (1999) recommend ideal temperatures for reptile survey between 9°C and 18°C. Temperatures ranged from approximately 13°C to 22°C during the survey period. This is marginally higher than recommended however is not hot enough to prevent reptiles from basking.

Personnel

- 4.7 Surveying for reptiles is not a licensed activity. However, the surveys were carried out by Mike Brown and Mike Penney, surveyors experienced in conducting reptile surveys.

Limitations to survey

- 4.8 Reptiles are generally secretive animals and are often difficult to locate by virtue of their behaviour, cryptic colouration and habitat selection. It is therefore often difficult to prove absence (Froglife 1999). However, the survey was carried out at the appropriate time of year, and artificial refugia were viewed at a distance prior to being lifted, to minimise the potential for disturbance resulting in animals vacating the ACOs prior to being checked.
- 4.9 There was some disturbance to the refugia by members of the public, and between visits 4 and 5 approximately 20 tiles went missing. To ensure the survey effort was sufficient, these were immediately replaced and an additional survey visit was undertaken to compensate for the disturbance.

5.0 SURVEY RESULTS

- 5.1 No reptiles were recorded during the course of the survey, despite some suitable habitat and potential refugia being present on site. A small number of common frogs and adult and juvenile toads were recorded.
- 5.2 A detailed table of results is provided in Appendix B.

6.0 CONCLUSIONS

- 6.1 No reptiles were recorded during the survey, which was carried out in accordance with Froglife guidelines (1999). If a population of reptiles was present, the survey effort used should have been sufficient to reveal reptiles, if present, within the site. It is therefore concluded that no reptiles are present within the site. However, a small number of amphibians were identified, including common toad, which is a S.41 species.

7.0 IMPLICATIONS AND RECOMMENDATIONS

- 7.1 The site was considered to be suitable to support reptiles due to the availability of some areas of suitable habitat and refuge opportunities within the site boundary. However, as none were recorded during the survey, reptiles are considered likely to be absent from the site and there are no specific implications for future development of the site with regard to reptiles.
- 7.2 A small number of amphibians were identified on site and there is a pond located in the centre of site which is the most likely source of the amphibians. This pond should be retained within the site layout, if at all possible. If not a replacement pond will be required to compensate for its loss.
- 7.3 It is understood that surveys for great crested newts were previously undertaken on the pond within the site, and no great crested newts were recorded. It is therefore assumed that there is no potential for impacts on great crested newts from the development proposals. However, if the survey data are more than two years old, updating surveys may be required to confirm this is still the case.
- 7.4 As common toad are a S.41 species was identified on site, Reasonable Avoidance Measures (RAMs) should be undertaken during construction to ensure no harm or injury to toads during site clearance and construction works.
- Prior to works commencing the grassland on site should be strimmed to a minimum height of 150mm;
 - Any potentially suitable hibernacula on site should be demolished by hand in the active season (i.e. March to October) to ensure no disturbance to hibernating toads. If site clearance will not take place until later in the year, all dismantled material should be removed from site, or spread in such a manner so that it does not provide any hibernation opportunities, to prevent toads seeking refuge in the interim period; and
 - In the unlikely event that any great crested newts or reptiles are encountered during site clearance works, advice should be sought from a suitably qualified ecologist on how best to proceed with works.

8.0 REFERENCES

FROGLIFE (1999) *Reptile Survey: an introduction to planning, conducting and interpreting surveys for snake and lizard conservation*. Froglife Advice Sheet 10. Froglife, Halesworth

HERPETOFAUNA GROUPS OF BRITAIN AND IRELAND (1998) *Evaluating local mitigation/translocation programmes: Maintaining Best Practice and lawful standards*. HGBI advisory notes for Amphibian and Reptile Groups (ARGs). HGBI, c/o Froglife, Halesworth. Unpubl.

JOINT NATURE CONSERVATION COMMITTEE (1998) *Herpetofauna Worker's Manual* (Gent, T. and Gibson, S. eds) JNCC, Peterborough

LANGTON, T. (1989) *Snakes and lizards*. Whittet Books Ltd, London

Appendix A: Examples of artificial refugia.



Plate 1: Example of roofing felt tile used during surveys



Plate 2 : Corrugated onduline sheet

Appendix B: Detailed Survey Results

Visit	Date	Weather	Temp (°C)	Results
1	30/05	Overcast, humid	15	1 adult toad, 1 juvenile toad
2	03/06	Overcast	13	2 adult frogs, 1 juvenile toad
3	10/06	Sunny, dry	19	1 adult frog, 3 juvenile toad
4	17/06	Sunny, humid	21	5 juvenile toad
5	20/06	Sunny spells	18	1 juvenile toad
6	25/06	Bright, warm	21	1 adult toad, 3 juvenile toad
7	02/07	Warm, humid	22	0
8	09/07	Sunny intervals	18	3 juvenile toad