

Cheshire Ecology Ltd.

**RUABON, WREXHAM
Reptile Survey**

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EXECUTIVE SUMMARY

No reptiles of any species were recorded during the surveys. Reptiles are not considered to present a constraint to the development of the site.

We recommend that an Ecological Clerk of Works should be present when hedgerows, scrub and rubble are removed prior to development.

A toolbox talk should be given to contractors immediately prior to work commencing, so that they are aware of the different reptiles that may be present on the site and how to deal with them if they are found during the working day.

The great majority of the site is covered by tall grassland, dominated by false oat grass *Arrhenatherum elatius*. There are very few locations where reptiles could bask within the site boundary, although the dry-stone wall beside the A539 had potential for common lizard.

Reptiles are unlikely to a constraint development if access is limited to Pont Adam Crescent.

Although no reptiles were found during the survey the dry-stone wall beside the A539 appears suitable for common lizard. Depending upon the access arrangements to the site it may be necessary to trap any reptiles that may be present in the dry-stone wall. This should be done by clearing the existing trees and scrub and erecting drift fencing along the A539 and the upper part of the earth bank. The dry-stone wall should be dismantled by hand with a suitably qualified ecologist present (an Ecological Clerk of Works).

If development is confined to the upper part of the site and access is obtained from Pont Adam Crescent it is unlikely to have any impact upon reptiles.

Vegetation should be cut back to a height of 20cm a few days before development commences. This will allow any wildlife that is present to disperse to other locations. An Ecological Clerk of Works should be present if this is carried out during the bird-nesting season (March to August).

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FIGURES

Figure 1: Location map.

PLANS

Plan CE126 - 1: Location of refugia.

TABLES

Table 1: Results of reptile survey.

1 INTRODUCTION

- 1.1.1 Cheshire Ecology Ltd. was commissioned by the Castlemead Group Ltd. to undertake a reptile survey of land at Ruabon, in Wrexham County Borough, Wales, henceforth referred to as ‘the site’. The centre of the site is located at OS Grid Reference SJ29619 43639. The site is roughly triangular in shape and located at a height of approximately 135m AOD. The location of the site is shown in Figure 1.



Figure 1: Location map.

- 1.1.2 The site is bounded to the north by a residential road, Pont Adam Crescent. A children's playground and a railway line form the eastern boundary and the A593 Ruabon to Llangollen road, the southern. The western boundary is shared with 'Tir-y-fron', a large residential property.
- 1.1.3 The site is located to the west of Ruabon town centre and immediately north of the A593. Offa's Dyke is situated a short distance to the west and a railway cutting to the east. The ground is roughly level, but slopes away to the southeast and drops sharply to the south. The site is open, but there was little evidence of recreational pressure and no litter or building rubble was apparent. The majority of the land to the south and west is used for agriculture and to the north and east for residential housing. The railway embankment to the southeast may provide suitable habitat for reptiles.

1.1.4 The most important habitats within the site boundary are, in order of importance:

- Neutral grassland
- Trees
- Hedgerows
- Scrub
- Tall ruderal vegetation

1.2 Legislation

1.2.1 Wales has five species of native reptile. The adder *Vipera berus*, grass snake, slowworm *Anguis fragilis* and common lizard *Zootoca vivipara* are only protected under sub-section 9(1) and all of sub-section 9(5) of the Wildlife and Countryside Act, from deliberate killing, injury or trade. The habitats of these species are not protected.

1.2.2 The sand lizard *Lacerta agilis* used to be common along the coast of North Wales, but became extinct in the 1960s following development and sea defence work. It has now been re-introduced and there are currently breeding populations of sand lizard in several Welsh dune systems. The sand lizard is protected under the Conservation of Habitats and Species Regulations 2010 as amended, otherwise known as the 'Habitat Regulations'. Under this legislation it is an offence to:

- Deliberately kill, capture or injure a sand lizard;
- Deliberately disturb a sand lizard;
- Deliberately take or destroy its eggs; and
- Damage or destroy a breeding site or resting place of a sand lizard.

1.2.3 All native reptiles are 'Priority Species' in the UK Biodiversity Action Plan (UKBAP).

1.3 Data trawl

1.3.1 The original Preliminary Ecological Appraisal (Enzygo, 2014) obtained information from the following sources:

- Cofnod – North Wales Environmental Information Service;
- Aerial photography;
- The MAGIC website;

1.3.2 This produced a single record (2004) for a grass snake *Natrix natrix* at 1151m from the centre of the site and a record (2008) of a slowworm *Anguis fragilis* at 839m (Cofnod, 2014).

1.4 Limitations

- 1.4.1 There were no limitations to the survey. The survey was carried out the optimum time of the year.

2 METHODOLOGY

- 2.1.1 The survey followed the methodology outlined in the *Herpetofauna Worker's Manual* (Gent and Gibson, 2003) and the Froglife publication *Reptile Survey: an introduction to planning, conducting and interpreting surveys for snake and lizard conservation* (Froglife, 1999).
- 2.1.2 A total of thirty refugia were placed in suitable habitats around the site on 5th May 2014. Five carpet tiles were also placed under the line of trees beside the A539. The refugia were placed in areas of the site that were considered attractive to reptiles, such as areas of short-grass near scrub and hedgerows. The location of the refugia is shown in Plan CE126-1.
- 2.1.3 The site was visited on seven occasions between 8.30am and 11.00am and 4.00pm to 6.30pm, as recommended in Froglife (1999). The surveys were undertaken between 20th May and 2nd June 2014.
- 2.1.4 Surveying was carried out when the ambient temperature was between 9°C and 18°C. Surveying was cancelled if heavy rainfall was forecast.
- 2.1.5 All of the refugia were carefully inspected for evidence of reptiles. The refugia were replaced in the same position after inspection. The site was walked in circular direction, starting and ending at the western end of Pont Adam Crescent. All potential habitats for reptiles were checked during the survey. Emphasis was placed on checking potential basking areas and piles of rubble or wood.
- 2.1.6 The dry-stone wall beside the A539 was also inspected for any evidence of reptiles.

3 RESULTS

3.1 Habitats

- 3.1.1 The majority of the site is covered by rank mesotrophic grassland, dominated by false-oat grass *Arrhenatherum elatius*, rather than acid grassland as indicated in the Preliminary Ecological Appraisal (Enzygo, 2014). This type of vegetation can be ascribed to the National Vegetation Classification plant community MG1 (*Arrhenatherum elatius* dominated grasslands). Common associates included Yorkshire Fog *Holcus lanatus*, cock's-foot *Dactylis glomerata*, cow parsley *Anthriscus sylvestris* and hogweed *Heracleum sphondylium*.
- 3.1.2 Bramble scrub *Rubus fruticosus* is common around the margins of the field, with patches of rosebay willow herb *Chamerion angustifolium* near the railway line. The presence of this species suggests that this area has been burnt recently.
- 3.1.3 To the south a line of trees borders the A539. This is mainly composed of sycamore *Acer pseudoplatanus* and beech *Fagus sylvatica*. A single oak tree *Quercus robur* is located in the centre of the field.
- 3.1.4 A disused quarry is located next to the western boundary of the site, in the grounds of 'Tir-y-fron', an adjacent residential property. This is private property and was not surveyed. The quarry may offer suitable habitat for reptiles.

3.2 Reptile survey

- 3.2.1 No reptiles or amphibians were recorded during the surveys. Ant nests were common and field voles were clearly used the refugia for cover.
- 3.2.2 There were no piles of compost or manure heaps on the site that could have provided a nesting opportunity for grass snakes.
- 3.2.3 The vegetation was well developed when the site was first visited in May 2014. There were no obvious piles of timber or rubble that could have acted as refugia for reptiles. However we cannot discount the possibility that piles of rubble are hidden by the dense growth of brambles.
- 3.2.4 The southern boundary of the site is marked by a steep earth bank, which descends to the busy A539. The western part of the bank is marked by a dry-stone retaining wall near the boundary with 'Tir-y-fron'. The wall has a number of holes and cavities that could provide a refuge for reptiles. No reptiles were seen in or near the wall, but we cannot discount their presence.
- 3.2.5 A summary of our findings is shown in Table 1.

4 CONCLUSIONS

- 4.1.1 The great majority of the site is covered by tall grassland, dominated by false oat grass *Arrhenatherum elatius*. There are very few locations where reptiles could bask, although the dry-stone wall beside the A539 had potential for common lizard.
- 4.1.2 Reptiles are unlikely to a constraint development if access is limited to Pont Adam Crescent.
- 4.1.3 Direct access to the site from the A539 would probably destroy the majority of the dry-stone wall and could potentially kill any reptiles that were present within the wall.

5 RECOMMENDATIONS

- 5.1.1 The negative results of the survey should not be taken as an indication that reptiles are completely absent from the site. The project followed the standard methodology for reptile surveys, but it is extremely difficult to detect these animals if they occur in low numbers. Contractors should be made aware that reptiles may be encountered and that is illegal to kill or injure them.
- 5.1.2 We recommend that a suitably qualified ecologist (an Ecological Clerk of Works) should be present when hedgerows and scrub are removed prior to development. Any reptiles that are found should be translocated to an alternative location close to the site. A toolbox talk should be given to contractors immediately prior to work commencing, so that they are aware of the different reptiles that may be present on the site and how to deal with them if they are found during the working day.
- 5.1.3 Although no reptiles were found during the survey the dry-stone wall beside the A539 appears suitable for common lizard. Depending upon the access arrangements to the site it may be necessary to trap any reptiles that may be present in the dry-stone wall. This should be done by clearing the existing trees and scrub and erecting drift fencing along the A539 and the upper part of the earth bank. The dry-stone wall should be dismantled by hand with a suitably qualified ecologist present (an Ecological Clerk of Works).
- 5.1.4 If development is confined to the upper part of the site it is unlikely to have any impact upon reptiles.
- 5.1.5 Vegetation should be cut back to a height of 20cm a few days before development commences. This will allow any wildlife that is present to disperse to other locations. An Ecological Clerk of Works should be present if this is carried out during the bird-nesting season (March to August). The vegetation should be maintained at this height until the development has been completed to deter reptiles from re-colonising the site.

6 REFERENCES

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APPENDIX A: PHOTOGRAPHS



Photograph 1: The site is dominated by a large oak tree



Photograph 2: The majority of the site is covered by tall, false-oat dominated grassland, with hogweed and cow parsley.



Photograph 3: The southern boundary consists of a steep earth bank



Photograph 4: The bank is partially retained by a dry-stone wall

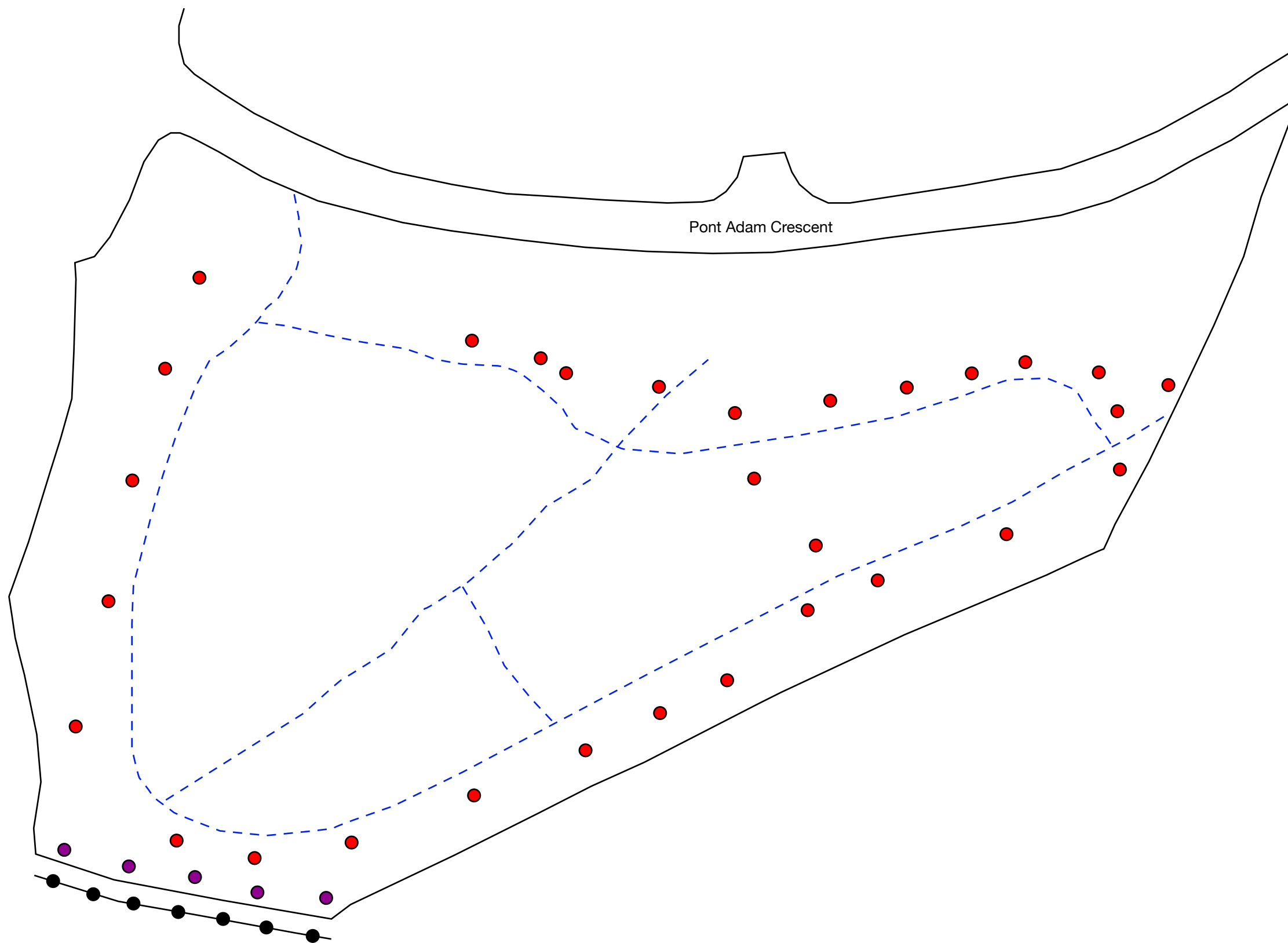


Photograph 5: The dry-stone wall has a number of holes and cavities that could be used by common lizard and other reptiles.

CHESHIRE ECOLOGY LTD.

Cheshire Ecology Ltd. - Reptile Survey							
CE126	Site: Pont Adam Crescent, Ruabon, Wrexham		OS grid ref: SJ29619 43639			Client: Castlemead Group Ltd.	
Survey date	Temperature	Weather conditions	Start	Finish	Surveyor	Refugia	Reptiles found
5/5/2014	Refugia installed						
20/5/2014	14°C	Dry, cloudy. Had been raining heavily.	09.45	10.15	MP	30 roofing felt and 5 carpet tiles.	None
23/5/2014	15°C	Light showers.	09.30	10.10	MP	30 roofing felt and 5 carpet tiles.	None
24/5/2014	12°C	Dry. Cloudy.	09.00	09.45	MP	30 roofing felt and 5 carpet tiles.	None
26/5/2014	15°C	Dry, with sunny intervals.	09.35	10.10	MP	30 roofing felt and 5 carpet tiles.	None
31/5/2014	19°C	Dry. Cloudy after day of strong sunshine.	17.45	18.25	MP	30 roofing felt and 5 carpet tiles.	None
01/6/2014	19°C	Dry and sunny. Still.	09.50	10.20	MP	30 roofing felt and 5 carpet tiles.	None
02/6/2014	18°C	Dry and sunny. Still.	10.05	11.00	MP&TG	30 roofing felt and 5 carpet tiles.	None

Table 1: Results of reptile survey



Key

- Roofing felt
- Carpet tile
- Earth bank
- - - Footpath

Do not scale from this drawing

Client

Castlemead Group Ltd.

Project name

Reptile Survey

Drawing

Ruabon, Wrexham

Drawing No
CE126-1

Version
1.0

Date
10.06.2014

Drawn by
MP

Scale
NTS

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