



Harworth Estates

Rockingham Business Park, Barnsley

REPTILE SURVEY REPORT

August 2016

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1.0 INTRODUCTION

- 1.1 The following report has been prepared by FPCR Environment & Design Ltd on behalf of Harworth Estates Ltd. and details the findings of reptile surveys undertaken on a site adjacent to Shortwood Business Park, Barnsley. The need for further surveys of this group was identified during an initial habitat assessment carried out in April 2015.

Site Location and Context

- 1.2 The subject site is located adjacent to the west of Shortwood Business Park in Barnsley, South Yorkshire (central grid ref: SE356 010) and includes parcels of land to the north and south of the A6195 dual carriageway. The subject site consists of a former quarry restored to arable and improved pasture with associated native hedgerows and plantation broad-leaved woodland. An attenuation pond, drainage channel (partially culverted) and associated semi-improved grassland are in the southwest and further limited parcels of semi-improved grassland are associated with plantation margins.
- 1.3 In terms of surrounding habitats, the existing residential development of Birdwell is situated to the north west and to the south the more extensive residential area of Hoyland. Junction 36 of the M1 Motorway lies less than 600m to the west. The surrounding land use is largely arable and pasture with an area of broad-leaved semi-natural woodland to the north.

Proposals

- 1.4 Proposals are for a mixed use development including B1, B2 and D1 uses.

2.0 LEGISLATION

- 2.1 All common reptile species, including slow-worm *Anguis fragilis*, common lizard *Zootoca vivipara* and grass snake *Natrix natrix*, are partially protected under Sections 9(1) and 9(5) of Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This legislation protects these animals from:
- intentional killing and injury;
 - selling, offering for sale, possessing or transporting for the purpose of sale or publishing advertisements to buy or sell a protected species.
- 2.2 This partial protection does not directly protect the habitat of these reptile species. Where these animals are present on land that is to be affected by development, the implications of legislation are that providing that killing can reasonably be avoided then an operation is legal.
- 2.3 All reptile species are Species of Principal Importance under Section 41 of the NERC Act (2006).

3.0 METHODOLOGY

Desktop study

- 3.1 In order to compile existing baseline information, relevant ecological information was requested from both statutory and non-statutory nature conservation organisations including:
- Rotherham Biological Records Centre (RBRC)
 - Sheffield Biological Records Centre (SBRC)
 - Natural England via the Multi Agency Geographic Information for the Countryside (MAGIC) interactive map (<http://magic.defra.gov.uk/website/magic/>)
- 3.2 Further inspection, using colour 1:25,000 OS base maps (www.ordnancesurvey.co.uk) and aerial photographs from Google Earth (www.maps.google.co.uk), was also undertaken in order to provide additional context and identify any features of potential importance for nature conservation in the wider countryside.

Field survey

Habitat Assessment

- 3.3 An initial assessment of the sites suitability for reptiles was undertaken during the phase 1 habitat assessment on the 13th April 2015. This included noting the following:
- Suitable habitats such as less intensely-managed arable margins, grassland, scrub, woodland edge, ditches.
 - Suitable habitat mosaics or ‘eco-tones’ between adjoining habitat where a range of environmental conditions were created which would be conducive with reptile potential.
 - Piles of rubble, spoil, timber or other waste which may form refugia or hibernacula.

Presence/Absence Surveys

- 3.4 A strategic reptile presence / absence survey was undertaken at specific locations identified as offering potential habitat within the area of survey. The survey was undertaken based on methodology detailed in the *Herpetofauna Workers Manual*¹ and the *Froglife Advice Sheet*².
- 3.5 Methods involved a search for basking reptiles on/under naturally occurring and strategically positioned artificial refugia. The artificial refugia used were 0.5m² sections of roofing felt with a black upper side. These were placed in locations that offered the most suitable habitat for common reptiles i.e. along the wet ditch. A total 46 artificial refugia were placed on the site within suitable habitat. The location of refugia is shown in Figure 1.
- 3.6 All of the surveys were undertaken between June and September 2015 by suitably experienced FPCR ecologists. The surveys were carried out in appropriate weather conditions i.e. air temperature between 9 and 18°C, no strong wind or heavy rain. The exact timings conditions are shown in the results section below.

¹ Gent and Gibson (1998) *Froglife Advice Sheet 10 – Reptile Survey, Herpetofauna Workers Manual*

² Froglife Advice Sheet 10: An introduction to planning, conducting and interpreting surveys for snake and lizard conservation <http://www.froglife.org/documents/FroglifeAdviceSheet10.pdf>

3.7 In addition, the surveys also followed the guidelines recommendations by:

- Approaching refugia from downwind and avoiding casting a shadow and with care so as to not disturb basking animals when checking;
- Lifting and replacing tins, to check for the presence of reptiles underneath in hot weather is undertaken with care, to avoid potential harm to any animals underneath;

Limitations

3.8 Due to some poor conditions in July and August, some surveys were delayed to ensure they were undertaken during appropriate weather conditions. However September is still considered to be an optimal time to survey for reptiles, so results are considered to be appropriate for identifying the status for reptiles on site.

4.0 RESULTS & ASSESSMENT

Desktop study

4.1 No sites designated for their populations of reptiles were identified within the search area and no records of reptiles from within the past 10 years were located within 1km of the site boundary.

Habitat Assessment

4.2 The south of the site comprised 5 compartments of improved grassland in association with several young plantation woodland compartments and semi-improved grassland margins. While the margins between woodland and grassland provided some suitable habitat for reptile species, the majority of these areas were characterised by grassland compartments that abruptly abutted woodland habitats providing a limited extent of edge habitat favoured by reptile species. These areas were therefore considered unsuitable for further survey. The north of the site comprised two arable fields and a plantation woodland compartment. Reptile refugia were placed along habitats that were considered suitable for reptile species including:

- A wet ditch and 2 ponds were present along south-western boundary of the site offering suitable foraging habitat for grass snake.
- A dry ditch on the south-east of the site offered seasonally wet habitat for foraging grass snake.

Presence/Absence Surveys

4.3 During these surveys no reptiles were recorded, Table 1 presents the full survey conditions, timings and results.

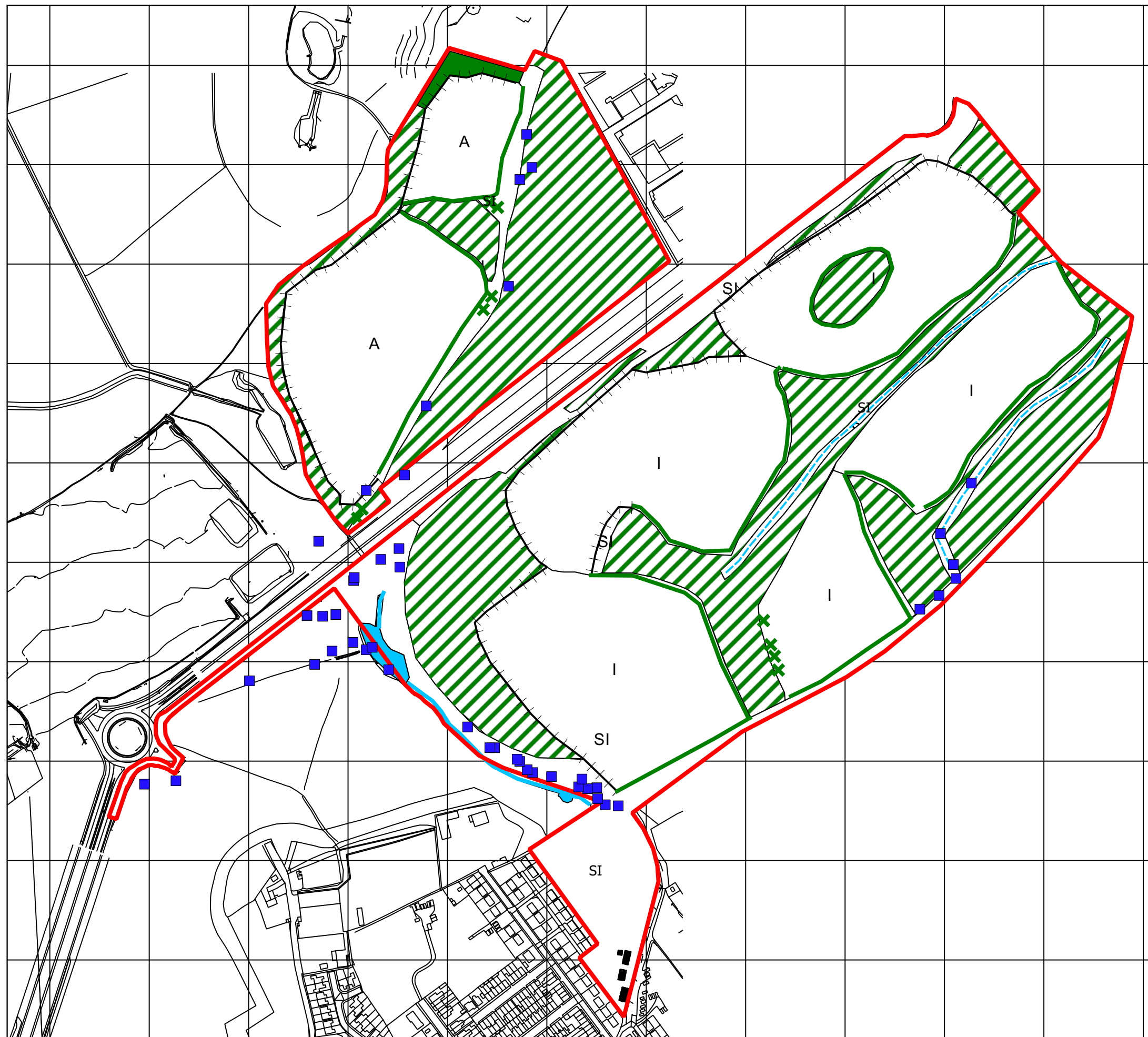
Table 1: Reptile Survey Results

Survey Occasion	Date	Time	Weather	Reptile Sightings
1	04.06.15	08:00	Sunny, 14°C	None
2	08.06.15	08:50	Sunny, cloud cover, 13°C	None

3	04.09.15	09:00	Overcast, 13°C	None
4	10.09.15	17:00	Cloud cover, 15°C	None
5	21.09.15	17:15	Sunny, cloud cover, 15°C	None
6	25.09.15	17:00	Sunny, cloud cover, 13°C	None
7	29.09.15	17:15	Sunny, 14°C	None

5.0 DISCUSSION

- 5.1 Although habitats within the site were considered to provide some potential for occupation by reptile species, none were recorded during the presence/absence surveys undertaken in 2015. It is possible that the isolation of the site by surrounding roads and residential development has prevented colonisation.
- 5.2 Therefore, based on the above, it is considered that the presence of reptiles can be reasonably discounted and that there are no constraints to the proposals from the presence of reptile species. As such no further survey or mitigation is considered necessary.



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- Site Boundary
- Refugia Location
- Broadleaved woodland - plantation
- Broadleaved woodland - semi-natural
- Buildings
- A Cultivated/disturbed land - arable
- I Improved grassland
- SI Poor semi-improved grassland
- Standing water
- Dry ditch
- Fence
- Intact hedge - species-poor
- Standing water



Harworth Estates Ltd.
Rockingham Business Park, Barnsley

REPTILE REDUGIA LOCATION PLAN



Scale: 1:4,000 @A3 OGJ / RJS 12/7/2016

Figure 1

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