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Reptile Presence/Absence Survey Report

Upper Bognor Road, Bognor Regis

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Report Summary

1. The University of Chichester commissioned The Ecology Co-op to undertake a reptile presence/absence survey on land at Upper Bognor Road between 16th April 2021 and 17th May 2021 to ascertain what, if any, reptile species are present on the site and the adjacent proposed receptor area. The reptile survey has been completed subsequent to a condition of planning approval for two new residential dwellings and associated landscaping.

2. The reptile survey has been informed by a walkover survey and Ecological Assessment produced in November 2019 which identified suitable habitat for reptiles.

3. A Reptile Mitigation Statement was produced in December 2019 which assumed the presence of a moderate or high population of reptiles within the proposed construction zone. The mitigation detailed a translocation strategy which utilised an adjacent plot of land as a receptor site, with enhancements including installing hibernacula, whilst hedgerow planting and a wildflower meadow was proposed to benefit other wildlife as well as reptiles.

The survey was undertaken by Holly Waters BSc (Hons), MSc.

4. The site comprises an isolated derelict garden associated with two vacant properties. Habitat includes tall ruderal habitat, scrub and rubble piles with areas of hard standing and amenity grassland.

5. The survey was carried out by placing 8 artificial refugia in suitable areas across the proposed development site and adjacent proposed receptor site. These were left to 'bed in' for a minimum of 10 days, followed by a total of seven survey visits during suitable weather conditions at appropriately spaced intervals.

6. The reptile survey at Upper Bognor Road identified a likely absence of reptiles, given no reptiles where detected on any of the survey checks for both the application site and receptor area.

7. The presence of rubble piles and dense scrub could reduce survey detection, it is therefore considered appropriate to proceed using precautionary mitigation.

8. Precautionary mitigation will include a supervised two-phase strim to sensitively reduce and eliminate suitable habitat in advance of the construction phase. Further details will be provided in the updated Mitigation Statement report.

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1 INTRODUCTION

1.1 Purpose of the Report

This report provides the results of a reptile presence/absence survey carried out by Holly Waters BSc (Hons) MSc, at Upper Bognor Road between the 16th April 2021 and 17th May 2021.

The purpose of the survey is to identify the presence or likely absence of reptiles at the site and if present, determine approximate population size of reptile species to provide tailored mitigation and compensation measures, should they be necessary.

This survey and report were carried out and produced at the request of The University of Chichester.

1.2 Background

The Ecology Co-operation was commissioned to undertake a reptile survey at Upper Bognor Road further to a condition to planning approval. An Ecological Appraisal identified suitable habitat for reptiles in November 2019, which was followed up with a Mitigation Statement in December 2019, which assumed a medium or high reptile population, and recommended a reptile translocation strategy.

The proposed development area is a small enclosed 0.09ha derelict garden associated with properties adjacent to the University of Chichester, Upper Bognor Road, Bognor Regis, West Sussex. The site lies in an urban context with limited connectivity to habitats in the wider landscape, see Figure 1. Habitats consist of mostly tall ruderal vegetation and scrub, with several rubble piles, some amenity grassland and hardstanding, see Photograph 1. The proposed receptor site was simultaneously surveyed and consists of a SuDs pond and rough grassland, see Photograph 2.

The ecology surveys have been carried out further to a proposal to redevelop the site into two new properties, with associated hard and soft landscaping.

Figure 1. An aerial image showing the location Upper Bognor Road, Bognor Regis. The approximate site boundary is highlighted in red, whilst the proposed receptor site is outlined In blue. Image produced courtesy of Google maps (Map data ©2021 Google).

Photograph 1. Tall ruderal habitat and scrub can be found central and west of the site. Brick and rubble piles scattered in various areas across the site.

Photograph 2. View of the south section of the proposed receptor site containing a SuD's pond.

2 LEGAL PROTECTION

This section briefly describes the legal protection afforded to reptiles. It is for information only and is not intended to be comprehensive or to replace specialised legal advice. It is not intended to replace the text of the legislation, but simply summarises the salient points.

Common lizard *Zootoca vivipara*, grass snake *Natrix natrix*, slow-worm *Anguis fragilis* and adder *Vipera berus* are listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), in respect of Section 9(5) and part of Section 9(1). This protection was extended by the Countryside and Rights of Way (CRoW) Act 2000. Under the legislation it is an offence to:

- intentionally or deliberately kill or injure any individual of these species; or
- sell or attempt to sell any part of these species either alive or dead.

Additionally, two rarer reptile species in the UK – sand lizard *Lacerta agilis* and smooth snake *Coronella austriaca* – are categorised as European Protected Species, protected under the Conservation of Habitats and Species Regulations 2017 and the Wildlife and Countryside Act 1981(as amended). Legislation prohibits the following:

- deliberate capturing, injuring or killing;
- deliberate disturbance;

- deliberate taking or destroying of eggs;
- damaging or destroying a breeding site; and/or
- selling or attempt to sell or exchange any part of these species either alive or dead.

A survey licence is required to survey for sand lizard and smooth snake in England.

3 METHODOLOGY

The common lizard, slow-worm grass snake and adder are widespread species that can be found in many semi-natural habitats, such as rough grassland, scrub, heathland and open woodland where there is good vegetation cover, an abundance of invertebrate, amphibian or small mammal prey and areas of open ground for basking.

Standard reptile presence/likely absence surveys involve setting out artificial refugia (reptile 'mats' or 'tins') in potentially suitable habitat. Reptile mats are pieces of roofing bitumen felt and reptile tins are pieces of corrugated metal. Carpet tiles are also used. These refugia are cut to approximately 1 m x 1 m in size, and they absorb heat from the sun more rapidly than the surrounding vegetation, providing cover and basking places attractive to reptiles. Surveys involve checking the refugia for presence of animals when temperatures are between 9 and 18 degrees and in the absence of rain and strong winds. Reptile mats are placed in areas of potentially suitable habitat at an approximate density of 10 – 15m per ha. Surveys are evenly spread and timed to allow for seasonal variation in habitat use. There are no up-to-date best practice guidelines for reptile surveys, but a minimum of seven survey visits under suitable weather conditions is generally considered to be adequate when determining their presence/likely absence, and 15–20 visits are used to calculate a more detailed population size class assessment. An appropriate survey effort may depend upon the size of the site and suitability of habitats present and often requires the judgment of a suitably qualified and experienced ecologist.

Given the small size of the site (0.09ha) a total of 8 refugia consisting of bitumen felt and corrugated metal were used for this survey (see Figure 3). The mats were deployed on the 22nd of March and left in situ to 'bed in' to allow reptiles to locate them before the first check. The mats were checked on seven occasions between the 16th April 2021 and the 17th May 2021, and all observations of reptiles were recorded, together with the weather conditions, temperature and time of day.

The survey refugia were placed evenly in suitable habitat around the site, focusing on the areas of long vegetation and scrub where they would warm up in the morning or afternoon sun.

Figure 5. Location of reptile refuges identified by the dots. the area outlined in red highlight the development site and the area outlined in blue indicates the proposed receptor site. Image produced courtesy of Google maps (Map data ©2021 Google).

Where reptiles are found to be present, the population size class assessment is determined in line with Natural England guidance, as detailed in Appendix 1. Subsequent mitigation is determined in line with best practice and the mitigation hierarchy (i.e. avoid, mitigate, compensate).

4 RESULTS

The survey findings, dates and conditions are presented in Table 1 below.

The survey confirmed a likely absence of reptiles within the application site and adjacent receptor area.

Table 1. Results of reptile survey undertaken at Upper Bognor Road, donor site and receptor area.

Date	Start time	Air temp. °C	Refugia temp. °C	Weather conditions	Results
16th April 2021	12:15	11°C	18°C - 34°C	70%cc, Bf 1, sunny	No reptiles
23th April 2021	11.00	15°C	18°C - 22°C	0%cc, Bf 3, sunny	No reptiles
27th April 2021	16.00	13°C	16°C - 24°C	5%cc, Bf 2, sunny	No reptiles

Date	Start time	Air temp. °C	Refugia temp. °C	Weather conditions	Results
30th April 2021	14.00	10°C	15°C - 24°C	70%cc, Bf 2, sunny	No reptiles
5th April 2021	10.15	10°C	16°C - 19°C	60%cc, Bf 2, sunny	No reptiles
10th May 2021	13.20	14°C	25°C - 34°C	20%cc, Bf 3, sunny	No reptiles
17th May 2021	10.50	14°C	18°C - 21°C	80%cc, Bf 2, sunny	No reptiles

4.1 Constraints/Limitations to Surveys

Surveys record any flora or fauna that is present at the time of the survey visits. It is therefore possible that some species may not have been present during the survey but may be evident at other times of the year and may appear or disappear from the site if habitat conditions change. For this reason, the surveys are considered valid for up to two years for reptiles. If the habitat conditions change significantly in the intervening period, then it is recommended that the surveys are updated.

5 DISCUSSION AND RECOMMENDATIONS

Despite the absence of reptiles, a precautionary approach is considered appropriate due to the dense scrub and rubble piles present on the site, which could be used as more favourable basking sites to the reptile refugia.

It is therefore considered appropriate to proceed using habitat manipulation to sensitively reduce and eliminate reptile habitat within the construction zone. Specific details of the precautionary mitigation and post-construction enhancements will be provided in an updated version of the Mitigation Statement.

Should you need any further advice on the information provided above, please do not hesitate to contact The Ecology Co-op.

APPENDIX 1 – Reptile Population Size Class Assessment

Population size class assessment as provided within the Natural England Technical Note 102 – Reptile Mitigation Guidelines – although this guidance has been withdrawn since its issue in 2011, in the absence of any other published guidance, the information provided in the Technical Note is still considered to provide a robust means of determining population size for reptiles.

Table 9 Deriving a population size class category using survey counts or habitat suitability assessment

Species	Population size class		
	Small	**Medium**	**Large**
Slow-worm	<10, or presence + "poor" habitat suitability	10-40, or presence + "good" habitat suitability	>40, or presence + "exceptional" habitat suitability
Common lizard	<5, or presence + "poor" habitat suitability	5-20, or presence + "good" habitat suitability	>20, or presence + "exceptional" habitat suitability
Sand lizard	<5, or presence + "poor" habitat suitability	5-10, or presence + "good" habitat suitability	>10, or presence + "exceptional" habitat suitability
Grass snake	<5, or presence + "poor" habitat suitability	5-10, or presence + "good" habitat suitability	>10, or presence + "exceptional" habitat suitability
Adder	<5, or presence + "poor" habitat suitability	5-10, or presence + "good" habitat suitability	>10, or presence + "exceptional" habitat suitability
Smooth snake	<5, or presence + "poor" habitat suitability	5-10, or presence + "good" habitat suitability	>10, or presence + "exceptional" habitat suitability