



Reptile Survey

Land south of Barrow Green Road, Oxted, Surrey

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Contents

1.0	INTRODUCTION.....	3
	BACKGROUND	3
	SITE CONTEXT AND STATUS	3
2.0	REPTILE SURVEY METHODOLOGY.....	5
3.0	RESULTS.....	5
4.0	DISCUSSION	7
5.0	CONCLUSIONS	10
6.0	REFERENCES.....	11

LIABILITIES:

Whilst every effort has been made to guarantee the accuracy of this report, it should be noted that living animals and plants are capable of migration/establishing and whilst such species may not have been located during the survey duration, their presence may be found on a site at a later date.

The recommendations contained within this document are based on a reasonable timeframe between the completion of the survey and the commencement of any works. If there is any delay between the commencement of works that may conflict with timeframes laid out within this document, or have the potential to allow the ingress of protected species, a suitably qualified ecologist should be consulted.

It is the duty of care of the landowner/developer to act responsibly and comply with current environmental legislation if protected species are suspected or found prior to or during works.

1.0 Introduction

Background

- 1.1 The Ecology Partnership was commissioned by Croudace Homes to undertake an assessment of reptiles on land south of Barrow Green Road, Oxted Surrey. This is one of the specialist surveys identified as needed during the Preliminary Ecological Assessment (The Ecology Partnership, 2022) for the project.
- 1.2 This report presents the results of The Ecology Partnership's surveys in and around the site, which aims specifically to assess how reptiles are using the site between April and May 2022.

Site Context and Status

- 1.2 The site comprises an arable field with small areas of woodland at the northern and southern edges. The site is approximately 9.7ha and located on the north-western edge of Oxted, bound by Barrow Green Road and a railway corridor to the north, a cemetery to the east, residential housing and gardens to the south, ancient woodland to the south-west and a small ephemeral stream to the west (TQ 387 531). The wider surrounding area comprises residential areas to the north, east and south, with extensive woodland and private green space to the west.
- 1.3 The approximate red line boundary of the site is shown in Figure 1 below.
- 1.4 Outline application for a residential development of up to 190 dwellings (including affordable homes) (Use Class C3), an extra care facility with up to up 80 beds (Use Class C2), together with the formation of vehicular access, landscaping, parking, open space, green and blue infrastructure, and all other associated development works. All matters reserved except access.

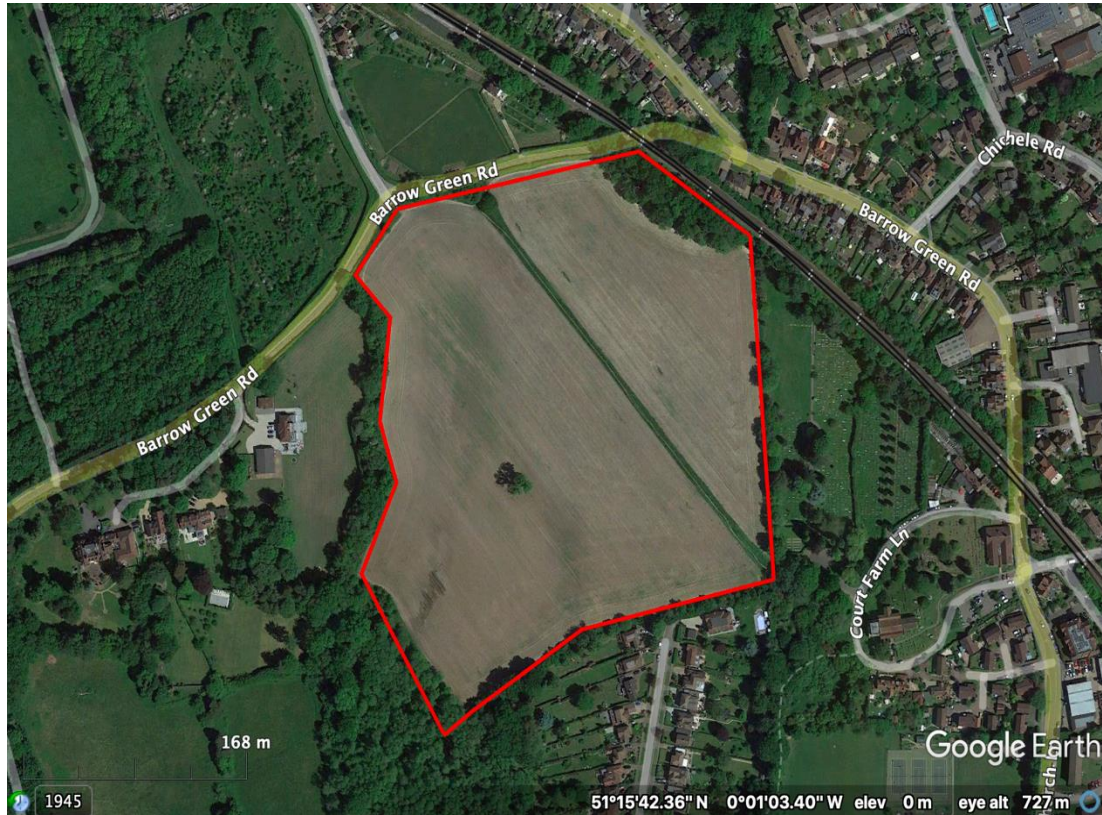


Figure 1: Approximate location of the red line boundary

Satellite imagery obtained from Google Earth Pro on 24/03/2022

Relevant Legislation

- 1.3 The assessment also takes into consideration nature conservation and wildlife legislation including, but not limited to, the Wildlife and Countryside Act 1981 (as amended), the Natural Environment and Rural Communities (NERC) Act 2006 and the Conservation of Habitats and Species Regulations 2010.
- 1.4 The protection afforded to these widespread reptile species is through part of Section 9 of the Wildlife and Countryside Act 1981, as amended. This is usually interpreted, through Natural England's standing advice¹ and related documents (ARC 2010) as the need for developers to survey potentially suitable habitats, following standard methods to determine presence/absence and, if present, the population size class (HGBI 1998, Sewell

¹ <https://www.gov.uk/guidance/reptiles-protection-surveys-and-licences>

et al. 2013), which helps guide mitigation to provide reasonable effort to avoid killing or injury to any reptile.

- 1.5 The report has been produced with reference to current guidelines for preliminary ecological appraisal (CIEEM 2017) and in accordance with BS 42020:2013 Biodiversity – Code of Practice for Planning and Development.

2.0 Reptile Survey Methodology

- 2.1 Prior to the commencement of the survey, the site was set up with artificial refugia (roofing felts) for reptiles on 30th March 2022. Due to public interference, some refugia had to be replaced on the 13th of April 2022.

- 2.2 Refugia were placed in areas of suitable habitat on site using the surveyor's professional judgement. The refugia were left in place for a bedding-in period of at least 7 days prior to the commencement of the survey.

- 2.3 The timing and number of surveys completed were based on guidelines produced by Froglife (1999). A total of seven survey visits were carried out to check the refugia for the presence of reptiles. Visits were only carried out if the weather conditions were suitable for locating reptiles. On each visit to the site one circuit to check all refugia was carried out and a visual search was made of suitable habitat between the refugia. Surveys were planned to be completed over the months of July to August, which are optimal for the three most likely species of reptiles (slow-worms, common lizards and grass snakes).

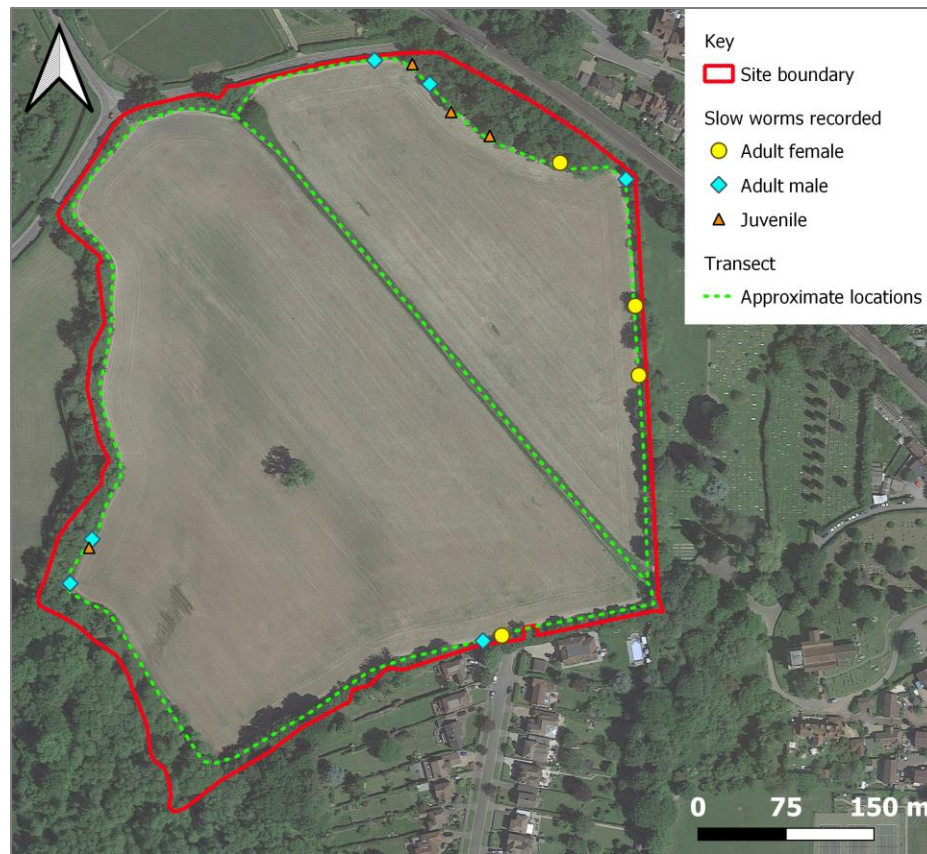
- 2.4 The density of refugia for the c9.5ha of suitable habitat surveyed over the course of the seven visits, exceeded the recommended 10/ha of suitable habitat (Froglife 1999).

3.0 Results

- 3.1 The results of the survey are summarised in Table 1 and Figure 2. Slow-worms were recorded on all visits, however, no other species were recorded.

Table 1: Reptile survey results 2022

Visit	Date	Temperature (°C)	Weather	Slow worm numbers
Final refugia set-up	13 th April 2022	-	-	-
1	19 th April 2022	11	80% cloud cover, 1 wind, dry	2 Female 1 Male
2	22 nd April 2022	11	90% cloud cover, 3 wind, dry	2 Male
3	26 th April 2022	10	100% cloud, 1 wind, dry	1 Male
4	29 th April 2022	12	90% cloud, 1 wind, dry	1 Female 1 Male
5	3 rd May 2022	13	100% cloud cover, 1 wind, dry	1 Female 2 Male
6	9 th May 2022	16	10% cloud cover, 0 wind, dry	1 Female 3 Male 1 Juvenile
7	25 th May 2022	16	100% cloud, 4 wind, dry	3 Female 2 Male 9 Juvenile

**Figure 2: Locations of reptiles recorded on site.**

- 3.2 The number of points on the map does not match the number of recorded individuals. This is due to individuals being recorded under the same refugia each visit or, refugia had more than one individual underneath during the visit.
- 3.3 The peak counts of adult reptiles were of five slow worms (25th May 2022). Under the still widely used Froglife (1999) scoring system the population of slow worms are in the middle category of “Good”, of the three categories low, good and exceptional. The Froglife scoring system requires a density of not more than 10 refugia per hectare, which is exceeded here, so the population class assessment should be interpreted with caution.

Table 2: Population class assessment categories (Froglife 1999) and their application at the site

Species	Population class		
	Low	Good	Exceptional
Adder	<5	5-10	>10
Common Lizard	<5	5-20	>20
Grass Snake	<5	5-10	>10
Slow Worm	<5	5-20	>20

4.0 Discussion

- 4.1 Slow worm was the only species of reptile found on site. The presence of grass snake cannot be definitively ruled out, as the generally lower population densities of this species and its use of different areas in different seasons increases the probability of a “false negative”; the species present, but not detected. The wet woodland has potential to provide suitable habitat for grass snakes.
- 4.2 Based on the survey findings and the scoring criteria detailed in Froglife (1999), the site has been identified as currently supporting a “good” population of slow worms. The observations of the species were concentrated around the borders of the site in the south, north-east and west. The slow worms observed in the west and south were consistently recorded under the same refugia.
- 4.3 The four widespread species of reptile are legally protected via part of Section 9(1) of the Wildlife and Countryside Act 1981 (as amended) against “*intentional killing and injuring*”.

- Natural England's standing advice where widespread reptiles be effected by a development (<https://www.gov.uk/guidance/reptiles-protection-surveys-and-licences>) is that a mitigation plan will need to be produced to meet legislation. This is usually delivered through a condition on any approved development.
- 4.4 It is recommended that a mitigation strategy be developed to ensure that individuals are not harmed by the redevelopment of the site. As the only suitable habitats are limited to the edges of the site and the bulk of development will be taking place within the unsuitable arable land, most potential impacts on reptiles can likely be avoided. Where ground works/vegetation clearance are required in the margins of the site, this should be done in a sensitive manner in the active season for reptiles (April-September inclusive), to avoid impacts to reptiles as detailed below:
- Cut vegetation to 150mm and remove cuttings
 - After 24 hours an ecologist should conduct a fingertip search to identify any reptiles, or refugia which will be dismantled by hand. Any reptiles found will be safely moved away from the works area to suitable habitat.
 - Following fingertip search, vegetation will be cut to ground level.
 - A period of 24 hours should be followed before ground works commence to ensure reptiles have had time to move to more suitable habitat nearby.
- 4.5 Once farming practices cease on site in the lead up to development, there is potential for ruderal and grassland habitat suitable for reptiles to establish itself across the site. This may result in reptiles entering the works area from the existing habitat at the sites edges. As such, vegetation should be maintained below 150mm once farming operations cease. If this is not feasible, then reptile fencing may need to be established around the works area to ensure reptiles do not enter. The full details and fencing specification should be detailed in a separate mitigation strategy, if required.

Enhancement Strategy

- 4.6 The current enhancement strategy is outlined below.

- 4.7 The use of wildflower mixes to increase the biodiversity of the newly created public open spaces, this will enhance the ecological value of the site for a range of important invertebrates. Vegetation on the margins of the site should have relaxed management to ensure grassland can reach a sward height of at least 150mm, increasing its habitat suitability for reptiles, and invertebrates.
- 4.8 It is recommended that log piles and hibernacula be created in areas that are not being developed, including in the northeast, northwest and southwest corners of the site (see Figure 4). The new log piles should be created from any trees that are set to be removed as part of the proposals. Planting around the newly created log piles with species such as honeysuckle or clematis can also add value.



Figure 4: Log piles and hibernacula can be created within the edges of the site or in the retained habitats on site

- 4.9 The creation of compost heaps will also provide good habitats for reptiles, especially for breeding. Compost heaps will be made using arisings from clearance works and ongoing grassland management on the site. These can be placed next to or near the newly created log piles on site.

5.0 Conclusions

- 5.1 A “good” population of slow worms were identified on site. These individuals were found throughout the site however were concentrated around the boundaries of the site, particularly in the northeast, south and west
- 5.2 As the development is expected to focus development away from the boundaries of the site it is recommended to set up a reptile exclusion fence to ensure no individuals disperse on the development area.
- 5.3 If there is to be significant removal of reptile habitat the translocation of the species is necessary. A mitigation strategy has been detailed in the EDS but includes reptile fence line establishment and translocation into an enhanced reptile receptor site.
- 5.4 It is considered that the long-term viability of the population of slow worms will not be impacted by the proposed development.

6.0 References

ARC. 2010. *Guidance on Building Development (England) With Respect to Amphibians and Reptiles*. Amphibian and Reptile Conservation.

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

Gent, T. & Gibson, S. eds. (1998) *Herpetofauna Workers Manual*. Joint Nature Conservation Committee, Peterborough.

HGBI (1998) *Evaluating local mitigation/translocation programmes: Maintaining Best Practices and Lawful Standards*. HGBI advisory notes for Amphibian and Reptile Groups (ARGs). Herpetofauna Groups of Britain and Ireland, c/o Froglife, Halesworth.

Sewell, D. *et al.* 2013. *Survey protocols for the British Herpetofauna*. Amphibian and Reptile Conservation.

The Ecology Partnership (2022) *Land South of Barrow Green Road, Oxted, Surrey*. Preliminary Ecological Appraisal

Internet resources:

Google Maps: www.maps.google.co.uk

Magic Maps: www.magic.gov.uk

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