



Reptile Survey Report 2022

Sandgate Nursery, Henfield

The Ecology Partnership, Thorncroft Manor, Thorncroft Drive, Leatherhead, Surrey KT22 8JB

T +44 (0) 1372 364133

E info@ecologypartnership.com

W ecologypartnership.com

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LIABILITIES:

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

The views and opinions 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 Solve Planning to undertake a survey to determine the presence/likely absence of reptiles on land at the former Sandgate Nursery site in Henfield. This is based on recommendations in the Preliminary Ecological Appraisal by The Ecology Partnership in July 2022 which identified the grassland and scrub on site as being potentially suitable for reptiles.
- 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 July to and October 2022.

Site Context and Status

- 1.3 The site comprises a disused and overgrown nursery and is approximately 3.7ha and located on the western edge of Henfield, bound by West End Lane to the north, residential gardens to the east, Hollands Lane to the south, and farmland to the west (TQ 20454 15995). The wider surrounding area comprises residential areas to the north and east and green open space to the south and west, largely comprising horse pasture. The approximate red line boundary of the site is shown in Figure 1 below.

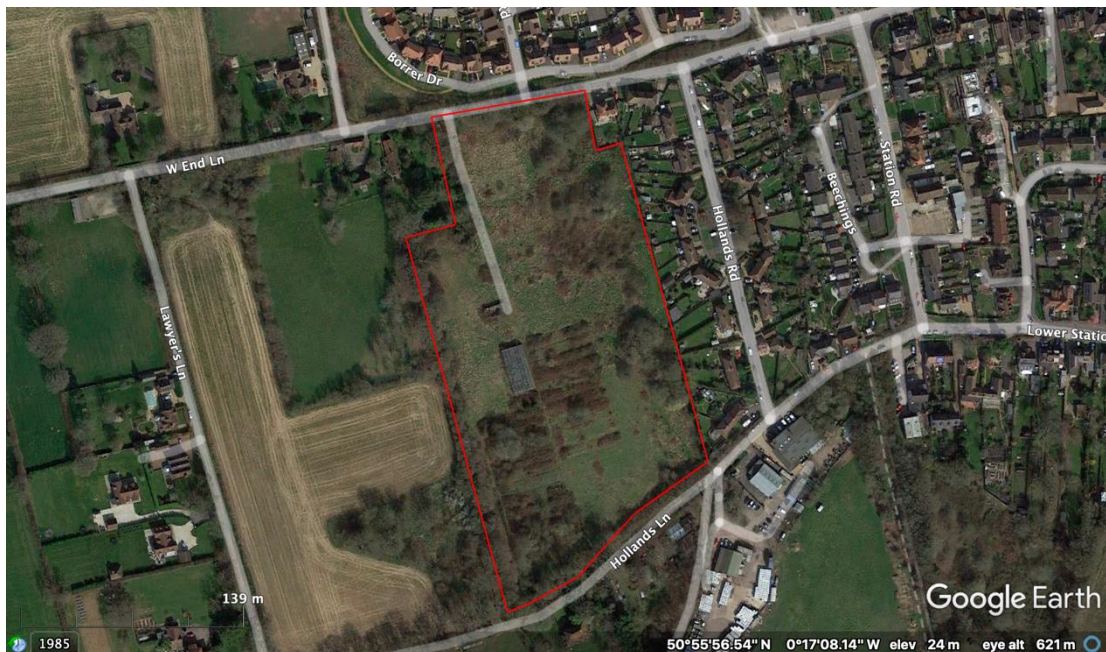


Figure 1: Approximate location of the red line boundary
Satellite imagery obtained from Google Earth Pro on 16/11/2022

- 1.4 Although specific site development plans are unknown at this stage, it is understood to be developed with the construction of new residential housing in the central and eastern portion of the site. Impacts and recommendations will be reviewed when specific site development plans are made available.

Legislation

- 1.5 In the UK, there are six native reptile species. The four widespread species are adder (*Vipera berus*), grass snake (*Natrix helvetica*), common lizard (*Zootoca vivipara*) and slow worm (*Anguis fragilis*). The two rare species are smooth snake (*Coronella austriaca*) and sand lizard (*Lacerta agilis*).
- 1.6 The widespread reptiles are protected under the Wildlife and Countryside Act 1981 (as amended) against intentional killing and injuring and the sale of a wild reptile or any part of such animal. The rare reptiles also receive legal protection under the Conservation of Habitats and Species Regulations 2010 against deliberate injury, killing, capture or disturbance of a rare reptile and damage or obstruction of any place used for shelter or protection.
- 1.7 All six reptile species are also listed as species of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006, which means local authorities have a legal duty to take their conservation into account.

2.0 Reptile Survey Methodology

- 2.1 A terrestrial survey of the site for reptiles (presence or absence) was carried out between the dates of 30th August to 3rd October 2022. Prior to the commencement of the survey, the site was set up with artificial refugia (roofing felts) for reptiles on the 2nd August 2022. Approximately 80 reptile mats were laid along the margins of the scrub on site (Figure 2).
- 2.2 The refugia were placed onsite for a period of bedding in, prior to the commencement of the reptile survey as recommended in the advice from Natural England. The timing and number of surveys completed were based on guidelines produced by Froglife (1999) and Gent and Gibson (1998).



Figure 2: Transect line (green) where artificial reptile refugia were placed in 2022

- 2.3 A total of seven surveys were made to the site between August and October 2022, 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, a minimum of one circuit to check all refugia was carried out.
- 2.4 If reptiles are found on site, then a proposed plan of reptile mitigation including the various methodologies that will be employed to safeguard the reptiles will be included within this report.²

3.0 Reptile Results 2022

- 3.1 The timing and number of surveys completed were based on guidelines produced by Froglife (1999) and Gent and Gibson (1998).
- 3.2 A total of seven surveys were made to the site between August and October 2022, to check the refugia for the presence of reptiles.
- 3.3 Over the next seven visits, a peak count of one juvenile grass snake (*Natrix natrix*), 1 male slow worm, 1 female slow worm and five juvenile slow worms was recorded on 9th September 2022. The majority of adult slow worms were found in the south of the site, with juveniles sparsely distributed in the north. The results are summarised in Figure 3 and Table 1 below.

Table 1: Reptile survey results 2022

Visit	Date	Time of day	Temp (°C)	Weather	Reptile species & number	Daily Total (adults)
1	30/08/2022	9-10am	16-17	Sunny with a light breeze	1x juvenile slow worm 1x sub-adult slow worm 1x adult female slow worm 1 x juvenile grass snake	1
2	06/09/2022	8-9am	16-17	Sunny with a light breeze	None	0
3	09/09/2022	9-10am	16-17	Cloudy with a slight breeze	5x juvenile slow worm 1x adult male slow worm 1x adult female slow worm 1 x juvenile grass snake	2
4	12/09/2022	8-9am	17-18	Sunny and calm	1 x juvenile slow worm 1x adult female slow worm	1
5	16/09/2022	9-10am	12-15	Sunny with a light breeze	2 x juvenile slow worm 1x adult female slow worm	1
6	20/09/2022	9-10am	15-16	Sunny and calm	3x juvenile slow worm 1x adult male slow worm 1x adult female slow worm	2
7	03/10/2022	10-11am	14-16	Sunny and calm	3x juvenile slow worm 1x adult female slow worm	1

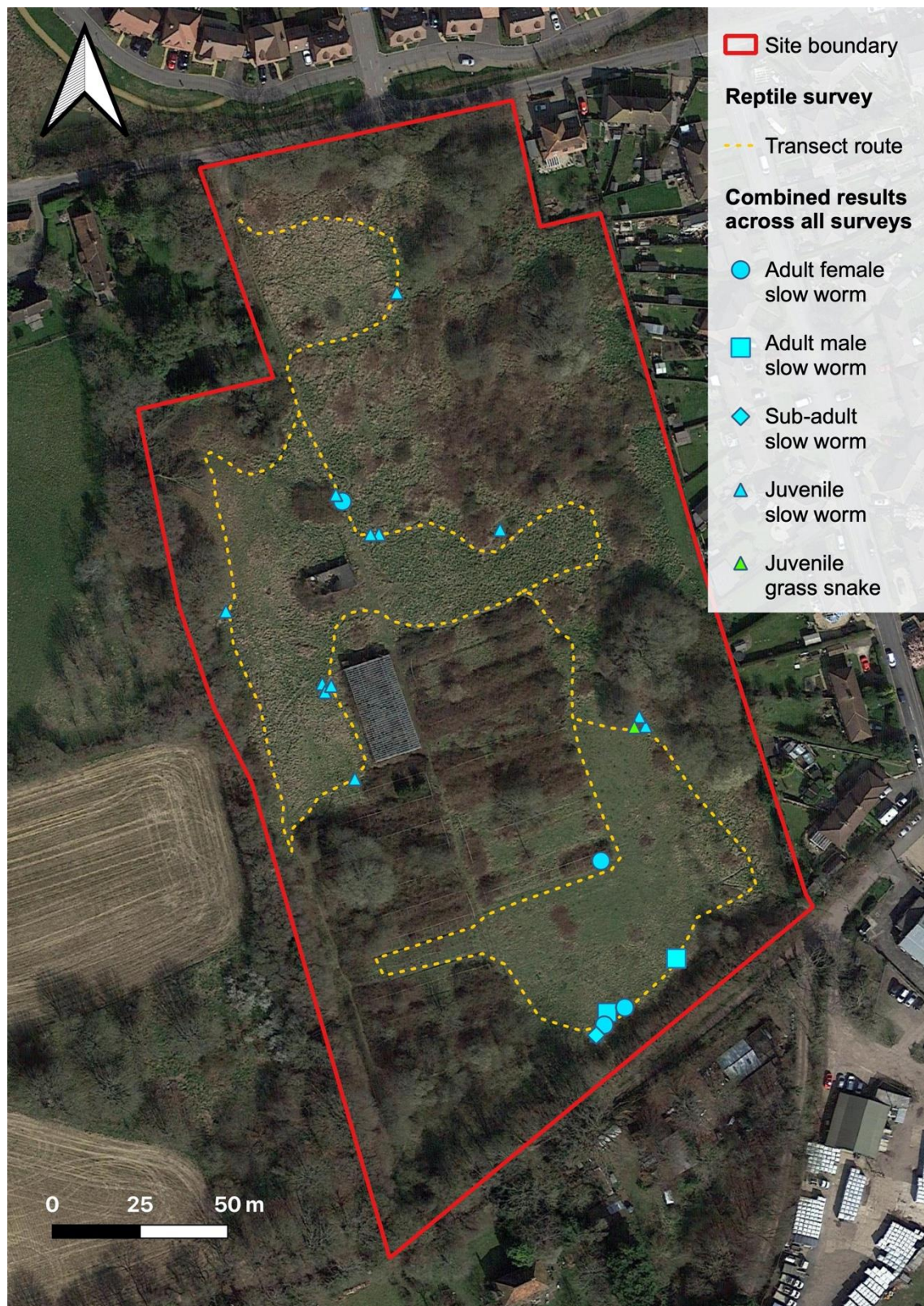


Figure 3: Locations of the reptiles observed on site across all surveys.

4.0 Discussion

4.1 The Key Reptile Site Register is a mechanism designed to promote the safeguard of important reptile sites. The criteria for site selection are given below, including a table which allows the classification of the relative size of reptile populations on the basis of survey counts. To qualify for the Key Reptile Site Register, the site in question must meet at least one of the following criteria:

1. Supports three or more reptile species
2. Supports two snake species
3. Supports an exceptional population of one species (see table)
4. Supports an assemblage of species scoring at least 4 (see table)
5. Does not satisfy 1-5 but which is of particular regional importance due to local rarity (e.g. in the East Midlands of England, adders are very rare so even "low" populations should be designated as Key Sites)

4.2 The size of the reptile population can be estimated using the Froglife (1999) scoring system. This system assumes a density of 10 refugia per hectare, which is the density laid on suitable reptile habitat on the proposed development area. A population size class assessment, which is based on the number of adults recorded in one survey visit can be made using Table 3.

Table 3. Population class assessment categories (Froglife, 1999)

	Low population (Score 1)	Good population (Score 2)	Exceptional population
Adder	<5	5 - 10	>10
Common lizard	<5	5 - 20	>20
Grass snake	<5	5 -10	>10
Slow-worm	<5	5 - 20	>20

4.3 The site supports a 'low' population of slow worm with adults typically found in the south of the site, whilst juveniles were located in low number throughout. No evidence of any other reptile species on site was found other than a single juvenile grass snake, however, as no adults were found the site, this does not qualify as a low population, although it is likely that a grass snake population is present in the wider surrounding area. Given that only a single reptile species was identified as being resident on site, the site is not considered to be a Key Reptile Site.

- 4.4 It is likely that the reason for such a low reptile population on a site that features such an abundance of suitable habitat, is due to the history of the site. The grassland on site had historically been managed to a short sward height up until some point around 2015/2016. This would have suppressed scrub and rank grassland development, and the only suitable reptile habitat would have been around the margins of the site, and beneath the old polytunnels. This would only have been able to support a low population of slow worm. In the intervening years the lack of management has resulted in most of the site now being suitable to support slow worm, increasing the site's carrying capacity. However, the survey results indicate that the slow worm population on site has not yet sufficiently increased to make use of this habitat. Furthermore, the presence of [REDACTED] on site may also be suppressing their population growth, as they predate slow worm.

Outline Reptile Mitigation Strategy

- 4.5 The following is considered an outline mitigation strategy. It is recommended that a detailed mitigation strategy as part of a Construction Environmental Management Plan (CEMP: Biodiversity), or a standalone report is conditioned, in order to tailor mitigation to the final proposals.
- 4.6 The development proposals will directly impact suitable reptile habitat such as the grassland scrub mosaic across much of the site. It is recommended that the boundary features are retained and enhanced as part of site plans, particularly along the southern, western and north-western boundaries.
- 4.7 For a low reptile population, a precautionary method of habitat clearance is usually sufficient to mitigate any impact on reptiles. However, this is only effective where the reptiles are located in a relatively small area of habitat alongside an area being retained in which they can be displaced into. As the suitable reptile habitat is present across the majority of the site, and the reptiles are spread out over this area, this method is not considered appropriate, as slow worms are slow moving and cannot be displaced over long distances. As such, a translocation is recommended.
- 4.8 Given that the site supports only a very low population of reptiles, an offsite reptile translocation is not considered necessary, as part of the site could be retained as a receptor area.

This receptor areas should comprise at least 0.5ha of suitable retained grassland and scrub habitat in the south, west or north-west of the site.

- 4.9 It is recommended that reptile exclusion fencing is constructed along the boundaries of the works area. This will require sensitive clearance under ecological watching brief along the route of the fence line.
- 4.10 Refugia would be set up within the fenced off area, two weeks prior to the trapping period in order to bed in. Guidance from HGBI (1998) recommends a minimum trapping period of 60 days for a population of slow worm of <50 adults per hectare. As the population on this site was a maximum of 2 adults over 3.7ha (0.5 slow worms/ha), it would be reasonable and proportionate to reduce this to a minimum trapping period to 30 days with an additional 5 clear days triggering the end of the trapping period. Any reptiles caught during the trapping period would be translocated into the reptile receptor area.
- 4.11 The receptor area should be made suitable for reptiles prior to the start of the translocation. Hibernaculum should be created, excessive bramble and large shrubs cut back, and the grasses within allowed to grow up to provide suitable cover from predators.
- 4.12 Once trapping is complete, the trapping area should be sensitively cleared and subject to a destructive search. The following methods of sensitive clearance are considered to be the most effective method;
- The areas of grassland with a longer sward should be taken down to a short mown sward.
 - Any log/brash/soil piles are to be removed sensitively and by hand, not using any heavy machinery. This is especially important if works must be carried out during the winter, when reptiles (and other animals) are likely to be hibernating within such structures.
 - Under ecological watching brief, an excavator with a toothed bucket should carefully strip back the topsoil. If this reveals any reptiles, the ecologist should indicate the excavator to stop and when safe to do so should safely move the reptile out of the works area and into the receptor area.
 - Following the above, parts of the reptile fencing can be removed to facilitate access however, that along the boundary of the receptor area should remain in situ throughout the works. During construction, the site is to be kept free of piles of

debris such as log piles, leaf piles, brick heaps or loose soil, and vegetation kept short (other than trees/shrubs).

Enhancement Strategy

- 4.13 The receptor area as well as other areas of open green-space within the development could be enhanced for reptiles through use of native wildflower seed mixes and managed in the long-term for biodiversity. This will increase the abundance and diversity of invertebrates within the grassland, on which slow worm predate.
- 4.14 Log and brash piles can be created within the new development site. Log piles should be located in a variety of locations, such as damp places, with some situated in more sunny locations. These should be stacked and some amounts of leaf litter added. Planting around log piles with such species as honeysuckle or clematis can also add value. Examples of log piles can be seen in Figure 4 below.



Figure 4: Recommended structures for the log piles within the proposed development site. It is recommended that several piles are created of each type. These piles can be used by a variety of wildlife, reptiles being one group that happily use such features.

5.0 Conclusions

- 5.1 The scrub and semi-improved grassland along the field margins of site were considered to have suitability to support common reptile species
- 5.2 Reptile surveys were conducted on site between August to October 2022. These surveys identified a 'low' population of slow worm with no other reptile species found during surveys other than a single juvenile grass snake, and as such, the site is not classed as a key reptile site.
- 5.3 It is likely development will result in the loss of the majority of suitable reptile habitat on site.
- 5.4 An outline mitigation strategy has been devised for the site, including exclusion fencing, reptile translocation, and sensitive clearance methods. However, it is recommended that final mitigation measures are detailed in a separate CEMP or standalone document once proposals are finalised.
- 5.5 An enhancement strategy has been recommended. This includes grassland management, creation of a new wildlife corridor, and hibernacula creation.
- 5.6 It is considered that the recommendations for mitigation and enhancement will ensure that no individuals will be harmed by the development and that their conservation status will remain unaffected by the 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)., *Sandgate Nursery, Henfield - Preliminary Ecological Appraisal*. The Ecology Partnership, Leatherhead.

Internet resources:

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

Google Earth Pro

The Ecology Partnership Ltd

Thorncroft Manor,

Thorncroft Drive,

Leatherhead,

Surrey

KT22 8JB

Tel. 01372 364 133

www.ecologypartnership.com

Approved by: Alexia Tamblyn MA (Oxon) MSc CEcol CEnv MCIEEM FRGS,

Managing Director

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