

**SHEPPEY WAY, IWADE,
KENT**

**ECOLOGY
REPTILE PRESENCE/ABSENCE SURVEY & MITIGATION**

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One	Andrew Bodey & Tom La Dell	Tom La Dell	05.02.2020

LaDellWood LLP

Stocks Studio
Grafty Green
Maidstone
Kent
ME17 2AP

t: 01622 850245

e: info@ladellwood.co.uk

w: www.ladellwood.co.uk

A practice registered with the Landscape Institute

A practice registered with the CIEEM

LaDellWood LLP Partnership no. OC376445

Tom La Dell MA(Oxon)Botany DipLD CMLI CEnv MCIEEM FLS

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SUMMARY

1. During September 2019 LaDellWood were commissioned by to undertake a Preliminary Ecological Appraisal at the site as a result of the survey further protected species surveys were recommended to fully assess the status of reptiles at the Sheppey Way site. This report provides details of protected species surveys for reptiles at the site and where required provides further recommendations for species specific mitigation, compensation or enhancements works at the site.
2. The Reptile Presence or absence survey included a series of seven site visits to check under artificial reptile refugia positioned within suitable habitat areas across the site. All surveys were completed during October 2019.
3. During the reptile survey populations of slow worm and common lizard were recorded at the site. The numbers of reptiles recorded are considered to represent a good population of common lizard and low population of slow-worm utilising habitats within the site and adjacent land. Mitigation and enhancements measures have been recommended for reptiles at the site.
4. Since the Submission of the report with the planning application 19/505215/FULL information about the mitigation proposals has been requested by Swale BC planners and Kent CC ecologists. This is discussed in section 7.0 of this updated report. It is concluded that the margin along the poplar windbreak on the southern boundary, in conjunction with the gardens of the new development, will be an appropriate habitat area to sustain the reptile population in the future.

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1.0 Introduction

Background

1.1 LaDellWood was commissioned to undertake a reptile presence/absence survey at a proposed development site at Sheppey Way, Iwade, Kent in the context of a planning application to develop the site for housing. The survey was carried out in order to assess the presence or absence of reptile species at the site and land within ownership located immediately adjacent to the eastern boundary of the site. The report assesses any likely ecological constraints to development proposals and provides an outline of any ecological mitigation that may be required. Since the Submission of the report with the planning application 19/505215/FULL information about the mitigation proposals has been requested by Swale BC planners and Kent CC ecologists. This is discussed in section 7.0 of this report.

Scope of the Report

1.2 This report details the results of the ecological survey as a reptile presence/absence survey, assesses the results and recommends any actions necessary to satisfy statutory guidance, National legislation (**see section 4.0**) and the requirements of National Planning Policy Framework (NPPF), 15: Conserving and enhancing the natural environment; and recommends mitigation measures where these are required.

Site Context and Status

1.3 The site is approximately 0.9 hectares in size (see **Map 1**) and located at NGR TQ 899 670. Habitat within the site and its boundaries comprises of improved grassland, scrub, lines of trees and fence lines.

1.4 The site is located in a rural setting approximately 0.5km south west of the Iwade Village centre. Access to the site is via Sheppey Way which runs north from the A2. The site is surrounded to the north and west by extensive area of recently built residential housing. To the south of the site lie large arable fields. To the east of the site beyond Sheppey Way is an area of improved pasture.

Ecologists

1.5 The site surveys were completed by Andrew Bodey BSc honours ACIEEM, bat licence Level 2, (2015-13096-CLS-CLS) and GCN licence (2015 – 8650 – CLS-CLS) who has over ten years' experience of

ecology practice. The report was prepared by Andrew Bodey BSc hons ACIEEM and checked by Tom La Dell MA (botany), MCIEEM, CMLI who has over forty years experience in ecology practice.

Site Proposals

1.6 The proposals for the site include the construction of residential properties and access drive ways.

2.0 Methodology

Reptile Presence Absence Survey

2.1 The reptile presence absence survey followed methodologies set out In Herptofauna workers manual (Gent and Gibson, 1998) and Frog life Advice sheet 10 – Reptile Survey (Frog life 1999). A series of seven site visits were undertaken to check under artificial reptile refugia positioned within suitable habitat areas across the site. A total of 80 refugia were distributed around the site and land within ownership to the east of the site within suitable areas of reptile habitat on 22nd September 2019 (see map 2). All surveys were completed between during October 2019 and each visit was undertaken in periods of suitably warm weather when reptiles were considered to be active. The timings and weather conditions for each survey are provided in table 1.1.

Survey Timings & Weather Conditions & Personnel

2.2

Table 1.1: Survey Date, Timings and Weather Conditions			
Survey Date	Survey Timing	Survey Weather	Surveyor
01/10/19	10:00 – 10:30	17°C, 60%CC, Damp, Wind 3 SW	Andrew Bodey
04/10/19	09:00 – 09:30	14 °C, 90%CC, Damp, Wind 2 W	Andrew Bodey
09/10/19	13:00 -13:30	15 °C, 30%CC, Dry, Wind 2 SW	Andrew Bodey
13/10/19	08:10 – 08:40	16°C, 90%, Damp, Light 1	Andrew Bodey
17/10/19	12:30 – 13:00	17 °C, 50%CC, Damp, Wind 2 SW	Andrew Bodey
22/10/19	13:00 – 13:30	14 °C, 20%CC, dry, Wind 1 SW	Andrew Bodey
30/10/19	13:00 – 13:30	12 °C, 40%CC, dry, Wind 2 E	Andrew Bodey

Survey Limitations



2.3 The reptile survey was undertaken during the month of October, however during the survey period weather remained mild, with reptiles recorded active on each survey. The survey effort and timings are considered sufficient to conclude that reptiles were present at the site.

2.4 The findings of this report represent the opinion of a professional and suitably qualified ecologist they do not constitute professional legal advice. The client may wish to seek further legal interpretation of wildlife legislation cited in this document.

3.0 Results

3.1 This section provides details of the results of the Reptile Survey at the Sheppey Way site.

Reptiles

3.2 **Table 1.2** below provides details of the results of each survey undertaken at the site. A peak count of 5 adult common lizards and 2 adult slow worm were recorded on survey visit 3.

Survey Date	Survey visit	Common Lizard				Slowworm			
		M	F	J	U	M	F	J	U
01/10/19	1	1	3	3	0	0	1	3	0
04/10/19	2	1	0	1	0	1	0	0	0
09/10/19	3	3	2	0	2	0	2	1	0
13/10/19	4	0	0	2	0	0	1	0	0
17/10/19	5	0	1	0	1	0	0	2	0
22/10/19	6	0	0	0	0	0	1	0	0
30/10/19	7	0	0	0	0	0	1	0	0

3.3 **Table 1.3** below provides details of the population assessment guidance (Froglife, 1999). Populations are classed as either low, good, or exceptional. Froglife Guidance states that any site supporting the following criteria should be considered a key reptile site.

1. Supports Three or more reptile species

2. Supports two snake species
3. Supports an exceptional Population of one species
4. Supports and assemblage of species scoring at least 4
5. Does not satisfy 1 - 5 but which is of particular importance on a local scale due to rarity of particular species.

Reptile Species	Low Population (Score 1)	Good Population (Score 2)	Exceptional Population (Score 3)
Common Lizard	<5	5-20	>20
Grass Snake	<5	5- 10	>10
Slow-worm	<5	5-20	>20
Adder	<5	5-10	>10

3.4 Based on the above population assessment criteria the site supports a low population of slow-worm, and a good population of common lizard.

Protected Species Impact Assessment

4.0 The survey results on site were assessed allowing consideration of the likely impacts of the development on reptiles at the site. **Table 1.4** assesses species and habitat present at the site and discusses the likely impact of the development.

Species/habitat	Main Legislation and policy	Species and Habitat Assessment	Likely Impact of Proposals
Wide spread Reptiles	Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended).	During the Preliminary Ecological Appraisal of the site habitats on the site and adjacent within the land of ownership were considered suitable for supporting reptiles. Further Reptile presence or absence surveys were undertaken at the site. The seven survey visits undertaken at the site confirmed the presence of a low	There is a risk of killing or injuring reptiles during proposed clearance vegetation at the site. It is an offence to kill or injure any species of common reptile in the U.K (annex 1). Areas of suitable reptile habitat at the site will be lost or damaged, In the absence of mitigation

		<p>population of slow worm and a good population of common lizard. During the surveys juvenile common lizard and slowworm were recorded confirming the presence of breeding populations of these species. The location of reptile records is shown in map 3.</p>	<p>there is potential for high impacts on reptiles at the site.</p> <p>Further recommendations for mitigation have been given in section 5.0.</p>
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5.0 Recommendations

Common Reptiles

5.1 The proposed development will impact upon the areas of grassland and scrub supporting good population of common lizard and a low population of slow-worm. To avoid injury and killing of reptiles during the proposed works the following actions will be undertaken at the site.

Receptor Site Selection

5.2 As all suitable reptile habitats at the site will be lost or damaged during the proposals it is recommended reptiles are translocated to a suitable off site receptor site. The receptor site will need to be sourced by a suitably qualified and experienced ecologist prior to translocation the following provides some guidance to the selection of suitable receptor area.

- The Receptor site should be larger in area than the habitat being lost or if smaller habitats should be enhanced to create optimal areas of reptile habitat that can support greater population densities.
- The Receptor sites should ideally be a similar habitat to the donor site, typically sites with rough grassland and scrub interfaces are ideal.
- The receptor site should be within 10km of the donor site and ideally within 2km.
- The site should have connectivity to surrounding habitat connected and be near other reptile colonies.
- The receptor site will ideally not support existing populations of reptiles. However if populations of reptiles are likely to be present then further survey may be necessary to fully assess population status and distribution. Further enhancements may be required to increase carrying capacity of habitats at the proposed receptor site.

5.3 Translocation

Prior to habitat manipulation works, translocation works will be undertaken at the site. This will involve the trapping of animals on daily visits to check beneath laid reptile refugia. It is considered a minimum of 45 trapping days between March-October is adequate for this site as the area shown to support reptiles is small. The translocation trapping should cease after five clear days of trapping within suitable weather conditions of between 10 and 20°C. High density refugia (the equivalent of 100 per hectare) will be laid. Reptiles caught will be stored within a suitable breathable container, after each visit animals will be immediately released within the receptor site minimising stress to the animals. Prior to reptile translocation the proposed development site will be enclosed with reptile exclusion fencing to prevent reptiles re-entering the site

Habitat Manipulation

5.4 Following translocation areas of habitats (**see map 3**) supporting slowworm and common lizard will be trimmed under the supervision of a suitably qualified and experienced ecologist during between April and September when reptiles are considered to be active. Approximately 50% of habitats will be cut to a height of approximately 15cm, this height will ensure reptiles are not injured or killed if present. The reduction in available cover and disturbance will encourage any remaining animals to disperse to undisturbed habitats. The cut will be undertaken after 15 days of trapping and translocation, the reduction of habitats will concentrate remaining reptile within areas of retained habitat and increase trapping efficiency. Following five clear trapping days the remaining vegetation will be cut with arisings removed or destroyed on site.

Destructive Search

5.5 On a completion of a minimum of 45 days translocation works with a minimum of five clear capture days remaining vegetation will be stripped under the supervision of an ecologist between the months of April and October during which time reptiles are considered to be active. Before site clearance a site walkover will be undertaken by a suitably qualified and experienced ecologist. Any suitable reptile refuges located at the site, such as log and stone piles, brash piles, will be removed by hand. Following the site walkover remaining vegetation will be cleared under the supervision of the appointed ecologist during suitably warm and dry weather conditions when reptiles are active. Vegetation will be cleared using an excavator with low ground pressure. A toothed bucket will be used to systematically and carefully rake through the first few inches of topsoil at the site, the use of a tooth bucket can reduce the risk of injury and killing to reptiles that may be present within cracks or small mammal burrows within the ground. The ecologist will supervise works until all habitats suitable for reptiles have been

removed or sufficiently destroyed so as to be no longer suitable for reptiles. All arising will be stored away from suitable surrounding habitats so as to discourage reptiles from re-entering the site

Post development Receptor site management

- 5.6 To ensure a suitably thick grassland sward is retained for reptiles the receptor area should have a sensitive management regime of no more than two cuts between March and September. The installation of wood habitat piles within these areas will provide suitable basking areas for reptiles and provide places to seek refuge during the hibernation period.

6.0 Conclusions

- 6.1 The numbers of reptiles recorded are considered to represent a small population of slow worm and a good population of common lizard utilising areas of habitat at the site. It is considered the proposed mitigation will minimise impacts and provide sufficient compensation for the loss of small areas of suitable habitats at the site. The favourable conservation status of common reptiles will be maintained within the off site receptor.

7.0 Mitigation

- 7.1 It is understood that the site was cleared in December 2019. This was done by the developer of the adjacent site to the east and without the knowledge of the owner of the application site. As reported, this clearance was undertaken when the reptiles would be in hibernation so there was no risk of killing or injury to the reptiles. The condition of the site on 3 February 2020 is shown in Figure 1. It has been thoroughly cleared across both sites. There is possible hibernation habitat around the poplar windbreak on the southern boundary. This has however been protected by a Heras fence and is intact, as shown in Figure 2.
- 7.2 The site visit for the ecology surveys showed that the site had been ploughed some 2 to 3 years ago. Historic satellite and aerial photography shows that the site had revegetated somewhat by May 2018. In April 2015 the site was mostly part of the working area for the construction of new housing to the north and west. It had clearly been ploughed after this date. In July 2013 the site was patchily vegetated and in 2011 was probably pasture. In 2007 and earlier it was in arable cultivation. This shows that there has only been a very limited time period in the last twenty years or so when the site would have had suitable habitat for reptiles. Given the intensive agricultural uses to the south it can thus be concluded that the housing and gardens to the north has seen a rapid development of reptile populations and these have colonised the current site. An ecology report was not requested for the

site to the east of the current site so it can be concluded that it was not considered to be suitable reptile habitat at the time.

- 7.3 The proposed development has similar dwellings and gardens to the housing to the north and east. It is concluded that the gardens will rapidly develop good reptile habitats and these, together with the retained habitat along the southern boundary will mitigate for the loss of habitat during the construction of the development. The southern boundary habitat is proposed for protection during construction in the LaDellWood Tree survey report for the planning application. This can be Conditioned in the planning permission and this will ensure that this habitat is retained.

REFERENCES

Froglife 1999, Reptile Survey: an introduction to planning, conducting and interpreting surveys for snake and lizard conservation. Froglife advice sheet 10. Froglife, Halesworth

Hundt L (2012) Bat Surveys: Good Practice Guidelines, 2nd Edition, Bat Conservation Trust

JNCC(2003) *Herptofauna Worker's Manual* Joint Nature Conservation Committee

Stone. E L (2013) *Bats and lighting – overview of current evidence and mitigation guidance*, Bat Conservation Trust



Figure 1

The site on 03 February 2020



Figure 2

The south western boundary of the site on 03 February 2020

MAP 1 – Site Location (approximate site boundary shown in red)



MAP 2 – Locations of Mats



MAP 3 – Locations of Mats with reptile records



ANNEX 1 - LEGISLATION

The following details legislation covering the protection of the UK species highlighted within the recommendations of this report, the information provided should be taken as a general guide, rather than comprehensive. In all cases readers should consult the relevant legislative documents in full and where necessary obtain further legal advice.

Common reptiles

All common reptile species which includes grass snakes, adders, common lizards and slow worms, are protected by the Wildlife & Countryside Act, 1981. This legislation makes it illegal to intentionally kill or injure a common reptile.