

# M25 junction 28 improvement scheme TR010029

## 6.3 Environmental Statement Appendix 7.10: Reptile survey

APFP Regulation 5(2)(a)  
Planning Act 2008

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009



## Infrastructure Planning

### Planning Act 2008

### The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

### M25 junction 28 scheme Development Consent Order 202[x ]

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#### 6.3 ENVIRONMENTAL STATEMENT 7.10: REPTILE SURVEY

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# Table of contents

Chapter	Pages
Appendix 7.10 Reptile survey	4

# **Appendix 7.10**

## **Reptile survey**

# Report



## Reptile Survey Report Junction 28 M25

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## Revision History

Revision	Date	Amendment

## Contents

<b>1</b>	<b>Introduction .....</b>	<b>1</b>
1.1	<i>Background and Survey Objectives .....</i>	<i>1</i>
<b>2</b>	<b>Methodology .....</b>	<b>1</b>
2.1	<i>Desk Study.....</i>	<i>1</i>
2.2	<i>Reptile Survey Method .....</i>	<i>1</i>
2.3	<i>Limitations.....</i>	<i>2</i>
<b>3</b>	<b>Results.....</b>	<b>3</b>
3.1	<i>Biological Records .....</i>	<i>3</i>
3.2	<i>Field Survey .....</i>	<i>3</i>
<b>4</b>	<b>Conclusions .....</b>	<b>4</b>
<b>5</b>	<b>References.....</b>	<b>5</b>
	<b>Annex 1: Development Boundary, Refugia Location and Reptile Records .....</b>	<b>i</b>

# 1 Introduction

## 1.1 Background and Survey Objectives

ADAS were commissioned by Atkins to undertake a suite of ecological surveys of an area of land adjacent to Junction 28 of the M25. The land is proposed to be re-developed as part of improvement works to the junction which Highways England will be undertaking. Surveys for reptile species were undertaken in August and September 2017 and this report documents their findings.

# 2 Methodology

## 2.1 Desk Study

Biological records for the site were obtained from Greenspace Information for Greater London (GIGL), Essex Records Centre (ERC) and Essex Field Club (EFC) in September 2019 to identify if any reptile species had been recorded within 2km of the Scheme.

## 2.2 Reptile Survey Method

The survey area for reptiles focused on the land within the DCO boundary subject to impacts during construction and operation of the Scheme. For this reason, survey was focused on the land north west of junction 28, where the new loop road will be constructed. Outside of this area, there are temporary works associated with the gas main diversion south of the A12 (west of junction 28), but no habitat suitable for reptiles is present at this location. All other works within the DCO boundary are limited to the existing carriageway of the A12 and M25 (e.g. replacement of signs on existing gantries). As no potential impacts to reptiles were identified in these areas, detailed survey work has not taken place.

On the 7<sup>th</sup> July 2017, 98 artificial reptile refugia 'mats' (1m x 0.5m pieces of roofing felt) were placed in areas of suitable reptile habitat in the survey area. Refugia mats were placed on site in excess of the minimum guidance which stipulates 'between five to ten refuges per hectare' (Froglife 1999).

Seven reptile surveys were carried out from the 10<sup>th</sup> August 2017 to the 18<sup>th</sup> September 2017 by ADAS Ecology Consultants. The weather conditions for the surveys are presented in Annex 2.

On each survey, the surveyor walked slowly around the survey area and checked the refugia and any other natural refugia and basking sites such as rubble and wood for reptiles. The date, weather, start and finish temperature were all recorded on each occasion.

The method used for the surveys accorded with best practice guidelines as published by Gent (1998) and Froglife (1999). The table below provides information on how the population classifications were determined.

**Table 1: Population classifications based upon maximum number of individuals seen by observation and/or under tins (placed at a density of up to 10 per hectare) by one surveyor in one day (Froglife 1999).**

Species	Low Population	Good Population	Exceptional population
Adder	<5	5-10	>10
Grass snake	<5	5-10	>10
Common lizard	<5	5-20	>20
Slow-worm	<5	5-20	>20

### 2.3 Limitations

The reptile survey did not cover the entire area within the DCO boundary as shown by the boundary in Figure 1, Annex 1, due to access restrictions. However, the optimal habitats in the area to be directly impacted by the Scheme as shown in Annex 1 of this report was covered by the survey.

Due to the timings of the initial Scheme programme, surveys were undertaken towards the end of the survey season with two visits being undertaken in the sub-optimal month of August, when temperatures can be high. However, surveys were carried out during optimal conditions (temperate, weather) and this is not considered significant enough to affect the survey results as the majority of surveys were undertaken in the optimal month of September and reptiles were recorded during the August surveys.



Figure 1: DCO boundary highlighted in red (ADAS general mapping tool 2019)

## 3 Results

### 3.1 Biological Records

Biological records identified grass snake (*Natrix helvetica*), adder (*Vipera berus*), common lizard (*Zootoca vivipara*) and slow worm (*Anguis fragilis*) with 2km of the Scheme. Grass snake was recorded within 500m of the site by Essex Field Club and were observed in Maylands Golf Club and on Weald Brook within and adjacent to the Scheme. Slow worm were recorded 1.8km from the Scheme centre by GIGL. In addition, adder were recorded at Tylers Common, 1km to the south of the Scheme. The grass snake record has been plotted on to a plan in Annex 1 (the grid reference provided with the record is not accurate, so the closest possible location is provided). Common lizard was recorded 2km from the site.

### 3.2 Field Survey

The table below details the results of the surveys undertaken within the survey area. Only common lizard was recorded, although evidence of breeding was found as a juvenile lizard was recorded in September. No other species have been recorded.

**Table 2: Survey results**

Date	Temperature	Cloud Cover	Wind <sup>1</sup>	Results	Mat no.
10/08/2017	21°C	5%	0	No reptiles recorded	-
24/08/2017	20°C	25%	0	1 common lizard	4
31/08/2017	16°C	80%	2	No reptiles recorded	-
07/09/2017	15°C	100%	6	No reptiles recorded	-
12/09/2017	14°C	25%	2	1 juvenile common lizard	93
14/09/2017	13°C	5%	4	No reptiles recorded	-
18/09/2017	14°C	100%	2	No reptiles recorded	-

The reptile records indicate that they are present in low numbers to both the east and west of the Weald Brook (Annex 2).

## 4 Conclusions

In accordance with Froglife (1999) and based on the current level of survey data the habitat within the survey area was considered to support a “low” population of common lizard. No other reptile species were recorded during the survey, but biological records from Essex Field Club identified grass snake which may be present in low numbers but unrecorded during the survey. This population estimate is lower than anticipated given the extent of suitable habitat on site. However, the records do indicate that reptiles could be widely distributed across the grassland and woodland habitats in low numbers.

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<sup>1</sup> Estimated wind speed score of 0-12 against the Beaufort scale where 0 = calm, 2 = light breeze, 4 = moderate breeze, 6 = strong breeze, 7 = high wind, 9 = strong gale, 12 = hurricane

## 5 References

**English Nature (2004)** *Reptiles: Guidelines for Developers*. English Nature, Peterborough

**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. and Gibson, S., (1998)** *Herpetofauna Workers' Manual*. JNCC, Peterborough.

## Annex 1: Development Boundary, Refugia Location and Reptile Records

See following page



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