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REPTILE / GREAT CRESTED NEWT PRESENCE / ABSENCE SURVEYS –

J Hallam Land Rover, Macclesfield Road, Rushton Spencer, Staffordshire, SK11 0SE (Grid Ref: SJ 938 663) – May - June 2018

Client:	Mr J Hallam
Issue Date:	25th June 2018
Surveys Conducted:	May – June 2018

1 Introduction

Planning permission is being proposed for the development of land at J Hallam Land Rover, Macclesfield Road, Rushton Spencer, Staffordshire, SK11 0SE (OS Grid Reference SJ 938 663). A Preliminary Ecological Assessment was conducted by Absolute Ecology in November 2017. The assessment found land suitable for reptile breeding and a pond approximately 175m north of the site suitable for Great Crested Newt breeding. The report recommended a Reptile Presence / Absence survey be conducted on suitable land and a GCN presence / absence survey be conducted on the pond. Environmental Business Solutions (EBS) were commissioned by Mr J Hallam to conduct these surveys in May 2018. EBS conducted 8 reptile surveys the surveys over the months of May and June 2018 and took eDNA samples from the pond on the 7th June 2018 for analysis for GCN presence.

All reptile surveys (8 in total) were conducted as per JNCC Herpetofauna Working Manual and Frog life's guidelines over the months of May / June 2018 . The results showed no signs of reptiles being present on Site. The eDNA analysis showed negative results for GCN presence. It is therefore the opinion of EBS that a Natural England Protected Species Licence is not required for this site.

This report should be read in conjunction with Absolute Ecology Report Preliminary Ecological Report – "J Halam Land Rover, Macclesfield Road, Rushton Spencer, Staffordshire, Mr J Hallam, November 2017".

Bill Gaudie
Hons. (Wildlife Conservation), MCIEEM
Ecological Consultant- Environmental Business Solutions

2 Methodology

2.1 Reptile Surveys

2.1.1 The reptile presence / absence survey was undertaken during May / June2018..
2.1.2 The survey was supervised by Mr Bill Gaudie Bsc hons (Wildlife Conservation) MCIEEM.
2.1.3 The survey was conducted using artificial refugia made from roofing felt (tins) approximately 0.5m² at a density ≥ 25 tins per ha. They were placed to provide shelter and basking opportunities for reptiles, which can be recorded on or under the refugia in suitable weather conditions. Natural refugia (rocks, logs etc) were also searched. The survey followed the recommended methodology outlined in the Herpetofauna Workers' Manual (JNCC, 2003) and Froglife's Advice Sheet 10 (1999).
2.1.4 Tins were placed on the 15th May 2018 (See Fig 1 for areas of tins placement). The tins were left unattended and thought to be bedded in by 22nd May 2018.
2.1.5 The area also contained 'natural' refugia and basking areas (log piles, waste piles, etc), these areas were subjected to searches along with the above tins.
2.1.6 A total of 8 survey visits were conducted with inspections to both the artificial refugia and the newly marked 'natural' refugia.
2.1.7 On each visit, all refuge was lifted and the number, sex and species of any reptile observed were recorded (if any).
2.1.8 Transects were also walked in desirable areas for signs of reptile activity.
2.1.9 All visits were conducted in weather conditions suitable for recording reptile activity i.e. Temperature between 9 and 18°C.
2.1.10 All refugia was replaced as near as possible to original position after examination.
2.1.11 See Appendix 1 for site layout, tins positions and transect.

2.2 Great Crested Newt eDNA Analysis

2.2.1 The pond was visited on the 7th June 2018.
2.2.2 6 samples where taken from the edge of the pond as per Crestwood Environmental instructions and industry standards.
2.2.3 Samples were stored as per Crestwood Environmental instructions and industry standards.
2.2.4 Samples were sent to Crestwood Environmental via door to door courier.

3 Results

3.1 Reptile surveys

3.1.1 In all 8 site visits were made from the 22nd May – 26th June 2018 after tins were bedded in.
3.1.2 No reptiles were noted on any visit
3.1.3 No signs of reptile presence was noted on any visit.
3.1.4 Using The Herpetofauna Workers' Manual (JNCC, 2003) and Froglife's Advice Sheet 10 (1999).
The site does not qualify as a "Key Reptile Site".
3.1.5 Natural England Protected Species Licence or further mitigation.is not required for this Site.

3.2 Great Crested Newt eDNA Analysis

3.2.1 Results of GCN eDNA testing showed negative results of GCN presence.
3.2.2 Natural England Protected Species Licence or further mitigation is not required for this site.

Table 1 Reptile survey results with date and weather conditions for each visit.
Key: M = Male Adult; F = Female Adult; Ad = Unsexed Adult; I = Immature, Y = Young

Reptile Population Surveys – J Halam Land Rover - 2018						
Date / Weather	**Sand Lizard (Lacerta agilis)**	**Adder (*Vipera berus*)**	**Grass Snake (*Natrix natrix*)**	**Slow Worm (*Anguis fragilis*)**	**Common Lizard (*Lacerta vivipara*)**	**Comments**
	Number (Area)	Number (Area)	Number (Area)	Number (Area)	Number (Area)	
150518 - Noon Temp 20◦C - Nil	0	0	0	0	0	"Tins" laid down.
220518 - Noon Temp 16◦C - Rain Light early on	0	0	0	0	0	Tins bedded
270518 - Noon Temp 17◦C - Rain Nil 80% cloud	0	0	0	0	0	
030618 - Noon Temp 15◦C - Rain Nil clear	0	0	0	0	0	
100618- Noon Temp 16◦C - Rain Nil Overcast	0	0	0	0	0	
110618 - Noon Temp 14◦C - Rain Nil early mist	0	0	0	0	0	
180618 - Noon Temp 14◦C - Rain Nil 80% cloud	0	0	0	0	0	
240618 - Noon Temp 16◦C - Rain Nil 20% cloud	0	0	0	0	0	
260618 - Noon Temp 17◦C - Rain Nil 75% cloud	0	0	0	0	0	Tins removed

Fig 1. eDNA Analysis Results

Laboratory Address:
Lab 204
Science, Technology and Prototyping Centre
University of Wolverhampton Science Park Ltd.
Glaisher Drive
Wolverhampton
WV10 9RU

Crestwood Environmental Ltd.
1 & 2 Nightingale Place
Pendeford Business Park
Wolverhampton
West Midlands
WV9 5HF

Crestwood Environmental laboratory Services- eDNA analysis for Great crested newt (*Triturus cristatus*)
Crestwoodenvironmental.co.uk
Email: lab@crestwoodenvironmental.co.uk

Company/organisation: EBS
Contact Name: Bill Gaudie
Email Address: bgaudie@ebsols.co.uk
Phone: 07725488648

Order unique reference code: **EDNA 056**

Sampling kit ID	Sediment content	Degradation of DNA	Inhibition of sample	eDNA score	Result
EDNA 056-1	High	No	No	0/12	Negative

Target species:	*Triturus cristatus*	**Analysis type:**	eDNA presence/absence*
Date received at laboratory:	15/06/2018	**Analysis carried out by:**	Kat Okon
Date of analysis:	19/06/2018	**Position:**	Analytical Scientist

***Analysis method:** *eDNA analysis carried out by Crestwood Environmental Ltd. in accordance with the stipulated methodology found in the Technical advice note (WC1067 Appendix 5 Technical advice note) published by DEFRA.*

Conclusions

Thorough reptile presence / absence surveys were conducted over the months of April / May 2018 on land at J Hallam Land Rover, Macclesfield Road, Rushton Spencer, Staffordshire, SK11 0SE (OS Grid Reference SJ 938 663). All reptile surveys (8 in total) were conducted as per JNCC Herpetofauna Working Manual and Frog life's. The results showed no signs of reptiles being present on Site. It is therefore the concluded that a Natural England Protected Species Licence is not required for this site. No further surveys are necessary at the current time.

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References.

Froglife, 1999 **Froglife Advice Sheet 10**
Gent, T and Gibson, S (Eds.), 2003 **Herpetofauna Worker's Manual**. Joint Nature Conservation Committee, Peterborough.
HMSO, 1981 **Wildlife and Countryside Act 1981 (as amended)** HMSO, London. The Stationery Office, Norwich.
HMSO, 1994 **Conservation (Natural Habitats (&c.) Regulations 1994**. HMSO, London. The Stationary Office, Norwich.
1998 **HGBI Advisory Notes for Amphibians and Reptiles Groups**

Appendix 1

Site Layout, Pond Position and Artificial Refugia (Tins) Placements
J Halam Land Rover
May/ June 2018



Fig 1. Site Layout and Artificial Refugia Placement: J Halam Land Rover 2018