Reptile Survey

Land at Former Water Treatment Plant, Kingsley Holt, Staffordshire.

Grid Ref: SK 02186 45943

September 2018

Notice to readers:

This report has been prepared by Absolute Ecology LLP with all reasonable skill, care and diligence, within the terms of the contract with the client. The actions of the surveyor on site, and during the production of the report were undertaken in accordance with the Code of Professional Conduct for the Chartered Institute of Ecology and Environmental Management (www.cieem.org.uk).

Non-technical Summary

A reptile survey was carried out on a site known as land at a former water treatment plant, Shawe Park Road, Kingsley Holt, Staffordshire, ST10 2DJ. Grid Reference: SK 02186 45943.

The Reptile survey was undertaken during September 2018, by an experienced and ecologist who is a member of the Chartered Institute of Ecology & Environmental Management (CIEEM).

Planning permission is being sought to permit the construction of residential properties.

Eyebright Ecology was commissioned to carry out a Preliminary Ecological Appraisal report in June 2017 which identified that the site provided suitable habitat for reptiles, it was therefore recommended that a further survey for reptiles should be conducted and this was commissioned and carried out, during the survey no reptiles were identified. As no reptiles were identified on site, no negative impact would occur towards reptiles, therefore no further surveys will not be required, though a precautionary approach has been recommended and there is an opportunity to enhance the site for biodiversity gains such as creation of reptile and amphibian Refugia such as habitat piles, please see 6.0 impacts and recommendations for further information.

Contents

2.0 Introduction

Background

2.1 Absolute Ecology LLP was commissioned to undertake a reptile survey on a site known as land at former water treatment plant, Shawe Park Road, Kingsley Holt, Staffordshire, ST10 2DJ. Grid Reference: SK 02186 45943.

2.2 The scope of this survey has been determined in line with the proportional approach to ecological survey, assessment and subsequent recommendations for avoidance and mitigation of impacts, which is encouraged in the emerging 'BS 42020: Biodiversity – Code of practice for planning and development'. This report has been prepared with du consideration for various best-practice guidance and methodologies including those of the Chartered Institute of Ecology and Environmental Management (CIEEM (2012)1 and the emerging BS 42020

2.3 Aims and objectives of the field survey were as follows:

- To establish presence/absence of reptiles
- If reptile presence confirmed, to determine species, sex, an approximate density and distribution.

Site Characteristics

2.4 The survey area comprised a former water treatment plant which was on a west-facing slope and was covered in marshy grassland, scrub, bracken and scattered saplings.

2.5 The site was on the westerly edge of the small village of Kingsley Holt. There was a wooded brook running approximately 20 m from the site boundary to the west, and the wider environment comprised mixed farmland (arable and grazed) with a network of hedgerows. There were scattered farm buildings in the locality. The larger town of Cheadle lies 2.6km to the south.

Figure 1: Showing site indicated by red pin

Legislation and Status

2.6 The Smooth Snake and Sand Lizard are fully protected under Schedule 5 of The Wildlife and Countryside Act (1981). As such they receive full protection under Section 9 of this Act. This Act has been amended several times, most recently by the Countryside and Rights of Way Act 2000 which added 'or recklessly' to Section 9(4) (a) and (b). They also are protected under Regulations 41/42 of The Conservation of Habitats and Species Regulations 2010. Collectively these pieces of legislation mean that it is an offence to;

- intentionally kill, injure, disturb or take any individual of these species
- intentionally take or destroy the eggs of any individual of these species
- intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by any individual of these species
- intentionally or recklessly disturb any individual of these species while it is occupying a structure which it uses for that purpose
- keep, transport, sell or exchange or offer for sale any individual of these species or anything derived from these species.

2.7 The other native species of reptiles (Common or Viviparous Lizard, Adder, Grass Snake and Slow Worm) are partially protected under Schedule 5 of The Wildlife and Countryside Act (1981), under part of Section 9(1) and all of Section 9(5). As such it is an offence to;

- intentionally kill or injure an individual of these species
- transport for sale or exchange, or offer for sale or exchange a live or dead an individual or any part of an individual of these species.

2.8 All native reptile species are UK BAP Priority Species (UK BAP, 2007), Slow Worms, Grass Snakes and Adders are listed on the Warwickshire Local BAP (BARS, 2010).

3.0 Methodology

Field Survey

3.1 Reptile survey equipment was set out in areas of potential habitat for reptiles on the 28th August 2018. The equipment consists of artificial refugia made of roofing felt, tin and carpet that is cut into 500 mm x 500 mm s. The refugia warm up quickly and retain the heat well, attracting reptiles. A total of 40 refugia were laid in suitable habitat around the site and positioned approximately 3m apart. The refugia were numbered and their locations were mapped to record reptile distribution and to calculate population density. The refugia were collected after completion of the fieldwork.

3.2 The refugia were placed in sunny areas near to cover, typically hedgerows and scrub. These were then left to bed down for 2 weeks. During this time, they develop favourable conditions (e.g. suitable humidity and temperature gradient) and the reptiles become more familiar with them. To assess presence or absence, the refugia were checked once each day for seven days during optimal weather conditions (in accordance with Gent and Gibson 2003) all survey visits were conducted over short periods. In circumstances where reptiles are found, the refugia are checked for a further eight days to obtain a population size class assessment, in accordance with recommendations set out by Hill *et al.* (2005).

3.3 During the seven survey visits additional refugia searches were carried out for example under wooden boarding, rubble piles and brash piles were possible.

Site Status Assessment

3.4 Each survey visit may reveal only a small sample of the reptile population occurring on site because the proportion of individuals recorded varies according to weather, migration patterns etc. A mechanism known as the Key Reptile Site Register can be used to obtain a basic evaluation of the population size and importance of the site. It has been designed to identify and promote the safeguarding of important reptile sites, with outstanding assemblages being the guiding principle in judging sites.

3.5 To qualify for the Key Reptile Site Register, the site must meet at least one of the following criteria (Froglife, 1999):

- Supports three or more reptile species
- Supports two snake species
- Supports an exceptional population of one species (see Table 1)
- Supports an assemblage of species scoring at least 4 (see Table 1)
- Does not satisfy any of the above but which is of particular regional importance due to local rarity.

Table 1: Key Reptile Site Register Population Scores

Species	Low population *Score 1*	Good population *Score 2*	Exceptional population *Score 3*
Adder	< 5	5 – 10	> 10
Grass Snake	< 5	5 – 10	> 10
Common Lizard	< 5	5 – 20	> 20
Slow-worm	< 5	5 – 20	> 20

Figures in the table refer to maximum number of adults seen by observation and/or under refugia placed at a density of up to 10 per ha, in one day).

4.0 Results

Field Survey

4.1 The full survey results and weather conditions can be found in *Appendix 1*.

4.2 Though the site holds the correct habitat for reptile species to live no species of reptile were recorded on site during the surveys.

Plate 1: Potential habitat to support reptiles.

Plate 2: Showing refugia used to conduct the reptile survey

Plate 3: Showing potential refugia existing on site.

5.0 Evaluation

Presence/Absence

5.1 No reptiles were found during the seven survey visits. All of the survey visits were undertaken in optimum weather conditions. The use of artificial refugia and the searches of existing refugia, gave the best chance of determining whether reptiles are using the site. From the results, it can be deemed that reptiles are not currently using the site.

Plate 3: Showing felt placed to assist with the reptile survey.

Site Status Assessment

5.2 The site supports no reptiles and is considered that the proposed development will not have a negative impact on reptiles.

6.0 Impacts and Recommendations

Impacts

6.1 The site is the subject of a planning application to permit the construction of residential buildings, which will involve substantial works on site. As no reptiles were identified it is not considered that the proposed development will have any adverse impact on reptiles locally as none were identified during the surveys.

Further Surveys

6.2 Further surveys would only be required if the works were delayed for two years or more. If this were to be the case a repeat reptile presence/absence survey would be recommended before work commenced to confirm that the status of the site remains the same as that described within this report.

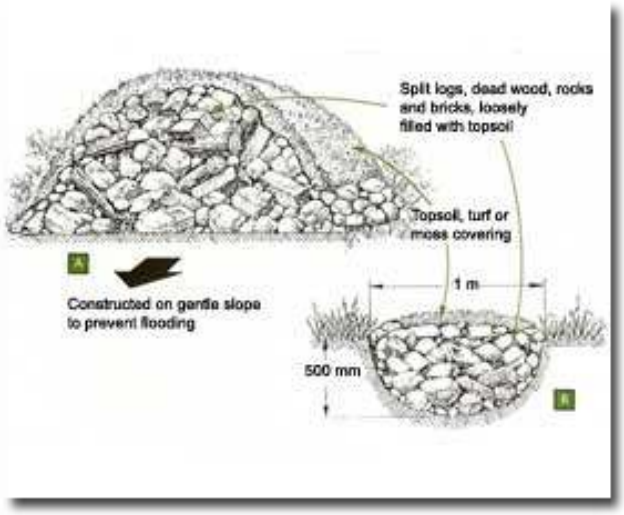
Legislation

6.3 Common Reptile species are partially protected under Schedule 5 of The Wildlife and Countryside Act (1981), under part of Section 9(1) and all of Section 9(5). This means that they are protected from killing or injury. No licence is required to permit development but some form of mitigation to avoid contravention of the legislation afforded to common reptiles must be approved by the Local Planning Authority Ecologist or the statutory consultee, which in this instance would be Natural England.

Enhancement & Precautionary Measures

6.4 Contractors working in the development area should be briefed on the protocol to follow in the event a reptile is found during works. This is as follows:

6.5 No reptiles were identified during the surveys, though there is opportunity to create some habitat opportunities within the site, in particular to the area which had potential to support reptiles, as enhancement may attract reptiles to the site by retention of grassland were possible and the creation of new grassland area. The reptile enhancement could include hibernacula log piles: this would provide more cover and a place of rest for reptiles and other species of wildlife. If material is piled loosely along with rubble and dead wood, the turves arising from the turf strip can be used to provide refuge / hibernacula habitat for reptiles (see Pictures below).



6.6 As no reptiles were identified it is not considered that the proposed development will have any adverse impact on reptiles locally as none were identified during the surveys. It has been decided however to adopt a precautionary approach to the works, in order to avoid direct harm to any reptiles that might be present during works.

7.0 References

The Conservation of Habitats and Species Regulations 2010, SI 2010/490

Countryside and Rights of Way Act 2000, (c.37), London: HMSO.

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

Herpetofauna Groups of Britain and Ireland (1998). *Evaluating Local Mitigation/Translocation Programmes: Maintaining Best Practice and Lawful Standards.*

Hill D., Fasham M., Tucker G., Shrewry M. and Shaw P., 2005, *Handbook of Biodiversity Methods, Survey, Evaluation and Monitoring*, Cambridge University Press, Cambridge.

UK Biodiversity Action Plan (2007). *UK List of Priority Species.* Joint Nature Conservation Committee. [Online]. Available at: http://www.ukbap.org.uk/NewPriorityList.aspx [accessed on 14th July 2010].

Wildlife and Countryside Act 1981 (and amendments), (c.69), London: HMSO

8.0 Appendix 1

Reptile Survey Results

				Slow Worm			Common Lizard				Grass Snake	
Date	Time	Temp °C	Weather Conditions	Adult Male	Adult Female	Juvenile	Adult Male	Adult Female	Unknown sex	Juvenile	Adult	Juvenile
12/09/18	15.45	15.8	80% cloud cover, intermittent sun, light wind	0	0	0	0	0	0	0	0	0
14/09/18	09:15	09:15	80% cloud cover, intermittent sun, light wind	0	0	0	0	0	0	0	0	0
17/09/18	16:00	16.1	80% cloud cover light overcast, light wind	0	0	0	0	0	0	0	0	0
19/09/18	10.00	13.5	40% cloud cover, light wind	0	0	0	0	0	0	0	0	0
23/09/18	10.00	11.9	20% cloud cover, light wind	0	0	0	0	0	0	0	0	0
25/09/18	10:00	12.4	50% cloud cover intermittent, light wind	0	0	0	0	0	0	0	0	0
27/09/18	10:00	13.7	60% cloud cover, light wind	0	0	0	0	0	0	0	0	0

9.0 Reptile Matts Location