

# REPTILE REPORT – USKMOUTH POWER STATION

On behalf of SIMEC Atlantis Energy



ECO00312 Uskmouth Power  
Station  
Reptile Report  
A  
09 July 2019

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ECO00312-ECO-025 - Reptile Survey Plan

# 1 INTRODUCTION

- 1.1.1 RPS were commissioned by SIMEC Energy Atlantic Ltd to undertake a presence/ likely absence survey for reptile species at Uskmouth Power Station, located near Nash, Newport in South Wales, which is referred to as the Site. The reptile survey area covered habitats of high value for reptiles within the proposed development areas. The survey area was centred on SN141072 and the coverage of the site is illustrated on the Reptile Survey Plan (Drawing Number ECO00312-ECO-025).

## 1.2 Local Status

- 1.2.1 The desk study results recorded two reptile species within 2km radius of the site boundary in the last 10 years. These include two records of Common Lizard *Zootoca vivipara* and 87 records of the western European grass snake *Natrix helvetica* *Helvetica*.

## 1.3 Legislation

- 1.3.1 All native species of reptile are protected under the WCA 1981, which protects them from intentional killing and injury. Reptile species are listed as a species of principal importance under Section 7 of the Environment (Wales) Act 2016 previously Section 42 species under the NERC Act 2006 and UKBAP priority species.

# 2 METHODS

## 2.1 Reptile Survey

### Survey Area Coverage

- 2.1.1 Surveyors undertook a seven-day presence/absence reptile survey, focusing on the potential reptile habitat in the eastern half of the power station. Survey focussed on higher value habitats in the Laydown Area, the eastern boundary of the Coal Storage Area, open mosaic habitat associated with the railway lines and woodland edge on the northern site boundary. Refuge mats were not placed in the extensive areas of short managed grassland to the north of the Coal Storage Area or in the short-mown grassland on the northern and eastern sides of Lamby's Lake. The stony sparsely vegetated ground on the southern side of the railway line was also omitted due to its low potential value.

### Refuge Placement

- 2.1.2 The survey methodology followed standard guidelines from Froglife (1999), reptile refugia (roofing felt squares of at least 0.5 m<sup>2</sup>) were positioned in throughout the highest value habitats in locations where reptiles would be expected to bask.
- 2.1.3 Roofing felt mats were used as refugia because they absorb heat quickly and efficiently, even on cloudy days, providing suitable locations for reptiles to bask and to warm up. These artificial refugia act as reptile 'magnets' attracting individuals from the immediate vicinity. Refugia were placed within the proposed development areas with a particular emphasis on areas of highest potential with 95 refuge mats placed across the survey area.

## Survey Visits

- 2.1.4 On each of the seven survey visits, the refugia were checked and visual searches of the surrounding habitat were made. Other man-made materials including a bin lid, planks and thick pieces of plastic that could act as refuges for reptiles were also checked for reptiles during each survey visit.
- 2.1.5 All the refuge mats were left undisturbed for three weeks to allow reptiles to become familiar with their presence and for vegetation beneath them to begin decaying.
- 2.1.6 All the survey visits were conducted during mild weather conditions, moderate wind (<5mph) and no heavy rain. Searches were conducted at an appropriate time of day dependent on weather conditions (temperatures between 9-18°C) for a total of seven survey visits. Survey visits were undertaken between 17th April and 4th July 2019, by Laura White (GradCIEEM) and Stephen Devereaux (GradCIEEM).

## Incidental Sightings

- 2.1.7 In addition to the reptile survey visits, any sightings of reptiles by ecologists during other site visits and surveys were recorded and mapped and are referenced in the survey results.

## 3 LIMITATIONS & CONSTRAINTS

- 3.1.1 A few larger potential refugia were present within the survey which could not be lifted to check for the presence of reptile including concrete and larger pieces of wood. These were present at low frequency in the Laydown Area and alongside the railway line. In addition, at the eastern end of the railway line area a large pile of brash provided potential cover for reptiles and there were potentially basking opportunities associated with this in areas that could not be accessed by the surveyor. These features were only present at very low frequency and would not have been a constraint on the reptile presence/absence survey.

## 4 RESULTS

### 4.1 Reptile Survey

- 4.1.1 One species of reptile was recorded on-site during the reptile survey. Grass snake, *Natrix helvetica helvetica*, were found to be utilising habitat adjoining Lamby's Lake and the South Drain. A peak count of two adults and one juvenile was recorded on the 5th visit (see Table 4.1). There were several incidental sightings of grass snake during other surveys, the locations of which have been recorded on the Reptile Survey Plan (Drawing Number: ECO00312-ECO-025). No other reptiles were recorded on-site.

**Table 4.1 Results summary of reptile survey.**

Survey Number	Date	Weather Description	Species Found
1	17/04/2019	14.5°C, dry, 20% cloud cover	No reptiles found
2	14/05/2019	14°C, dry, 30% cloud cover	Two adult grass snakes
3	17/05/2019	17°C, dry, 40% cloud cover	One adult grass snake
4	23/05/2019	17.5°C, dry, 30% cloud cover	One adult grass snake

Survey Number	Date	Weather Description	Species Found
5	31/05/2019	18°C, dry, 60% cloud cover	Two adults and one juvenile grass snake
6	06/06/2019	16°C, dry, 30% cloud cover	One adult and one juvenile grass snake
7	04/07/2019	19°C, dry, <5% cloud cover	One adult and one juvenile grass snake

- 4.1.2 No reptiles were recorded beneath the refuge mats placed on the south-facing woodland edge on the northern site boundary and no reptiles were recorded in the open mosaic habitat on the northern side of the railway line. This mosaic habitat comprised regenerating grassland, with pockets of bare ground, a dry ditch and scattered scrub with high potential value for reptiles providing cover and basking opportunities. Given the high density of mats placed out in this area, the lack of any sightings indicates that reptiles are very unlikely to be resident in this area of the site.
- 4.1.3 Grass snake were most frequently encountered in grassland and on the ditch banks on the western side of Lamby's Lake. Smooth newts were recorded in the lake and in the inceptor ditch in this location and will be potential prey for grass snake along with common frogs and common toads.
- 4.1.4 In comparison, very low numbers of amphibians were associated with the South Drain and the North Drain with few adult grass snakes recorded in this area.
- 4.1.5 Individual juvenile grass snake (peak count of 1) were recorded in one location; the scrubby north-eastern boundary of the Laydown Area close to the South Drain and boundary ditch, confirming breeding, either on-site or in habitats in the sewage treatment works.
- 4.1.6 Reptile refuge mats were not placed in grassland along the western section of the boundary ditch, but two incidental sightings of adult grass snakes confirm that this area falls within the territory used by the population.
- 4.1.7 The boundary ditch lies between the power station and the Newport Wetlands with very extensive high value reptile habitat immediately to the south of the site. Based on the extent and potential value of the offsite habitats, it is anticipated that the wetlands will support a large resident grass snake population. Individual grass snakes are often wide ranging and able to move significant distances from core breeding and hibernation areas. Lamby's Lake lies directly adjacent to the Newport Wetlands the individuals recorded in this part of the power station are likely to be part of a wider larger population.

## 5 CONCLUSION

- 5.1.1 The survey confirmed the presence of grass snake in the power station site. The presence of juvenile grass snake confirms the presence of breeding population. No other reptiles were recorded.
- 5.1.2 Any development should maintain the status of reptile populations. Avoidance of reptile habitats should be incorporated into the design of the layout to minimise the potential for adverse impacts. Species protection measures will need to be implemented as part of the enabling works to establish construction areas. Where practical, enhancements for reptiles should be included in development proposals to aid the objective of maintaining the population status of species, over the long term alongside operational areas.

## 6 REFERENCES

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

Gent and Gibson (2003), Herpetofauna Workers Manual. JNCC, Peterborough

Natural England. (2014). Reptiles: surveys and mitigation for development projects. Available from: <https://www.gov.uk/guidance/reptiles-protection-surveys-and-licences>

## FIGURES

- ECO00312-ECO-025 - Reptile Survey Plan

\\CARD-PH-02\Env\Planning\Projects\Current projects\B ECO00312 Uskmouth power station EIA (Bristol)\4. Data & Fieldwork\GIS\Ecology- Internal use\Ecology- Internal use.aprx




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**Legend**

- Site Boundary
- Waterbodies
- No reptiles found under refugia
- Grass snake found under refugia
- Juvenile grass snake found under refugia
- Incidental sighting of grass snake
- Incidental sighting of juvenile grass snake

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Rev	Description	By	CB	Date



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