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www.awelymor.cymru

RWE Renewables UK
Swindon Limited

Windmill Hill Business Park
Whitehill Way
Swindon
Wiltshire SN5 6PB
T +44 (0)8456 720 090
www.rwe.com

Registered office:
RWE Renewables UK
Swindon Limited
Windmill Hill Business Park
Whitehill Way
Swindon

AWEL Y MÔR OFFSHORE WIND FARM

Reptile Survey Report

Prepared for: **GoBe Consultants** (on behalf of **Awel y Môr Offshore Wind Ltd**)

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1.0 Introduction

Awel y Môr Offshore Wind Farm (AyM) is a Nationally Significant Infrastructure Project (NSIP). An Environmental Impact Assessment (EIA) is being undertaken and an Environmental Statement (ES) will be provided as part of a Development Consent Order (DCO) application under the Planning Act 2008.

SLR Consulting was commissioned by GoBe Consultants, on behalf of Awel y Môr Offshore Wind Farm Ltd (The Applicant), in May 2020 to undertake the onshore ecological work necessary to inform the EIA. This report provides details of the reptile survey undertaken from spring to autumn 2021.

As AyM progresses, the emerging scheme design will continue to be refined and so the precise locations and final extent of the proposed scheme are subject to change. Therefore, the scheme details presented in this report may vary from those that are ultimately presented within the ES, but the survey area includes all areas currently under consideration at the time of survey.

1.1 Background

An EIA Scoping Report was prepared in accordance with Regulation 10 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 and Regulation 6 of the Marine Works (Environmental Impact Assessment) Regulations 2007. The EIA Scoping Report was submitted to the Planning Inspectorate (PINS) in June 2020. Within the EIA Scoping Report, full details were provided as to the proposed approach for ecological survey and assessment. A Scoping Opinion was provided by PINS in response to the EIA Scoping Report, in July 2020. Comments made in the Scoping Opinion have been taken into account within this report, where relevant. Both documents are available at the PINS website¹; the EIA Scoping Report and EIA Scoping Opinion content is not repeated here, and readers should refer to the original documents for details.

A Preliminary Ecological Appraisal (PEA) was subsequently carried out during the period July to September 2020 for three landfall locations, cable route corridors and substation locations that were under consideration by The Applicant at that time. This was informed by additional desk-based study and initial habitat survey, based on interpretation of aerial imagery and ground-based survey, where access was possible. Findings were presented in a PEA² report, submitted to the AyM EIA Evidence Plan Expert Topic Group (which includes Natural Resources Wales (NRW), Denbighshire County Council (DCC), the Royal Society for the Protection of Birds (RSPB) and North Wales Wildlife Trust (NWWT)), in February 2021 for information and comment. The PEA report included detailed survey proposals for reptiles.

In line with the recommendations in the PEA report and following discussion and agreement of the final survey scope during an ETG meeting on 26th February 2021, the reptile surveys commenced in April 2021.

1.2 Survey Area

In accordance with the EIA Scoping Report and PEA report, and as agreed at the ETG meeting in February 2021, the reptile survey comprised:

- Habitat suitability assessment at all parts of the Survey Area (as defined below); and
- Reptile presence/absence survey at moderate or high potential habitat where permanent habitat loss may occur, namely at the Onshore Substation (OnSS) location.

Within this report the following terms are used:

¹<https://infrastructure.planninginspectorate.gov.uk/projects/wales/awel-y-mor-offshore-wind-farm/?ipcsection=docs>

²For a copy of the PEA refer to AyM Offshore Windfarm Environmental Statement Volume 5, Annex 5.1

- Study Area: This is the 2km zone around the Draft Order Limits (DOL) that were presented at Statutory Consultation.
- Survey Area: Within the DOL that were presented at Statutory Consultation, plus the surrounding area that is within 100 m (i.e. 100 m either side of the onshore export cable corridor (ECC) and to all sides of any other infrastructure or works areas such as Temporary Construction Compounds (TCCs) and access tracks). This includes all areas landward of Mean High Water Springs (MHWS).
- Areas other than these are specifically described.

1.3 Purpose of this Report

This report presents the findings of the reptile survey. The report seeks to establish baseline conditions and identify habitats that may be important for these species. The assessment of impacts resulting from the onshore elements of AyM is beyond the scope of this report and is covered in the Onshore Biodiversity and Nature Conservation chapter of the ES.

The main objectives of the work were to:

- identify the extent of suitable habitat for reptiles within the Survey Area;
- determine the presence/absence of reptiles at the OnSS location, and if present the species and likely population size(s); and
- evaluate the importance of the reptile assemblage (if present) in a local, regional and national context.

1.4 Evidence of Technical Competence and Experience

A team of SLR ecologists undertook the field surveys, as detailed in Table 1-1.

Table 1-1
Survey Staff

Name	Grade and years of experience of reptile survey	Professional Membership
Amy Gill	Project Ecologist with 2 years' experience	Application for Qualifying Member of CIEEM in progress.
Emma Clarke	Senior Field Ecologist with 3 years' experience	Application for Qualifying Member of CIEEM in progress.
Shannon Davies	Senior Ecologist with 3 years' experience.	Application for Qualifying Member of CIEEM in progress.
Liz Probert	Senior Ecologist with 9 years' experience.	Application for Associate Member of CIEEM in progress.

This report has been authored by Jess Colebrook, a Principal Ecologist at SLR Consulting with over 20 years' experience as a professional ecologist. Jess is a Chartered Environmentalist (CEnv) and a full member of CIEEM (MCIEEM). Jess is leading the onshore ecological work necessary to inform the EIA for the AyM project.

Additional technical support and Quality Assurance review has been provided by Duncan Watson, a Technical Director at SLR Consulting with over 23 years' experience as a professional ecologist. Duncan is a Chartered Environmentalist (CEnv) and a full member of CIEEM (MCIEEM).

2.0 Methodology

2.1 Desk Study

A desk-based study for protected species records has been undertaken to identify sources of pre-existing ecological data of relevance, that could inform the EIA; this is reported within Table 2-1 of the PEA report. Subsequent to completion of the PEA report, an updated data request was made to Cofnod for records within c.2km of the DOL that were presented at Statutory Consultation and any relevant data received up to 8th September 2021 have been included in this report.

2.2 Field Surveys

2.2.1 Habitat-based assessment

A detailed habitat survey has been undertaken at the Survey Area using the UKHab v1.1 Classification³. The results from the survey have been used to determine the locations of habitat that may be broadly suitable for use by reptiles. These are considered to be as follows⁴:

- rough grassland;
- field margins;
- hedgerows;
- scrub;
- woodland edges;
- coastal sand dunes;
- coastal saltmarsh; and
- wetlands.

Additional factors which also strongly affect the presence and size of reptile populations include:

- vegetation structure – reptiles prefer variation in vegetation structure and cover to provide refuge, basking areas and foraging opportunities;
- land management;
- aspect and shading – to ensure suitable basking areas are present;
- connectivity to other areas of potential habitat; and
- presence of hibernacula.

2.2.2 Presence/Absence Survey

The initial habitat assessment identified that the OnSS location had the potential to support reptiles as grassland with an interface with hedgerows or scrub was present at most field margins and around one pond. Remaining agricultural grassland at the OnSS location is less suitable for this species group due to the lack of nearby cover.

³ For a copy of the Habitat and Hedgerow Survey, June 2021 refer to AyM Offshore Windfarm Environmental Statement Volume 5, Annex 5.2.

⁴ As described in Chapter 4, Edgar, P., Foster, J. and Baker, J. (2010) Reptile Habitat Management Handbook. Amphibian and Reptile Conservation, Bournemouth

Reptile presence/absence survey was carried out at all potentially suitable habitats within the OnSS location, in accordance with standard methods⁵. A series of artificial refuges comprising 0.5m² to 1m² sections of heavy-duty roofing felt were positioned in areas of suitable habitat in April 2021. The locations of the refuges are shown in Figure 2.

A total of 100 refuges were used during the survey. The refuges covered an area of approximately 1.5 hectares (ha) of the most suitable reptile habitats within the OnSS location (hedgerow bases and scrub around a pond), this being the equivalent to a density of approximately 67 refuges per hectare. This far exceeds the recommended 10 refuges per hectare and therefore increases the effectiveness of survey effort and the likelihood of recording reptiles.

The refuges were left to settle into the vegetation for at least one week to allow any reptiles present time to find them. They were then checked for basking and/or sheltering reptiles a minimum of seven times when suitable weather conditions prevailed during the reptile active season. Additional checks were also made during other surveys that were ongoing in the area, such that a total of 13 visits (including the visit to install the refuges) were made altogether. Each reptile survey also included direct observation of the edges of tall/short vegetation or other likely basking spots such as vegetation tussocks.

Due to a requirement for grass cutting, on 11th August 2021 40 mats were checked then relocated to the field to the immediate north of the original location (see Figure 2). The mats remained in place in their revised location thereafter.

Table 2-1 provides details for each survey date and the prevailing weather conditions.

Table 2-1
Survey Dates and Weather Conditions

Date	Surveyor	Start Time	End Time	Temp. °C	Cloud Cover (eighths)	Wind Force
12/04/2021	L Probert	n/a Refuges installed				
20/04/2021	A Gill	10:45	12:00	12	4	1
14/05/2021	A Gill	09:15	10:15	8	7	1
21/05/2021	A Gill	09:10	10:10	10	8	2
10/06/2021	E Clarke	18:45	19:45	19	4	3
11/08/2021	A Gill & E Clarke	16:00	17:15	19	6	2
16/08/2021	S Davies & A Gill	13:45	15:00	15	7	1
20/08/2021	L Probert	15:30	16:30	16	6	0
07/09/2021	A Gill	08:50	10:20	15	1	0
14/09/2021	A Gill	16:30	17:30	18	3	1
17/09/2021	S Davies	09:00	10:15	12	6	3
20/09/2021	S Davies	14:00	15:30	20	3	0
21/09/2021	A Gill	12:00	13:00	16	2	0

⁵ Froglife (1999). Froglife Advice Sheet 10: reptile survey. Froglife, London.

2.3 Limitations

2.3.1 Desk Study

Desk study data are unlikely to be exhaustive, especially in respect of species, and are intended mainly to set a context for the study. It is therefore possible that protected species (in this case reptiles) not identified during the data search do in fact occur within the study area.

2.3.2 Field Survey

During the presence/absence survey a small number of refugia were damaged or moved by livestock and rendered less suitable for use. As soon as such damage or disturbance was noted a replacement refuge was installed within 7 days.

An ecological study provides only a “snapshot” of the conditions prevailing at the time of survey. Lack of evidence at the time of survey does not necessarily preclude reptiles from being present within an area at a later date; common lizards for example are highly mobile and can move in response to changes in environmental factors.

Nevertheless, given the site context and the types of habitat present, the level of survey is considered to be sufficient to assess the likely presence/absence of reptile species within the areas surveyed at the OnSS location, and the meet the purpose of this report set out in section 1.3.

3.0 Results & Discussion

3.1 Results

Review of the Cofnod data confirms that four native species of reptile have been recorded within the wider Study Area (i.e. within 2km of the DOL that were presented at Statutory Consultation). These include:

- Adder *Vipera berus* – a single record from St Asaph, dated 1907;
- Slow worm *Anguis fragilis* - 14 records, the majority of which are from St Asaph Cemetery;
- Grass snake *Natrix natrix* - 11 records from St Asaph Cemetery, St Asaph Business Park and Glan Clwyd Hospital; and
- Common lizard *Zootoca vivipara* - 35 records, also from St Asaph Cemetery, coastal habitats at Rhyl and Glan Clwyd Hospital.

Habitats that may be suitable for use by the above species occur across the Survey Area and include coastal sand dunes and salt marsh, rough grassland, field margins, hedgerows, scrub, woodland edges and wetlands.

Red-eared terrapin *Trachemys scripta* are also recorded from Brickfield Pond, more than a kilometre away from the DOL that were presented at Statutory Consultation. This non-native species is present as a result of unwanted pets being released into the ponds.

The existing records, and suitable habitats for reptiles within the Survey Area are shown on Figure 1.

No evidence of reptiles was found during the presence/absence survey at the OnSS. It is also worth noting that the survey recorded no amphibians either, except for two common frogs, one in August and one in September. The most suitable habitats were at best considered to be of moderate value, the quality limited by the degree of agricultural disturbance; an illustrative photograph of the type of most suitable habitat is included below.

Photograph 3-1
Illustrative photograph of potential reptile habitat at the OnSS location



3.2 Discussion

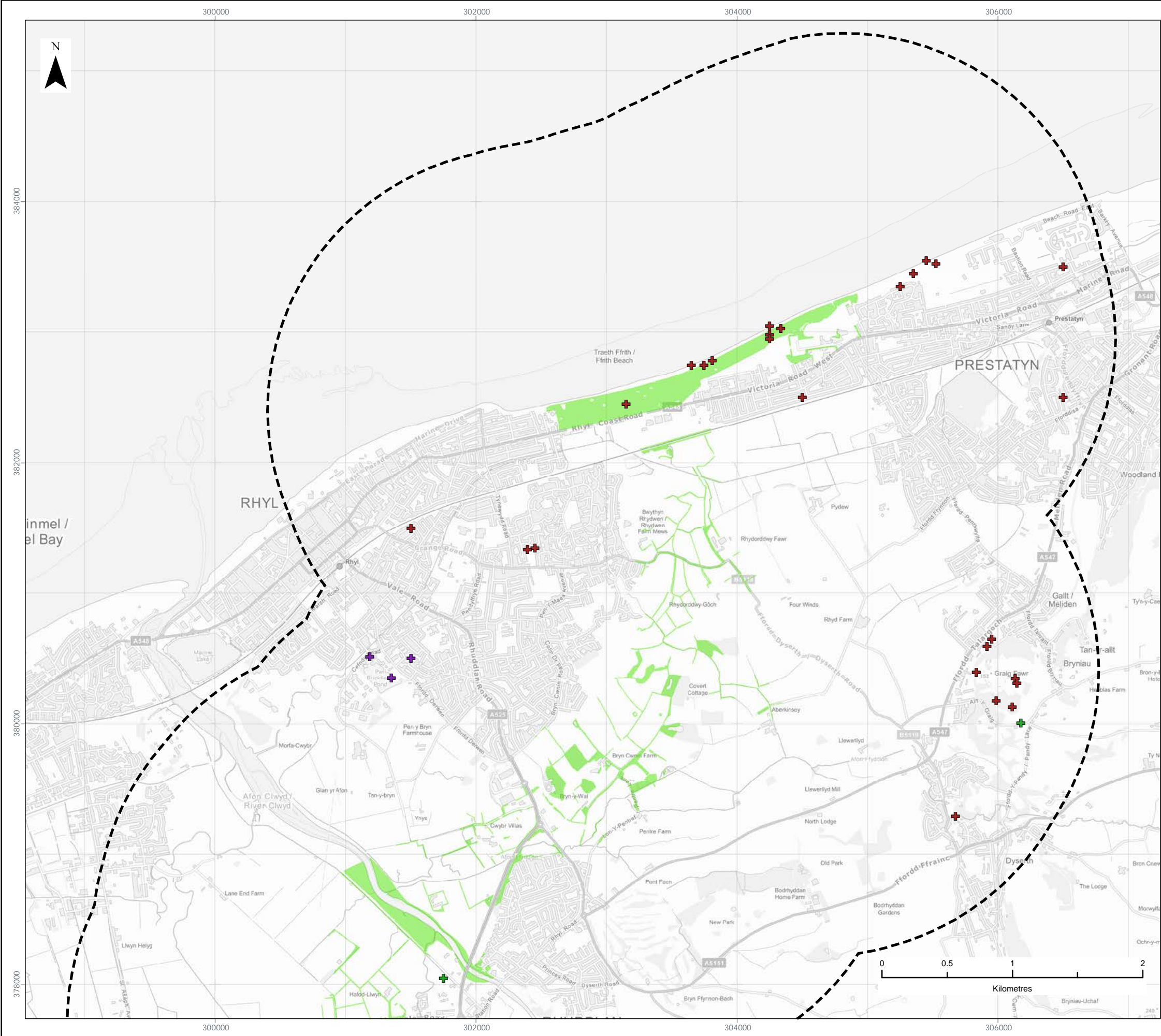
Desk study data confirms that reptiles are present locally, and at St Asaph Cemetery, Glan Clwyd Hospital and coastal habitats in particular; suitable habitats within the ECC linked to these areas are considered likely to assist with supporting the local populations.

Based upon the relatively few records for the area and the modest amounts of suitable habitat types present, the Survey Area is considered unlikely to support large populations of reptiles. However, small populations in areas of suitable habitat (away from the OnSS) cannot be ruled out, especially where these are linked with larger areas of habitat that are known to support reptiles.

Reptiles are considered to be absent from the OnSS location at the current time, based on negative results during all surveys.

FIGURE 1

Pre-existing Records & Potentially Suitable Habitat



LEGEND

Draft Order Limits 2 km Buffer

Reptile Records - Cofnod

- Common Lizard
- Grass Snake
- Red-eared Terrapin

Potentially Suitable Reptile Habitat: Woodland, Heathland and Shrub, Wetland, Coastal Sand Dunes and Coastal Saltmarsh

Data Source:
© Cofnod 2021
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PROJECT TITLE:
*AWEL Y MÔR OFFSHORE WINDFARM
REPTILE SURVEY REPORT*

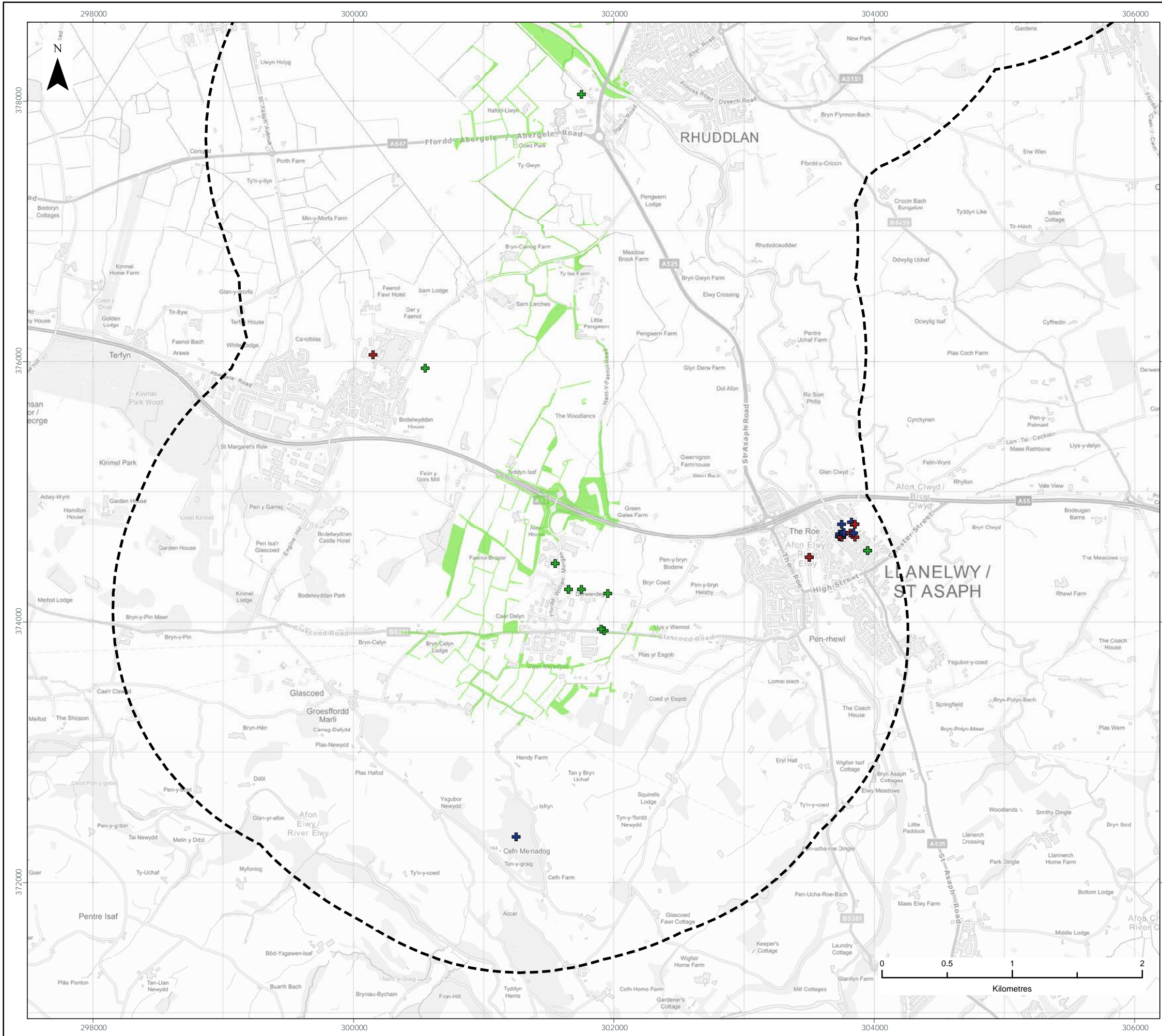
FIGURE TITLE:
**PRE-EXISTING RECORDS
AND POTENTIALLY SUITABLE HABITAT**

VER	DATE	REMARKS	Drawn	Checked
1	02/11/2021	Draft	JRS	MF

FIGURE NUMBER:
FIGURE 1
Page 1 of 2

SCALE: 1:30,000	PLOT SIZE: A3	DATUM: ODN	COORDINATE SYSTEM: British National Grid
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LEGEND

Draft Order Limits 2 km Buffer

Reptile Records - Cofnod

- Adder
- Common Lizard
- Grass Snake
- Slow-worm

Potentially Suitable Reptile Habitat: Woodland, Heathland and Shrub, Wetland, Coastal Sand Dunes and Coastal Saltmarsh

Data Source:
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PROJECT TITLE:
*AWEL Y MÔR OFFSHORE WINDFARM
REPTILE SURVEY REPORT*

FIGURE TITLE:
**PRE-EXISTING RECORDS
AND POTENTIALLY SUITABLE HABITAT**

VER	DATE	REMARKS	Drawn	Checked
1	02/11/2021	Draft	JRS	MF

FIGURE NUMBER:
FIGURE 1
Page 2 of 2

SCALE: 1:30,000	PLOT SIZE: A3	DATUM: ODN	COORDINATE SYSTEM: British National Grid
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FIGURE 2

Onshore Substation Presence/Absence Survey Results



LEGEND

 Draft Order Limits 100 m Buffer

Reptile Refugia Locations Installation Periods (Labels Represents Number of Mats)

12/04/2021 - 21/09/2021

12/04/2021 - 11/08/2021

11/08/2021 - 21/09/2021

Data Source:
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PROJECT TITLE:

AWEL Y MÔR OFFSHORE WINDFARM
REPTILE SURVEY REPORT

FIGURE TITLE: **ONSHORE SUBSTATION
PRESENCE/ABSENCE SURVEY RESULTS**

VER	DATE	REMARKS	Drawn	Checked
1	02/11/2021	Draft	JRS	MF

FIGURE NUMBER:

FIGURE 2

SCALE: 1:2,500	PLOT SIZE: A3	DATUM: ODN	COORDINATE SYSTEM: British National Grid
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Fferm Wynt Alltraeth
AWEL Y MÔR
Offshore Wind Farm

EUROPEAN OFFICES

United Kingdom

AYLESBURY

T: +44 (0)1844 337380

BELFAST

belfast@slrconsulting.com

BRADFORD-ON-AVON

T: +44 (0)1225 309400

BRISTOL

T: +44 (0)117 9064280

CARDIFF

T: +44 (0)2920 491010

CHELMSFORD

T: +44 (0)1245 392170

EDINBURGH

T: +44 (0)131 3356830

EXETER

T: +44 (0)1392 490152

GLASGOW

T: +44 (0)141 3535037

GUILDFORD

T: +44 (0)1483 889800

LONDON

T: +44 (0)203 6915810

MAIDSTONE

T: +44 (0)1622 609242

MANCHESTER (Denton)

T: +44 (0)161 5498410

MANCHESTER (Media City)

T: +44 (0)161 8727564

NEWCASTLE UPON TYNE

T: +44 (0)191 2611966

NOTTINGHAM

T: +44 (0)115 9647280

SHEFFIELD

T: +44 (0)114 2455153

SHREWSBURY

T: +44 (0)1743 239250

STIRLING

T: +44 (0)1786 239900

WORCESTER

T: +44 (0)1905 751310

Ireland

DUBLIN

T: +353 (0)1 296 4667

France

GRENOBLE

T: +33 (0)4 76 70 93 41



RWE Renewables UK
Swindon Limited

Windmill Hill Business Park
Whitehill Way
Swindon
Wiltshire SN5 6PB
T +44 (0)8456 720 090
www.rwe.com

Registered office:
RWE Renewables UK
Swindon Limited
Windmill Hill Business Park
Whitehill Way
Swindon