

**Land off Blackmoorfoot Road,
Huddersfield**

Reptile Survey Report

**Vistry Yorkshire, Miller
Homes & Countryside
Partnerships
Limited**

June 2024

Ecus Ltd

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Contents

EXECUTIVE SUMMARY	IV
1. INTRODUCTION	1
2. METHODOLOGY	2
2.1 REPTILE PRESENCE/LIKELY ABSENCE SURVEY	2
2.2 ASSESSMENT OF SITE IMPORTANCE FOR REPTILES	3
2.3 LIMITATIONS	4
3. SURVEY FINDINGS & EVALUATION	5
3.1 REPTILE PRESENCE/LIKELY ABSENCE SURVEY	5
3.2 INCIDENTAL FINDINGS	5
4. IMPACT ASSESSMENT AND RECOMMENDATIONS	6
4.2 PROPOSALS AND IMPACT ASSESSMENT	6
4.3 RECOMMENDATIONS	6
5. REFERENCES	9
APPENDIX 1: REPTILE TOOLBOX TALK	10
FIGURE 1: REPTILE REFUGIA LOCATION MAP	12

Executive Summary

Ecus Limited (Ltd) was commissioned by Vistry Yorkshire, Miller Homes and Countryside Partnerships Limited in March 2024 to undertake a reptile presence/likely absence survey in relation to the proposed development at land off Blackmoorfoot Road, Huddersfield (central Ordnance Survey National Grid Reference (OS NGR): SE 11370 14757), hereafter referred to as 'the Site'.

Proposals at the Site involve the development of 700 residential properties, a care home and local centre along with associated access and landscaping. It is understood that approximately 1.5 ha of existing woodland habitat at the northern extent, which also includes an area of lowland heathland, and southern extents of the Site, and some of the existing trees along the western and eastern boundaries of the Site, will be retained. All other habitats will be lost as part of the development.

A total of 290 artificial refugia, comprising of either 0.5 x 0.5 m squares of bitumen roof felt sheets, carpet mats, corrugated tin or plywood boards were deployed across the Site, so that a density of at least 10 refugia per hectare was achieved as per the guidelines (Froglife, 1999). A suite of seven reptile presence/absence survey visits were undertaken in suitable weather conditions from April 2024 through to early June 2024, in accordance with methods detailed in the Herpetofauna Workers' Manual (Gent & Gibson, 2003).

No reptiles were identified as present at the Site during any of the seven survey visits.

One common shrew *Sorex araneus* and one wood mouse *Apodemus sylvaticus* were identified underneath the reptile refugia in wooded areas in the north east of the Site.

A precautionary approach, based on the implementation of Best Practice Measures (BPM) has been recommended to safeguard reptiles in the unlikely event that they are encountered in the development works footprint during the time of vegetation clearance/construction.

In the unlikely event that a reptile is encountered at the Site, works should cease and an ecologist should be contacted for advice.

It is recommended that a minimum of 5 x log piles/hibernacula are built using brash created from vegetation clearance and woodland enhancement works to provide an enhancement for reptiles (and other wildlife). Appropriate design for hibernacula can be found in the Reptile Habitat Management Handbook (Edgar et al. 2010). It is recommended that these habitat features are no less than 2 m x 1 m x 1 m and ideally larger than this.

1. Introduction

- 1.1.1 Ecus Limited (Ltd) was commissioned by Vistry Yorkshire, Miller Homes and Countryside Partnerships Limited in March 2024 to undertake a reptile presence/likely absence survey in relation to the proposed development at land off Blackmoorfoot Road, Huddersfield (central Ordnance Survey National Grid Reference (OS NGR): SE 11370 14757), hereafter referred to as 'the Site'.
- 1.1.2 Ecus Ltd was previously commissioned to produce a Preliminary Ecological Appraisal (PEA) (*'Land off Blackmoorfoot Road, Huddersfield – Preliminary Ecological Appraisal'* (Reference: 20899 V1.0), dated August 2023) which identified the mosaic of habitats on Site including areas of woodland, heathland, grassland and scrub as suitable for reptiles.
- 1.1.3 No records pertaining to reptiles were identified within 2 km of the Site within the data set returned from West Yorkshire Joint Services (WYJS). As such, further reptile survey was recommended to determine the presence/likely absence of reptiles on Site, to understand the potential impacts of the development on any reptile population, if present.
- 1.1.4 During the PEA, habitats at the Site comprised Grassland - Other neutral grassland (g3c) and Modified grassland (g4), areas of Heathland and shrub – Lowland heathland (h1a), Mixed scrub (h3), Blackthorn scrub (h3a), Hazel scrub (h3b), Bramble scrub (h3d) and Willow scrub (h3j), Woodland and forest – Other broadleaved woodland types (w1g7), Urban – Other developed land (u1b6), artificial unvegetated; unsealed surface (u1c) and buildings (u1b5).
- 1.1.5 This report details the outcome of the reptile presence/likely absence survey and includes information on the requirement for any additional survey effort, mitigation and/or compensation and enhancements as appropriate.

2. Methodology

2.1 Reptile Presence/Likely Absence Survey

- 2.1.1 A reptile presence/likely absence survey was undertaken with reference to methods detailed in the Herpetofauna Workers' Manual (Gent and Gibson, 2003). Methods include a combination of techniques including the use of refugia to attract reptiles; manual searching of existing suitable refugia; checks for signs of reptile activity including sloughed skins, burrows, egg laying sites etc. and visual observations of raised areas such as banks.
- 2.1.2 A total of 290 artificial refugia, comprising of either 0.5 x 0.5 m squares of bitumen roof felt sheets, carpet mats, corrugated tin or plywood boards were deployed across the Site, so that a density of at least 10 refugia per hectare was achieved as per the guidelines (Froglife, 1999). Refugia were deployed on Site as soon as possible after commission, on 19th March 2024 by Assistant Ecologist Toby Haenfling. The refugia were deployed in areas of suitable habitat, including habitat interfaces such as scrub/woodland edges, areas with tall ruderal vegetation and grassland. The locations of the reptile refugia are illustrated on Figure 1. The refugia warm up in sunlight and are favoured as basking spots by reptiles, therefore maximising the chance of reptile detection.
- 2.1.3 As well as checks of the artificial refuges, the surveys also included a general slow walkover visual survey across the Site with checks made of various natural refuges where present (e.g. logs, brash piles) and good basking spots.
- 2.1.4 A total of seven survey visits to the Site were undertaken after the refugia were deployed and allowed to bed in on Site for 10 days. The survey visits were completed between 11th April 2024 and 5th June 2024 by Consultant Ecologist James Storey and Assistant Ecologists Toby Haenfling and Ellie MacQuarrie. Surveys were undertaken during mid-morning or early afternoon on weekly visits. Visits were also performed predominantly during suitable weather conditions and suitable temperatures as outlined in the Herpetofauna Workers Manual (2003). No survey visits were undertaken during periods of heavy rain, wind or particularly low or high temperatures (i.e. no less than 10°C and no more the 20°C).
- 2.1.5 Weather conditions and survey dates are presented in Table 1 below.

Table 1: Survey Dates and Weather Conditions

Visit Number	Date	Start Time	End Time	Air Temperature (°C)	Wind (Beaufort Scale 1-12)	Cloud Cover (%)	Precipitation
1	11.04.2024	08:30	11:00	15	1	95	Dry
2	16.04.2024	09:00	11:30	13	2	40	Dry
3	30.04.2024	09:00	11:30	13	1	80	Dry
4	07.05.2024	11:00	13:30	14	1	90	Dry
5	22.05.2024	13:00	15:00	16	1	90	Dry
6	30.05.2024	15:30	18:00	15	1	100	Dry
7	05.06.2024	15:00	17:30	13	3	20	Dry

2.2 Assessment of Site Importance for Reptiles

- 2.2.1 The Herpetofauna Workers Manual (2003) recognises that undertaking detailed population assessments for reptile species is difficult, as the number of survey visits required to give an accurate assessment is prohibitive for the majority of projects.
- 2.2.2 It is desirable, however, to attempt to judge the overall importance of the Site for reptiles. In order to provide a basic assessment of site importance, the results of the survey were analysed in the context of '*Froglife Advice Sheet 10 - Survey Assessment: Key Reptile Sites*' (Froglife, 1999).
- 2.2.3 This provides a simple methodology for assessing the value of a site to reptile species, based upon the number of species recorded on a site and the peak adult count for each species per hectare, when refugia are installed at a density of up to 10 per hectare. This density can be increased to improve the detail of the survey (see Figure 1). The guidelines for assessing the value of the Site to reptile species are summarised in Table 2.

Table 2: Key Reptile Site Population Class Assessment and Scoring Criteria

Widespread Reptile Species	Low Population Score 1	Good Population Score 2	Exceptional Population Score 3
Adder <i>Vipera berus</i>	<5 individuals/ha	5-10 individuals/ha	>10 individuals/ha
Grass snake <i>Natrix helvetica</i>	<5 individuals/ha	5-10 individuals/ha	>10 individuals/ha
Common lizard <i>Zootoca vivipara</i>	<5 individuals/ha	5-20 individuals/ha	>20 individuals/ha
Slow worm <i>Anguis fragilis</i>	<5 individuals/ha	5-20 individuals/ha	>20 individuals/ha

2.2.4 Froglife define a 'Key Reptile Site' as one that meets any of the following criteria:

- Site supports at least three reptile species;
- Site supports two snake species;
- Site supports an 'exceptional population' of one species (see Table 2);
- Site supports an assemblage of species scoring at least 4 (see Table 2); or
- Site does not satisfy the above four points but is of particular regional importance due to local rarity.

2.3 Limitations

2.3.1 It should be noted that a full population assessment was not completed as these are typically only undertaken once reptile presence has been confirmed at a Site.

3. Survey Findings & Evaluation

3.1 Reptile Presence/Likely Absence Survey

3.1.1 The Site was considered to comprise the habitat types identified within the PEA and to have ecological connectivity to suitable habitats in the wider area, (including woodland and large areas of grassland surrounding all aspects of the Site), which would allow reptiles to disperse on to Site, if present. The Site itself contained multiple areas of potential basking and sheltering/hibernating opportunities for reptiles including brash/rubble piles, and woodland and areas of scrub for sheltering and foraging opportunities. The Site was considered to be of potential importance to reptiles at up to a local level.

3.1.2 No reptiles were identified as present at the Site during any of the seven survey visits.

3.2 Incidental Findings

3.2.1 One common shrew *Sorex araneus* and one wood mouse *Apodemus sylvaticus* were identified underneath the reptile refugia in wooded areas within the north east of the Site.

4. Impact Assessment and Recommendations

- 4.1.1 All six UK reptile species, adder *Vipera berus*, grass snake *Natrix helvetica*, common lizard *Zootoca vivipara*, slow worm *Anguis fragilis*, sand lizard *Lacerta agilis* and smooth snake *Coronella austriaca*, are protected under Schedule 5 of the Wildlife and Countryside Act (WCA) 1981 (as amended). It is an offence to recklessly or deliberately harm or kill reptiles, or to trade/sell them in any way.
- 4.1.2 All UK reptile species are identified as UK Biodiversity Action Plan (BAP) Priority Species and are listed on Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 as Species of Principal Importance for the purpose of conserving biodiversity.

4.2 Proposals and Impact Assessment

- 4.2.1 Proposals at the Site involve the development of 700 residential properties, a care home and local centre along with associated access and landscaping. It is understood that approximately 1.5 ha of existing woodland habitat at the northern extent, which also includes an area of lowland heathland, and southern extents of the Site, and some of the existing trees along the western and eastern boundaries of the Site, will be retained. All other habitats will be lost as part of the development.
- 4.2.2 These works have the potential to result in the killing/ injury of reptiles if present in the works footprint during the time of vegetation clearance/construction.
- 4.2.3 No reptiles were identified as present at the Site during the surveys and as such it is considered unlikely that reptiles would be impacted by the proposed development. However, as a precautionary measure Best Practice Measures (BPM) as outlined below are recommended to be implemented in order to safeguard reptiles in the unlikely event they are encountered on Site during works (see 4.3 below).

4.3 Recommendations

- 4.3.1 BPM should be followed to safeguard reptiles in the unlikely event they are present in low numbers at the time of works as follows:
- A Tool Box Talk (TBT) should be provided by an appropriately qualified ecologist to all staff working on the Site so that they are aware of the Site conditions, suitability for reptiles, identification features of reptiles and what to do if a reptile is found. (See Appendix 1).
 - All Site personnel are to keep a high level of vigilance for reptiles during works.

- Good general housekeeping of the Site will be employed. All materials (construction materials/arising) on Site will be stored in a suitable location away from suitable reptile habitat (i.e. at least 5m away from vegetated habitats), ideally risen off the ground (e.g. on pallets) or on hard stand/bare ground. Materials arising from the works should be removed from the Site as quickly as possible or placed in a skip or other sealed container immediately if stored on Site. This will avoid colonisation by wildlife and will ensure there is no build-up of debris or other waste which may create suitable habitats for protected species that then has to be disturbed at a later date.
- Heavy machinery should not be driven through areas of dense vegetation. Phased, directional site clearance (ideally south to the north or alternatively east to west) will be employed, allowing reptiles and other wildlife such as small mammals to move away into suitable off-site habitat in the unlikely event they are present at the time of vegetation clearance. A reciprocating blade (finger-bar) is recommended for grassland cutting for Site clearance (also relevant for any future habitat management/maintenance on Site and in the off-site compensation areas). Such cutters minimise bruising of the vegetation and by enabling a delay before collection of arisings would enable animals to escape into the wider area if present. Tall vegetation should be reduced to 100 mm initially, left for a minimum of 2 hours (ideally up to 24 hours) and then subject to a further cut (e.g. to 50 mm or bare ground as appropriate).
- Key suitable hibernation/shelter habitats recorded on Site i.e. rubble/brush piles that are to be removed should ideally occur outside of the reptile hibernation period (typically recognised as November to February inclusive; weather dependant in March and October) as a precaution. If removal outside of these months is not possible, the presence of an Ecological Clerk of Works (ECoW) to conduct hand searches, dismantle by hand, provide direct supervision of the dismantling is likely to be applicable. If a hibernating reptile was subsequently encountered, the reptile would need to be carefully re-covered, left in-situ and the works cease until the hibernation period has passed.
- It should be noted that where vegetation clearance works are completed in the reptile active season (April to September, weather dependant March and October) they should take place in suitable condition with temperatures between 10-18°C, with no rain, as below this threshold reptiles are likely to be less mobile and unlikely to be able to move away from disturbance on their own.
- If reptiles are encountered during the active season works should cease where safe to do so and the ecologist contacted for advice. Reptiles should not be handled and should be allowed to move away of their own volition. In the unlikely event that any torpid/hibernating reptiles/amphibians are found during the hibernation period they should be left in situ wherever possible and works should cease and the ecologist contacted immediately for advice.

- Reptiles, in particular any snakes found, should not be handled and should be allowed to move away of their own volition. It should be noted that the UK supports a venomous species; the adder. Adders will only use their venom as a last means of defence and this typically occurs only when snakes are handled or accidentally trodden on. In the unlikely event adders are encountered on Site stop works and contact an ecologist immediately. If bitten, keep the affected area immobilised as much as possible and proceed to the nearest hospital with an Accident and Emergency (A&E) unit.
 - If works do not commence within 12 months of the date of this report then the ecologist should be contacted for advice and further updated assessment with regards to reptiles may be necessary.
- 4.3.2 It is recommended that a minimum of 5 x hibernacula / log piles are built using brush created from vegetation clearance and woodland enhancement works to provide an enhancement for reptiles (and other wildlife). Appropriate design for hibernacula can be found in the Reptile Habitat Management Handbook (Edgar et al. 2010). It is recommended that these habitat features are no less than 2 m x 1 m x 1 m and ideally larger than this.

5. References

BRIG (2011). UK Biodiversity Action Plan Priority Habitat Descriptions. Available: http://jncc.defra.gov.uk/PDF/UKBAP_PriorityHabitatDesc-Rev2011.pdf

Ecus Ltd. (2023). *'Land off Blackmoorfoot Road, Huddersfield – Preliminary Ecological Appraisal V1.0'* ref: 20899, August 2023, Sheffield.

Edgar, P., Foster, J. and Baker, J. (2010). Reptile Habitat Management Handbook. Amphibian and Reptile Conservation, Bournemouth

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., Gibson S. (2003) Herpetofauna Worker's Manual.

Natural England (2010) *'List of habitats and species of principal importance in England under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006'*.

Appendix 1: Reptile Toolbox Talk (Identification Guide)

Legislation

All six UK reptile species are protected under Schedule 5 of the WCA 1981 (as amended). It is an offence to recklessly or deliberately harm or kill reptiles, or to trade/sell them in any way. Sand lizard and smooth snake are highly unlikely to be encountered within the Site in question due to known distribution and as such have not been included in the below.

Identification of commonly encountered reptiles

<p><u>Grass Snake</u></p> <ul style="list-style-type: none">• Adult grass snakes can reach a length of 130 cm but are typically 70- 100 cm long. Males are usually smaller than females.• Their skin is green or olive coloured but can appear dark brown just before skin shedding.• They have a distinctive cream/white and black 'collar' on the back of their neck and their eyes have a round pupil (not a slit).• Reptiles need to bask in the sunshine each day before they become active, which puts them at risk from human impacts in the early mornings or on cooler days as they are unable to flee threats.• Grass snakes hibernate from November-February, concealed in rubble or spoil piles or in below-ground features such as rabbit burrows.• They are <u>not venomous</u> and are harmless to humans.	
<p><u>Slow Worm</u></p> <ul style="list-style-type: none">• Adult slow worms are typically 30- 50 cm long• They are smoother than a grass snake with golden grey skin. Males are paler and sometimes have blue spots. Females are larger with dark sides and a dark back stripe.• They are <u>not venomous</u> and are harmless to humans.	

Common Lizard

- Common lizards are fast moving lizards which vary in size, growing up to 15 cm when fully mature.
- They are grey brown to dark brown in colour, often with a darker streak that may run the entire length of the spine. Juveniles are very dark brown or black in colour.



Adder

- The UK's other native snake has a distinctive zig-zag pattern down its length and a 'V' shaped mark on the back of the head. They have a vertically slit pupil.
- Mostly found on heathland, but can occur in densely wooded areas particularly in clearings
- Adults are 60 – 75 cm long, males are black/white/grey whilst females are usually brown/tan
- Whilst they are venomous, adders are very shy animals and will rarely bite unless picked up



Male Adder

What to do in the event of finding a reptile

If a reptile is found on Site during works it should not be further disturbed. Works in the immediate area should cease immediately and the reptile should be allowed to move away of its own accord into sheltered habitat out of the footprint of works and advice be sought from the Ecological Clerk of Works (ECoW)/Ecus/Project Ecologist to determine the most appropriate course of action:

- Ecus Project Manager (Principal Ecologist Sarah Thresher BSc (Hons) MCIEEM) - 07943 584506
- Ecus Ltd Head Office - 0114 266 9292.

Figure 1: Reptile Refugia Location Map



Key

 Site Boundary

Refugia:

-  Felt
-  Tin
-  Carpet
-  Wood
-  Corrugated felt

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Figure 1
 Reptile Refugia Location Map

A	06.06.2024	JS	NF
Rev	Date	Drawn by	Checked by
Site centred on:		SE 11370 14757	

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