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Reptile Presence/Absence Surveys

Survey site:

Land at Moor Lane, Aston on Trent, Derbyshire DE72 2AG

Client:

Alex Jefferies

Survey date:

September-October 2025

Project:

This report is prepared to inform a planning application with South Derbyshire District Council. The proposal is described as: A residential development.

Survey legislation can be found in Appendix 4.

Ecological Survey Factor	Detailed using desk study and site survey. Any specific limitations noted within relevant section. This table may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.
Conclusion, Impact or Recommendations	
See Survey map in Appendix 1, Location plan in Appendix 2, Proposal plans in Appendix 3, and Legislation in Appendix 4.	
Limitations	This survey aims to follow best practice guidance to confirm presence or likely-absence of reptiles and where present, characterise the site in terms of species and distribution, habitat suitability and context with the wider landscape. However, this information is collected at finite dates and times, and provides an indication of the conditions on site only. This survey cannot provide an indication of population. Specific limitations include: Several refugia were moved by members of the public between site visits. However, this is not considered a significant limitation as only a small proportion of the total refugia were moved. Refugia moved by the public were returned to their original locations when found. Three of the site visits were taken in the sub-optimal period (October). However, this is not considered a significant limitation due to the weather conditions being suitable for reptiles.
Scope of report	This report describes the suitability of the habitats on the site for reptiles and identifies the presence or likely absence of reptiles within the site. It identifies possible constraints in relation to reptiles as a result of the proposed development and summarises the requirements for further surveys and mitigation measures to inform subsequent mitigation proposals, achieve planning or other statutory consent and to comply with wildlife legislation. To achieve this, the following steps have been taken: • A field survey has been undertaken, including an assessment of habitat suitability and the deployment of artificial refugia and subsequent inspections to identify presence or likely absence of reptiles within the site. • An outline of potential impacts on reptiles has been provided, based on the proposed development.

	• Recommendations for further surveys and mitigation have been made. • Opportunities for the enhancement of the site for reptiles have been set out.
<i>Background and site context</i>	The reptile survey has been informed by a Preliminary Ecological Appraisal and Roost Assessment which was completed by Arbtech Consulting Ltd on 29th January 2025. Reptiles were not found during any of the field survey visits. The survey was required to inform a planning application for the development of a residential area (hereafter referred to as “the proposed development”). A plan showing the proposed development is provided in Appendix 3. The survey site is centred on National Grid Reference SK 4129 7587 and has an area of approximately 1.97ha. The soil is described as loamy and clayey floodplain soils with a naturally high groundwater. The site comprises 6 farm buildings, two large fields of grassland bordered by native hedgerows with mature trees. Both the hedgerows and the trees extend into the wider landscape creating a connective network of habitats. Aerial imagery depicts the local landscape as being rural to the north and east of the site, and residential urban habitats are found to the south and west. The Trent and Mersey Canal runs 780m east of the site and the A50 is found 780m north. These landscape features cause fragmentation of habitats for a range of species of which roads and rivers are a significant barrier to dispersal. The PEA/PRA found that habitats recorded on site were assessed to provide foraging, commuting, basking and refuge opportunities for reptiles. The hedgerow and scrub provide elevated value for reptiles as these habitats provide a suitable structure for refuge, whilst also providing foraging and commuting opportunities. The site has good connectivity to further suitable reptile habitat in the wider landscape via woodland and riparian vegetation associated with a stream (130m west) which feeds into the Trent and Mersey Canal 800m west/southwest. The adjacent fields of further grassland connected by mature hedgerows are of elevated ecological value within the wider landscape and may represent important resources for local reptile populations. These adjacent habitats provide optimal foraging, commuting, and refuge opportunities for reptiles and are well connected to further suitable habitat in the wider landscape.
<i>Methodology</i>	The survey was undertaken by Victoria Walters BSc (Hons) MSc Consultant Ecologist

	The survey methodology is based on the Froglife Advice Sheet 10: Reptile Survey, an introduction to planning, conducting and interpreting surveys for snake and lizard conservation (Froglife, 1999), Herpetofauna Workers' Manual (Gent, T. and Gibson, S., 2003) and the Reptile Habitat Management Handbook (Edgar, P., Foster, J. and Baker, J. 2010). Refugia was placed around the site in suitable reptile habitat with each refuge numbered and the locations recorded using a GPS unit for monitoring, reporting and mapping. The refugia were steel ‘tins’ (corrugated steel sheets of approximately 50cm x 50cm square) and sheets of bitumen felt (approximately 100cm x 50cm square). The steel tins are regarded to have better habitat value for certain species (particularly snakes) due to their superior thermal retention. For this site, there is assessed to be potentially suitable reptile habitat on site, comprising 1.4ha of grassland and 140m of hedgerow, which will be removed during construction. Therefore, a total of 6 tins and 68 felts were used. Locations of refugia are illustrated in Appendix 3. The refugia were deployed on and left to ‘bed in’ for a minimum of two weeks. Seven separate site visits were completed to search for reptiles between 17/09/2025-08/10/2025. The surveyor walked slowly and carefully checked the top and underneath of each felt, as well as looking for reptiles between the felts. Four of the surveys were undertaken during the optimal period (typically in April, May and September) and three were taken in the sub-optimal period (October) and in suitable weather conditions, when temperatures between 10°C and 18°C with intermittent or hazy sunshine and little or no wind, before 11am and after 3pm.																				
Population size assessment and key reptile site characterisation	A population size assessment was completed in accordance with current guidance detailed within Froglife Advice sheet 10 (Froglife 1999). The population size assessment was determined as per the parameters outlined in Table 1. Table 1: Example results of Reptile Surveys <table><tr><th>Species</th><th>Low Population (Score 1) (Max count)</th><th>Good Population (Score 2) (Max count)</th><th>Exceptional Population (Score 3) (Max count)</th></tr><tr><td>Adder <i>Vipera berus</i></td><td><5</td><td>5 -10</td><td>>10</td></tr><tr><td>Grass snake <i>Natrix natrix</i></td><td><5</td><td>5 -10</td><td>>10</td></tr><tr><td>Common lizard <i>Zootoca vivipara</i></td><td><5</td><td>5 -20</td><td>>20</td></tr><tr><td>Slow worm <i>Anguis fragilis</i></td><td><5</td><td>5 -20</td><td>>20</td></tr></table>	Species	Low Population (Score 1) (Max count)	Good Population (Score 2) (Max count)	Exceptional Population (Score 3) (Max count)	Adder <i>Vipera berus</i>	<5	5 -10	>10	Grass snake <i>Natrix natrix</i>	<5	5 -10	>10	Common lizard <i>Zootoca vivipara</i>	<5	5 -20	>20	Slow worm <i>Anguis fragilis</i>	<5	5 -20	>20
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	In accordance with current guidance detailed within Froglife Advice sheet 10 (Froglife 1999), to qualify as a “<i>key reptile site</i>”, the surveyed site must meet at least one of the following criteria: a. Supports three or more reptile species. b. Supports two snake species. c. Supports an exceptional population of one species. d. Supports an assemblage of species scoring at least 4 (see Table 2). e. Does not satisfy criteria a-d but is of regional importance due to local rarity.															
<i>Field survey results</i>	Survey dates and weather conditions are described in the table below: <table><tr><th>Visit No.</th><th>Date and Time</th><th>Weather Conditions</th></tr><tr><td>1</td><td>18/09/2025 10:00</td><td>Temp: 21°C Humidity: 80% Cloud Cover: 45% Wind Speed: 11mph Precipitation: None</td></tr><tr><td>2</td><td>21/09/2025 10:00</td><td>Temp: 15°C Humidity: 50% Cloud Cover: 35% Wind Speed: 9mph Precipitation: None</td></tr><tr><td>3</td><td>24/09/2025 10:30</td><td>Temp: 8°C Humidity: 94% Cloud Cover: 85% Wind Speed: 5mph Precipitation: None</td></tr><tr><td>4</td><td>27/09/2025 10:00</td><td>Temp: 13°C Humidity: 65% Cloud Cover: 90%</td></tr></table>	Visit No.	Date and Time	Weather Conditions	1	18/09/2025 10:00	Temp: 21°C Humidity: 80% Cloud Cover: 45% Wind Speed: 11mph Precipitation: None	2	21/09/2025 10:00	Temp: 15°C Humidity: 50% Cloud Cover: 35% Wind Speed: 9mph Precipitation: None	3	24/09/2025 10:30	Temp: 8°C Humidity: 94% Cloud Cover: 85% Wind Speed: 5mph Precipitation: None	4	27/09/2025 10:00	Temp: 13°C Humidity: 65% Cloud Cover: 90%
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	5	01/10/2025 10:30	Temp: 13°C Humidity: 90% Cloud Cover: 80% Wind Speed: 6mph Precipitation: None
	6	05/10/2025 10:00	Temp: 11°C Humidity: 78% Cloud Cover: 60% Wind Speed: 17mph Precipitation: None
	7	08/10/2025 09:30	Temp: 15°C Humidity: 60% Cloud Cover: 70% Wind Speed: 9mph Precipitation: None
	No reptiles were identified during the surveys.		
Survey results summary and Impact Assessment	No reptiles were identified on the site. No impacts to reptiles are anticipated as a result of the proposed development.		
Recommendations	Maintain the grassland area at a short sward height to discourage reptiles moving onto the site.		
Enhancement measures	Retention of existing habitats where possible including grassland and hedgerows on site. Creation of reptile refugia from site clearance. Hibernacula could also be constructed. planting of native scrub and fruit species rich grassland etc to provide compensatory/additional sheltering and foraging opportunities. Planting of native hedgerows to provide commuting corridors		

Appendix 1: Survey map



Appendix 2: Site location



Appendix 3: Proposed development plan



Appendix 4: Legislation and planning policy

LEGAL PROTECTION

The sand lizard *Lacerta agilis* and smooth snake *Coronella austriaca* receive full protection under Habitats Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species
- Deliberate disturbance of species in such a way as:
 - i. To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
 - ii. To impair their ability to hibernate or migrate
 - iii. To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

These species are also listed on Schedule 5 of the Wildlife and Countryside Act (WCA) 1981 (as amended) and they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale.

Other native species of reptiles are protected solely under Schedule 5, Section 9(1) & (5) of the WCA, i.e. the adder *Vipera berus*, grass snake *Natrix natrix*, common lizard *Zootoca vivipara* and slow-worm *Anguis fragilis*. It is prohibited to:

- Intentionally or recklessly kill or injure these species.

NATIONAL PLANNING POLICY

National Planning Policy Framework 2021

The National Planning Policy Framework promotes sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and species. An emphasis is also made on the need for ecological infrastructure through protection, restoration and re-creation. The protection and recovery of priority species (considered likely to be those listed as UK Biodiversity Action Plan priority species) is also listed as a requirement of planning policy.

In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; opportunities to incorporate biodiversity in and around developments are

encouraged; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

The Natural Environment and Rural Communities Act 2006 and the Biodiversity Duty

Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006, requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity'. This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) will be required for works likely to affect the breeding sites or resting places of reptile species protected under Habitats Regulations. A licence will also be required for operations liable to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licences are to allow derogation from the relevant legislation, but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Although not licensable, appropriate mitigation measures may also be required to prevent the intentional killing or injury of adder, grass snake, common lizard and slow worm, thus avoiding contravention of the WCA.

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