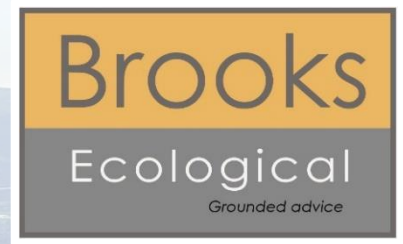


01-27



Reptile Survey

Horn Crag Quarry, Silsden

AD Calvert Architectural Stone Supplies

Report Reference: ER-5064-07A

05/10/2021

Report Title: Reptile Survey - Interim Report
Horn Crag Quarry, Silsden

Report Reference: ER-5064-07A

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Managing Director

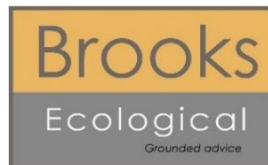
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Managing Director

Date: 05/10/2021

Amendment	Date	Author	QA	Summary of changes
ER-5064-07A	03/02/2023	JAR	CH	Minor changes to wording

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Summary Statement

Following seven reptile visits in the optimal survey season during suitable weather conditions, no evidence of reptile activity has been recorded anywhere within the Site.

The likelihood of reptiles utilising the Site is very small, as such proportional measures during clearance are recommended.

Introduction

1. Subsequent to recommendations set out in the Preliminary Ecological Appraisal Report (ER-5064-01), Brooks Ecological was commissioned to carry out a detailed Reptile Survey at the proposed development Site at Horn Crag Quarry, Silsden.
2. The survey covered all land within the red line boundary, as shown in Figure 1 (right).

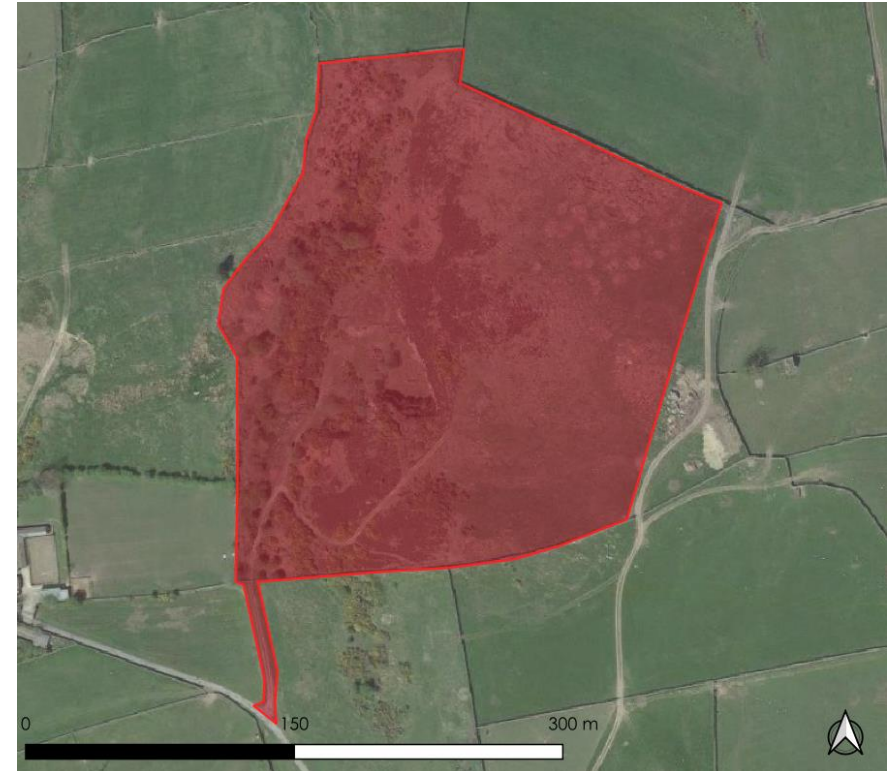
Legislation & Guidance

3. The Site lies within the natural range of four widespread species of reptile (common lizard, slow worm, adder and grass snake). These all receive limited protection under part of subsection 9(1) and all of subsection 9(5) of the Wildlife and Countryside Act 1981 (as amended). This affords protection against intentional and reckless killing or injuring and trade.
4. Destruction of known habitats whilst reptiles are present may therefore lead to an offence of killing or injury.
5. Destruction of known habitat without provision for the safe escape of animals into further suitable habitat able to support them can lead to offences under the Abandonment of Animals Act 1960 (as amended).
6. The Natural Environment and Rural Communities Act 2006 sets out the responsibility of public authorities to Biodiversity. This Act provides lists of habitats and species to which the LPA's consideration must be given when exercising their functions (e.g. considering planning permission). All reptile species are listed under Section 41 of the Act making them and their habitat a consideration of planning.

Records

7. As part of the desk study for the initial Preliminary Ecological Appraisal Report, a data search was undertaken with West Yorkshire Ecology Services. No records were identified.
8. Anecdotal evidence by local residents suggests common lizard have recently been sighted nearby.

Figure 1 The Site boundary - red line



Method

9. Reference is made to The Herpetofauna Worker's Manual (Gent and Gibson, 2003) for the survey methodology with seven official reptile survey visits being carried out.
10. Surveys were scheduled for the main active season, with visits spread across the period of April and September 2021 and undertaken during suitable weather conditions and time of day.
11. Each visit comprised a walked transect looking for reptiles that may be basking or foraging, and a hand search of refugia. An appraisal of the site by the surveyor allowed an assessment of the location of target habitat features such as potential hibernaculae, refuges and foraging grounds. This allowed surveys of the site to be targeted, depending on season and conditions - a strategy which will considerably increase the potential of surveyors encountering reptiles.
12. The Site contains some rubble/ rock piles and broken down wooden cabins, which present suitable areas of refuge. In order to increase the chance of finding any reptiles present, artificial refuges were placed in strategic locations across the site, in locations most likely to support reptiles. A total of 60 corrugated bitumen sheets were deployed - this exceeds the recommended guideline of using a minimum of 5-10 refuges/ha set out in the Froglife Advice Sheet 10.
13. Refuges were placed on the site in April and left undisturbed for a short period prior to the commencement of surveys.
14. Walked transects were carried out carefully with the surveyor walking slowly and looking well forward to attempt to spot reptiles at distance. This technique is necessary because reptiles have very good eyesight and sense of vibration and generally are aware of surveyors at short distances, rapidly taking cover to avoid detection.
15. Both the existing and new artificial refugia were approached quietly to observe any basking reptiles. These were then lifted to observe any reptiles that may be sheltering beneath.
16. In addition to physical sightings, reptiles can also leave evidence of their presence in the form of shed skin and holes in the ground (e.g. from lizard burrows or grass snake egg laying pits). This form of evidence was also searched for during the survey.

Constraints

17. Each survey visit was undertaken during suitable weather conditions, time of day and time of year.

Figure 2 Approximate location of corrugated bitumen sheets (white hatch)



Results

18. All seven surveys visits have been completed, with surveys undertaken across April-June and September 2021. No reptiles or evidence thereof have been identified on Site during these surveys. A summary of the survey conditions and results is present in the table below.

Table 1 Summary of survey results.

Survey	Date	Conditions	Results/ Notes
-	9 th April 2021	Temperature 9°C. Mainly sunshine. Breezy with fast moving passing cloud, gentle-moderate breeze (B3-4) No precipitation.	Reptile mats deployed
1	15 th April 2021	Temperature 10-12°C. Mainly sunshine. 10-20% cloud passing. Easterly light breeze (B2). No precipitation.	No reptiles found
2	7 th May 2021	Temperature 10-11°C. Increasing sunshine; 50%-10% cloud decreasing throughout survey. Light breeze (B2). No precipitation.	No reptiles found
-	18 th May 2021	Temperature 12 °C, sun with clouds. Heavy rain beginning part way through survey for prolonged period.	Survey abandoned
3	2 nd June 2021	Temperature 15-16°C. Mostly sunshine with light passing cloud/haze. Moderate breeze (B4). No precipitation.	No reptiles found
4	29 th June 2021	Temperature 14°C. Passing cloud 50%. Light breeze (B2). No precipitation.	No reptiles found
5	16 th September 2021	Temperature 17°C. Mainly sunshine with 30% cloud. Light to gentle breeze (B2-3). No precipitation.	No reptiles found
6	17 th September 2021	Temperature 14-17°C. Decreasing sunshine; 30% cloud increasing to 70%. Gentle breeze (B3). No precipitation.	No reptiles found
7	27 th September 2021	Temperature 14°C. Previously full sunshine starting to cloud over. 30% passing cloud increasing to 60%. Moderate breeze (B4)- No precipitation.	No reptiles found

Conclusion & Recommendation

19. No evidence of reptile activity has been recorded anywhere within the Site.
20. Although reptiles have not been recorded throughout surveys undertaken in 2021, there is a slight risk that a small population could be present which utilise the Site undetected at lower densities.
21. As such, a precautionary directional clearance method is recommended, whereby the Site is cleared directionally towards retained habitat, to ensure any reptiles have time to move across the Site without getting trapped in areas given over to development, further reducing the risk of killing or injuring of reptiles.

Ecological enhancement

22. The requirement for development to make a positive contribution to biodiversity is clearly set out guidance such as the NPPF and BS:42020 – over and above mitigating or compensating any potential impacts.
23. Within the Site layout, the existing western part of the Site will be retained. Much of this land is occupied by dense fern throughout summer; some areas could be cleared and enhanced as acid grassland/healthland with suitable areas for basking, and log / grass piles created in strategic locations, such as on south facing aspects.

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 T and Gibson S, 2003, Herpetofauna Workers' Manual, JNCC

Hill et al. 2005, Handbook of Biodiversity Methods. Cambridge.