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PROFESSIONAL ECOLOGICAL SOLUTIONS



ECOLOGY

TREE PROTECTION FENCING

SITE PREPARATION & CLEARANCE

HABITAT MANAGEMENT & ENHANCEMENT

**Foreman Homes
Unit 1, Station Industrial Park,
Duncan Rd,
Park Gate,
Southampton
SO31 1BX**



Post Monitoring Reptile Surveys and Further Recommendations

Background

A reptile capture has been undertaken to facilitate a planning application (F/19/84937) and it was requested by Eastleigh Borough Council that monitoring was undertaken to establish the success of the translocation and to establish any further requirements. This addendum provides the results of the monitoring survey carried out during September 2022 as well as further recommendations based on the findings.

Site Location

Prior to planning, the site was comprised of a series of grassland parcels used as horse pasture and associated buildings with boundary mature tree lines, (which has since undergone the start of construction work) located south of Maddoxford Lane, Boorley Green, West End, Southampton, SO32 2DD (centered on OS grid reference SU 511 142) (**Fig 1**). The north of the site is bounded by Maddoxford Lane, the east and south by arable fields and the west by a site with permission for 50 new dwellings which is now part complete.

Figure 1. Redline boundary plan of site.



Receptor population surveys methodology

The surveys undertaken by Ecosupport were carried out in accordance with best practice guidelines as stated in various resources (Froglife 1999) (Gent & Gibson 1998) in September 2022. Artificial refugia comprising of bitumen roofing felt (20 in total) were distributed throughout the suitable reptile habitats present within the reptile receptor area (with a further 20 deployed across the area to the south of the receptor and around the receptor boundaries, due to the presence of suitable habitats and the damage to the reptile fencing).

These artificial refugia warm up faster and retain heat for longer than the ground or surrounding vegetation. Reptiles, being exothermic, shelter under the refuge in order for their bodies to reach the temperature required for activity.

This was allowed to bed in for two weeks, after which seven visits to the site were undertaken. These took place during suitable weather conditions. All the refugia were checked for the presence of reptiles in combination with a visual observation transect.

This survey allows inferences to be made as to population size class on site and can be compared to the original survey results and capture numbers.

Survey Results

During the site visit to set up the reptile mats, it was established that the reptile fencing had been damaged along the southern edge (**Fig 2**) for a substantial period of time (with the earth beneath the fallen fencing bare as a result). Additionally, the habitats to the south (which had previously been destructively searched for reptiles) are now considered suitable again for reptiles (**Fig 3**), with the habitats immediately surrounding the receptor area also suitable for reptiles (particularly along the hedge which lines the stream on the western site boundary). Therefore reptile mats were distributed both within the receptor area and within the suitable habitats surrounding this area. The main body of the site has however been stripped of topsoil and is bare therefore meaning that it is unsuitable for reptiles.

The results of the reptile monitoring survey are presented below in **Table 1**, with the majority of reptiles recorded within the reptile receptor area (with a single adult male recorded within the longer grass along the western boundary, just outside of the receptor area).

Table 1. Results of the reptile surveys undertaken by Ecosupport during September 2022. AF = Adult Female, AM = Adult Male, SA = Sub Adult, J = Juvenile and SW = Slow Worm.

Date	Start Time	Air Temp (°C)	Wind (Beaufort)	Cloud cover (%)	Grass Snake	Slow Worms				Total (all SW)
						AF	AM	SA	J	
01/09/22	9:30am	17	2	75	-	-	-	-	-	0
05/09/22	08:43am	17	0	85	-	-	1	-	-	1
07/09/22	10.20	19	0	75	-	-	-	-	-	0
09/09/22	10:30	19	5	50	-	1	-	1	-	2
12/09/22	09:50	18	1	75	-	1	-	-	-	1
28/09/22	12:15	16	1	60	-	-	1	-	-	1
30/09/22	09:20	11	0	20	-	-	-	-	-	0

The monitoring surveys identified a slight reduction of number of Slow Worms in comparison the to initial presence / absence surveys as well as a lower number than expected based on

the numbers caught during the capture process (with maximum count typically translating to approximately 10% of the overall population). Due to the fencing being damaged for a sustained period of time (which has now been fixed), as well as the presence of suitable habitats in the wider area (both within the site redline within the immediate vicinity of the receptor area and within the wider area particularly to the south of the site) it is considered likely that some of the reptiles within the receptor area have escaped and dispersed into the wider area (with the single male Slow Worm found outside of the receptor supporting this).

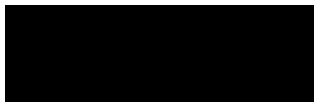
Additional recommendations

Due to the re-establishment of vegetation within the area adjacent to the receptor area which provides suitable reptile (albeit sub-optimal reptile habitat) and the damage that had occurred to the reptile exclusion fencing, measures will be required to ensure that reptiles are not harmed during future works within this area.

Therefore prior to works taking place within this area, a small-scale reptile capture will be required. This will involve the deployment of reptile mats in all suitable habitats and deployed at an increased density of >100 / ha to increase capture rate and help reduce the number of capture days required. A capture will then take place for a minimum of 15 days, with all reptiles captured relocated to the receptor area. The capture effort will continue until 5 consecutive visits have been carried out in ideal weather conditions where no reptiles are captured (or seen).

Immediately after the capture has been completed, a destructive search of this area under the supervision of an ecologist will be necessary. This would entail the sensitive stripping of vegetation on site using a toothed bucket where habitat is suitable for reptiles. Following on from the destructive search, the site will be managed to ensure it doesn't become suitable for reptiles until all works within this area have been completed. Should habitats be left and become suitable for reptiles again before all works in this area are complete, further mitigation measures will be required before works can re-commence.

Generally, the habitats within the receptor had further established to provide dense cover at ground level with some basking opportunities also present. The Hibernacula was also still intact and provides ideal hibernating opportunities for reptiles. It was however noted that that scrub planting within the receptor area has not yet been completed. This should be done as soon as possible (ideally in Autumn) to provide additional protection and cover for reptiles as well as increasing the range of thermal zones on site.



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