

# St George's Barracks

## Reptile Survey

October 2019



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**October 2019**

Report Ref: DFA19073

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## **1 INTRODUCTION**

### **1.1 Background**

- 1.1.1 In November 2016, the Government announced through 'A Better Defence Estate', a commitment to invest in a more efficient built military estate that will reduce in size by thirty per cent by 2040. The Ministry of Defence (MOD) is required to maximise value through the disposal of sites and has a target to provide land for 55,000 dwellings this Parliament. Within the November announcement it was confirmed that St George's Barracks would be surplus to operational requirements and programmed for disposal in 2020.
- 1.1.2 In recognition of this, Rutland County Council (RCC) and the MOD (Defence Infrastructure Organisation - DIO) have agreed a Memorandum of Understanding that builds upon their willingness to jointly explore the opportunities for the future of the St George's Barracks site post 2020/21 and an appetite to work together in a new and innovative way to maximise Government growth and efficiency objectives for the site. There are currently proposals to re-develop part of the Site. A masterplanning exercise is currently being undertaken, exploring several potential re-development proposals for the Site.
- 1.1.3 As part of any masterplanning process, it important to gain an understanding of the ecological resource within and around the site. This allows for any potential impacts to be avoided or minimised at the onset of the process, as well as allowing areas of maximum ecological enhancements to be realised. To this end, an initial ecological assessment of St George's Barracks, herein referred to as the 'Site', was undertaken in March 2018 (Derek Finnie Associates Report Ref: DFA18005V3). The initial ecological assessment highlighted the need for additional, species specific surveys to fully assess the potential levels of biodiversity within the Site; this included a reptile survey due to the presence of potentially suitable reptile habitat within the Site.
- 1.1.4 The following report describes the methodology used in a reptile survey undertaken within the Site during 2019, assesses the result and discusses the implications for any future re-development of the Site.

## 2 METHODOLOGY

### 2.1 Desk Study

2.1.1 Desk study data supplied by Leicestershire and Rutland Environmental Records Centre (LRERC) was reviewed for known sightings of reptiles within 2km of the Barracks.

### 2.2 Field Survey

2.2.1 A total of 260 refugia consisting heavy duty roofing felt approximately 0.5m<sup>2</sup> were placed across selected areas within the airfield and golf course (Figure 1). Due to on-gong operational activities being undertaken by the MoD it was not possible to install traps in certain areas within the airfield. The industrial area towards the north of the Site was also excluded from the Survey due to the absence of suitable reptile habitat (Figure 1). To maximise the efficiency of the survey the refugia were concentrated in areas which appeared to be more likely to support reptiles.

2.2.2 Although the refugia density placed across the 150ha site is below the density recommended by Froglife (1999) of 10ha<sup>-1</sup>, given much of the site supports homogenous grassland, combined with the fact the current survey is aimed at informing the masterplan process, it is believed the survey effort was adequate to achieve the aims of the survey.

2.2.3 The refugia generally heat up quicker than the surrounding environment, which makes them attractive to reptiles which need to attain a certain body temperature to hunt effectively. Thus, careful inspection of the refugia results in a more effective way to locate these often-elusive animals.

2.2.4 The refugia were placed on Site on the 20<sup>th</sup> March 2019 and allowed to 'bed in' for at least two weeks before the survey proper began. The refugia were then checked on seven subsequent occasions throughout the survey period, as shown in Table 1, on suitable days, which are classified as sunny, or partially sunny days, with little or no wind and an air temperature between 8°C and 19°C.

**Table 1.** Survey dates and weather conditions

Visit No.	Date	Weather
1	14 <sup>th</sup> May	16°C, sunny
2	20 <sup>th</sup> May	17°C, 2/8 cloud
3	13 <sup>th</sup> June	14°C, 3/8 cloud, light wind
4	7 <sup>th</sup> July	16°C, sunny, no cloud
5	21 <sup>st</sup> July	14°C, 1/8 cloud, mod wind
6	22 <sup>nd</sup> August	16°C, no cloud
7	9 <sup>th</sup> September	15°C, 2/8 cloud, light wind

2.2.5 In addition to checking the artificial refugia, other suitable natural basking areas around the Site were carefully inspected from a short distance using Leica 10x32 BGA binoculars, expanding the search area to cover parts of the Site where refugia could not be placed.



### **2.3 Survey Constraints**

- 2.3.1 The survey was constrained by not being able to install reptile refugia across the entire site. However, given the relatively homogenous state of much of the habitats within the Site, and the limited area, which was not directly covered by the survey, this is not believed to have altered the results significantly.
- 2.3.2 As access to the Site had to be pre-arranged for security reasons, ideal weather conditions could not always be guaranteed. However, only one survey on the 10<sup>th</sup> June had to be aborted and re-schedule for three days later. The remainder of the survey events were undertaken within acceptable conditions.

### 3 RESULTS

#### 3.1 Desk Study

- 3.1.1 LRERC returned a single record of a common lizard from 1991 some 1.5km to the south east of the Site.
- 3.1.2 Tim Collins, who undertakes regular bird ringing exercises within the airfield, has reported the presence of common lizard, adder and grass snake within the Site.

#### 3.2 Field Survey

- 3.2.1 Common lizard, adder and grass snake were all encountered at low numbers throughout the survey, as summarised in Table 2, with the approximate location of the encounters shown on Figure 1.

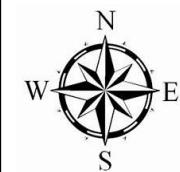
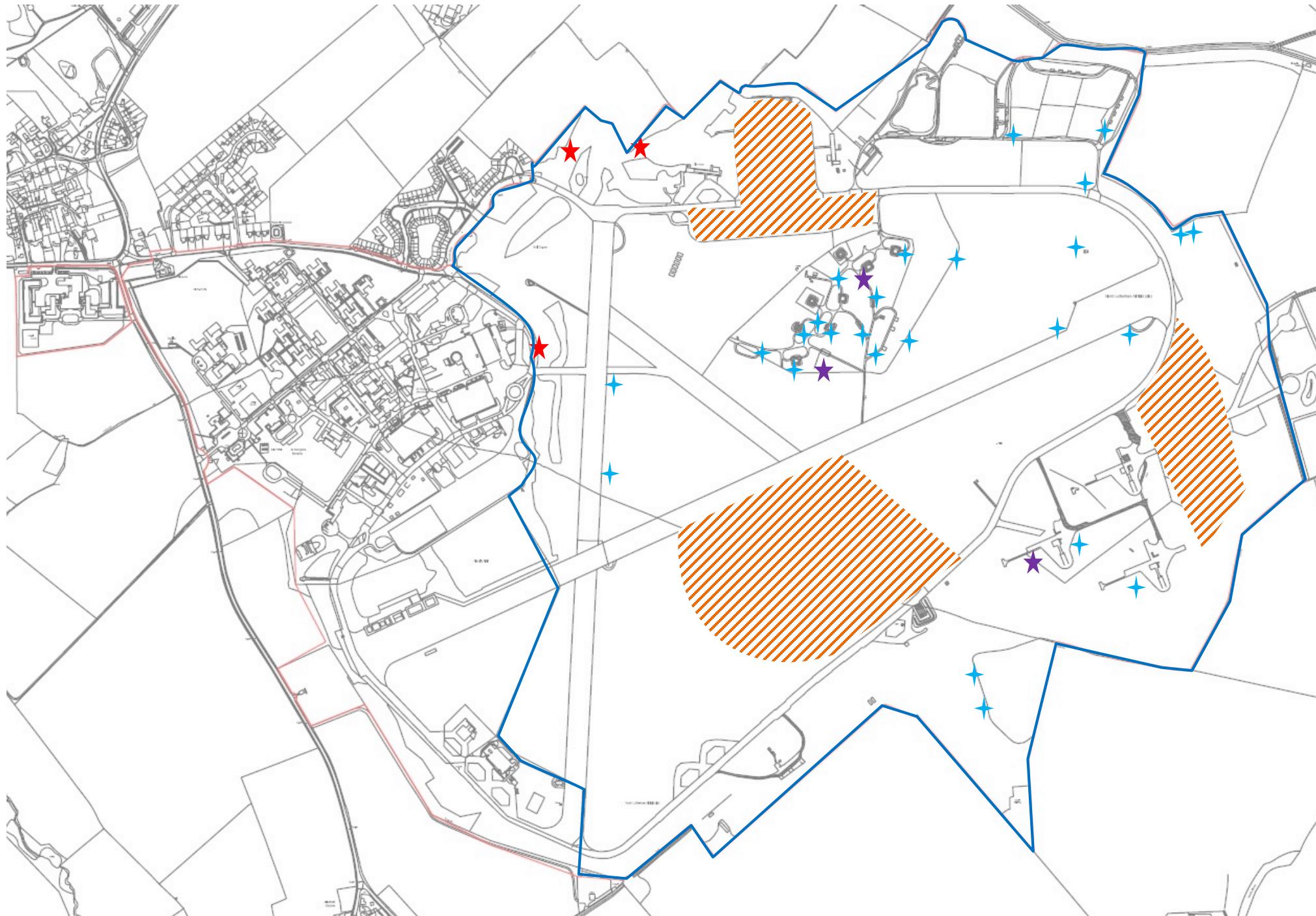
**Table 2.** Summary of reptiles encountered.

Visit No.	Date	Grass snake	Adder	Common lizard
1	14 <sup>th</sup> May		1F.	3F. 2M
2	20 <sup>th</sup> May	1F.		4F. 4M
3	13 <sup>th</sup> June			6F. 1M
4	7 <sup>th</sup> July	1F. 1SA		11F. 2M
5	21 <sup>st</sup> July			4F.
6	22 <sup>nd</sup> August		1F. 1M	3F. 2M. 3SA.
7	9 <sup>th</sup> September		1M.	4F. 1M.

- 3.2.2 The grass snakes were encountered within the golf course area, within and adjacent to areas of longer grass (Figure 1). There are two waterbodies within the golf course that support amphibians, which are known to be an important prey item for grass snakes. The presence of a sub-adult indicates breeding is occurring within, or immediately adjacent to, the Site.
- 3.2.3 Adder were encountered within areas associated with derelict structures within the Site. A single female was noted on the 14<sup>th</sup> May in close proximity to the former Thor missile site towards the south east of the Site. Towards the end of the survey period, a single male was recorded on two occasions in the centre of the Site; given the size of the individual and location of the encounter, it was believed to be the same individual. A female also noted in this area.
- 3.2.4 Common lizard, although more widely dispersed across the Site, were encountered with a slightly greater frequency towards the north east of the airfield. The encounters were associated with the presence of hedgerows and artificial features located immediately to the south of the existing industrial area.

## 4 DISCUSSION AND IMPLICATIONS

- 4.1.1 Three species of reptile were recorded from within the airfield and golf course at moderately low numbers. However, although the use of artificial refugia is the accepted best practise method, it does tend to underestimate the number of snakes within an area. This, in combination with some areas being excluded from the survey, would suggest that the density of snakes within the Site is higher than the results suggest.
- 4.1.2 Given the paucity of reptile records from the wider area, the presence of three reptile species within the confines of the airfield and golf course must be considered to be of District importance.
- 4.1.3 There would appear to be ample scope within the current masterplan proposal to accommodate, and indeed enhance, the reptile population within the Site. There is the opportunity within the green buffer zone and open space areas to create habitats with more structural diversity and basking sites for these reptile species. The suggested management for the grassland areas will likely lead to an increase in the invertebrate populations, an important prey species for lizards, whilst an increase in small mammals is also likely. The creation of new water bodies will benefit the grass snake population.
- 4.1.4 Hence, the proposed re-development of St George's Barracks site is unlikely to lead to a significant negative impact upon the local reptile population; indeed, an increase in the conservation status of the local population would be predicted as a result of potential enhancement measures.



**Legend:**

- ★ Grass snake
- ★ Adder
- ★ Common lizard
- Area excluded from survey
- Survey area

Drawing No: Figure 1  
 Title: Reptile Locations  
 Date: October 2019  
 Project: St George's Barracks  
 Client: RegenCo



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