

# St George's Barracks

## Breeding Bird Survey

October 2019



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Report Ref: DFA19074

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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 breeding bird survey due to the presence of potentially good quality breeding bird habitat within the Site.
- 1.1.4 The following report describes the methodology used in a breeding bird 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) were reviewed for known locations of breeding birds within 2km of the Barracks.

### 2.2 Field Survey

2.2.1 Territory mapping, as described by Bibby *et al* (2000) was used to assess the breeding bird assemblage within the Site. A transect was walked across the Site on four separate occasions, with the route being reversed on the second and fourth visit. The transect came within 50m of all points of the Site to ensure an adequate survey effort was achieved.

2.2.2 Observations of all bird species encountered, with the number, sex (where possible) and any breeding or territorial behaviour being noted on a large scale field map. The transects were undertaken first thing in the morning, although care was taken to avoid the first hour after sunrise as this is the time of highest bird activity and may skew the results in favour of the area at the start of the transect. The survey was conducted in fine weather on the, 20<sup>th</sup> March, 11<sup>th</sup> April, 14<sup>th</sup> May and 5<sup>th</sup> June 2019.

Signs of breeding activity, such as nests themselves or parents carrying food or faecal sacs, as well as repeated territorial behaviour allows the potential breeding status of individual birds to be determined as shown in Table 1, subject to certain assumptions (after IBCC 1969).

**Table 1.** Breeding Status Criteria

Breeding Status	Criteria
Confirmed	Active nest, dependent young, parents carrying food, parents carrying faecal sacs.
Probable	Pair observed in suitable habitat, repeated territorial behaviour/display in the same area.
Possible	Individual observed in suitable habitats, single observation of territorial behaviour/display
Non-breeding	Individual observed in un-suitable habitat.

### 2.3 Survey Constraints

2.3.1 Access was available to all areas of the Site with no major constraints to the survey.

### 3 RESULTS

#### 3.1 Desk Study

3.1.1 LRERC returned over a thousand bird records within 2km of the Site. However, many of these records refer to a single species, for example there are over 300 records of red kite; little indication is given to whether the record refers to an individual being seen or to evidence of breeding being noted. However, there are records that refer to curlew, grey partridge and barn owl breeding within the airfield area.

3.1.2 Tim Collins, a local bird ringer, has been undertaking bird ringing within the airfield since 2008, with a particular focus on spring and autumn migration. The results of his surveys are collated in annual reports forward to MoD, several of which have been made available to inform the current assessment.

#### 3.2 Field Survey

3.2.1 A total of 44 species were recorded from within the Site, as shown in Table 2, with 26 of these being confirmed as breeding, 11 assessed as probable breeders, two possible breeders and five unlikely to be breeding within the Site.

**Table 2.** Breeding Bird Survey Results

Species		Breeding Status
Common Name	Scientific Name	
Blackbird	<i>Turdus merula</i>	Confirmed
Blackcap	<i>Sylvia atricapilla</i>	Confirmed
Blue tit	<i>Cyanistes caeruleus</i>	Confirmed
Bullfinch	<i>Pyrrhula pyrrhula</i>	Confirmed
Buzzard	<i>Buteo buteo</i>	Non-breeder
Carrion crow	<i>Corvus corone</i>	Confirmed
Chaffinch	<i>Fringilla coelebs</i>	Confirmed
Chiffchaff	<i>Phylloscopus collybita</i>	Probable
Coal tit	<i>Periparus ater</i>	Probable
Collared dove	<i>Streptopelia decaocto</i>	Probable
Cuckoo	<i>Cuculus canorus</i>	Probable
Curlew	<i>Numenius arquata</i>	Confirmed
Dunnock	<i>Prunella modularis</i>	Confirmed
Goldfinch	<i>Carduelis carduelis</i>	Confirmed
Great spotted woodpecker	<i>Dendrocopos major</i>	Confirmed
Great tit	<i>Parus major</i>	Confirmed
Green woodpecker	<i>Picus viridis</i>	Probable
Greenfinch	<i>Carduelis chloris</i>	Confirmed
Grey partridge	<i>Perdix perdix</i>	Possible
Jackdaw	<i>Corvus monedula</i>	Confirmed
Jay	<i>Garrulus glandarius</i>	Probable
Kestrel	<i>Falco tinnunculus</i>	Non-breeder

Species		Breeding Status
Common Name	Scientific Name	
Lesser whitethroat	<i>Sylvia curruca</i>	Probable
Long-tailed tit	<i>Aegithalos caudatus</i>	Confirmed
Linnet	<i>Carduelis cannabina</i>	Confirmed
Magpie	<i>Pica pica</i>	Confirmed
Meadow pipit	<i>Anthus pratensis</i>	Confirmed
Pheasant	<i>Phasianus colchicus</i>	Probable
Pied wagtail	<i>Motacilla alba</i>	Confirmed
Red kite	<i>Milvus milvus</i>	Non-breeder
Red-legged partridge	<i>Alectoris rufa</i>	Probable
Ringed plover	<i>Charadrius hiaticula</i>	Non-breeder
Robin	<i>Erithacus rubecula</i>	Confirmed
Skylark	<i>Alauda arvensis</i>	Confirmed
Song thrush	<i>Turdus philomelos</i>	Probable
Sparrowhawk	<i>Accipiter nisus</i>	Non-breeder
Starling	<i>Sturnus vulgaris</i>	Confirmed
Swallow	<i>Hirundo rustica</i>	Confirmed
Tawny owl	<i>Strix aluco</i>	Possible
Willow warbler	<i>Phylloscopus trochilus</i>	Probable
Whitethroat	<i>Sylvia communis</i>	Confirmed
Woodpigeon	<i>Columba palumbus</i>	Confirmed
Wren	<i>Troglodytes troglodytes</i>	Confirmed
Yellowhammer	<i>Emberiza citrinella</i>	Confirmed

Key- Red shading – listed on Red List of Birds of Conservation Concern; Orange shading – listed on Amber listed of birds of Conservation Concern

- 3.2.2 The breeding bird assemblage within the Site is relatively rich. This is in part due to the presence of several different habitat types, the extent of the habitats present and the relatively undisturbed nature of the Site. The majority of the species are associated with the hedgerows and woodland around the periphery of the Site or patches of scattered scrub within the Site.
- 3.2.3 However, skylark, meadow pipit and curlew are associated with the extensive areas of open grassland. Both skylark and meadow pipit were recorded at particularly high densities; the activity of both species was so common across the Site that deriving estimates of the number of pairs is difficult but at least 20 pairs of each species are thought to be present. Although no empirical evidence is available for the surrounding land, Tim Collins believes, based on his extensive local knowledge, the density of both species is significantly higher within the airfield compared to the surrounding area. Certainly, Cramp (1988) quotes the average density of skylarks as 5 – 10 pairs per km<sup>2</sup>; within the airfield a minimum density of 13.3 pairs per km<sup>2</sup> was observed.
- 3.2.4 A pair of curlew were observed within the centre of the Site on the 20<sup>th</sup> March. An individual curlew was noted acting aggressively towards a kestrel and then red kite during the second and third survey visit respectively; a strong suggestion an active territory was

being held. On the fourth visit, two adults and one juvenile curlew was noted, confirming breeding.

- 3.2.5 Up to seven swallow nests were located within the disused structures within the Site, principally in the vicinity of the Thor missile silos.
- 3.2.6 Birds more often associated with woodland habitats, such as coal tit, great spotted woodpecker, jay and to a lesser extent jackdaw, were found to be breeding in the woodland area to the south of the Site.
- 3.2.7 As can be seen from Table 2, nine of the species recorded within the Site appear of the Red List of Birds of Conservation Concern (BoCC) (Eaton *et al.* 2015), although one species, ringed plover, is not thought to be breeding. On 5<sup>th</sup> June, nine individuals, containing several juveniles, were noted feeding around the central runway area. Of the other eight species, all have been included within the Red List due to severe reduction in their breeding population or range over the last 25 years. Similarly, the six species contained within the Amber list of BoCC (Table 2) are included due to the fact they have experienced a moderate decline in their breeding population or range in the last 25 years.
- 3.2.8 Skylark, yellowhammer, curlew, song thrush and grey partridge are also considered to be Species of Principle Importance and hence are a material consideration in the planning process.
- Non-breeding species***
- 3.2.9 Although not of direct relevance to the current assessment, the site is said to be of value for migrating species such as wheatear and various other passerines.

## 4 DISCUSSION AND IMPLICATIONS

- 4.1.1 The breeding bird assemblage encountered within the airfield and adjoining golf course during the 2019 survey was relatively species, with several species being encountered at high densities. The Site is undoubtedly important for breeding skylark and meadow pipit, with numerous pairs of each species noted. It is likely that the Site also represents one of the only curlew breeding sites within the area.
- 4.1.2 Hence, given the presence a relatively rich breeding bird assemblage, key species at high densities and the presence of uncommon breeding species, the Site should be regarded of District value for its breeding bird assemblage.
- 4.1.3 Whilst the long-term vision is for the majority of the airfield to be retained as open grassland, the inevitable increase in informal recreation is likely to lead to a decrease in certain aspects of the breeding bird assemblage. Whilst species such as skylark and meadow pipit will habituate to human presence relatively easily, the conversion of the airfield with its restricted access to an area of public open space will no doubt lead to a decrease in the breeding density of these species. It is also possible that an increase in recreational activity would lead to the loss of curlew from the Site.
- 4.1.4 Careful zonation and visitor management, in conjunction with habitat enhancements, would partially offset the increased disturbance, with alternative nesting opportunities provided in retained habitats; this may increase the number of certain species, such hole nesting species, that require mature woodland habitat with sufficient rotten or dead trees as nest sites.
- 4.1.5 It is also possible that the residential development would provide new breeding opportunities for certain species more often associated with urban habitats, such as house sparrow, starling, swift and house martin; species which are also on the BoCC lists.
- 4.1.6 Overall, whilst a reduction in the populations that are currently utilising the Site is predicted, it is possible that this reduction can be mitigated for through careful planning within the open space area. It is also likely that new species will exploit new habitats created within the development.

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