

North Luffenham Airfield Wildlife Report 2018

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Pyramidal Orchid

North Luffenham Airfield

June 2018

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I would also like to thank the Environmental Support and Compliance Team of the Defence Infrastructure Organisation, for granting me permission to undertake bird ringing at the site.

Finally, I'd also like to thank Andy Wood at North Luffenham Golf Club for permission to ring Northern Wheatears on the golf course's practice green.

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Summary

- This report details wildlife observations made on the old airfield at MOD North Luffenham during 2018. It also makes reference to earlier observations during the period 2008 to 2017 (the period I have been recording wildlife at this site).
- Visits were undertaken throughout year with a particular focus in spring and autumn in order to record bird migration.
- Survey work shows the site is locally important for a wide variety of wildlife including:
 - The large expanse of unimproved¹ limestone and neutral grassland on thin soils with an associated abundance and variety of wild flowers.
 - Exceptional large populations of a number of butterfly species associated with grasslands including Meadow Brown, Ringlet and Marbled White (the latter has a restricted distribution in Rutland).
 - Exceptionally high densities of breeding bird species associated with open grasslands; in particular Skylark and Meadow Pipit.
 - The presence of a locally scarce breeding bird species – Curlew. This species is now listed as a bird of ‘conservation concern’ due to recent significant declines in the UK population.
 - Substantial post breeding and wintering flocks of a number of declining farmland bird species most notably Linnet, Reed Bunting and Yellowhammer.
- The site continues to be the most important migration ‘stopover’ site for the Northern Wheatear anywhere in Rutland or Leicestershire.
- The site did not attract any notable rare birds this year; Short-eared Owls were again present in good numbers in the first part of the year and a total of 4 migrant Redstarts were seen in July and August (there have only been two previous records). There were two additions to the airfield bird list: Dunlin (July) and Spotted Flycatcher (August).
- This report provides some suggestions on how management of the site could be undertaken help sustain and enhance the wildlife interest.

¹ ‘Unimproved Grassland’ is used to describe grassland that does not receive an application of artificial fertilizers or pesticides. Use of such fertilizers and pesticides reduces the variety of wildflowers and the abundance of the insects that they support.

Introduction

I have long had a keen interest in wildlife and in particular birds. I now live in North Luffenham and exploring the local area led me to realise (by peering over the perimeter fence) that the old airfield at MOD North Luffenham was a potentially rich wildlife site. In August 2008 MOD granted me permission to visit the site to record its wildlife and to ring birds as part of the [national bird ringing scheme](#)². Regular visits have continued since then.

This report provides details of noteworthy sightings during 2018 as well as listing all bird species seen during 2008-17.

The site has proven to be an excellent area for wildlife; it is almost certainly the largest continuous area of limestone and neutral grassland in Rutland. The grassland areas support large numbers of nesting Skylarks and Meadow Pipits and 2 pairs of breeding Curlew; there is also a very large colony of the Marbled White Butterfly. In addition, its prominent location on a hill top makes it a good location for observing bird migration. The most noteworthy of the regular migrants is the Northern Wheatear which occurs on both its' spring and autumn migration. This has become the focus of a personal bird ringing study and has revealed the presence of the Greenland subspecies that moves through Britain and Ireland *en route* to breeding grounds in Iceland, Greenland and north-east Canada.

Dunlin and Spotted Flycatcher were new species for the airfield bird list during the year. Another highlight was the good numbers of Bee Orchids seen during June.



Jay at North Luffenham Airfield 7th October 2018

² Bird ringing in the UK is organised by the British Trust for Ornithology. See the following link for more information: <http://www.bto.org/volunteer-surveys/ringing>

Bird Life

The table below lists the species recorded during 2008-17 and indicates their breeding status. This is followed by notes on species of particular interest seen in 2018. Highlighted species were additions to the airfield list in 2018.

Species	Breeding Status	Pattern of Occurrence
Mute Swan		Flying over
Greylag Goose		Flying over
Pink-footed Goose		Scarce migrant
Canada Goose		Flying over
Mandarin Duck		Rare visitor to golf course pond
Gadwall		Flying over
Mallard	Occasionally breeds	Resident locally, uses the golf course (GC) pond in spring.
Goosander		Flying over (rare, only 1 record)
Red-legged Partridge	Breeds	Resident
Grey Partridge	Breeds	Resident
Quail		Scarce summer migrant
Pheasant	Breeds	Resident
Cormorant		Flying over (regular)
Little Egret		Occasional flies over
Grey Heron		Flying over
Red Kite	Breeds locally	Resident
Marsh Harrier		Rare spring & autumn migrant
Sparrowhawk	Breeds locally	Flying over
Buzzard	Breeds locally	Resident
Kestrel	Breeds	Resident
Merlin		Winter visitor & spring migrant
Hobby	Breeds locally	Summer visitor
Peregrine		Occasional visitor
Moorhen		Occasional visitor to GC pond
Oystercatcher		Flying over
Stone-curlew		Rare spring migrant (1 record)
Ringed Plover		Scarce spring & autumn migrant
Golden Plover		Spring & autumn migrant. Occasional winter visitor.
Lapwing		Flying over, occasional autumn and winter visitor
Snipe		Flying over, occasional grounded migrants.
Woodcock		Occasional winter visitor and autumn migrant.
Dunlin		Rare migrant

Whimbrel		Spring migrant
Curlew	Breeds	Summer visitor
Black-headed Gull		Flying over, summer moult roost
Common Gull		Flying over, summer moult roost
Lesser Black-backed Gull		Flying over, summer moult roost
Herring Gull		Flying over
Great Black-backed Gull		Flying over
Common Tern		Flying over
Arctic Tern		Spring migrant. Flying over (only 2 records)
Feral Pigeon		Flying over
Stock Dove	Breeds	Resident
Woodpigeon	Breeds	Resident
Collared Dove		Flying over
Turtle Dove		Rare summer migrant
Cuckoo	Breeds	Summer visitor
Barn Owl	Breeds locally – has bred on site.	Resident locally
Little Owl	Breeds	Resident
Short-eared Owl		Spring and autumn migrant. Occasional winter visitor
Swift		Summer visitor
Green Woodpecker	Breeds	Resident
Great Spotted Woodpecker	Breeds locally	Resident locally
Skylark	Breeds	Resident
Sand Martin		Autumn migrant
Swallow	Breeds	Summer visitor
House Martin		Summer visitor
Meadow Pipit	Breeds	Summer visitor & spring and autumn migrant
Tree Pipit		Rare autumn migrant (1 record)
Yellow Wagtail	Breeds locally	Summer visitor
Grey Wagtail		Autumn migrant
Pied Wagtail	Breeds	Resident & spring & autumn migrant
Wren	Breeds	Resident
Duncock	Breeds	Resident
Robin	Breeds	Resident
Common Redstart		Rare autumn migrant (6 records)
Whinchat		Spring and autumn migrant
Stonechat		Spring and autumn migrant & occasional winter visitor
Wheatear		Spring and autumn migrant
Ring Ouzel		Scarce spring and autumn migrant

Blackbird	Breeds	Resident and autumn migrant
Fieldfare		Spring & autumn migrant, winter visitor
Song Thrush	Breeds	Resident, autumn migrant
Redwing		Spring & autumn migrant, winter visitor
Sedge Warbler		Rare autumn migrant (1 record)
Reed Warbler		Rare autumn migrant (2 records)
Mistle Thrush	Breeds	Resident
Blackcap	Breeds	Summer visitor
Garden Warbler		Scarce spring and autumn migrant
Lesser Whitethroat	Breeds	Summer visitor
Whitethroat	Breeds	Summer visitor
Grasshopper Warbler		Scarce spring migrant
Chiffchaff	Breeds	Summer visitor
Willow Warbler	Breeds	Summer visitor
Goldcrest	May breed	Autumn migrant & winter visitor
Spotted Flycatcher		Scarce migrant
Long-tailed Tit	Breeds	Resident
Coal Tit	Breeds	Resident
Blue Tit	Breeds	Resident
Great Tit	Breeds	Resident
Nuthatch		Rare autumn migrant (1 record)
Treecreeper	Breeds locally	Autumn migrant
Jay		Autumn visitor
Magpie	Breeds	Resident
Jackdaw	Breeds	Resident
Rook	Breeds	Resident
Carrion Crow	Breeds	Resident
Starling	Breeds	Resident, autumn migrant
Tree Sparrow		Scarce autumn migrant
Chaffinch	Breeds	Resident & autumn migrant
Brambling		Autumn migrant
Greenfinch	Breeds	Resident
Goldfinch	Breeds	Resident
Siskin		Autumn migrant
Linnet	Breeds	Resident
Lesser Redpoll		Autumn migrant
Common Redpoll		Rare autumn migrant (2 records)
Bullfinch	Breeds	Resident
Snow Bunting		Rare autumn migrant (1 record)
Yellowhammer	Breeds	Resident
Reed Bunting	Breeds	Resident
Corn Bunting	(former breeder)	Very Rare visitor

Notes on Selected Bird Species in 2018

Pink-footed Goose - One was seen to fly in and land in the centre of the airfield on 4th December. Previous records involved birds over-flying the airfield.

Mallard – seen regularly on golf course pond

Grey Partridge – Only seen in summer and autumn, there was no evidence of breeding this year. This species has declined since 2008 when 3 pairs bred.

Red-legged Partridge – Small numbers were seen throughout the year



Red-legged Partridge 19th May 2019

Red Kite – breeds locally and is seen on almost every visit to the airfield.

Kestrel – the commonest and most frequent bird of prey on the airfield. A single pair bred.

Peregrine - In the first winter period a single bird was flushed from the eastern end of the airfield on 6th January.

Lapwing – The largest count of grounded birds was 25 on 7th July.

Dunlin – An adult was flushed from one of the old taxi ways at the western end of the airfield on 27th July. A new species for the airfield.

Curlew – Two pairs were present and displaying during the spring. Both pairs are thought to have bred however no young were seen so they were presumably unsuccessful; either losing their eggs or small chicks to predators or disturbance. The highest count was of 5 adults on 7th April.

Woodcock – There were no sightings in the first winter period. The only sighting during the autumn were of single birds on 3rd and 18th November. The poor numbers in autumn were probably due to the very dry conditions.

Cuckoo – After the first record on 26th April a single bird (or birds) were seen and heard regularly in May and June.

Barn Owl – Regularly seen hunting over the airfield throughout the year. This species has bred in the past and might be encouraged to do so again through the provision of nest boxes.

Little Owl – At least 3 pairs are resident on the airfield. One nest site was located.

Short-eared Owl – The only sightings during the first winter period were of singles on 10th and 13th March.

Numbers were poor again in the second winter period with just a single on 18th November and two on 25th November.

Skylark – There is a large breeding population and their song dominates an early morning visit to the airfield on a spring day. The population is difficult to count but they occur at significantly higher densities than in the surrounding farmland.

Swallow – It was a very poor year for breeding Swallows. Only 6 or 7 pairs bred, and breeding success was poor in the exceptionally hot and dry weather; several second clutches were apparently abandoned during the hottest part of the heatwave. There was only one successful second brood. This was the fifth year that artificial 'nestcups' (effectively a nest box specifically for Swallows) were provided for this species; none of these were used by Swallows this year.

Tree Pipit – A single bird was trapped and ringed on 17th August; the second record for the airfield. It was re-trapped on 20th.



Tree Pipit – 17th August 2018

Meadow Pipit – As with Skylark good numbers breed across much of the airfield. This species is a scarce breeder elsewhere in Rutland, so this population is of local importance.

Yellow Wagtail – Small numbers were seen in spring and autumn.

Willow Warbler – First seen on 7th April, there was a good showing throughout the breeding season.

Whitethroat - There was notable count of 25 in one small area of scrub at the eastern end of the airfield on 3rd August.

Lesser Whitethroat - A late bird was trapped and ringed on 22nd September.

Reed Warbler – A total of 5 birds were ringed during July and August.

Whinchat – In Spring migrants were seen from 28th April to 3rd May, at least 5 birds were involved.

In autumn birds were seen from 24th to 28th August with a peak count of three on 24th (there was no coverage in the first 3 weeks of September when Whinchat numbers are most likely to peak).

Stonechat – There were no sightings during the first winter period.

In autumn birds were only seen on 26th (1 female) and 28th September (2 males).

Wheatear – The airfield continued to be an exceptional site for this migratory species during both spring and autumn migration. In the spring the first bird was seen later than normal on 30th March and passage continued with almost daily sightings to 16th May. The peak spring count was of 21 birds on 30th April.

The autumn passage was again poor. The first bird of the autumn was not seen until 8th August, and numbers peaked at the end of the month when eight were seen on 25th August. Only a single bird was in September (on 23rd), this proved to be the last bird of the year. This is the third year when none have been seen in October (Wheatears were seen in every October from 2008 to 2015).

This site is consistently the most important place for observing the migration of this species anywhere in Rutland or Leicestershire. Trapping and ringing the birds has shown that the majority are of the Greenland sub-species and in spring they use the airfield to put on weight before their long transatlantic crossing.

Redstart – a single female bird was trapped and ringed on 17th August.



Female Redstart 17th August

Redwing – The first birds of the autumn were 12 on 5th October. There was an exceptional influx of these winter visitors on 7th October when 2287 were seen moving west, many of the flocks stopping briefly in the scrub at the eastern end of the airfield.

Fieldfare – In the first winter period reasonable numbers were present throughout January and February with a peak count of 235 on 28th January. The first birds of the autumn were part of a large thrush arrival, a total of 380 were seen moving west. Reasonable numbers of wintering birds were seen feeding on the airfield to the end of the year with a peak count of 550 on 2nd December.

Song Thrush – At least 14 birds were seen on 7th October associated with the large movement of winter thrushes.

Spotted Flycatcher – One was found close to the eastern boundary fence on 21st August. The first record for the airfield.

Linnet - There was a small wintering flock of 63 birds at the eastern end of the airfield on 30th January.

Brambling – Small numbers were counted during October with a peak count of 12 on 17th.



A male Brambling – October 2018

Yellowhammer – Good numbers occur most winters, numbers this year were relatively poor with a maximum count of just 45 birds on 25th November and again on 2nd December.

Bird Ringing 2018

Bird Ringing generates information on the survival, productivity and movements of birds, helping us to understand why their populations are changing. Most bird ringing in Britain is undertaken by some 2,700 trained, volunteer ringers who ring up to 1,000,000 birds in Britain and Ireland each year, helping us to understand the reasons for population change, vital information for conservation. Ringing also continues to help us to understand bird movements and migration patterns.

Bird ringers operate under licence, these are issued by the British Trust for Ornithology who collate and analyse all UK bird ringing data. In addition bird ringers operating on the MOD estate require an MOD 'Permit for Bird Ringing' issued by the MOD Natural Environment Adviser.

Birds have been trapped and ringed at MOD North Luffenham from 2009 onwards. This work was initially targeted at the migrant Wheatear population and has since been expanded to include autumn migrants and the resident Swallows.

Wheatears are trapped using small spring traps baited with mealworms while the autumn migrants are trapped in fine meshed mist nets. The Swallows were either ringed as nestlings or in mist nets.

A table on the next page details the species and numbers ringed.



A Wheatear – 40 were ringed during the year

MoD North Luffenham

Bird Ringing Totals for 2018

Species	Adults Ringed	Nestlings Ringed	Retraps & Recoveries	Totals
Stock Dove		1		1
Sand Martin	2			2
Swallow	58	28	1	87
Tree Pipit	1		1	2
Meadow Pipit	4			4
Wren	8			8
Dunnock	33		3	36
Robin	31		1	32
Redstart	1			1
Wheatear	40		2	42
Blackbird	22		2	24
Fieldfare	1			1
Song Thrush	8			8
Redwing	59			59
Reed Warbler	5			5
Lesser Whitethroat	30		2	32
Whitethroat	99		6	105
Garden Warbler	12			12
Blackcap	56		3	59
Chiffchaff	46			46
Willow Warbler	62		7	69
Goldcrest	17			17
Long-tailed Tit	49		3	52
Blue Tit	145		3	148
Great Tit	98			98
Treecreeper	3		2	5
Jay	4			4
Chaffinch	83			83
Brambling	10			10
Greenfinch	2			2
Goldfinch	24			24
Linnet	52			52
Bullfinch	6		4	10
Yellowhammer	122		1	123
Reed Bunting	121		4	125
Totals	1314	29	45	1388

Butterflies

The species set out in the table below were recorded during the period covered by this report. Observations were made during more general recording visits.

A special visit was made to look for and count Marbled Whites in early July when over 400 were seen.

Overall the airfield is an important site for butterflies as it:

- Supports very large populations of several common species – Common Blue, Meadow Brown and Ringlet.
- Supports a good population of Small Heath; a species that has a localised distribution in Rutland.
- Supports what is almost certainly the largest population of Marbled Whites anywhere in Leicestershire or Rutland.

Species	Abundance	Breeding Status (presumed)
Small Skipper	Abundant	Breeds
Essex Skipper	Scarce	Breeds
Large Skipper	Common	Breeds
Brimstone	Scarce / Common	Breeds
Large White	Present	??
Small White	Present	??
Green-veined White	Present	Breeds
Orange Tip	Present	Breeds
Small Copper	Scarce	Breeds
Common Blue	Abundant	Breeds
Red Admiral	Migrant	??
Painted Lady	Migrant	??
Small Tortoiseshell	Present	Breeds
Peacock	Present	Breeds
Comma	Present	??
Speckled Wood	Present	Probably breeds
Marbled White	Very Abundant	Breeds
Gatekeeper	Common	Breeds
Meadow Brown	Very Abundant	Breeds
Ringlet	Very Abundant	Breeds
Small Heath	Common	Breeds



Small Heath – 16th June 2018



Ringlet – 16th June 2018

Other Wildlife

Mammals

- Stoat
- Fox
- Badger (there are at least 3 sets in regular use on the airfield)
- Brown Hare
- Rabbit
- Muntjac (a type of deer)
- Fallow Deer
- Brown Rat
- Bank Vole
- Other small mammal species (mice, voles and shrews) are also likely to occur but none have been specifically identified.

Reptiles and Amphibians

- Common Lizard
- Adder
- Grass Snake
- Common Frog
- Common Toad



Grass Snake – 5th July 2014

(a picture from an earlier year, seen near the horse paddocks at the eastern end of the airfield)



Lesser Stag Beetle – 25th August 2018

Botanical Interest

No systematic survey was undertaken, however casual observations show that the airfield's grasslands are comparatively species rich (compared to other local hay meadows) and support a representative selection of species associated with unimproved limestone and neutral grassland hay meadows. The area of grassland present on the airfield makes it of considerable importance in a local context.

The following species associated with limestone grassland were seen during the year:

- Agrimony
- Kidney vetch
- Yellow-wort
- Greater Knapweed
- Wild basil
- Viper's bugloss
- Ploughman's spikenard
- Field scabious
- Purging flax
- Rest-harrow
- Bee Orchid
- Pyramidal Orchid
- Knapweed
- Hoary plantain
- Salad burnet

The following species associated with neutral (mesotrophic) grassland were seen during the year:

- Agrimony
- Common knapweed
- Lady's bedstraw
- Field scabious
- Meadow vetchling
- Ox-eye daisy
- Birdsfoot trefoil
- Rest-harrow
- Cowslip
- Yellow rattle
- Sorrel
- Red clover

At least two plant species that occur on the airfield are locally scarce – Knapweed Broomrape and Bee Orchid.

There was a very good display of Bee Orchids this year with at least 67 spikes being located in one relatively small area south-west of the Thor Missile site on 16th June.

A single Pyramid Orchid on 16th June was an addition to the airfield plant list as was Wild Liquorice seen on the same date.



*Bee Orchid - North Luffenham Airfield
16 June 2019*



Cowslips – April 2018



Oxeye Daisies – June 2018

Wildlife Management Suggestions

It is fully appreciated that operational military activities have priority in terms of the use of the old airfield. The following suggestions are made with that operational need in mind:

- **Grassland Management** Following a hiatus last year almost all areas of open grassland were cut for hay during 2018. The cutting season was extended from late June through to November. It is understood that the delay was due to damage to the main grass cutting machine. This is welcomed as it helps maintain the locally important conservation interest of the unimproved limestone and neutral grasslands (and their associated flora and fauna). There are continuing problems with Ragwort encroachment, and it may prove to be necessary to undertake control measures in localised areas to prevent its spread to other parts of the airfield or neighbouring land holdings.
- The current practice of delaying hay cutting until early July (or later) to allow nesting birds to complete their breeding cycle is an ideal arrangement from a wildlife perspective.
- The continuing approach of not allowing the application of fertilizer to the grassland areas is welcomed (while this reduces their agricultural productivity it is the single most important measure to ensure the continued abundance and variety of wildflowers and butterflies).
- Retaining the various old bunkers and timber portacabins on the old airfield as these are important in providing Swallows with nest sites.
- Any rough shooting on the airfield should avoid targeting Grey Partridge (this species is locally scarce, has suffered a marked population decline nationally and is currently 'red listed' and as such it is a conservation priority species in England).
- As far as possible avoid further encroachment of scrub (small bushes) in to the areas of open grassland. In practical terms this is best achieved by maximising the area that is cut for hay each year.



Bee Orchid – June 2018