

## KEN HILL ESTATE FRESHMARSH SURVEY 2020

### Survey Methodology

The Ken Hill Estate freshmarsh survey was partly based on the BTO's Waterways Breeding Bird Survey methodology but with additional visits to ensure a greater chance of confirming breeding for some wetland species.

The WBBS is not designed to record activity or confirm breeding on its two survey visits. So additional visits were carried out and extra detail gathered for the Ken Hill Estate freshmarsh survey, concentrating on breeding activity and particularly on the outcome of breeding attempts where possible, including a fifth visit to survey for well-grown / fledged young of wader and wildfowl species.

### Area Surveyed

To minimise disturbance to the freshmarsh fields and to reflect the initial limited volunteer time of the surveyor, a survey route was chosen that ran along a stretch of the embankment which afforded good views over the majority of the freshmarsh.

The survey route ran along the inner seawall embankment, starting at the southern end from Beach Road, past the heronry and up to and including Goose Marsh. This had the added bonus of recording some species which breed in the adjacent Snettisham Coastal Park, such as Grasshopper Warbler and Cetti's Warblers, as well as Little Grebe, plus a significant proportion of the summer wetland warblers such as Sedge Warbler and Reed Warbler.



\* mo , ariety of species, which were well spread out but the areas marked were particularly favoured by wader species, both as feeding areas and for their breeding attempts  
 + represents a high concentration of nesting Avocets early in the season at the back of the freshmarsh in a field towards the railway line but most of the birds abandoned the field after it dried out

### Conditions during spring / early summer

After a wet winter in Norfolk, the freshmarsh was in good condition to support wader breeding attempts, used as feeding grounds and for the passage of migrant wetland birds. It was unfortunate that the wet winter was followed by an exceptionally dry spring and early summer and the freshmarsh dried out rapidly.

Photos taken on April surveys



Photos taken on June surveys





## VISITS

5 visits were undertaken between April and mid-June. Visit 1 on 20 April, Visit 2 on 29 April, Visit 3 on 14 May, Visit 4 on 3 June and Visit 5 on 15 June. Three visits were undertaken as a volunteer, with the final 2 survey visits added as extra contracted coverage to attempt to confirm the number of fledged young for breeding waders, particularly of Avocet, Lapwing and Redshank.

## RESULTS

The table below represents the total number of each wetland species recorded on the freshmarsh and the adjacent coastal park habitat during each survey visit.

Species	BoCC	Breeding	Total Visit 1	Total Visit 2	Total Visit 3	Total Visit 4
<b>Avocet</b>	<b>A</b>	<b>Y</b>	<b>16</b>	<b>57</b>	<b>94</b>	<b>24</b>
Bar-tailed Godwit *	A			2		
Bittern #	A		1	1		
<b>Black-headed Gull</b>	<b>A</b>	<b>Y</b>	<b>54</b>	<b>40</b>	<b>103</b>	<b>262</b>
Black-tailed Godwit *	R		6		1	
<b>Canada Goose</b>	<b>N/A</b>	<b>Y</b>	<b>8</b>	<b>16</b>	<b>6</b>	<b>26</b>
<b>Cetti's Warbler</b>	<b>G</b>	<b>Y</b>	<b>5</b>	<b>3</b>	<b>1</b>	<b>3</b>
Common Sandpiper *	A			1		
<b>Coot</b>	<b>G</b>	<b>Y</b>	<b>4</b>	<b>17</b>	<b>16</b>	<b>3</b>
Curlew * #	R		65	2		
<b>Egyptian Goose</b>	<b>N/A</b>	<b>Y</b>	<b>4</b>	<b>15</b>	<b>2</b>	<b>21</b>
<b>Gadwall</b>	<b>A</b>	<b>Y</b>	<b>14</b>	<b>20</b>	<b>16</b>	<b>21</b>
Garganey #	A					2
<b>Grasshopper Warbler</b>	<b>R</b>	<b>Y</b>	<b>3</b>	<b>2</b>		
Greenshank *	A				1	
<b>Greylag Goose</b>	<b>N/A</b>	<b>Y</b>	<b>36</b>	<b>14</b>	<b>71</b>	<b>98</b>
<b>Heron +</b>	<b>G</b>	<b>Y</b>	<b>1</b>	<b>3</b>	<b>3</b>	<b>2</b>
<b>Lapwing</b>	<b>R</b>	<b>Y</b>	<b>32</b>	<b>42</b>	<b>26</b>	<b>37</b>
<b>Little Egret +</b>	<b>G</b>	<b>Y</b>	<b>1</b>	<b>2</b>		<b>3</b>
<b>Little Grebe</b>	<b>G</b>	<b>Y</b>	<b>3</b>	<b>1</b>		
<b>Little Ringed Plover</b>	<b>G</b>	<b>Y</b>		<b>2</b>	<b>1</b>	
<b>Mallard</b>	<b>A</b>	<b>Y</b>	<b>31</b>	<b>16</b>	<b>47</b>	<b>86</b>
<b>Marsh Harrier</b>	<b>A</b>	<b>Y</b>	<b>2</b>			<b>1</b>
<b>Moorhen</b>	<b>G</b>	<b>Y</b>		<b>1</b>	<b>1</b>	<b>2</b>
<b>Mute Swan</b>	<b>A</b>	<b>Y</b>	<b>1</b>	<b>3</b>	<b>1</b>	
<b>Oystercatcher</b>	<b>A</b>	<b>Y</b>	<b>12</b>	<b>6</b>	<b>7</b>	<b>197</b>
Pintail *	A			2		



<b>Redshank</b>	<b>A</b>	<b>Y</b>	<b>6</b>	<b>9</b>	<b>9</b>	<b>4</b>
<b>Reed Bunting</b>	<b>A</b>	<b>Y</b>	<b>4</b>	<b>1</b>	<b>1</b>	<b>2</b>
<b>Reed Warbler</b>	<b>G</b>	<b>Y</b>		<b>1</b>	<b>3</b>	<b>2</b>
Ringed Plover +	R			2		
<b>Sedge Warbler</b>	<b>G</b>	<b>Y</b>	<b>14</b>	<b>15</b>	<b>15</b>	<b>8</b>
Shelduck #	A		50	43	20	61
Shoveler #	A		16	8	6	2
Snipe #	A		1			
Spoonbill #	A					2
Teal #	A		6	27	3	
<b>Tufted Duck</b>	<b>G</b>	<b>Y</b>	<b>2</b>	<b>10</b>	<b>12</b>	<b>2</b>
Wigeon #	A		11	4	1	

R = Red listed    A = Amber listed

G = Green listed

N/A = non-native / introduced species

**Table key**

**Bold** – confirmed or suspected attempted breeding on the freshmarsh or adjacent coastal park, either through fledged young or records of AONs (apparently occupied nests) or display observed

\* = records likely to be passage birds or summering non-breeders

+ = known nearby local breeders (i.e. heronry or on beach)

# = potential breeders but breeding not proven this year. Also includes possible summering non-breeders, as well as species which are uncommon breeders in Norfolk.

5 Red listed species recorded – Black-tailed Godwit, Curlew, **Grasshopper Warbler**, **Lapwing** and **Ringed Plover**.

21 Amber listed species recorded – **Avocet**, Bar-tailed Godwit, Bittern, **Black-headed Gull**, Common Sandpiper, **Gadwall**, Garganey, Greenshank, **Mallard**, **Marsh Harrier**, **Mute Swan**, **Oystercatcher**, Pintail, **Redshank**, **Reed Bunting**, Shelduck, Shoveler, Snipe, Spoonbill, Teal and Wigeon.

10 Green listed species recorded – **Cetti's Warbler**, **Coot**, **Grey Heron**, **Little Egret**, **Little Grebe**, Little Ringed Plover, **Moorhen**, **Reed Warbler**, **Sedge Warbler** and **Tufted Duck**.

Those in bold bred successfully or attempted to breed on the freshmarsh or are known to breed nearby, either on the coast or elsewhere on the estate.

**Note** – unfortunately, it was not possible to plot the exact location of every freshmarsh species recorded or nests on the maps kindly provided by the Ken Hill Estate as there were too many records to fit into the limited space. The results are summarised in the table above and any highlights listed below in the text.

**AONs (Apparently Occupied Nests)**

The table below contains total numbers of adults seen incubating nests for the first four survey visits. This doesn't reflect the likely total number of species on nests but only nests visible on the freshmarsh. Wildfowl and some wader species such as Redshank tend to select nest sites hidden in vegetation and warbler species also prefer to nest in vegetation or reedbeds.

Species	Total AONs Visit 1	Total AONs Visit 2	Total AONs Visit 3	Total AONs Visit 4
Avocet	9	29	51	4
Black-headed Gull	0	4	2	0
Lapwing	8	12	6	1
Oystercatcher	0	3	4	1

**Visit 5** was undertaken specifically to check for the presence, and therefore continued survival, of any well-grown young of Avocet, Lapwing and Redshank, together with any records of successful breeding and surviving young of wildfowl species such as Gadwall, Garganey, Shoveler, Teal, Tufted Duck and Wigeon.

The table below contains the total number of young seen on Visit 5, which contrasts with the numbers of incubating adults recorded on earlier survey visits. No further AONs were seen on Visit 5. Further details for each species are provided below in the **Confirmed, Probable or Attempted Breeding** section.

Avocet	Redshank	Lapwing	Tufted Duck	Gadwall
4	1	15	4	6

### CONFIRMED, PROBABLE OR ATTEMPTED BREEDING

The freshmarsh supported breeding attempts by a variety of species, including breeding waders such as Avocet, Lapwing, Redshank, Oystercatcher and Little Ringed Plover. Fledged young were recorded, including Lapwing and Redshank, but numbers were low. Only very young Avocet chicks were recorded, with no well-grown or fledged young seen on later survey visits.

#### Avocets

Avocet are now a fairly common Norfolk resident and breeder on many sites county-wide, although breeding success can often be poor. During the early survey visits, good numbers of AONs were observed, spread evenly across the freshmarsh, including the fields at the rear (east side) of the southern freshmarsh and on the improved scrapes near the heronry and north of the footpath which crosses the freshmarsh. The peak of AONs for Avocet was 51 on Visit 3 but by the next visit, very few surviving young were recorded (12 on Visit 4, all recently hatched chicks). Although 18 days passed between Visits 3 and 4, even if some eggs hatched immediately after Visit 3, it's unlikely the young would have been old enough to fly and leave the freshmarsh by the time of the next survey visit.

On the final survey, Visit 5, only 4 young Avocet chicks were seen but no well-grown or fledged young, which would have been expected if chicks recorded on earlier visits had survived. Incubation takes 23-25 days and fledging is between 35-42 days from hatching and the young remain with the adults for a while afterwards. With natural barriers on all sides of the freshmarsh, it would have been difficult for the adults to move small chicks off the freshmarsh to fresh feeding areas when they were unable to fly.

Anecdotal reports of good numbers of adults Avocets further south at Snettisham between Visits 3 and 4 would seem to indicate the abandonment of many local nesting attempts. A variety of factors influence the survival of any wader chick, including predation, weather and food supply. Avocets in particular are vulnerable to a loss of wet feeding areas for the young chicks.

To illustrate the usual growth rate and progress of Avocet chicks from hatching to fledging, the photos below may be of interest.

All Avocet photos kindly supplied by Les Bunyan, apart from the author's photo no. 3.





At no point during the surveys were young as well developed as this nearly fledged youngster recorded (photo below). Most chicks seen were around the age of photo 3. above – still very young. It would be interesting to discover if other regular birders have recorded any well-grown young on the freshmarsh on subsequent visits.



**Lapwing** are a fairly common, though declining, Norfolk resident, with breeding spread across the county. A maximum of 12 AONs were seen over the course of the survey on Visit 2 but nests or incubating adults are often not easily visible. A maximum of 15 young of varying ages were seen on the final survey visit, including those well-grown enough to be almost independent of their parents and able to fly.

**Redshank** are a common resident, passage migrant and winter visitor to Norfolk, with mixed breeding success scattered across the county. While only 1 Redshank chick was seen on the freshmarsh on Visit 5, young are difficult to observe given the height of the vegetation. However, the behaviour of the adults alarm calling would indicate that some chicks from other pairs were present.

**Little Ringed Plover** are a scarce summer visitor to Norfolk and breed at some sites across the county. The pair on the freshmarsh were present for a considerable period (via reports from other observers) and were recorded on 2 survey visits. Although the pair were seen to display, no breeding was proven.

**Oystercatchers** are a common Norfolk resident and breeder but the number of successfully fledged young is often poor. There were a small number of Oystercatchers on AONs during the survey period but no chicks or well-grown young were recorded. Breeding takes place along the shingle beaches of Snettisham, with varying degrees of success as they are subject to significant disturbance and tide-related events. Oystercatchers can still be incubating or have unfledged young well into August.

Confirmed breeding by wildfowl on the freshmarsh included **Gadwall** and **Tufted Duck** broods. Gadwall is a fairly common Norfolk resident but Tufted Ducks are scarce breeders, although fairly common winter visitors. **Shoveler** broods were not recorded on the surveys but it remains a fairly common resident in Norfolk and adults were present on the freshmarsh throughout the survey period.

While **Little Egret** and **Grey Herons** were only recorded in small numbers on the freshmarsh throughout the survey, both species breed in the heronry adjacent to the reedbed. A rarity until recent years, Little Egret is now a common Norfolk resident. The origins of the **Spoonbills** seen during mid-summer remains unknown.

While no attempts was made to confirm breeding for warblers such as Sedge and Reed, food carrying was seen on several occasions. **Sedge Warblers** and **Reed Warblers** are common summer visitors and passage migrants in Norfolk.

**Cetti's Warblers** also breed in the coastal park and adjacent reed-fringe of the freshmarsh but breeding is difficult to prove. They are now a common Norfolk resident, although numbers along the north coast were



badly hit by the two Beasts from the East, with Snettisham Coastal Park being one of the few Norfolk coastal sites to retain the species through that winter and into the following breeding season.

**Grasshopper Warbler** is a scarce summer visitor and passage migrant to Norfolk. Breeding is difficult to prove but it is likely that breeding is at least attempted by this Red-listed species on the freshmarsh and in the adjacent coastal park.

#### **POSSIBLE OR POTENTIAL FUTURE BREEDERS (NOT CONFIRMED DURING THE 2020 SURVEY PERIOD)**

**Bittern** is a scarce Norfolk resident. The author and other local birders have recorded Bittern in the area on an infrequent basis over recent years, usually in the winter. Past records include the Snettisham Coastal Park and the pools adjacent to the RSPB Snettisham car park. One bird was seen on 2 survey visits but no 'booming' was heard.

**Curlew** is a common passage migrant and winter visitor but a rare breeder in the county. The records on the freshmarsh are likely to be passage birds or summering non-breeders. With the national decline in Curlew, every breeding record is valuable and important to record. Norfolk's breeding sites are scarce, with various inland sites in NW Norfolk and the Brecks supporting small numbers of breeding pairs.

**Garganey** is a scarce summer visitor to Norfolk, with small numbers of confirmed breeding records in some years, or records of continued summer presence at some sites. While a pair were seen by the author and other observers during the later survey visits, no breeding was proven.

**Ringed Plover** is a fairly common summer visitor, passage migrant and winter visitor to Norfolk, with breeding scattered at various coastal sites and some inland sites, but with mixed success and it appears to be in decline as a successful breeder in the county. No young were observed on the freshmarsh and no attempted breeding was recorded during the survey. Breeding attempts occur on Snettisham beach, with often poor success as disturbance can be significant. Ringed Plover can still be incubating or have unfledged young into August.

**Savi's Warbler** is a rare vagrant to the county, and a singing male has been recorded on the freshmarsh in previous years and also this year by Trevor Girling.

**Shelduck** is a common breeder in Norfolk, passage migrant and winter visitor. Typically breeding in burrows or holes, including man-made structures, young are seen with adults on the Wash after each breeding season so they do breed locally but no young were observed on the freshmarsh during the survey period.

**Snipe** is a fairly common winter visitor and passage migrant but a scarce and rapidly declining Norfolk breeder. No 'drumming' or 'chipping' was heard on the freshmarsh during an evening visit but breeding is difficult to prove.

**Teal** is a very common passage migrant and winter visitor but a scarce Norfolk breeder. No broods were seen during the survey period.

**Wigeon** is a common passage migrant and winter visitor. The species has bred in Norfolk but records more commonly relate to summering non-breeding birds. No broods were recorded during the survey period.

#### **PASSAGE OR SUMMERING NON-BREEDERS**

Most of the waders recorded, such as **Bar-tailed Godwits**, **Black-tailed Godwits**, **Common Sandpiper**,

**Greenshank**, are likely to be passage migrants or summering non-breeders or, in some cases, winter visitors lingering or returning early. **Pintail** were recorded once on Visit 2 and these were likely to be late passage migrants or summering non-breeders.

The freshmarsh was in good condition to support passage waders during the early part of the spring and other observers also recorded **Wood Sandpipers** and **Green Sandpipers** on the scrapes. The freshmarsh has the potential, depending on the water levels, to support returning passage waders in the autumn.

#### **Norfolk Status of passage or summering non-breeders**

Bar-tailed Godwit is a fairly common passage migrant and common winter visitor.

Black-tailed Godwits do breed in the county, mostly at Welney where there is also a project helping to boost breeding numbers in the UK.

Common Sandpiper is a scarce passage migrant

Green Sandpiper is a scarce passage migrant and very scarce winter visitor.

Greenshank is a scarce passage migrant and very scarce winter visitor.

Pintail is a fairly common passage migrant and winter visitor. Pintail have bred in the county.

Wood Sandpiper is a very scarce passage migrant.

#### **NON-WETLAND SPECIES OF INTEREST RECORDED**

**Resident breeders** – Barn Owl, Bearded Tit, Green Woodpecker, Linnet, Skylark, Stock Dove, Stonechat, Yellowhammer

**Summer visitors** – Blackcap, Chiffchaff, Cuckoo, Garden Warbler, Lesser Whitethroat, Turtle Dove, Whitethroat, Willow Warbler

Most of these records of additional species occurred in the adjacent coastal park or along the reed-fringed stream parallel to the inner embankment on the western boundary of the freshmarsh.

**Barn Owl** is a fairly common Norfolk resident but still an Amber listed bird, as is our resident **Stock Dove**.

**Willow Warbler** is a common summer visitor and passage migrant and Amber listed.

Although **Yellowhammer**, **Skylark** and **Linnet** are common Norfolk residents, all are now Red listed. **Turtle Dove** is also Red Listed, as the Estate is well aware through its work on supporting the species in the area with supplementary feeding and targeted surveys. **Cuckoo** is Red Listed and a scarce and declining summer visitor to Norfolk.

**Bearded Tit** is a fairly common Norfolk resident and Green listed. **Chiffchaff**, **Garden Warbler**, **Blackcap**, **Lesser Whitethroat** are fairly common summer visitors and passage migrants in Norfolk and also Green listed, as is **Whitethroat**, which is a common summer visitor and passage migrant.

**Stonechat** is Green listed and is a scarce but increasing resident and passage migrant in Norfolk. Numbers appear to be increasing, particularly locally following the increase in populations at the NWT's Roydon Common reserve, as well as Dersingham Bog NNR, where a colour-ringing project began in 2012. Ringed birds have been recorded both in the adjacent coastal park and on the freshmarsh.



**Additional sightings of interest** – one species did take advantage of the

increased areas of dry ground on the freshmarsh as the season progressed. The area in front of the reedbed by the heronry was regularly used as an **Oystercatcher roost**, and not always over high tide. Given the sometimes heavy disturbance levels on the beach where the Oystercatchers usually roost over high tides, this additional undisturbed roosting area proved valuable this year.

### Submitting records

It is suggested that the survey results and records of confirmed breeding are reported to the Norfolk County Bird Recorder, Neil Lawton, together with the Woodlark breeding details. The author is happy to do this at the same time as submitting her individual records if the estate wishes.

### Future survey options

There may be a number of options for surveying the freshmarsh if the Ken Hill Estate wishes to continue monitoring efforts. It depends on the level of detail the Estate would prefer to record in future. To confirm breeding of the various wader and wildfowl species demands significant time and effort.

The BTO's Waterways Breeding Bird Survey methodology concentrates on recording presence rather than confirming breeding and only two survey visits are made, but that at least would allow the estate to record population changes at a general annual level. If, in addition to the WBBS methodology, the estate required confirmation of breeding of wader and wildfowl species on the freshmarsh, further visits would need to be undertaken, as was the case this season.

### Winter Surveys

The freshmarsh supports good numbers of wildfowl and wetland species throughout the winter months, and is a valuable pre-roost and feeding area for Pink-footed Geese on their way to the roost at Snettisham.

The Estate mentioned that the WeBS (Wetland Bird Survey) may be carried out at Snettisham already. It is unclear if this covers the coastal stretch of the Snettisham Coastal Park or the freshmarsh or both? Jim Scott is the local WeBS coordinator and would be able to confirm which area is surveyed. If it covers the freshmarsh, it may mean the data is already being gathered by another volunteer?

WeBS is a monthly visit throughout the year, timed to coincide with the highest monthly tides. It records numbers of species rather than activity, so does not attempt to confirm breeding during the spring and summer survey visits. If WeBS is being carried out, it would at least provide survey coverage in the winter for the estate if they could access the data via the BTO or the volunteer.

If WeBS is not carried out for the freshmarsh, It may be worth considering a monthly survey of the numbers of species on the freshmarsh. This would ensure coverage throughout the autumn and winter, possibly from September to March, and perhaps even starting in July to capture any return wader passage if such detail would be valuable.

### References

BTO Waterways Breeding Bird Survey [https://www.bto.org/sites/default/files/wbbs\\_instructions\\_2018.pdf](https://www.bto.org/sites/default/files/wbbs_instructions_2018.pdf)

BTO Breeding Waders of Wet Meadows

<https://www.bto.org/our-science/projects/breeding-waders-wet-meadows>

BTO Wetland Bird Survey (WeBS) - <https://www.bto.org/our-science/projects/wetland-bird-survey>

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Lapwing - <https://app.bto.org/birdfacts/results/bob4930.htm>

Redshank - <https://app.bto.org/birdfacts/results/bob5460.htm>

Conserving breeding Curlew in southern and lowland Britain - <https://www.curlewcall.org/>

Landscape scale restoration in Shropshire and the Welsh Borders - <https://curlewcountry.org/>

Black-tailed Godwit - 'headstarting' Project Godwit <https://projectgodwit.org.uk/>

Stonechat colour-ringing project, Dersingham Bog - <https://northwestnorfolkstonechats.wordpress.com/>