

REPORT

Boston Alternative Energy Facility

Breeding Bird Survey Monitoring Report (April – June 2021)

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Breeding Bird Survey Monitoring at Proposed Site of Boston Alternative Energy Facility

April - June 2021

Andrew P. Chick MPhil ACIEEM
Ecological Consultant

The Old Farmhouse, Washdyke Lane, Fulbeck,
Grantham, Lincs NG32 3LB

Report Prepared by Anthony Bentley

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1 INTRODUCTION

Independent Ecologist, Anthony Bentley, was commissioned by Chris Adnitt of Royal HaskoningDHV to undertake breeding bird survey work for land at the proposed site of Boston Alternative Energy Facility. The report does not cover; Amphibians, Reptiles, Mammals or any other taxonomic groups.

This report details the methods used, describes the habitats and species found on the site, discusses the results, and makes recommendations for further work. The common English names are used for all species referred to throughout the text. The Latin name is also given following the common name the first time the species is referred to.

2 Methodology

The breeding bird surveys that were undertaken applied a **modified Common Bird Census** methodology. The **entire site was surveyed, including the river banks and river haven** at the proposed wharf site. The surveys were conducted early morning and were **completed before 10:00am**. Each visit took **between four and five hours** to complete at a slow, methodical pace.

All surveys were conducted during daylight hours and a walkover survey was undertaken during each visit. All bird species were counted. Standard BTO notation was used to record the bird's activities. The aim of the survey was to **record the number of birds using the site to breed**.

Records of all birds seen or heard during the survey were noted using BTO two-letter species codes. Birds were **plotted on a map of the site**.

During each survey the individual birds observed **within the site boundary** were recorded. Care was taken not to duplicate records, with birds accurately mapped as to their location. The survey methodology was repeatable, and each survey could be compared to allow a direct comparison between each visit. Additionally, by using a standard methodology the results remain comparable if different observers undertook the survey work.

An overall analysis of all species considered to be breeding on site during the survey period is given in Table 2. Overall analysis of breeding data is given in Table 3. A brief summary of the status of all species recorded is given in the systemic list. The raw data for each visit with each site visit is given in Appendix 1. The survey sheets for each visit are attached as Appendix 2.

There are limitations and it should be noted that:

- There may be reduced detectability for some species (e.g. nocturnal species would be under-represented).
- Analysis of data can vary depending on the individual carrying analysing data

3 SITE DESCRIPTION

3.1.0 Survey summary

The surveys were undertaken each month between April and June 2020. During the surveys the following weather conditions were recorded:

Date	Average daytime temperature	Cloud Cover	Wind	Start time	End time
22/04/2021	2°C	0/8	N 3mph	05:00	09:30
31/05/2021	10°C	8/8	ENE 9mph	05:30	09:30
30/06/2021	11°C	7/8	N 10mph	04:30	09:15

Table 1. Weather recorded during survey work.

An overall analysis of all species considered to be breeding on site during the survey period is given in Table 2. Overall analysis of breeding data is given in Table 3. A brief summary of the status of all species recorded is given in the systemic list (section 6).

The raw data for each visit with each site visit is given in Appendix 1.

The survey sheets for each visit are attached as Appendix 2.

3.1.1 Site description

This site is comprised of a wide variety of habitats; mixed open arable fields, wasteland, mixed hedgerow corridors, a pond, drainage channels, riverbank, saltmarsh, livestock grazing paddock and off-road tracks.



Figure 1. Site map showing the various habitats.

Month	Bird Species Recorded	BOCC Red	BOCC Orange	Avocet	Bullfinch	Dunnock	Linnet	Meadow Pipit	Redshank	Reed Bunting	Skylark	Song Thrush	Stock Dove	Yellowhammer
April	22	3	5			5	4	1	1	4		2	3	1
May	22	1	4	4		3	3	2		2			1	
June	23	3	5	3	1	2	3	1		3	1	1	2	

Table 2. Summary table of BOCC Red species recorded during survey work in April, May and June 2021.

3.1.2 OCC 4: The Red List for Birds (published in December 2015).

Commonly referred to as the UK Red List for birds, this is the fourth review of the status of birds in the UK, Channel Islands and Isle of Man, and updates the last assessment of 2009. Using standardised criteria, 244 species with breeding, passage, or wintering populations in the UK were assessed by experts from a range of bird NGOs and assigned to the Red, Amber or Green lists of conservation concern.

The assessment is based on the most up-to-date evidence available and criteria include conservation status at global and European levels, and within the UK: historical decline, trends in population and range, rarity, localised distribution and international importance.

This update shows that many bird species are increasingly at risk. Nineteen species were red-listed for the first time due to worsening population statuses, and one species (Merlin) was returned to the red list. In most cases, this is due to evidence from monitoring schemes such as BTO/JNCC/RSPB Breeding Bird Survey (BBS) of increasingly severe declines in breeding populations (e.g. for Curlew, Nightingale, Pied Flycatcher, Whinchat, Grey Wagtail, and Mistle Thrush).

4 Notes on all RED, ORANGE and Notable species records

4.1 Species summary

For each species the outlined status is within a Lincolnshire context.

Pied Avocet *Recurvirostra avosetta* **BOCC ORANGE**

A summer migrant

During the June visit three birds (two adults and one fully fledged juvenile) were observed feeding on the muddy riverbank at the proposed wharf site. It's extremely likely that these birds breed locally at RSPB Frampton Marsh. A further four adults were observed using the site to feed during the May visit.

Common Redshank *Tringa totanus* **BOCC ORANGE**

A widespread wintering species, passage migrant and local breeder.

One bird was recorded in April on the saltmarsh, the bird was feeding in the creek system. There were no signs to indicate this bird was breeding or on territory. This is back up in that this was the only record during the survey period.

Stock Dove *Columba oenas* **BOCC ORANGE**

A common resident and winter visitor.

A common farmland species recorded on all survey visits, with a peak of three in April. One male was heard and observed singing to a female on a large pylon in June.

Eurasian Skylark *Alauda arvensis* **BOCC RED**

A widespread resident.

A bird associated with arable farmland and saltmarsh locally. One singing male was recorded over arable land in June.

Meadow Pipit *Anthus pratensis* **BOCC ORANGE**

A common resident, passage migrant and winter visitor.

A common breeding bird on saltmarsh, where all the birds were recorded. Two singing males were recorded in May.

Dunnock *Prunella modularis* **BOCC ORANGE**

A common resident.

A common species associated with hedgerows and gardens, a peak count of five in April were all singing males. In total seven territories were held during the survey period.

Song Thrush *Turdus philomelos* **BOCC RED**

A common resident, passage migrant and winter species.

Two singing males were recorded in the hedgerows surrounding the proposed site in April with one remaining in June.

Common Linnet *linaria cannabina* **BOCC RED**

A common resident, passage migrant and winter visitor.

This bird is traditionally associated with scrub, with the tall hedgerows clearly favouring this species, on the coast it is also associated with saltmarsh. A peak count of four in April included one singing male.

Eurasian Bullfinch *Pyrrhula pyrrhula* **BOCC ORANGE**

A resident species.

A singing male was observed in June, the mature hedgerows provide suitable breeding habitat for this species. In the Boston area breeding Eurasian Bullfinch are scarce.

Common Reed Bunting *Emberiza schoeniclus* **BOCC ORANGE**

A common resident, passage migrant and winter species.

A species readily associated with coastal saltmarsh and vegetated ditches. Four birds were recorded in April all singing males. Six territories were held across the survey period.

Yellowhammer *Emberiza citronella* **BOCC RED**

A widespread breeding bird, passage migrant and winter visitor.

Commonly breeding around farmland with mature hedgerows. A singing male was recorded in April, adjacent to arable land.

4.2 Breeding summary

Below is a table showing the total number of potential breeding birds thought to be using the site, only data from this survey was used to evaluate the potential for breeding species. Caution should be taken when using this data as analysis can vary between individuals.

Species	Number
Blackbird	8
Blackcap	1
Blue Tit	3
Bullfinch	1
Chaffinch	2
Collared Dove	1
Dunnock	7
Goldfinch	2
Great Tit	1
Greenfinch	1
Lesser Whitethroat	2
Linnet	5
Magpie	2
Meadow Pipit	2
Pheasant	2
Reed Bunting	6
Reed Warbler	11
Robin	8
Sedge Warbler	7
Shelduck	1
Skylark	1
Song Thrush	2
Stock Dove	1
Whitethroat	10
Wood Pigeon	13
Wren	8
Yellowhammer	1

Table 3. Overall analysis of breeding birds using the proposed site at Boston Alternative Energy Facility.

5 REFERENCES

Eaton, M.A., Aebischer, N.J., Brown, A.F., Hearn, R., Lock, L. Musgrove, A., Noble, D., Stroud, D., Richard, G. (2015) Birds of conservation concern 4: the population status of birds in the United Kingdom, Channel Islands and the Isle of Man. *British Birds* 108, 708-746.

Appendix 1

Detailed survey results (raw data) of each survey.

Species	22 nd April 2021	31 st May 2021	30 th June 2021
Avocet		4	3
Blackbird	5	3	3
Blackcap		1	
Blue Tit	3	1	3
Bullfinch			1
Chaffinch		2	
Collared Dove	4		1
Coot			
Dunnock	5	3	2
Goldfinch	1	2	2
Great Tit	1		
Greenfinch			1
Green Woodpecker		1	1
Lesser Whitethroat		1	1
Linnet	4	3	3
Magpie	4	2	4
Meadow Pipit	1	2	1
Pheasant	3	2	1
Redshank	1		
Reed Bunting	4	2	3
Reed Warbler	2	8	8
Robin	4	5	3
Sedge Warbler	6	5	5
Shelduck	2	2	
Skylark			1
Song Thrush	2		1
Sparrowhawk		1	
Stock Dove	3	1	2
Swallow			
Whitethroat	6	4	3
Wood Pigeon	10	7	5
Wren	3	3	5
Yellowhammer	1		

Table 4. Bird species recorded during each visit.

Appendix 2 Original Survey Sheets



Figure 2: Original April breeding bird survey results.



Figure 3: Original May breeding bird survey results.



Figure 4: Original June breeding bird survey results.

Site images



Photograph 1 Saltmarsh and River Haven.



Photograph 2 Thin saltmarsh and bank at the proposed wharf site.



Photograph 3 Mature mixed hedgerow at the proposed wharf site



Photograph 4 Mature mixed hedgerow and wasteland.



Photograph 5 Mature hedgerow at the proposed wharf site bordering unimproved grassland (old arable land)



Photograph 6 Mature hedgerow bordering unimproved grassland and wasteland



Photograph 7 Mixed mature hedgerow



Photograph 8 Area of waste ground



Photograph 9 Arable crop



Photograph 10 Arable crop



Photograph 11 Unimproved grassland and mature mixed hedgerow



Photograph 12 Mature mixed hedgerow



Photograph 13 New temporary road through the arable land.



Photograph 14 Vegetated ditch splitting arable fields



Photograph 15 Freshwater pond with broad Reed edge and mature mixed hedgerow bordering the site.



Photograph 16 Mature mixed hedgerow bordering arable crop.