



**SCOTTISHPOWER  
RENEWABLES**

# **East Anglia TWO Offshore Windfarm**

## **Appendix 12.1**

### **Baseline Offshore Ornithology Technical Report**

Preliminary Environmental Information  
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**East Anglia TWO Offshore Windfarm PEI**

**Appendix 12.1**

**Ornithology Technical Appendix**

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## 1 INTRODUCTION

1. The proposed East Anglia TWO project will comprise offshore wind turbines, offshore electrical platforms, an accommodation platform, inter-array cables and offshore, offshore platform link cables and onshore export cables taking power to an onshore converter station. The proposed East Anglia TWO windfarm site covers an area of 255km<sup>2</sup> and is located approximately 31km offshore at the nearest point to the coast.
2. The offshore ornithological assessment is informed using baseline site characterisation data collected by digital aerial survey methods, conducted by APEM. Further details of the survey methods, analysis of the data collected and the results obtained are provided in relevant sections of this technical report.
3. The aim of this report is to present full details of the baseline information from the site-specific surveys which have been used to undertake the offshore ornithology Environmental Impact Assessment (EIA) and Habitats Regulations Assessment (HRA).
4. Sections on aerial survey methodology (section 3) and image analysis (section 4.1) were supplied by the aerial survey contractor (APEM).
5. Figure 12.1 in the East Anglia TWO ES chapter shows the location of the proposed East Anglia TWO windfarm site and 4km buffer (the Survey Area) that the aerial surveys were conducted over, within the former East Anglia Zone.

## 2 DATA SOURCES

6. APEM has undertaken monthly aerial surveys across the wind farm as detailed in Table 1. Surveys began in November 2015, were ceased in April 2016, re-started in September 2016 until October 2017 with a final four surveys being conducted between May and August 2018 (24 months in total). For this assessment data up to May 2018 (21 surveys) were available, with the remaining three months to be included in the final assessment.

Table 1. Months when aerial surveys were conducted at East Anglia TWO. Note that only the May 2018 survey was available for the current assessment. The remaining three months (indicated in italics) will be included in the final submission.

Month	2015	2016	2017	2018
Jan		X	X	
Feb		X	X	
Mar		X	X	
Apr		X	X	
May			X	X
Jun			X	<i>(X)</i>
Jul			X	<i>(X)</i>
Aug			X	<i>(X)</i>
Sep		X	X	
Oct		X	X	
Nov	X	X		
Dec	X	X		

### **3 SURVEY METHODS**

7. Aerial surveys were undertaken using either Vulcan Air P68 Observer or Britten-Norman Islander twin engine survey aircraft. These surveys involved digital still image collection using a GPS-linked bespoke flight management system.
8. Survey of the East Anglia TWO aerial survey area comprised High Resolution still images taken on a grid system with a resolution of 2 cm Ground Sampling Distance (GSD) to represent a high intensity sampling regime. The Survey Area incorporates the proposed East Anglia TWO windfarm site plus a 4 km buffer.
9. Survey data comprised species, count (number of individual birds), sex (where possible), age (where possible), flight height, flight direction, position (longitude and latitude), date and time stamp of image collection.
10. Where identification to species level was not possible, reference was made to aerial data collected within the Survey Area where species were identified in order to apportion records at group level to species level (this process of apportionment is described in a later section).

#### **3.1 Species Identification**

11. There are occasions when it is not possible to identify a particular bird on the aerial survey image to species level and the image is therefore assigned to a higher level group e.g. 'small gulls' or 'black-backed gulls'. Methods for assigning these unidentified birds to appropriate species categories are discussed in the data analysis section.

### **4 DATA ANALYSIS**

#### **4.1 Image Analysis**

12. The images were analysed to enumerate birds to species level, where possible. Internal QA was carried out by APEM on each survey. Images were assessed in batches with a different staff member responsible for each batch. Each image containing birds and / or marine mammals was reviewed and checked by APEM's dedicated QA Manager, ensuring that 100% of birds recorded were subject to internal QA to ensure the species identification is correct. Images containing no birds and / or marine mammals were removed and kept separately for further internal QA. Of these 'blank' images, 10% were randomly selected for internal QA by a different staff member to that which initially analysed the imagery. If there was less than 90% agreement, the entire batch would be re-analysed as part of the QA procedures. Following internal QA, external QA was carried out by the British Trust for Ornithology (BTO), who provide an independent third party assessment of 10% of the birds recorded in each survey. Birds identified from the images were 'snagged' (i.e. located within the images) and categorised normally to species, but sometimes to standard JNCC categories.

## 4.2 Bird Abundance and Density Estimates

13. Raw data were supplied as plane GPS track logs, containing details for each image location and observation logs, containing details of all objects (seabird, marine mammal, vessel, etc.) recorded. The two datasets were merged using the image ID to obtain a single dataset. All non-bird records were removed prior to analysis. Analysis was conducted for each survey separately. Bird locations were assigned to the following sub-zones; wind farm, wind farm plus 2 km buffer and wind farm plus 4km buffer (note that each buffer width also included the wind farm data).
14. Density (birds/km<sup>2</sup>) and abundance were estimated using design based methods, with the density estimated for the surveyed area (i.e. the sum of all the image footprints) and multiplied up to the total area to obtain an abundance estimate. This makes the assumption that the surveyed sample is representative of the unsurveyed region, thus the design of survey is important (hence 'design based').
15. Confidence intervals for each species were obtained using a bootstrap resampling method. For each survey, images were drawn randomly (with replacement) from the dataset until the same number of images as the original sample was obtained (e.g. if the survey for a particular month comprised 350 images, each resampled dataset also contained 350 images, drawn with replacement from the original dataset). This process was repeated 1,000 times and the density and abundance calculated for each resampled dataset. The upper and lower 95% confidence limits were calculated across the 1,000 samples to estimate sampling variation. The width of the confidence interval obtained using this method reflects the degree of aggregation in the species, with highly aggregated species estimated with lower precision (i.e. species observed frequently as individuals will have a small range of estimated densities, while species recorded in occasional large groups will have a wide range of estimated densities).
16. The bootstrap resampled values were also used to obtain representative density and abundance values for each calendar month. This was achieved by combining the bootstrap samples for each month (e.g. 1,000 samples for the first January survey and 1,000 samples for the second January survey, etc.) from which the overall median and 95% confidence intervals for that month were extracted. This ensured that the values for each month were derived from all of the data available. In addition to the overall monthly medians (and confidence intervals) calculated in this manner, a mean value for each month was also calculated as the average of the individual survey estimates for that month.
17. For the displacement assessment the (typically higher) monthly mean values were used which ensured the assessment was precautionary. For the collision risk assessment the complete bootstrap sample was used for stochastic runs (see section 28) and the median for runs which did not include uncertainty in density. This ensured correspondence between the collision results calculated either with or without the inclusion of uncertainty in seabird density, and that all collision predictions accurately reflected the observed densities.
18. Birds were recorded as either sitting on the sea surface ('sitting') or in flight ('flying'). Analysis was conducted on each subset separately and also combined across both ('all birds'). The combined

estimates have been used as the overall densities and abundances required for displacement analysis, while birds in flight have been used for the collision risk modelling.

19. All analysis and data manipulation was conducted using R (R Development Core Team 2012).

### 4.3 Assignment of unidentified birds to species

20. To avoid underestimating species abundance due to the omission of birds which could not be positively identified to species level, the density of each unidentified bird grouping (e.g. large gulls, small gulls, etc.) was estimated (using the methods described above) and then added proportionately to each member species of that group. The proportions were calculated from the ratios of positively identified birds in that group. This was undertaken on a survey by survey basis, using the ratio from the largest area (i.e. within the 4km buffer) to ensure the largest possible sample size for estimation.

21. The unidentified groups and the species which they comprise are listed in Table 2.

Table 2. Bird species which could be included in relevant unidentified groups. Note that ‘Black-backed gulls’ were assigned to species before ‘Large Gulls’.

Species	Unidentified Group
Red-throated diver	Divers
Black-throated diver	
Great northern diver	
Sabine’s gull	Small gulls
Kittiwake	
Black-headed gull	
Little gull	
Common gull	
Great black-backed gull	Black-backed gulls
Lesser black-backed gull	
Great black-backed gull	Large gulls
Lesser black-backed gull	
Herring gull	
Common tern	‘Commic’ Tern
Arctic tern	
Guillemot	Guillemot / Razorbill
Razorbill	

22. For common tern and Arctic tern no species-specific identification is possible (size and plumage features are so close that it is impossible to separate them) and as a result there is no information on which to apportion these two species. They remain grouped in the data as ‘commic’ tern.

23. Although apportioning of unidentified groups to species provides the best available approach to estimating numbers of each species, this method may introduce biases, for example if one species in a group is easier to identify to species than others in the same general group, then the apportioning may overestimate numbers of the easily identified species and correspondingly

underestimate numbers of the less easily identified species. This needs to be considered when assessing densities of species for which a significant proportion of birds had to be assigned to an unidentified group.

#### 4.4 Availability Bias

24. Guillemots and razorbills spend a proportion of their time foraging beneath the water surface and therefore some individuals present in a given area will not be observable in aerial images. Density and abundance estimates need to be adjusted to allow for these unobserved individuals.
25. A fixed species specific correction factor was applied to the number of each auk species recorded on the sea surface. The values used were those recommended by JNCC in its submission during the examination phase of East Anglia ONE (JNCC 2013), referred to as Method C, which stated that 24% of guillemots and 17% of razorbills are underwater at any time (these percentages do not include birds in flight).
26. Density and abundance for guillemot and razorbill are presented both with and without the application of this method, with the former being used in the assessment.

#### 4.5 Spatial Distributions

27. Maps of the wind farm sites and bird locations are provided in Appendix 12.1 Annex 7. For species recorded in low numbers these figures plot all the observations (i.e. obtained across all surveys), while more commonly recorded species are combined by season (using the definitions in Furness 2015). Note that for the latter, where months contain overlapping seasons (e.g. breeding and migration) these have been assigned to migration, since for almost all species the wind farms are located beyond foraging range of breeding colonies. The exception to this is lesser black-backed gull for which birds breeding at colonies in East Anglia may be present. The seasons used are detailed in Table 3.

Table 3. Species specific seasonal definitions and biologically defined minimum population sizes (in brackets) have been taken from Furness (2015).

Species	Breeding	Migration-free breeding	Migration - autumn	Winter	Migration - spring	Non-breeding
Red-throated diver	Mar-Aug	May-Aug	Sep-Nov (13,277)	Dec-Jan (10,177)	Feb-Apr (13,277)	
Black-throated diver*	Apr-Aug	May-Aug				Aug-Apr
Great northern diver	-	-	Sep-Nov	Dec-Feb	Mar-May	Sep-May (200)
Fulmar	Jan-Aug	Apr-Aug	Sep-Oct (957,502)	Nov (568,736)	Dec-Mar (957,502)	-
Gannet	Mar-Sep	Apr-Aug	Sep-Nov (456,298)	-	Dec-Mar (248,385)	-
Arctic skua	May-Jul	Jun-Jul	Aug-Oct (6,427)	-	Apr-May (1,227)	-
Great skua	May-Aug	May-Jul	Aug-Oct (19,556)	Nov-Feb (143)	Mar-Apr (8,485)	-

Species	Breeding	Migration-free breeding	Migration - autumn	Winter	Migration - spring	Non-breeding
Puffin	Apr-Aug	May-Jun	Jul-Aug	Sep-Feb	Mar-Apr	Mid-Aug-Mar (231,957)
Razorbill	Apr-Jul	Apr-Jul	Aug-Oct (591,874)	Nov-Dec (218,622)	Jan-Mar (591,874)	-
Guillemot	Mar-Jul	Mar-Jun	Jul-Oct	Nov	Dec-Feb	Aug-Feb (1,617,306)
Commic tern**	May-Aug	Jun	Jul-Sep (308,841)	-	Apr-May (308,841)	-
Kittiwake	Mar-Aug	May-Jul	Aug-Dec (829,937)	-	Jan-Apr (627,816)	-
Little gull (Not included in Furness 2015)	Apr-Jul	May-Jul	-	-	-	Aug-Apr
Lesser black-backed gull	Apr-Aug	May-Jul	Aug-Oct (209,007)	Nov-Feb (39,314)	Mar-Apr (197,483)	-
Herring gull	Mar-Aug	May-Jul	Aug-Nov	Dec	Jan-Apr	Sep-Feb (466,511)
Great black-backed gull	Mar-Aug	May-Jul	Aug-Nov	Dec	Jan-Apr	Sep-Mar (91,399)

\* Not included in Furness (2015). Natural England (2012) states: Breeding black-throated divers migrate to saltwater habitats from August, returning to their breeding sites from April. Birds are also seen in small numbers on eastward passage through the English Channel in April and May.

\*\* commic tern' is used to include common terns and Arctic terns, as these species are not readily identified to species from the survey data

#### 4.6 Flight Height

28. Where flying birds were captured in a suitable orientation, their dimensions (body length and wingspan) were estimated. Using these values the height of the bird above the sea surface was estimated by APEM by comparison with the length of museum specimens. Following a review of their data collection and analysis methods, the aerial survey contractors advised ScottishPower Renewables that the flight height estimates were not reliable.

#### 4.7 Collision Risk Modelling

29. Collision risk modelling (CRM) was conducted using scripted versions (in R) of the Band CRM Options 1 and 2. Following a review of their data collection and analysis methods, the aerial survey contractors advised Scottish Power that the flight height estimates were not sufficiently reliable for use in collision risk modelling. Consequently, and in agreement with Natural England and RSPB, the collision mortalities used for impact assessment were those calculated using option 2 of the Band model, with flight heights obtained from the BTO generic flight height dataset (Johnston et al. 2014a,b). Option 1 collision estimates have also been calculated and are provided in this technical appendix for information.

30. Natural England advised that uncertainty in seabird density, flight height (derived from the seabird flight height data in Johnston et al. 2014a,b) and avoidance rates should be included in the collision

mortality estimates. In addition, it is evident that the values for nocturnal activity used in the Band CRM for most species are a significant over-estimate (e.g. Furness et al. 2018). Therefore, uncertainty in this parameter has also been incorporated for gannet, kittiwake, lesser black-backed gull, great black-backed gull and herring gull.

31. Since uncertainty in the parameters identified above will contribute to the overall uncertainty in collision mortality the most efficient approach for estimating mortality is to run the CRM as a stochastic simulation using different, randomly generated, values for each parameter in each simulation. This permits the uncertainty in all of the parameters to be incorporated in a single set of results which can be summarised as the mean, median and upper and lower 95% confidence range.
32. In order for the stochastic outputs to be validated against their deterministic counterparts (i.e. those which can be obtained using the Band 2012 spreadsheet), the model was also run using single values for each of the parameters, set to the Natural England advised and industry standard values.
33. To undertake the multiple CRM simulations required, the equations set out in the Excel implementation of the Band (2012) model were scripted in R. The first step in running the simulations was to generate the randomised input parameters. The following sections provide technical details for how this was undertaken.
34. For each parameter slightly different approaches for generating the random values are appropriate. Seabird densities were generated during the nonparametric bootstrap resampling process detailed in section 4.2. This process produced 1,000 resamples for each survey. The density estimate for each month used in each iteration of the CRM simulation was drawn at random from all these bootstrap samples for that month (i.e. for each calendar month all the bootstrap resamples were pooled for that month and site, providing 2,000 samples from which to draw). This approach ensured that the seabird densities for each month directly reflected the survey data.
35. Randomised avoidance rates were generated from a beta distribution using the mean and SD values recommended in the SNCB response (JNCC et al. 2014) to Cook et al. (2014). The beta distribution was selected as it is bounded at zero and one (as are avoidance rates) and also produces distributions with realistic peaks and tails (e.g. compared with the 'flat' uniform distribution which generates all values with equal probability).
36. Random values for the proportion of birds at potential collision height (PCH) for use with option 2 of the CRM were also generated from the beta distribution. The BTO dataset (Johnston et al. 2014a,b) provided the median and upper and lower 95% confidence values. As the confidence interval was asymmetrical, two estimates of the standard deviation were calculated, using the upper and lower confidence values multiplied by 1.96 and offset from the median. The larger of the two SD values obtained (from the upper or lower confidence interval) was adopted for subsequent simulation.



37. Recent advice from Natural England has suggested that CRM should use the following upper and lower nocturnal activity rates of 0% and 25% for gannet and 25% and 50% for kittiwake, lesser black-backed gull, great black-backed gull and herring gull. This is a revision to the previous guidance to use only the higher of each pair of values.
38. However, for gannet, a review of evidence from tracking studies has revealed that appropriate (and still precautionary) values for the breeding season and nonbreeding season respectively are 4.3% (SE 2.7%) and 2.3% (SE 0.4%) (Furness et al. 2018). A similar review and analysis has been conducted for kittiwake which has identified values for the breeding season and nonbreeding season respectively of 20% (SE 5%) and 17% (SE 1.5%) (Furness et al. in prep.). Therefore, as these evidence based seasonal values represent a significant improvement over the previously categorical values applied, these have been used in the stochastic simulations, using beta distributions defined by the mean and standard errors. For the large gull species stochastic runs used nocturnal values of either 25% or 50%, selected at random for each iteration.
39. Collision mortalities are presented as the median and confidence intervals calculated across all simulations. The median collision has been presented rather than the mean because this is less influenced by the skewed distribution of seabird densities, characterised by large numbers of low estimates with occasional high ones (see Technical Appendix 12.1 Annex 3 for histograms illustrating this pattern).
40. Appendix 12.1 Annex 5 presents boxplots of monthly collision estimates including all sources of uncertainty assessed which illustrate the skew in the collision estimates.
41. To obtain robust stochastic CRM outputs 1,000 simulations were conducted with the following combinations of parameter uncertainty:
  - a. Uncertainty in seabird density, avoidance rate, flight height (Option 2 only), nocturnal activity (gannet, kittiwake, large gulls only);
  - b. Uncertainty in seabird density only;
  - c. Uncertainty in avoidance rate only;
  - d. Uncertainty in flight height (Option 2) only;
  - e. Uncertainty in nocturnal activity only;
  - f. No uncertainty in any parameter (i.e. a deterministic run).
42. The final deterministic run was included to permit comparison between the stochastic outputs and those typically obtained using the excel version of the Band model.
43. The input parameters for the collision modelling are provided in Appendix 12.1 Annex 3. The outputs are presented in full in Appendix 12.1 Annex 4 and graphical outputs in Appendix 12.1 Annex 5.

## 5 ORNITHOLOGY BASELINE

### 5.1 Overview of Bird Species Recorded

44. The following bird species (Table 4) were recorded during surveys within the East Anglia TWO windfarm site plus 4km buffer.

Table 4. Bird species recorded during surveys of the East Anglia TWO windfarm site and the 4km buffer between November 2015 and October 2017. Groups in italics were those that could not be identified to species level. These have been apportioned to species for analysis (see text for methods).

Species	Site	
	Wind farm	4km buffer
Red-throated Diver	X	X
Black-throated Diver		X
Great Northern Diver		X
Fulmar	X	X
Gannet	X	X
Cormorant	X	X
Shag		X
Great Skua	X	X
Puffin	X	X
Razorbill	X	X
Guillemot	X	X
<i>Guillemot/Razorbill</i>	X	X
<i>Auk Species</i>		X
Commic Tern	X	X
<i>Tern Species</i>		X
Kittiwake	X	X
Black-headed Gull	X	X
Little Gull	X	X
Common Gull	X	X
<i>Small Gull Species</i>	X	X
Lesser Black-backed Gull	X	X
Herring Gull	X	X
Great Black-backed Gull	X	X
<i>Large Gull Species</i>	X	X

45. This Technical Appendix has seven annexes containing additional data and analyses.

46. Appendix 12.1 Annex 1 provides tables of the median, mean and 95% confidence intervals for seabird density and abundance calculated for each calendar month for each species recorded. For each species, density and abundance are presented for all individuals observed (i.e. in flight and on the sea) and also for birds in flight only and on the sea only. For guillemot and razorbill these

tables include adjustment for availability bias (birds on the sea multiplied by species-specific correction factors) and for all species which were included in higher level groupings (e.g. large gulls) the unidentified individuals were added to the relevant species using the proportions of identified species.

47. Appendix 12.1 Annex 2 provides tables of density and abundance for each of the 21 individual surveys. For each species density and abundance are presented for all individuals observed (in flight and on the sea), in flight only and on the sea only. For guillemot and razorbill additional tables are provided with and without the inclusion of adjustment for availability bias (birds on the sea multiplied by a correction factor) and for species which were include in higher level groupings (e.g. large gulls, terns, etc.) tables are provided with and without the addition of unidentified individuals to the relevant species using the proportions of identified species.
48. Appendix 12.1 Annex 3 provides tables of the input parameters used for the collision risk modelling and histograms of the bootstrapped flight densities.
49. Appendix 12.1 Annex 4 provides the monthly collision mortality predictions (including uncertainty and using options 1 and 2). Collisions were calculated for three candidate turbine models (12, 15 and 19 MW), which layouts capable of a capacity of up to 900 MW. Analysis of the turbine and layout parameters determined that the 12 MW turbine layout is the worst case scenario.
50. Appendix 12.1 Annex 5 provides boxplots of the worst case collision mortality (for the 12MW turbine layout) in each month for each site obtained using option 2 and modelled with uncertainty in seabird densities, avoidance rates, flight heights and nocturnal activity. These outputs correspond to those in tables 10, 28, 46, 64, 82 and 100 in Appendix 12.1 Annexes 4 and 5.
51. Appendix 12.1 Annex 6 provides graphs of population abundance on the proposed East Anglia TWO windfarm site, with and without the 4km buffer and with design based confidence intervals. These are for all birds observed (i.e. both in flight and on the water) and include assignment of unidentified birds (see above for details) and adjustments for availability bias in razorbill and guillemot.
52. Appendix 12.1 Annex 7 provides maps illustrating where birds were recorded in the East Anglia TWO aerial Survey Area during all aerial surveys combined.

## **5.2 Summary species accounts**

53. The following species accounts use the values in Technical Appendix 12.1 Annex 1 for birds recorded both in flight and on the sea surface and include unidentified birds apportioned as detailed above and, for guillemot and razorbill, adjustment for birds expected to be underwater during the surveys.

### **5.2.1 Red-throated diver**

54. Red-throated divers were recorded in September and December to May in the East Anglia TWO windfarm site (Annex 1 Table 1.1a). The estimated mean peak wind farm population estimate was 128 (March). Figure 12.7.1 provides locations for all diver species recorded.

### 5.2.2 *Black-throated diver*

55. A single black-throated diver was recorded in February in the 4km buffer for the East Anglia TWO windfarm site (Annex 1 Table 2.1a). Figure 12.7.1 provides locations for all diver species recorded.

### 5.2.3 *Great Northern Diver*

56. Single individual great northern divers were recorded in February in the 4km buffer for the East Anglia TWO windfarm site and September in the 2km buffer (Annex 1 Table 3.1a). Figure 12.7.1 provides locations for all diver species recorded.

### 5.2.4 *Fulmar*

57. Fulmars were recorded in all months except August, although only in the 2 and 4km buffer in July and October and only in the 4km buffer in December (Annex 1 Table 4.1a). The estimated mean peak wind farm population was 87 (April). Figure 12.7.2 provides locations for all fulmars recorded.

### 5.2.5 *Gannet*

58. Gannets were recorded in all months in the East Anglia TWO windfarm site (Annex 1 Table 5.1a). The estimated mean peak wind farm population was 644 (November). Figure 12.7.3 provides locations for all gannets recorded.

### 5.2.6 *Cormorant*

59. A single cormorant was recorded in the East Anglia TWO windfarm site in February (Annex 1 Table 6.1a).

### 5.2.7 *Shag*

60. A single shag was recorded in March in the East Anglia TWO windfarm site 4km buffer (Annex 1 Table 7.1a).

### 5.2.8 *Great skua*

61. Great skuas were recorded in very low numbers in the East Anglia TWO windfarm site in April (1) and October (2) (Annex 1 Table 8.1a). Figure 12.7.4 provides locations for all skua species recorded.

### 5.2.9 *Puffin*

62. Puffins were recorded in very low numbers in the East Anglia TWO windfarm site on a single survey in April (Annex 1 Table 9.1a). The estimated mean peak wind farm population was 13 individuals in April, but none were present in the other 11 months. Figure 12.7.5 provides locations for puffins recorded.

### 5.2.10 *Razorbill*

63. Razorbills were recorded in all months in the East Anglia TWO windfarm site, although in May, June and August birds were only in the 4km windfarm site buffer in (Table 10.1a). The estimated mean peak wind farm population, including unidentified birds and adjusting for availability bias,

was 146 (January). Figure 12.7.6 provides locations for all razorbills recorded and Figure 12.7.8 provides locations for all razorbills and guillemots which could not be assigned to species.

#### **5.2.11 *Guillemot***

64. Guillemots were recorded in all months in the East Anglia TWO windfarm site (Annex 1 Table 11.1a). The estimated mean peak wind farm population, including unidentified birds and adjusting for availability bias, was 1,300 (April). Figure 12.7.7 provides locations for all guillemots recorded and Figure 12.7.8 provides locations for all razorbills and guillemots which could not be assigned to species.

#### **5.2.12 *Common tern***

65. Common terns (common tern and Arctic tern combined due to the difficulty of distinguishing between these two species) were recorded in, May, August and September in the East Anglia TWO windfarm site (Annex 1 Table 12.1a). The estimated mean peak wind farm population was 26 (May). Figure 12.7.9 provides locations for all tern species recorded.

#### **5.2.13 *Kittiwake***

66. Kittiwakes were recorded in all months in the East Anglia TWO windfarm site (Annex 1 Table 12.1a). The estimated mean peak wind farm population, including unidentified birds, was 230 (April). Figure 12.7.10 provides locations for all kittiwakes recorded and Figure 12.7.15 provides locations for all unidentified gulls recorded.

#### **5.2.14 *Black-headed gull***

67. Black-headed gulls were recorded in low numbers in March and November in the East Anglia TWO windfarm site (Annex 1 Table 14.1a). The estimated mean peak wind farm population, including unidentified birds, was 84 (November). Figure 12.7.11 provides locations for all black-headed gulls recorded and Figure 12.7.15 provides locations for all unidentified gulls recorded.

#### **5.2.15 *Little gull***

68. Little gulls were recorded in April and November in the East Anglia TWO windfarm site and in the 4km buffer in October (Annex 1 Table 15.1a). The estimated mean peak wind farm population, including unidentified birds, was 38 (November). Figure 12.7.11 provides locations for all little gulls recorded and Figure 12.7.15 provides locations for all unidentified gulls recorded.

#### **5.2.16 *Common gull***

69. Common gulls were recorded in January, February, March, April, June and October in the East Anglia TWO windfarm site and 4km buffer (Annex 1 Table 16.1a). The estimated mean peak wind farm population, including unidentified birds, was 5 (March and April). Figure 12.7.11 provides locations for all common gulls recorded and Figure 12.7.15 provides locations for all unidentified gulls recorded.

#### **5.2.17 *Lesser black-backed gull***

70. Lesser black-backed gulls were recorded in all months except August in the East Anglia TWO windfarm site plus buffer, although only in the 4km buffer in May, July and October to December

(Annex 1 Table 17.1a). The estimated mean peak wind farm population, including unidentified birds, was 28 (September). Figure 12.7.12 provides locations for all lesser black-backed gulls recorded and Figure 12.7.15 provides locations for all unidentified gulls recorded.

#### **5.2.18 Herring gull**

71. Herring gulls were recorded in all months except July in East Anglia TWO plus buffer, although only in the 4km buffer in February to May, October and December (Annex 1 Table 18.1a). The estimated mean peak wind farm population, including unidentified birds, was 18 (September). Figure 12.7.12 provides locations for all herring gulls recorded and Figure 12.7.15 provides locations for all unidentified gulls recorded.

#### **5.2.19 Great black-backed gull**

72. Great black-backed gulls were recorded in all months in East Anglia TWO plus buffer, although only in the 4km buffer in May, June, August and October (Annex 1 Table 19.1a). The estimated mean peak wind farm population, including unidentified birds, was 28 (July). Figure 12.7.14 provides locations for all great black-backed gulls recorded and Figure 12.7.15 provides locations for all unidentified gulls recorded.

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**East Anglia TWO Offshore Windfarm PEI**

**Appendix 12.1**

**Offshore Ornithology**

**Annex 1**

**Monthly seabird density and abundance**

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**Document Quality Record.**

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## 1 INTRODUCTION

1. This appendix provides tables of seabird density and abundance in each calendar month for each species recorded in the East Anglia TWO aerial Survey Area (East Anglia TWO windfarm site plus 4km buffer), as shown in Figure 12.1.
2. The tables provide density and abundance estimates for species recorded on the East Anglia TWO windfarm site and 4km buffer. These have been derived from the 21 surveyed months currently available (November 2015 – April 2016, September 2016 – October 2017 and May 2018).
3. For each species the tables follow a sequence of #.1 all bird recorded, #.2 birds recorded in flight, #.3 birds recorded on the sea surface. For each table number there is a matched pair (a and b) providing abundance and density respectively.
4. A key to the table numbering is provided in Table A1.
5. Monthly densities and abundances are summarised as the median, mean and 95% confidence range, derived from 1,000 nonparametric bootstrap samples. The median and confidence intervals were calculated by pooling all the bootstrap samples for each month. Thus, for all months except June to August these have been calculated from 2,000 samples in each month, while values for these four months (which have been surveyed only once to date) were derived from 1,000 samples. The mean was calculated as the average of the individual monthly median values (i.e. across one two estimates, dependent on the month). The median is considered to be the more robust metric for assessment than the mean, as this is less influenced by the skewed nature of the observations.
6. For species groups which include unidentified individuals (e.g. large gulls, auks, etc.) these have been added to the contributory species (e.g. large gulls comprise herring gull, lesser black-backed gull and great black-backed gull) on the basis of the proportions of positively identified individuals in the same survey. For example, if a survey included individuals categorised as large gulls, and 35 positively identified herring gulls, 10 positively identified lesser black-backed gulls and 5 positively identified great black-backed gulls, then 70%, 20% and 10% of the large gulls would be assigned to each species respectively. If there were unidentified birds, but no positively identified birds recorded in a survey, the average species ratios from the months in which the species were recorded was used to apportion the unidentified records.
7. For guillemot and razorbill adjustment was made to account for availability bias, with birds recorded on the sea multiplied by a species-specific correction factor to account for individuals expected to be underwater when the image was taken. The values used were those advised by JNCC<sup>1</sup>; 1.316 and 1.204 for guillemot and razorbill respectively, to account for estimates that 24% and 17% of these species are underwater at any given time.

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<sup>1</sup> Allen, S. (2013). JNCC expert statement on ornithological issues for written representations in respect of East Anglia One offshore windfarm. 30 July 2013.

Table A1. Key to species density and abundance tables. Each table is provided as 'a' and 'b' for abundance and density respectively.

<b>Species</b>	<b>All birds</b>	<b>In Flight</b>	<b>On Sea</b>
Red-throated diver	1.1	1.2	1.3
Black-throated diver	2.1	2.2	2.3
Great northern diver	3.1	3.2	3.3
Fulmar	4.1	4.2	4.3
Gannet	5.1	5.2	5.3
Cormorant	6.1	6.2	6.3
Shag	7.1	7.2	7.3
Great skua	8.1	8.2	8.3
Puffin	9.1	9.2	9.3
Razorbill	10.1	10.2	10.3
Guillemot	11.1	11.2	11.3
Commic tern	12.1	12.2	12.3
Kittiwake	13.1	13.2	13.3
Black-headed gull	14.1	14.2	14.3
Little gull	15.1	15.2	15.3
Common gull	16.1	16.2	16.3
Lesser black-backed gull	17.1	17.2	17.3
Herring gull	18.1	18.2	18.3
Great black-backed gull	19.1	19.2	19.3

Table 1.1a. East Anglia TWO. Red-throated Diver design-based abundance estimates of birds in flight and on sea.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	15.09	25.54	0-87.09	14.83	29.65	0-94.59	19.25	37.01	0-115.49
Feb	17.71	17.88	0-53.14	38.73	42.35	0-96.82	61.78	61.69	18.94-113.64
Mar	119.84	127.69	30.95-258.11	252.72	262.58	114.56-424.57	379.33	382.47	206.6-592.13
Apr	45.57	61.29	0-158.1	92.09	131.29	0-317.05	226.56	240.58	45.43-498.91
May	0.00	7.66	0-44.58	0.00	8.47	0-48.58	0.00	6.17	0-35.93
Jun	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jul	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Aug	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Sep	0.00	7.66	0-37.01	0.00	8.47	0-40.8	0.00	6.17	0-37.47
Oct	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Nov	0.00	0.00	0-0	0.00	12.71	0-49.06	8.20	49.35	0-147.59
Dec	0.00	10.21	0-37.26	0.00	8.47	0-46.7	0.00	12.34	0-37.37

Table 1.1b. East Anglia TWO. Red-throated Diver design-based density estimates of birds in flight and on sea.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.06	0.10	0-0.34	0.04	0.07	0-0.22	0.03	0.06	0-0.19
Feb	0.07	0.07	0-0.21	0.09	0.10	0-0.23	0.10	0.10	0.03-0.18
Mar	0.47	0.50	0.12-1.01	0.60	0.62	0.27-1	0.61	0.62	0.33-0.96
Apr	0.18	0.24	0-0.62	0.22	0.31	0-0.75	0.37	0.39	0.07-0.81
May	0.00	0.03	0-0.17	0.00	0.02	0-0.11	0.00	0.01	0-0.06
Jun	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jul	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Aug	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Sep	0.00	0.03	0-0.14	0.00	0.02	0-0.1	0.00	0.01	0-0.06
Oct	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Nov	0.00	0.00	0-0	0.00	0.03	0-0.12	0.01	0.08	0-0.24
Dec	0.00	0.04	0-0.15	0.00	0.02	0-0.11	0.00	0.02	0-0.06

Table 1.2a. East Anglia TWO. Red-throated Diver design-based abundance estimates of birds in flight.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Feb	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Mar	0	5.11	0-27.66	0	4.24	0-30.33	0	6.17	0-27.76
Apr	0	10.21	0-52.7	0	8.47	0-52.84	0	12.34	0-42.46
May	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Jun	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Jul	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Aug	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Sep	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Oct	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Nov	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Dec	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0

Table 1.2b. East Anglia TWO. Red-throated Diver design-based density estimates of birds in flight.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Feb	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Mar	0	0.02	0-0.11	0	0.01	0-0.07	0	0.01	0-0.04
Apr	0	0.04	0-0.21	0	0.02	0-0.12	0	0.02	0-0.07
May	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Jun	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Jul	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Aug	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Sep	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Oct	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Nov	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Dec	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0

Table 1.3a. East Anglia TWO. Red-throated Diver design-based abundance estimates of birds on the sea surface.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.00	22.98	0-87.09	0.00	25.41	0-94.59	0.00	30.84	0-115.49
Feb	17.71	17.88	0-53.14	38.73	42.35	0-103.12	56.82	61.69	18.94-105.91
Mar	113.47	122.58	30.95-239.68	249.96	254.11	114.56-414.46	379.33	382.47	206.86-582.88
Apr	42.16	51.07	0-137.02	81.86	118.58	0-285.34	187.16	228.25	45.43-477.68
May	0.00	7.66	0-44.58	0.00	8.47	0-48.58	0.00	6.17	0-44.63
Jun	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jul	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Aug	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Sep	0.00	7.66	0-37.01	0.00	8.47	0-40.8	0.00	6.17	0-37.47
Oct	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Nov	0.00	0.00	0-0	0.00	12.71	0-49.06	8.20	49.35	0-147.59
Dec	0.00	10.21	0-37.26	0.00	8.47	0-46.7	0.00	12.34	0-46.71

Table 1.3b. East Anglia TWO. Red-throated Diver design-based density estimates of birds on the sea surface.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.00	0.09	0-0.34	0.00	0.06	0-0.22	0.00	0.05	0-0.19
Feb	0.07	0.07	0-0.21	0.09	0.10	0-0.24	0.09	0.10	0.03-0.17
Mar	0.44	0.48	0.12-0.94	0.59	0.60	0.27-0.98	0.61	0.62	0.34-0.94
Apr	0.17	0.20	0-0.54	0.19	0.28	0-0.67	0.30	0.37	0.07-0.77
May	0.00	0.03	0-0.17	0.00	0.02	0-0.11	0.00	0.01	0-0.07
Jun	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jul	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Aug	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Sep	0.00	0.03	0-0.14	0.00	0.02	0-0.1	0.00	0.01	0-0.06
Oct	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Nov	0.00	0.00	0-0	0.00	0.03	0-0.12	0.01	0.08	0-0.24
Dec	0.00	0.04	0-0.15	0.00	0.02	0-0.11	0.00	0.02	0-0.08

Table 2.1a. East Anglia TWO. Black-throated Diver design-based abundance estimates of birds in flight and on sea.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0	0-0	0	0	0-0	0	0.00	0-0
Feb	0	0	0-0	0	0	0-0	0	6.17	0-26.48
Mar	0	0	0-0	0	0	0-0	0	0.00	0-0
Apr	0	0	0-0	0	0	0-0	0	0.00	0-0
May	0	0	0-0	0	0	0-0	0	0.00	0-0
Jun	0	0	0-0	0	0	0-0	0	0.00	0-0
Jul	0	0	0-0	0	0	0-0	0	0.00	0-0
Aug	0	0	0-0	0	0	0-0	0	0.00	0-0
Sep	0	0	0-0	0	0	0-0	0	0.00	0-0
Oct	0	0	0-0	0	0	0-0	0	0.00	0-0
Nov	0	0	0-0	0	0	0-0	0	0.00	0-0
Dec	0	0	0-0	0	0	0-0	0	0.00	0-0

Table 2.1b. East Anglia TWO. Black-throated Diver design-based density estimates of birds in flight and on sea.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0	0-0	0	0	0-0	0	0.00	0-0
Feb	0	0	0-0	0	0	0-0	0	0.01	0-0.04
Mar	0	0	0-0	0	0	0-0	0	0.00	0-0
Apr	0	0	0-0	0	0	0-0	0	0.00	0-0
May	0	0	0-0	0	0	0-0	0	0.00	0-0
Jun	0	0	0-0	0	0	0-0	0	0.00	0-0
Jul	0	0	0-0	0	0	0-0	0	0.00	0-0
Aug	0	0	0-0	0	0	0-0	0	0.00	0-0
Sep	0	0	0-0	0	0	0-0	0	0.00	0-0
Oct	0	0	0-0	0	0	0-0	0	0.00	0-0
Nov	0	0	0-0	0	0	0-0	0	0.00	0-0
Dec	0	0	0-0	0	0	0-0	0	0.00	0-0

Table 2.2a. East Anglia TWO. Black-throated Diver design-based abundance estimates of birds in flight.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0	0-0	0	0	0-0	0	0	0-0
Feb	0	0	0-0	0	0	0-0	0	0	0-0
Mar	0	0	0-0	0	0	0-0	0	0	0-0
Apr	0	0	0-0	0	0	0-0	0	0	0-0
May	0	0	0-0	0	0	0-0	0	0	0-0
Jun	0	0	0-0	0	0	0-0	0	0	0-0
Jul	0	0	0-0	0	0	0-0	0	0	0-0
Aug	0	0	0-0	0	0	0-0	0	0	0-0
Sep	0	0	0-0	0	0	0-0	0	0	0-0
Oct	0	0	0-0	0	0	0-0	0	0	0-0
Nov	0	0	0-0	0	0	0-0	0	0	0-0
Dec	0	0	0-0	0	0	0-0	0	0	0-0

Table 2.2b. East Anglia TWO. Black-throated Diver design-based density estimates of birds in flight.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0	0-0	0	0	0-0	0	0	0-0
Feb	0	0	0-0	0	0	0-0	0	0	0-0
Mar	0	0	0-0	0	0	0-0	0	0	0-0
Apr	0	0	0-0	0	0	0-0	0	0	0-0
May	0	0	0-0	0	0	0-0	0	0	0-0
Jun	0	0	0-0	0	0	0-0	0	0	0-0
Jul	0	0	0-0	0	0	0-0	0	0	0-0
Aug	0	0	0-0	0	0	0-0	0	0	0-0
Sep	0	0	0-0	0	0	0-0	0	0	0-0
Oct	0	0	0-0	0	0	0-0	0	0	0-0
Nov	0	0	0-0	0	0	0-0	0	0	0-0
Dec	0	0	0-0	0	0	0-0	0	0	0-0



Table 2.3a. East Anglia TWO. Black-throated Diver design-based abundance estimates of birds on the sea surface.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0	0-0	0	0	0-0	0	0.00	0-0
Feb	0	0	0-0	0	0	0-0	0	6.17	0-26.48
Mar	0	0	0-0	0	0	0-0	0	0.00	0-0
Apr	0	0	0-0	0	0	0-0	0	0.00	0-0
May	0	0	0-0	0	0	0-0	0	0.00	0-0
Jun	0	0	0-0	0	0	0-0	0	0.00	0-0
Jul	0	0	0-0	0	0	0-0	0	0.00	0-0
Aug	0	0	0-0	0	0	0-0	0	0.00	0-0
Sep	0	0	0-0	0	0	0-0	0	0.00	0-0
Oct	0	0	0-0	0	0	0-0	0	0.00	0-0
Nov	0	0	0-0	0	0	0-0	0	0.00	0-0
Dec	0	0	0-0	0	0	0-0	0	0.00	0-0

Table 2.3b. East Anglia TWO. Black-throated Diver design-based density estimates of birds on the sea surface.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0	0-0	0	0	0-0	0	0.00	0-0
Feb	0	0	0-0	0	0	0-0	0	0.01	0-0.04
Mar	0	0	0-0	0	0	0-0	0	0.00	0-0
Apr	0	0	0-0	0	0	0-0	0	0.00	0-0
May	0	0	0-0	0	0	0-0	0	0.00	0-0
Jun	0	0	0-0	0	0	0-0	0	0.00	0-0
Jul	0	0	0-0	0	0	0-0	0	0.00	0-0
Aug	0	0	0-0	0	0	0-0	0	0.00	0-0
Sep	0	0	0-0	0	0	0-0	0	0.00	0-0
Oct	0	0	0-0	0	0	0-0	0	0.00	0-0
Nov	0	0	0-0	0	0	0-0	0	0.00	0-0
Dec	0	0	0-0	0	0	0-0	0	0.00	0-0

Table 3.1a. East Anglia TWO. Great Northern Diver design-based abundance estimates of birds in flight and on sea.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Feb	0	0	0-0	0	0.00	0-0	0	6.17	0-28.41
Mar	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Apr	0	0	0-0	0	0.00	0-0	0	0.00	0-0
May	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Jun	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Jul	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Aug	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Sep	0	0	0-0	0	4.24	0-24.48	0	6.17	0-22.48
Oct	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Nov	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Dec	0	0	0-0	0	0.00	0-0	0	0.00	0-0

Table 3.1b. East Anglia TWO. Great Northern Diver design-based density estimates of birds in flight and on sea.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Feb	0	0	0-0	0	0.00	0-0	0	0.01	0-0.05
Mar	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Apr	0	0	0-0	0	0.00	0-0	0	0.00	0-0
May	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Jun	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Jul	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Aug	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Sep	0	0	0-0	0	0.01	0-0.06	0	0.01	0-0.04
Oct	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Nov	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Dec	0	0	0-0	0	0.00	0-0	0	0.00	0-0

Table 3.2a. East Anglia TWO. Great Northern Diver design-based abundance estimates of birds in flight.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0	0-0	0	0	0-0	0	0	0-0
Feb	0	0	0-0	0	0	0-0	0	0	0-0
Mar	0	0	0-0	0	0	0-0	0	0	0-0
Apr	0	0	0-0	0	0	0-0	0	0	0-0
May	0	0	0-0	0	0	0-0	0	0	0-0
Jun	0	0	0-0	0	0	0-0	0	0	0-0
Jul	0	0	0-0	0	0	0-0	0	0	0-0
Aug	0	0	0-0	0	0	0-0	0	0	0-0
Sep	0	0	0-0	0	0	0-0	0	0	0-0
Oct	0	0	0-0	0	0	0-0	0	0	0-0
Nov	0	0	0-0	0	0	0-0	0	0	0-0
Dec	0	0	0-0	0	0	0-0	0	0	0-0

Table 3.2b. East Anglia TWO. Great Northern Diver design-based density estimates of birds in flight.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0	0-0	0	0	0-0	0	0	0-0
Feb	0	0	0-0	0	0	0-0	0	0	0-0
Mar	0	0	0-0	0	0	0-0	0	0	0-0
Apr	0	0	0-0	0	0	0-0	0	0	0-0
May	0	0	0-0	0	0	0-0	0	0	0-0
Jun	0	0	0-0	0	0	0-0	0	0	0-0
Jul	0	0	0-0	0	0	0-0	0	0	0-0
Aug	0	0	0-0	0	0	0-0	0	0	0-0
Sep	0	0	0-0	0	0	0-0	0	0	0-0
Oct	0	0	0-0	0	0	0-0	0	0	0-0
Nov	0	0	0-0	0	0	0-0	0	0	0-0
Dec	0	0	0-0	0	0	0-0	0	0	0-0

Table 3.3a. East Anglia TWO. Great Northern Diver design-based abundance estimates of birds on the sea surface.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Feb	0	0	0-0	0	0.00	0-0	0	6.17	0-28.41
Mar	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Apr	0	0	0-0	0	0.00	0-0	0	0.00	0-0
May	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Jun	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Jul	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Aug	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Sep	0	0	0-0	0	4.24	0-24.48	0	6.17	0-22.48
Oct	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Nov	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Dec	0	0	0-0	0	0.00	0-0	0	0.00	0-0

Table 3.3b. East Anglia TWO. Great Northern Diver design-based density estimates of birds on the sea surface.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Feb	0	0	0-0	0	0.00	0-0	0	0.01	0-0.05
Mar	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Apr	0	0	0-0	0	0.00	0-0	0	0.00	0-0
May	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Jun	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Jul	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Aug	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Sep	0	0	0-0	0	0.01	0-0.06	0	0.01	0-0.04
Oct	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Nov	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Dec	0	0	0-0	0	0.00	0-0	0	0.00	0-0

Table 4.1a. East Anglia TWO. Fulmar design-based abundance estimates of birds in flight and on sea.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	10.06	17.88	0-58.06	10.51	16.94	0-63.06	28.87	49.35	0-134.74
Feb	0.00	12.77	0-55.41	18.73	16.94	0-56.2	37.88	43.18	8.83-85.23
Mar	20.63	25.54	0-61.89	83.32	93.17	20.22-197.88	165.49	166.56	74.02-289.6
Apr	63.80	86.83	0-210.8	95.11	110.11	19.79-243.07	95.54	117.21	18.17-265.38
May	9.40	12.77	0-44.64	19.43	25.41	0-71.48	65.73	74.03	17.85-159.63
Jun	9.80	10.21	0-29.4	21.44	21.18	0-53.61	58.45	55.52	9.74-107.16
Jul	0.00	0.00	0-0	20.15	21.18	0-50.37	18.36	18.51	0-45.9
Aug	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Sep	36.76	35.75	7.4-73.52	48.96	50.82	10.03-100.34	67.45	67.86	27.58-119.91
Oct	0.00	0.00	0-0	0.00	4.24	0-27.76	4.24	37.01	0-118.8
Nov	0.00	5.11	0-24.49	0.00	12.71	0-49.06	0.00	12.34	0-49.2
Dec	0.00	0.00	0-0	0.00	0.00	0-0	0.00	6.17	0-26.64

Table 4.1b. East Anglia TWO. Fulmar design-based density estimates of birds in flight and on sea.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.04	0.07	0-0.23	0.02	0.04	0-0.15	0.05	0.08	0-0.22
Feb	0.00	0.05	0-0.22	0.04	0.04	0-0.13	0.06	0.07	0.01-0.14
Mar	0.08	0.10	0-0.24	0.20	0.22	0.05-0.47	0.27	0.27	0.12-0.47
Apr	0.25	0.34	0-0.83	0.22	0.26	0.05-0.57	0.15	0.19	0.03-0.43
May	0.04	0.05	0-0.17	0.05	0.06	0-0.17	0.11	0.12	0.03-0.26
Jun	0.04	0.04	0-0.12	0.05	0.05	0-0.13	0.09	0.09	0.02-0.17
Jul	0.00	0.00	0-0	0.05	0.05	0-0.12	0.03	0.03	0-0.07
Aug	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Sep	0.14	0.14	0.03-0.29	0.12	0.12	0.02-0.24	0.11	0.11	0.04-0.19
Oct	0.00	0.00	0-0	0.00	0.01	0-0.07	0.01	0.06	0-0.19
Nov	0.00	0.02	0-0.1	0.00	0.03	0-0.12	0.00	0.02	0-0.08
Dec	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.01	0-0.04

Table 4.2a. East Anglia TWO. Fulmar design-based abundance estimates of birds in flight.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.00	0.00	0-0	0.00	0.00	0-0	0.00	6.17	0-28.87
Feb	0.00	12.77	0-55.41	18.73	16.94	0-56.2	26.48	24.68	0-66.29
Mar	0.00	5.11	0-30.95	10.41	16.94	0-50.54	31.03	43.18	0-103.43
Apr	31.62	35.75	0-73.78	31.70	33.88	0-84.55	36.34	43.18	0-95.54
May	0.00	0.00	0-0	0.00	0.00	0-0	18.78	24.68	0-53.56
Jun	0.00	0.00	0-0	10.72	12.71	0-32.16	29.23	30.84	0-68.19
Jul	0.00	0.00	0-0	10.07	8.47	0-30.48	9.18	6.17	0-27.54
Aug	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Sep	0.00	10.21	0-44.42	0.00	12.71	0-48.96	22.48	24.68	0-59.96
Oct	0.00	0.00	0-0	0.00	4.24	0-27.76	0.00	30.84	0-93.35
Nov	0.00	0.00	0-0	0.00	8.47	0-32.71	0.00	6.17	0-41
Dec	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0

Table 4.2b. East Anglia TWO. Fulmar design-based density estimates of birds in flight.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.01	0-0.05
Feb	0.00	0.05	0-0.22	0.04	0.04	0-0.13	0.04	0.04	0-0.11
Mar	0.00	0.02	0-0.12	0.02	0.04	0-0.12	0.05	0.07	0-0.17
Apr	0.12	0.14	0-0.29	0.07	0.08	0-0.2	0.06	0.07	0-0.15
May	0.00	0.00	0-0	0.00	0.00	0-0	0.03	0.04	0-0.09
Jun	0.00	0.00	0-0	0.03	0.03	0-0.08	0.05	0.05	0-0.11
Jul	0.00	0.00	0-0	0.02	0.02	0-0.07	0.01	0.01	0-0.04
Aug	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Sep	0.00	0.04	0-0.17	0.00	0.03	0-0.12	0.04	0.04	0-0.1
Oct	0.00	0.00	0-0	0.00	0.01	0-0.07	0.00	0.05	0-0.15
Nov	0.00	0.00	0-0	0.00	0.02	0-0.08	0.00	0.01	0-0.07
Dec	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0

Table 4.3a. East Anglia TWO. Fulmar design-based abundance estimates of birds on the sea surface.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	10.06	17.88	0-58.06	10.51	16.94	0-63.06	24.42	43.18	0-125.12
Feb	0.00	0.00	0-0	0.00	0.00	0-0	9.47	12.34	0-47.35
Mar	18.44	20.43	0-51.58	62.49	76.23	0-187.47	124.12	129.55	55.51-206.86
Apr	10.54	53.63	0-158.1	59.38	72.00	0-190.23	54.51	80.19	0-201.69
May	9.40	12.77	0-46.98	19.43	25.41	0-71.23	44.63	49.35	0-131.46
Jun	9.80	10.21	0-29.4	10.72	12.71	0-32.16	29.23	30.84	0-68.19
Jul	0.00	0.00	0-0	10.07	8.47	0-30.22	9.18	6.17	0-27.54
Aug	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Sep	22.21	25.54	0-73.52	30.10	38.12	0-100.34	44.97	49.35	9.19-91.92
Oct	0.00	0.00	0-0	0.00	0.00	0-0	0.00	6.17	0-33.94
Nov	0.00	5.11	0-24.49	0.00	4.24	0-24.53	0.00	6.17	0-24.6
Dec	0.00	0.00	0-0	0.00	0.00	0-0	0.00	6.17	0-26.64

Table 4.3b. East Anglia TWO. Fulmar design-based density estimates of birds on the sea surface.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.04	0.07	0-0.23	0.02	0.04	0-0.15	0.04	0.07	0-0.2
Feb	0.00	0.00	0-0	0.00	0.00	0-0	0.02	0.02	0-0.08
Mar	0.07	0.08	0-0.2	0.15	0.18	0-0.44	0.20	0.21	0.09-0.34
Apr	0.04	0.21	0-0.62	0.14	0.17	0-0.45	0.09	0.13	0-0.33
May	0.04	0.05	0-0.18	0.05	0.06	0-0.17	0.07	0.08	0-0.21
Jun	0.04	0.04	0-0.12	0.03	0.03	0-0.08	0.05	0.05	0-0.11
Jul	0.00	0.00	0-0	0.02	0.02	0-0.07	0.01	0.01	0-0.04
Aug	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Sep	0.09	0.10	0-0.29	0.07	0.09	0-0.24	0.07	0.08	0.01-0.15
Oct	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.01	0-0.06
Nov	0.00	0.02	0-0.1	0.00	0.01	0-0.06	0.00	0.01	0-0.04
Dec	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.01	0-0.04

Table 5.1a. East Anglia TWO. Gannet design-based abundance estimates of birds in flight and on sea.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	10.06	12.77	0-35.22	14.83	16.94	0-39.54	28.87	30.84	4.88-67.37
Feb	0.00	7.66	0-44.28	9.68	12.71	0-48.41	17.65	18.51	0-47.35
Mar	0.00	10.21	0-36.87	0.00	8.47	0-50.54	27.76	30.84	0-82.74
Apr	0.00	17.88	0-63.8	21.14	29.65	0-89.07	31.85	30.84	0-81.77
May	9.40	12.77	0-46.98	30.53	42.35	0-101.75	28.17	37.01	0-93.9
Jun	9.80	10.21	0-29.4	10.72	12.71	0-32.16	9.74	12.34	0-29.23
Jul	18.42	17.88	0-46.05	40.30	42.35	10.07-80.6	73.44	74.03	27.54-128.52
Aug	144.80	145.56	80.44-209.15	158.37	156.70	87.99-228.76	177.22	178.90	112.58-249.72
Sep	3.70	25.54	0-88.84	4.08	50.82	0-146.88	18.74	55.52	0-157.39
Oct	60.75	68.95	16.93-147.54	122.28	152.46	18.51-344.13	280.04	283.77	161.23-420.41
Nov	560.19	643.53	71.48-1297.71	836.69	914.78	130.99-1790.71	1121.65	1239.94	289.16-2295.84
Dec	96.89	143.01	0-363.24	179.11	237.17	0-551.08	366.23	468.83	8.88-1046.29

Table 5.1b. East Anglia TWO. Gannet design-based density estimates of birds in flight and on sea.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.04	0.05	0-0.14	0.04	0.04	0-0.09	0.05	0.05	0.01-0.11
Feb	0.00	0.03	0-0.17	0.02	0.03	0-0.11	0.03	0.03	0-0.08
Mar	0.00	0.04	0-0.14	0.00	0.02	0-0.12	0.04	0.05	0-0.13
Apr	0.00	0.07	0-0.25	0.05	0.07	0-0.21	0.05	0.05	0-0.13
May	0.04	0.05	0-0.18	0.07	0.10	0-0.24	0.05	0.06	0-0.15
Jun	0.04	0.04	0-0.12	0.03	0.03	0-0.08	0.02	0.02	0-0.05
Jul	0.07	0.07	0-0.18	0.10	0.10	0.02-0.19	0.12	0.12	0.04-0.21
Aug	0.57	0.57	0.32-0.82	0.37	0.37	0.21-0.54	0.29	0.29	0.18-0.4
Sep	0.01	0.10	0-0.35	0.01	0.12	0-0.35	0.03	0.09	0-0.26
Oct	0.24	0.27	0.07-0.58	0.29	0.36	0.04-0.81	0.45	0.46	0.26-0.68
Nov	2.19	2.52	0.28-5.08	1.98	2.16	0.31-4.23	1.82	2.01	0.47-3.72
Dec	0.38	0.56	0-1.42	0.42	0.56	0-1.3	0.59	0.76	0.01-1.7



Table 5.2a. East Anglia TWO. Gannet design-based abundance estimates of birds in flight.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.00	7.66	0-30.19	0.00	8.47	0-34.6	0.00	12.34	0-43.95
Feb	0.00	7.66	0-35.65	9.68	12.71	0-48.41	9.47	12.34	0-37.88
Mar	0.00	10.21	0-36.87	0.00	8.47	0-50.54	27.76	30.84	0-82.74
Apr	0.00	10.21	0-36.46	19.79	21.18	0-59.38	18.17	18.51	0-54.51
May	0.00	5.11	0-26.75	19.43	21.18	0-50.88	17.85	18.51	0-46.95
Jun	9.80	10.21	0-29.4	10.72	12.71	0-42.89	9.74	12.34	0-29.23
Jul	9.21	10.21	0-27.63	20.15	21.18	0-50.37	45.90	43.18	9.18-91.8
Aug	136.75	137.90	72.4-201.11	149.58	148.23	87.99-219.97	161.11	160.39	96.67-233.61
Sep	0.00	15.32	0-51.82	4.08	33.88	0-106.08	7.49	43.18	0-127.41
Oct	59.25	61.29	16.93-121.51	83.28	93.17	18.51-200.74	131.38	141.88	42.43-271.51
Nov	283.46	342.20	39.71-702.11	429.44	474.33	87.32-932.15	606.26	666.24	200.8-1205.32
Dec	45.66	74.06	0-195.59	90.37	131.29	0-326.91	137.35	178.90	8.88-401.7

Table 5.2b. East Anglia TWO. Gannet design-based density estimates of birds in flight.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.00	0.03	0-0.12	0.00	0.02	0-0.08	0.00	0.02	0-0.07
Feb	0.00	0.03	0-0.14	0.02	0.03	0-0.11	0.02	0.02	0-0.06
Mar	0.00	0.04	0-0.14	0.00	0.02	0-0.12	0.04	0.05	0-0.13
Apr	0.00	0.04	0-0.14	0.05	0.05	0-0.14	0.03	0.03	0-0.09
May	0.00	0.02	0-0.1	0.05	0.05	0-0.12	0.03	0.03	0-0.08
Jun	0.04	0.04	0-0.12	0.03	0.03	0-0.1	0.02	0.02	0-0.05
Jul	0.04	0.04	0-0.11	0.05	0.05	0-0.12	0.07	0.07	0.01-0.15
Aug	0.54	0.54	0.28-0.79	0.35	0.35	0.21-0.52	0.26	0.26	0.16-0.38
Sep	0.00	0.06	0-0.2	0.01	0.08	0-0.25	0.01	0.07	0-0.21
Oct	0.23	0.24	0.07-0.48	0.20	0.22	0.04-0.47	0.21	0.23	0.07-0.44
Nov	1.11	1.34	0.16-2.75	1.01	1.12	0.21-2.2	0.98	1.08	0.33-1.95
Dec	0.18	0.29	0-0.77	0.21	0.31	0-0.77	0.22	0.29	0.01-0.65

Table 5.3a. East Anglia TWO. Gannet design-based abundance estimates of birds on the sea surface.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.00	5.11	0-29.03	0.00	4.24	0-31.53	0.00	18.51	0-67.61
Feb	0.00	0.00	0-0	0.00	0.00	0-0	0.00	6.17	0-28.41
Mar	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Apr	0.00	10.21	0-36.46	0.00	8.47	0-49.48	10.62	12.34	0-45.43
May	0.00	10.21	0-46.98	0.00	21.18	0-71.23	0.00	18.51	0-75.12
Jun	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jul	9.21	10.21	0-27.63	20.15	21.18	0-50.37	27.54	24.68	0-64.26
Aug	8.04	7.66	0-24.13	8.80	8.47	0-26.4	16.11	18.51	0-40.28
Sep	0.00	10.21	0-44.42	0.00	16.94	0-57.12	0.00	12.34	0-52.46
Oct	0.00	7.66	0-43.4	9.56	59.29	0-172.07	135.77	135.71	70.07-212.15
Nov	243.20	301.34	15.88-669.26	372.12	440.45	17.46-948.51	526.35	579.87	64.26-1180.72
Dec	13.97	68.95	0-195.59	42.03	105.88	0-289.55	140.13	296.10	0-709.98

Table 5.3b. East Anglia TWO. Gannet design-based density estimates of birds on the sea surface.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.00	0.02	0-0.11	0.00	0.01	0-0.07	0.00	0.03	0-0.11
Feb	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.01	0-0.05
Mar	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Apr	0.00	0.04	0-0.14	0.00	0.02	0-0.12	0.02	0.02	0-0.07
May	0.00	0.04	0-0.18	0.00	0.05	0-0.17	0.00	0.03	0-0.12
Jun	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jul	0.04	0.04	0-0.11	0.05	0.05	0-0.12	0.04	0.04	0-0.1
Aug	0.03	0.03	0-0.09	0.02	0.02	0-0.06	0.03	0.03	0-0.07
Sep	0.00	0.04	0-0.17	0.00	0.04	0-0.13	0.00	0.02	0-0.09
Oct	0.00	0.03	0-0.17	0.02	0.14	0-0.41	0.22	0.22	0.11-0.34
Nov	0.95	1.18	0.06-2.62	0.88	1.04	0.04-2.24	0.85	0.94	0.1-1.91
Dec	0.05	0.27	0-0.77	0.10	0.25	0-0.68	0.23	0.48	0-1.15

Table 6.1a. East Anglia TWO. Cormorant design-based abundance estimates of birds in flight and on sea.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Feb	0	5.11	0-27.71	0	4.24	0-28.1	0	6.17	0-28.41
Mar	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Apr	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
May	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Jun	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Jul	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Aug	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Sep	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Oct	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Nov	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Dec	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0

Table 6.1b. East Anglia TWO. Cormorant design-based density estimates of birds in flight and on sea.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Feb	0	0.02	0-0.11	0	0.01	0-0.07	0	0.01	0-0.05
Mar	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Apr	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
May	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Jun	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Jul	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Aug	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Sep	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Oct	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Nov	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Dec	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0

Table 6.2a. East Anglia TWO. Cormorant design-based abundance estimates of birds in flight.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Feb	0	5.11	0-27.71	0	4.24	0-28.1	0	6.17	0-28.41
Mar	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Apr	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
May	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Jun	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Jul	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Aug	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Sep	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Oct	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Nov	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Dec	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0

Table 6.2b. East Anglia TWO. Cormorant design-based density estimates of birds in flight.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Feb	0	0.02	0-0.11	0	0.01	0-0.07	0	0.01	0-0.05
Mar	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Apr	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
May	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Jun	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Jul	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Aug	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Sep	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Oct	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Nov	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Dec	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0

Table 6.3a. East Anglia TWO. Cormorant design-based abundance estimates of birds on the sea surface.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0	0-0	0	0	0-0	0	0	0-0
Feb	0	0	0-0	0	0	0-0	0	0	0-0
Mar	0	0	0-0	0	0	0-0	0	0	0-0
Apr	0	0	0-0	0	0	0-0	0	0	0-0
May	0	0	0-0	0	0	0-0	0	0	0-0
Jun	0	0	0-0	0	0	0-0	0	0	0-0
Jul	0	0	0-0	0	0	0-0	0	0	0-0
Aug	0	0	0-0	0	0	0-0	0	0	0-0
Sep	0	0	0-0	0	0	0-0	0	0	0-0
Oct	0	0	0-0	0	0	0-0	0	0	0-0
Nov	0	0	0-0	0	0	0-0	0	0	0-0
Dec	0	0	0-0	0	0	0-0	0	0	0-0

Table 6.3b. East Anglia TWO. Cormorant design-based density estimates of birds on the sea surface.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0	0-0	0	0	0-0	0	0	0-0
Feb	0	0	0-0	0	0	0-0	0	0	0-0
Mar	0	0	0-0	0	0	0-0	0	0	0-0
Apr	0	0	0-0	0	0	0-0	0	0	0-0
May	0	0	0-0	0	0	0-0	0	0	0-0
Jun	0	0	0-0	0	0	0-0	0	0	0-0
Jul	0	0	0-0	0	0	0-0	0	0	0-0
Aug	0	0	0-0	0	0	0-0	0	0	0-0
Sep	0	0	0-0	0	0	0-0	0	0	0-0
Oct	0	0	0-0	0	0	0-0	0	0	0-0
Nov	0	0	0-0	0	0	0-0	0	0	0-0
Dec	0	0	0-0	0	0	0-0	0	0	0-0

Table 7.1a. East Anglia TWO. Shag design-based abundance estimates of birds in flight and on sea.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Feb	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Mar	0	0	0-0	0	4.24	0-30.33	0	6.17	0-37.01
Apr	0	0	0-0	0	0.00	0-0	0	0.00	0-0
May	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Jun	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Jul	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Aug	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Sep	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Oct	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Nov	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Dec	0	0	0-0	0	0.00	0-0	0	0.00	0-0

Table 7.1b. East Anglia TWO. Shag design-based density estimates of birds in flight and on sea.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Feb	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Mar	0	0	0-0	0	0.01	0-0.07	0	0.01	0-0.06
Apr	0	0	0-0	0	0.00	0-0	0	0.00	0-0
May	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Jun	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Jul	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Aug	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Sep	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Oct	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Nov	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Dec	0	0	0-0	0	0.00	0-0	0	0.00	0-0

Table 7.2a. East Anglia TWO. Shag design-based abundance estimates of birds in flight.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0	0-0	0	0	0-0	0	0	0-0
Feb	0	0	0-0	0	0	0-0	0	0	0-0
Mar	0	0	0-0	0	0	0-0	0	0	0-0
Apr	0	0	0-0	0	0	0-0	0	0	0-0
May	0	0	0-0	0	0	0-0	0	0	0-0
Jun	0	0	0-0	0	0	0-0	0	0	0-0
Jul	0	0	0-0	0	0	0-0	0	0	0-0
Aug	0	0	0-0	0	0	0-0	0	0	0-0
Sep	0	0	0-0	0	0	0-0	0	0	0-0
Oct	0	0	0-0	0	0	0-0	0	0	0-0
Nov	0	0	0-0	0	0	0-0	0	0	0-0
Dec	0	0	0-0	0	0	0-0	0	0	0-0

Table 7.2b. East Anglia TWO. Shag design-based density estimates of birds in flight.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0	0-0	0	0	0-0	0	0	0-0
Feb	0	0	0-0	0	0	0-0	0	0	0-0
Mar	0	0	0-0	0	0	0-0	0	0	0-0
Apr	0	0	0-0	0	0	0-0	0	0	0-0
May	0	0	0-0	0	0	0-0	0	0	0-0
Jun	0	0	0-0	0	0	0-0	0	0	0-0
Jul	0	0	0-0	0	0	0-0	0	0	0-0
Aug	0	0	0-0	0	0	0-0	0	0	0-0
Sep	0	0	0-0	0	0	0-0	0	0	0-0
Oct	0	0	0-0	0	0	0-0	0	0	0-0
Nov	0	0	0-0	0	0	0-0	0	0	0-0
Dec	0	0	0-0	0	0	0-0	0	0	0-0

Table 7.3a. East Anglia TWO. Shag design-based abundance estimates of birds on the sea surface.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Feb	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Mar	0	0	0-0	0	4.24	0-30.33	0	6.17	0-46.26
Apr	0	0	0-0	0	0.00	0-0	0	0.00	0-0
May	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Jun	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Jul	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Aug	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Sep	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Oct	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Nov	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Dec	0	0	0-0	0	0.00	0-0	0	0.00	0-0

Table 7.3b. East Anglia TWO. Shag design-based density estimates of birds on the sea surface.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Feb	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Mar	0	0	0-0	0	0.01	0-0.07	0	0.01	0-0.07
Apr	0	0	0-0	0	0.00	0-0	0	0.00	0-0
May	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Jun	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Jul	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Aug	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Sep	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Oct	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Nov	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Dec	0	0	0-0	0	0.00	0-0	0	0.00	0-0



Table 8.1a. East Anglia TWO. Great Skua design-based abundance estimates of birds in flight and on sea.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Feb	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Mar	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Apr	0	5.11	0-31.62	0	4.24	0-31.7	0	6.17	0-31.85
May	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Jun	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Jul	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Aug	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Sep	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Oct	0	5.11	0-26.04	0	4.24	0-28.68	0	6.17	0-35.03
Nov	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Dec	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0

Table 8.1b. East Anglia TWO. Great Skua design-based density estimates of birds in flight and on sea.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Feb	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Mar	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Apr	0	0.02	0-0.12	0	0.01	0-0.07	0	0.01	0-0.05
May	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Jun	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Jul	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Aug	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Sep	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Oct	0	0.02	0-0.1	0	0.01	0-0.07	0	0.01	0-0.06
Nov	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Dec	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0

Table 8.2a. East Anglia TWO. Great Skua design-based abundance estimates of birds in flight.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Feb	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Mar	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Apr	0	5.11	0-31.62	0	4.24	0-31.7	0	6.17	0-31.85
May	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Jun	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Jul	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Aug	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Sep	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Oct	0	5.11	0-26.04	0	4.24	0-28.68	0	6.17	0-43.79
Nov	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Dec	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0

Table 8.2b. East Anglia TWO. Great Skua design-based density estimates of birds in flight.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Feb	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Mar	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Apr	0	0.02	0-0.12	0	0.01	0-0.07	0	0.01	0-0.05
May	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Jun	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Jul	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Aug	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Sep	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Oct	0	0.02	0-0.1	0	0.01	0-0.07	0	0.01	0-0.07
Nov	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Dec	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0

Table 8.3a. East Anglia TWO. Great Skua design-based abundance estimates of birds on the sea surface.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0	0-0	0	0	0-0	0	0	0-0
Feb	0	0	0-0	0	0	0-0	0	0	0-0
Mar	0	0	0-0	0	0	0-0	0	0	0-0
Apr	0	0	0-0	0	0	0-0	0	0	0-0
May	0	0	0-0	0	0	0-0	0	0	0-0
Jun	0	0	0-0	0	0	0-0	0	0	0-0
Jul	0	0	0-0	0	0	0-0	0	0	0-0
Aug	0	0	0-0	0	0	0-0	0	0	0-0
Sep	0	0	0-0	0	0	0-0	0	0	0-0
Oct	0	0	0-0	0	0	0-0	0	0	0-0
Nov	0	0	0-0	0	0	0-0	0	0	0-0
Dec	0	0	0-0	0	0	0-0	0	0	0-0

Table 8.3b. East Anglia TWO. Great Skua design-based density estimates of birds on the sea surface.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0	0-0	0	0	0-0	0	0	0-0
Feb	0	0	0-0	0	0	0-0	0	0	0-0
Mar	0	0	0-0	0	0	0-0	0	0	0-0
Apr	0	0	0-0	0	0	0-0	0	0	0-0
May	0	0	0-0	0	0	0-0	0	0	0-0
Jun	0	0	0-0	0	0	0-0	0	0	0-0
Jul	0	0	0-0	0	0	0-0	0	0	0-0
Aug	0	0	0-0	0	0	0-0	0	0	0-0
Sep	0	0	0-0	0	0	0-0	0	0	0-0
Oct	0	0	0-0	0	0	0-0	0	0	0-0
Nov	0	0	0-0	0	0	0-0	0	0	0-0
Dec	0	0	0-0	0	0	0-0	0	0	0-0

Table 9.1a. East Anglia TWO. Puffin design-based abundance estimates of birds in flight and on sea.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Feb	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Mar	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Apr	0	12.77	0-54.68	0	16.94	0-59.38	0	12.34	0-54.51
May	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Jun	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Jul	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Aug	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Sep	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Oct	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Nov	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Dec	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0

Table 9.1b. East Anglia TWO. Puffin design-based density estimates of birds in flight and on sea.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Feb	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Mar	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Apr	0	0.05	0-0.21	0	0.04	0-0.14	0	0.02	0-0.09
May	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Jun	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Jul	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Aug	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Sep	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Oct	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Nov	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Dec	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0

Table 9.2a. East Anglia TWO. Puffin design-based abundance estimates of birds in flight.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0	0-0	0	0	0-0	0	0	0-0
Feb	0	0	0-0	0	0	0-0	0	0	0-0
Mar	0	0	0-0	0	0	0-0	0	0	0-0
Apr	0	0	0-0	0	0	0-0	0	0	0-0
May	0	0	0-0	0	0	0-0	0	0	0-0
Jun	0	0	0-0	0	0	0-0	0	0	0-0
Jul	0	0	0-0	0	0	0-0	0	0	0-0
Aug	0	0	0-0	0	0	0-0	0	0	0-0
Sep	0	0	0-0	0	0	0-0	0	0	0-0
Oct	0	0	0-0	0	0	0-0	0	0	0-0
Nov	0	0	0-0	0	0	0-0	0	0	0-0
Dec	0	0	0-0	0	0	0-0	0	0	0-0

Table 9.2b. East Anglia TWO. Puffin design-based density estimates of birds in flight.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0	0-0	0	0	0-0	0	0	0-0
Feb	0	0	0-0	0	0	0-0	0	0	0-0
Mar	0	0	0-0	0	0	0-0	0	0	0-0
Apr	0	0	0-0	0	0	0-0	0	0	0-0
May	0	0	0-0	0	0	0-0	0	0	0-0
Jun	0	0	0-0	0	0	0-0	0	0	0-0
Jul	0	0	0-0	0	0	0-0	0	0	0-0
Aug	0	0	0-0	0	0	0-0	0	0	0-0
Sep	0	0	0-0	0	0	0-0	0	0	0-0
Oct	0	0	0-0	0	0	0-0	0	0	0-0
Nov	0	0	0-0	0	0	0-0	0	0	0-0
Dec	0	0	0-0	0	0	0-0	0	0	0-0

Table 9.3a. East Anglia TWO. Puffin design-based abundance estimates of birds on the sea surface.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Feb	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Mar	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Apr	0	12.77	0-54.68	0	16.94	0-59.38	0	12.34	0-54.51
May	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Jun	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Jul	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Aug	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Sep	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Oct	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Nov	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Dec	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0

Table 9.3b. East Anglia TWO. Puffin design-based density estimates of birds on the sea surface.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Feb	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Mar	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Apr	0	0.05	0-0.21	0	0.04	0-0.14	0	0.02	0-0.09
May	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Jun	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Jul	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Aug	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Sep	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Oct	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Nov	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Dec	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0

Table 10.1a. East Anglia TWO. Razorbill design-based abundance estimates of birds in flight and on sea including unidentified birds assigned using positively identified proportions and accounting for availability bias.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	138.89	145.56	93.27-233.16	250.87	262.58	189.94-392.55	362.25	345.46	220.32-418.74
Feb	64.02	56.18	10.67-89.98	105.65	84.70	11.67-154.19	208.65	185.07	106.34-259.08
Mar	85.03	74.06	22.21-114.67	200.01	182.11	73.08-250.81	340.14	296.10	111.19-470.96
Apr	43.92	114.92	0-318.44	155.01	287.99	0-691.58	251.77	363.96	0-875.72
May	0.00	28.09	0-101.89	24.52	38.12	0-110.33	43.02	55.52	0-147.08
Jun	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jul	44.39	43.41	0-88.78	84.97	84.70	36.11-157.8	165.91	166.56	88.48-265.45
Aug	0.00	0.00	0-0	21.20	21.18	0-53	48.53	49.35	9.71-97.05
Sep	26.76	28.09	0-71.35	49.16	55.06	12.09-108.8	88.60	92.53	36.12-166.13
Oct	0.00	20.43	0-73.2	11.52	50.82	0-161.24	72.88	104.87	0-284.91
Nov	80.38	71.50	0-137.62	158.74	148.23	21.04-269.2	230.65	234.42	29.03-435.08
Dec	5.23	12.77	0-32.57	17.08	29.65	0-76.88	129.37	178.90	73.76-363.73

Table 10.1b. East Anglia TWO. Razorbill design-based density estimates of birds in flight and on sea including unidentified birds assigned using positively identified proportions and accounting for availability bias.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.54	0.57	0.37-0.91	0.59	0.62	0.45-0.93	0.59	0.56	0.36-0.68
Feb	0.25	0.22	0.04-0.35	0.25	0.20	0.03-0.36	0.34	0.30	0.17-0.42
Mar	0.33	0.29	0.09-0.45	0.47	0.43	0.17-0.59	0.55	0.48	0.18-0.76
Apr	0.17	0.45	0-1.25	0.37	0.68	0-1.63	0.41	0.59	0-1.42
May	0.00	0.11	0-0.4	0.06	0.09	0-0.26	0.07	0.09	0-0.24
Jun	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jul	0.17	0.17	0-0.35	0.20	0.20	0.09-0.37	0.27	0.27	0.14-0.43
Aug	0.00	0.00	0-0	0.05	0.05	0-0.13	0.08	0.08	0.02-0.16
Sep	0.10	0.11	0-0.28	0.12	0.13	0.03-0.26	0.14	0.15	0.06-0.27
Oct	0.00	0.08	0-0.29	0.03	0.12	0-0.38	0.12	0.17	0-0.46
Nov	0.31	0.28	0-0.54	0.37	0.35	0.05-0.64	0.37	0.38	0.05-0.71
Dec	0.02	0.05	0-0.13	0.04	0.07	0-0.18	0.21	0.29	0.12-0.59

Table 10.2a. East Anglia TWO. Razorbill design-based abundance estimates of birds in flight including unidentified birds assigned using positively identified proportions.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	6.78	7.66	0-29.03	10.00	8.47	0-31.53	14.14	12.34	0-28.87
Feb	6.70	12.77	0-35.43	8.89	16.94	0-46.21	52.96	61.69	28.86-114.74
Mar	4.81	12.77	0-32.08	5.93	16.94	0-42.16	11.03	24.68	0-61.47
Apr	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
May	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jun	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jul	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Aug	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Sep	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Oct	0.00	0.00	0-0	0.00	0.00	0-0	0.00	6.17	0-26.28
Nov	0.00	0.00	0-5.08	0.00	4.24	0-10.34	0.00	6.17	0-13.74
Dec	0.00	2.55	0-5.79	0.00	0.00	0-7.09	0.00	0.00	0-8.54

Table 10.2b. East Anglia TWO. Razorbill design-based density estimates of birds in flight including unidentified birds assigned using positively identified proportions.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.03	0.03	0-0.11	0.02	0.02	0-0.07	0.02	0.02	0-0.05
Feb	0.03	0.05	0-0.14	0.02	0.04	0-0.11	0.09	0.10	0.05-0.19
Mar	0.02	0.05	0-0.13	0.01	0.04	0-0.1	0.02	0.04	0-0.1
Apr	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
May	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jun	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jul	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Aug	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Sep	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Oct	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.01	0-0.04
Nov	0.00	0.00	0-0.02	0.00	0.01	0-0.02	0.00	0.01	0-0.02
Dec	0.00	0.01	0-0.02	0.00	0.00	0-0.02	0.00	0.00	0-0.01



Table 10.3a. East Anglia TWO. Razorbill design-based abundance estimates of birds on the sea surface including unidentified birds assigned using positively identified proportions and accounting for availability bias.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	129.46	137.90	81.61-221.51	238.82	254.11	189.94-379.88	347.00	333.12	208.72-405.85
Feb	42.68	40.86	10.67-74.96	77.10	67.76	11.67-108.5	139.10	123.38	42.53-193
Mar	65.71	61.29	22.21-99.96	173.03	165.17	85.26-219.23	307.64	277.60	111.47-412.09
Apr	43.92	114.92	0-318.44	166.93	287.99	0-703.5	246.30	363.96	0-886.67
May	0.00	28.09	0-101.89	24.52	38.12	0-110.33	45.25	55.52	0-147.08
Jun	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jul	44.39	43.41	11.1-99.88	84.97	84.70	24.28-145.66	165.91	166.56	88.48-254.39
Aug	0.00	0.00	0-0	21.20	21.18	0-53	48.53	49.35	9.71-97.05
Sep	26.76	28.09	0-71.35	49.16	55.06	12.09-108.8	88.60	92.53	36.12-155.05
Oct	0.00	20.43	0-73.2	11.52	50.82	0-161.24	57.22	98.70	0-263.81
Nov	84.66	68.95	0-134.56	171.48	143.99	21.04-262.96	239.26	228.25	29.03-424.54
Dec	4.07	10.21	0-29.08	14.95	29.65	0-72.6	122.64	178.90	70.32-353.03

Table 10.3b. East Anglia TWO. Razorbill design-based density estimates of birds on the sea surface including unidentified birds assigned using positively identified proportions and accounting for availability bias.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.51	0.54	0.32-0.87	0.56	0.60	0.45-0.9	0.56	0.54	0.34-0.66
Feb	0.17	0.16	0.04-0.29	0.18	0.16	0.03-0.26	0.23	0.20	0.07-0.31
Mar	0.26	0.24	0.09-0.39	0.41	0.39	0.2-0.52	0.50	0.45	0.18-0.67
Apr	0.17	0.45	0-1.25	0.39	0.68	0-1.66	0.40	0.59	0-1.44
May	0.00	0.11	0-0.4	0.06	0.09	0-0.26	0.07	0.09	0-0.24
Jun	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jul	0.17	0.17	0.04-0.39	0.20	0.20	0.06-0.34	0.27	0.27	0.14-0.41
Aug	0.00	0.00	0-0	0.05	0.05	0-0.13	0.08	0.08	0.02-0.16
Sep	0.10	0.11	0-0.28	0.12	0.13	0.03-0.26	0.14	0.15	0.06-0.25
Oct	0.00	0.08	0-0.29	0.03	0.12	0-0.38	0.09	0.16	0-0.43
Nov	0.33	0.27	0-0.53	0.40	0.34	0.05-0.62	0.39	0.37	0.05-0.69
Dec	0.02	0.04	0-0.11	0.04	0.07	0-0.17	0.20	0.29	0.11-0.57

Table 11.1a. East Anglia TWO. Guillemot design-based abundance estimates of birds in flight and on sea including unidentified birds assigned using positively identified proportions and accounting for availability bias.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	1247.74	1235.99	1044.03-1424.17	1994.00	2020.14	1687.23-2516.9	2623.30	2664.94	2135.02-3355.89
Feb	386.81	400.93	128.18-827.81	583.60	588.68	191.09-1162.71	775.11	795.78	243.87-1542.01
Mar	703.51	684.39	400.27-1070.58	1251.59	1223.94	678.36-1879.32	1906.03	1887.67	1070.98-2860.73
Apr	1214.31	1299.83	624.09-2014.68	2111.48	2126.02	1293.21-2995.38	3056.31	2998.06	1773.84-4303.72
May	181.34	245.16	11.73-556.36	481.43	550.56	76.71-1138	454.80	530.52	93.97-1062.89
Jun	103.15	102.15	38.68-180.52	112.86	114.35	42.32-197.5	205.10	203.57	115.37-307.64
Jul	424.18	423.91	302.99-557.49	570.02	571.74	410.95-742.36	664.36	666.24	507.33-845.86
Aug	105.85	104.70	52.92-169.35	162.08	160.93	81.04-254.99	370.98	370.13	254.38-487.83
Sep	146.11	155.78	68.19-278.1	184.84	190.58	105.62-303.66	197.23	203.57	98.61-350.76
Oct	95.79	107.26	0-296.91	142.23	165.17	24.35-440.23	170.53	197.40	11.17-518.59
Nov	615.21	674.18	135.85-1299.48	1163.92	1262.06	563.01-2029.93	1610.15	1708.77	824.35-2642.79
Dec	574.21	640.98	153.79-1224.87	1023.30	1122.30	364.99-2013.44	1257.95	1332.47	448.01-2336.67

Table 11.1b. East Anglia TWO. Guillemot design-based density estimates of birds in flight and on sea including unidentified birds assigned using positively identified proportions and accounting for availability bias.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	4.89	4.84	4.09-5.58	4.71	4.77	3.98-5.94	4.25	4.32	3.46-5.44
Feb	1.51	1.57	0.5-3.24	1.38	1.39	0.45-2.75	1.26	1.29	0.4-2.5
Mar	2.75	2.68	1.57-4.19	2.96	2.89	1.6-4.44	3.09	3.06	1.74-4.64
Apr	4.76	5.09	2.44-7.89	4.99	5.02	3.05-7.07	4.95	4.86	2.88-6.98
May	0.71	0.96	0.05-2.18	1.14	1.30	0.18-2.69	0.74	0.86	0.15-1.72
Jun	0.40	0.40	0.15-0.71	0.27	0.27	0.1-0.47	0.33	0.33	0.19-0.5
Jul	1.66	1.66	1.19-2.18	1.35	1.35	0.97-1.75	1.08	1.08	0.82-1.37
Aug	0.41	0.41	0.21-0.66	0.38	0.38	0.19-0.6	0.60	0.60	0.41-0.79
Sep	0.57	0.61	0.27-1.09	0.44	0.45	0.25-0.72	0.32	0.33	0.16-0.57
Oct	0.38	0.42	0-1.16	0.34	0.39	0.06-1.04	0.28	0.32	0.02-0.84
Nov	2.41	2.64	0.53-5.09	2.75	2.98	1.33-4.79	2.61	2.77	1.34-4.28
Dec	2.25	2.51	0.6-4.8	2.42	2.65	0.86-4.75	2.04	2.16	0.73-3.79



Table 11.2a. East Anglia TWO. Guillemot design-based abundance estimates of birds in flight including unidentified birds assigned using positively identified proportions.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	29.03	30.64	0-81.18	52.55	55.06	10.51-94.59	77.00	74.03	19.25-124.18
Feb	132.84	150.67	35.42-306.29	145.23	160.93	38.73-319.1	145.63	166.56	35.3-345.16
Mar	41.61	102.15	0-277.38	40.94	110.11	0-291.11	61.37	129.55	0-341.9
Apr	0.00	5.11	0-31.62	0.00	21.18	0-84.55	31.85	43.18	0-106.15
May	0.00	5.11	0-28.19	0.00	4.24	0-30.53	0.00	6.17	0-28.17
Jun	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jul	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Aug	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Sep	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Oct	50.78	61.29	0-156.22	57.36	84.70	0-219.86	64.73	98.70	0-236.48
Nov	0.00	10.21	0-43.89	0.00	21.18	0-71.42	0.00	24.68	0-76.45
Dec	26.85	30.64	0-71.61	29.43	33.88	0-73.43	26.64	30.84	0-71.03

Table 11.2b. East Anglia TWO. Guillemot design-based density estimates of birds in flight including unidentified birds assigned using positively identified proportions.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.11	0.12	0-0.32	0.12	0.13	0.02-0.22	0.12	0.12	0.03-0.2
Feb	0.52	0.59	0.14-1.2	0.34	0.38	0.09-0.75	0.24	0.27	0.06-0.56
Mar	0.16	0.40	0-1.09	0.10	0.26	0-0.69	0.10	0.21	0-0.55
Apr	0.00	0.02	0-0.12	0.00	0.05	0-0.2	0.05	0.07	0-0.17
May	0.00	0.02	0-0.11	0.00	0.01	0-0.07	0.00	0.01	0-0.05
Jun	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jul	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Aug	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Sep	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Oct	0.20	0.24	0-0.61	0.14	0.20	0-0.52	0.10	0.16	0-0.38
Nov	0.00	0.04	0-0.17	0.00	0.05	0-0.17	0.00	0.04	0-0.12
Dec	0.11	0.12	0-0.28	0.07	0.08	0-0.17	0.04	0.05	0-0.12

Table 11.3a. East Anglia TWO. Guillemot design-based abundance estimates of birds on the sea surface including unidentified birds assigned using positively identified proportions and accounting for availability bias.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	1198.68	1200.24	1014.72-1412.33	1908.42	1960.85	1584.97-2461.58	2527.23	2590.92	2009.75-3267.24
Feb	223.29	247.71	46.61-490.15	376.53	427.74	101.92-807.43	614.59	629.22	150.97-1172.35
Mar	582.21	577.14	400.27-790.77	1113.23	1113.83	691.66-1580.06	1639.45	1758.12	1059.11-2503.14
Apr	1265.46	1287.07	596.35-2026.67	2132.78	2104.84	1237.59-3008.08	2979.55	2954.88	1690.04-4279.82
May	181.66	240.05	11.73-543.99	462.25	546.33	76.71-1124.62	473.03	524.35	93.97-1050.23
Jun	103.15	102.15	38.68-180.52	112.86	114.35	42.32-197.5	205.10	203.57	102.55-307.64
Jul	424.18	423.91	290.87-569.61	570.02	571.74	410.95-742.36	664.36	666.24	507.33-845.86
Aug	105.85	104.70	42.34-179.94	162.08	160.93	92.62-254.7	370.98	370.13	254.38-498.17
Sep	146.11	155.78	68.19-278.1	184.84	186.34	105.62-303.66	197.23	203.57	98.61-338.66
Oct	33.41	45.97	0-125.62	73.05	80.47	12.18-201.25	80.67	104.87	0-242.01
Nov	605.17	661.41	125.4-1270.6	1231.80	1240.88	563.01-1982.94	1622.45	1677.93	813.78-2578.78
Dec	563.62	610.33	120.83-1177.76	1011.47	1084.18	332.79-1961.81	1191.64	1307.80	427.17-2313.3

Table 11.3b. East Anglia TWO. Guillemot design-based density estimates of birds on the sea surface including unidentified birds assigned using positively identified proportions and accounting for availability bias.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	4.69	4.70	3.97-5.53	4.51	4.63	3.74-5.81	4.10	4.20	3.26-5.3
Feb	0.87	0.97	0.18-1.92	0.89	1.01	0.24-1.91	1.00	1.02	0.24-1.9
Mar	2.28	2.26	1.57-3.1	2.63	2.63	1.63-3.73	2.66	2.85	1.72-4.06
Apr	4.96	5.04	2.34-7.94	5.04	4.97	2.92-7.1	4.83	4.79	2.74-6.94
May	0.71	0.94	0.05-2.13	1.09	1.29	0.18-2.66	0.77	0.85	0.15-1.7
Jun	0.40	0.40	0.15-0.71	0.27	0.27	0.1-0.47	0.33	0.33	0.17-0.5
Jul	1.66	1.66	1.14-2.23	1.35	1.35	0.97-1.75	1.08	1.08	0.82-1.37
Aug	0.41	0.41	0.17-0.7	0.38	0.38	0.22-0.6	0.60	0.60	0.41-0.81
Sep	0.57	0.61	0.27-1.09	0.44	0.44	0.25-0.72	0.32	0.33	0.16-0.55
Oct	0.13	0.18	0-0.49	0.17	0.19	0.03-0.48	0.13	0.17	0-0.39
Nov	2.37	2.59	0.49-4.98	2.91	2.93	1.33-4.68	2.63	2.72	1.32-4.18
Dec	2.21	2.39	0.47-4.61	2.39	2.56	0.79-4.63	1.93	2.12	0.69-3.75



Table 12.1a. East Anglia TWO. Commic Tern design-based abundance estimates of birds in flight and on sea.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Feb	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Mar	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Apr	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
May	18.79	22.98	0-53.49	50.88	59.29	0-142.45	65.73	74.03	8.93-169.03
Jun	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jul	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Aug	16.09	15.32	0-40.22	17.60	16.94	0-43.99	16.11	18.51	0-40.28
Sep	0.00	7.66	0-29.8	0.00	8.47	0-40.8	0.00	6.17	0-37.47
Oct	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Nov	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Dec	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0

Table 12.1b. East Anglia TWO. Commic Tern design-based density estimates of birds in flight and on sea.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Feb	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Mar	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Apr	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
May	0.07	0.09	0-0.21	0.12	0.14	0-0.34	0.11	0.12	0.01-0.27
Jun	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jul	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Aug	0.06	0.06	0-0.16	0.04	0.04	0-0.1	0.03	0.03	0-0.07
Sep	0.00	0.03	0-0.12	0.00	0.02	0-0.1	0.00	0.01	0-0.06
Oct	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Nov	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Dec	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0

Table 12.2a. East Anglia TWO. Commic Tern design-based abundance estimates of birds in flight.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Feb	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Mar	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Apr	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
May	18.79	22.98	0-56.38	50.88	59.29	9.72-152.63	65.73	74.03	8.93-169.03
Jun	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jul	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Aug	8.04	7.66	0-24.13	8.80	8.47	0-35.19	8.06	6.17	0-24.17
Sep	0.00	7.66	0-29.61	0.00	8.47	0-32.64	0.00	6.17	0-37.47
Oct	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Nov	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Dec	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0

Table 12.2b. East Anglia TWO. Commic Tern design-based density estimates of birds in flight.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Feb	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Mar	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Apr	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
May	0.07	0.09	0-0.22	0.12	0.14	0.02-0.36	0.11	0.12	0.01-0.27
Jun	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jul	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Aug	0.03	0.03	0-0.09	0.02	0.02	0-0.08	0.01	0.01	0-0.04
Sep	0.00	0.03	0-0.12	0.00	0.02	0-0.08	0.00	0.01	0-0.06
Oct	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Nov	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Dec	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0



Table 12.3a. East Anglia TWO. Commic Tern design-based abundance estimates of birds on the sea surface.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.00	0.00	0-0	0.0	0.00	0-0	0.00	0.00	0-0
Feb	0.00	0.00	0-0	0.0	0.00	0-0	0.00	0.00	0-0
Mar	0.00	0.00	0-0	0.0	0.00	0-0	0.00	0.00	0-0
Apr	0.00	0.00	0-0	0.0	0.00	0-0	0.00	0.00	0-0
May	0.00	0.00	0-0	0.0	0.00	0-0	0.00	0.00	0-0
Jun	0.00	0.00	0-0	0.0	0.00	0-0	0.00	0.00	0-0
Jul	0.00	0.00	0-0	0.0	0.00	0-0	0.00	0.00	0-0
Aug	8.04	7.66	0-24.13	8.8	8.47	0-26.4	8.06	6.17	0-24.17
Sep	0.00	0.00	0-0	0.0	0.00	0-0	0.00	0.00	0-0
Oct	0.00	0.00	0-0	0.0	0.00	0-0	0.00	0.00	0-0
Nov	0.00	0.00	0-0	0.0	0.00	0-0	0.00	0.00	0-0
Dec	0.00	0.00	0-0	0.0	0.00	0-0	0.00	0.00	0-0

Table 12.3b. East Anglia TWO. Commic Tern design-based density estimates of birds on the sea surface.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Feb	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Mar	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Apr	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
May	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jun	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jul	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Aug	0.03	0.03	0-0.09	0.02	0.02	0-0.06	0.01	0.01	0-0.04
Sep	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Oct	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Nov	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Dec	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0

Table 13.1a. East Anglia TWO. Kittiwake design-based abundance estimates of birds in flight and on sea including unidentified birds assigned using positively identified proportions.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	183.85	186.42	120.64-280.61	281.74	304.93	168.05-493.98	470.21	505.85	293.01-779.58
Feb	1.15	33.20	0-110.83	10.35	46.59	0-140.5	56.46	80.19	0-201.86
Mar	165.93	163.44	87.67-258.15	283.05	292.22	151.63-465.5	342.32	363.96	157.28-625.59
Apr	181.01	229.83	10.54-510.39	274.26	309.16	52.84-623.49	340.13	382.47	63.69-763.19
May	64.09	84.27	0-216.11	216.47	275.28	9.72-641.29	294.23	351.62	71.41-694.88
Jun	88.20	89.38	39.2-146.99	150.10	148.23	75.05-225.15	224.07	222.08	136.39-311.74
Jul	202.64	201.74	128.95-294.74	322.39	321.87	221.39-443.29	385.57	388.64	275.41-504.92
Aug	24.13	22.98	0-56.31	26.40	25.41	0-61.59	56.39	55.52	24.17-104.72
Sep	29.61	33.20	0-66.63	40.80	46.59	10.03-90.31	73.54	74.03	29.98-128.69
Oct	0.00	0.00	0-1.1	0.75	4.24	0-28.68	17.52	18.51	0-50.92
Nov	9.19	40.86	0-120.59	70.51	131.29	0-332.76	153.96	234.42	0-561.35
Dec	74.51	86.83	9.31-196.92	117.71	143.99	18.68-323.7	173.10	185.07	28.03-390.69

Table 13.1b. East Anglia TWO. Kittiwake design-based density estimates of birds in flight and on sea including unidentified birds assigned using positively identified proportions.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.72	0.73	0.47-1.1	0.67	0.72	0.4-1.17	0.76	0.82	0.47-1.26
Feb	0.00	0.13	0-0.43	0.02	0.11	0-0.33	0.09	0.13	0-0.33
Mar	0.65	0.64	0.34-1.01	0.67	0.69	0.36-1.1	0.55	0.59	0.25-1.01
Apr	0.71	0.90	0.04-2	0.65	0.73	0.12-1.47	0.55	0.62	0.1-1.24
May	0.25	0.33	0-0.85	0.51	0.65	0.02-1.51	0.48	0.57	0.12-1.13
Jun	0.35	0.35	0.15-0.58	0.35	0.35	0.18-0.53	0.36	0.36	0.22-0.51
Jul	0.79	0.79	0.5-1.15	0.76	0.76	0.52-1.05	0.63	0.63	0.45-0.82
Aug	0.09	0.09	0-0.22	0.06	0.06	0-0.15	0.09	0.09	0.04-0.17
Sep	0.12	0.13	0-0.26	0.10	0.11	0.02-0.21	0.12	0.12	0.05-0.21
Oct	0.00	0.00	0-0	0.00	0.01	0-0.07	0.03	0.03	0-0.08
Nov	0.04	0.16	0-0.47	0.17	0.31	0-0.79	0.25	0.38	0-0.91
Dec	0.29	0.34	0.04-0.77	0.28	0.34	0.04-0.76	0.28	0.30	0.05-0.63

Table 13.2a. East Anglia TWO. Kittiwake design-based abundance estimates of birds in flight including unidentified birds assigned using positively identified proportions.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	110.69	109.81	48.38-171.07	157.65	152.46	73.57-227.37	240.61	240.58	125.12-351.62
Feb	0.00	5.11	0-27.71	0.00	16.94	0-65.57	26.48	37.01	0-104.17
Mar	27.66	30.64	0-82.52	62.49	76.23	0-187.47	83.27	92.53	18.5-206.86
Apr	94.86	112.36	10.54-246.08	137.39	156.70	31.7-316.69	138.00	166.56	31.85-336.17
May	56.38	74.06	0-197.32	150.33	203.28	9.72-488.4	211.28	252.92	53.56-516.47
Jun	68.60	68.95	19.6-127.39	117.94	118.58	53.61-192.99	185.10	185.07	107.16-272.78
Jul	128.95	127.69	64.48-202.64	191.42	190.58	110.82-292.17	238.69	240.58	156.07-330.49
Aug	24.13	22.98	0-56.31	26.40	25.41	0-61.59	40.28	43.18	8.06-80.55
Sep	0.00	10.21	0-44.42	0.00	12.71	0-48.96	0.00	12.34	0-44.97
Oct	0.00	0.00	0-0.66	0.00	0.00	0-1.13	0.00	6.17	0-42.43
Nov	1.03	22.98	0-75.66	45.15	101.64	0-267.35	105.87	191.23	0-472.67
Dec	55.88	71.50	0-179.24	93.40	127.05	0-304.08	118.21	160.39	18.68-355.17

Table 13.2b. East Anglia TWO. Kittiwake design-based density estimates of birds in flight including unidentified birds assigned using positively identified proportions.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.43	0.43	0.19-0.67	0.37	0.36	0.17-0.54	0.39	0.39	0.2-0.57
Feb	0.00	0.02	0-0.11	0.00	0.04	0-0.15	0.04	0.06	0-0.17
Mar	0.11	0.12	0-0.32	0.15	0.18	0-0.44	0.13	0.15	0.03-0.34
Apr	0.37	0.44	0.04-0.96	0.32	0.37	0.07-0.75	0.22	0.27	0.05-0.54
May	0.22	0.29	0-0.77	0.35	0.48	0.02-1.15	0.34	0.41	0.09-0.84
Jun	0.27	0.27	0.08-0.5	0.28	0.28	0.13-0.46	0.30	0.30	0.17-0.44
Jul	0.50	0.50	0.25-0.79	0.45	0.45	0.26-0.69	0.39	0.39	0.25-0.54
Aug	0.09	0.09	0-0.22	0.06	0.06	0-0.15	0.07	0.07	0.01-0.13
Sep	0.00	0.04	0-0.17	0.00	0.03	0-0.12	0.00	0.02	0-0.07
Oct	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.01	0-0.07
Nov	0.00	0.09	0-0.3	0.11	0.24	0-0.63	0.17	0.31	0-0.77
Dec	0.22	0.28	0-0.7	0.22	0.30	0-0.72	0.19	0.26	0.03-0.58

Table 13.3a. East Anglia TWO. Kittiwake design-based abundance estimates of birds on the sea surface including unidentified birds assigned using positively identified proportions.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	65.41	79.16	20.13-174.17	99.51	152.46	19.77-346.83	193.34	265.26	39.07-577.47
Feb	0.92	28.09	0-92.36	1.58	29.65	0-93.67	29.46	43.18	0-120.21
Mar	130.32	132.79	70.95-209.06	212.29	215.99	121.31-329.47	259.06	265.26	120.28-451.93
Apr	50.13	117.47	0-318.99	138.55	152.46	0-356.53	162.87	215.91	10.62-490.62
May	0.00	10.21	0-37.82	20.35	67.76	0-193.33	75.12	92.53	0-225.37
Jun	19.60	20.43	0-49	32.16	33.88	0-75.05	38.97	37.01	9.74-87.68
Jul	73.69	74.06	27.63-128.95	130.97	131.29	70.27-211.57	146.88	148.05	82.62-220.33
Aug	0.00	0.00	0-0	0.00	0.00	0-0	16.11	18.51	0-40.28
Sep	18.38	20.43	0-55.14	30.10	33.88	0-90.31	59.96	61.69	14.99-128.69
Oct	0.00	0.00	0-0.66	0.38	4.24	0-28.68	8.76	12.34	0-35.22
Nov	0.00	15.32	0-65.29	4.09	29.65	0-98.12	4.10	37.01	0-119.27
Dec	9.31	12.77	0-46.57	18.68	21.18	0-49.05	26.64	24.68	0-71.03

Table 13.3b. East Anglia TWO. Kittiwake design-based density estimates of birds on the sea surface including unidentified birds assigned using positively identified proportions.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.26	0.31	0.08-0.68	0.23	0.36	0.05-0.82	0.31	0.43	0.06-0.94
Feb	0.00	0.11	0-0.36	0.00	0.07	0-0.22	0.05	0.07	0-0.19
Mar	0.51	0.52	0.28-0.82	0.50	0.51	0.29-0.78	0.42	0.43	0.19-0.73
Apr	0.20	0.46	0-1.25	0.33	0.36	0-0.84	0.26	0.35	0.02-0.8
May	0.00	0.04	0-0.15	0.05	0.16	0-0.46	0.12	0.15	0-0.37
Jun	0.08	0.08	0-0.19	0.08	0.08	0-0.18	0.06	0.06	0.02-0.14
Jul	0.29	0.29	0.11-0.5	0.31	0.31	0.17-0.5	0.24	0.24	0.13-0.36
Aug	0.00	0.00	0-0	0.00	0.00	0-0	0.03	0.03	0-0.07
Sep	0.07	0.08	0-0.22	0.07	0.08	0-0.21	0.10	0.10	0.02-0.21
Oct	0.00	0.00	0-0	0.00	0.01	0-0.07	0.01	0.02	0-0.06
Nov	0.00	0.06	0-0.26	0.01	0.07	0-0.23	0.01	0.06	0-0.19
Dec	0.04	0.05	0-0.18	0.04	0.05	0-0.12	0.04	0.04	0-0.12

Table 14.1a. East Anglia TWO. Black-headed Gull design-based abundance estimates of birds in flight and on sea including unidentified birds assigned using positively identified proportions.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Feb	0.00	0.00	0-0.06	0.00	0.00	0-0.07	0.00	0.00	0-0
Mar	0.00	5.11	0-33.55	0.00	4.24	0-32.5	0.00	6.17	0-32.11
Apr	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
May	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jun	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jul	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Aug	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Sep	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Oct	0.00	0.00	0-0.1	0.00	0.00	0-0.12	0.00	0.00	0-0
Nov	27.05	84.27	0-225.07	46.77	101.64	0-260.73	57.03	111.04	0-284.12
Dec	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0

Table 14.1b. East Anglia TWO. Black-headed Gull design-based density estimates of birds in flight and on sea including unidentified birds assigned using positively identified proportions.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Feb	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Mar	0.00	0.02	0-0.13	0.00	0.01	0-0.08	0.00	0.01	0-0.05
Apr	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
May	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jun	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jul	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Aug	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Sep	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Oct	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Nov	0.11	0.33	0-0.88	0.11	0.24	0-0.62	0.09	0.18	0-0.46
Dec	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0

Table 14.2a. East Anglia TWO. Black-headed Gull design-based abundance estimates of birds in flight including unidentified birds assigned using positively identified proportions.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Feb	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Mar	0.00	5.11	0-30.95	0.00	4.24	0-31.24	0.00	6.17	0-31.03
Apr	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
May	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jun	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jul	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Aug	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Sep	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Oct	0.00	0.00	0-0.06	0.00	0.00	0-0.07	0.00	0.00	0-0
Nov	28.77	84.27	0-225.49	42.31	101.64	0-262.79	55.79	111.04	0-289.48
Dec	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0

Table 14.2b. East Anglia TWO. Black-headed Gull design-based density estimates of birds in flight including unidentified birds assigned using positively identified proportions.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.00	0.00	0-0	0.0	0.00	0-0	0.00	0.00	0-0
Feb	0.00	0.00	0-0	0.0	0.00	0-0	0.00	0.00	0-0
Mar	0.00	0.02	0-0.12	0.0	0.01	0-0.07	0.00	0.01	0-0.05
Apr	0.00	0.00	0-0	0.0	0.00	0-0	0.00	0.00	0-0
May	0.00	0.00	0-0	0.0	0.00	0-0	0.00	0.00	0-0
Jun	0.00	0.00	0-0	0.0	0.00	0-0	0.00	0.00	0-0
Jul	0.00	0.00	0-0	0.0	0.00	0-0	0.00	0.00	0-0
Aug	0.00	0.00	0-0	0.0	0.00	0-0	0.00	0.00	0-0
Sep	0.00	0.00	0-0	0.0	0.00	0-0	0.00	0.00	0-0
Oct	0.00	0.00	0-0	0.0	0.00	0-0	0.00	0.00	0-0
Nov	0.11	0.33	0-0.88	0.1	0.24	0-0.62	0.09	0.18	0-0.47
Dec	0.00	0.00	0-0	0.0	0.00	0-0	0.00	0.00	0-0

Table 14.3a. East Anglia TWO. Black-headed Gull design-based abundance estimates of birds on the sea surface including unidentified birds assigned using positively identified proportions.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0.00	0-0	0	0	0-0	0	0	0-0
Feb	0	0.00	0-0.06	0	0	0-0.07	0	0	0-0
Mar	0	2.55	0-4.56	0	0	0-2.51	0	0	0-2.16
Apr	0	0.00	0-0	0	0	0-0	0	0	0-0
May	0	0.00	0-0	0	0	0-0	0	0	0-0
Jun	0	0.00	0-0	0	0	0-0	0	0	0-0
Jul	0	0.00	0-0	0	0	0-0	0	0	0-0
Aug	0	0.00	0-0	0	0	0-0	0	0	0-0
Sep	0	0.00	0-0	0	0	0-0	0	0	0-0
Oct	0	0.00	0-0.06	0	0	0-0.07	0	0	0-0
Nov	0	0.00	0-0	0	0	0-0	0	0	0-6.41
Dec	0	0.00	0-0	0	0	0-0	0	0	0-0

Table 14.3b. East Anglia TWO. Black-headed Gull design-based density estimates of birds on the sea surface including unidentified birds assigned using positively identified proportions.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0.00	0-0	0	0	0-0	0	0	0-0
Feb	0	0.00	0-0	0	0	0-0	0	0	0-0
Mar	0	0.01	0-0.02	0	0	0-0.01	0	0	0-0
Apr	0	0.00	0-0	0	0	0-0	0	0	0-0
May	0	0.00	0-0	0	0	0-0	0	0	0-0
Jun	0	0.00	0-0	0	0	0-0	0	0	0-0
Jul	0	0.00	0-0	0	0	0-0	0	0	0-0
Aug	0	0.00	0-0	0	0	0-0	0	0	0-0
Sep	0	0.00	0-0	0	0	0-0	0	0	0-0
Oct	0	0.00	0-0	0	0	0-0	0	0	0-0
Nov	0	0.00	0-0	0	0	0-0	0	0	0-0.01
Dec	0	0.00	0-0	0	0	0-0	0	0	0-0

Table 15.1a. East Anglia TWO. Little Gull design-based abundance estimates of birds in flight and on sea including unidentified birds assigned using positively identified proportions.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Feb	0.00	0.00	0-0.03	0.00	0.00	0-0.05	0.00	0.00	0-0
Mar	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Apr	0.00	5.11	0-27.34	0.00	4.24	0-29.69	0.00	6.17	0-27.26
May	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jun	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jul	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Aug	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Sep	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Oct	0.00	0.00	0-0.05	0.00	0.00	0-0.08	0.00	6.17	0-26.28
Nov	23.83	38.31	0-111.53	62.19	72.00	0-166.92	78.77	92.53	0-224.27
Dec	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0

Table 15.1b. East Anglia TWO. Little Gull design-based density estimates of birds in flight and on sea including unidentified birds assigned using positively identified proportions.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Feb	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Mar	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Apr	0.00	0.02	0-0.11	0.00	0.01	0-0.07	0.00	0.01	0-0.04
May	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jun	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jul	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Aug	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Sep	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Oct	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.01	0-0.04
Nov	0.09	0.15	0-0.44	0.15	0.17	0-0.39	0.13	0.15	0-0.36
Dec	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0



Table 15.2a. East Anglia TWO. Little Gull design-based abundance estimates of birds in flight including unidentified birds assigned using positively identified proportions.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Feb	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Mar	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Apr	0.00	5.11	0-27.34	0.00	4.24	0-29.69	0.00	6.17	0-27.26
May	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jun	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jul	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Aug	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Sep	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Oct	0.00	0.00	0-0.03	0.00	0.00	0-0.05	0.00	6.17	0-26.28
Nov	24.93	35.75	0-99.75	61.13	67.76	8.73-160.39	72.29	92.53	8.03-215.78
Dec	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0

Table 15.2b. East Anglia TWO. Little Gull design-based density estimates of birds in flight including unidentified birds assigned using positively identified proportions.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.0	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Feb	0.0	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Mar	0.0	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Apr	0.0	0.02	0-0.11	0.00	0.01	0-0.07	0.00	0.01	0-0.04
May	0.0	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jun	0.0	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jul	0.0	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Aug	0.0	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Sep	0.0	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Oct	0.0	0.00	0-0	0.00	0.00	0-0	0.00	0.01	0-0.04
Nov	0.1	0.14	0-0.39	0.14	0.16	0.02-0.38	0.12	0.15	0.01-0.35
Dec	0.0	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0

Table 15.3a. East Anglia TWO. Little Gull design-based abundance estimates of birds on the sea surface including unidentified birds assigned using positively identified proportions.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Feb	0	0.00	0-0.03	0	0.00	0-0.05	0	0.00	0-0
Mar	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Apr	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
May	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Jun	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Jul	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Aug	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Sep	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Oct	0	0.00	0-0.03	0	0.00	0-0.05	0	0.00	0-0
Nov	0	5.11	0-24.49	0	4.24	0-24.53	0	6.17	0-26.18
Dec	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0

Table 15.3b. East Anglia TWO. Little Gull design-based density estimates of birds on the sea surface including unidentified birds assigned using positively identified proportions.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Feb	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Mar	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Apr	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
May	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Jun	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Jul	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Aug	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Sep	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Oct	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0
Nov	0	0.02	0-0.1	0	0.01	0-0.06	0	0.01	0-0.04
Dec	0	0.00	0-0	0	0.00	0-0	0	0.00	0-0

Table 16.1a. East Anglia TWO. Common Gull design-based abundance estimates of birds in flight and on sea including unidentified birds assigned using positively identified proportions.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0.00	0-0	0.00	4.24	0-31.53	0.00	12.34	0-57.75
Feb	0	0.00	0-0.01	0.00	0.00	0-0.02	21.84	24.68	0.72-70.61
Mar	0	5.11	0-33.38	0.00	4.24	0-32.53	13.05	18.51	0-53.52
Apr	0	5.11	0-27.34	0.00	4.24	0-29.69	0.00	6.17	0-27.26
May	0	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jun	0	0.00	0-0	0.00	0.00	0-0	9.74	12.34	0-29.23
Jul	0	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Aug	0	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Sep	0	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Oct	0	0.00	0-0.01	0.02	12.71	0-57.36	0.00	12.34	0-52.55
Nov	0	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Dec	0	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0

Table 16.1b. East Anglia TWO. Common Gull design-based density estimates of birds in flight and on sea including unidentified birds assigned using positively identified proportions.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0.00	0-0	0	0.01	0-0.07	0.00	0.02	0-0.09
Feb	0	0.00	0-0	0	0.00	0-0	0.04	0.04	0-0.11
Mar	0	0.02	0-0.13	0	0.01	0-0.08	0.02	0.03	0-0.09
Apr	0	0.02	0-0.11	0	0.01	0-0.07	0.00	0.01	0-0.04
May	0	0.00	0-0	0	0.00	0-0	0.00	0.00	0-0
Jun	0	0.00	0-0	0	0.00	0-0	0.02	0.02	0-0.05
Jul	0	0.00	0-0	0	0.00	0-0	0.00	0.00	0-0
Aug	0	0.00	0-0	0	0.00	0-0	0.00	0.00	0-0
Sep	0	0.00	0-0	0	0.00	0-0	0.00	0.00	0-0
Oct	0	0.00	0-0	0	0.03	0-0.14	0.00	0.02	0-0.09
Nov	0	0.00	0-0	0	0.00	0-0	0.00	0.00	0-0
Dec	0	0.00	0-0	0	0.00	0-0	0.00	0.00	0-0

Table 16.2a. East Anglia TWO. Common Gull design-based abundance estimates of birds in flight including unidentified birds assigned using positively identified proportions.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0.00	0-0	0	0.00	0-0	0.00	12.34	0-48.12
Feb	0	0.00	0-0	0	0.00	0-0	18.94	24.68	0-70.61
Mar	0	5.11	0-30.95	0	4.24	0-31.24	10.34	12.34	0-51.71
Apr	0	5.11	0-27.34	0	4.24	0-29.69	0.00	6.17	0-27.26
May	0	0.00	0-0	0	0.00	0-0	0.00	0.00	0-0
Jun	0	0.00	0-0	0	0.00	0-0	9.74	12.34	0-29.23
Jul	0	0.00	0-0	0	0.00	0-0	0.00	0.00	0-0
Aug	0	0.00	0-0	0	0.00	0-0	0.00	0.00	0-0
Sep	0	0.00	0-0	0	0.00	0-0	0.00	0.00	0-0
Oct	0	0.00	0-0.01	0	0.00	0-0.02	0.00	0.00	0-0
Nov	0	0.00	0-0	0	0.00	0-0	0.00	0.00	0-0
Dec	0	0.00	0-0	0	0.00	0-0	0.00	0.00	0-0

Table 16.2b. East Anglia TWO. Common Gull design-based density estimates of birds in flight including unidentified birds assigned using positively identified proportions.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0.00	0-0	0	0.00	0-0	0.00	0.02	0-0.08
Feb	0	0.00	0-0	0	0.00	0-0	0.03	0.04	0-0.11
Mar	0	0.02	0-0.12	0	0.01	0-0.07	0.02	0.02	0-0.08
Apr	0	0.02	0-0.11	0	0.01	0-0.07	0.00	0.01	0-0.04
May	0	0.00	0-0	0	0.00	0-0	0.00	0.00	0-0
Jun	0	0.00	0-0	0	0.00	0-0	0.02	0.02	0-0.05
Jul	0	0.00	0-0	0	0.00	0-0	0.00	0.00	0-0
Aug	0	0.00	0-0	0	0.00	0-0	0.00	0.00	0-0
Sep	0	0.00	0-0	0	0.00	0-0	0.00	0.00	0-0
Oct	0	0.00	0-0	0	0.00	0-0	0.00	0.00	0-0
Nov	0	0.00	0-0	0	0.00	0-0	0.00	0.00	0-0
Dec	0	0.00	0-0	0	0.00	0-0	0.00	0.00	0-0

Table 16.3a. East Anglia TWO. Common Gull design-based abundance estimates of birds on the sea surface including unidentified birds assigned using positively identified proportions.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0	0-0	0.00	4.24	0-31.53	0.00	6.17	0-28.87
Feb	0	0	0-0.01	0.00	0.00	0-0.02	1.45	6.17	0-17.53
Mar	0	0	0-4.27	0.00	0.00	0-2.56	0.00	0.00	0-4.51
Apr	0	0	0-0	0.00	0.00	0-0	0.00	0.00	0-0
May	0	0	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jun	0	0	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Jul	0	0	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Aug	0	0	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Sep	0	0	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Oct	0	0	0-0.01	0.02	12.71	0-57.36	0.00	12.34	0-52.55
Nov	0	0	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Dec	0	0	0-0	0.00	0.00	0-0	0.00	0.00	0-0

Table 16.3b. East Anglia TWO. Common Gull design-based density estimates of birds on the sea surface including unidentified birds assigned using positively identified proportions.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0	0-0	0	0.01	0-0.07	0	0.01	0-0.05
Feb	0	0	0-0	0	0.00	0-0	0	0.01	0-0.03
Mar	0	0	0-0.02	0	0.00	0-0.01	0	0.00	0-0.01
Apr	0	0	0-0	0	0.00	0-0	0	0.00	0-0
May	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Jun	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Jul	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Aug	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Sep	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Oct	0	0	0-0	0	0.03	0-0.14	0	0.02	0-0.09
Nov	0	0	0-0	0	0.00	0-0	0	0.00	0-0
Dec	0	0	0-0	0	0.00	0-0	0	0.00	0-0

Table 17.1a. East Anglia TWO. Lesser Black-backed Gull design-based abundance estimates of birds in flight and on sea including unidentified birds assigned using positively identified proportions.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.00	15.32	0-58.06	0.00	21.18	0-78.95	6.70	37.01	0-123.73
Feb	0.00	5.11	0-27.71	0.00	8.47	0-46.83	9.47	12.34	0-47.35
Mar	0.00	5.11	0-27.66	0.00	4.24	0-30.33	0.00	6.17	0-27.76
Apr	0.00	5.11	0-31.62	0.00	4.24	0-31.7	0.00	6.17	0-31.85
May	0.00	20.43	0-75.26	2.25	29.65	0-100.58	78.33	80.19	17.85-159.87
Jun	14.19	15.32	0-38.87	24.82	25.41	0-60.74	64.93	67.86	22.72-116.87
Jul	0.00	0.00	0-0	0.00	0.00	0-0	9.18	6.17	0-27.54
Aug	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Sep	0.00	28.09	0-91.89	0.00	33.88	0-120.41	29.98	43.18	0-128.69
Oct	0.00	0.00	0-0	0.00	12.71	0-57.36	16.97	24.68	0-61.31
Nov	0.00	0.00	0-0	0.00	0.00	0-0	0.00	6.17	0-24.6
Dec	0.00	0.00	0-0	0.00	4.24	0-29.43	18.22	24.68	0-74.74

Table 17.1b. East Anglia TWO. Lesser Black-backed Gull design-based density estimates of birds in flight and on sea including unidentified birds assigned using positively identified proportions.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.00	0.06	0-0.23	0.00	0.05	0-0.19	0.01	0.06	0-0.2
Feb	0.00	0.02	0-0.11	0.00	0.02	0-0.11	0.02	0.02	0-0.08
Mar	0.00	0.02	0-0.11	0.00	0.01	0-0.07	0.00	0.01	0-0.04
Apr	0.00	0.02	0-0.12	0.00	0.01	0-0.07	0.00	0.01	0-0.05
May	0.00	0.08	0-0.29	0.01	0.07	0-0.24	0.13	0.13	0.03-0.26
Jun	0.06	0.06	0-0.15	0.06	0.06	0-0.14	0.11	0.11	0.04-0.19
Jul	0.00	0.00	0-0	0.00	0.00	0-0	0.01	0.01	0-0.04
Aug	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Sep	0.00	0.11	0-0.36	0.00	0.08	0-0.28	0.05	0.07	0-0.21
Oct	0.00	0.00	0-0	0.00	0.03	0-0.14	0.03	0.04	0-0.1
Nov	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.01	0-0.04
Dec	0.00	0.00	0-0	0.00	0.01	0-0.07	0.03	0.04	0-0.12

Table 17.2a. East Anglia TWO. Lesser Black-backed Gull design-based abundance estimates of birds in flight including unidentified birds assigned using positively identified proportions.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.0	0.00	0-0	0.00	0.00	0-0	0.00	6.17	0-28.87
Feb	0.0	5.11	0-27.71	0.00	8.47	0-37.7	9.47	12.34	0-47.35
Mar	0.0	5.11	0-27.66	0.00	4.24	0-30.33	0.00	6.17	0-27.76
Apr	0.0	5.11	0-31.62	0.00	4.24	0-31.7	0.00	6.17	0-31.85
May	0.0	2.55	0-14.16	0.00	4.24	0-13.47	0.00	24.68	0-88.77
Jun	9.8	10.21	0-29.4	21.44	21.18	0-53.61	29.23	30.84	3.24-68.19
Jul	0.0	0.00	0-0	0.00	0.00	0-0	9.18	6.17	0-27.54
Aug	0.0	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Sep	0.0	10.21	0-36.99	0.00	16.94	0-60.2	0.00	12.34	0-55.15
Oct	0.0	0.00	0-0	0.00	0.00	0-0	0.00	6.17	0-25.46
Nov	0.0	0.00	0-0	0.00	0.00	0-0	0.00	6.17	0-24.6
Dec	0.0	0.00	0-0	0.00	4.24	0-29.43	0.00	6.17	0-26.64

Table 17.2b. East Anglia TWO. Lesser Black-backed Gull design-based density estimates of birds in flight including unidentified birds assigned using positively identified proportions.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.01	0-0.05
Feb	0.00	0.02	0-0.11	0.00	0.02	0-0.09	0.02	0.02	0-0.08
Mar	0.00	0.02	0-0.11	0.00	0.01	0-0.07	0.00	0.01	0-0.04
Apr	0.00	0.02	0-0.12	0.00	0.01	0-0.07	0.00	0.01	0-0.05
May	0.00	0.01	0-0.06	0.00	0.01	0-0.03	0.00	0.04	0-0.14
Jun	0.04	0.04	0-0.12	0.05	0.05	0-0.13	0.05	0.05	0.01-0.11
Jul	0.00	0.00	0-0	0.00	0.00	0-0	0.01	0.01	0-0.04
Aug	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Sep	0.00	0.04	0-0.14	0.00	0.04	0-0.14	0.00	0.02	0-0.09
Oct	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.01	0-0.04
Nov	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.01	0-0.04
Dec	0.00	0.00	0-0	0.00	0.01	0-0.07	0.00	0.01	0-0.04

Table 17.3a. East Anglia TWO. Lesser Black-backed Gull design-based abundance estimates of birds on the sea surface including unidentified birds assigned using positively identified proportions.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.00	15.32	0-58.06	0.00	25.41	0-84.05	4.47	37.01	0-109.64
Feb	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Mar	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Apr	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
May	0.00	17.88	0-70.54	4.49	25.41	0-96.97	53.56	55.52	17.85-103.56
Jun	4.73	5.11	0-14.19	7.05	8.47	0-21.15	29.23	30.84	3.24-68.19
Jul	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Aug	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Sep	0.00	17.88	0-64.33	0.00	21.18	0-80.27	22.48	30.84	0-91.92
Oct	0.00	0.00	0-0	0.00	12.71	0-57.36	0.00	18.51	0-70.07
Nov	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Dec	0.00	0.00	0-0	0.00	0.00	0-0	0.00	18.51	0-65.39

Table 17.3b. East Anglia TWO. Lesser Black-backed Gull design-based density estimates of birds on the sea surface including unidentified birds assigned using positively identified proportions.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.00	0.06	0-0.23	0.00	0.06	0-0.2	0.01	0.06	0-0.18
Feb	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Mar	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Apr	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
May	0.00	0.07	0-0.28	0.01	0.06	0-0.23	0.09	0.09	0.03-0.17
Jun	0.02	0.02	0-0.06	0.02	0.02	0-0.05	0.05	0.05	0.01-0.11
Jul	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Aug	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Sep	0.00	0.07	0-0.25	0.00	0.05	0-0.19	0.04	0.05	0-0.15
Oct	0.00	0.00	0-0	0.00	0.03	0-0.14	0.00	0.03	0-0.11
Nov	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Dec	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.03	0-0.11



Table 18.1a. East Anglia TWO. Herring Gull design-based abundance estimates of birds in flight and on sea including unidentified birds assigned using positively identified proportions.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.00	5.11	0-25.16	0.00	4.24	0-19.89	9.77	12.34	0-31.87
Feb	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Mar	0.00	0.00	0-0	0.00	4.24	0-31.24	27.76	37.01	0-111.02
Apr	0.00	0.00	0-0	0.00	0.00	0-0	0.00	12.34	0-42.46
May	0.00	0.00	0-0	0.00	0.00	0-0	0.00	12.34	0-53.56
Jun	14.87	15.32	0-39.54	14.39	12.71	0-39.51	41.13	43.18	10.81-86.58
Jul	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Aug	8.04	7.66	0-24.13	8.80	8.47	0-26.4	8.06	6.17	0-24.17
Sep	0.00	17.88	0-73.52	0.00	25.41	0-90.31	27.58	37.01	0-91.92
Oct	0.00	0.00	0-0	0.00	4.24	0-28.68	0.00	12.34	0-52.55
Nov	0.00	7.66	0-31.77	24.53	25.41	0-65.41	24.60	30.84	0-65.6
Dec	0.00	0.00	0-0	0.00	0.00	0-0	0.00	37.01	0-121.44

Table 18.1b. East Anglia TWO. Herring Gull design-based density estimates of birds in flight and on sea including unidentified birds assigned using positively identified proportions.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.00	0.02	0-0.1	0.00	0.01	0-0.05	0.02	0.02	0-0.05
Feb	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Mar	0.00	0.00	0-0	0.00	0.01	0-0.07	0.04	0.06	0-0.18
Apr	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.02	0-0.07
May	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.02	0-0.09
Jun	0.06	0.06	0-0.15	0.03	0.03	0-0.09	0.07	0.07	0.02-0.14
Jul	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Aug	0.03	0.03	0-0.09	0.02	0.02	0-0.06	0.01	0.01	0-0.04
Sep	0.00	0.07	0-0.29	0.00	0.06	0-0.21	0.04	0.06	0-0.15
Oct	0.00	0.00	0-0	0.00	0.01	0-0.07	0.00	0.02	0-0.09
Nov	0.00	0.03	0-0.12	0.06	0.06	0-0.15	0.04	0.05	0-0.11
Dec	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.06	0-0.2

Table 18.2a. East Anglia TWO. Herring Gull design-based abundance estimates of birds in flight including unidentified birds assigned using positively identified proportions.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0.00	0-0	0	0.00	0-0	0.00	6.17	0-28.87
Feb	0	0.00	0-0	0	0.00	0-0	0.00	0.00	0-0
Mar	0	0.00	0-0	0	0.00	0-0	0.00	6.17	0-27.76
Apr	0	0.00	0-0	0	0.00	0-0	0.00	6.17	0-31.85
May	0	0.00	0-0	0	0.00	0-0	0.00	0.00	0-0
Jun	0	0.00	0-0	0	0.00	0-0	2.16	0.00	0-6.49
Jul	0	0.00	0-0	0	0.00	0-0	0.00	0.00	0-0
Aug	0	0.00	0-0	0	0.00	0-0	0.00	0.00	0-0
Sep	0	10.21	0-36.76	0	16.94	0-60.2	0.00	12.34	0-55.15
Oct	0	0.00	0-0	0	0.00	0-0	0.00	0.00	0-0
Nov	0	0.00	0-0	0	4.24	0-24.53	8.03	6.17	0-24.6
Dec	0	0.00	0-0	0	0.00	0-0	0.00	0.00	0-0

Table 18.2b. East Anglia TWO. Herring Gull design-based density estimates of birds in flight including unidentified birds assigned using positively identified proportions.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0	0.00	0-0	0	0.00	0-0	0.00	0.01	0-0.05
Feb	0	0.00	0-0	0	0.00	0-0	0.00	0.00	0-0
Mar	0	0.00	0-0	0	0.00	0-0	0.00	0.01	0-0.04
Apr	0	0.00	0-0	0	0.00	0-0	0.00	0.01	0-0.05
May	0	0.00	0-0	0	0.00	0-0	0.00	0.00	0-0
Jun	0	0.00	0-0	0	0.00	0-0	0.00	0.00	0-0.01
Jul	0	0.00	0-0	0	0.00	0-0	0.00	0.00	0-0
Aug	0	0.00	0-0	0	0.00	0-0	0.00	0.00	0-0
Sep	0	0.04	0-0.14	0	0.04	0-0.14	0.00	0.02	0-0.09
Oct	0	0.00	0-0	0	0.00	0-0	0.00	0.00	0-0
Nov	0	0.00	0-0	0	0.01	0-0.06	0.01	0.01	0-0.04
Dec	0	0.00	0-0	0	0.00	0-0	0.00	0.00	0-0

Table 18.3a. East Anglia TWO. Herring Gull design-based abundance estimates of birds on the sea surface including unidentified birds assigned using positively identified proportions.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.00	2.55	0-15.09	0.00	4.24	0-14.83	4.47	6.17	0-14.65
Feb	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Mar	0.00	0.00	0-0	0.00	4.24	0-31.24	27.76	30.84	0-101.77
Apr	0.00	0.00	0-0	0.00	0.00	0-0	0.00	6.17	0-31.85
May	0.00	0.00	0-0	0.00	0.00	0-0	0.00	12.34	0-53.56
Jun	14.87	15.32	0-39.54	14.39	12.71	0-39.51	38.97	37.01	9.74-84.5
Jul	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Aug	8.04	7.66	0-24.13	8.80	8.47	0-26.4	8.06	6.17	0-24.17
Sep	0.00	10.21	0-45.95	0.00	8.47	0-40.14	18.38	18.51	0-55.15
Oct	0.00	0.00	0-0	0.00	4.24	0-28.68	0.00	12.34	0-52.55
Nov	0.00	7.66	0-39.71	17.46	21.18	0-49.06	16.40	18.51	0-49.2
Dec	0.00	0.00	0-0	0.00	0.00	0-0	4.67	37.01	0-121.44

Table 18.3b. East Anglia TWO. Herring Gull design-based density estimates of birds on the sea surface including unidentified birds assigned using positively identified proportions.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.00	0.01	0-0.06	0.00	0.01	0-0.04	0.01	0.01	0-0.02
Feb	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Mar	0.00	0.00	0-0	0.00	0.01	0-0.07	0.04	0.05	0-0.16
Apr	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.01	0-0.05
May	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.02	0-0.09
Jun	0.06	0.06	0-0.15	0.03	0.03	0-0.09	0.06	0.06	0.02-0.14
Jul	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Aug	0.03	0.03	0-0.09	0.02	0.02	0-0.06	0.01	0.01	0-0.04
Sep	0.00	0.04	0-0.18	0.00	0.02	0-0.09	0.03	0.03	0-0.09
Oct	0.00	0.00	0-0	0.00	0.01	0-0.07	0.00	0.02	0-0.09
Nov	0.00	0.03	0-0.16	0.04	0.05	0-0.12	0.03	0.03	0-0.08
Dec	0.00	0.00	0-0	0.00	0.00	0-0	0.01	0.06	0-0.2

Table 19.1a. East Anglia TWO. Great Black-backed Gull design-based abundance estimates of birds in flight and on sea including unidentified birds assigned using positively identified proportions.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	19.35	20.43	0-48.38	31.55	33.88	9.89-84.09	46.53	55.52	9.77-121.93
Feb	0.00	12.77	0-55.41	0.00	16.94	0-74.94	0.00	18.51	0-75.76
Mar	0.00	15.32	0-61.89	0.00	21.18	0-83.32	0.00	18.51	0-72.4
Apr	10.54	15.32	0-45.57	10.57	16.94	0-49.48	21.23	30.84	0-81.77
May	0.00	17.88	0-70.56	8.53	38.12	0-124.8	151.99	154.22	79.06-249.95
Jun	0.00	0.00	0-0	0.00	0.00	0-0	85.56	86.36	37.8-152.7
Jul	27.63	28.09	0-64.48	30.22	29.65	0-70.52	45.90	43.18	9.18-91.8
Aug	0.00	0.00	0-0	0.00	0.00	0-0	8.06	6.17	0-24.17
Sep	0.00	12.77	0-55.14	0.00	25.41	0-90.31	0.00	24.68	0-91.92
Oct	0.00	0.00	0-0	0.00	0.00	0-0	8.49	6.17	0-26.28
Nov	0.00	7.66	0-32.65	0.00	12.71	0-49.06	0.00	18.51	0-65.6
Dec	17.90	17.88	0-55.88	28.02	33.88	0-93.4	92.03	141.88	0-354.99

Table 19.1b. East Anglia TWO. Great Black-backed Gull design-based density estimates of birds in flight and on sea including unidentified birds assigned using positively identified proportions.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.08	0.08	0-0.19	0.07	0.08	0.02-0.2	0.08	0.09	0.02-0.2
Feb	0.00	0.05	0-0.22	0.00	0.04	0-0.18	0.00	0.03	0-0.12
Mar	0.00	0.06	0-0.24	0.00	0.05	0-0.2	0.00	0.03	0-0.12
Apr	0.04	0.06	0-0.18	0.02	0.04	0-0.12	0.03	0.05	0-0.13
May	0.00	0.07	0-0.28	0.02	0.09	0-0.29	0.25	0.25	0.13-0.41
Jun	0.00	0.00	0-0	0.00	0.00	0-0	0.14	0.14	0.06-0.25
Jul	0.11	0.11	0-0.25	0.07	0.07	0-0.17	0.07	0.07	0.01-0.15
Aug	0.00	0.00	0-0	0.00	0.00	0-0	0.01	0.01	0-0.04
Sep	0.00	0.05	0-0.22	0.00	0.06	0-0.21	0.00	0.04	0-0.15
Oct	0.00	0.00	0-0	0.00	0.00	0-0	0.01	0.01	0-0.04
Nov	0.00	0.03	0-0.13	0.00	0.03	0-0.12	0.00	0.03	0-0.11
Dec	0.07	0.07	0-0.22	0.07	0.08	0-0.22	0.15	0.23	0-0.58

Table 19.2a. East Anglia TWO. Great Black-backed Gull design-based abundance estimates of birds in flight including unidentified birds assigned using positively identified proportions.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.00	5.11	0-25.16	0.00	8.47	0-29.66	9.77	12.34	0-34.18
Feb	0.00	12.77	0-55.41	0.00	16.94	0-65.57	0.00	18.51	0-75.76
Mar	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Apr	0.00	5.11	0-31.62	0.00	4.24	0-31.7	9.09	12.34	0-36.34
May	0.00	12.77	0-46.98	0.00	12.71	0-53.35	34.35	37.01	8.83-71.41
Jun	0.00	0.00	0-0	0.00	0.00	0-0	43.31	43.18	9.74-82.28
Jul	27.63	28.09	0-64.48	30.22	29.65	0-60.45	45.90	43.18	9.18-91.8
Aug	0.00	0.00	0-0	0.00	0.00	0-0	8.06	6.17	0-24.17
Sep	0.00	12.77	0-55.14	0.00	16.94	0-60.2	0.00	18.51	0-64.35
Oct	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Nov	0.00	5.11	0-24.49	0.00	8.47	0-40.88	0.00	12.34	0-49.2
Dec	8.95	10.21	0-27.94	9.81	12.71	0-39.24	9.34	12.34	0-46.71

Table 19.2b. East Anglia TWO. Great Black-backed Gull design-based density estimates of birds in flight including unidentified birds assigned using positively identified proportions.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.00	0.02	0-0.1	0.00	0.02	0-0.07	0.02	0.02	0-0.06
Feb	0.00	0.05	0-0.22	0.00	0.04	0-0.15	0.00	0.03	0-0.12
Mar	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Apr	0.00	0.02	0-0.12	0.00	0.01	0-0.07	0.01	0.02	0-0.06
May	0.00	0.05	0-0.18	0.00	0.03	0-0.13	0.06	0.06	0.01-0.12
Jun	0.00	0.00	0-0	0.00	0.00	0-0	0.07	0.07	0.02-0.13
Jul	0.11	0.11	0-0.25	0.07	0.07	0-0.14	0.07	0.07	0.01-0.15
Aug	0.00	0.00	0-0	0.00	0.00	0-0	0.01	0.01	0-0.04
Sep	0.00	0.05	0-0.22	0.00	0.04	0-0.14	0.00	0.03	0-0.1
Oct	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Nov	0.00	0.02	0-0.1	0.00	0.02	0-0.1	0.00	0.02	0-0.08
Dec	0.04	0.04	0-0.11	0.02	0.03	0-0.09	0.02	0.02	0-0.08

Table 19.3a. East Anglia TWO. Great Black-backed Gull design-based abundance estimates of birds on the sea surface including unidentified birds assigned using positively identified proportions.

Month	Abundance								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	10.06	15.32	0-48.38	19.77	29.65	0-84.1	29.30	43.18	0-112.3
Feb	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Mar	0.00	15.32	0-61.89	0.00	21.18	0-72.9	0.00	18.51	0-72.4
Apr	0.00	10.21	0-45.57	0.00	8.47	0-49.48	0.00	18.51	0-72.69
May	0.00	10.21	0-37.54	2.84	25.41	0-89.51	117.64	123.38	53.56-205.32
Jun	0.00	0.00	0-0	0.00	0.00	0-0	42.25	43.18	9.74-90.99
Jul	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Aug	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Sep	0.00	0.00	0-0	0.00	8.47	0-40.14	0.00	6.17	0-37
Oct	0.00	0.00	0-0	0.00	0.00	0-0	8.49	6.17	0-26.28
Nov	0.00	5.11	0-24.49	0.00	4.24	0-24.53	0.00	6.17	0-24.6
Dec	0.00	10.21	0-46.57	0.00	16.94	0-74.72	46.71	123.38	0-336.31

Table 19.3b. East Anglia TWO. Great Black-backed Gull design-based density estimates of birds on the sea surface including unidentified birds assigned using positively identified proportions.

Month	Density								
	Windfarm			Windfarm & 2km buffer			Windfarm & 4km buffer		
	Median	Mean	Confidence interval	Median	Mean	Confidence interval	Median	Mean	Confidence interval
Jan	0.04	0.06	0-0.19	0.05	0.07	0-0.2	0.05	0.07	0-0.18
Feb	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Mar	0.00	0.06	0-0.24	0.00	0.05	0-0.17	0.00	0.03	0-0.12
Apr	0.00	0.04	0-0.18	0.00	0.02	0-0.12	0.00	0.03	0-0.12
May	0.00	0.04	0-0.15	0.01	0.06	0-0.21	0.19	0.20	0.09-0.33
Jun	0.00	0.00	0-0	0.00	0.00	0-0	0.07	0.07	0.02-0.15
Jul	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Aug	0.00	0.00	0-0	0.00	0.00	0-0	0.00	0.00	0-0
Sep	0.00	0.00	0-0	0.00	0.02	0-0.09	0.00	0.01	0-0.06
Oct	0.00	0.00	0-0	0.00	0.00	0-0	0.01	0.01	0-0.04
Nov	0.00	0.02	0-0.1	0.00	0.01	0-0.06	0.00	0.01	0-0.04
Dec	0.00	0.04	0-0.18	0.00	0.04	0-0.18	0.08	0.20	0-0.55



MacArthur Green

**East Anglia TWO Windfarm PEI**

**Appendix 12.1**

**Ornithology Technical Appendix**

**Annex 2**

**Survey seabird density and abundance**

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## **1 INTRODUCTION**

1. This appendix provides tables of seabird density and abundance for each species recorded in the East Anglia TWO aerial Survey Area in each survey.
2. The tables provide density and abundance estimates for species recorded in each of the 20 surveyed months available for the current assessment (November 2015 to April 2016, September 2016 to October 2017 and May 2018).
3. A key to the table numbering is provided in Table A2. Tables are presented for all birds (on the sea and in flight), in flight and on the sea separately. Tables are presented with and without the inclusion of birds not identified to species level (e.g. large gulls, etc) and for guillemot and razorbill, with and without adjustment for availability bias to account for the estimated proportion of individuals underwater when images were captured. Methods for assigning unidentified records and adjustment for availability bias are provided in Technical Appendix 12.1.
4. Monthly densities and abundances are summarised as the median and 95% confidence range, derived from 1,000 nonparametric bootstrap samples.

Table A2. Key to species density and abundance tables.

Species	All birds				In Flight		On Sea			
	Positive ID only	Plus availability bias	Plus unidentified	Plus availability bias and unidentified	Positive ID only	Plus unidentified	Positive ID only	Plus availability bias	Plus unidentified	Plus availability bias and unidentified
Red-throated diver	1.1				1.2		1.3			
Black-throated diver	2.1				2.2		2.3			
Great northern diver	3.1				3.2		3.3			
Fulmar	4.1				4.2		4.3			
Gannet	5.1				5.2		5.3			
Cormorant	6.1				6.2		6.3			
Shag	7.1				7.2		7.3			
Great skua	8.1				8.2		8.3			
Puffin	9.1				9.2		9.3			
Razorbill	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	10.10
Guillemot	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	11.10
Commic tern	12.1				12.2		12.3			
Kittiwake	13.1		13.2		13.3	13.4	13.5		13.6	
Black-headed gull	14.1		14.2		14.3	14.4	14.5		14.6	
Little gull	15.1		15.2		15.3	15.4	15.5		15.6	
Common gull	16.1		16.2		16.3	16.4	16.5		16.6	
Lesser black-backed gull	17.1		17.2		17.3	17.4	17.5		17.6	
Herring gull	18.1		18.2		18.3	18.4	18.5		18.6	
Great black-backed gull	19.1		19.2		19.3	19.4	19.5		19.6	

Table 1.1. East Anglia TWO. Red-throated Diver design based estimates of birds in flight and on sea.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	24.53	0-57.24	98.39	49.2-155.79	0.00	0-0	0.06	0-0.14	0.16	0.08-0.25
Dec-15	18.63	0-46.57	18.68	0-56.04	18.68	0-46.71	0.07	0-0.18	0.04	0-0.13	0.03	0-0.08
Jan-16	5.03	0-15.09	4.94	0-14.83	4.88	0-14.65	0.02	0-0.06	0.01	0-0.04	0.01	0-0.02
Feb-16	9.24	0-27.71	28.10	0-65.57	56.82	18.94-113.64	0.04	0-0.11	0.07	0-0.15	0.09	0.03-0.18
Mar-16	72.21	30.95-123.78	187.47	104.15-281.2	289.60	186.17-393.03	0.28	0.12-0.48	0.44	0.25-0.66	0.47	0.3-0.64
Apr-16	105.40	52.7-168.91	232.50	147.95-338.18	392.76	286.61-520.41	0.41	0.21-0.66	0.55	0.35-0.8	0.64	0.46-0.84
Sep-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	48.38	9.68-96.76	52.55	10.51-105.1	67.37	19.25-125.12	0.19	0.04-0.38	0.12	0.02-0.25	0.11	0.03-0.2
Feb-17	26.57	0-61.99	58.09	19.36-106.5	61.78	17.65-114.74	0.10	0-0.24	0.14	0.05-0.25	0.10	0.03-0.19
Mar-17	184.37	110.62-267.33	333.59	232.5-444.79	481.10	360.6-610.63	0.72	0.43-1.05	0.79	0.55-1.05	0.78	0.58-0.99
Apr-17	18.23	0-45.57	29.69	0-69.28	90.86	36.34-154.46	0.07	0-0.18	0.07	0-0.16	0.15	0.06-0.25
May-17	17.83	0-44.58	19.43	0-48.58	17.85	0-44.63	0.07	0-0.17	0.05	0-0.11	0.03	0-0.07
Jun-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	14.81	0-37.01	16.32	0-40.8	14.99	0-44.97	0.06	0-0.14	0.04	0-0.1	0.02	0-0.07
Oct-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-18	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0

Table 1.2. East Anglia TWO. Red-throated Diver design based estimates of birds in flight.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	21.08	0-52.7	21.14	0-52.84	21.23	0-53.08	0.08	0-0.21	0.05	0-0.12	0.03	0-0.09
Sep-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-17	9.22	0-27.66	10.11	0-40.44	9.25	0-27.76	0.04	0-0.11	0.02	0-0.1	0.01	0-0.04
Apr-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jun-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-18	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0

Table 1.3. East Anglia TWO. Red-throated Diver design based estimates of birds on the sea surface.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	24.53	0-57.24	98.39	49.2-155.79	0.00	0-0	0.06	0-0.14	0.16	0.08-0.25
Dec-15	18.63	0-46.57	18.68	0-46.93	18.68	0-46.71	0.07	0-0.18	0.04	0-0.11	0.03	0-0.08
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	9.24	0-27.71	28.10	0-65.57	56.82	18.94-104.17	0.04	0-0.11	0.07	0-0.15	0.09	0.03-0.17
Mar-16	72.21	20.63-123.78	187.47	104.15-281.2	289.60	196.26-403.38	0.28	0.08-0.48	0.44	0.25-0.66	0.47	0.32-0.65
Apr-16	84.32	31.62-147.56	211.36	126.82-306.48	371.53	254.76-488.56	0.33	0.12-0.58	0.50	0.3-0.72	0.60	0.41-0.79
Sep-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	48.38	9.68-96.76	52.55	10.51-105.1	67.37	19.25-125.12	0.19	0.04-0.38	0.12	0.02-0.25	0.11	0.03-0.2
Feb-17	26.57	0-61.99	58.09	19.36-106.5	61.78	17.65-105.91	0.10	0-0.24	0.14	0.05-0.25	0.10	0.03-0.17
Mar-17	175.15	101.4-258.11	323.48	222.4-434.68	471.85	351.58-601.38	0.69	0.4-1.01	0.76	0.53-1.03	0.76	0.57-0.97
Apr-17	18.23	0-45.57	29.69	0-59.63	90.86	36.34-154.46	0.07	0-0.18	0.07	0-0.14	0.15	0.06-0.25
May-17	17.83	0-44.58	19.43	0-48.58	17.85	0-44.63	0.07	0-0.17	0.05	0-0.11	0.03	0-0.07
Jun-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	14.81	0-37.01	16.32	0-40.8	14.99	0-37.47	0.06	0-0.14	0.04	0-0.1	0.02	0-0.06
Oct-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-18	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0

Table 2.1. East Anglia TWO. Black-throated Diver design based estimates of birds in flight and on sea.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
Dec-15	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
Jan-16	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
Feb-16	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
Mar-16	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
Apr-16	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
Sep-16	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
Oct-16	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
Nov-16	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
Dec-16	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
Jan-17	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
Feb-17	0	0-0	0	0-0	8.83	0-26.48	0	0-0	0	0-0	0.01	0-0.04
Mar-17	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
Apr-17	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
May-17	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
Jun-17	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
Jul-17	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
Aug-17	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
Sep-17	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
Oct-17	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
May-18	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0

Table 2.2. East Anglia TWO. Black-throated Diver design based estimates of birds in flight.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Dec-15	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Jan-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Feb-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Mar-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Apr-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Sep-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Oct-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Nov-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Dec-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Jan-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Feb-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Mar-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Apr-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
May-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Jun-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Jul-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Aug-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Sep-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Oct-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
May-18	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0

Table 2.3. East Anglia TWO. Black-throated Diver design based estimates of birds on the sea surface.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
Dec-15	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
Jan-16	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
Feb-16	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
Mar-16	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
Apr-16	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
Sep-16	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
Oct-16	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
Nov-16	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
Dec-16	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
Jan-17	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
Feb-17	0	0-0	0	0-0	8.83	0-26.48	0	0-0	0	0-0	0.01	0-0.04
Mar-17	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
Apr-17	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
May-17	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
Jun-17	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
Jul-17	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
Aug-17	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
Sep-17	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
Oct-17	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0
May-18	0	0-0	0	0-0	0.00	0-0	0	0-0	0	0-0	0.00	0-0



Table 3.1. East Anglia TWO. Great Northern Diver design based estimates of birds in flight and on sea.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Dec-15	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Jan-16	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Feb-16	0	0-0	0.00	0-0	9.47	0-28.41	0	0-0	0.00	0-0	0.02	0-0.05
Mar-16	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Apr-16	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Sep-16	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Oct-16	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Nov-16	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Dec-16	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Jan-17	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Feb-17	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Mar-17	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Apr-17	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
May-17	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Jun-17	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Jul-17	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Aug-17	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Sep-17	0	0-0	8.16	0-24.48	7.49	0-22.48	0	0-0	0.02	0-0.06	0.01	0-0.04
Oct-17	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
May-18	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0

Table 3.2. East Anglia TWO. Great Northern Diver design based estimates of birds in flight.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Dec-15	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Jan-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Feb-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Mar-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Apr-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Sep-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Oct-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Nov-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Dec-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Jan-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Feb-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Mar-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Apr-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
May-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Jun-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Jul-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Aug-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Sep-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Oct-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
May-18	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0

Table 3.3. East Anglia TWO. Great Northern Diver design based estimates of birds on the sea surface.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Dec-15	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Jan-16	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Feb-16	0	0-0	0.00	0-0	9.47	0-28.41	0	0-0	0.00	0-0	0.02	0-0.05
Mar-16	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Apr-16	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Sep-16	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Oct-16	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Nov-16	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Dec-16	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Jan-17	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Feb-17	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Mar-17	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Apr-17	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
May-17	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Jun-17	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Jul-17	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Aug-17	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Sep-17	0	0-0	8.16	0-24.48	7.49	0-22.48	0	0-0	0.02	0-0.06	0.01	0-0.04
Oct-17	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
May-18	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0

Table 4.1. East Anglia TWO. Fulmar design based estimates of birds in flight and on sea.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	8.16	0-24.49	24.53	0-57.24	24.60	0-57.4	0.03	0-0.1	0.06	0-0.14	0.04	0-0.09
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	5.03	0-15.09	4.94	0-14.83	9.77	0-24.42	0.02	0-0.06	0.01	0-0.04	0.02	0-0.04
Feb-16	27.71	0-64.65	28.10	0-65.57	47.35	9.47-94.7	0.11	0-0.25	0.07	0-0.15	0.08	0.02-0.15
Mar-16	30.95	0-72.21	135.39	72.9-208.3	206.86	124.12-300.2	0.12	0-0.28	0.32	0.17-0.49	0.34	0.2-0.49
Apr-16	147.56	73.78-221.61	169.09	95.11-253.64	191.07	106.15-286.61	0.58	0.29-0.87	0.40	0.22-0.6	0.31	0.17-0.46
Sep-16	36.76	9.19-73.52	60.20	20.07-110.37	73.54	27.58-128.69	0.14	0.04-0.29	0.14	0.05-0.26	0.12	0.04-0.21
Oct-16	0.00	0-0	9.25	0-27.76	76.37	25.46-127.29	0.00	0-0	0.02	0-0.07	0.12	0.04-0.21
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	0.00	0-0	8.88	0-26.64	0.00	0-0	0.00	0-0	0.01	0-0.04
Jan-17	29.03	0-67.73	31.53	0-73.57	86.62	38.5-144.37	0.11	0-0.27	0.07	0-0.17	0.14	0.06-0.23
Feb-17	0.00	0-0	9.68	0-29.05	35.30	8.83-70.61	0.00	0-0	0.02	0-0.07	0.06	0.01-0.11
Mar-17	18.44	0-46.09	50.54	10.11-101.09	129.53	74.02-194.52	0.07	0-0.18	0.12	0.02-0.24	0.21	0.12-0.32
Apr-17	27.34	0-63.8	49.48	9.9-89.07	45.43	9.09-90.86	0.11	0-0.25	0.12	0.02-0.21	0.07	0.01-0.15
May-17	8.92	0-26.75	9.72	0-29.15	44.63	8.93-89.27	0.03	0-0.1	0.02	0-0.07	0.07	0.01-0.14
Jun-17	9.80	0-29.4	21.44	0-53.61	58.45	9.74-107.16	0.04	0-0.12	0.05	0-0.13	0.09	0.02-0.17
Jul-17	0.00	0-0	20.15	0-50.37	18.36	0-45.9	0.00	0-0	0.05	0-0.12	0.03	0-0.07
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	37.01	7.4-74.03	40.80	8.16-81.6	67.45	29.98-112.42	0.14	0.03-0.29	0.10	0.02-0.19	0.11	0.05-0.18
Oct-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-18	18.79	0-46.98	40.70	10.18-81.4	103.29	46.95-169.03	0.07	0-0.18	0.10	0.02-0.19	0.17	0.08-0.27

Table 4.2. East Anglia TWO. Fulmar design based estimates of birds in flight.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	16.35	0-40.88	16.40	0-41	0.00	0-0	0.04	0-0.1	0.03	0-0.07
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	27.71	0-55.64	28.10	0-65.57	28.41	0-66.29	0.11	0-0.22	0.07	0-0.15	0.05	0-0.11
Mar-16	10.32	0-30.95	10.41	0-31.24	62.06	20.69-113.77	0.04	0-0.12	0.02	0-0.07	0.10	0.03-0.18
Apr-16	42.16	10.54-84.32	42.27	10.3-84.81	53.08	10.62-106.15	0.17	0.04-0.33	0.10	0.02-0.2	0.09	0.02-0.17
Sep-16	0.00	0-0	0.00	0-0	18.38	0-45.96	0.00	0-0	0.00	0-0	0.03	0-0.07
Oct-16	0.00	0-0	9.25	0-27.76	59.40	16.97-101.83	0.00	0-0	0.02	0-0.07	0.10	0.03-0.17
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	0.00	0-0	0.00	0-0	9.62	0-28.87	0.00	0-0	0.00	0-0	0.02	0-0.05
Feb-17	0.00	0-0	9.68	0-29.05	26.48	0-61.78	0.00	0-0	0.02	0-0.07	0.04	0-0.1
Mar-17	0.00	0-0	20.22	0-50.54	18.50	0-46.26	0.00	0-0	0.05	0-0.12	0.03	0-0.07
Apr-17	27.34	0-63.8	29.69	0-69.28	27.26	0-63.6	0.11	0-0.25	0.07	0-0.16	0.04	0-0.1
May-17	0.00	0-0	0.00	0-0	26.78	0-62.49	0.00	0-0	0.00	0-0	0.04	0-0.1
Jun-17	0.00	0-0	10.72	0-32.16	29.23	0-68.19	0.00	0-0	0.03	0-0.08	0.05	0-0.11
Jul-17	0.00	0-0	10.07	0-30.48	9.18	0-27.54	0.00	0-0	0.02	0-0.07	0.01	0-0.04
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	22.21	0-51.82	24.48	0-57.12	29.98	7.49-60.14	0.09	0-0.2	0.06	0-0.13	0.05	0.01-0.1
Oct-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-18	0.00	0-0	0.00	0-0	18.78	0-46.95	0.00	0-0	0.00	0-0	0.03	0-0.08

Table 4.3. East Anglia TWO. Fulmar design based estimates of birds on the sea surface.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	8.16	0-24.49	8.18	0-24.53	8.20	0-24.6	0.03	0-0.1	0.02	0-0.06	0.01	0-0.04
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	5.03	0-15.09	4.94	0-14.83	9.77	0-24.42	0.02	0-0.06	0.01	0-0.04	0.02	0-0.04
Feb-16	0.00	0-0	0.00	0-0	18.94	0-47.35	0.00	0-0	0.00	0-0	0.03	0-0.08
Mar-16	20.63	0-51.58	124.98	52.07-197.88	144.80	72.4-217.2	0.08	0-0.2	0.30	0.12-0.47	0.23	0.12-0.35
Apr-16	105.40	52.7-168.64	126.82	63.41-200.8	138.00	74.31-212.3	0.41	0.21-0.66	0.30	0.15-0.47	0.22	0.12-0.34
Sep-16	36.76	9.19-73.52	60.20	20.07-110.37	55.15	18.38-101.12	0.14	0.04-0.29	0.14	0.05-0.26	0.09	0.03-0.16
Oct-16	0.00	0-0	0.00	0-0	16.97	0-42.43	0.00	0-0	0.00	0-0	0.03	0-0.07
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	0.00	0-0	8.88	0-26.64	0.00	0-0	0.00	0-0	0.01	0-0.04
Jan-17	29.03	0-67.73	31.53	0-73.57	77.00	28.87-134.74	0.11	0-0.27	0.07	0-0.17	0.12	0.05-0.22
Feb-17	0.00	0-0	0.00	0-0	8.83	0-26.48	0.00	0-0	0.00	0-0	0.01	0-0.04
Mar-17	18.44	0-46.09	30.33	0-70.76	111.02	55.51-175.79	0.07	0-0.18	0.07	0-0.17	0.18	0.09-0.28
Apr-17	0.00	0-0	19.79	0-49.48	18.17	0-45.43	0.00	0-0	0.05	0-0.12	0.03	0-0.07
May-17	8.92	0-26.75	9.72	0-29.15	17.85	0-44.63	0.03	0-0.1	0.02	0-0.07	0.03	0-0.07
Jun-17	9.80	0-29.4	10.72	0-32.16	29.23	0-68.19	0.04	0-0.12	0.03	0-0.08	0.05	0-0.11
Jul-17	0.00	0-0	10.07	0-30.22	9.18	0-27.54	0.00	0-0	0.02	0-0.07	0.01	0-0.04
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	14.81	0-37.01	16.32	0-40.8	37.47	7.49-74.95	0.06	0-0.14	0.04	0-0.1	0.06	0.01-0.12
Oct-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-18	18.79	0-46.98	40.70	10.18-81.4	84.51	37.56-140.85	0.07	0-0.18	0.10	0.02-0.19	0.14	0.06-0.23

Table 5.1. East Anglia TWO. Gannet design based estimates of birds in flight and on sea.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	1167.12	1020.21-1322.19	1635.35	1455.47-1823.42	2107.26	1893.86-2336.84	4.57	4-5.18	3.86	3.44-4.31	3.42	3.07-3.79
Dec-15	279.42	186.28-372.79	457.67	336.25-569.76	906.16	737.78-1074.32	1.09	0.73-1.46	1.08	0.79-1.35	1.47	1.2-1.74
Jan-16	15.09	0-35.22	19.77	4.94-44.49	24.42	4.88-48.84	0.06	0-0.14	0.05	0.01-0.11	0.04	0.01-0.08
Feb-16	0.00	0-0	9.37	0-28.1	18.94	0-47.35	0.00	0-0	0.02	0-0.07	0.03	0-0.08
Mar-16	0.00	0-0	0.00	0-0	41.37	10.34-82.74	0.00	0-0	0.00	0-0	0.07	0.02-0.13
Apr-16	0.00	0-0	10.57	0-31.7	21.23	0-53.08	0.00	0-0	0.02	0-0.07	0.03	0-0.09
Sep-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-16	42.32	8.46-84.64	46.27	9.25-83.28	229.12	144.26-314.19	0.17	0.03-0.33	0.11	0.02-0.2	0.37	0.23-0.51
Nov-16	119.13	63.54-174.73	192.11	122.04-270.7	377.51	281.13-481.93	0.47	0.25-0.68	0.45	0.29-0.64	0.61	0.46-0.78
Dec-16	8.95	0-26.85	19.62	0-49.05	35.52	8.88-71.26	0.04	0-0.11	0.05	0-0.12	0.06	0.01-0.12
Jan-17	9.68	0-29.03	10.51	0-31.53	38.50	9.62-77	0.04	0-0.11	0.02	0-0.07	0.06	0.02-0.12
Feb-17	17.71	0-44.28	19.36	0-48.41	17.65	0-52.96	0.07	0-0.17	0.05	0-0.11	0.03	0-0.09
Mar-17	18.44	0-46.09	20.22	0-60.65	18.50	0-46.26	0.07	0-0.18	0.05	0-0.14	0.03	0-0.07
Apr-17	36.46	9.11-72.91	49.48	9.9-98.97	45.43	9.09-90.86	0.14	0.04-0.29	0.12	0.02-0.23	0.07	0.01-0.15
May-17	8.92	0-26.75	19.43	0-48.58	17.85	0-44.63	0.03	0-0.1	0.05	0-0.11	0.03	0-0.07
Jun-17	9.80	0-29.4	10.72	0-32.16	9.74	0-29.23	0.04	0-0.12	0.03	0-0.08	0.02	0-0.05
Jul-17	18.42	0-46.05	40.30	10.07-80.6	73.44	27.54-128.52	0.07	0-0.18	0.10	0.02-0.19	0.12	0.04-0.21
Aug-17	144.80	80.44-209.15	158.37	87.99-228.76	177.22	112.58-249.72	0.57	0.32-0.82	0.37	0.21-0.54	0.29	0.18-0.4
Sep-17	51.82	14.81-96.24	97.92	40.8-163.2	112.42	59.96-165.07	0.20	0.06-0.38	0.23	0.1-0.39	0.18	0.1-0.27
Oct-17	95.47	43.4-156.22	258.10	172.07-363.25	332.82	236.48-446.68	0.37	0.17-0.61	0.61	0.41-0.86	0.54	0.38-0.72
May-18	18.79	0-46.98	61.05	20.35-111.93	56.34	18.78-103.53	0.07	0-0.18	0.14	0.05-0.26	0.09	0.03-0.17

Table 5.2. East Anglia TWO. Gannet design based estimates of birds in flight.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	603.97	489.7-718.23	809.50	662.32-964.86	1065.93	901.73-1238.11	2.37	1.92-2.81	1.91	1.56-2.28	1.73	1.46-2.01
Dec-15	139.71	74.51-214.22	242.85	158.78-336.48	317.62	214.86-429.73	0.55	0.29-0.84	0.57	0.37-0.79	0.51	0.35-0.7
Jan-16	15.09	0-35.22	19.77	0-39.54	24.42	4.88-48.84	0.06	0-0.14	0.05	0-0.09	0.04	0.01-0.08
Feb-16	0.00	0-0	9.37	0-28.1	9.47	0-28.41	0.00	0-0	0.02	0-0.07	0.02	0-0.05
Mar-16	0.00	0-0	0.00	0-0	41.37	10.34-82.74	0.00	0-0	0.00	0-0	0.07	0.02-0.13
Apr-16	0.00	0-0	10.57	0-31.7	10.62	0-42.46	0.00	0-0	0.02	0-0.07	0.02	0-0.07
Sep-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-16	42.32	8.46-84.64	46.27	9.25-92.53	84.86	42.43-135.77	0.17	0.03-0.33	0.11	0.02-0.22	0.14	0.07-0.22
Nov-16	79.42	39.71-127.07	139.72	78.59-209.58	265.06	184.74-353.42	0.31	0.16-0.5	0.33	0.19-0.49	0.43	0.3-0.57
Dec-16	8.95	0-26.85	19.62	0-49.05	35.52	8.88-79.91	0.04	0-0.11	0.05	0-0.12	0.06	0.01-0.13
Jan-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-17	17.71	0-44.28	19.36	0-48.41	17.65	0-44.13	0.07	0-0.17	0.05	0-0.11	0.03	0-0.07
Mar-17	18.44	0-46.09	20.22	0-50.54	18.50	0-46.26	0.07	0-0.18	0.05	0-0.12	0.03	0-0.07
Apr-17	18.23	0-45.57	29.69	0-59.38	27.26	0-63.6	0.07	0-0.18	0.07	0-0.14	0.04	0-0.1
May-17	8.92	0-26.75	19.43	0-48.58	17.85	0-44.63	0.03	0-0.1	0.05	0-0.11	0.03	0-0.07
Jun-17	9.80	0-29.4	10.72	0-42.89	9.74	0-29.23	0.04	0-0.12	0.03	0-0.1	0.02	0-0.05
Jul-17	9.21	0-27.63	20.15	0-50.37	45.90	9.18-91.8	0.04	0-0.11	0.05	0-0.12	0.07	0.01-0.15
Aug-17	136.75	72.4-201.11	149.58	87.99-219.97	161.11	96.67-233.61	0.54	0.28-0.79	0.35	0.21-0.52	0.26	0.16-0.38
Sep-17	29.61	7.4-59.22	65.28	24.48-114.24	82.44	37.47-134.9	0.12	0.03-0.23	0.15	0.06-0.27	0.13	0.06-0.22
Oct-17	78.11	26.04-130.19	143.39	76.47-219.86	201.45	122.62-289.03	0.31	0.1-0.51	0.34	0.18-0.52	0.33	0.2-0.47
May-18	0.00	0-0	20.35	0-50.88	18.78	0-46.95	0.00	0-0	0.05	0-0.12	0.03	0-0.08



Table 5.3. East Anglia TWO. Gannet design based estimates of birds on the sea surface.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	563.16	440.53-685.58	825.85	678.67-973.04	1041.33	877.34-1205.32	2.21	1.73-2.68	1.95	1.6-2.3	1.69	1.42-1.95
Dec-15	139.71	74.51-214.22	214.83	140.1-308.23	588.54	457.75-747.35	0.55	0.29-0.84	0.51	0.33-0.73	0.95	0.74-1.21
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	9.47	0-28.41	0.00	0-0	0.00	0-0	0.02	0-0.05
Mar-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	0.00	0-0	0.00	0-0	10.62	0-31.85	0.00	0-0	0.00	0-0	0.02	0-0.05
Sep-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-16	0.00	0-0	0.00	0-0	144.26	76.37-220.63	0.00	0-0	0.00	0-0	0.23	0.12-0.36
Nov-16	39.71	7.94-71.48	52.39	17.46-96.06	112.45	56.23-176.71	0.16	0.03-0.28	0.12	0.04-0.23	0.18	0.09-0.29
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	9.68	0-29.03	10.51	0-31.53	38.50	9.62-77	0.04	0-0.11	0.02	0-0.07	0.06	0.02-0.12
Feb-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-17	18.23	0-45.57	19.79	0-49.48	18.17	0-45.43	0.07	0-0.18	0.05	0-0.12	0.03	0-0.07
May-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jun-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	9.21	0-27.63	20.15	0-50.37	27.54	0-64.26	0.04	0-0.11	0.05	0-0.12	0.04	0-0.1
Aug-17	8.04	0-24.13	8.80	0-26.4	16.11	0-40.28	0.03	0-0.09	0.02	0-0.06	0.03	0-0.07
Sep-17	22.21	0-51.82	32.64	8.16-65.28	29.98	7.49-59.96	0.09	0-0.2	0.08	0.02-0.15	0.05	0.01-0.1
Oct-17	17.36	0-43.4	114.71	57.36-181.63	131.38	70.07-192.69	0.07	0-0.17	0.27	0.14-0.43	0.21	0.11-0.31
May-18	18.79	0-46.98	40.70	10.18-81.4	37.56	9.39-75.12	0.07	0-0.18	0.10	0.02-0.19	0.06	0.02-0.12

Table 6.1. East Anglia TWO. Cormorant design based estimates of birds in flight and on sea.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	9.24	0-27.71	9.37	0-28.1	9.47	0-28.41	0.04	0-0.11	0.02	0-0.07	0.02	0-0.05
Mar-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jun-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-18	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0

Table 6.2. East Anglia TWO. Cormorant design based estimates of birds in flight.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	9.24	0-27.71	9.37	0-28.1	9.47	0-37.88	0.04	0-0.11	0.02	0-0.07	0.02	0-0.06
Mar-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jun-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-18	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0

Table 6.3. East Anglia TWO. Cormorant design based estimates of birds on the sea surface.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Dec-15	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Jan-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Feb-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Mar-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Apr-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Sep-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Oct-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Nov-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Dec-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Jan-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Feb-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Mar-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Apr-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
May-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Jun-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Jul-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Aug-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Sep-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Oct-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
May-18	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0

Table 7.1. East Anglia TWO. Shag design based estimates of birds in flight and on sea.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
Dec-15	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
Jan-16	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
Feb-16	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
Mar-16	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
Apr-16	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
Sep-16	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
Oct-16	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
Nov-16	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
Dec-16	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
Jan-17	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
Feb-17	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
Mar-17	0	0-0	10.11	0-30.33	18.5	0-46.26	0	0-0	0.02	0-0.07	0.03	0-0.07
Apr-17	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
May-17	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
Jun-17	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
Jul-17	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
Aug-17	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
Sep-17	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
Oct-17	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
May-18	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0

Table 7.2. East Anglia TWO. Shag design based estimates of birds in flight.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Dec-15	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Jan-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Feb-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Mar-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Apr-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Sep-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Oct-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Nov-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Dec-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Jan-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Feb-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Mar-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Apr-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
May-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Jun-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Jul-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Aug-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Sep-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Oct-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
May-18	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0

Table 7.3. East Anglia TWO. Shag design based estimates of birds on the sea surface.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
Dec-15	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
Jan-16	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
Feb-16	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
Mar-16	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
Apr-16	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
Sep-16	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
Oct-16	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
Nov-16	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
Dec-16	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
Jan-17	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
Feb-17	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
Mar-17	0	0-0	10.11	0-30.33	18.5	0-46.26	0	0-0	0.02	0-0.07	0.03	0-0.07
Apr-17	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
May-17	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
Jun-17	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
Jul-17	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
Aug-17	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
Sep-17	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
Oct-17	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0
May-18	0	0-0	0.00	0-0	0.0	0-0	0	0-0	0.00	0-0	0.00	0-0

Table 8.1. East Anglia TWO. Great Skua design based estimates of birds in flight and on sea.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	10.54	0-31.62	10.57	0-31.7	10.62	0-31.85	0.04	0-0.12	0.02	0-0.07	0.02	0-0.05
Sep-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jun-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	8.68	0-26.04	9.56	0-28.68	17.52	0-43.79	0.03	0-0.1	0.02	0-0.07	0.03	0-0.07
May-18	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0



Table 8.2. East Anglia TWO. Great Skua design based estimates of birds in flight.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	10.54	0-31.62	10.57	0-42.27	10.62	0-31.85	0.04	0-0.12	0.02	0-0.1	0.02	0-0.05
Sep-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jun-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	8.68	0-26.25	9.56	0-38.24	17.52	0-43.79	0.03	0-0.1	0.02	0-0.09	0.03	0-0.07
May-18	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0

Table 8.3. East Anglia TWO. Great Skua design based estimates of birds on the sea surface.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Dec-15	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Jan-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Feb-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Mar-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Apr-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Sep-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Oct-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Nov-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Dec-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Jan-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Feb-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Mar-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Apr-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
May-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Jun-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Jul-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Aug-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Sep-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Oct-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
May-18	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0

Table 9.1. East Anglia TWO. Puffin design based estimates of birds in flight and on sea.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-17	27.34	0-63.8	29.69	0-69.28	27.26	0-63.6	0.11	0-0.25	0.07	0-0.16	0.04	0-0.1
May-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jun-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-18	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0

Table 9.2. East Anglia TWO. Puffin design based estimates of birds in flight.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Dec-15	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Jan-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Feb-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Mar-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Apr-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Sep-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Oct-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Nov-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Dec-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Jan-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Feb-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Mar-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Apr-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
May-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Jun-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Jul-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Aug-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Sep-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Oct-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
May-18	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0

Table 9.3. East Anglia TWO. Puffin design based estimates of birds on the sea surface.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-17	27.34	0-63.8	29.69	0-69.28	27.26	0-63.6	0.11	0-0.25	0.07	0-0.16	0.04	0-0.1
May-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jun-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-18	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0

Table 10.1. East Anglia TWO. Razorbill design based estimates of birds in flight and on sea.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-16	18.38	0-45.95	50.17	10.03-100.34	82.73	36.77-147.08	0.07	0-0.18	0.12	0.02-0.24	0.13	0.06-0.24
Oct-16	0.00	0-0	0.00	0-0	8.49	0-25.46	0.00	0-0	0.00	0-0	0.01	0-0.04
Nov-16	15.88	0-39.71	43.66	8.73-87.32	56.23	16.06-104.42	0.06	0-0.16	0.10	0.02-0.21	0.09	0.03-0.17
Dec-16	0.00	0-0	0.00	0-0	221.98	142.07-310.78	0.00	0-0	0.00	0-0	0.36	0.23-0.5
Jan-17	135.47	77.41-203.2	241.73	147.14-336.59	259.86	173.24-365.73	0.53	0.3-0.8	0.57	0.35-0.79	0.42	0.28-0.59
Feb-17	35.42	8.86-70.85	38.73	9.68-87.14	141.21	70.61-211.82	0.14	0.03-0.28	0.09	0.02-0.21	0.23	0.11-0.34
Mar-17	46.09	9.22-92.18	121.31	50.54-192.07	148.03	83.04-222.05	0.18	0.04-0.36	0.29	0.12-0.45	0.24	0.13-0.36
Apr-17	191.39	118.25-273.42	475.04	346.38-603.95	608.74	463.37-754.11	0.75	0.46-1.07	1.12	0.82-1.43	0.99	0.75-1.22
May-17	0.00	0-0	9.72	0-29.15	17.85	0-44.63	0.00	0-0	0.02	0-0.07	0.03	0-0.07
Jun-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	36.84	0-73.69	70.52	29.97-130.97	137.70	73.44-220.33	0.14	0-0.29	0.17	0.07-0.31	0.22	0.12-0.36
Aug-17	0.00	0-0	17.60	0-43.99	40.28	8.06-80.55	0.00	0-0	0.04	0-0.1	0.07	0.01-0.13
Sep-17	29.61	7.4-59.22	40.80	8.16-81.6	67.45	22.48-119.91	0.12	0.03-0.23	0.10	0.02-0.19	0.11	0.04-0.19
Oct-17	34.72	8.68-69.43	86.03	38.24-143.39	166.41	104.88-245.24	0.14	0.03-0.27	0.20	0.09-0.34	0.27	0.17-0.4
May-18	46.98	9.4-93.96	50.88	10.18-101.75	75.12	28.17-131.46	0.18	0.04-0.37	0.12	0.02-0.24	0.12	0.05-0.21

Table 10.2. East Anglia TWO. Razorbill design based estimates of birds in flight and on sea and accounting for availability bias.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-16	22.14	0-55.36	60.45	12.09-120.89	99.68	44.3-175.32	0.09	0-0.22	0.14	0.03-0.29	0.16	0.07-0.28
Oct-16	0.00	0-0	0.00	0-0	10.22	0-30.67	0.00	0-0	0.00	0-0	0.02	0-0.05
Nov-16	19.14	0-47.84	52.60	10.52-105.21	67.74	21-125.8	0.07	0-0.19	0.12	0.02-0.25	0.11	0.03-0.2
Dec-16	0.00	0-0	0.00	0-0	267.45	171.17-374.43	0.00	0-0	0.00	0-0	0.43	0.28-0.61
Jan-17	161.23	89.3-244.82	289.09	177.28-405.47	311.11	206.75-436.69	0.63	0.35-0.96	0.68	0.42-0.96	0.50	0.34-0.71
Feb-17	42.68	10.67-87.18	46.66	11.67-103	155.68	76.03-237.13	0.17	0.04-0.34	0.11	0.03-0.24	0.25	0.12-0.38
Mar-17	55.53	11.11-111.06	146.15	62.97-231.41	178.35	100.09-267.53	0.22	0.04-0.43	0.35	0.15-0.55	0.29	0.16-0.43
Apr-17	230.60	142.52-329.42	572.34	419.36-727.6	733.42	560.14-910.43	0.90	0.56-1.29	1.35	0.99-1.72	1.19	0.91-1.48
May-17	0.00	0-0	11.71	0-35.12	21.51	0-53.78	0.00	0-0	0.03	0-0.08	0.03	0-0.09
Jun-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	44.39	1.89-90.67	84.97	34.1-155.74	165.91	88.48-263.57	0.17	0.01-0.36	0.20	0.08-0.37	0.27	0.14-0.43
Aug-17	0.00	0-0	21.20	0-53	48.53	9.71-97.05	0.00	0-0	0.05	0-0.13	0.08	0.02-0.16
Sep-17	35.68	8.92-71.35	49.16	9.83-96.64	81.27	28.62-142.98	0.14	0.03-0.28	0.12	0.02-0.23	0.13	0.05-0.23
Oct-17	41.83	10.46-83.65	103.65	46.07-172.76	198.70	124.62-291.88	0.16	0.04-0.33	0.24	0.11-0.41	0.32	0.2-0.47
May-18	56.60	11.32-113.21	61.30	12.26-122.59	90.51	33.94-158.39	0.22	0.04-0.44	0.14	0.03-0.29	0.15	0.06-0.26

Table 10.3. East Anglia TWO. Razorbill design based estimates of birds in flight and on sea including unidentified birds assigned using positively identified proportions.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	101.53	87.15-117.61	203.78	182.06-227.57	334.88	298.61-366.12	0.40	0.34-0.46	0.48	0.43-0.54	0.54	0.48-0.59
Dec-15	20.28	12.53-28.97	51.99	37.78-67.35	78.30	56.95-96.84	0.08	0.05-0.11	0.12	0.09-0.16	0.13	0.09-0.16
Jan-16	110.58	97.02-124.68	200.72	183.84-221.98	314.06	288.01-343.09	0.43	0.38-0.49	0.47	0.43-0.52	0.51	0.47-0.56
Feb-16	61.28	47.87-75.64	110.20	90.06-130.38	186.17	154.42-217.92	0.24	0.19-0.3	0.26	0.21-0.31	0.30	0.25-0.35
Mar-16	80.20	64.16-96.27	184.46	156.79-210.81	356.22	319.97-397.2	0.31	0.25-0.38	0.44	0.37-0.5	0.58	0.52-0.64
Apr-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-16	18.38	0-45.95	50.17	10.03-100.34	82.73	36.77-147.08	0.07	0-0.18	0.12	0.02-0.24	0.13	0.06-0.24
Oct-16	0.00	0-0	0.00	0-0	8.49	0-25.46	0.00	0-0	0.00	0-0	0.01	0-0.04
Nov-16	15.88	0-39.71	43.66	8.73-87.32	56.23	16.06-104.42	0.06	0-0.16	0.10	0.02-0.21	0.09	0.03-0.17
Dec-16	0.00	0-0	0.00	0-0	221.98	142.07-310.78	0.00	0-0	0.00	0-0	0.36	0.23-0.5
Jan-17	135.47	77.41-203.2	241.73	147.14-336.59	259.86	173.24-365.73	0.53	0.3-0.8	0.57	0.35-0.79	0.42	0.28-0.59
Feb-17	35.42	8.86-70.85	38.73	9.68-87.14	141.21	70.61-211.82	0.14	0.03-0.28	0.09	0.02-0.21	0.23	0.11-0.34
Mar-17	46.09	9.22-92.18	121.31	50.54-192.07	148.03	83.04-222.05	0.18	0.04-0.36	0.29	0.12-0.45	0.24	0.13-0.36
Apr-17	191.39	118.25-273.42	475.04	346.38-603.95	608.74	463.37-754.11	0.75	0.46-1.07	1.12	0.82-1.43	0.99	0.75-1.22
May-17	0.00	0-0	9.72	0-29.15	17.85	0-44.63	0.00	0-0	0.02	0-0.07	0.03	0-0.07
Jun-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	36.84	0-73.69	70.52	29.97-130.97	137.70	73.44-220.33	0.14	0-0.29	0.17	0.07-0.31	0.22	0.12-0.36
Aug-17	0.00	0-0	17.60	0-43.99	40.28	8.06-80.55	0.00	0-0	0.04	0-0.1	0.07	0.01-0.13
Sep-17	29.61	7.4-59.22	40.80	8.16-81.6	67.45	22.48-119.91	0.12	0.03-0.23	0.10	0.02-0.19	0.11	0.04-0.19
Oct-17	34.72	8.68-69.43	86.03	38.24-143.39	166.41	104.88-245.24	0.14	0.03-0.27	0.20	0.09-0.34	0.27	0.17-0.4
May-18	46.98	9.4-93.96	50.88	10.18-101.75	75.12	28.17-131.46	0.18	0.04-0.37	0.12	0.02-0.24	0.12	0.05-0.21



Table 10.4. East Anglia TWO. Razorbill design based estimates of birds in flight and on sea including unidentified birds assigned using positively identified proportions and accounting for availability bias.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	121.81	104.47-140.83	244.25	217.65-273.12	401.42	358.5-439.32	0.48	0.41-0.55	0.58	0.51-0.64	0.65	0.58-0.71
Dec-15	23.84	14.7-34.11	61.67	44.8-80.18	93.46	68.32-116.09	0.09	0.06-0.13	0.15	0.11-0.19	0.15	0.11-0.19
Jan-16	132.05	115.82-148.93	239.78	218.93-265.01	375.03	343.35-409.7	0.52	0.45-0.58	0.57	0.52-0.63	0.61	0.56-0.66
Feb-16	68.34	52.77-85.05	125.49	101.71-149.31	214.55	177.77-251.62	0.27	0.21-0.33	0.30	0.24-0.35	0.35	0.29-0.41
Mar-16	91.59	72.92-110.95	215.76	182.96-246.97	419.50	375.5-468.55	0.36	0.29-0.43	0.51	0.43-0.58	0.68	0.61-0.76
Apr-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-16	22.14	0-55.36	60.45	12.09-120.89	99.68	44.3-175.32	0.09	0-0.22	0.14	0.03-0.29	0.16	0.07-0.28
Oct-16	0.00	0-0	0.00	0-0	10.22	0-30.67	0.00	0-0	0.00	0-0	0.02	0-0.05
Nov-16	19.14	0-47.84	52.60	10.52-105.21	67.74	21-125.8	0.07	0-0.19	0.12	0.02-0.25	0.11	0.03-0.2
Dec-16	0.00	0-0	0.00	0-0	267.45	171.17-374.43	0.00	0-0	0.00	0-0	0.43	0.28-0.61
Jan-17	161.23	89.3-244.82	289.09	177.28-405.47	311.11	206.75-436.69	0.63	0.35-0.96	0.68	0.42-0.96	0.50	0.34-0.71
Feb-17	42.68	10.67-87.18	46.66	11.67-103	155.68	76.03-237.13	0.17	0.04-0.34	0.11	0.03-0.24	0.25	0.12-0.38
Mar-17	55.53	11.11-111.06	146.15	62.97-231.41	178.35	100.09-267.53	0.22	0.04-0.43	0.35	0.15-0.55	0.29	0.16-0.43
Apr-17	230.60	142.52-329.42	572.34	419.36-727.6	733.42	560.14-910.43	0.90	0.56-1.29	1.35	0.99-1.72	1.19	0.91-1.48
May-17	0.00	0-0	11.71	0-35.12	21.51	0-53.78	0.00	0-0	0.03	0-0.08	0.03	0-0.09
Jun-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	44.39	1.89-90.67	84.97	34.1-155.74	165.91	88.48-263.57	0.17	0.01-0.36	0.20	0.08-0.37	0.27	0.14-0.43
Aug-17	0.00	0-0	21.20	0-53	48.53	9.71-97.05	0.00	0-0	0.05	0-0.13	0.08	0.02-0.16
Sep-17	35.68	8.92-71.35	49.16	9.83-96.64	81.27	28.62-142.98	0.14	0.03-0.28	0.12	0.02-0.23	0.13	0.05-0.23
Oct-17	41.83	10.46-83.65	103.65	46.07-172.76	198.70	124.62-291.88	0.16	0.04-0.33	0.24	0.11-0.41	0.32	0.2-0.47
May-18	56.60	11.32-113.21	61.30	12.26-122.59	90.51	33.94-158.39	0.22	0.04-0.44	0.14	0.03-0.29	0.15	0.06-0.26

Table 10.5. East Anglia TWO. Razorbill design based estimates of birds in flight.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	9.68	0-29.03	10.51	0-31.53	9.62	0-28.87	0.04	0-0.11	0.02	0-0.07	0.02	0-0.05
Feb-17	0.00	0-0	0.00	0-0	70.61	26.48-123.56	0.00	0-0	0.00	0-0	0.11	0.04-0.2
Mar-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jun-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	0.00	0-0	0.00	0-0	8.76	0-35.03	0.00	0-0	0.00	0-0	0.01	0-0.06
May-18	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0

Table 10.6. East Anglia TWO. Razorbill design based estimates of birds in flight including unidentified birds assigned using positively identified proportions.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	2.54	0-5.92	6.21	2.07-11.38	8.75	2.5-14.99	0.01	0-0.02	0.01	0-0.03	0.01	0-0.02
Dec-15	2.90	0-6.76	3.54	0-8.27	4.27	0-9.97	0.01	0-0.03	0.01	0-0.02	0.01	0-0.02
Jan-16	6.26	3.13-9.91	9.38	5-13.76	16.37	9.67-23.07	0.02	0.01-0.04	0.02	0.01-0.03	0.03	0.02-0.04
Feb-16	26.81	18.19-37.34	35.55	23.7-48.61	47.63	31.75-64.98	0.10	0.07-0.15	0.08	0.06-0.11	0.08	0.05-0.11
Mar-16	23.53	14.97-34.22	31.62	19.76-43.48	47.29	31.52-64.62	0.09	0.06-0.13	0.07	0.05-0.1	0.08	0.05-0.1
Apr-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	9.68	0-29.03	10.51	0-31.53	9.62	0-28.87	0.04	0-0.11	0.02	0-0.07	0.02	0-0.05
Feb-17	0.00	0-0	0.00	0-0	70.61	26.48-123.56	0.00	0-0	0.00	0-0	0.11	0.04-0.2
Mar-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jun-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	0.00	0-0	0.00	0-0	8.76	0-35.03	0.00	0-0	0.00	0-0	0.01	0-0.06
May-18	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0

Table 10.7. East Anglia TWO. Razorbill design based estimates of birds on the sea surface.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-16	18.38	0-45.95	50.17	10.03-100.34	82.73	36.77-137.88	0.07	0-0.18	0.12	0.02-0.24	0.13	0.06-0.22
Oct-16	0.00	0-0	0.00	0-0	8.49	0-25.46	0.00	0-0	0.00	0-0	0.01	0-0.04
Nov-16	15.88	0-39.71	43.66	8.73-87.32	56.23	24.1-104.42	0.06	0-0.16	0.10	0.02-0.21	0.09	0.04-0.17
Dec-16	0.00	0-0	0.00	0-0	221.98	142.07-310.78	0.00	0-0	0.00	0-0	0.36	0.23-0.5
Jan-17	125.79	58.06-203.2	231.22	147.14-336.32	250.24	163.62-346.48	0.49	0.23-0.8	0.55	0.35-0.79	0.41	0.27-0.56
Feb-17	35.42	8.86-79.71	38.73	9.68-77.46	70.61	26.48-123.56	0.14	0.03-0.31	0.09	0.02-0.18	0.11	0.04-0.2
Mar-17	46.09	9.22-92.18	121.31	60.65-192.07	148.03	83.27-222.05	0.18	0.04-0.36	0.29	0.14-0.45	0.24	0.13-0.36
Apr-17	191.39	118.48-273.42	475.04	356.28-603.7	608.74	472.45-763.19	0.75	0.46-1.07	1.12	0.84-1.43	0.99	0.77-1.24
May-17	0.00	0-0	9.72	0-29.15	17.85	0-44.63	0.00	0-0	0.02	0-0.07	0.03	0-0.07
Jun-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	36.84	9.21-82.9	70.52	20.15-120.9	137.70	73.44-211.15	0.14	0.04-0.32	0.17	0.05-0.29	0.22	0.12-0.34
Aug-17	0.00	0-0	17.60	0-43.99	40.28	8.06-80.55	0.00	0-0	0.04	0-0.1	0.07	0.01-0.13
Sep-17	29.61	7.4-59.22	40.80	8.16-73.44	67.45	29.98-112.61	0.12	0.03-0.23	0.10	0.02-0.17	0.11	0.05-0.18
Oct-17	34.72	8.68-69.43	86.03	38.24-143.39	157.65	96.34-227.72	0.14	0.03-0.27	0.20	0.09-0.34	0.26	0.16-0.37
May-18	46.98	9.4-93.96	50.88	10.18-101.75	75.12	28.17-131.46	0.18	0.04-0.37	0.12	0.02-0.24	0.12	0.05-0.21

Table 10.8. East Anglia TWO. Razorbill design based estimates of birds on the sea surface and accounting for availability bias.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-16	22.14	0-55.36	60.45	12.09-120.89	99.68	44.3-166.13	0.09	0-0.22	0.14	0.03-0.29	0.16	0.07-0.27
Oct-16	0.00	0-0	0.00	0-0	10.22	0-30.67	0.00	0-0	0.00	0-0	0.02	0-0.05
Nov-16	19.14	0-47.84	52.60	10.52-105.21	67.74	29.03-125.8	0.07	0-0.19	0.12	0.02-0.25	0.11	0.05-0.2
Dec-16	0.00	0-0	0.00	0-0	267.45	171.17-374.43	0.00	0-0	0.00	0-0	0.43	0.28-0.61
Jan-17	151.56	69.95-244.82	278.58	177.28-405.21	301.49	197.13-417.45	0.59	0.27-0.96	0.66	0.42-0.96	0.49	0.32-0.68
Feb-17	42.68	10.67-96.03	46.66	11.67-93.32	85.07	31.9-148.87	0.17	0.04-0.38	0.11	0.03-0.22	0.14	0.05-0.24
Mar-17	55.53	11.11-111.06	146.15	73.08-231.41	178.35	100.32-267.53	0.22	0.04-0.43	0.35	0.17-0.55	0.29	0.16-0.43
Apr-17	230.60	142.75-329.42	572.34	429.26-727.35	733.42	569.22-919.51	0.90	0.56-1.29	1.35	1.01-1.72	1.19	0.92-1.49
May-17	0.00	0-0	11.71	0-35.12	21.51	0-53.78	0.00	0-0	0.03	0-0.08	0.03	0-0.09
Jun-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	44.39	11.1-99.88	84.97	24.28-145.66	165.91	88.48-254.39	0.17	0.04-0.39	0.20	0.06-0.34	0.27	0.14-0.41
Aug-17	0.00	0-0	21.20	0-53	48.53	9.71-97.05	0.00	0-0	0.05	0-0.13	0.08	0.02-0.16
Sep-17	35.68	8.92-71.35	49.16	9.83-88.48	81.27	36.12-135.67	0.14	0.03-0.28	0.12	0.02-0.21	0.13	0.06-0.22
Oct-17	41.83	10.46-83.65	103.65	46.07-172.76	189.94	116.08-274.36	0.16	0.04-0.33	0.24	0.11-0.41	0.31	0.19-0.44
May-18	56.60	11.32-113.21	61.30	12.26-122.59	90.51	33.94-158.39	0.22	0.04-0.44	0.14	0.03-0.29	0.15	0.06-0.26

Table 10.9. East Anglia TWO. Razorbill design based estimates of birds on the sea surface including unidentified birds assigned using positively identified proportions.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	98.99	84.59-113.38	197.57	173.78-222.4	324.88	292.39-357.4	0.39	0.33-0.44	0.47	0.41-0.53	0.53	0.47-0.58
Dec-15	17.38	10.62-25.1	47.26	34.27-62.62	74.03	55.52-93.96	0.07	0.04-0.1	0.11	0.08-0.15	0.12	0.09-0.15
Jan-16	104.84	91.8-118.4	190.71	171.33-210.1	297.69	270.15-325.23	0.41	0.36-0.46	0.45	0.4-0.5	0.48	0.44-0.53
Feb-16	34.47	23.94-45.96	74.65	56.88-92.43	138.55	114.01-164.52	0.13	0.09-0.18	0.18	0.13-0.22	0.22	0.18-0.27
Mar-16	55.61	42.77-71.65	152.84	127.8-176.55	308.94	271.11-348.34	0.22	0.17-0.28	0.36	0.3-0.42	0.50	0.44-0.56
Apr-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-16	18.38	0-45.95	50.17	10.03-100.34	82.73	36.77-137.88	0.07	0-0.18	0.12	0.02-0.24	0.13	0.06-0.22
Oct-16	0.00	0-0	0.00	0-0	8.49	0-25.46	0.00	0-0	0.00	0-0	0.01	0-0.04
Nov-16	15.88	0-39.71	43.66	8.73-87.32	56.23	24.1-104.42	0.06	0-0.16	0.10	0.02-0.21	0.09	0.04-0.17
Dec-16	0.00	0-0	0.00	0-0	221.98	142.07-310.78	0.00	0-0	0.00	0-0	0.36	0.23-0.5
Jan-17	125.79	58.06-203.2	231.22	147.14-336.32	250.24	163.62-346.48	0.49	0.23-0.8	0.55	0.35-0.79	0.41	0.27-0.56
Feb-17	35.42	8.86-79.71	38.73	9.68-77.46	70.61	26.48-123.56	0.14	0.03-0.31	0.09	0.02-0.18	0.11	0.04-0.2
Mar-17	46.09	9.22-92.18	121.31	60.65-192.07	148.03	83.27-222.05	0.18	0.04-0.36	0.29	0.14-0.45	0.24	0.13-0.36
Apr-17	191.39	118.48-273.42	475.04	356.28-603.7	608.74	472.45-763.19	0.75	0.46-1.07	1.12	0.84-1.43	0.99	0.77-1.24
May-17	0.00	0-0	9.72	0-29.15	17.85	0-44.63	0.00	0-0	0.02	0-0.07	0.03	0-0.07
Jun-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	36.84	9.21-82.9	70.52	20.15-120.9	137.70	73.44-211.15	0.14	0.04-0.32	0.17	0.05-0.29	0.22	0.12-0.34
Aug-17	0.00	0-0	17.60	0-43.99	40.28	8.06-80.55	0.00	0-0	0.04	0-0.1	0.07	0.01-0.13
Sep-17	29.61	7.4-59.22	40.80	8.16-73.44	67.45	29.98-112.61	0.12	0.03-0.23	0.10	0.02-0.17	0.11	0.05-0.18
Oct-17	34.72	8.68-69.43	86.03	38.24-143.39	157.65	96.34-227.72	0.14	0.03-0.27	0.20	0.09-0.34	0.26	0.16-0.37
May-18	46.98	9.4-93.96	50.88	10.18-101.75	75.12	28.17-131.46	0.18	0.04-0.37	0.12	0.02-0.24	0.12	0.05-0.21

Table 10.10. East Anglia TWO. Razorbill design based estimates of birds on the sea surface including unidentified birds assigned using positively identified proportions and accounting for availability bias.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	119.27	101.92-136.6	238.04	209.37-267.95	391.42	352.28-430.6	0.47	0.4-0.53	0.56	0.49-0.63	0.63	0.57-0.7
Dec-15	20.94	12.8-30.25	56.94	41.28-75.45	89.19	66.89-113.21	0.08	0.05-0.12	0.13	0.1-0.18	0.14	0.11-0.18
Jan-16	126.32	110.61-142.66	229.78	206.42-253.13	358.66	325.49-391.84	0.49	0.43-0.56	0.54	0.49-0.6	0.58	0.53-0.64
Feb-16	41.53	28.84-55.37	89.94	68.53-111.36	166.92	137.36-198.22	0.16	0.11-0.22	0.21	0.16-0.26	0.27	0.22-0.32
Mar-16	67.00	51.54-86.32	184.14	153.98-212.71	372.21	326.64-419.69	0.26	0.2-0.34	0.43	0.36-0.5	0.60	0.53-0.68
Apr-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-16	22.14	0-55.36	60.45	12.09-120.89	99.68	44.3-166.13	0.09	0-0.22	0.14	0.03-0.29	0.16	0.07-0.27
Oct-16	0.00	0-0	0.00	0-0	10.22	0-30.67	0.00	0-0	0.00	0-0	0.02	0-0.05
Nov-16	19.14	0-47.84	52.60	10.52-105.21	67.74	29.03-125.8	0.07	0-0.19	0.12	0.02-0.25	0.11	0.05-0.2
Dec-16	0.00	0-0	0.00	0-0	267.45	171.17-374.43	0.00	0-0	0.00	0-0	0.43	0.28-0.61
Jan-17	151.56	69.95-244.82	278.58	177.28-405.21	301.49	197.13-417.45	0.59	0.27-0.96	0.66	0.42-0.96	0.49	0.32-0.68
Feb-17	42.68	10.67-96.03	46.66	11.67-93.32	85.07	31.9-148.87	0.17	0.04-0.38	0.11	0.03-0.22	0.14	0.05-0.24
Mar-17	55.53	11.11-111.06	146.15	73.08-231.41	178.35	100.32-267.53	0.22	0.04-0.43	0.35	0.17-0.55	0.29	0.16-0.43
Apr-17	230.60	142.75-329.42	572.34	429.26-727.35	733.42	569.22-919.51	0.90	0.56-1.29	1.35	1.01-1.72	1.19	0.92-1.49
May-17	0.00	0-0	11.71	0-35.12	21.51	0-53.78	0.00	0-0	0.03	0-0.08	0.03	0-0.09
Jun-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	44.39	11.1-99.88	84.97	24.28-145.66	165.91	88.48-254.39	0.17	0.04-0.39	0.20	0.06-0.34	0.27	0.14-0.41
Aug-17	0.00	0-0	21.20	0-53	48.53	9.71-97.05	0.00	0-0	0.05	0-0.13	0.08	0.02-0.16
Sep-17	35.68	8.92-71.35	49.16	9.83-88.48	81.27	36.12-135.67	0.14	0.03-0.28	0.12	0.02-0.21	0.13	0.06-0.22
Oct-17	41.83	10.46-83.65	103.65	46.07-172.76	189.94	116.08-274.36	0.16	0.04-0.33	0.24	0.11-0.41	0.31	0.19-0.44
May-18	56.60	11.32-113.21	61.30	12.26-122.59	90.51	33.94-158.39	0.22	0.04-0.44	0.14	0.03-0.29	0.15	0.06-0.26

East Anglia TWO Technical Appendix 12.1 Offshore Ornithology Annex 2 - Survey Abundance

Table 11.1. East Anglia TWO. Guillemot design based estimates of birds in flight and on sea.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	10.54	0-31.62	10.57	0-31.7	21.23	0-53.08	0.04	0-0.12	0.02	0-0.07	0.03	0-0.09
Sep-16	147.03	82.71-220.55	160.54	90.06-240.82	193.04	119.5-284.96	0.58	0.32-0.86	0.38	0.21-0.57	0.31	0.19-0.46
Oct-16	25.39	0-59.25	46.27	9.25-83.28	42.43	8.49-76.37	0.10	0-0.23	0.11	0.02-0.2	0.07	0.01-0.12
Nov-16	150.90	95.11-222.38	523.94	410.2-654.93	746.99	610.44-899.6	0.59	0.37-0.87	1.24	0.97-1.55	1.21	0.99-1.46
Dec-16	814.54	662.37-957.75	1363.46	1176.84-1559.89	1607.16	1384.95-1811.39	3.19	2.59-3.75	3.22	2.78-3.68	2.61	2.25-2.94
Jan-17	928.93	783.54-1083.75	1713.15	1492.44-1954.88	2338.74	2069.25-2579.59	3.64	3.07-4.24	4.05	3.52-4.62	3.79	3.35-4.18
Feb-17	150.56	88.56-221.41	213.01	135.55-300.14	255.95	167.69-361.86	0.59	0.35-0.87	0.50	0.32-0.71	0.41	0.27-0.59
Mar-17	396.39	285.77-516.46	636.86	495.33-798.6	952.95	786.42-1119.49	1.55	1.12-2.02	1.50	1.17-1.89	1.54	1.27-1.81
Apr-17	1385.33	1203.05-1558.5	2088.21	1860.58-2315.83	3052.78	2789.06-3325.34	5.42	4.71-6.1	4.93	4.39-5.47	4.95	4.52-5.39
May-17	35.66	8.92-71.33	106.88	48.58-165.18	124.98	62.49-196.39	0.14	0.03-0.28	0.25	0.11-0.39	0.20	0.1-0.32
Jun-17	78.40	29.4-137.19	85.77	32.16-150.1	155.87	87.68-233.81	0.31	0.12-0.54	0.20	0.08-0.35	0.25	0.14-0.38
Jul-17	322.38	230.27-423.7	433.22	312.32-564.19	504.92	385.57-642.85	1.26	0.9-1.66	1.02	0.74-1.33	0.82	0.63-1.04
Aug-17	80.44	40.22-128.71	123.18	61.59-193.79	281.94	193.33-370.75	0.32	0.16-0.5	0.29	0.15-0.46	0.46	0.31-0.6
Sep-17	88.84	44.42-140.66	130.56	73.44-195.84	119.91	67.45-179.87	0.35	0.17-0.55	0.31	0.17-0.46	0.19	0.11-0.29
Oct-17	164.90	95.47-234.33	248.54	152.95-344.37	306.55	210.2-420.41	0.65	0.37-0.92	0.59	0.36-0.81	0.50	0.34-0.68



East Anglia TWO Technical Appendix 12.1 Offshore Ornithology Annex 2 - Survey Abundance

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
May-18	338.27	234.91-441.62	732.61	579.98-895.66	685.49	544.64-845.36	1.32	0.92-1.73	1.73	1.37-2.11	1.11	0.88-1.37

Table 11.2. East Anglia TWO. Guillemot design based estimates of birds in flight and on sea and accounting for availability bias.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	13.87	0-41.61	13.91	0-45.05	24.58	0-63.13	0.05	0-0.16	0.03	0-0.11	0.04	0-0.1
Sep-16	193.46	108.82-290.19	211.24	118.57-316.86	254.00	157.24-372.05	0.76	0.43-1.14	0.50	0.28-0.75	0.41	0.25-0.6
Oct-16	28.06	0-67.26	55.03	9.25-103.73	50.47	8.49-95.13	0.11	0-0.26	0.13	0.02-0.24	0.08	0.01-0.15
Nov-16	198.55	122.69-290.09	689.40	539.81-858.99	982.88	800.68-1181.15	0.78	0.48-1.14	1.63	1.27-2.03	1.59	1.3-1.91
Dec-16	1060.45	863.06-1248.89	1781.64	1532.99-2040.02	2103.47	1816.77-2375.06	4.15	3.38-4.89	4.21	3.62-4.82	3.41	2.95-3.85
Jan-17	1219.22	1021.88-1429.04	2240.87	1950.37-2552.38	3059.05	2707.5-3375.88	4.77	4-5.6	5.29	4.61-6.03	4.96	4.39-5.47
Feb-17	175.73	96.95-263.36	255.81	160.01-367.41	314.48	201.14-445.48	0.69	0.38-1.03	0.60	0.38-0.87	0.51	0.33-0.72
Mar-17	521.57	378.85-676.57	837.97	654.95-1050.79	1253.89	1034.76-1470.17	2.04	1.48-2.65	1.98	1.55-2.48	2.03	1.68-2.38
Apr-17	1822.81	1588.72-2056.41	2747.64	2448.13-3050.27	4011.07	3661.21-4361.11	7.14	6.22-8.05	6.49	5.78-7.2	6.50	5.94-7.07
May-17	46.93	11.73-96.67	140.63	63.92-220.41	164.44	82.22-258.41	0.18	0.05-0.38	0.33	0.15-0.52	0.27	0.13-0.42
Jun-17	103.15	38.68-180.52	112.86	42.32-197.5	205.10	112.29-307.64	0.40	0.15-0.71	0.27	0.1-0.47	0.33	0.18-0.5
Jul-17	424.18	300.08-560.4	570.02	410.95-742.36	664.36	507.33-845.86	1.66	1.18-2.19	1.35	0.97-1.75	1.08	0.82-1.37
Aug-17	105.85	50.38-171.89	162.08	83.82-254.92	370.98	254.38-490.31	0.41	0.2-0.67	0.38	0.2-0.6	0.60	0.41-0.79

East Anglia TWO Technical Appendix 12.1 Offshore Ornithology Annex 2 - Survey Abundance

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Sep-17	116.89	58.44-185.07	171.79	96.63-257.69	157.78	88.75-236.67	0.46	0.23-0.72	0.41	0.23-0.61	0.26	0.14-0.38
Oct-17	184.09	103.69-267.29	278.73	168.04-395.69	348.03	232.33-481.26	0.72	0.41-1.05	0.66	0.4-0.93	0.56	0.38-0.78
May-18	442.12	306.12-578.12	960.74	763.13-1175.21	899.00	710.7-1100.46	1.73	1.2-2.26	2.27	1.8-2.77	1.46	1.15-1.78

Table 11.3. East Anglia TWO. Guillemot design based estimates of birds in flight and on sea including unidentified birds assigned using positively identified proportions.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	877.87	753.51-1016.87	1407.04	1257.06-1571.32	1862.57	1660.85-2036.32	3.44	2.95-3.98	3.32	2.97-3.71	3.02	2.69-3.3
Dec-15	175.32	108.32-250.45	358.98	260.87-465.05	435.50	316.73-538.64	0.69	0.42-0.98	0.85	0.62-1.1	0.71	0.51-0.87
Jan-16	956.09	838.84-1077.97	1385.91	1269.34-1532.71	1746.79	1601.92-1908.23	3.74	3.28-4.22	3.27	3-3.62	2.83	2.6-3.09
Feb-16	529.80	413.91-653.97	760.93	621.83-900.22	1035.47	858.88-1212.07	2.07	1.62-2.56	1.80	1.47-2.13	1.68	1.39-1.96
Mar-16	693.45	554.76-832.37	1273.63	1082.58-1455.57	1981.29	1779.65-2209.23	2.72	2.17-3.26	3.01	2.56-3.44	3.21	2.88-3.58
Apr-16	590.25	453.23-737.81	1151.93	950.87-1342.16	1528.58	1316.28-1762.11	2.31	1.77-2.89	2.72	2.25-3.17	2.48	2.13-2.86
Sep-16	147.03	82.71-220.55	160.54	90.06-240.82	193.04	119.5-284.96	0.58	0.32-0.86	0.38	0.21-0.57	0.31	0.19-0.46
Oct-16	25.39	0-59.25	46.27	9.25-83.28	42.43	8.49-76.37	0.10	0-0.23	0.11	0.02-0.2	0.07	0.01-0.12
Nov-16	150.90	95.11-222.38	523.94	410.2-654.93	746.99	610.44-899.6	0.59	0.37-0.87	1.24	0.97-1.55	1.21	0.99-1.46
Dec-16	814.54	662.37-957.75	1363.46	1176.84-1559.89	1607.16	1384.95-1811.39	3.19	2.59-3.75	3.22	2.78-3.68	2.61	2.25-2.94
Jan-17	938.60	783.54-1083.75	1713.15	1492.44-1954.88	2338.74	2069.25-2579.59	3.68	3.07-4.24	4.05	3.52-4.62	3.79	3.35-4.18
Feb-17	150.56	88.56-221.41	213.01	135.55-300.14	255.95	167.69-361.86	0.59	0.35-0.87	0.50	0.32-0.71	0.41	0.27-0.59
Mar-17	396.39	285.77-516.46	636.86	495.33-798.6	952.95	786.42-1119.49	1.55	1.12-2.02	1.50	1.17-1.89	1.54	1.27-1.81
Apr-17	1394.45	1203.05-1558.5	2088.21	1860.58-2315.83	3052.78	2789.06-3325.34	5.46	4.71-6.1	4.93	4.39-5.47	4.95	4.52-5.39
May-17	35.66	8.92-71.33	106.88	48.58-165.18	124.98	62.49-196.39	0.14	0.03-0.28	0.25	0.11-0.39	0.20	0.1-0.32

East Anglia TWO Technical Appendix 12.1 Offshore Ornithology Annex 2 - Survey Abundance

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Jun-17	78.40	29.4-137.19	85.77	32.16-150.1	155.87	87.68-233.81	0.31	0.12-0.54	0.20	0.08-0.35	0.25	0.14-0.38
Jul-17	322.38	230.27-423.7	433.22	312.32-564.19	504.92	385.57-642.85	1.26	0.9-1.66	1.02	0.74-1.33	0.82	0.63-1.04
Aug-17	80.44	40.22-128.71	123.18	61.59-193.79	281.94	193.33-370.75	0.32	0.16-0.5	0.29	0.15-0.46	0.46	0.31-0.6
Sep-17	88.84	44.42-140.66	130.56	73.44-195.84	119.91	67.45-179.87	0.35	0.17-0.55	0.31	0.17-0.46	0.19	0.11-0.29
Oct-17	164.90	95.47-234.33	248.54	152.95-344.37	306.55	210.2-420.41	0.65	0.37-0.92	0.59	0.36-0.81	0.50	0.34-0.68
May-18	338.27	234.91-441.62	732.61	579.98-895.66	685.49	544.64-845.36	1.32	0.92-1.73	1.73	1.37-2.11	1.11	0.88-1.37

Table 11.4. East Anglia TWO. Guillemot design based estimates of birds in flight and on sea including unidentified birds assigned using positively identified proportions and accounting for availability bias.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	1148.16	984.47-1326.43	1837.84	1635.98-2056.25	2433.19	2174.41-2664.06	4.50	3.86-5.19	4.34	3.86-4.86	3.94	3.52-4.32
Dec-15	222.77	137.32-318.99	462.04	335.59-601.6	565.53	414.25-703.67	0.87	0.54-1.25	1.09	0.79-1.42	0.92	0.67-1.14
Jan-16	1242.35	1089.49-1401.26	1801.76	1642.92-1990.82	2269.66	2076.42-2479.45	4.86	4.27-5.49	4.25	3.88-4.7	3.68	3.37-4.02
Feb-16	623.91	479.26-779.45	923.70	745.85-1101.76	1278.82	1059.13-1501.03	2.44	1.88-3.05	2.18	1.76-2.6	2.07	1.72-2.43
Mar-16	845.28	671.55-1027.99	1606.88	1361.25-1840.53	2523.91	2255.83-2821.05	3.31	2.63-4.03	3.79	3.21-4.35	4.09	3.66-4.57
Apr-16	769.99	589.69-964.15	1499.01	1241.22-1752.65	1987.82	1705.12-2291.83	3.02	2.31-3.78	3.54	2.93-4.14	3.22	2.76-3.72
Sep-16	193.46	108.82-290.19	208.07	118.57-316.86	254.00	157.24-372.05	0.76	0.43-1.14	0.49	0.28-0.75	0.41	0.25-0.6
Oct-16	28.06	0-67.26	55.03	9.25-103.73	50.47	8.49-95.13	0.11	0-0.26	0.13	0.02-0.24	0.08	0.01-0.15
Nov-16	198.55	122.69-290.09	689.40	539.81-858.99	982.88	800.68-1181.15	0.78	0.48-1.14	1.63	1.27-2.03	1.59	1.3-1.91
Dec-16	1060.45	863.06-1248.89	1780.09	1532.99-2040.02	2103.47	1816.77-2375.06	4.15	3.38-4.89	4.20	3.62-4.82	3.41	2.95-3.85
Jan-17	1228.89	1021.88-1429.04	2237.55	1950.37-2552.38	3059.05	2707.5-3375.88	4.81	4-5.6	5.28	4.61-6.03	4.96	4.39-5.47
Feb-17	175.73	96.95-263.36	255.81	160.01-367.41	314.48	201.14-445.48	0.69	0.38-1.03	0.60	0.38-0.87	0.51	0.33-0.72
Mar-17	521.57	378.85-676.57	837.97	654.95-1050.79	1253.89	1034.76-1470.17	2.04	1.48-2.65	1.98	1.55-2.48	2.03	1.68-2.38

East Anglia TWO Technical Appendix 12.1 Offshore Ornithology Annex 2 - Survey Abundance

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Apr-17	1831.92	1588.72-2056.41	2750.77	2448.13-3050.27	4011.07	3661.21-4361.11	7.17	6.22-8.05	6.50	5.78-7.2	6.50	5.94-7.07
May-17	46.93	11.73-96.67	140.63	63.92-220.41	164.44	82.22-258.41	0.18	0.05-0.38	0.33	0.15-0.52	0.27	0.13-0.42
Jun-17	103.15	38.68-180.52	112.86	42.32-197.5	205.10	112.29-307.64	0.40	0.15-0.71	0.27	0.1-0.47	0.33	0.18-0.5
Jul-17	424.18	300.08-560.4	570.02	410.95-742.36	664.36	507.33-845.86	1.66	1.18-2.19	1.35	0.97-1.75	1.08	0.82-1.37
Aug-17	105.85	50.38-171.89	162.08	83.82-254.92	370.98	254.38-490.31	0.41	0.2-0.67	0.38	0.2-0.6	0.60	0.41-0.79
Sep-17	116.89	58.44-185.07	171.79	96.63-257.69	157.78	88.75-236.67	0.46	0.23-0.72	0.41	0.23-0.61	0.26	0.14-0.38
Oct-17	184.09	103.69-267.29	278.73	168.04-395.69	348.03	232.33-481.26	0.72	0.41-1.05	0.66	0.4-0.93	0.56	0.38-0.78
May-18	442.12	306.12-578.12	960.74	763.13-1175.21	899.00	710.7-1100.46	1.73	1.2-2.26	2.27	1.8-2.77	1.46	1.15-1.78

Table 11.5. East Anglia TWO. Guillemot design based estimates of birds in flight.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	0.00	0-0	0.00	0-0	10.62	0-31.85	0.00	0-0	0.00	0-0	0.02	0-0.05
Sep-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-16	16.93	0-42.32	18.51	0-46.27	16.97	0-42.43	0.07	0-0.17	0.04	0-0.11	0.03	0-0.07
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	35.80	8.95-71.61	39.24	9.81-78.47	35.52	8.88-71.03	0.14	0.04-0.28	0.09	0.02-0.19	0.06	0.01-0.12
Jan-17	9.68	0-29.03	42.04	10.51-84.08	57.75	19.25-105.87	0.04	0-0.11	0.10	0.02-0.2	0.09	0.03-0.17
Feb-17	70.85	26.57-115.13	77.46	29.05-125.87	70.61	26.48-123.56	0.28	0.1-0.45	0.18	0.07-0.3	0.11	0.04-0.2
Mar-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-17	0.00	0-0	0.00	0-0	18.17	0-45.43	0.00	0-0	0.00	0-0	0.03	0-0.07
May-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jun-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	104.15	52.07-164.9	152.95	86.03-229.42	175.17	105.1-245.24	0.41	0.2-0.65	0.36	0.2-0.54	0.28	0.17-0.4
May-18	9.40	0-28.19	10.18	0-30.53	9.39	0-28.17	0.04	0-0.11	0.02	0-0.07	0.02	0-0.05



Table 11.6. East Anglia TWO. Guillemot design based estimates of birds in flight including unidentified birds assigned using positively identified proportions.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	21.95	0-51.21	42.85	14.28-78.57	48.65	13.9-83.4	0.09	0-0.2	0.10	0.03-0.19	0.08	0.02-0.14
Dec-15	25.05	0-58.44	24.48	0-57.11	23.75	0-55.43	0.10	0-0.23	0.06	0-0.13	0.04	0-0.09
Jan-16	54.12	27.06-85.69	64.76	34.54-94.98	91.07	53.81-128.32	0.21	0.11-0.34	0.15	0.08-0.22	0.15	0.09-0.21
Feb-16	231.79	157.28-322.85	245.46	163.64-335.67	264.89	176.59-361.41	0.91	0.62-1.26	0.58	0.39-0.79	0.43	0.29-0.59
Mar-16	203.41	129.44-295.87	218.34	136.46-300.21	263.00	175.34-359.44	0.80	0.51-1.16	0.52	0.32-0.71	0.43	0.28-0.58
Apr-16	10.54	0-31.62	42.27	10.57-84.55	63.69	21.23-116.77	0.04	0-0.12	0.10	0.02-0.2	0.10	0.03-0.19
Sep-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-16	16.93	0-42.32	18.51	0-46.27	16.97	0-42.43	0.07	0-0.17	0.04	0-0.11	0.03	0-0.07
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	35.80	8.95-71.61	39.24	9.81-78.47	35.52	8.88-71.03	0.14	0.04-0.28	0.09	0.02-0.19	0.06	0.01-0.12
Jan-17	9.68	0-29.03	42.04	10.51-84.08	57.75	19.25-105.87	0.04	0-0.11	0.10	0.02-0.2	0.09	0.03-0.17
Feb-17	70.85	26.57-115.13	77.46	29.05-125.87	70.61	26.48-123.56	0.28	0.1-0.45	0.18	0.07-0.3	0.11	0.04-0.2
Mar-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-17	0.00	0-0	0.00	0-0	18.17	0-45.43	0.00	0-0	0.00	0-0	0.03	0-0.07
May-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jun-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	104.15	52.07-164.9	152.95	86.03-229.42	175.17	105.1-245.24	0.41	0.2-0.65	0.36	0.2-0.54	0.28	0.17-0.4
May-18	9.40	0-28.19	10.18	0-30.53	9.39	0-28.17	0.04	0-0.11	0.02	0-0.07	0.02	0-0.05

Table 11.7. East Anglia TWO. Guillemot design based estimates of birds on the sea surface.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	10.54	0-31.62	10.57	0-42.27	10.62	0-31.85	0.04	0-0.12	0.02	0-0.1	0.02	0-0.05
Sep-16	147.03	82.71-220.55	160.54	90.31-240.82	193.04	119.5-275.77	0.58	0.32-0.86	0.38	0.21-0.57	0.31	0.19-0.45
Oct-16	8.46	0-25.39	27.76	0-64.77	25.46	0-59.4	0.03	0-0.1	0.07	0-0.15	0.04	0-0.1
Nov-16	150.90	87.36-214.44	523.94	410.42-646.2	746.99	602.41-891.57	0.59	0.34-0.84	1.24	0.97-1.53	1.21	0.98-1.45
Dec-16	778.73	635.52-921.95	1324.22	1127.8-1520.41	1571.64	1367.42-1784.97	3.05	2.49-3.61	3.13	2.66-3.59	2.55	2.22-2.89
Jan-17	919.25	754.75-1093.43	1671.11	1450.13-1892.08	2280.99	2021.13-2521.6	3.60	2.96-4.28	3.95	3.42-4.47	3.70	3.28-4.09
Feb-17	79.71	26.57-132.84	135.55	77.46-213.01	185.34	105.91-264.78	0.31	0.1-0.52	0.32	0.18-0.5	0.30	0.17-0.43
Mar-17	396.39	294.76-507.01	636.86	505.44-798.6	952.95	786.42-1110.47	1.55	1.15-1.99	1.50	1.19-1.89	1.54	1.27-1.8
Apr-17	1385.33	1221.28-1576.73	2088.21	1860.58-2325.73	3034.60	2761.81-3279.92	5.42	4.78-6.17	4.93	4.39-5.49	4.92	4.48-5.32
May-17	35.66	8.92-80.24	106.88	48.58-174.89	124.98	62.49-196.39	0.14	0.03-0.31	0.25	0.11-0.41	0.20	0.1-0.32
Jun-17	78.40	29.4-137.19	85.77	32.16-150.1	155.87	77.94-233.81	0.31	0.12-0.54	0.20	0.08-0.35	0.25	0.13-0.38
Jul-17	322.38	221.06-432.91	433.22	312.32-564.19	504.92	385.57-642.85	1.26	0.87-1.7	1.02	0.74-1.33	0.82	0.63-1.04
Aug-17	80.44	32.18-136.75	123.18	70.39-193.57	281.94	193.33-378.61	0.32	0.13-0.54	0.29	0.17-0.46	0.46	0.31-0.61
Sep-17	88.84	44.42-140.66	130.56	73.44-195.84	119.91	67.45-179.87	0.35	0.17-0.55	0.31	0.17-0.46	0.19	0.11-0.29

East Anglia TWO Technical Appendix 12.1 Offshore Ornithology Annex 2 - Survey Abundance

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Oct-17	60.75	26.04-104.37	95.59	47.8-162.51	131.38	70.07-192.69	0.24	0.1-0.41	0.23	0.11-0.38	0.21	0.11-0.31
May-18	328.87	225.51-432.23	722.43	579.98-885.23	676.10	525.86-807.8	1.29	0.88-1.69	1.71	1.37-2.09	1.10	0.85-1.31

Table 11.8. East Anglia TWO. Guillemot design based estimates of birds on the sea surface and accounting for availability bias.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	13.87	0-41.61	13.91	0-55.62	13.97	0-41.9	0.05	0-0.16	0.03	0-0.13	0.02	0-0.07
Sep-16	193.46	108.82-290.19	211.24	118.82-316.86	254.00	157.24-362.85	0.76	0.43-1.14	0.50	0.28-0.75	0.41	0.25-0.59
Oct-16	11.14	0-33.41	36.53	0-85.23	33.50	0-78.16	0.04	0-0.13	0.09	0-0.2	0.05	0-0.13
Nov-16	198.55	114.95-282.15	689.40	540.03-850.26	982.88	792.65-1173.12	0.78	0.45-1.1	1.63	1.28-2.01	1.59	1.28-1.9
Dec-16	1024.65	836.21-1213.09	1742.40	1483.94-2000.53	2067.95	1799.23-2348.64	4.01	3.27-4.75	4.11	3.5-4.72	3.35	2.92-3.81
Jan-17	1209.54	993.1-1438.72	2198.83	1908.07-2489.58	3001.30	2659.38-3317.9	4.74	3.89-5.63	5.19	4.51-5.88	4.87	4.31-5.38
Feb-17	104.88	34.96-174.79	178.35	101.92-280.27	243.87	139.36-348.39	0.41	0.14-0.68	0.42	0.24-0.66	0.40	0.23-0.56
Mar-17	521.57	387.84-667.12	837.97	665.06-1050.79	1253.89	1034.76-1461.14	2.04	1.52-2.61	1.98	1.57-2.48	2.03	1.68-2.37
Apr-17	1822.81	1606.95-2074.64	2747.64	2448.13-3060.17	3992.90	3633.96-4315.68	7.14	6.29-8.12	6.49	5.78-7.23	6.47	5.89-7
May-17	46.93	11.73-105.58	140.63	63.92-230.12	164.44	82.22-258.41	0.18	0.05-0.41	0.33	0.15-0.54	0.27	0.13-0.42
Jun-17	103.15	38.68-180.52	112.86	42.32-197.5	205.10	102.55-307.64	0.40	0.15-0.71	0.27	0.1-0.47	0.33	0.17-0.5
Jul-17	424.18	290.87-569.61	570.02	410.95-742.36	664.36	507.33-845.86	1.66	1.14-2.23	1.35	0.97-1.75	1.08	0.82-1.37
Aug-17	105.85	42.34-179.94	162.08	92.62-254.7	370.98	254.38-498.17	0.41	0.17-0.7	0.38	0.22-0.6	0.60	0.41-0.81

East Anglia TWO Technical Appendix 12.1 Offshore Ornithology Annex 2 - Survey Abundance

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Sep-17	116.89	58.44-185.07	171.79	96.63-257.69	157.78	88.75-236.67	0.46	0.23-0.72	0.41	0.23-0.61	0.26	0.14-0.38
Oct-17	79.94	34.26-137.32	125.78	62.89-213.83	172.86	92.19-253.54	0.31	0.13-0.54	0.30	0.15-0.5	0.28	0.15-0.41
May-18	432.72	296.72-568.72	950.57	763.13-1164.78	889.61	691.92-1062.89	1.69	1.16-2.23	2.24	1.8-2.75	1.44	1.12-1.72

Table 11.9. East Anglia TWO. Guillemot design based estimates of birds on the sea surface including unidentified birds assigned using positively identified proportions.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	855.92	731.38-980.29	1364.19	1199.92-1535.61	1806.97	1626.28-1987.84	3.35	2.86-3.84	3.22	2.83-3.63	2.93	2.64-3.22
Dec-15	150.27	91.83-217.06	326.35	236.6-432.41	411.75	308.81-522.61	0.59	0.36-0.85	0.77	0.56-1.02	0.67	0.5-0.85
Jan-16	906.49	793.74-1023.74	1316.83	1182.99-1450.68	1655.73	1502.57-1808.88	3.55	3.11-4.01	3.11	2.79-3.43	2.68	2.44-2.93
Feb-16	298.01	206.95-397.35	515.47	392.74-638.2	770.58	634.13-915.07	1.17	0.81-1.56	1.22	0.93-1.51	1.25	1.03-1.48
Mar-16	480.79	369.84-619.48	1055.29	882.44-1219.04	1718.29	1507.88-1937.46	1.88	1.45-2.43	2.49	2.08-2.88	2.79	2.44-3.14
Apr-16	569.17	432.15-716.73	1099.09	919.43-1299.88	1454.27	1231.36-1677.46	2.23	1.69-2.81	2.60	2.17-3.07	2.36	2-2.72
Sep-16	147.03	82.71-220.55	150.51	90.31-240.82	193.04	119.5-275.77	0.58	0.32-0.86	0.36	0.21-0.57	0.31	0.19-0.45
Oct-16	8.46	0-25.39	27.76	0-64.77	25.46	0-59.4	0.03	0-0.1	0.07	0-0.15	0.04	0-0.1
Nov-16	150.90	87.36-214.44	523.94	410.42-646.2	746.99	602.41-891.57	0.59	0.34-0.84	1.24	0.97-1.53	1.21	0.98-1.45
Dec-16	778.73	635.52-921.95	1319.32	1127.8-1520.41	1571.64	1367.42-1784.97	3.05	2.49-3.61	3.12	2.66-3.59	2.55	2.22-2.89
Jan-17	919.25	754.75-1093.43	1660.60	1450.13-1892.08	2280.99	2021.13-2521.6	3.60	2.96-4.28	3.92	3.42-4.47	3.70	3.28-4.09
Feb-17	79.71	26.57-132.84	135.55	77.46-213.01	185.34	105.91-264.78	0.31	0.1-0.52	0.32	0.18-0.5	0.30	0.17-0.43
Mar-17	396.39	294.76-507.01	636.86	505.44-798.6	952.95	786.42-1110.47	1.55	1.15-1.99	1.50	1.19-1.89	1.54	1.27-1.8
Apr-17	1385.33	1221.28-1576.73	2098.10	1860.58-2325.73	3034.60	2761.81-3279.92	5.42	4.78-6.17	4.95	4.39-5.49	4.92	4.48-5.32
May-17	35.66	8.92-80.24	106.88	48.58-174.89	124.98	62.49-196.39	0.14	0.03-0.31	0.25	0.11-0.41	0.20	0.1-0.32

East Anglia TWO Technical Appendix 12.1 Offshore Ornithology Annex 2 - Survey Abundance

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Jun-17	78.40	29.4-137.19	85.77	32.16-150.1	155.87	77.94-233.81	0.31	0.12-0.54	0.20	0.08-0.35	0.25	0.13-0.38
Jul-17	322.38	221.06-432.91	433.22	312.32-564.19	504.92	385.57-642.85	1.26	0.87-1.7	1.02	0.74-1.33	0.82	0.63-1.04
Aug-17	80.44	32.18-136.75	123.18	70.39-193.57	281.94	193.33-378.61	0.32	0.13-0.54	0.29	0.17-0.46	0.46	0.31-0.61
Sep-17	88.84	44.42-140.66	130.56	73.44-195.84	119.91	67.45-179.87	0.35	0.17-0.55	0.31	0.17-0.46	0.19	0.11-0.29
Oct-17	60.75	26.04-104.37	95.59	47.8-162.51	131.38	70.07-192.69	0.24	0.1-0.41	0.23	0.11-0.38	0.21	0.11-0.31
May-18	328.87	225.51-432.23	722.43	579.98-885.23	676.10	525.86-807.8	1.29	0.88-1.69	1.71	1.37-2.09	1.10	0.85-1.31

Table 11.10. East Anglia TWO. Guillemot design based estimates of birds on the sea surface including unidentified birds assigned using positively identified proportions and accounting for availability bias.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	1126.22	962.34-1289.85	1794.99	1578.84-2020.54	2377.60	2139.84-2615.58	4.41	3.77-5.05	4.24	3.73-4.77	3.85	3.47-4.24
Dec-15	197.72	120.83-285.6	429.40	311.32-568.96	541.78	406.33-687.64	0.77	0.47-1.12	1.01	0.74-1.34	0.88	0.66-1.11
Jan-16	1192.74	1044.39-1347.03	1732.68	1556.57-1908.79	2178.59	1977.07-2380.11	4.67	4.09-5.27	4.09	3.68-4.51	3.53	3.2-3.86
Feb-16	392.12	272.31-522.83	678.24	516.76-839.73	1013.93	834.38-1204.04	1.54	1.07-2.05	1.60	1.22-1.98	1.64	1.35-1.95
Mar-16	632.62	486.63-815.1	1388.54	1161.11-1604	2260.90	1984.06-2549.28	2.48	1.91-3.19	3.28	2.74-3.79	3.67	3.22-4.13
Apr-16	748.91	568.61-943.07	1446.17	1209.78-1710.37	1913.52	1620.2-2207.18	2.93	2.23-3.69	3.41	2.86-4.04	3.10	2.63-3.58
Sep-16	193.46	108.82-290.19	198.04	118.82-316.86	254.00	157.24-362.85	0.76	0.43-1.14	0.47	0.28-0.75	0.41	0.25-0.59
Oct-16	11.14	0-33.41	36.53	0-85.23	33.50	0-78.16	0.04	0-0.13	0.09	0-0.2	0.05	0-0.13
Nov-16	198.55	114.95-282.15	689.40	540.03-850.26	982.88	792.65-1173.12	0.78	0.45-1.1	1.63	1.28-2.01	1.59	1.28-1.9
Dec-16	1024.65	836.21-1213.09	1735.95	1483.94-2000.53	2067.95	1799.23-2348.64	4.01	3.27-4.75	4.10	3.5-4.72	3.35	2.92-3.81
Jan-17	1209.54	993.1-1438.72	2185.00	1908.07-2489.58	3001.30	2659.38-3317.9	4.74	3.89-5.63	5.16	4.51-5.88	4.87	4.31-5.38
Feb-17	104.88	34.96-174.79	178.35	101.92-280.27	243.87	139.36-348.39	0.41	0.14-0.68	0.42	0.24-0.66	0.40	0.23-0.56
Mar-17	521.57	387.84-667.12	837.97	665.06-1050.79	1253.89	1034.76-1461.14	2.04	1.52-2.61	1.98	1.57-2.48	2.03	1.68-2.37
Apr-17	1822.81	1606.95-	2760.66	2448.13-	3992.90	3633.96-	7.14	6.29-8.12	6.52	5.78-7.23	6.47	5.89-7



East Anglia TWO Technical Appendix 12.1 Offshore Ornithology Annex 2 - Survey Abundance

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
		2074.64		3060.17		4315.68						
May-17	46.93	11.73-105.58	140.63	63.92-230.12	164.44	82.22-258.41	0.18	0.05-0.41	0.33	0.15-0.54	0.27	0.13-0.42
Jun-17	103.15	38.68-180.52	112.86	42.32-197.5	205.10	102.55-307.64	0.40	0.15-0.71	0.27	0.1-0.47	0.33	0.17-0.5
Jul-17	424.18	290.87-569.61	570.02	410.95-742.36	664.36	507.33-845.86	1.66	1.14-2.23	1.35	0.97-1.75	1.08	0.82-1.37
Aug-17	105.85	42.34-179.94	162.08	92.62-254.7	370.98	254.38-498.17	0.41	0.17-0.7	0.38	0.22-0.6	0.60	0.41-0.81
Sep-17	116.89	58.44-185.07	171.79	96.63-257.69	157.78	88.75-236.67	0.46	0.23-0.72	0.41	0.23-0.61	0.26	0.14-0.38
Oct-17	79.94	34.26-137.32	125.78	62.89-213.83	172.86	92.19-253.54	0.31	0.13-0.54	0.30	0.15-0.5	0.28	0.15-0.41
May-18	432.72	296.72-568.72	950.57	763.13-1164.78	889.61	691.92-1062.89	1.69	1.16-2.23	2.24	1.8-2.75	1.44	1.12-1.72

Table 12.1. East Anglia TWO. Commic Tern design based estimates of birds in flight and on sea.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-17	26.75	0-62.41	29.15	0-68.01	35.71	8.93-71.41	0.10	0-0.24	0.07	0-0.16	0.06	0.01-0.12
Jun-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	16.09	0-40.22	17.60	0-43.99	16.11	0-40.28	0.06	0-0.16	0.04	0-0.1	0.03	0-0.07
Sep-17	14.81	0-37.01	16.32	0-40.8	14.99	0-37.47	0.06	0-0.14	0.04	0-0.1	0.02	0-0.06
Oct-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-18	18.79	0-46.98	91.58	40.7-152.63	112.68	56.34-178.42	0.07	0-0.18	0.22	0.1-0.36	0.18	0.09-0.29

Table 12.2. East Anglia TWO. Commic Tern design based estimates of birds in flight.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-17	26.75	0-62.41	29.15	0-68.01	35.71	8.93-71.41	0.10	0-0.24	0.07	0-0.16	0.06	0.01-0.12
Jun-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	8.04	0-24.13	8.80	0-35.19	8.06	0-24.17	0.03	0-0.09	0.02	0-0.08	0.01	0-0.04
Sep-17	14.81	0-37.01	16.32	0-40.8	14.99	0-44.97	0.06	0-0.14	0.04	0-0.1	0.02	0-0.07
Oct-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-18	18.79	0-46.98	91.58	40.7-162.8	112.68	56.34-178.42	0.07	0-0.18	0.22	0.1-0.38	0.18	0.09-0.29

Table 12.3. East Anglia TWO. Commic Tern design based estimates of birds on the sea surface.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-15	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-16	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-16	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-17	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-17	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-17	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-17	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jun-17	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	8.04	0-24.13	8.8	0-26.4	8.06	0-24.17	0.03	0-0.09	0.02	0-0.06	0.01	0-0.04
Sep-17	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-18	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0

Table 13.1. East Anglia TWO. Kittiwake design based estimates of birds in flight and on sea.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	73.46	32.65-122.43	237.13	155.15-310.92	409.97	303.17-524.76	0.29	0.13-0.48	0.56	0.37-0.73	0.66	0.49-0.85
Dec-15	37.26	9.31-74.51	46.70	9.34-93.4	65.39	28.03-121.44	0.15	0.04-0.29	0.11	0.02-0.22	0.11	0.05-0.2
Jan-16	171.07	115.72-231.45	222.43	163.11-291.62	351.62	278.36-434.64	0.67	0.45-0.91	0.53	0.39-0.69	0.57	0.45-0.7
Feb-16	55.41	18.47-101.59	84.30	37.47-140.5	113.64	56.82-179.93	0.22	0.07-0.4	0.20	0.09-0.33	0.18	0.09-0.29
Mar-16	144.41	72.21-226.94	322.86	229.13-437.42	444.75	310.29-579.21	0.57	0.28-0.89	0.76	0.54-1.03	0.72	0.5-0.94
Apr-16	42.16	10.54-84.32	105.68	42.27-179.66	116.77	53.08-191.07	0.17	0.04-0.33	0.25	0.1-0.42	0.19	0.09-0.31
Sep-16	27.57	0-64.33	50.17	10.03-90.31	82.73	36.77-137.88	0.11	0-0.25	0.12	0.02-0.21	0.13	0.06-0.22
Oct-16	0.00	0-0	0.00	0-0	8.49	0-25.46	0.00	0-0	0.00	0-0	0.01	0-0.04
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	134.26	71.61-214.82	245.23	156.95-353.13	293.02	204.22-390.91	0.53	0.28-0.84	0.58	0.37-0.83	0.47	0.33-0.63
Jan-17	203.20	125.79-290.29	388.87	273.26-515	654.46	519.72-798.83	0.80	0.49-1.14	0.92	0.65-1.22	1.06	0.84-1.29
Feb-17	0.00	0-0	0.00	0-0	17.65	0-44.13	0.00	0-0	0.00	0-0	0.03	0-0.07
Mar-17	147.49	82.74-221.24	222.40	131.42-313.37	231.30	138.78-333.07	0.58	0.32-0.87	0.53	0.31-0.74	0.37	0.22-0.54
Apr-17	419.25	309.88-537.73	514.63	385.97-643.29	645.08	508.8-781.37	1.64	1.21-2.11	1.22	0.91-1.52	1.05	0.82-1.27
May-17	17.83	0-44.58	29.15	0-68.01	116.05	53.56-178.54	0.07	0-0.17	0.07	0-0.16	0.19	0.09-0.29
Jun-17	88.20	39.2-146.99	150.10	75.05-225.15	224.07	136.39-311.74	0.35	0.15-0.58	0.35	0.18-0.53	0.36	0.22-0.51
Jul-17	165.79	101.32-248.69	272.02	171.27-382.84	330.49	220.33-440.65	0.65	0.4-0.97	0.64	0.4-0.9	0.54	0.36-0.71
Aug-17	24.13	0-56.31	26.40	0-61.59	56.39	24.17-104.72	0.09	0-0.22	0.06	0-0.15	0.09	0.04-0.17
Sep-17	7.40	0-22.39	8.16	0-24.48	22.48	0-52.46	0.03	0-0.09	0.02	0-0.06	0.04	0-0.09
Oct-17	0.00	0-0	9.56	0-28.68	17.52	0-43.79	0.00	0-0	0.02	0-0.07	0.03	0-0.07
May-18	140.94	75.17-216.11	488.40	366.3-630.86	535.25	413.17-676.1	0.55	0.29-0.85	1.15	0.86-1.49	0.87	0.67-1.1

Table 13.2. East Anglia TWO. Kittiwake design based estimates of birds in flight and on sea including unidentified birds assigned using positively identified proportions.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	79.64	36.77-128.62	259.17	178.21-344.62	462.96	348.9-576.37	0.31	0.14-0.5	0.61	0.42-0.81	0.75	0.57-0.93
Dec-15	37.26	9.31-74.51	46.70	9.34-93.4	65.39	28.03-121.44	0.15	0.04-0.29	0.11	0.02-0.22	0.11	0.05-0.2
Jan-16	171.07	115.72-231.45	222.43	163.11-291.62	351.62	278.36-434.64	0.67	0.45-0.91	0.53	0.39-0.69	0.57	0.45-0.7
Feb-16	64.65	18.47-111.06	93.67	46.83-149.87	139.88	66.29-213.47	0.25	0.07-0.43	0.22	0.11-0.35	0.23	0.11-0.35
Mar-16	181.89	108.43-273.5	361.99	258.46-486.35	501.14	368.33-656.65	0.71	0.42-1.07	0.85	0.61-1.15	0.81	0.6-1.06
Apr-16	42.16	10.54-84.32	105.68	42.27-179.66	116.77	53.08-191.07	0.17	0.04-0.33	0.25	0.1-0.42	0.19	0.09-0.31
Sep-16	27.57	0-64.33	50.17	10.03-90.31	82.73	36.77-137.88	0.11	0-0.25	0.12	0.02-0.21	0.13	0.06-0.22
Oct-16	0.44	0-1.1	0.75	0-1.88	25.46	0-59.4	0.00	0-0	0.00	0-0	0.04	0-0.1
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	134.26	71.61-214.82	245.23	156.95-353.13	310.78	213.1-408.45	0.53	0.28-0.84	0.58	0.37-0.83	0.50	0.35-0.66
Jan-17	203.20	125.79-290.29	388.87	273.26-515	654.46	519.72-798.83	0.80	0.49-1.14	0.92	0.65-1.22	1.06	0.84-1.29
Feb-17	0.23	0-0.69	0.39	0-1.18	20.63	0-47.11	0.00	0-0	0.00	0-0	0.03	0-0.08
Mar-17	147.49	82.74-221.24	222.40	131.42-313.37	231.30	138.78-333.07	0.58	0.32-0.87	0.53	0.31-0.74	0.37	0.22-0.54
Apr-17	419.25	309.88-537.73	514.63	385.97-643.29	645.08	508.8-781.37	1.64	1.21-2.11	1.22	0.91-1.52	1.05	0.82-1.27
May-17	17.83	0-44.58	29.15	0-68.01	124.98	62.49-187.46	0.07	0-0.17	0.07	0-0.16	0.20	0.1-0.3
Jun-17	88.20	39.2-146.99	150.10	75.05-225.15	224.07	136.39-311.74	0.35	0.15-0.58	0.35	0.18-0.53	0.36	0.22-0.51
Jul-17	202.64	128.95-294.74	322.39	221.39-443.29	385.57	275.41-504.92	0.79	0.5-1.15	0.76	0.52-1.05	0.63	0.45-0.82
Aug-17	24.13	0-56.31	26.40	0-61.59	56.39	24.17-104.72	0.09	0-0.22	0.06	0-0.15	0.09	0.04-0.17
Sep-17	37.01	7.4-74.03	40.80	8.16-81.6	67.45	29.98-119.91	0.14	0.03-0.29	0.10	0.02-0.19	0.11	0.05-0.19
Oct-17	0.00	0-0	9.56	0-28.68	17.52	0-43.79	0.00	0-0	0.02	0-0.07	0.03	0-0.07
May-18	150.34	84.57-225.51	518.93	396.83-661.38	572.81	441.34-723.05	0.59	0.33-0.88	1.23	0.94-1.56	0.93	0.72-1.17

Table 13.3. East Anglia TWO. Kittiwake design based estimates of birds in flight.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	40.81	8.16-73.46	179.89	106.3-253.48	336.18	237.78-442.77	0.16	0.03-0.29	0.42	0.25-0.6	0.54	0.39-0.72
Dec-15	18.63	0-46.57	28.02	0-65.38	46.71	9.34-93.42	0.07	0-0.18	0.07	0-0.15	0.08	0.02-0.15
Jan-16	130.82	85.41-181.13	177.94	123.57-237.25	288.13	219.76-361.38	0.51	0.33-0.71	0.42	0.29-0.56	0.47	0.36-0.59
Feb-16	9.24	0-27.71	37.47	9.37-74.94	56.82	18.94-104.17	0.04	0-0.11	0.09	0.02-0.18	0.09	0.03-0.17
Mar-16	41.26	10.32-82.52	124.98	62.49-197.88	144.80	72.4-217.46	0.16	0.04-0.32	0.30	0.15-0.47	0.23	0.12-0.35
Apr-16	42.16	10.54-84.32	73.98	31.7-126.82	74.31	21.23-127.38	0.17	0.04-0.33	0.17	0.07-0.3	0.12	0.03-0.21
Sep-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-16	0.00	0-0	0.00	0-0	8.49	0-25.46	0.00	0-0	0.00	0-0	0.01	0-0.04
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	125.31	62.66-196.92	225.61	146.89-323.7	275.26	186.47-372.93	0.49	0.25-0.77	0.53	0.35-0.76	0.45	0.3-0.6
Jan-17	87.09	38.46-145.15	126.12	63.06-199.69	192.49	115.49-279.11	0.34	0.15-0.57	0.30	0.15-0.47	0.31	0.19-0.45
Feb-17	0.00	0-0	0.00	0-0	8.83	0-26.48	0.00	0-0	0.00	0-0	0.01	0-0.04
Mar-17	18.44	0-46.09	30.33	0-70.76	46.26	9.25-92.52	0.07	0-0.18	0.07	0-0.17	0.07	0.01-0.15
Apr-17	182.28	100.25-264.31	237.52	148.2-326.59	254.40	163.54-345.25	0.71	0.39-1.03	0.56	0.35-0.77	0.41	0.27-0.56
May-17	17.83	0-44.58	29.15	0-68.01	98.20	44.63-151.76	0.07	0-0.17	0.07	0-0.16	0.16	0.07-0.25
Jun-17	68.60	19.6-127.39	117.94	53.61-192.99	185.10	107.16-272.78	0.27	0.08-0.5	0.28	0.13-0.46	0.30	0.17-0.44
Jul-17	128.95	64.48-202.64	191.42	110.82-292.17	238.69	156.07-330.49	0.50	0.25-0.79	0.45	0.26-0.69	0.39	0.25-0.54
Aug-17	24.13	0-56.31	26.40	0-61.59	40.28	8.06-80.55	0.09	0-0.22	0.06	0-0.15	0.07	0.01-0.13
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-18	131.55	65.77-197.32	386.65	264.55-508.75	413.17	291.1-535.25	0.52	0.26-0.77	0.91	0.62-1.2	0.67	0.47-0.87

Table 13.4. East Anglia TWO. Kittiwake design based estimates of birds in flight including unidentified birds assigned using positively identified proportions.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	47.00	16.27-81.71	203.77	135.62-278.42	381.72	287.03-491.28	0.18	0.06-0.32	0.48	0.32-0.66	0.62	0.47-0.8
Dec-15	18.63	0-46.57	28.02	0-65.38	46.71	9.34-93.42	0.07	0-0.18	0.07	0-0.15	0.08	0.02-0.15
Jan-16	130.82	85.41-181.13	177.94	123.57-237.25	288.13	219.76-361.38	0.51	0.33-0.71	0.42	0.29-0.56	0.47	0.36-0.59
Feb-16	9.24	0-27.71	37.47	9.37-74.94	64.84	18.94-119.51	0.04	0-0.11	0.09	0.02-0.18	0.11	0.03-0.19
Mar-16	41.26	10.32-82.52	124.98	62.49-197.88	144.80	72.4-217.46	0.16	0.04-0.32	0.30	0.15-0.47	0.23	0.12-0.35
Apr-16	42.16	10.54-84.32	73.98	31.7-126.82	74.31	21.23-127.38	0.17	0.04-0.33	0.17	0.07-0.3	0.12	0.03-0.21
Sep-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-16	0.22	0-0.66	0.38	0-1.13	16.97	0-42.43	0.00	0-0	0.00	0-0	0.03	0-0.07
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	125.31	62.66-196.92	225.61	146.89-323.7	275.26	186.47-372.93	0.49	0.25-0.77	0.53	0.35-0.76	0.45	0.3-0.6
Jan-17	87.09	38.46-145.15	126.12	63.06-199.69	192.49	115.49-279.11	0.34	0.15-0.57	0.30	0.15-0.47	0.31	0.19-0.45
Feb-17	0.00	0-0	0.00	0-0	8.83	0-26.48	0.00	0-0	0.00	0-0	0.01	0-0.04
Mar-17	18.44	0-46.09	30.33	0-70.76	46.26	9.25-92.52	0.07	0-0.18	0.07	0-0.17	0.07	0.01-0.15
Apr-17	182.28	100.25-264.31	237.52	148.2-326.59	254.40	163.54-345.25	0.71	0.39-1.03	0.56	0.35-0.77	0.41	0.27-0.56
May-17	17.83	0-44.58	29.15	0-68.01	98.20	44.63-151.76	0.07	0-0.17	0.07	0-0.16	0.16	0.07-0.25
Jun-17	68.60	19.6-127.39	117.94	53.61-192.99	185.10	107.16-272.78	0.27	0.08-0.5	0.28	0.13-0.46	0.30	0.17-0.44
Jul-17	128.95	64.48-202.64	191.42	110.82-292.17	238.69	156.07-330.49	0.50	0.25-0.79	0.45	0.26-0.69	0.39	0.25-0.54
Aug-17	24.13	0-56.31	26.40	0-61.59	40.28	8.06-80.55	0.09	0-0.22	0.06	0-0.15	0.07	0.01-0.13
Sep-17	22.21	0-51.82	24.48	0-57.12	22.48	0-52.46	0.09	0-0.2	0.06	0-0.13	0.04	0-0.09
Oct-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-18	131.55	65.77-197.32	376.48	264.55-508.75	403.78	291.1-535.25	0.52	0.26-0.77	0.89	0.62-1.2	0.65	0.47-0.87



Table 13.5. East Anglia TWO. Kittiwake design based estimates of birds on the sea surface.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	32.65	8.16-73.46	57.24	24.33-106.3	73.79	32.8-122.99	0.13	0.03-0.29	0.14	0.06-0.25	0.12	0.05-0.2
Dec-15	18.63	0-46.57	18.68	0-46.7	18.68	0-46.71	0.07	0-0.18	0.04	0-0.11	0.03	0-0.08
Jan-16	40.25	15.09-70.44	44.49	19.77-74.14	63.49	34.18-102.55	0.16	0.06-0.28	0.11	0.05-0.18	0.10	0.06-0.17
Feb-16	46.18	9.24-92.36	46.83	9.37-93.67	56.82	18.94-104.17	0.18	0.04-0.36	0.11	0.02-0.22	0.09	0.03-0.17
Mar-16	103.15	41.26-165.05	197.88	114.56-302.03	299.95	196.52-403.38	0.40	0.16-0.65	0.47	0.27-0.71	0.49	0.32-0.65
Apr-16	0.00	0-0	31.70	0-73.98	42.46	10.62-84.92	0.00	0-0	0.07	0-0.17	0.07	0.02-0.14
Sep-16	27.57	0-64.33	50.17	10.03-100.34	82.73	27.58-147.08	0.11	0-0.25	0.12	0.02-0.24	0.13	0.04-0.24
Oct-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	8.95	0-26.85	19.62	0-58.85	17.76	0-44.4	0.04	0-0.11	0.05	0-0.14	0.03	0-0.07
Jan-17	116.12	48.38-193.53	262.75	157.65-357.34	461.97	346.48-596.71	0.45	0.19-0.76	0.62	0.37-0.84	0.75	0.56-0.97
Feb-17	0.00	0-0	0.00	0-0	8.83	0-26.48	0.00	0-0	0.00	0-0	0.01	0-0.04
Mar-17	129.06	73.75-202.8	192.07	111.2-283.05	185.04	111.02-268.31	0.51	0.29-0.79	0.45	0.26-0.67	0.30	0.18-0.43
Apr-17	236.96	154.94-328.33	277.11	178.14-376.08	390.68	290.51-508.8	0.93	0.61-1.29	0.65	0.42-0.89	0.63	0.47-0.82
May-17	0.00	0-0	0.00	0-0	17.85	0-44.63	0.00	0-0	0.00	0-0	0.03	0-0.07
Jun-17	19.60	0-49	32.16	0-75.05	38.97	9.74-87.68	0.08	0-0.19	0.08	0-0.18	0.06	0.02-0.14
Jul-17	36.84	9.21-73.69	80.60	30.22-141.05	91.80	45.9-146.88	0.14	0.04-0.29	0.19	0.07-0.33	0.15	0.07-0.24
Aug-17	0.00	0-0	0.00	0-0	16.11	0-40.28	0.00	0-0	0.00	0-0	0.03	0-0.07
Sep-17	7.40	0-22.21	8.16	0-24.48	22.48	0-52.46	0.03	0-0.09	0.02	0-0.06	0.04	0-0.09
Oct-17	0.00	0-0	9.56	0-28.68	17.52	0-43.79	0.00	0-0	0.02	0-0.07	0.03	0-0.07
May-18	9.40	0-28.19	101.75	40.7-172.98	122.07	65.73-187.81	0.04	0-0.11	0.24	0.1-0.41	0.20	0.11-0.3

Table 13.6. East Anglia TWO. Kittiwake design based estimates of birds on the sea surface including unidentified birds assigned using positively identified proportions.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	32.65	8.16-73.46	57.24	24.33-106.3	78.27	32.8-127.47	0.13	0.03-0.29	0.14	0.06-0.25	0.13	0.05-0.21
Dec-15	18.63	0-46.57	18.68	0-46.7	18.68	0-46.71	0.07	0-0.18	0.04	0-0.11	0.03	0-0.08
Jan-16	40.25	15.09-70.44	44.49	19.77-74.14	63.49	34.18-102.55	0.16	0.06-0.28	0.11	0.05-0.18	0.10	0.06-0.17
Feb-16	55.41	18.47-101.82	56.20	18.73-103.04	74.31	27.69-128.96	0.22	0.07-0.4	0.13	0.04-0.24	0.12	0.04-0.21
Mar-16	136.85	70.95-215.59	237.01	145.16-341.16	349.66	244.9-472.57	0.54	0.28-0.84	0.56	0.34-0.81	0.57	0.4-0.77
Apr-16	0.00	0-0	31.70	0-73.98	42.46	10.62-84.92	0.00	0-0	0.07	0-0.17	0.07	0.02-0.14
Sep-16	27.57	0-64.33	50.17	10.03-100.34	82.73	27.58-147.08	0.11	0-0.25	0.12	0.02-0.24	0.13	0.04-0.24
Oct-16	0.22	0-0.88	0.38	0-1.13	8.49	0-25.46	0.00	0-0	0.00	0-0	0.01	0-0.04
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	8.95	0-26.85	19.62	0-58.85	35.52	8.88-71.03	0.04	0-0.11	0.05	0-0.14	0.06	0.01-0.12
Jan-17	116.12	48.38-193.53	262.75	157.65-357.34	461.97	346.48-596.71	0.45	0.19-0.76	0.62	0.37-0.84	0.75	0.56-0.97
Feb-17	0.23	0-0.69	0.39	0-1.18	11.81	0-32.44	0.00	0-0	0.00	0-0	0.02	0-0.05
Mar-17	129.06	73.75-202.8	192.07	111.2-283.05	175.79	111.02-268.31	0.51	0.29-0.79	0.45	0.26-0.67	0.28	0.18-0.43
Apr-17	236.96	154.94-328.33	277.11	178.14-376.08	390.68	290.51-508.8	0.93	0.61-1.29	0.65	0.42-0.89	0.63	0.47-0.82
May-17	0.00	0-0	0.00	0-0	26.78	0-62.49	0.00	0-0	0.00	0-0	0.04	0-0.1
Jun-17	19.60	0-49	32.16	0-75.05	38.97	9.74-87.68	0.08	0-0.19	0.08	0-0.18	0.06	0.02-0.14
Jul-17	73.69	27.63-128.95	130.97	70.27-211.57	146.88	82.62-220.33	0.29	0.11-0.5	0.31	0.17-0.5	0.24	0.13-0.36
Aug-17	0.00	0-0	0.00	0-0	16.11	0-40.28	0.00	0-0	0.00	0-0	0.03	0-0.07
Sep-17	14.81	0-37.01	16.32	0-40.8	44.97	14.99-82.44	0.06	0-0.14	0.04	0-0.1	0.07	0.02-0.13
Oct-17	0.00	0-0	9.56	0-28.68	17.52	0-43.79	0.00	0-0	0.02	0-0.07	0.03	0-0.07
May-18	18.79	0-46.98	132.28	61.05-213.68	159.63	93.9-234.99	0.07	0-0.18	0.31	0.14-0.5	0.26	0.15-0.38

Table 14.1. East Anglia TWO. Black-headed Gull design based estimates of birds in flight and on sea.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	155.07	89.78-220.37	179.89	114.47-253.68	196.79	122.99-278.78	0.61	0.35-0.86	0.42	0.27-0.6	0.32	0.2-0.45
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	10.32	0-30.95	10.41	0-31.24	10.34	0-31.03	0.04	0-0.12	0.02	0-0.07	0.02	0-0.05
Apr-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jun-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-18	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0

Table 14.2. East Anglia TWO. Black-headed Gull design based estimates of birds in flight and on sea including unidentified birds assigned using positively identified proportions.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	167.52	102.64-237.12	200.22	131.57-276.67	220.66	150.43-301.62	0.66	0.4-0.93	0.47	0.31-0.65	0.36	0.24-0.49
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	12.27	0.65-38.11	11.35	0.31-33.12	11.42	0.43-32.97	0.05	0-0.15	0.03	0-0.08	0.02	0-0.05
Apr-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-16	0.04	0-0.1	0.05	0-0.12	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-17	0.02	0-0.06	0.02	0-0.07	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jun-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-18	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0



Table 14.3. East Anglia TWO. Black-headed Gull design based estimates of birds in flight.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	155.07	89.78-228.53	179.89	106.3-253.48	196.79	122.79-278.78	0.61	0.35-0.89	0.42	0.25-0.6	0.32	0.2-0.45
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	10.32	0-30.95	10.41	0-31.24	10.34	0-31.03	0.04	0-0.12	0.02	0-0.07	0.02	0-0.05
Apr-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jun-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-18	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0

Table 14.4. East Anglia TWO. Black-headed Gull design based estimates of birds in flight including unidentified birds assigned using positively identified proportions.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	167.52	102.65-241.4	199.47	129.11-273.82	216.73	144.33-300.17	0.66	0.4-0.95	0.47	0.3-0.65	0.35	0.23-0.49
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	10.32	0-30.95	10.41	0-31.24	10.34	0-31.03	0.04	0-0.12	0.02	0-0.07	0.02	0-0.05
Apr-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-16	0.02	0-0.06	0.02	0-0.07	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jun-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-18	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0

Table 14.5. East Anglia TWO. Black-headed Gull design based estimates of birds on the sea surface.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Dec-15	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Jan-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Feb-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Mar-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Apr-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Sep-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Oct-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Nov-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Dec-16	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Jan-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Feb-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Mar-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Apr-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
May-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Jun-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Jul-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Aug-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Sep-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
Oct-17	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0
May-18	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0	0	0-0



Table 14.6. East Anglia TWO. Black-headed Gull design based estimates of birds on the sea surface including unidentified birds assigned using positively identified proportions.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	0.00	0-0	2.14	0-6.41	0.00	0-0	0	0-0	0	0-0.01
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0	0-0	0	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0	0-0	0	0-0
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0	0-0	0	0-0
Mar-16	2.60	0.65-5.86	1.25	0.31-2.82	1.29	0.43-2.37	0.01	0-0.02	0	0-0.01	0	0-0
Apr-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0	0-0	0	0-0
Sep-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0	0-0	0	0-0
Oct-16	0.02	0-0.08	0.02	0-0.07	0.00	0-0	0.00	0-0	0	0-0	0	0-0
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0	0-0	0	0-0
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0	0-0	0	0-0
Jan-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0	0-0	0	0-0
Feb-17	0.02	0-0.06	0.02	0-0.07	0.00	0-0	0.00	0-0	0	0-0	0	0-0
Mar-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0	0-0	0	0-0
Apr-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0	0-0	0	0-0
May-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0	0-0	0	0-0
Jun-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0	0-0	0	0-0
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0	0-0	0	0-0
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0	0-0	0	0-0
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0	0-0	0	0-0
Oct-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0	0-0	0	0-0
May-18	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0	0-0	0	0-0

Table 15.1. East Anglia TWO. Little Gull design based estimates of birds in flight and on sea.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	65.29	24.49-114.26	106.30	57.24-163.54	147.59	81.99-213.19	0.26	0.1-0.45	0.25	0.14-0.39	0.24	0.13-0.35
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	7.94	0-23.83	17.46	0-43.66	16.06	0-40.16	0.03	0-0.09	0.04	0-0.1	0.03	0-0.07
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-17	9.11	0-27.34	9.90	0-29.69	9.09	0-27.26	0.04	0-0.11	0.02	0-0.07	0.01	0-0.04
May-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jun-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	0.00	0-0	0.00	0-0	8.76	0-26.28	0.00	0-0	0.00	0-0	0.01	0-0.04
May-18	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0

Table 15.2. East Anglia TWO. Little Gull design based estimates of birds in flight and on sea including unidentified birds assigned using positively identified proportions.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	68.91	26.29-119.71	116.20	65.49-178.39	163.42	99.41-235.35	0.27	0.1-0.47	0.27	0.15-0.42	0.26	0.16-0.38
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-16	0.02	0-0.05	0.03	0-0.08	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	7.94	0-23.83	26.20	0-61.13	24.10	0-56.23	0.03	0-0.09	0.06	0-0.14	0.04	0-0.09
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-17	0.01	0-0.03	0.02	0-0.05	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-17	9.11	0-27.34	9.90	0-29.69	9.09	0-27.26	0.04	0-0.11	0.02	0-0.07	0.01	0-0.04
May-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jun-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	0.00	0-0	0.00	0-0	8.76	0-26.28	0.00	0-0	0.00	0-0	0.01	0-0.04
May-18	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0

Table 15.3. East Anglia TWO. Little Gull design based estimates of birds in flight.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	57.13	24.49-97.94	98.12	49.06-155.36	139.39	81.79-205.19	0.22	0.1-0.38	0.23	0.12-0.37	0.23	0.13-0.33
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	7.94	0-23.83	17.46	0-43.66	16.06	0-40.16	0.03	0-0.09	0.04	0-0.1	0.03	0-0.07
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-17	9.11	0-27.34	9.90	0-29.69	9.09	0-27.26	0.04	0-0.11	0.02	0-0.07	0.01	0-0.04
May-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jun-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	0.00	0-0	0.00	0-0	8.76	0-26.28	0.00	0-0	0.00	0-0	0.01	0-0.04
May-18	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0

Table 15.4. East Anglia TWO. Little Gull design based estimates of birds in flight including unidentified birds assigned using positively identified proportions.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	62.56	26.29-106.98	111.33	58.93-171.87	156.52	92.79-227.15	0.24	0.1-0.42	0.26	0.14-0.41	0.25	0.15-0.37
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-16	0.01	0-0.03	0.02	0-0.05	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	7.94	0-23.83	26.20	0-61.13	24.10	0-56.23	0.03	0-0.09	0.06	0-0.14	0.04	0-0.09
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-17	9.11	0-27.34	9.90	0-29.69	9.09	0-27.26	0.04	0-0.11	0.02	0-0.07	0.01	0-0.04
May-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jun-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	0.00	0-0	0.00	0-0	8.76	0-26.28	0.00	0-0	0.00	0-0	0.01	0-0.04
May-18	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0

Table 15.5. East Anglia TWO. Little Gull design based estimates of birds on the sea surface.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	8.16	0-24.49	8.18	0-24.53	8.2	0-24.6	0.03	0-0.1	0.02	0-0.06	0.01	0-0.04
Dec-15	0.00	0-0	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	0.00	0-0	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	0.00	0-0	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-16	0.00	0-0	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-16	0.00	0-0	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	0.00	0-0	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	0.00	0-0	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-17	0.00	0-0	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-17	0.00	0-0	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-17	0.00	0-0	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-17	0.00	0-0	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jun-17	0.00	0-0	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	0.00	0-0	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	0.00	0-0	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	0.00	0-0	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	0.00	0-0	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-18	0.00	0-0	0.00	0-0	0.0	0-0	0.00	0-0	0.00	0-0	0.00	0-0

Table 15.6. East Anglia TWO. Little Gull design based estimates of birds on the sea surface including unidentified birds assigned using positively identified proportions.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	8.16	0-24.49	8.18	0-24.53	9.78	0-26.18	0.03	0-0.1	0.02	0-0.06	0.02	0-0.04
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-16	0.01	0-0.04	0.02	0-0.05	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-17	0.01	0-0.03	0.02	0-0.05	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jun-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-18	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0

Table 16.1. East Anglia TWO. Common Gull design based estimates of birds in flight and on sea.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	9.47	0-28.41	0.00	0-0	0.00	0-0	0.02	0-0.05
Mar-16	10.32	0-30.95	10.41	0-31.24	20.69	0-51.71	0.04	0-0.12	0.02	0-0.07	0.03	0-0.08
Apr-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	0.00	0-0	10.51	0-31.53	28.87	0-67.37	0.00	0-0	0.02	0-0.07	0.05	0-0.11
Feb-17	0.00	0-0	0.00	0-0	35.30	8.83-70.61	0.00	0-0	0.00	0-0	0.06	0.01-0.11
Mar-17	0.00	0-0	0.00	0-0	9.25	0-27.76	0.00	0-0	0.00	0-0	0.01	0-0.04
Apr-17	9.11	0-27.34	9.90	0-29.69	9.09	0-27.26	0.04	0-0.11	0.02	0-0.07	0.01	0-0.04
May-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jun-17	0.00	0-0	0.00	0-0	9.74	0-29.23	0.00	0-0	0.00	0-0	0.02	0-0.05
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	0.00	0-0	28.68	0-66.91	26.28	0-61.31	0.00	0-0	0.07	0-0.16	0.04	0-0.1
May-18	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0



Table 16.2. East Anglia TWO. Common Gull design based estimates of birds in flight and on sea including unidentified birds assigned using positively identified proportions.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	10.92	0.72-32.76	0.00	0-0	0.00	0-0	0.02	0-0.05
Mar-16	12.14	0.61-35.21	11.38	0.32-33.82	22.94	1.8-54.87	0.05	0-0.14	0.03	0-0.08	0.04	0-0.09
Apr-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-16	0.00	0-0.01	0.01	0-0.03	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	0.00	0-0	10.51	0-31.53	28.87	0-67.37	0.00	0-0	0.02	0-0.07	0.05	0-0.11
Feb-17	0.00	0-0.01	0.01	0-0.02	41.15	8.83-82.3	0.00	0-0	0.00	0-0	0.07	0.01-0.13
Mar-17	0.00	0-0	0.00	0-0	9.25	0-27.76	0.00	0-0	0.00	0-0	0.01	0-0.04
Apr-17	9.11	0-27.34	9.90	0-29.69	9.09	0-27.26	0.04	0-0.11	0.02	0-0.07	0.01	0-0.04
May-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jun-17	0.00	0-0	0.00	0-0	9.74	0-29.23	0.00	0-0	0.00	0-0	0.02	0-0.05
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	0.00	0-0	28.68	0-66.91	26.28	0-61.31	0.00	0-0	0.07	0-0.16	0.04	0-0.1
May-18	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0

Table 16.3. East Anglia TWO. Common Gull design based estimates of birds in flight.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	9.47	0-28.41	0.00	0-0	0.00	0-0	0.02	0-0.05
Mar-16	10.32	0-30.95	10.41	0-31.24	20.69	0-51.71	0.04	0-0.12	0.02	0-0.07	0.03	0-0.08
Apr-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	0.00	0-0	0.00	0-0	19.25	0-48.12	0.00	0-0	0.00	0-0	0.03	0-0.08
Feb-17	0.00	0-0	0.00	0-0	35.30	8.83-70.61	0.00	0-0	0.00	0-0	0.06	0.01-0.11
Mar-17	0.00	0-0	0.00	0-0	9.25	0-37.01	0.00	0-0	0.00	0-0	0.01	0-0.06
Apr-17	9.11	0-36.46	9.90	0-29.69	9.09	0-27.26	0.04	0-0.14	0.02	0-0.07	0.01	0-0.04
May-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jun-17	0.00	0-0	0.00	0-0	9.74	0-29.23	0.00	0-0	0.00	0-0	0.02	0-0.05
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-18	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0

Table 16.4. East Anglia TWO. Common Gull design based estimates of birds in flight including unidentified birds assigned using positively identified proportions.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	9.47	0-29.86	0.00	0-0	0.00	0-0	0.02	0-0.05
Mar-16	10.32	0-30.95	10.41	0-31.24	20.69	0-51.71	0.04	0-0.12	0.02	0-0.07	0.03	0-0.08
Apr-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-16	0.00	0-0.01	0.01	0-0.02	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	0.00	0-0	0.00	0-0	19.25	0-48.12	0.00	0-0	0.00	0-0	0.03	0-0.08
Feb-17	0.00	0-0	0.00	0-0	35.30	8.83-70.61	0.00	0-0	0.00	0-0	0.06	0.01-0.11
Mar-17	0.00	0-0	0.00	0-0	9.25	0-37.01	0.00	0-0	0.00	0-0	0.01	0-0.06
Apr-17	9.11	0-36.46	9.90	0-29.69	9.09	0-27.26	0.04	0-0.14	0.02	0-0.07	0.01	0-0.04
May-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jun-17	0.00	0-0	0.00	0-0	9.74	0-29.23	0.00	0-0	0.00	0-0	0.02	0-0.05
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-18	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0

Table 16.5. East Anglia TWO. Common Gull design based estimates of birds on the sea surface.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Dec-15	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Jan-16	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Feb-16	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Mar-16	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Apr-16	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Sep-16	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Oct-16	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Nov-16	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Dec-16	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Jan-17	0	0-0	10.51	0-31.53	9.62	0-28.87	0	0-0	0.02	0-0.07	0.02	0-0.05
Feb-17	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Mar-17	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Apr-17	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
May-17	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Jun-17	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Jul-17	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Aug-17	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Sep-17	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0
Oct-17	0	0-0	28.68	0-66.91	26.28	0-61.31	0	0-0	0.07	0-0.16	0.04	0-0.1
May-18	0	0-0	0.00	0-0	0.00	0-0	0	0-0	0.00	0-0	0.00	0-0

Table 16.6. East Anglia TWO. Common Gull design based estimates of birds on the sea surface including unidentified birds assigned using positively identified proportions.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	1.45	0-3.62	0.00	0-0	0.00	0-0	0.00	0-0.01
Mar-16	2.44	0.61-5.49	1.28	0.32-2.88	2.71	0.9-4.96	0.01	0-0.02	0.00	0-0.01	0.00	0-0.01
Apr-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-16	0.00	0-0.01	0.01	0-0.02	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	0.00	0-0	10.51	0-31.53	9.62	0-28.87	0.00	0-0	0.02	0-0.07	0.02	0-0.05
Feb-17	0.00	0-0.01	0.01	0-0.02	5.84	0-17.53	0.00	0-0	0.00	0-0	0.01	0-0.03
Mar-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jun-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	0.00	0-0	28.68	0-66.91	26.28	0-61.31	0.00	0-0	0.07	0-0.16	0.04	0-0.1
May-18	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0

Table 17.1. East Anglia TWO. Lesser Black-backed Gull design based estimates of birds in flight and on sea.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	0.00	0-0	8.20	0-24.6	0.00	0-0	0.00	0-0	0.01	0-0.04
Dec-15	0.00	0-0	0.00	0-0	37.37	9.34-74.74	0.00	0-0	0.00	0-0	0.06	0.02-0.12
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	9.24	0-27.71	18.73	0-46.83	18.94	0-56.82	0.04	0-0.11	0.04	0-0.11	0.03	0-0.09
Mar-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	10.54	0-31.62	10.57	0-31.7	10.62	0-31.85	0.04	0-0.12	0.02	0-0.07	0.02	0-0.05
Sep-16	55.14	9.19-101.08	70.24	20.07-130.44	82.73	36.77-138.11	0.22	0.04-0.4	0.17	0.05-0.31	0.13	0.06-0.22
Oct-16	0.00	0-0	0.00	0-0	8.49	0-25.46	0.00	0-0	0.00	0-0	0.01	0-0.04
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	9.81	0-29.43	8.88	0-26.64	0.00	0-0	0.02	0-0.07	0.01	0-0.04
Jan-17	29.03	0-67.73	31.53	0-73.57	57.75	19.25-105.87	0.11	0-0.27	0.07	0-0.17	0.09	0.03-0.17
Feb-17	0.00	0-0	0.00	0-0	8.83	0-35.3	0.00	0-0	0.00	0-0	0.01	0-0.06
Mar-17	9.22	0-27.66	10.11	0-30.33	9.25	0-27.76	0.04	0-0.11	0.02	0-0.07	0.01	0-0.04
Apr-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-17	0.00	0-0	0.00	0-0	53.56	17.85-98.2	0.00	0-0	0.00	0-0	0.09	0.03-0.16
Jun-17	9.80	0-29.4	21.44	0-53.61	58.45	19.48-107.16	0.04	0-0.12	0.05	0-0.13	0.09	0.03-0.17
Jul-17	0.00	0-0	0.00	0-0	9.18	0-27.54	0.00	0-0	0.00	0-0	0.01	0-0.04
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	0.00	0-0	0.00	0-0	7.49	0-22.48	0.00	0-0	0.00	0-0	0.01	0-0.04
Oct-17	0.00	0-0	28.68	0-66.91	35.03	8.76-70.07	0.00	0-0	0.07	0-0.16	0.06	0.01-0.11
May-18	28.19	0-65.77	40.70	10.18-81.4	84.51	37.56-140.85	0.11	0-0.26	0.10	0.02-0.19	0.14	0.06-0.23

Table 17.2. East Anglia TWO. Lesser Black-backed Gull design based estimates of birds in flight and on sea including unidentified birds assigned using positively identified proportions.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	0.00	0-0	8.20	0-24.6	0.00	0-0	0.00	0-0	0.01	0-0.04
Dec-15	0.00	0-0	0.00	0-0	37.37	9.34-74.74	0.00	0-0	0.00	0-0	0.06	0.02-0.12
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	9.24	0-27.71	18.73	0-46.83	18.94	0-56.82	0.04	0-0.11	0.04	0-0.11	0.03	0-0.09
Mar-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	10.54	0-31.62	10.57	0-31.7	10.62	0-31.85	0.04	0-0.12	0.02	0-0.07	0.02	0-0.05
Sep-16	55.14	9.19-101.08	70.24	20.07-130.44	82.73	36.77-138.11	0.22	0.04-0.4	0.17	0.05-0.31	0.13	0.06-0.22
Oct-16	0.00	0-0	0.00	0-0	8.49	0-25.46	0.00	0-0	0.00	0-0	0.01	0-0.04
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	9.81	0-29.43	8.88	0-26.64	0.00	0-0	0.02	0-0.07	0.01	0-0.04
Jan-17	29.03	0-67.73	42.04	15.75-89.32	80.08	33.34-132.67	0.11	0-0.27	0.10	0.04-0.21	0.13	0.05-0.22
Feb-17	0.00	0-0	0.00	0-0	8.83	0-35.3	0.00	0-0	0.00	0-0	0.01	0-0.06
Mar-17	9.22	0-27.66	10.11	0-30.33	9.25	0-27.76	0.04	0-0.11	0.02	0-0.07	0.01	0-0.04
Apr-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-17	0.00	0-0	0.00	0-0	53.56	17.85-98.2	0.00	0-0	0.00	0-0	0.09	0.03-0.16
Jun-17	14.19	0-38.87	24.82	0-60.74	64.93	22.72-116.87	0.06	0-0.15	0.06	0-0.14	0.11	0.04-0.19
Jul-17	0.00	0-0	0.00	0-0	9.18	0-27.54	0.00	0-0	0.00	0-0	0.01	0-0.04
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	0.00	0-0	0.00	0-0	7.49	0-22.48	0.00	0-0	0.00	0-0	0.01	0-0.04
Oct-17	0.00	0-0	28.68	0-66.91	35.03	8.76-70.07	0.00	0-0	0.07	0-0.16	0.06	0.01-0.11
May-18	42.31	9.44-84.61	61.96	22.45-110.44	106.50	54.34-168.07	0.17	0.04-0.33	0.15	0.05-0.26	0.17	0.09-0.27

Table 17.3. East Anglia TWO. Lesser Black-backed Gull design based estimates of birds in flight.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	0.00	0-0	8.20	0-24.6	0.00	0-0	0.00	0-0	0.01	0-0.04
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	9.24	0-27.71	18.73	0-46.83	18.94	0-47.35	0.04	0-0.11	0.04	0-0.11	0.03	0-0.08
Mar-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	10.54	0-31.62	10.57	0-31.7	10.62	0-31.85	0.04	0-0.12	0.02	0-0.07	0.02	0-0.05
Sep-16	18.38	0-45.95	30.10	0-70.24	27.58	0-64.35	0.07	0-0.18	0.07	0-0.17	0.04	0-0.1
Oct-16	0.00	0-0	0.00	0-0	8.49	0-25.46	0.00	0-0	0.00	0-0	0.01	0-0.04
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	9.81	0-29.43	8.88	0-26.64	0.00	0-0	0.02	0-0.07	0.01	0-0.04
Jan-17	0.00	0-0	0.00	0-0	9.62	0-28.87	0.00	0-0	0.00	0-0	0.02	0-0.05
Feb-17	0.00	0-0	0.00	0-0	8.83	0-26.48	0.00	0-0	0.00	0-0	0.01	0-0.04
Mar-17	9.22	0-27.66	10.11	0-30.33	9.25	0-27.76	0.04	0-0.11	0.02	0-0.07	0.01	0-0.04
Apr-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jun-17	9.80	0-29.4	21.44	0-53.61	29.23	0-68.19	0.04	0-0.12	0.05	0-0.13	0.05	0-0.11
Jul-17	0.00	0-0	0.00	0-0	9.18	0-27.54	0.00	0-0	0.00	0-0	0.01	0-0.04
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-18	0.00	0-0	0.00	0-0	46.95	9.39-93.9	0.00	0-0	0.00	0-0	0.08	0.02-0.15



Table 17.4. East Anglia TWO. Lesser Black-backed Gull design based estimates of birds in flight including unidentified birds assigned using positively identified proportions.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	0.00	0-0	8.20	0-24.6	0.00	0-0	0.00	0-0	0.01	0-0.04
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	9.24	0-27.71	18.73	0-46.83	18.94	0-47.35	0.04	0-0.11	0.04	0-0.11	0.03	0-0.08
Mar-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	10.54	0-31.62	10.57	0-31.7	10.62	0-31.85	0.04	0-0.12	0.02	0-0.07	0.02	0-0.05
Sep-16	18.38	0-45.95	30.10	0-70.24	27.58	0-64.35	0.07	0-0.18	0.07	0-0.17	0.04	0-0.1
Oct-16	0.00	0-0	0.00	0-0	8.49	0-25.46	0.00	0-0	0.00	0-0	0.01	0-0.04
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	9.81	0-29.43	8.88	0-26.64	0.00	0-0	0.02	0-0.07	0.01	0-0.04
Jan-17	0.00	0-0	0.00	0-0	9.62	0-28.87	0.00	0-0	0.00	0-0	0.02	0-0.05
Feb-17	0.00	0-0	0.00	0-0	8.83	0-26.48	0.00	0-0	0.00	0-0	0.01	0-0.04
Mar-17	9.22	0-27.66	10.11	0-30.33	9.25	0-27.76	0.04	0-0.11	0.02	0-0.07	0.01	0-0.04
Apr-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jun-17	9.80	0-29.4	21.44	0-53.61	29.23	3.24-68.19	0.04	0-0.12	0.05	0-0.13	0.05	0.01-0.11
Jul-17	0.00	0-0	0.00	0-0	9.18	0-27.54	0.00	0-0	0.00	0-0	0.01	0-0.04
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-18	4.72	0-14.16	4.49	0-13.47	46.95	13.59-102.33	0.02	0-0.06	0.01	0-0.03	0.08	0.02-0.17

Table 17.5. East Anglia TWO. Lesser Black-backed Gull design based estimates of birds on the sea surface.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-15	0.00	0-0	0.00	0-0	37.37	9.11-74.74	0.00	0-0	0.00	0-0	0.06	0.01-0.12
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-16	36.76	9.19-73.52	40.14	0-80.27	55.15	18.38-101.12	0.14	0.04-0.29	0.09	0-0.19	0.09	0.03-0.16
Oct-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	29.03	0-67.73	31.53	0-73.57	48.12	9.62-96.24	0.11	0-0.27	0.07	0-0.17	0.08	0.02-0.16
Feb-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-17	0.00	0-0	0.00	0-0	53.56	17.85-98.2	0.00	0-0	0.00	0-0	0.09	0.03-0.16
Jun-17	0.00	0-0	0.00	0-0	29.23	0-68.19	0.00	0-0	0.00	0-0	0.05	0-0.11
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	0.00	0-0	0.00	0-0	7.49	0-22.48	0.00	0-0	0.00	0-0	0.01	0-0.04
Oct-17	0.00	0-0	28.68	0-66.91	35.03	8.76-70.07	0.00	0-0	0.07	0-0.16	0.06	0.01-0.11
May-18	28.19	0-65.77	40.70	10.18-81.4	37.56	9.39-84.51	0.11	0-0.26	0.10	0.02-0.19	0.06	0.02-0.14

Table 17.6. East Anglia TWO. Lesser Black-backed Gull design based estimates of birds on the sea surface including unidentified birds assigned using positively identified proportions.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-15	0.00	0-0	0.00	0-0	37.37	9.11-74.74	0.00	0-0	0.00	0-0	0.06	0.01-0.12
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-16	36.76	9.19-73.52	40.14	0-80.27	55.15	18.38-101.12	0.14	0.04-0.29	0.09	0-0.19	0.09	0.03-0.16
Oct-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	29.03	0-67.73	47.28	15.75-89.32	70.45	31.96-122.37	0.11	0-0.27	0.11	0.04-0.21	0.11	0.05-0.2
Feb-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-17	0.00	0-0	0.00	0-0	53.56	17.85-98.2	0.00	0-0	0.00	0-0	0.09	0.03-0.16
Jun-17	4.73	0-14.19	7.05	0-21.15	29.23	3.24-68.19	0.02	0-0.06	0.02	0-0.05	0.05	0.01-0.11
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	0.00	0-0	0.00	0-0	7.49	0-22.48	0.00	0-0	0.00	0-0	0.01	0-0.04
Oct-17	0.00	0-0	28.68	0-66.91	35.03	8.76-70.07	0.00	0-0	0.07	0-0.16	0.06	0.01-0.11
May-18	37.63	9.4-75.26	54.77	19.16-105.95	58.56	22.98-105.51	0.15	0.04-0.29	0.13	0.05-0.25	0.09	0.04-0.17

Table 18.1. East Anglia TWO. Herring Gull design based estimates of birds in flight and on sea.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	32.71	8.18-65.41	32.80	8.2-65.6	0.00	0-0	0.08	0.02-0.15	0.05	0.01-0.11
Dec-15	0.00	0-0	0.00	0-0	74.74	28.03-130.79	0.00	0-0	0.00	0-0	0.12	0.05-0.21
Jan-16	10.06	0-25.16	9.89	0-24.71	9.77	0-24.42	0.04	0-0.1	0.02	0-0.06	0.02	0-0.04
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	0.00	0-0	10.41	0-31.24	10.34	0-31.03	0.00	0-0	0.02	0-0.07	0.02	0-0.05
Apr-16	0.00	0-0	0.00	0-0	21.23	0-53.08	0.00	0-0	0.00	0-0	0.03	0-0.09
Sep-16	36.76	9.19-82.71	50.17	10.03-90.31	55.15	18.38-101.12	0.14	0.04-0.32	0.12	0.02-0.21	0.09	0.03-0.16
Oct-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	7.94	0-31.77	8.73	0-26.2	8.03	0-24.1	0.03	0-0.12	0.02	0-0.06	0.01	0-0.04
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	0.00	0-0	0.00	0-0	9.62	0-28.87	0.00	0-0	0.00	0-0	0.02	0-0.05
Feb-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-17	0.00	0-0	0.00	0-0	64.76	27.76-120.28	0.00	0-0	0.00	0-0	0.10	0.04-0.19
Apr-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-17	0.00	0-0	0.00	0-0	26.78	0-62.49	0.00	0-0	0.00	0-0	0.04	0-0.1
Jun-17	9.80	0-29.4	10.72	0-32.16	38.97	9.74-77.94	0.04	0-0.12	0.03	0-0.08	0.06	0.02-0.13
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	8.04	0-24.13	8.80	0-26.4	8.06	0-24.17	0.03	0-0.09	0.02	0-0.06	0.01	0-0.04
Sep-17	0.00	0-0	0.00	0-0	14.99	0-37.47	0.00	0-0	0.00	0-0	0.02	0-0.06
Oct-17	0.00	0-0	9.56	0-28.68	26.28	0-61.31	0.00	0-0	0.02	0-0.07	0.04	0-0.1
May-18	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0

Table 18.2. East Anglia TWO. Herring Gull design based estimates of birds in flight and on sea including unidentified birds assigned using positively identified proportions.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	32.71	8.18-65.41	32.80	8.2-65.6	0.00	0-0	0.08	0.02-0.15	0.05	0.01-0.11
Dec-15	0.00	0-0	0.00	0-0	74.74	28.03-130.79	0.00	0-0	0.00	0-0	0.12	0.05-0.21
Jan-16	10.06	0-25.16	9.89	0-24.71	9.77	0-24.42	0.04	0-0.1	0.02	0-0.06	0.02	0-0.04
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	0.00	0-0	10.41	0-31.24	10.34	0-31.03	0.00	0-0	0.02	0-0.07	0.02	0-0.05
Apr-16	0.00	0-0	0.00	0-0	21.23	0-53.08	0.00	0-0	0.00	0-0	0.03	0-0.09
Sep-16	36.76	9.19-82.71	50.17	10.03-90.31	55.15	18.38-101.12	0.14	0.04-0.32	0.12	0.02-0.21	0.09	0.03-0.16
Oct-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	15.88	0-39.71	17.46	0-43.66	24.10	0-56.23	0.06	0-0.16	0.04	0-0.1	0.04	0-0.09
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	0.00	0-0	0.00	0-0	12.60	1.49-34.12	0.00	0-0	0.00	0-0	0.02	0-0.06
Feb-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-17	0.00	0-0	0.00	0-0	64.76	27.76-120.28	0.00	0-0	0.00	0-0	0.10	0.04-0.19
Apr-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-17	0.00	0-0	0.00	0-0	26.78	0-62.49	0.00	0-0	0.00	0-0	0.04	0-0.1
Jun-17	14.87	0-39.54	14.39	0-39.51	41.13	10.81-86.58	0.06	0-0.15	0.03	0-0.09	0.07	0.02-0.14
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	8.04	0-24.13	8.80	0-26.4	8.06	0-24.17	0.03	0-0.09	0.02	0-0.06	0.01	0-0.04
Sep-17	0.00	0-0	0.00	0-0	14.99	0-37.47	0.00	0-0	0.00	0-0	0.02	0-0.06
Oct-17	0.00	0-0	9.56	0-28.68	26.28	0-61.31	0.00	0-0	0.02	0-0.07	0.04	0-0.1
May-18	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0

Table 18.3. East Anglia TWO. Herring Gull design based estimates of birds in flight.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	8.18	0-24.53	8.20	0-24.6	0.00	0-0	0.02	0-0.06	0.01	0-0.04
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	0.00	0-0	0.00	0-0	10.62	0-31.85	0.00	0-0	0.00	0-0	0.02	0-0.05
Sep-16	18.38	0-45.95	30.10	0-70.24	27.58	0-64.35	0.07	0-0.18	0.07	0-0.17	0.04	0-0.1
Oct-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	0.00	0-0	0.00	0-0	9.62	0-28.87	0.00	0-0	0.00	0-0	0.02	0-0.05
Feb-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-17	0.00	0-0	0.00	0-0	9.25	0-27.76	0.00	0-0	0.00	0-0	0.01	0-0.04
Apr-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jun-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-18	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0

Table 18.4. East Anglia TWO. Herring Gull design based estimates of birds in flight including unidentified birds assigned using positively identified proportions.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	8.18	0-24.53	8.20	0-24.6	0.00	0-0	0.02	0-0.06	0.01	0-0.04
Dec-15	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	0.00	0-0	0.00	0-0	10.62	0-31.85	0.00	0-0	0.00	0-0	0.02	0-0.05
Sep-16	18.38	0-45.95	30.10	0-70.24	27.58	0-64.35	0.07	0-0.18	0.07	0-0.17	0.04	0-0.1
Oct-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	0.00	0-0	0.00	0-0	8.03	0-24.1	0.00	0-0	0.00	0-0	0.01	0-0.04
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	0.00	0-0	0.00	0-0	9.62	0-28.87	0.00	0-0	0.00	0-0	0.02	0-0.05
Feb-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-17	0.00	0-0	0.00	0-0	9.25	0-27.76	0.00	0-0	0.00	0-0	0.01	0-0.04
Apr-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jun-17	0.00	0-0	0.00	0-0	2.16	0-6.49	0.00	0-0	0.00	0-0	0.00	0-0.01
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-18	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0

Table 18.5. East Anglia TWO. Herring Gull design based estimates of birds on the sea surface.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	24.53	0-57.24	24.60	0-57.4	0.00	0-0	0.06	0-0.14	0.04	0-0.09
Dec-15	0.00	0-0	0.00	0-0	74.74	28.03-130.79	0.00	0-0	0.00	0-0	0.12	0.05-0.21
Jan-16	5.03	0-15.09	4.94	0-14.83	4.88	0-14.65	0.02	0-0.06	0.01	0-0.04	0.01	0-0.02
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	0.00	0-0	10.41	0-41.66	10.34	0-31.03	0.00	0-0	0.02	0-0.1	0.02	0-0.05
Apr-16	0.00	0-0	0.00	0-0	10.62	0-31.85	0.00	0-0	0.00	0-0	0.02	0-0.05
Sep-16	18.38	0-45.95	20.07	0-50.17	27.58	0-64.35	0.07	0-0.18	0.05	0-0.12	0.04	0-0.1
Oct-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	7.94	0-23.83	8.73	0-26.2	8.03	0-24.1	0.03	0-0.09	0.02	0-0.06	0.01	0-0.04
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Feb-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-17	0.00	0-0	0.00	0-0	55.51	18.5-101.77	0.00	0-0	0.00	0-0	0.09	0.03-0.16
Apr-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-17	0.00	0-0	0.00	0-0	26.78	0-62.49	0.00	0-0	0.00	0-0	0.04	0-0.1
Jun-17	9.80	0-29.64	10.72	0-32.16	38.97	9.74-78.18	0.04	0-0.12	0.03	0-0.08	0.06	0.02-0.13
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	8.04	0-24.13	8.80	0-26.4	8.06	0-24.17	0.03	0-0.09	0.02	0-0.06	0.01	0-0.04
Sep-17	0.00	0-0	0.00	0-0	14.99	0-37.47	0.00	0-0	0.00	0-0	0.02	0-0.06
Oct-17	0.00	0-0	9.56	0-28.68	26.28	0-61.31	0.00	0-0	0.02	0-0.07	0.04	0-0.1
May-18	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0



Table 18.6. East Anglia TWO. Herring Gull design based estimates of birds on the sea surface including unidentified birds assigned using positively identified proportions.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	0.00	0-0	24.53	0-57.24	24.60	0-57.4	0.00	0-0	0.06	0-0.14	0.04	0-0.09
Dec-15	0.00	0-0	0.00	0-0	74.74	28.03-130.79	0.00	0-0	0.00	0-0	0.12	0.05-0.21
Jan-16	5.03	0-15.09	4.94	0-14.83	4.88	0-14.65	0.02	0-0.06	0.01	0-0.04	0.01	0-0.02
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	0.00	0-0	10.41	0-41.66	10.34	0-31.03	0.00	0-0	0.02	0-0.1	0.02	0-0.05
Apr-16	0.00	0-0	0.00	0-0	10.62	0-31.85	0.00	0-0	0.00	0-0	0.02	0-0.05
Sep-16	18.38	0-45.95	20.07	0-50.17	27.58	0-64.35	0.07	0-0.18	0.05	0-0.12	0.04	0-0.1
Oct-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	15.88	0-39.71	17.46	0-43.66	16.06	0-40.16	0.06	0-0.16	0.04	0-0.1	0.03	0-0.07
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	0.00	0-0	0.00	0-0	3.72	1.47-7.44	0.00	0-0	0.00	0-0	0.01	0-0.01
Feb-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-17	0.00	0-0	0.00	0-0	55.51	18.5-101.77	0.00	0-0	0.00	0-0	0.09	0.03-0.16
Apr-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-17	0.00	0-0	0.00	0-0	26.78	0-62.49	0.00	0-0	0.00	0-0	0.04	0-0.1
Jun-17	14.87	0-39.54	14.39	0-39.51	38.97	9.74-84.5	0.06	0-0.15	0.03	0-0.09	0.06	0.02-0.14
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	8.04	0-24.13	8.80	0-26.4	8.06	0-24.17	0.03	0-0.09	0.02	0-0.06	0.01	0-0.04
Sep-17	0.00	0-0	0.00	0-0	14.99	0-37.47	0.00	0-0	0.00	0-0	0.02	0-0.06
Oct-17	0.00	0-0	9.56	0-28.68	26.28	0-61.31	0.00	0-0	0.02	0-0.07	0.04	0-0.1
May-18	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0

Table 19.1. East Anglia TWO. Great Black-backed Gull design based estimates of birds in flight and on sea.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	16.32	0-40.81	24.53	0-57.24	32.80	8.2-73.79	0.06	0-0.16	0.06	0-0.14	0.05	0.01-0.12
Dec-15	27.94	0-65.2	56.04	18.68-102.74	270.92	177.5-373.68	0.11	0-0.26	0.13	0.04-0.24	0.44	0.29-0.61
Jan-16	20.13	5.03-45.28	24.71	4.94-49.43	29.30	9.77-58.6	0.08	0.02-0.18	0.06	0.01-0.12	0.05	0.02-0.09
Feb-16	27.71	0-64.65	37.47	9.37-74.94	37.88	9.47-85.23	0.11	0-0.25	0.09	0.02-0.18	0.06	0.02-0.14
Mar-16	30.95	0-72.21	41.66	10.41-83.32	41.37	10.34-82.74	0.12	0-0.28	0.10	0.02-0.2	0.07	0.02-0.13
Apr-16	10.54	0-31.62	10.57	0-31.7	10.62	0-31.85	0.04	0-0.12	0.02	0-0.07	0.02	0-0.05
Sep-16	27.57	0-55.14	50.17	10.03-100.34	55.15	18.38-101.12	0.11	0-0.22	0.12	0.02-0.24	0.09	0.03-0.16
Oct-16	0.00	0-0	0.00	0-0	8.49	0-25.46	0.00	0-0	0.00	0-0	0.01	0-0.04
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	8.95	0-26.85	9.81	0-29.43	8.88	0-26.64	0.04	0-0.11	0.02	0-0.07	0.01	0-0.04
Jan-17	19.35	0-48.38	31.53	0-73.57	57.75	19.25-105.87	0.08	0-0.19	0.07	0-0.17	0.09	0.03-0.17
Feb-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-17	9.11	0-27.34	9.90	0-29.69	36.34	9.09-72.69	0.04	0-0.11	0.02	0-0.07	0.06	0.01-0.12
May-17	0.00	0-0	0.00	0-0	178.54	107.12-258.88	0.00	0-0	0.00	0-0	0.29	0.17-0.42
Jun-17	0.00	0-0	0.00	0-0	77.94	29.23-136.39	0.00	0-0	0.00	0-0	0.13	0.05-0.22
Jul-17	27.63	0-64.48	30.22	0-70.52	45.90	9.18-91.8	0.11	0-0.25	0.07	0-0.17	0.07	0.01-0.15
Aug-17	0.00	0-0	0.00	0-0	8.06	0-24.17	0.00	0-0	0.00	0-0	0.01	0-0.04
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	0.00	0-0	0.00	0-0	8.76	0-26.28	0.00	0-0	0.00	0-0	0.01	0-0.04
May-18	28.19	0-56.38	50.88	10.18-101.75	103.29	46.72-169.03	0.11	0-0.22	0.12	0.02-0.24	0.17	0.08-0.27

Table 19.2. East Anglia TWO. Great Black-backed Gull design based estimates of birds in flight and on sea including unidentified birds assigned using positively identified proportions.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	16.32	0-40.81	24.53	0-57.24	32.80	8.2-73.79	0.06	0-0.16	0.06	0-0.14	0.05	0.01-0.12
Dec-15	27.94	0-65.2	56.04	18.68-102.74	270.92	177.5-373.68	0.11	0-0.26	0.13	0.04-0.24	0.44	0.29-0.61
Jan-16	20.13	5.03-45.28	24.71	4.94-49.43	29.30	9.77-58.6	0.08	0.02-0.18	0.06	0.01-0.12	0.05	0.02-0.09
Feb-16	27.71	0-64.65	37.47	9.37-74.94	37.88	9.47-85.23	0.11	0-0.25	0.09	0.02-0.18	0.06	0.02-0.14
Mar-16	30.95	0-72.21	41.66	10.41-83.32	41.37	10.34-82.74	0.12	0-0.28	0.10	0.02-0.2	0.07	0.02-0.13
Apr-16	10.54	0-31.62	10.57	0-31.7	10.62	0-31.85	0.04	0-0.12	0.02	0-0.07	0.02	0-0.05
Sep-16	27.57	0-55.14	50.17	10.03-100.34	55.15	18.38-101.12	0.11	0-0.22	0.12	0.02-0.24	0.09	0.03-0.16
Oct-16	0.00	0-0	0.00	0-0	8.49	0-25.46	0.00	0-0	0.00	0-0	0.01	0-0.04
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	8.95	0-26.85	9.81	0-29.43	8.88	0-26.64	0.04	0-0.11	0.02	0-0.07	0.01	0-0.04
Jan-17	19.35	0-48.38	42.06	10.52-89.38	79.81	33.29-128.01	0.08	0-0.19	0.10	0.02-0.21	0.13	0.05-0.21
Feb-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-17	18.23	0-45.57	19.79	0-49.48	45.43	9.09-90.86	0.07	0-0.18	0.05	0-0.12	0.07	0.01-0.15
May-17	0.00	0-0	0.00	0-0	178.54	107.12-258.88	0.00	0-0	0.00	0-0	0.29	0.17-0.42
Jun-17	0.00	0-0	0.00	0-0	85.56	37.8-152.7	0.00	0-0	0.00	0-0	0.14	0.06-0.25
Jul-17	27.63	0-64.48	30.22	0-70.52	45.90	9.18-91.8	0.11	0-0.25	0.07	0-0.17	0.07	0.01-0.15
Aug-17	0.00	0-0	0.00	0-0	8.06	0-24.17	0.00	0-0	0.00	0-0	0.01	0-0.04
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	0.00	0-0	0.00	0-0	8.76	0-26.28	0.00	0-0	0.00	0-0	0.01	0-0.04
May-18	37.54	9.4-79.75	76.91	32.92-132.62	134.44	71.83-210.55	0.15	0.04-0.31	0.18	0.08-0.31	0.22	0.12-0.34

Table 19.3. East Anglia TWO. Great Black-backed Gull design based estimates of birds in flight.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	8.16	0-24.49	16.35	0-40.88	24.60	0-57.4	0.03	0-0.1	0.04	0-0.1	0.04	0-0.09
Dec-15	9.31	0-37.26	18.68	0-46.7	18.68	0-46.71	0.04	0-0.15	0.04	0-0.11	0.03	0-0.08
Jan-16	10.06	0-25.16	14.83	0-34.6	14.65	0-34.18	0.04	0-0.1	0.04	0-0.08	0.02	0-0.06
Feb-16	27.71	0-64.65	37.47	9.37-74.94	37.88	9.47-85.23	0.11	0-0.25	0.09	0.02-0.18	0.06	0.02-0.14
Mar-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	10.54	0-31.62	10.57	0-31.97	10.62	0-42.46	0.04	0-0.12	0.02	0-0.08	0.02	0-0.07
Sep-16	27.57	0-64.33	30.10	0-70.24	36.77	9.19-73.54	0.11	0-0.25	0.07	0-0.17	0.06	0.01-0.12
Oct-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	8.95	0-26.85	9.81	0-29.43	8.88	0-26.64	0.04	0-0.11	0.02	0-0.07	0.01	0-0.04
Jan-17	0.00	0-0	0.00	0-0	9.62	0-28.87	0.00	0-0	0.00	0-0	0.02	0-0.05
Feb-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-17	0.00	0-0	0.00	0-0	9.09	0-27.26	0.00	0-0	0.00	0-0	0.01	0-0.04
May-17	0.00	0-0	0.00	0-0	35.71	8.93-71.41	0.00	0-0	0.00	0-0	0.06	0.01-0.12
Jun-17	0.00	0-0	0.00	0-0	38.97	9.74-77.94	0.00	0-0	0.00	0-0	0.06	0.02-0.13
Jul-17	27.63	0-64.48	30.22	0-60.45	45.90	9.18-91.8	0.11	0-0.25	0.07	0-0.14	0.07	0.01-0.15
Aug-17	0.00	0-0	0.00	0-0	8.06	0-24.17	0.00	0-0	0.00	0-0	0.01	0-0.04
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-18	18.79	0-47.22	20.35	0-50.88	28.17	0-65.73	0.07	0-0.18	0.05	0-0.12	0.05	0-0.11

Table 19.4. East Anglia TWO. Great Black-backed Gull design based estimates of birds in flight including unidentified birds assigned using positively identified proportions.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	8.16	0-24.49	16.35	0-40.88	24.60	0-57.4	0.03	0-0.1	0.04	0-0.1	0.04	0-0.09
Dec-15	9.31	0-37.26	18.68	0-46.7	18.68	0-46.71	0.04	0-0.15	0.04	0-0.11	0.03	0-0.08
Jan-16	10.06	0-25.16	14.83	0-34.6	14.65	0-34.18	0.04	0-0.1	0.04	0-0.08	0.02	0-0.06
Feb-16	27.71	0-64.65	37.47	9.37-74.94	37.88	9.47-85.23	0.11	0-0.25	0.09	0.02-0.18	0.06	0.02-0.14
Mar-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-16	10.54	0-31.62	10.57	0-31.97	10.62	0-42.46	0.04	0-0.12	0.02	0-0.08	0.02	0-0.07
Sep-16	27.57	0-64.33	30.10	0-70.24	36.77	9.19-73.54	0.11	0-0.25	0.07	0-0.17	0.06	0.01-0.12
Oct-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	8.95	0-26.85	9.81	0-29.43	8.88	0-26.64	0.04	0-0.11	0.02	0-0.07	0.01	0-0.04
Jan-17	0.00	0-0	0.00	0-0	9.62	0-28.87	0.00	0-0	0.00	0-0	0.02	0-0.05
Feb-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-17	0.00	0-0	0.00	0-0	9.09	0-27.26	0.00	0-0	0.00	0-0	0.01	0-0.04
May-17	0.00	0-0	0.00	0-0	35.71	8.93-71.41	0.00	0-0	0.00	0-0	0.06	0.01-0.12
Jun-17	0.00	0-0	0.00	0-0	43.31	9.74-82.28	0.00	0-0	0.00	0-0	0.07	0.02-0.13
Jul-17	27.63	0-64.48	30.22	0-60.45	45.90	9.18-91.8	0.11	0-0.25	0.07	0-0.14	0.07	0.01-0.15
Aug-17	0.00	0-0	0.00	0-0	8.06	0-24.17	0.00	0-0	0.00	0-0	0.01	0-0.04
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
May-18	23.42	0-56.38	26.04	0-61.05	33.36	5.19-70.92	0.09	0-0.22	0.06	0-0.14	0.05	0.01-0.11

Table 19.5. East Anglia TWO. Great Black-backed Gull design based estimates of birds on the sea surface.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	8.16	0-24.49	8.18	0-24.53	8.20	0-24.6	0.03	0-0.1	0.02	0-0.06	0.01	0-0.04
Dec-15	18.63	0-46.57	37.36	9.34-84.06	252.23	158.81-354.99	0.07	0-0.18	0.09	0.02-0.2	0.41	0.26-0.58
Jan-16	10.06	0-25.16	9.89	0-24.71	14.65	0-29.3	0.04	0-0.1	0.02	0-0.06	0.02	0-0.05
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	30.95	0-72.21	41.66	10.41-83.32	41.37	10.34-82.74	0.12	0-0.28	0.10	0.02-0.2	0.07	0.02-0.13
Apr-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-16	0.00	0-0	20.07	0-50.17	18.38	0-45.96	0.00	0-0	0.05	0-0.12	0.03	0-0.07
Oct-16	0.00	0-0	0.00	0-0	8.49	0-33.94	0.00	0-0	0.00	0-0	0.01	0-0.06
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	19.35	0-48.38	31.53	0-73.57	48.12	9.62-96.24	0.08	0-0.19	0.07	0-0.17	0.08	0.02-0.16
Feb-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-17	9.11	0-27.34	9.90	0-39.59	27.26	0-63.6	0.04	0-0.11	0.02	0-0.09	0.04	0-0.1
May-17	0.00	0-0	0.00	0-0	142.83	71.41-214.47	0.00	0-0	0.00	0-0	0.23	0.12-0.35
Jun-17	0.00	0-0	0.00	0-0	38.97	9.74-87.68	0.00	0-0	0.00	0-0	0.06	0.02-0.14
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	0.00	0-0	0.00	0-0	8.76	0-26.28	0.00	0-0	0.00	0-0	0.01	0-0.04
May-18	9.40	0-28.19	30.53	0-71.23	75.12	28.17-131.46	0.04	0-0.11	0.07	0-0.17	0.12	0.05-0.21

Table 19.6. East Anglia TWO. Great Black-backed Gull design based estimates of birds on the sea surface including unidentified birds assigned using positively identified proportions.

Date	Abundance						Density					
	Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer		Windfarm		Windfarm & 2km buffer		Windfarm & 4km buffer	
	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval	Median	Confidence interval
Nov-15	8.16	0-24.49	8.18	0-24.53	8.20	0-24.6	0.03	0-0.1	0.02	0-0.06	0.01	0-0.04
Dec-15	18.63	0-46.57	37.36	9.34-84.06	252.23	158.81-354.99	0.07	0-0.18	0.09	0.02-0.2	0.41	0.26-0.58
Jan-16	10.06	0-25.16	9.89	0-24.71	14.65	0-29.3	0.04	0-0.1	0.02	0-0.06	0.02	0-0.05
Feb-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-16	30.95	0-72.21	41.66	10.41-83.32	41.37	10.34-82.74	0.12	0-0.28	0.10	0.02-0.2	0.07	0.02-0.13
Apr-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-16	0.00	0-0	20.07	0-50.17	18.38	0-45.96	0.00	0-0	0.05	0-0.12	0.03	0-0.07
Oct-16	0.00	0-0	0.00	0-0	8.49	0-33.94	0.00	0-0	0.00	0-0	0.01	0-0.06
Nov-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Dec-16	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Jan-17	19.35	0-48.38	47.30	10.52-89.37	69.39	28.06-122.73	0.08	0-0.19	0.11	0.02-0.21	0.11	0.05-0.2
Feb-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Mar-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Apr-17	18.23	0-45.57	19.79	0-59.38	36.34	9.09-81.77	0.07	0-0.18	0.05	0-0.14	0.06	0.01-0.13
May-17	0.00	0-0	0.00	0-0	142.83	71.41-214.47	0.00	0-0	0.00	0-0	0.23	0.12-0.35
Jun-17	0.00	0-0	0.00	0-0	42.25	9.74-90.99	0.00	0-0	0.00	0-0	0.07	0.02-0.15
Jul-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Aug-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Sep-17	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0	0.00	0-0
Oct-17	0.00	0-0	0.00	0-0	8.76	0-26.28	0.00	0-0	0.00	0-0	0.01	0-0.04
May-18	18.70	0-42.26	52.07	15.86-104.14	100.08	48.93-161.64	0.07	0-0.17	0.12	0.04-0.25	0.16	0.08-0.26



**East Anglia TWO Offshore Windfarm PEI**

**Appendix 12.1**

**Offshore Ornithology**

**Annex 3**

**Collision risk model input parameters**

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5	Final Client Approval		

## 1 INTRODUCTION

1. This appendix provides tables of the input parameters for the proposed East Anglia TWO project used in the collision risk modelling, comprising the following tables.

- Table 1: density of birds in flight in the East Anglia TWO aerial Survey Area in each month, presented as the median and upper and lower 95% confidence range derived from 1,000 nonparametric bootstrap simulations (note that stochastic CRM simulations used the individual bootstrap data, not the summary values presented in these tables);
- Table 2: the proportion of each species estimated to be at rotor height ( $\geq 22\text{m}$ ) from the survey data and the sample sizes available (for use in Band Option 1 modelling);
- Table 3: the proportion of each species estimated to be at rotor height ( $\geq 22\text{m}$ ) derived from Johnston et al. (2014; for Band Option 2 modelling);
- Table 4: biometrics of each species modelled (e.g. wingspan, body length, etc.), and;
- Table 5: the windfarm and turbine data.

2. In addition to the tabulated parameters, histograms of the bootstrapped densities of seabirds in flight for East Anglia TWO are provided in Figures 1 to 11. These present the bootstrapped data for each calendar month, with distributions derived from data collected in different years indicated with shading.

3. For the avoidance of doubt, the avoidance rates used were those advised by Natural England, as follows:

- Gannet 98.9% (SD = 0.2%)
- Kittiwake 98.9% (SD = 0.2%)
- Herring gull, lesser black-backed gull, great black-backed gull 99.5% (SD = 0.1%)
- Little gull, common gull, black-headed gull 99.2% (SD = 0.2%)
- All other species 98% (SD = 0.2%)

East Anglia TWO Technical Appendix 12.1 Offshore Ornithology Annex 3 - CRM input parameters

Table 1. East Anglia TWO monthly median densities (and 95% confidence intervals) of birds in flight used in the collision risk modelling.

Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Red-throated Diver	0 (0-0)	0 (0-0)	0 (0-0.108)	0 (0-0.206)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Fulmar	0 (0-0)	0 (0-0.217)	0 (0-0.121)	0.124 (0-0.289)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0.174)	0 (0-0)	0 (0-0)	0 (0-0)
Gannet	0 (0-0.118)	0 (0-0.14)	0 (0-0.144)	0 (0-0.143)	0 (0-0.105)	0.038 (0-0.115)	0.036 (0-0.108)	0.536 (0.284-0.788)	0 (0-0.203)	0.232 (0.066-0.476)	1.11 (0.156-2.749)	0.179 (0-0.766)
Great Skua	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0.124)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0.102)	0 (0-0)	0 (0-0)
Kittiwake	0.433 (0.189-0.67)	0 (0-0.108)	0.108 (0-0.323)	0.371 (0.041-0.964)	0.221 (0-0.773)	0.269 (0.077-0.499)	0.505 (0.252-0.794)	0.095 (0-0.221)	0 (0-0.174)	0 (0-0.003)	0.004 (0-0.296)	0.219 (0-0.702)
Black-headed Gull	0 (0-0)	0 (0-0)	0 (0-0.121)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.113 (0-0.883)	0 (0-0)
Little Gull	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0.107)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.098 (0-0.391)	0 (0-0)
Common Gull	0 (0-0)	0 (0-0)	0 (0-0.121)	0 (0-0.107)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Lesser Black-backed Gull	0 (0-0)	0 (0-0.108)	0 (0-0.108)	0 (0-0.124)	0 (0-0.055)	0.038 (0-0.115)	0 (0-0)	0 (0-0)	0 (0-0.145)	0 (0-0)	0 (0-0)	0 (0-0)
Herring Gull	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0.144)	0 (0-0)	0 (0-0)	0 (0-0)
Great Black-backed Gull	0 (0-0.099)	0 (0-0.217)	0 (0-0)	0 (0-0.124)	0 (0-0.184)	0 (0-0)	0.108 (0-0.252)	0 (0-0)	0 (0-0.216)	0 (0-0)	0 (0-0.096)	0.035 (0-0.109)

Table 2. East Anglia TWO. Total number of birds with an estimated flight height, number at collision height ( $\geq 22\text{m}$ ) and proportion at collision height. Figures provided for all birds within the 4km buffer and just those within the windfarm boundary.

Species	Within 4km buffer			Within windfarm		
	No. height estimates	No. $\geq 22\text{m}$	Proportion $\geq 22\text{m}$	No. height estimates	No. $\geq 22\text{m}$	Proportion $\geq 22\text{m}$
Phocid Species	0	0	0.000	0	0	0.000
Fulmar	44	8	0.182	12	1	0.083
Gannet	232	68	0.293	98	31	0.316
Great Skua	1	0	0.000	1	0	0.000
Kittiwake	319	166	0.520	114	65	0.570
Black-headed Gull	14	2	0.143	10	2	0.200
Little Gull	14	6	0.429	5	2	0.400
Common Gull	13	5	0.385	2	1	0.500
Lesser Black-backed Gull	20	7	0.350	4	1	0.250
Herring Gull	9	3	0.333	2	1	0.500
Great Black-backed Gull	45	18	0.400	12	5	0.417

Table 3. Proportions at collision height ( $\geq 22\text{m}$ ) from Johnston et al. (2014).

Species	Proportion at collision height ( $\geq 22\text{m}$ )			
	Maximum likelihood	Median	Lower confidence interval	Upper confidence interval
Fulmar	0.006	0.005	0	0
Gannet	0.102	0.104	0	0
Great Skua	0.044	0.047	0	0
Kittiwake	0.124	0.124	0	0
Black-headed Gull	0.114	0.108	0	0
Little Gull	0.125	0.114	0	0
Common Gull	0.188	0.202	0	0
Lesser Black-backed Gull	0.249	0.249	0	0
Herring Gull	0.285	0.287	0	0
Great Black-backed Gull	0.291	0.310	0	0

Table 4. Species biometrics used in the collision risk modelling.

Species	Body length (m)	Wingspan (m)	Flight speed (m/s)	Nocturnal activity factor	Flight type (flapping=0, gliding=1)
Red-throated Diver	0.73	1.30	17.0	0.50	0
Fulmar	0.48	1.07	13.0	0.75	0
Gannet	0.94	1.72	14.9	0.25	0
Great Skua	0.56	1.36	14.9	0.00	0
Kittiwake	0.39	1.08	13.1	0.50	0
Black-headed Gull	0.37	1.10	11.9	0.50	0
Little Gull	0.26	0.78	12.2	0.25	0
Common Gull	0.42	1.30	13.4	0.50	0
Lesser Black-backed Gull	0.58	1.42	13.1	0.50	0
Herring Gull	0.60	1.44	12.8	0.50	0
Great Black-backed Gull	0.71	1.58	13.7	0.50	0

Table 5. Windfarm and turbine specifications used in the collision risk modelling.

Turbine output (MW)	No. of rotor blades	RPM	Rotor radius (m)	Hub height above HAT (m)	Predicted operation time (%)	Max. blade width (m)	Mean blade pitch (deg.)	No. of turbines
12	3	7.8	110	134	0.94	6	15	67
15	3	7.3	125	149	0.94	9	15	42
19	3	7.3	125	149	0.94	9	15	42

East Anglia TWO Technical Appendix 12.1 Offshore Ornithology Annex 3 - CRM input parameters

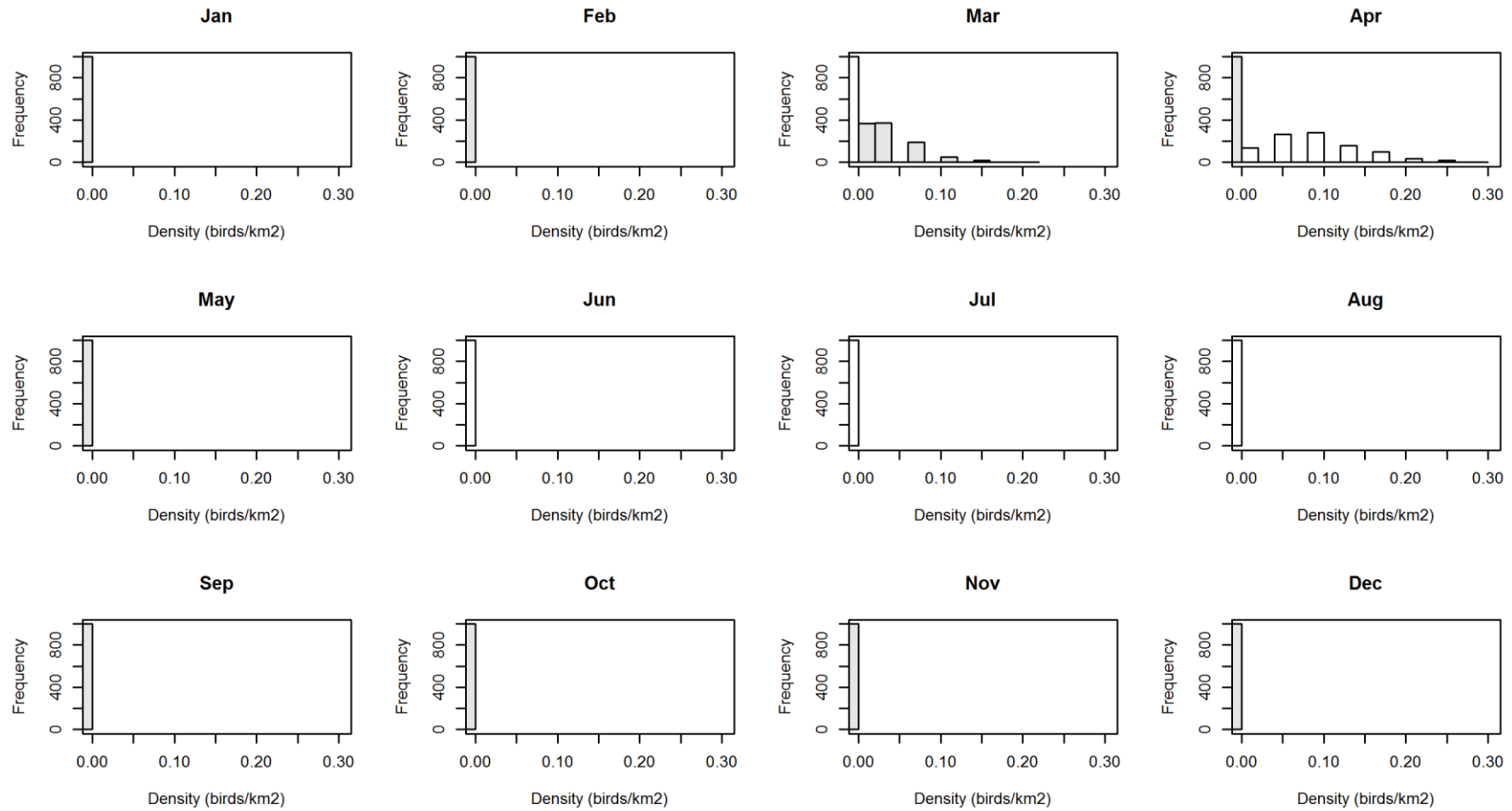


Figure 1. East Anglia TWO. Red-throated Diver bootstrapped design based densities of birds in flight in each year and month of surveys (shading indicates data from different years).

East Anglia TWO Technical Appendix 12.1 Offshore Ornithology Annex 3 - CRM input parameters

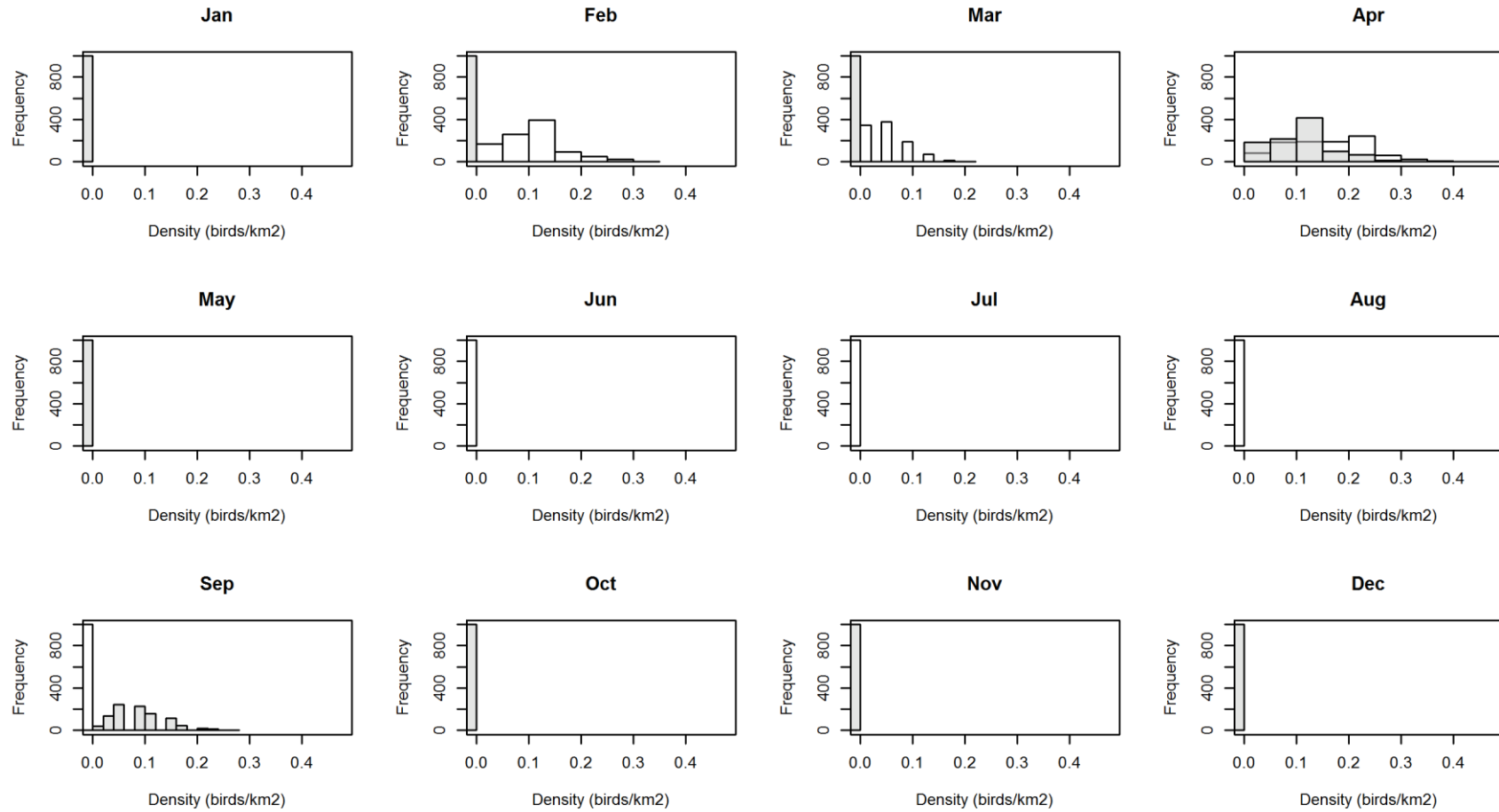


Figure 2. East Anglia TWO. Fulmar bootstrapped design based densities of birds in flight in each year and month of surveys (shading indicates data from different years).



East Anglia TWO Technical Appendix 12.1 Offshore Ornithology Annex 3 - CRM input parameters

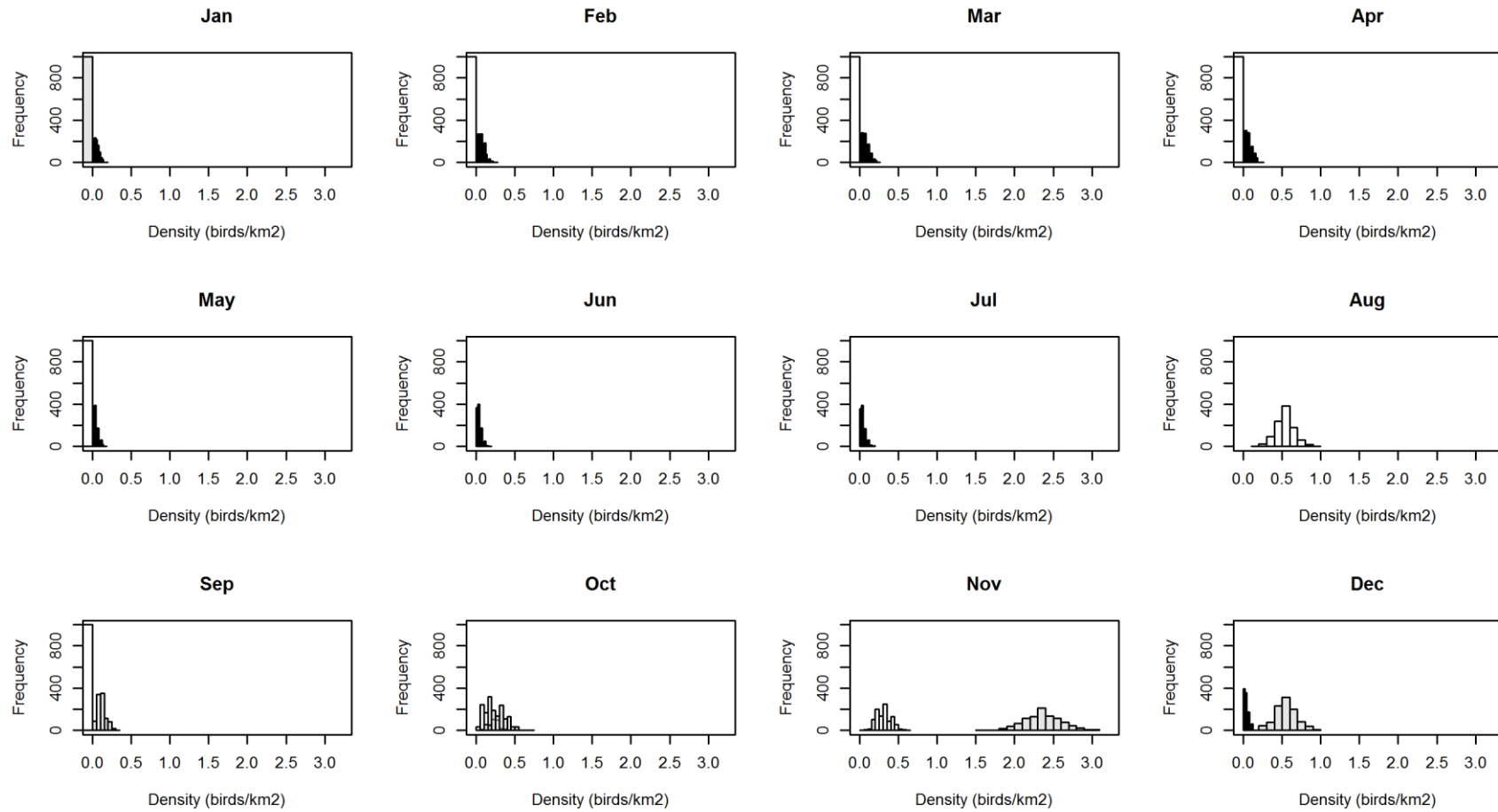


Figure 3. East Anglia TWO. Gannet bootstrapped design based densities of birds in flight in each year and month of surveys (shading indicates data from different years).

East Anglia TWO Technical Appendix 12.1 Offshore Ornithology Annex 3 - CRM input parameters

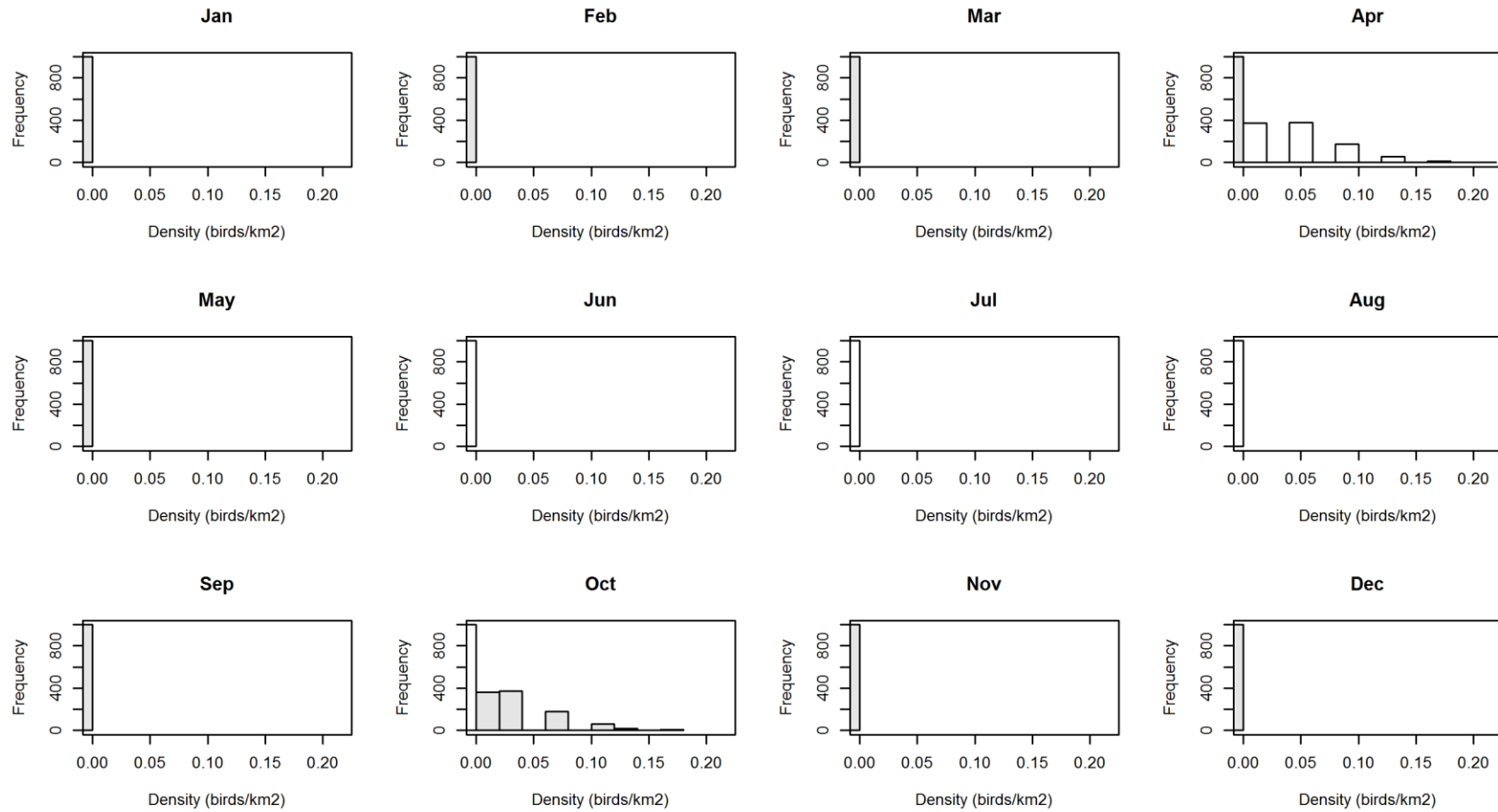


Figure 4. East Anglia TWO. Great Skua bootstrapped design based densities of birds in flight in each year and month of surveys (shading indicates data from different years).

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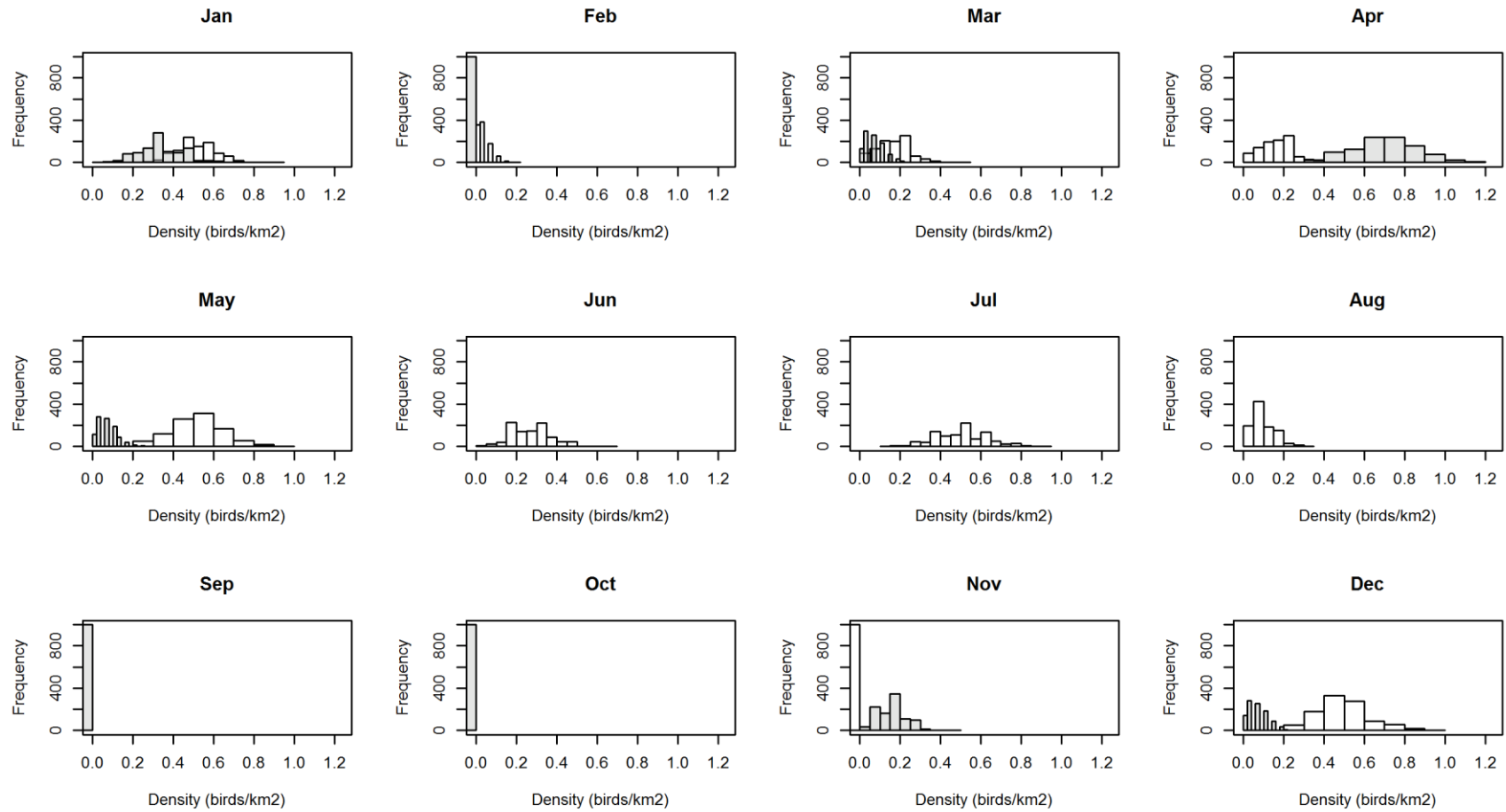


Figure 5. East Anglia TWO. Kittiwake bootstrapped design based densities of birds in flight in each year and month of surveys (shading indicates data from different years).

East Anglia TWO Technical Appendix 12.1 Offshore Ornithology Annex 3 - CRM input parameters

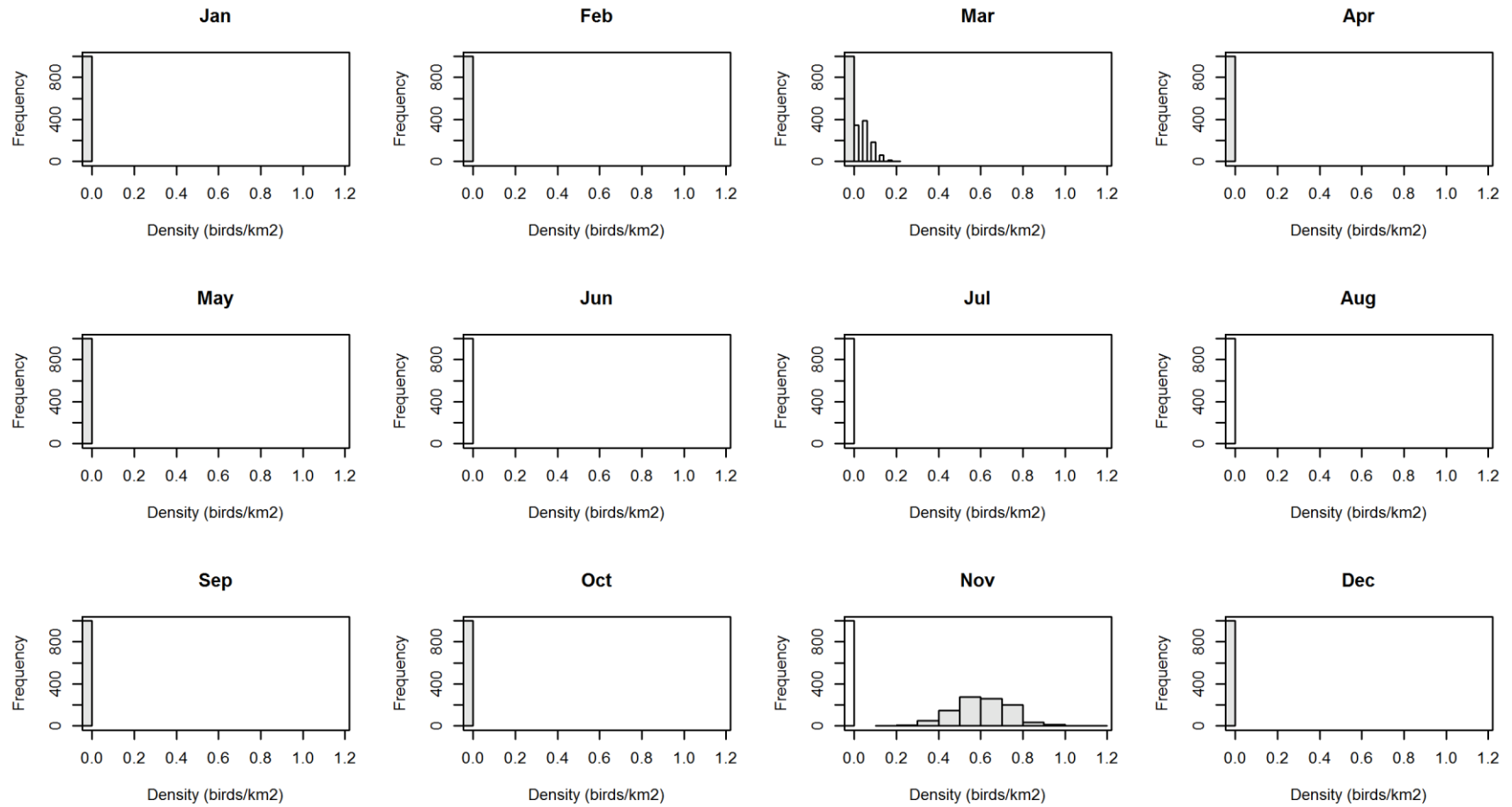


Figure 6. East Anglia TWO. Black-headed Gull bootstrapped design based densities of birds in flight in each year and month of surveys (shading indicates data from different years).

East Anglia TWO Technical Appendix 12.1 Offshore Ornithology Annex 3 - CRM input parameters

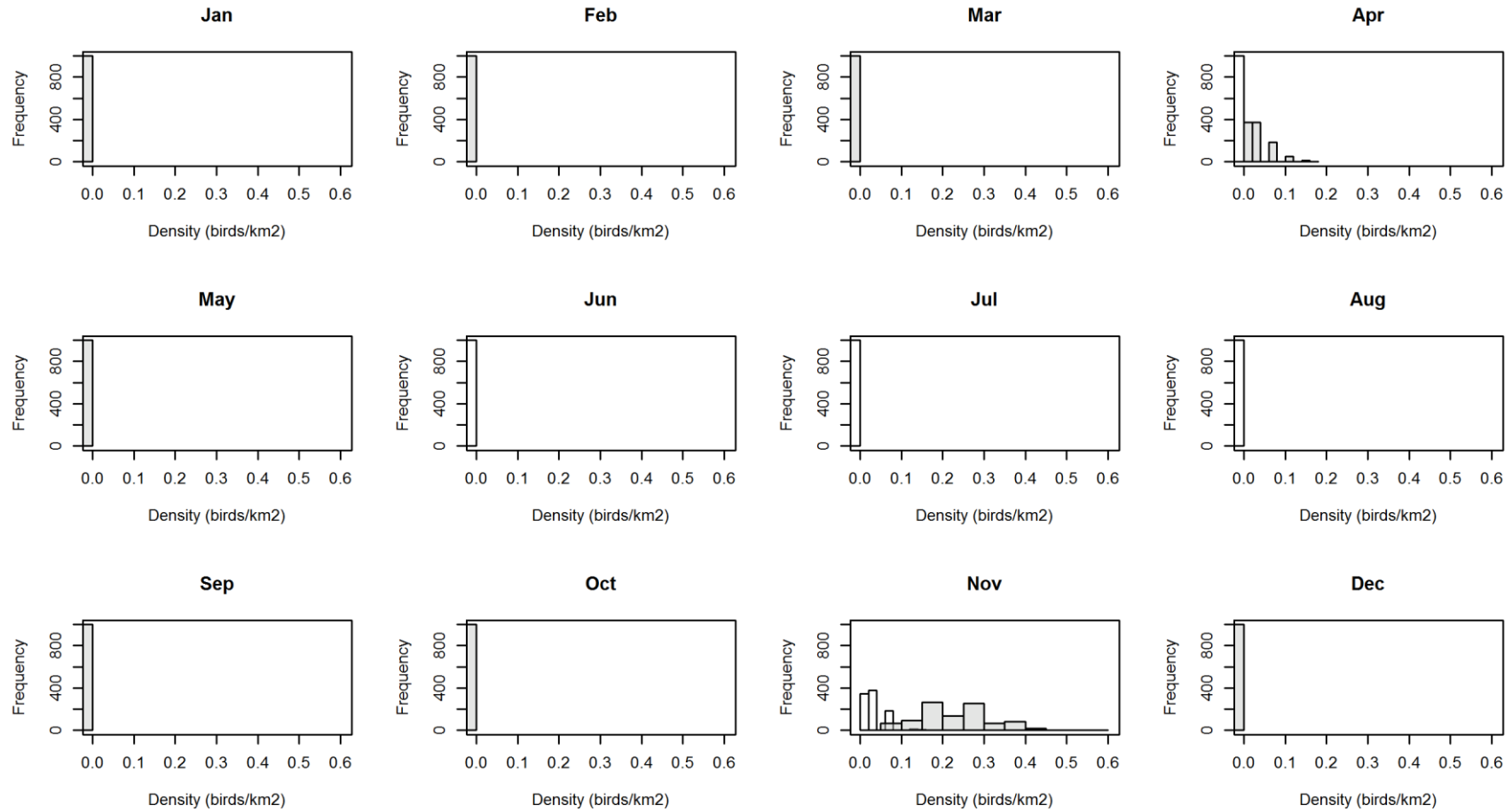


Figure 7. East Anglia TWO. Little Gull bootstrapped design based densities of birds in flight in each year and month of surveys (shading indicates data from different years).

East Anglia TWO Technical Appendix 12.1 Offshore Ornithology Annex 3 - CRM input parameters

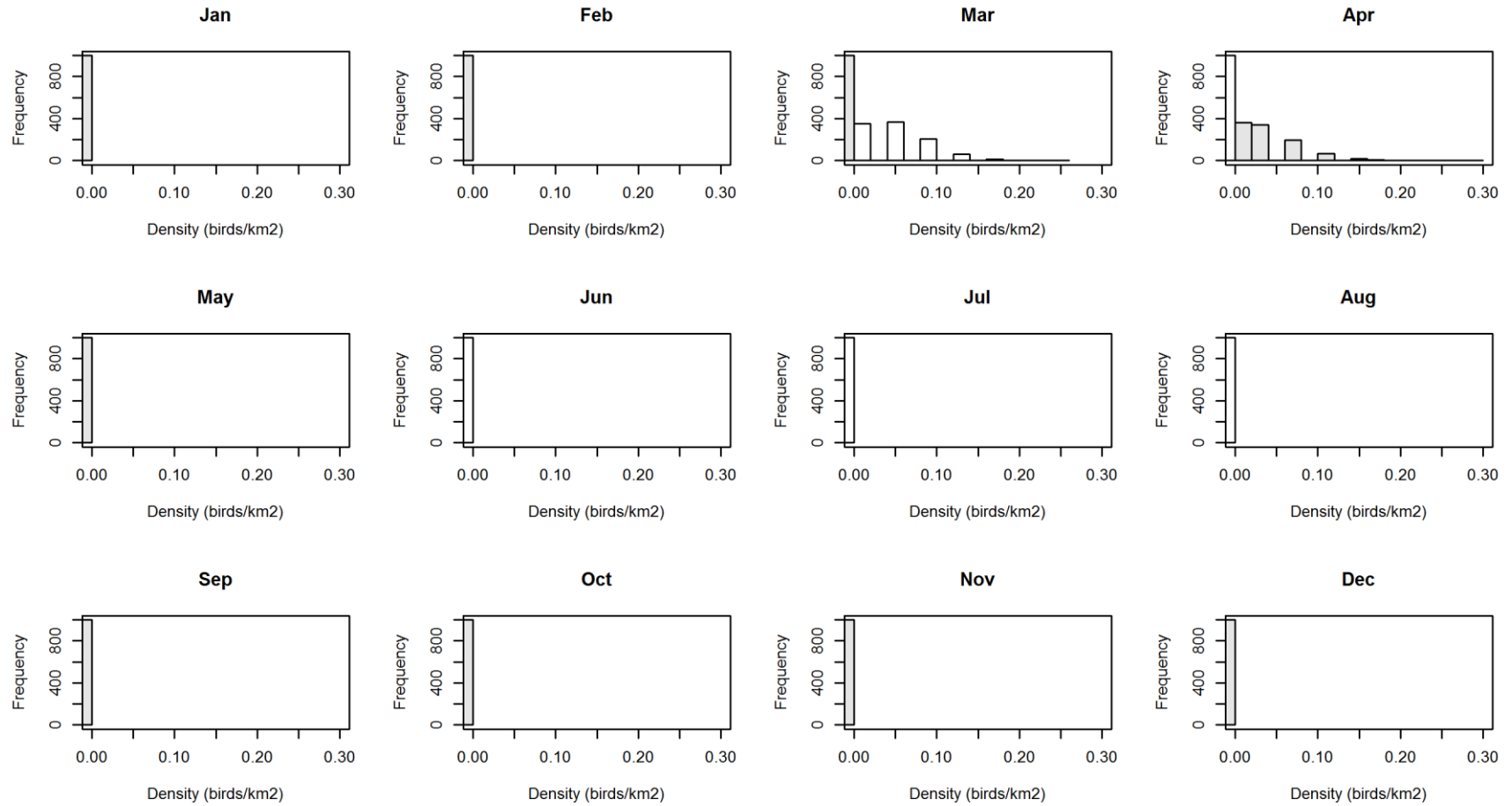


Figure 8. East Anglia TWO. Common Gull bootstrapped design based densities of birds in flight in each year and month of surveys (shading indicates data from different years).

East Anglia TWO Technical Appendix 12.1 Offshore Ornithology Annex 3 - CRM input parameters

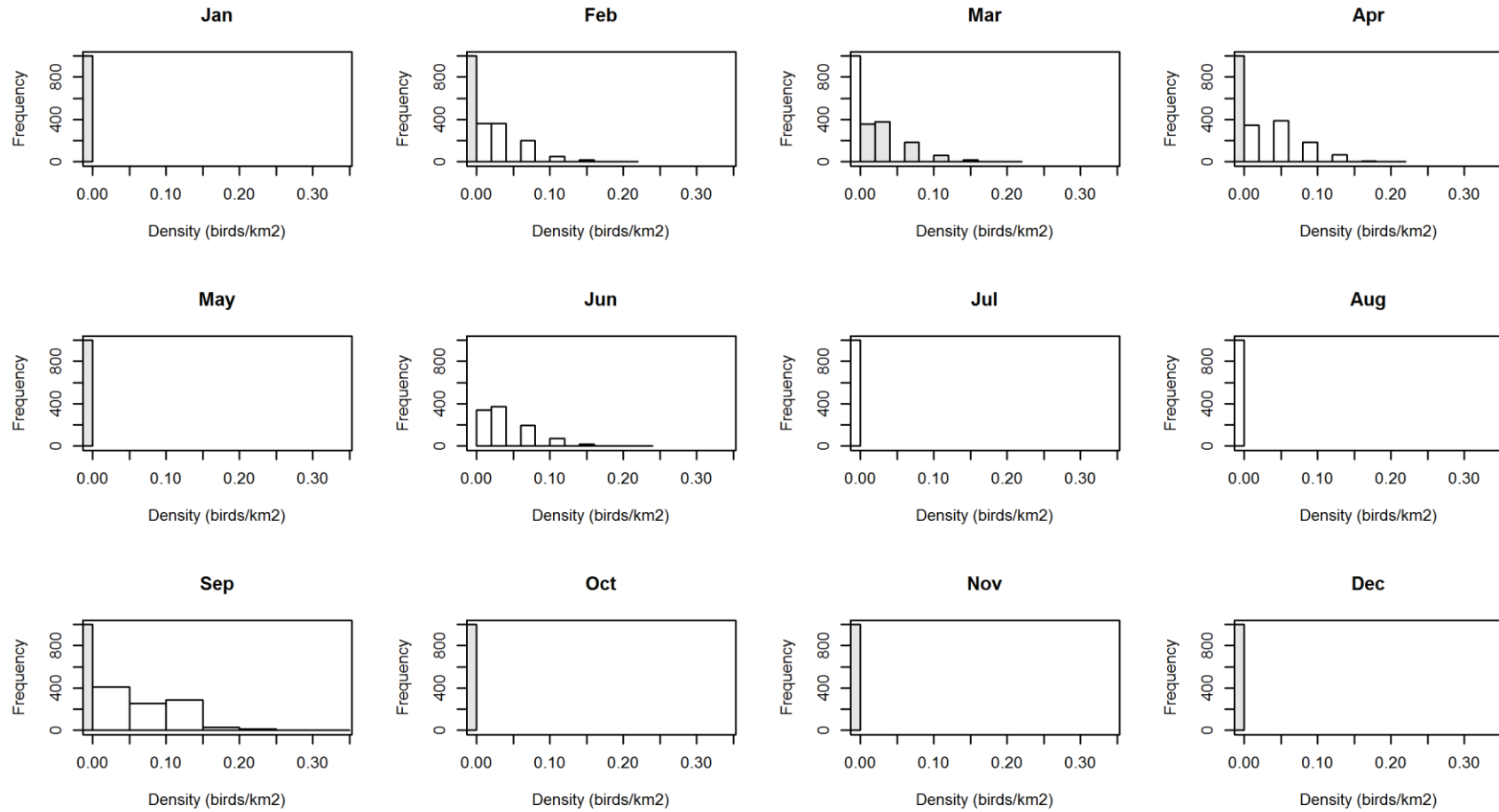


Figure 9. East Anglia TWO. Lesser Black-backed Gull bootstrapped design based densities of birds in flight in each year and month of surveys (shading indicates data from different years).

East Anglia TWO Technical Appendix 12.1 Offshore Ornithology Annex 3 - CRM input parameters

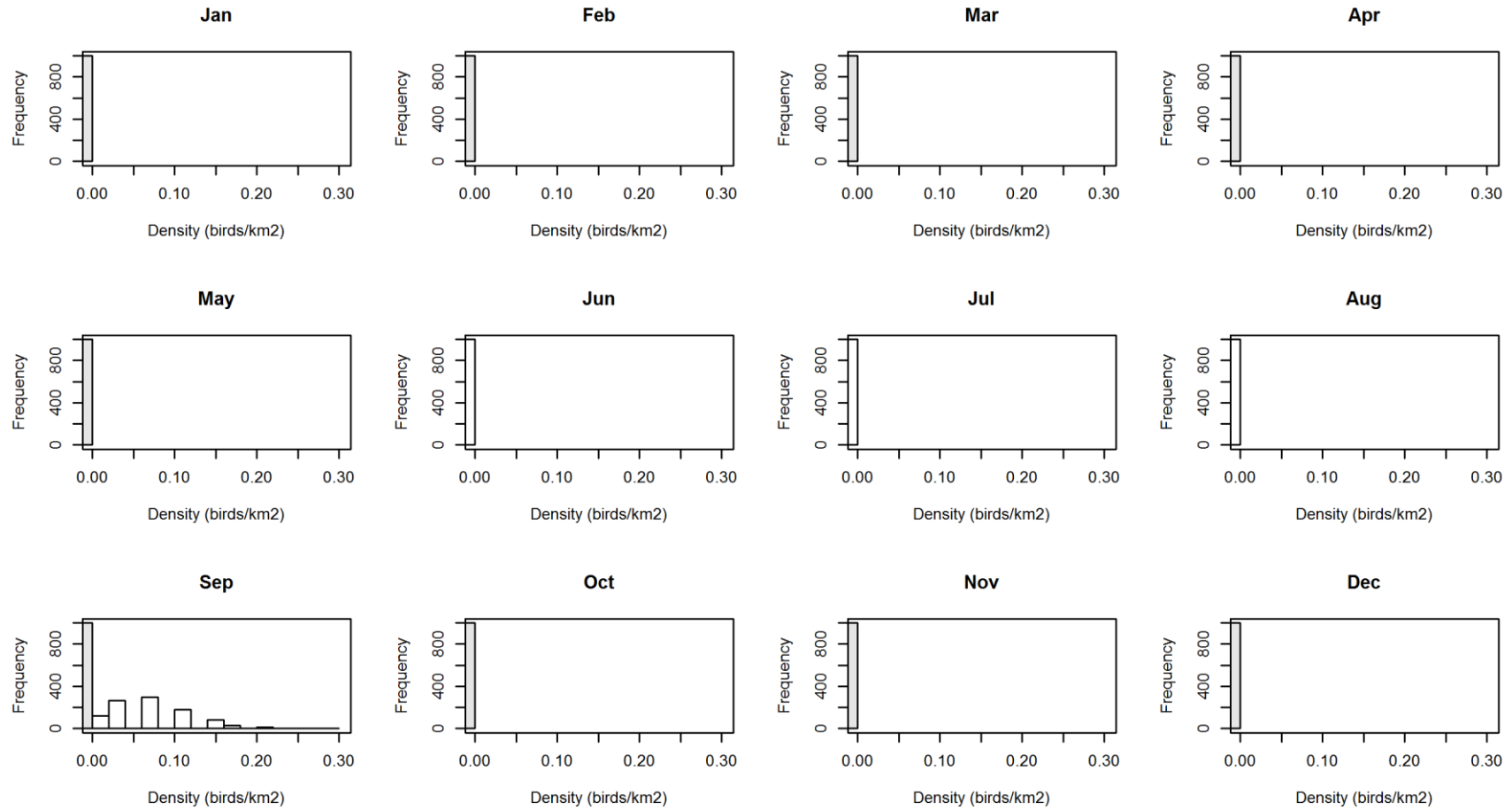


Figure 10. East Anglia TWO. Herring Gull bootstrapped design based densities of birds in flight in each year and month of surveys (shading indicates data from different years).



East Anglia TWO Technical Appendix 12.1 Offshore Ornithology Annex 3 - CRM input parameters

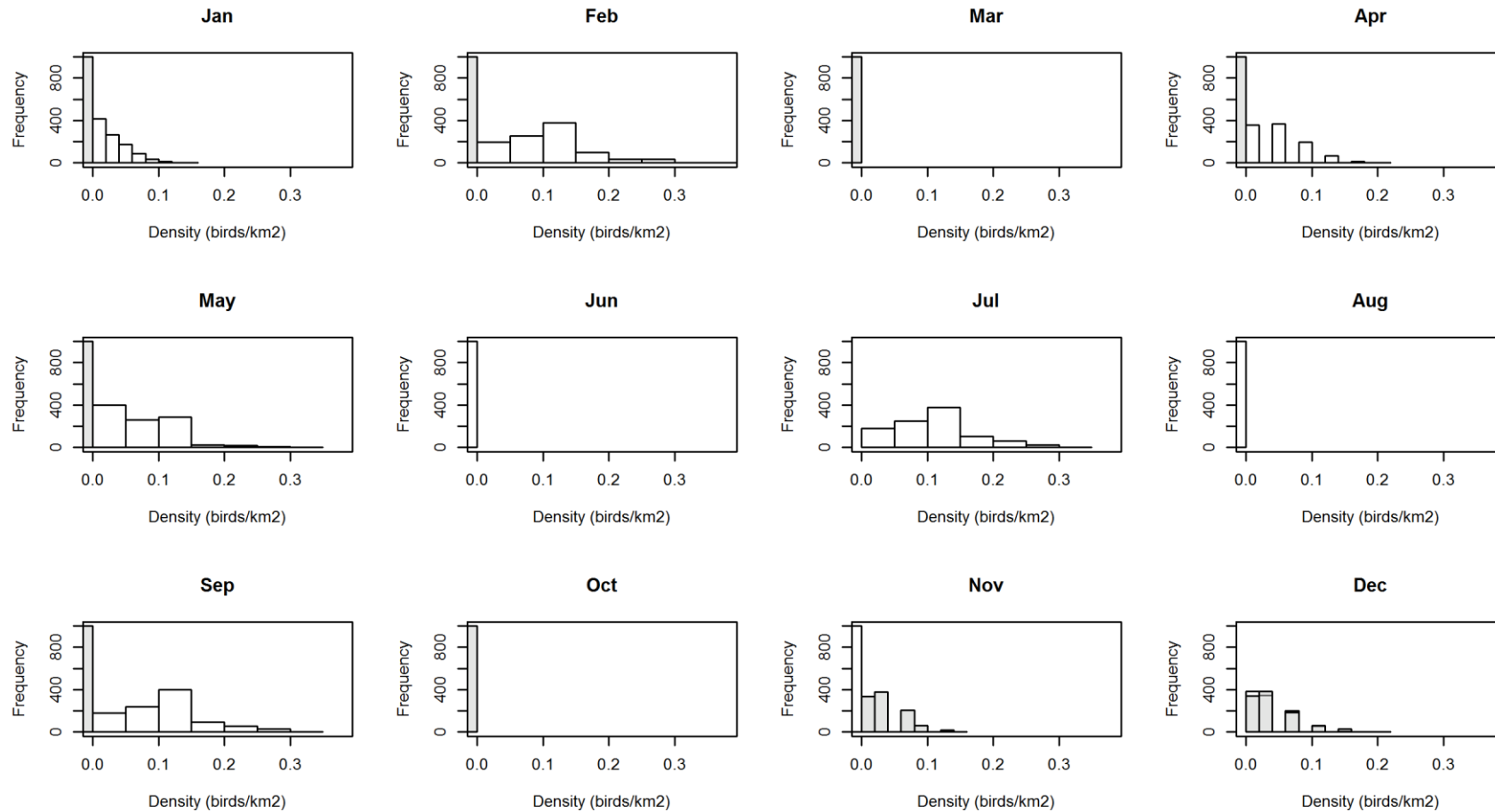


Figure 11. East Anglia TWO. Great Black-backed Gull bootstrapped design based densities of birds in flight in each year and month of surveys (shading indicates data from different years).



**East Anglia TWO Offshore Windfarm PEI**

**Appendix 12.1**

**Offshore Ornithology**

**Annex 4**

**Seabird collision modelling results**

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## **1 INTRODUCTION**

1. This appendix provides results of collision risk modelling (CRM) for the proposed East Anglia TWO project.
2. Collision mortality estimates are presented for each month and summed across the year, produced using the Band CRM (2012) option 2 (generic flight heights) and option 1 (site-based flight heights).
3. Modelling is presented for a range of turbine layout options under consideration, consisting of 12, 15 and 19 MW turbine options.
4. Uncertainty in model parameters has been incorporated using stochastic collision models with the following parameters generated as random values:
  - Seabird density (using the bootstrapped samples – see Appendix 12.1 Methods for details);
  - Proportions at collision height (option 2 only) using data from Johnston et al. (2014);
  - Avoidance rate (using the mean and variance advised in JNCC et al. 2014); and
  - Nocturnal activity, using:
    - i. Gannet - species and season specific values (4.3% in breeding season months and 2.3% in nonbreeding season months; Furness et al. subm.);
    - ii. Kittiwake – species and season specific values (20% in breeding season months and 17% in nonbreeding season months; Furness et al. in prep.);
    - iii. Large gulls – randomly selected as either 25% or 50% in each simulation.
    - iv. All other species – fixed value (see Annex 3 for values).
5. The parameters listed in point 4 were simulated in combination and also individually (i.e. with the other three set to fixed values) to illustrate the relative contributions of each to the overall uncertainty in the collision results.
6. As a final run, all parameters were set to fixed values (i.e. median for density and flight height, mean for avoidance rate) to generate deterministic collision estimates.
7. Collision mortality is presented for each species and turbine using all of the stochastic model scenarios listed above.
8. The input parameter values are provided in Technical Appendix 12.1 Annex 3.
9. Table A4 provides a key to table contents.

Table A4. Key to collision mortality output table numbers, for all combinations of turbine model and input parameters.

Species	Band option	Turbine (MW)		
		12	15	19
Red-throated diver	2	1	12	23
Fulmar		2	13	24
Gannet		3	14	25
Great skua		4	15	26
Kittiwake		5	16	27
Black-headed gull		6	17	28
Little gull		7	18	29
Common gull		8	19	30
Lesser black-backed gull		9	20	31
Herring gull		10	21	32
Great black-backed gull		11	22	33
Red-throated diver	1	34	45	56
Fulmar		35	46	57
Gannet		36	47	58
Great skua		37	48	59
Kittiwake		38	49	60
Black-headed gull		39	50	61
Little gull		40	51	62
Common gull		41	52	63
Lesser black-backed gull		42	53	64
Herring gull		43	54	65
Great black-backed gull		44	55	66





East Anglia TWO Technical Appendix 12.1 Offshore Ornithology Annex 4 – CRM results

Table 3. Gannet collision mortality for the 12MW turbine calculated using Band CRM Option 2. Values are the median and 95% confidence intervals calculated across 1,000 simulations with different combinations of stochastic variables ('Full' - seabird density, avoidance rate, flight height and nocturnal activity; 'Density' - seabird density only; 'AR' - avoidance rate only; 'PCH' - flight height only; 'NAF' - nocturnal activity factor only; 'None' - deterministic).

Stochastic variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual total
Full	0 (0-1.43)	0 (0-2.23)	0 (0-2.58)	0 (0-2.72)	0 (0-1.92)	0.46 (0-2.86)	0.42 (0-3.01)	7.95 (2.15-25.28)	0 (0-4.09)	2.31 (0.33-8.13)	6.27 (0.69-45.52)	1.15 (0-10.9)	18.56 (3.17-110.67)
Density	0 (0-1.13)	0 (0-1.41)	0 (0-2.47)	0 (0-2.19)	0 (0-1.86)	0.7 (0-2.09)	0.66 (0-1.99)	8.94 (4.73-13.67)	0 (0-2.87)	2.83 (0.81-5.8)	10.64 (1.53-27.1)	1.62 (0-7.28)	25.39 (7.07-69.86)
AR	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.69 (0.48-0.97)	0.66 (0.44-0.93)	8.84 (6.14-12.75)	0 (0-0)	2.83 (1.89-3.81)	10.71 (7.5-15.21)	1.62 (1.09-2.28)	25.35 (17.54-35.95)
PCH	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.63 (0.19-1.56)	0.6 (0.16-1.44)	8.52 (2.37-20.17)	0 (0-0)	2.55 (0.64-5.97)	10.29 (2.48-24.08)	1.52 (0.37-3.62)	24.11 (6.21-56.84)
NAF	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.7 (0.69-0.72)	0.66 (0.65-0.68)	8.91 (8.74-9.31)	0 (0-0)	2.82 (2.8-2.86)	10.94 (10.81-11.09)	1.62 (1.6-1.65)	25.65 (25.29-26.31)
None	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.7 (0.7-0.7)	0.66 (0.66-0.66)	8.94 (8.94-8.94)	0 (0-0)	2.83 (2.83-2.83)	10.95 (10.95-10.95)	1.62 (1.62-1.62)	25.7 (25.7-25.7)





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Table 5. Kittiwake collision mortality for the 12MW turbine calculated using Band CRM Option 2. Values are the median and 95% confidence intervals calculated across 1,000 simulations with different combinations of stochastic variables ('Full' - seabird density, avoidance rate, flight height and nocturnal activity; 'Density' - seabird density only; 'AR' - avoidance rate only; 'PCH' - flight height only; 'NAF' - nocturnal activity factor only; 'None' - deterministic).

Stochastic variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual total
Full	3.77 (0.74-11.5)	0 (0-1.25)	1.06 (0-5.53)	4.49 (0.35-25.02)	2.9 (0-18.45)	3.62 (0.76-12.29)	7.09 (1.75-22.03)	1.22 (0-5.07)	0 (0-0)	0 (0-0)	0 (0-3.97)	1.64 (0-9.85)	25.79 (3.6-114.96)
Density	4.52 (1.98-6.99)	0 (0-1.14)	1.47 (0-4.38)	5.22 (0.6-14.1)	3.55 (0-12.13)	4.48 (1.28-7.68)	8.55 (4.27-12.82)	1.49 (0-3.47)	0 (0-0)	0 (0-0)	0 (0-3.03)	2.2 (0-7.4)	31.48 (8.13-73.14)
AR	4.45 (2.99-6.34)	0 (0-0)	1.45 (0.98-2.03)	5.43 (3.72-7.5)	3.64 (2.44-4.99)	4.46 (2.98-6.19)	8.52 (5.9-11.89)	1.49 (1-2.06)	0 (0-0)	0 (0-0)	0.04 (0.03-0.06)	2.18 (1.43-3.08)	31.66 (21.47-44.14)
PCH	4.09 (1.01-9.74)	0 (0-0)	1.33 (0.36-3.22)	5.21 (1.46-12.57)	3.33 (0.93-8.24)	4.04 (1.07-9.77)	7.99 (1.97-19.29)	1.38 (0.34-3.3)	0 (0-0)	0 (0-0)	0.04 (0.01-0.09)	2.02 (0.52-4.67)	29.43 (7.67-70.89)
NAF	4.52 (4.34-4.73)	0 (0-0)	1.46 (1.36-1.6)	5.42 (5.13-5.78)	3.63 (3.48-3.82)	4.48 (4.32-4.68)	8.54 (8.23-8.91)	1.49 (1.42-1.59)	0 (0-0)	0 (0-0)	0.04 (0.04-0.04)	2.2 (2.1-2.3)	31.78 (30.42-33.45)
None	4.52 (4.52-4.52)	0 (0-0)	1.47 (1.47-1.47)	5.43 (5.43-5.43)	3.64 (3.64-3.64)	4.48 (4.48-4.48)	8.55 (8.55-8.55)	1.49 (1.49-1.49)	0 (0-0)	0 (0-0)	0.04 (0.04-0.04)	2.2 (2.2-2.2)	31.82 (31.82-31.82)

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Table 6. Black-headed Gull collision mortality for the 12MW turbine calculated using Band CRM Option 2. Values are the median and 95% confidence intervals calculated across 1,000 simulations with different combinations of stochastic variables ('Full' - seabird density, avoidance rate, flight height and nocturnal activity; 'Density' - seabird density only; 'AR' - avoidance rate only; 'PCH' - flight height only; 'NAF' - nocturnal activity factor only; 'None' - deterministic).

Stochastic variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual total
Full	0 (0-0)	0 (0-0)	0 (0-1.33)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.08 (0-11.96)	0 (0-0)	0.08 (0-13.29)
Density	0 (0-0)	0 (0-0)	0 (0-1.24)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.3 (0-7.54)	0 (0-0)	1.3 (0-8.78)
AR	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1 (0.57-1.53)	0 (0-0)	1 (0.57-1.53)
PCH	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.92 (0.26-2.26)	0 (0-0)	0.92 (0.26-2.26)
NAF	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.02 (1.02-1.02)	0 (0-0)	1.02 (1.02-1.02)
None	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.02 (1.02-1.02)	0 (0-0)	1.02 (1.02-1.02)

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Table 7. Little Gull collision mortality for the 12MW turbine calculated using Band CRM Option 2. Values are the median and 95% confidence intervals calculated across 1,000 simulations with different combinations of stochastic variables ('Full' - seabird density, avoidance rate, flight height and nocturnal activity; 'Density' - seabird density only; 'AR' - avoidance rate only; 'PCH' - flight height only; 'NAF' - nocturnal activity factor only; 'None' - deterministic).

Stochastic variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual total
Full	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0.94)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.5 (0-3.45)	0 (0-0)	0.5 (0-4.39)
Density	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0.94)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.65 (0-2.58)	0 (0-0)	0.65 (0-3.52)
AR	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.64 (0.37-1.01)	0 (0-0)	0.64 (0.37-1.01)
PCH	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.59 (0.16-1.37)	0 (0-0)	0.59 (0.16-1.37)
NAF	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.66 (0.66-0.66)	0 (0-0)	0.66 (0.66-0.66)
None	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.66 (0.66-0.66)	0 (0-0)	0.66 (0.66-0.66)



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Table 9. Lesser Black-backed Gull collision mortality for the 12MW turbine calculated using Band CRM Option 2. Values are the median and 95% confidence intervals calculated across 1,000 simulations with different combinations of stochastic variables ('Full' - seabird density, avoidance rate, flight height and nocturnal activity; 'Density' - seabird density only; 'AR' - avoidance rate only; 'PCH' - flight height only; 'NAF' - nocturnal activity factor only; 'None' - deterministic).

Stochastic variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual total
Full	0 (0-0)	0 (0-1.63)	0 (0-2.12)	0 (0-2.49)	0 (0-0)	0.48 (0-3.15)	0 (0-0)	0 (0-0)	0 (0-3.26)	0 (0-0)	0 (0-0)	0 (0-0)	0.48 (0-12.65)
Density	0 (0-0)	0 (0-1.6)	0 (0-1.87)	0 (0-2.18)	0 (0-0)	0.73 (0-2.18)	0 (0-0)	0 (0-0)	0 (0-3.07)	0 (0-0)	0 (0-0)	0 (0-0)	0.73 (0-10.9)
AR	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.72 (0.48-1.01)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.72 (0.48-1.01)
PCH	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.69 (0.15-1.56)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.69 (0.15-1.56)
NAF	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.73 (0.66-0.73)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.73 (0.66-0.73)
None	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.73 (0.73-0.73)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.73 (0.73-0.73)



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Table 11. Great Black-backed Gull collision mortality for the 12MW turbine calculated using Band CRM Option 2. Values are the median and 95% confidence intervals calculated across 1,000 simulations with different combinations of stochastic variables ('Full' - seabird density, avoidance rate, flight height and nocturnal activity; 'Density' - seabird density only; 'AR' - avoidance rate only; 'PCH' - flight height only; 'NAF' - nocturnal activity factor only; 'None' - deterministic).

Stochastic variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual total
Full	0 (0-2.16)	0 (0-5)	0 (0-0)	0 (0-3.01)	0 (0-5.53)	0 (0-0)	2.25 (0-9.06)	0 (0-0)	0 (0-6.13)	0 (0-0)	0 (0-2.06)	0.45 (0-2.82)	2.7 (0-35.77)
Density	0 (0-2.07)	0 (0-4.33)	0 (0-0)	0 (0-2.96)	0 (0-3.8)	0 (0-0)	2.84 (0-6.17)	0 (0-0)	0 (0-5)	0 (0-0)	0 (0-1.99)	0.73 (0-2.91)	3.57 (0-29.23)
AR	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	2.8 (1.84-4.05)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.72 (0.46-1.05)	3.52 (2.3-5.1)
PCH	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	2.69 (0.61-6.16)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.66 (0.15-1.51)	3.35 (0.76-7.67)
NAF	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	2.56 (2.56-2.84)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.54 (0.54-0.73)	3.1 (3.1-3.57)
None	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	2.84 (2.84-2.84)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.73 (0.73-0.73)	3.57 (3.57-3.57)







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Table 14. Gannet collision mortality for the 15MW turbine calculated using Band CRM Option 2. Values are the median and 95% confidence intervals calculated across 1,000 simulations with different combinations of stochastic variables ('Full' - seabird density, avoidance rate, flight height and nocturnal activity; 'Density' - seabird density only; 'AR' - avoidance rate only; 'PCH' - flight height only; 'NAF' - nocturnal activity factor only; 'None' - deterministic).

Stochastic variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual total
Full	0 (0-1.46)	0 (0-1.81)	0 (0-2.74)	0 (0-2.98)	0 (0-1.84)	0.45 (0-2.39)	0.4 (0-2.43)	7.23 (1.52-20.89)	0 (0-4.07)	2.06 (0.3-7.75)	6.59 (0.68-44.59)	1.09 (0-9.8)	17.82 (2.5-102.75)
Density	0 (0-1.05)	0 (0-1.63)	0 (0-1.82)	0 (0-2.02)	0 (0-1.72)	0.64 (0-1.93)	0.61 (0-2.15)	8.25 (4.37-12.62)	0 (0-2.65)	2.61 (0.75-5.35)	9.96 (1.42-25.03)	1.65 (0-6.41)	23.72 (6.54-64.38)
AR	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.63 (0.43-0.89)	0.61 (0.41-0.86)	8.15 (5.61-11.59)	0 (0-0)	2.59 (1.75-3.62)	10.04 (6.87-14.05)	1.47 (1.04-2.1)	23.49 (16.11-33.11)
PCH	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.6 (0.15-1.47)	0.57 (0.15-1.34)	7.61 (2.14-18.76)	0 (0-0)	2.39 (0.61-5.54)	9.4 (2.76-23.47)	1.36 (0.37-3.22)	21.93 (6.18-53.8)
NAF	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.64 (0.63-0.66)	0.61 (0.6-0.63)	8.22 (8.07-8.58)	0 (0-0)	2.61 (2.59-2.64)	10.1 (9.99-10.24)	1.5 (1.48-1.52)	23.68 (23.36-24.27)
None	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.64 (0.64-0.64)	0.61 (0.61-0.61)	8.25 (8.25-8.25)	0 (0-0)	2.61 (2.61-2.61)	10.1 (10.1-10.1)	1.5 (1.5-1.5)	23.71 (23.71-23.71)



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Table 16. Kittiwake collision mortality for the 15MW turbine calculated using Band CRM Option 2. Values are the median and 95% confidence intervals calculated across 1,000 simulations with different combinations of stochastic variables ('Full' - seabird density, avoidance rate, flight height and nocturnal activity; 'Density' - seabird density only; 'AR' - avoidance rate only; 'PCH' - flight height only; 'NAF' - nocturnal activity factor only; 'None' - deterministic).

Stochastic variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual total
Full	3.72 (0.65-11.58)	0 (0-1.17)	1.16 (0-5.21)	4.06 (0.35-21.1)	2.62 (0-18.08)	3.41 (0.76-12.72)	7.35 (2.04-21.78)	1.22 (0-4.64)	0 (0-0)	0 (0-0)	0 (0-4.21)	1.71 (0-10.6)	25.25 (3.8-111.09)
Density	4.28 (1.56-7.08)	0 (0-1.13)	1.45 (0-3.77)	5.14 (0.59-13.87)	3.58 (0-11.94)	4.41 (1.89-8.19)	8.41 (4.2-12.61)	1.46 (0-3.41)	0 (0-0)	0 (0-0)	0 (0-2.98)	2.08 (0-6.93)	30.81 (8.24-71.91)
AR	4.4 (3.01-6.09)	0 (0-0)	1.43 (0.95-2.03)	5.26 (3.67-7.58)	3.53 (2.34-4.92)	4.37 (2.96-6.05)	8.32 (5.71-11.77)	1.47 (0.98-2.02)	0 (0-0)	0 (0-0)	0.04 (0.03-0.06)	2.14 (1.45-3.01)	30.96 (21.1-43.53)
PCH	4.18 (0.89-9.51)	0 (0-0)	1.34 (0.37-3.1)	4.98 (1.37-11.25)	3.2 (0.82-7.4)	4.08 (1.11-9.47)	7.55 (2.19-17.99)	1.36 (0.36-3.04)	0 (0-0)	0 (0-0)	0.04 (0.01-0.1)	1.99 (0.54-4.96)	28.72 (7.66-66.82)
NAF	4.45 (4.28-4.64)	0 (0-0)	1.44 (1.33-1.58)	5.32 (5.04-5.71)	3.57 (3.42-3.76)	4.4 (4.26-4.61)	8.39 (8.07-8.82)	1.46 (1.39-1.55)	0 (0-0)	0 (0-0)	0.04 (0.04-0.04)	2.16 (2.08-2.26)	31.23 (29.91-32.97)
None	4.45 (4.45-4.45)	0 (0-0)	1.45 (1.45-1.45)	5.35 (5.35-5.35)	3.58 (3.58-3.58)	4.41 (4.41-4.41)	8.41 (8.41-8.41)	1.46 (1.46-1.46)	0 (0-0)	0 (0-0)	0.04 (0.04-0.04)	2.16 (2.16-2.16)	31.31 (31.31-31.31)

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Table 17. Black-headed Gull collision mortality for the 15MW turbine calculated using Band CRM Option 2. Values are the median and 95% confidence intervals calculated across 1,000 simulations with different combinations of stochastic variables ('Full' - seabird density, avoidance rate, flight height and nocturnal activity; 'Density' - seabird density only; 'AR' - avoidance rate only; 'PCH' - flight height only; 'NAF' - nocturnal activity factor only; 'None' - deterministic).

Stochastic variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual total
Full	0 (0-0)	0 (0-0)	0 (0-1.45)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.24 (0-11.73)	0 (0-0)	0.24 (0-13.18)
Density	0 (0-0)	0 (0-0)	0 (0-1.22)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.86 (0-7.15)	0 (0-0)	0.86 (0-8.37)
AR	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.99 (0.56-1.51)	0 (0-0)	0.99 (0.56-1.51)
PCH	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.95 (0.24-2.09)	0 (0-0)	0.95 (0.24-2.09)
NAF	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.01 (1.01-1.01)	0 (0-0)	1.01 (1.01-1.01)
None	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.01 (1.01-1.01)	0 (0-0)	1.01 (1.01-1.01)

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Table 18. Little Gull collision mortality for the 15MW turbine calculated using Band CRM Option 2. Values are the median and 95% confidence intervals calculated across 1,000 simulations with different combinations of stochastic variables ('Full' - seabird density, avoidance rate, flight height and nocturnal activity; 'Density' - seabird density only; 'AR' - avoidance rate only; 'PCH' - flight height only; 'NAF' - nocturnal activity factor only; 'None' - deterministic).

Stochastic variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual total
Full	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-1.09)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.5 (0-3.94)	0 (0-0)	0.5 (0-5.03)
Density	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0.95)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.64 (0-2.62)	0 (0-0)	0.64 (0-3.57)
AR	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.66 (0.36-1.03)	0 (0-0)	0.66 (0.36-1.03)
PCH	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.6 (0.18-1.45)	0 (0-0)	0.6 (0.18-1.45)
NAF	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.67 (0.67-0.67)	0 (0-0)	0.67 (0.67-0.67)
None	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.67 (0.67-0.67)	0 (0-0)	0.67 (0.67-0.67)









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Table 22. Great Black-backed Gull collision mortality for the 15MW turbine calculated using Band CRM Option 2. Values are the median and 95% confidence intervals calculated across 1,000 simulations with different combinations of stochastic variables ('Full' - seabird density, avoidance rate, flight height and nocturnal activity; 'Density' - seabird density only; 'AR' - avoidance rate only; 'PCH' - flight height only; 'NAF' - nocturnal activity factor only; 'None' - deterministic).

Stochastic variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual total
Full	0 (0-2.05)	0 (0-4.51)	0 (0-0)	0 (0-2.6)	0 (0-4.54)	0 (0-0)	1.88 (0-8.43)	0 (0-0)	0 (0-6)	0 (0-0)	0 (0-1.9)	0.36 (0-2.8)	2.24 (0-32.83)
Density	0 (0-1.57)	0 (0-4.1)	0 (0-0)	0 (0-2.8)	0 (0-4.51)	0 (0-0)	2.69 (0-6.28)	0 (0-0)	0 (0-4.74)	0 (0-0)	0 (0-1.88)	0.69 (0-2.15)	3.38 (0-28.03)
AR	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	2.67 (1.75-3.89)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.68 (0.46-0.99)	3.35 (2.21-4.88)
PCH	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	2.44 (0.4-5.71)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.64 (0.13-1.48)	3.08 (0.53-7.19)
NAF	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	2.69 (2.43-2.69)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.69 (0.51-0.69)	3.38 (2.94-3.38)
None	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	2.69 (2.69-2.69)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.69 (0.69-0.69)	3.38 (3.38-3.38)





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Table 25. Gannet collision mortality for the 19MW turbine calculated using Band CRM Option 2. Values are the median and 95% confidence intervals calculated across 1,000 simulations with different combinations of stochastic variables ('Full' - seabird density, avoidance rate, flight height and nocturnal activity; 'Density' - seabird density only; 'AR' - avoidance rate only; 'PCH' - flight height only; 'NAF' - nocturnal activity factor only; 'None' - deterministic).

Stochastic variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual total
Full	0 (0-1.29)	0 (0-1.63)	0 (0-2.45)	0 (0-2.97)	0 (0-1.95)	0.46 (0-3)	0.32 (0-2.51)	7.15 (1.67-21.86)	0 (0-4.51)	2.05 (0.27-8.16)	5.61 (0.66-46.69)	1.04 (0-9.75)	16.63 (2.6-106.77)
Density	0 (0-1.05)	0 (0-1.63)	0 (0-2.28)	0 (0-2.52)	0 (0-1.72)	0.64 (0-2.27)	0.61 (0-1.83)	8.25 (4.85-12.62)	0 (0-2.65)	2.29 (0.75-5.35)	10.98 (1.42-25.31)	1.65 (0-6.41)	24.42 (7.02-65.64)
AR	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.64 (0.44-0.9)	0.6 (0.39-0.85)	8.06 (5.65-11.73)	0 (0-0)	2.57 (1.75-3.75)	10 (6.91-13.91)	1.49 (1.01-2.05)	23.36 (16.15-33.19)
PCH	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.59 (0.15-1.39)	0.55 (0.14-1.39)	7.71 (1.88-18.41)	0 (0-0)	2.43 (0.63-5.85)	9.56 (2.07-23.19)	1.39 (0.37-3.29)	22.23 (5.24-53.52)
NAF	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.64 (0.63-0.66)	0.61 (0.6-0.63)	8.22 (8.07-8.58)	0 (0-0)	2.61 (2.59-2.64)	10.1 (9.99-10.24)	1.5 (1.48-1.52)	23.68 (23.36-24.27)
None	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.64 (0.64-0.64)	0.61 (0.61-0.61)	8.25 (8.25-8.25)	0 (0-0)	2.61 (2.61-2.61)	10.1 (10.1-10.1)	1.5 (1.5-1.5)	23.71 (23.71-23.71)



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Table 27. Kittiwake collision mortality for the 19MW turbine calculated using Band CRM Option 2. Values are the median and 95% confidence intervals calculated across 1,000 simulations with different combinations of stochastic variables ('Full' - seabird density, avoidance rate, flight height and nocturnal activity; 'Density' - seabird density only; 'AR' - avoidance rate only; 'PCH' - flight height only; 'NAF' - nocturnal activity factor only; 'None' - deterministic).

Stochastic variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual total
Full	3.7 (0.76-11.16)	0 (0-1.19)	1.12 (0-5.63)	4.31 (0.49-21.07)	3.03 (0-20.57)	3.59 (0.58-12.17)	7.2 (1.77-20.97)	1.13 (0-4.55)	0 (0-0)	0 (0-0)	0 (0-4.37)	1.79 (0-11.58)	25.87 (3.6-113.26)
Density	4.45 (1.56-6.68)	0 (0-1.13)	1.45 (0-4.31)	5.65 (0.59-13.88)	3.96 (0-12.53)	4.41 (1.26-7.56)	8.41 (4.2-13.21)	1.46 (0-3.41)	0 (0-0)	0 (0-0)	0 (0-2.98)	2.08 (0-6.93)	31.87 (7.61-72.62)
AR	4.41 (3.07-6.25)	0 (0-0)	1.44 (0.98-1.97)	5.23 (3.62-7.33)	3.6 (2.45-5)	4.36 (2.95-6.04)	8.25 (5.68-11.43)	1.45 (0.97-2.02)	0 (0-0)	0 (0-0)	0.04 (0.03-0.06)	2.15 (1.47-3.04)	30.93 (21.22-43.14)
PCH	3.98 (1.05-9.76)	0 (0-0)	1.33 (0.34-3.08)	4.96 (1.34-11.69)	3.41 (0.87-8.24)	4 (0.98-9.3)	7.93 (2.04-18.3)	1.4 (0.39-3.19)	0 (0-0)	0 (0-0)	0.04 (0.01-0.09)	2.06 (0.55-4.9)	29.11 (7.57-68.55)
NAF	4.45 (4.26-4.64)	0 (0-0)	1.44 (1.34-1.58)	5.34 (5.04-5.69)	3.58 (3.44-3.77)	4.4 (4.26-4.59)	8.41 (8.09-8.75)	1.46 (1.39-1.55)	0 (0-0)	0 (0-0)	0.04 (0.04-0.04)	2.16 (2.06-2.26)	31.28 (29.92-32.87)
None	4.45 (4.45-4.45)	0 (0-0)	1.45 (1.45-1.45)	5.35 (5.35-5.35)	3.58 (3.58-3.58)	4.41 (4.41-4.41)	8.41 (8.41-8.41)	1.46 (1.46-1.46)	0 (0-0)	0 (0-0)	0.04 (0.04-0.04)	2.16 (2.16-2.16)	31.31 (31.31-31.31)



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Table 28. Black-headed Gull collision mortality for the 19MW turbine calculated using Band CRM Option 2. Values are the median and 95% confidence intervals calculated across 1,000 simulations with different combinations of stochastic variables ('Full' - seabird density, avoidance rate, flight height and nocturnal activity; 'Density' - seabird density only; 'AR' - avoidance rate only; 'PCH' - flight height only; 'NAF' - nocturnal activity factor only; 'None' - deterministic).

Stochastic variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual total
Full	0 (0-0)	0 (0-0)	0 (0-1.39)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.14 (0-11.27)	0 (0-0)	0.14 (0-12.66)
Density	0 (0-0)	0 (0-0)	0 (0-1.22)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.86 (0-7.15)	0 (0-0)	0.86 (0-8.37)
AR	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.02 (0.55-1.56)	0 (0-0)	1.02 (0.55-1.56)
PCH	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.91 (0.24-2.22)	0 (0-0)	0.91 (0.24-2.22)
NAF	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.01 (1.01-1.01)	0 (0-0)	1.01 (1.01-1.01)
None	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.01 (1.01-1.01)	0 (0-0)	1.01 (1.01-1.01)

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Table 29. Little Gull collision mortality for the 19MW turbine calculated using Band CRM Option 2. Values are the median and 95% confidence intervals calculated across 1,000 simulations with different combinations of stochastic variables ('Full' - seabird density, avoidance rate, flight height and nocturnal activity; 'Density' - seabird density only; 'AR' - avoidance rate only; 'PCH' - flight height only; 'NAF' - nocturnal activity factor only; 'None' - deterministic).

Stochastic variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual total
Full	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-1.01)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.47 (0-3.71)	0 (0-0)	0.47 (0-4.72)
Density	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0.95)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.64 (0-2.62)	0 (0-0)	0.64 (0-3.57)
AR	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.65 (0.39-1.02)	0 (0-0)	0.65 (0.39-1.02)
PCH	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.61 (0.15-1.44)	0 (0-0)	0.61 (0.15-1.44)
NAF	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.67 (0.67-0.67)	0 (0-0)	0.67 (0.67-0.67)
None	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.67 (0.67-0.67)	0 (0-0)	0.67 (0.67-0.67)







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Table 33. Great Black-backed Gull collision mortality for the 19MW turbine calculated using Band CRM Option 2. Values are the median and 95% confidence intervals calculated across 1,000 simulations with different combinations of stochastic variables ('Full' - seabird density, avoidance rate, flight height and nocturnal activity; 'Density' - seabird density only; 'AR' - avoidance rate only; 'PCH' - flight height only; 'NAF' - nocturnal activity factor only; 'None' - deterministic).

Stochastic variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual total
Full	0 (0-1.85)	0 (0-4.85)	0 (0-0)	0 (0-2.81)	0 (0-4.89)	0 (0-0)	2.05 (0-7.46)	0 (0-0)	0 (0-5.78)	0 (0-0)	0 (0-1.73)	0.4 (0-2.61)	2.45 (0-31.98)
Density	0 (0-1.57)	0 (0-4.1)	0 (0-0)	0 (0-2.8)	0 (0-4.51)	0 (0-0)	2.69 (0-5.85)	0 (0-0)	0 (0-4.74)	0 (0-0)	0 (0-1.88)	0.69 (0-2.15)	3.38 (0-27.6)
AR	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	2.67 (1.71-3.85)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.67 (0.45-0.96)	3.34 (2.16-4.81)
PCH	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	2.57 (0.54-5.53)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.66 (0.12-1.44)	3.23 (0.66-6.97)
NAF	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	2.43 (2.43-2.69)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.51 (0.51-0.69)	2.94 (2.94-3.38)
None	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	2.69 (2.69-2.69)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.69 (0.69-0.69)	3.38 (3.38-3.38)







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Table 36. Gannet collision mortality for the 12MW turbine calculated using Band CRM Option 1. Values are the median and 95% confidence intervals calculated across 1,000 simulations with different combinations of stochastic variables ('Full' - seabird density, avoidance rate, flight height and nocturnal activity; 'Density' - seabird density only; 'AR' - avoidance rate only; 'PCH' - flight height only; 'NAF' - nocturnal activity factor only; 'None' - deterministic).

Stochastic variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual total
Full	0 (0-3.29)	0 (0-4.69)	0 (0-6.16)	0 (0-6.98)	0 (0-4.97)	1.79 (0-6.89)	1.7 (0-6.82)	25.14 (11.72-42.55)	0 (0-9.26)	7.59 (1.78-17.46)	25.54 (4.23-90.2)	4.5 (0-21.62)	66.26 (17.73-220.89)
Density	0 (0-3.21)	0 (0-4)	0 (0-6.98)	0 (0-6.19)	0 (0-5.26)	1.98 (0-5.93)	1.87 (0-5.62)	25.3 (13.4-38.7)	0 (0-8.13)	8 (2.29-16.4)	30.11 (4.34-76.72)	4.59 (0-20.59)	71.85 (20.03-197.73)
AR	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.96 (1.35-2.74)	1.86 (1.26-2.63)	25.02 (17.39-36.08)	0 (0-0)	8.01 (5.34-10.79)	30.32 (21.22-43.04)	4.58 (3.08-6.46)	71.75 (49.64-101.74)
PCH	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.98 (1.98-1.98)	1.87 (1.87-1.87)	25.3 (25.3-25.3)	0 (0-0)	8 (8-8)	30.98 (30.98-30.98)	4.59 (4.59-4.59)	72.72 (72.72-72.72)
NAF	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.97 (1.95-2.04)	1.87 (1.84-1.93)	25.21 (24.73-26.35)	0 (0-0)	8 (7.93-8.08)	30.97 (30.6-31.4)	4.59 (4.52-4.67)	72.61 (71.57-74.47)
None	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.98 (1.98-1.98)	1.87 (1.87-1.87)	25.3 (25.3-25.3)	0 (0-0)	8 (8-8)	30.98 (30.98-30.98)	4.59 (4.59-4.59)	72.72 (72.72-72.72)



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Table 38. Kittiwake collision mortality for the 12MW turbine calculated using Band CRM Option 1. Values are the median and 95% confidence intervals calculated across 1,000 simulations with different combinations of stochastic variables ('Full' - seabird density, avoidance rate, flight height and nocturnal activity; 'Density' - seabird density only; 'AR' - avoidance rate only; 'PCH' - flight height only; 'NAF' - nocturnal activity factor only; 'None' - deterministic).

Stochastic variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual total
Full	18.02 (6.86-33.28)	0 (0-4.5)	5.44 (0-18.19)	21.77 (2.38-66.03)	15.8 (0-54.36)	17.77 (5.88-34.42)	35.66 (16.75-60.07)	6.2 (0-14.65)	0 (0-0)	0 (0-0)	0 (0-12.95)	8.25 (0-34.45)	128.91 (31.87-332.9)
Density	18.96 (8.29-29.3)	0 (0-4.8)	6.16 (0-18.37)	21.88 (2.53-59.08)	14.87 (0-50.85)	18.79 (5.37-32.21)	35.81 (17.91-53.72)	6.23 (0-14.54)	0 (0-0)	0 (0-0)	0 (0-12.68)	9.22 (0-31.01)	131.92 (34.1-306.56)
AR	18.65 (12.52-26.56)	0 (0-0)	6.08 (4.11-8.52)	22.77 (15.6-31.43)	15.26 (10.24-20.91)	18.7 (12.47-25.92)	35.72 (24.74-49.85)	6.26 (4.21-8.63)	0 (0-0)	0 (0-0)	0.18 (0.12-0.25)	9.13 (6.01-12.91)	132.75 (90.02-184.98)
PCH	18.96 (18.96-18.96)	0 (0-0)	6.16 (6.16-6.16)	22.77 (22.77-22.77)	15.26 (15.26-15.26)	18.79 (18.79-18.79)	35.81 (35.81-35.81)	6.23 (6.23-6.23)	0 (0-0)	0 (0-0)	0.18 (0.18-0.18)	9.22 (9.22-9.22)	133.38 (133.38-133.38)
NAF	18.93 (18.18-19.81)	0 (0-0)	6.13 (5.71-6.7)	22.71 (21.48-24.24)	15.23 (14.58-15.99)	18.77 (18.12-19.6)	35.8 (34.49-37.36)	6.22 (5.94-6.65)	0 (0-0)	0 (0-0)	0.18 (0.17-0.19)	9.2 (8.8-9.65)	133.17 (127.47-140.19)
None	18.96 (18.96-18.96)	0 (0-0)	6.16 (6.16-6.16)	22.77 (22.77-22.77)	15.26 (15.26-15.26)	18.79 (18.79-18.79)	35.81 (35.81-35.81)	6.23 (6.23-6.23)	0 (0-0)	0 (0-0)	0.18 (0.18-0.18)	9.22 (9.22-9.22)	133.38 (133.38-133.38)

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Table 39. Black-headed Gull collision mortality for the 12MW turbine calculated using Band CRM Option 1. Values are the median and 95% confidence intervals calculated across 1,000 simulations with different combinations of stochastic variables ('Full' - seabird density, avoidance rate, flight height and nocturnal activity; 'Density' - seabird density only; 'AR' - avoidance rate only; 'PCH' - flight height only; 'NAF' - nocturnal activity factor only; 'None' - deterministic).

Stochastic variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual total
Full	0 (0-0)	0 (0-0)	0 (0-1.66)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.17 (0-11.95)	0 (0-0)	1.17 (0-13.61)
Density	0 (0-0)	0 (0-0)	0 (0-1.63)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.72 (0-9.94)	0 (0-0)	1.72 (0-11.57)
AR	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.32 (0.76-2.02)	0 (0-0)	1.32 (0.76-2.02)
PCH	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.35 (1.35-1.35)	0 (0-0)	1.35 (1.35-1.35)
NAF	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.35 (1.35-1.35)	0 (0-0)	1.35 (1.35-1.35)
None	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.35 (1.35-1.35)	0 (0-0)	1.35 (1.35-1.35)

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Table 40. Little Gull collision mortality for the 12MW turbine calculated using Band CRM Option 1. Values are the median and 95% confidence intervals calculated across 1,000 simulations with different combinations of stochastic variables ('Full' - seabird density, avoidance rate, flight height and nocturnal activity; 'Density' - seabird density only; 'AR' - avoidance rate only; 'PCH' - flight height only; 'NAF' - nocturnal activity factor only; 'None' - deterministic).

Stochastic variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual total
Full	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-3.51)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	2.43 (0-11.06)	0 (0-0)	2.43 (0-14.57)
Density	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-3.53)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	2.43 (0-9.74)	0 (0-0)	2.43 (0-13.27)
AR	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	2.41 (1.41-3.81)	0 (0-0)	2.41 (1.41-3.81)
PCH	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	2.48 (2.48-2.48)	0 (0-0)	2.48 (2.48-2.48)
NAF	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	2.48 (2.48-2.48)	0 (0-0)	2.48 (2.48-2.48)
None	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	2.48 (2.48-2.48)	0 (0-0)	2.48 (2.48-2.48)



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Table 42. Lesser Black-backed Gull collision mortality for the 12MW turbine calculated using Band CRM Option 1. Values are the median and 95% confidence intervals calculated across 1,000 simulations with different combinations of stochastic variables ('Full' - seabird density, avoidance rate, flight height and nocturnal activity; 'Density' - seabird density only; 'AR' - avoidance rate only; 'PCH' - flight height only; 'NAF' - nocturnal activity factor only; 'None' - deterministic).

Stochastic variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual total
Full	0 (0-0)	0 (0-2.12)	0 (0-2.44)	0 (0-2.69)	0 (0-0)	0.94 (0-3.35)	0 (0-0)	0 (0-0)	0 (0-3.95)	0 (0-0)	0 (0-0)	0 (0-0)	0.94 (0-14.55)
Density	0 (0-0)	0 (0-2.25)	0 (0-2.62)	0 (0-3.07)	0 (0-0)	1.02 (0-3.06)	0 (0-0)	0 (0-0)	0 (0-4.33)	0 (0-0)	0 (0-0)	0 (0-0)	1.02 (0-15.33)
AR	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.01 (0.68-1.43)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.01 (0.68-1.43)
PCH	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.02 (1.02-1.02)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.02 (1.02-1.02)
NAF	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.02 (0.93-1.02)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.02 (0.93-1.02)
None	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.02 (1.02-1.02)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.02 (1.02-1.02)





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Table 44. Great Black-backed Gull collision mortality for the 12MW turbine calculated using Band CRM Option 1. Values are the median and 95% confidence intervals calculated across 1,000 simulations with different combinations of stochastic variables ('Full' - seabird density, avoidance rate, flight height and nocturnal activity; 'Density' - seabird density only; 'AR' - avoidance rate only; 'PCH' - flight height only; 'NAF' - nocturnal activity factor only; 'None' - deterministic).

Stochastic variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual total
Full	0 (0-2.44)	0 (0-5.01)	0 (0-0)	0 (0-3.47)	0 (0-5.55)	0 (0-0)	3.21 (0-8.89)	0 (0-0)	0 (0-6.54)	0 (0-0)	0 (0-2.7)	0.77 (0-3.12)	3.98 (0-37.72)
Density	0 (0-2.67)	0 (0-5.58)	0 (0-0)	0 (0-3.81)	0 (0-4.91)	0 (0-0)	3.66 (0-7.96)	0 (0-0)	0 (0-6.45)	0 (0-0)	0 (0-2.56)	0.94 (0-3.75)	4.6 (0-37.69)
AR	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	3.61 (2.37-5.22)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.93 (0.6-1.35)	4.54 (2.97-6.57)
PCH	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	3.66 (3.66-3.66)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.94 (0.94-0.94)	4.6 (4.6-4.6)
NAF	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	3.31 (3.31-3.66)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.7 (0.7-0.94)	4.01 (4.01-4.6)
None	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	3.66 (3.66-3.66)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.94 (0.94-0.94)	4.6 (4.6-4.6)



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Table 46. Fulmar collision mortality for the 15MW turbine calculated using Band CRM Option 1. Values are the median and 95% confidence intervals calculated across 1,000 simulations with different combinations of stochastic variables ('Full' - seabird density, avoidance rate, flight height and nocturnal activity; 'Density' - seabird density only; 'AR' - avoidance rate only; 'PCH' - flight height only; 'NAF' - nocturnal activity factor only; 'None' - deterministic).

Stochastic variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual total
Full	0 (0-0)	0 (0-10.02)	0 (0-6.53)	6.4 (0-16.56)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-9.17)	0 (0-0)	0 (0-0)	0 (0-0)	6.4 (0-42.28)
Density	0 (0-0)	0 (0-10.32)	0 (0-6.53)	6.62 (0-15.44)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-9.17)	0 (0-0)	0 (0-0)	0 (0-0)	6.62 (0-41.46)
AR	0 (0-0)	0 (0-0)	0 (0-0)	6.59 (5.43-7.97)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	6.59 (5.43-7.97)
PCH	0 (0-0)	0 (0-0)	0 (0-0)	6.62 (6.62-6.62)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	6.62 (6.62-6.62)
NAF	0 (0-0)	0 (0-0)	0 (0-0)	6.62 (6.62-6.62)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	6.62 (6.62-6.62)
None	0 (0-0)	0 (0-0)	0 (0-0)	6.62 (6.62-6.62)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	6.62 (6.62-6.62)

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Table 47. Gannet collision mortality for the 15MW turbine calculated using Band CRM Option 1. Values are the median and 95% confidence intervals calculated across 1,000 simulations with different combinations of stochastic variables ('Full' - seabird density, avoidance rate, flight height and nocturnal activity; 'Density' - seabird density only; 'AR' - avoidance rate only; 'PCH' - flight height only; 'NAF' - nocturnal activity factor only; 'None' - deterministic).

Stochastic variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual total
Full	0 (0-3.1)	0 (0-4.39)	0 (0-6.08)	0 (0-6.63)	0 (0-4.75)	1.63 (0-5.9)	1.6 (0-6.35)	22.85 (11.49-37.07)	0 (0-8.31)	6.82 (1.62-16.41)	22.56 (3.65-84.37)	4.51 (0-20.65)	59.97 (16.76-204.01)
Density	0 (0-2.96)	0 (0-4.62)	0 (0-5.16)	0 (0-5.72)	0 (0-4.86)	1.82 (0-5.47)	1.73 (0-6.1)	23.36 (12.37-35.72)	0 (0-7.5)	7.38 (2.11-15.14)	28.2 (4.01-70.84)	4.67 (0-18.15)	67.16 (18.49-182.24)
AR	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.79 (1.22-2.53)	1.72 (1.17-2.43)	23.08 (15.89-32.81)	0 (0-0)	7.32 (4.95-10.24)	28.42 (19.45-39.77)	4.17 (2.93-5.93)	66.5 (45.61-93.71)
PCH	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.82 (1.82-1.82)	1.73 (1.73-1.73)	23.36 (23.36-23.36)	0 (0-0)	7.38 (7.38-7.38)	28.6 (28.6-28.6)	4.24 (4.24-4.24)	67.13 (67.13-67.13)
NAF	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.82 (1.79-1.87)	1.72 (1.7-1.78)	23.27 (22.84-24.29)	0 (0-0)	7.38 (7.32-7.46)	28.6 (28.27-29)	4.24 (4.18-4.31)	67.03 (66.1-68.71)
None	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.82 (1.82-1.82)	1.73 (1.73-1.73)	23.36 (23.36-23.36)	0 (0-0)	7.38 (7.38-7.38)	28.6 (28.6-28.6)	4.24 (4.24-4.24)	67.13 (67.13-67.13)



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Table 49. Kittiwake collision mortality for the 15MW turbine calculated using Band CRM Option 1. Values are the median and 95% confidence intervals calculated across 1,000 simulations with different combinations of stochastic variables ('Full' - seabird density, avoidance rate, flight height and nocturnal activity; 'Density' - seabird density only; 'AR' - avoidance rate only; 'PCH' - flight height only; 'NAF' - nocturnal activity factor only; 'None' - deterministic).

Stochastic variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual total
Full	17.53 (6.27-31.84)	0 (0-4.39)	5.6 (0-17.88)	21.74 (2.38-64.51)	15 (0-54.38)	17.55 (5.83-36.24)	34.88 (15.6-59.27)	6.02 (0-14.69)	0 (0-0)	0 (0-0)	0 (0-12.67)	8.66 (0-32.76)	126.98 (30.08-328.63)
Density	17.93 (6.52-29.67)	0 (0-4.72)	6.06 (0-15.81)	21.53 (2.49-58.12)	15.01 (0-50.03)	18.48 (7.92-34.33)	35.23 (17.62-52.85)	6.13 (0-14.31)	0 (0-0)	0 (0-0)	0 (0-12.48)	8.72 (0-29.06)	129.09 (34.55-301.38)
AR	18.45 (12.61-25.52)	0 (0-0)	5.99 (3.97-8.5)	22.03 (15.37-31.75)	14.78 (9.82-20.64)	18.32 (12.41-25.36)	34.86 (23.92-49.31)	6.15 (4.13-8.48)	0 (0-0)	0 (0-0)	0.17 (0.12-0.24)	8.98 (6.09-12.62)	129.73 (88.44-182.42)
PCH	18.65 (18.65-18.65)	0 (0-0)	6.06 (6.06-6.06)	22.41 (22.41-22.41)	15.01 (15.01-15.01)	18.48 (18.48-18.48)	35.23 (35.23-35.23)	6.13 (6.13-6.13)	0 (0-0)	0 (0-0)	0.18 (0.18-0.18)	9.07 (9.07-9.07)	131.22 (131.22-131.22)
NAF	18.65 (17.94-19.44)	0 (0-0)	6.04 (5.59-6.6)	22.31 (21.1-23.95)	14.96 (14.34-15.76)	18.46 (17.85-19.34)	35.16 (33.81-36.96)	6.12 (5.82-6.5)	0 (0-0)	0 (0-0)	0.18 (0.17-0.18)	9.06 (8.7-9.49)	130.94 (125.32-138.22)
None	18.65 (18.65-18.65)	0 (0-0)	6.06 (6.06-6.06)	22.41 (22.41-22.41)	15.01 (15.01-15.01)	18.48 (18.48-18.48)	35.23 (35.23-35.23)	6.13 (6.13-6.13)	0 (0-0)	0 (0-0)	0.18 (0.18-0.18)	9.07 (9.07-9.07)	131.22 (131.22-131.22)

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Table 50. Black-headed Gull collision mortality for the 15MW turbine calculated using Band CRM Option 1. Values are the median and 95% confidence intervals calculated across 1,000 simulations with different combinations of stochastic variables ('Full' - seabird density, avoidance rate, flight height and nocturnal activity; 'Density' - seabird density only; 'AR' - avoidance rate only; 'PCH' - flight height only; 'NAF' - nocturnal activity factor only; 'None' - deterministic).

Stochastic variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual total
Full	0 (0-0)	0 (0-0)	0 (0-1.6)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.61 (0-11.65)	0 (0-0)	0.61 (0-13.25)
Density	0 (0-0)	0 (0-0)	0 (0-1.61)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.13 (0-9.43)	0 (0-0)	1.13 (0-11.04)
AR	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.3 (0.74-2)	0 (0-0)	1.3 (0.74-2)
PCH	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.33 (1.33-1.33)	0 (0-0)	1.33 (1.33-1.33)
NAF	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.33 (1.33-1.33)	0 (0-0)	1.33 (1.33-1.33)
None	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.33 (1.33-1.33)	0 (0-0)	1.33 (1.33-1.33)

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Table 51. Little Gull collision mortality for the 15MW turbine calculated using Band CRM Option 1. Values are the median and 95% confidence intervals calculated across 1,000 simulations with different combinations of stochastic variables ('Full' - seabird density, avoidance rate, flight height and nocturnal activity; 'Density' - seabird density only; 'AR' - avoidance rate only; 'PCH' - flight height only; 'NAF' - nocturnal activity factor only; 'None' - deterministic).

Stochastic variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual total
Full	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-3.57)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	2.31 (0-10.73)	0 (0-0)	2.31 (0-14.3)
Density	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-3.57)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	2.4 (0-9.87)	0 (0-0)	2.4 (0-13.44)
AR	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	2.5 (1.37-3.89)	0 (0-0)	2.5 (1.37-3.89)
PCH	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	2.51 (2.51-2.51)	0 (0-0)	2.51 (2.51-2.51)
NAF	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	2.51 (2.51-2.51)	0 (0-0)	2.51 (2.51-2.51)
None	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	2.51 (2.51-2.51)	0 (0-0)	2.51 (2.51-2.51)





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Table 53. Lesser Black-backed Gull collision mortality for the 15MW turbine calculated using Band CRM Option 1. Values are the median and 95% confidence intervals calculated across 1,000 simulations with different combinations of stochastic variables ('Full' - seabird density, avoidance rate, flight height and nocturnal activity; 'Density' - seabird density only; 'AR' - avoidance rate only; 'PCH' - flight height only; 'NAF' - nocturnal activity factor only; 'None' - deterministic).

Stochastic variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual total
Full	0 (0-0)	0 (0-1.83)	0 (0-2.47)	0 (0-2.78)	0 (0-0)	0.87 (0-3.39)	0 (0-0)	0 (0-0)	0 (0-3.73)	0 (0-0)	0 (0-0)	0 (0-0)	0.87 (0-14.2)
Density	0 (0-0)	0 (0-2.16)	0 (0-2.52)	0 (0-2.95)	0 (0-0)	0.98 (0-2.94)	0 (0-0)	0 (0-0)	0 (0-3.35)	0 (0-0)	0 (0-0)	0 (0-0)	0.98 (0-13.92)
AR	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.98 (0.65-1.39)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.98 (0.65-1.39)
PCH	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.98 (0.98-0.98)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.98 (0.98-0.98)
NAF	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.98 (0.89-0.98)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.98 (0.89-0.98)
None	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.98 (0.98-0.98)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.98 (0.98-0.98)



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Table 55. Great Black-backed Gull collision mortality for the 15MW turbine calculated using Band CRM Option 1. Values are the median and 95% confidence intervals calculated across 1,000 simulations with different combinations of stochastic variables ('Full' - seabird density, avoidance rate, flight height and nocturnal activity; 'Density' - seabird density only; 'AR' - avoidance rate only; 'PCH' - flight height only; 'NAF' - nocturnal activity factor only; 'None' - deterministic).

Stochastic variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual total
Full	0 (0-2.23)	0 (0-5.15)	0 (0-0)	0 (0-3.09)	0 (0-5.2)	0 (0-0)	3.02 (0-8.37)	0 (0-0)	0 (0-6.28)	0 (0-0)	0 (0-2.14)	0.69 (0-2.81)	3.71 (0-35.27)
Density	0 (0-2.03)	0 (0-5.29)	0 (0-0)	0 (0-3.62)	0 (0-5.82)	0 (0-0)	3.47 (0-8.1)	0 (0-0)	0 (0-6.11)	0 (0-0)	0 (0-2.43)	0.89 (0-2.77)	4.36 (0-36.17)
AR	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	3.45 (2.26-5.02)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.88 (0.59-1.28)	4.33 (2.85-6.3)
PCH	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	3.47 (3.47-3.47)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.89 (0.89-0.89)	4.36 (4.36-4.36)
NAF	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	3.47 (3.14-3.47)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.89 (0.66-0.89)	4.36 (3.8-4.36)
None	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	3.47 (3.47-3.47)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.89 (0.89-0.89)	4.36 (4.36-4.36)



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Table 57. Fulmar collision mortality for the 19MW turbine calculated using Band CRM Option 1. Values are the median and 95% confidence intervals calculated across 1,000 simulations with different combinations of stochastic variables ('Full' - seabird density, avoidance rate, flight height and nocturnal activity; 'Density' - seabird density only; 'AR' - avoidance rate only; 'PCH' - flight height only; 'NAF' - nocturnal activity factor only; 'None' - deterministic).

Stochastic variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual total
Full	0 (0-0)	0 (0-10.54)	0 (0-6.59)	6.33 (0-16.65)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-9.52)	0 (0-0)	0 (0-0)	0 (0-0)	6.33 (0-43.3)
Density	0 (0-0)	0 (0-10.32)	0 (0-6.53)	6.62 (0-15.44)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-9.17)	0 (0-0)	0 (0-0)	0 (0-0)	6.62 (0-41.46)
AR	0 (0-0)	0 (0-0)	0 (0-0)	6.59 (5.37-7.99)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	6.59 (5.37-7.99)
PCH	0 (0-0)	0 (0-0)	0 (0-0)	6.62 (6.62-6.62)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	6.62 (6.62-6.62)
NAF	0 (0-0)	0 (0-0)	0 (0-0)	6.62 (6.62-6.62)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	6.62 (6.62-6.62)
None	0 (0-0)	0 (0-0)	0 (0-0)	6.62 (6.62-6.62)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	6.62 (6.62-6.62)

East Anglia TWO Technical Appendix 12.1 Offshore Ornithology Annex 4 – CRM results

Table 58. Gannet collision mortality for the 19MW turbine calculated using Band CRM Option 1. Values are the median and 95% confidence intervals calculated across 1,000 simulations with different combinations of stochastic variables ('Full' - seabird density, avoidance rate, flight height and nocturnal activity; 'Density' - seabird density only; 'AR' - avoidance rate only; 'PCH' - flight height only; 'NAF' - nocturnal activity factor only; 'None' - deterministic).

Stochastic variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual total
Full	0 (0-3.04)	0 (0-4.44)	0 (0-6.09)	0 (0-6.81)	0 (0-5.03)	1.75 (0-6.95)	1.54 (0-5.92)	23.15 (11.89-38.3)	0 (0-8.31)	6.7 (1.6-16.03)	23.71 (3.79-83.84)	3.95 (0-19.86)	60.8 (17.28-204.62)
Density	0 (0-2.96)	0 (0-4.62)	0 (0-6.45)	0 (0-7.14)	0 (0-4.86)	1.82 (0-6.43)	1.73 (0-5.19)	23.36 (13.74-35.72)	0 (0-7.5)	6.49 (2.11-15.14)	31.07 (4.01-71.64)	4.67 (0-18.15)	69.14 (19.86-185.8)
AR	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.81 (1.26-2.54)	1.7 (1.11-2.41)	22.83 (16-33.21)	0 (0-0)	7.27 (4.96-10.62)	28.31 (19.55-39.36)	4.22 (2.87-5.82)	66.14 (45.75-93.96)
PCH	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.82 (1.82-1.82)	1.73 (1.73-1.73)	23.36 (23.36-23.36)	0 (0-0)	7.38 (7.38-7.38)	28.6 (28.6-28.6)	4.24 (4.24-4.24)	67.13 (67.13-67.13)
NAF	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.82 (1.8-1.88)	1.72 (1.7-1.79)	23.26 (22.84-24.28)	0 (0-0)	7.38 (7.32-7.46)	28.6 (28.27-29)	4.24 (4.18-4.31)	67.02 (66.11-68.72)
None	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.82 (1.82-1.82)	1.73 (1.73-1.73)	23.36 (23.36-23.36)	0 (0-0)	7.38 (7.38-7.38)	28.6 (28.6-28.6)	4.24 (4.24-4.24)	67.13 (67.13-67.13)





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Table 60. Kittiwake collision mortality for the 19MW turbine calculated using Band CRM Option 1. Values are the median and 95% confidence intervals calculated across 1,000 simulations with different combinations of stochastic variables ('Full' - seabird density, avoidance rate, flight height and nocturnal activity; 'Density' - seabird density only; 'AR' - avoidance rate only; 'PCH' - flight height only; 'NAF' - nocturnal activity factor only; 'None' - deterministic).

Stochastic variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual total
Full	18 (6.13-33.33)	0 (0-4.34)	5.62 (0-18.56)	22.87 (2.49-64.04)	15.72 (0-57.41)	17.09 (5.09-34.68)	34.24 (15.47-62.05)	5.69 (0-15.6)	0 (0-0)	0 (0-0)	0 (0-12.99)	8.25 (0-31.3)	127.48 (29.18-334.3)
Density	18.65 (6.52-28)	0 (0-4.72)	6.06 (0-18.07)	23.68 (2.49-58.18)	16.62 (0-52.53)	18.48 (5.28-31.69)	35.23 (17.62-55.37)	6.13 (0-14.31)	0 (0-0)	0 (0-0)	0 (0-12.48)	8.72 (0-29.06)	133.57 (31.91-304.41)
AR	18.48 (12.86-26.18)	0 (0-0)	6.02 (4.09-8.26)	21.92 (15.19-30.74)	15.08 (10.26-20.96)	18.27 (12.36-25.32)	34.58 (23.79-47.91)	6.1 (4.05-8.45)	0 (0-0)	0 (0-0)	0.17 (0.12-0.24)	9.02 (6.17-12.73)	129.64 (88.89-180.79)
PCH	18.65 (18.65-18.65)	0 (0-0)	6.06 (6.06-6.06)	22.41 (22.41-22.41)	15.01 (15.01-15.01)	18.48 (18.48-18.48)	35.23 (35.23-35.23)	6.13 (6.13-6.13)	0 (0-0)	0 (0-0)	0.18 (0.18-0.18)	9.07 (9.07-9.07)	131.22 (131.22-131.22)
NAF	18.64 (17.86-19.45)	0 (0-0)	6.05 (5.62-6.61)	22.38 (21.14-23.84)	15.02 (14.41-15.8)	18.44 (17.84-19.25)	35.26 (33.91-36.68)	6.12 (5.81-6.49)	0 (0-0)	0 (0-0)	0.18 (0.17-0.18)	9.05 (8.65-9.47)	131.14 (125.41-137.77)
None	18.65 (18.65-18.65)	0 (0-0)	6.06 (6.06-6.06)	22.41 (22.41-22.41)	15.01 (15.01-15.01)	18.48 (18.48-18.48)	35.23 (35.23-35.23)	6.13 (6.13-6.13)	0 (0-0)	0 (0-0)	0.18 (0.18-0.18)	9.07 (9.07-9.07)	131.22 (131.22-131.22)

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Table 61. Black-headed Gull collision mortality for the 19MW turbine calculated using Band CRM Option 1. Values are the median and 95% confidence intervals calculated across 1,000 simulations with different combinations of stochastic variables ('Full' - seabird density, avoidance rate, flight height and nocturnal activity; 'Density' - seabird density only; 'AR' - avoidance rate only; 'PCH' - flight height only; 'NAF' - nocturnal activity factor only; 'None' - deterministic).

Stochastic variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual total
Full	0 (0-0)	0 (0-0)	0 (0-1.46)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.7 (0-11.67)	0 (0-0)	0.7 (0-13.13)
Density	0 (0-0)	0 (0-0)	0 (0-1.61)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.13 (0-9.43)	0 (0-0)	1.13 (0-11.04)
AR	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.34 (0.72-2.05)	0 (0-0)	1.34 (0.72-2.05)
PCH	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.33 (1.33-1.33)	0 (0-0)	1.33 (1.33-1.33)
NAF	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.33 (1.33-1.33)	0 (0-0)	1.33 (1.33-1.33)
None	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1.33 (1.33-1.33)	0 (0-0)	1.33 (1.33-1.33)

East Anglia TWO Technical Appendix 12.1 Offshore Ornithology Annex 4 – CRM results

Table 62. Little Gull collision mortality for the 19MW turbine calculated using Band CRM Option 1. Values are the median and 95% confidence intervals calculated across 1,000 simulations with different combinations of stochastic variables ('Full' - seabird density, avoidance rate, flight height and nocturnal activity; 'Density' - seabird density only; 'AR' - avoidance rate only; 'PCH' - flight height only; 'NAF' - nocturnal activity factor only; 'None' - deterministic).

Stochastic variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual total
Full	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-3.62)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	2.29 (0-10.42)	0 (0-0)	2.29 (0-14.04)
Density	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-3.57)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	2.4 (0-9.87)	0 (0-0)	2.4 (0-13.44)
AR	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	2.44 (1.46-3.84)	0 (0-0)	2.44 (1.46-3.84)
PCH	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	2.51 (2.51-2.51)	0 (0-0)	2.51 (2.51-2.51)
NAF	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	2.51 (2.51-2.51)	0 (0-0)	2.51 (2.51-2.51)
None	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	2.51 (2.51-2.51)	0 (0-0)	2.51 (2.51-2.51)



East Anglia TWO Technical Appendix 12.1 Offshore Ornithology Annex 4 – CRM results

Table 64. Lesser Black-backed Gull collision mortality for the 19MW turbine calculated using Band CRM Option 1. Values are the median and 95% confidence intervals calculated across 1,000 simulations with different combinations of stochastic variables ('Full' - seabird density, avoidance rate, flight height and nocturnal activity; 'Density' - seabird density only; 'AR' - avoidance rate only; 'PCH' - flight height only; 'NAF' - nocturnal activity factor only; 'None' - deterministic).

Stochastic variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual total
Full	0 (0-0)	0 (0-2.04)	0 (0-2.44)	0 (0-2.65)	0 (0-0)	0.84 (0-3.32)	0 (0-0)	0 (0-0)	0 (0-3.69)	0 (0-0)	0 (0-0)	0 (0-0)	0.84 (0-14.14)
Density	0 (0-0)	0 (0-2.16)	0 (0-2.52)	0 (0-2.95)	0 (0-0)	0.98 (0-2.94)	0 (0-0)	0 (0-0)	0 (0-4.16)	0 (0-0)	0 (0-0)	0 (0-0)	0.98 (0-14.73)
AR	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.98 (0.63-1.43)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.98 (0.63-1.43)
PCH	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.98 (0.98-0.98)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.98 (0.98-0.98)
NAF	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.98 (0.89-0.98)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.98 (0.89-0.98)
None	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.98 (0.98-0.98)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.98 (0.98-0.98)



East Anglia TWO Technical Appendix 12.1 Offshore Ornithology Annex 4 – CRM results

Table 66. Great Black-backed Gull collision mortality for the 19MW turbine calculated using Band CRM Option 1. Values are the median and 95% confidence intervals calculated across 1,000 simulations with different combinations of stochastic variables ('Full' - seabird density, avoidance rate, flight height and nocturnal activity; 'Density' - seabird density only; 'AR' - avoidance rate only; 'PCH' - flight height only; 'NAF' - nocturnal activity factor only; 'None' - deterministic).

Stochastic variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual total
Full	0 (0-2)	0 (0-5.13)	0 (0-0)	0 (0-3.16)	0 (0-5.3)	0 (0-0)	3.03 (0-7.58)	0 (0-0)	0 (0-6.55)	0 (0-0)	0 (0-2.06)	0.69 (0-2.79)	3.72 (0-34.57)
Density	0 (0-2.03)	0 (0-5.29)	0 (0-0)	0 (0-3.62)	0 (0-5.82)	0 (0-0)	3.47 (0-7.55)	0 (0-0)	0 (0-6.11)	0 (0-0)	0 (0-2.43)	0.89 (0-2.77)	4.36 (0-35.62)
AR	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	3.45 (2.21-4.96)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.87 (0.58-1.24)	4.32 (2.79-6.2)
PCH	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	3.47 (3.47-3.47)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.89 (0.89-0.89)	4.36 (4.36-4.36)
NAF	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	3.14 (3.14-3.47)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.66 (0.66-0.89)	3.8 (3.8-4.36)
None	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	3.47 (3.47-3.47)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0.89 (0.89-0.89)	4.36 (4.36-4.36)



**East Anglia TWO Offshore Windfarm PEI**

**Appendix 12.1**

**Offshore Ornithology**

**Annex 5**

**Collision mortality boxplots**

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## 1 INTRODUCTION

1. This appendix provides box plots of collision mortality estimated using the Band model option 2 with random variation in seabird density, avoidance rate, flight height and nocturnal activity. Further details on collision modelling methods are provided in Technical Appendix 12.1, input parameters in Annex 3, and tabulated in Annex 4.
2. Table A5 provides a key to figure numbering.

Table A5. Key to figure numbering.

Species	Figure number
Red-throated diver	1
Fulmar	2
Gannet	3
Great skua	4
Kittiwake	5
Black-headed gull	6
Little gull	7
Common gull	8
Lesser black-backed gull	9
Herring gull	10
Great black-backed gull	11

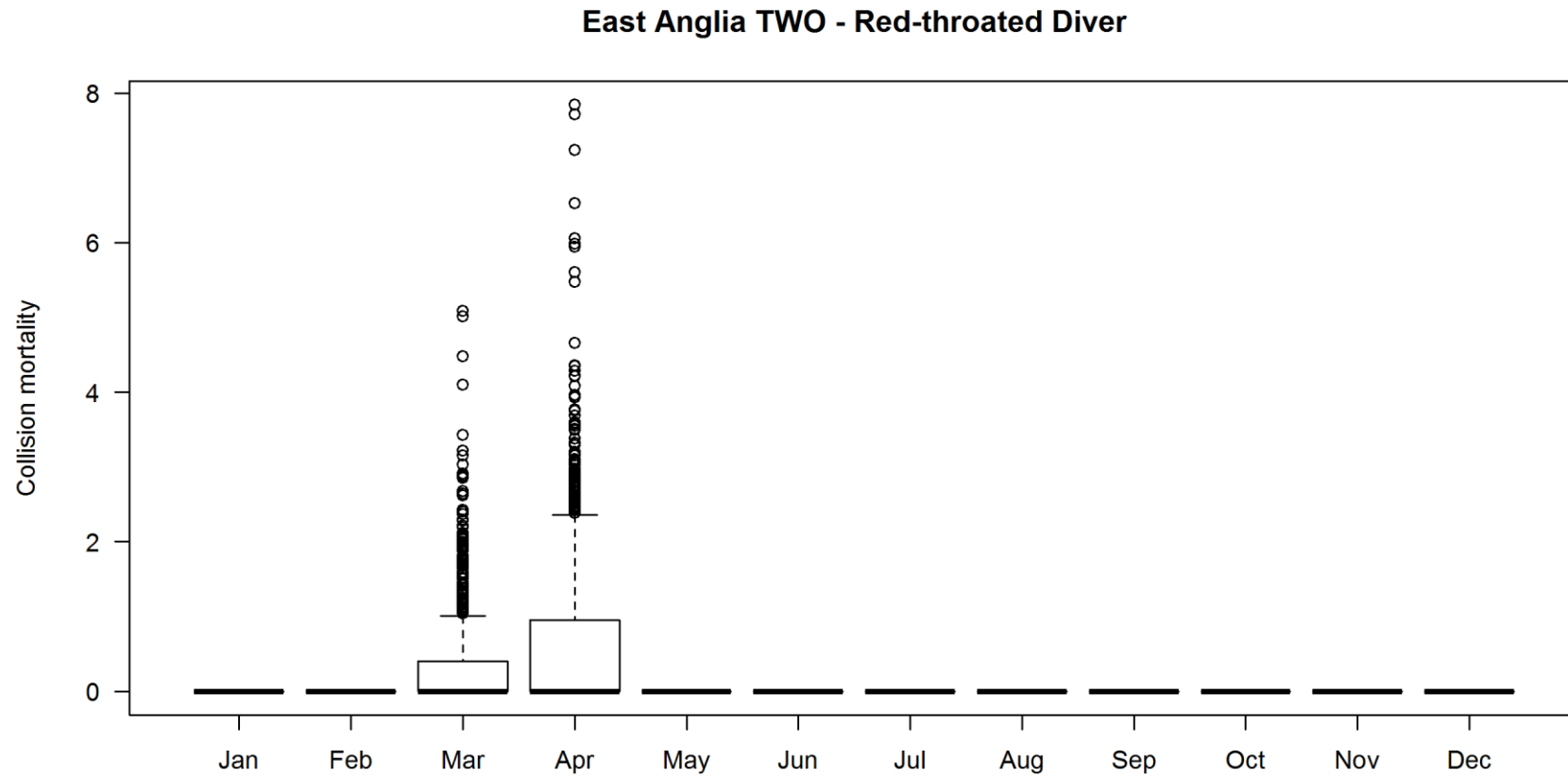


Figure 1. East Anglia TWO, Red-throated Diver Option 2 collision mortality estimates calculated with stochasticity in seabird density, avoidance rate, flight height and nocturnal activity. Solid bars are the median, boxes indicate the 50% range, whiskers the 95% range and circles are outliers.

### East Anglia TWO - Fulmar

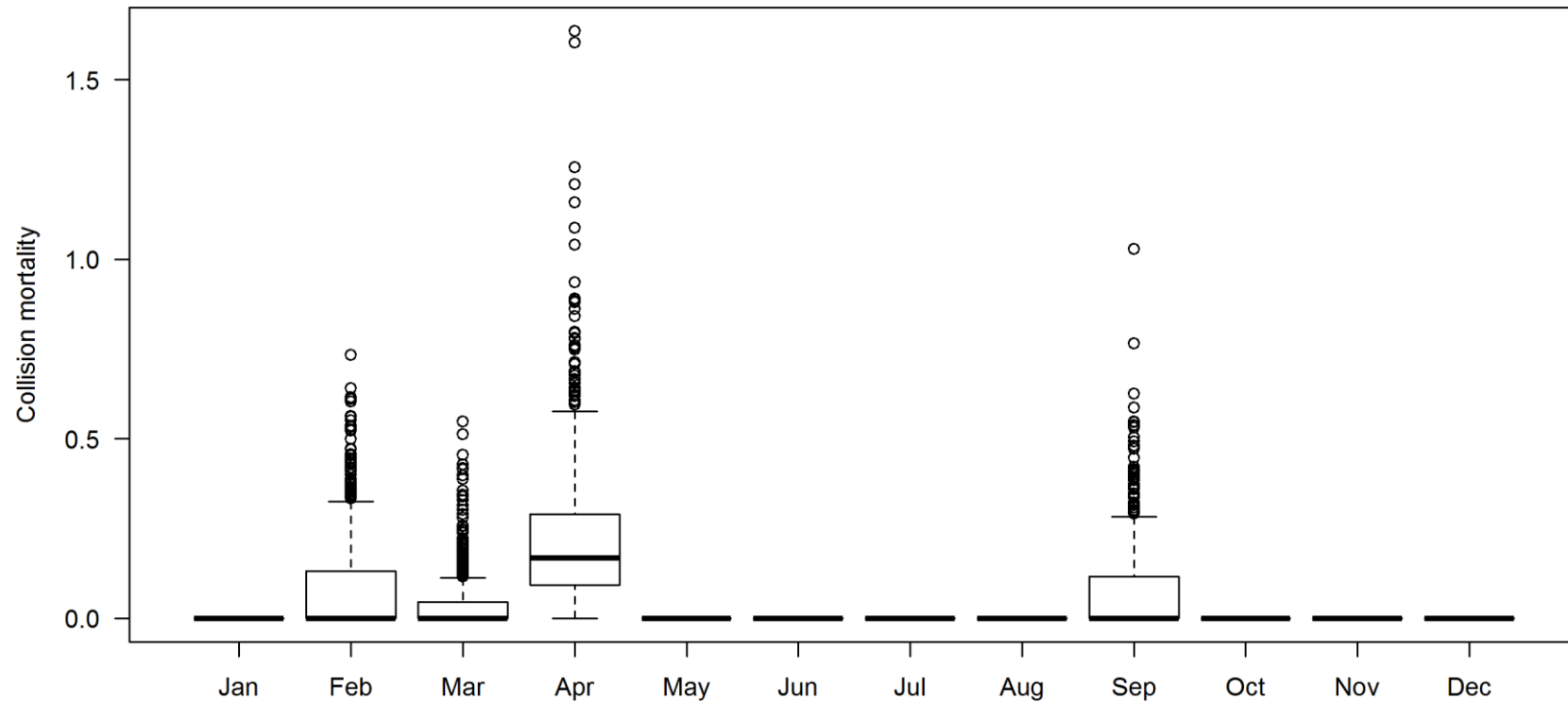


Figure 2. East Anglia TWO, Fulmar Option 2 collision mortality estimates calculated with stochasticity in seabird density, avoidance rate, flight height and nocturnal activity. Solid bars are the median, boxes indicate the 50% range, whiskers the 95% range and circles are outliers.

### East Anglia TWO - Gannet

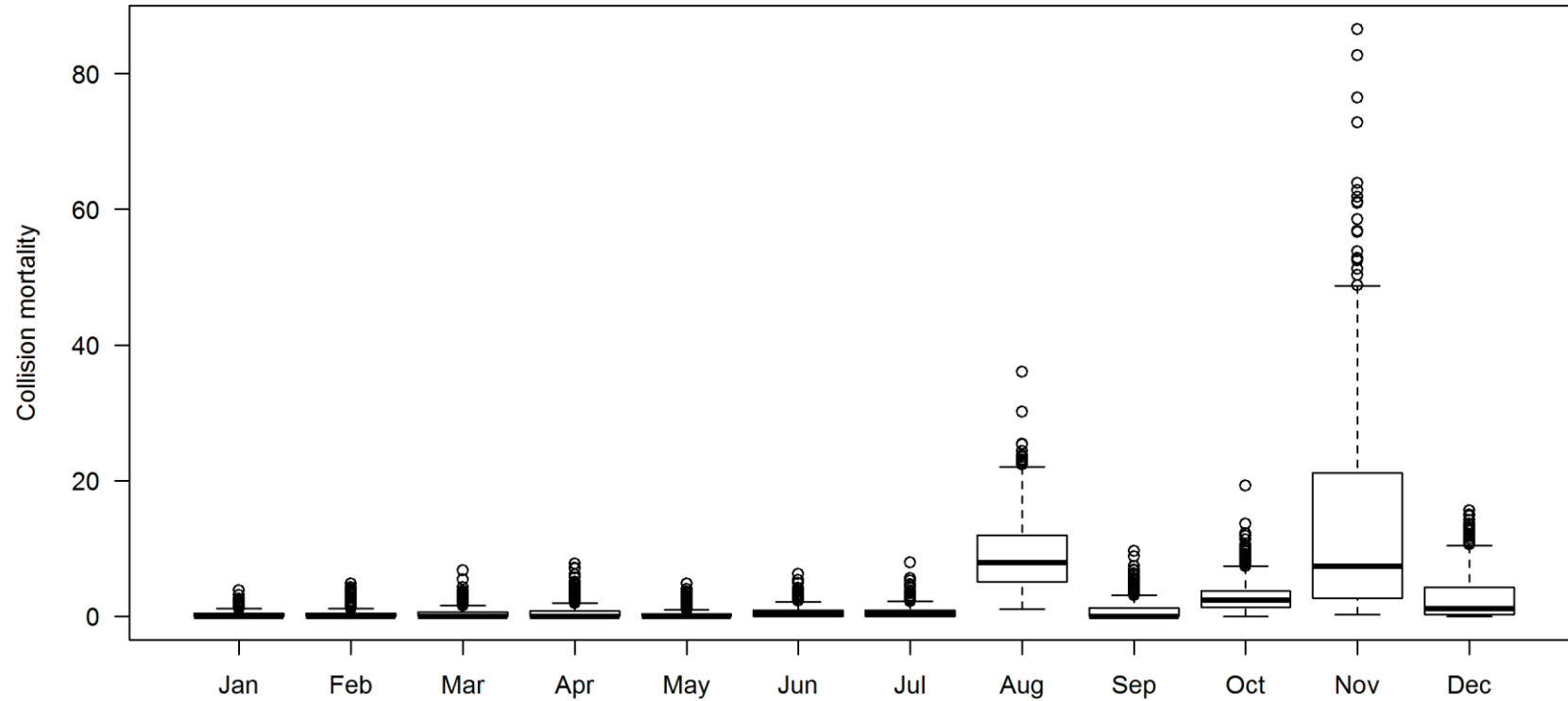


Figure 3. East Anglia TWO, Gannet Option 2 collision mortality estimates calculated with stochasticity in seabird density, avoidance rate, flight height and nocturnal activity. Solid bars are the median, boxes indicate the 50% range, whiskers the 95% range and circles are outliers.

**East Anglia TWO - Great Skua**

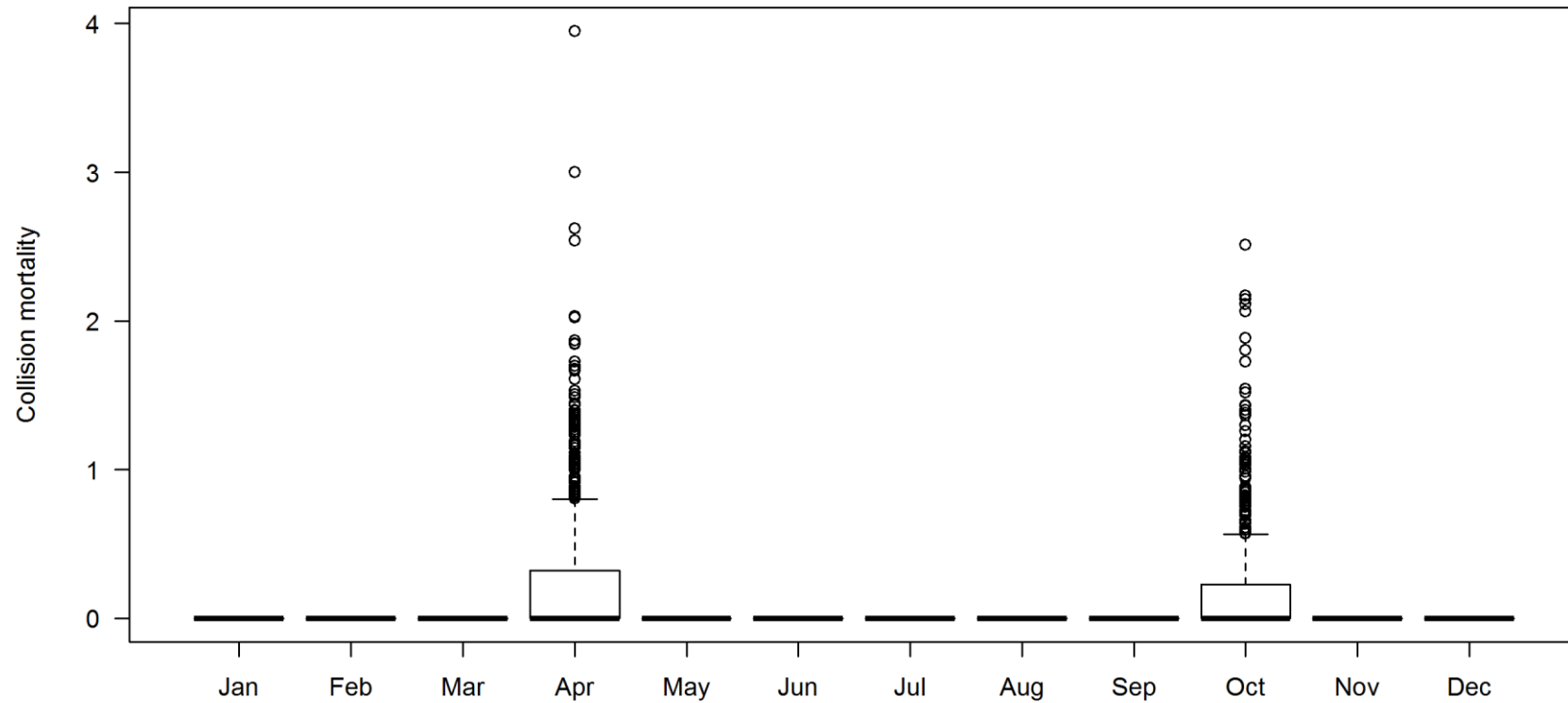


Figure 4. East Anglia TWO, Great Skua Option 2 collision mortality estimates calculated with stochasticity in seabird density, avoidance rate, flight height and nocturnal activity. Solid bars are the median, boxes indicate the 50% range, whiskers the 95% range and circles are outliers.

**East Anglia TWO - Kittiwake**

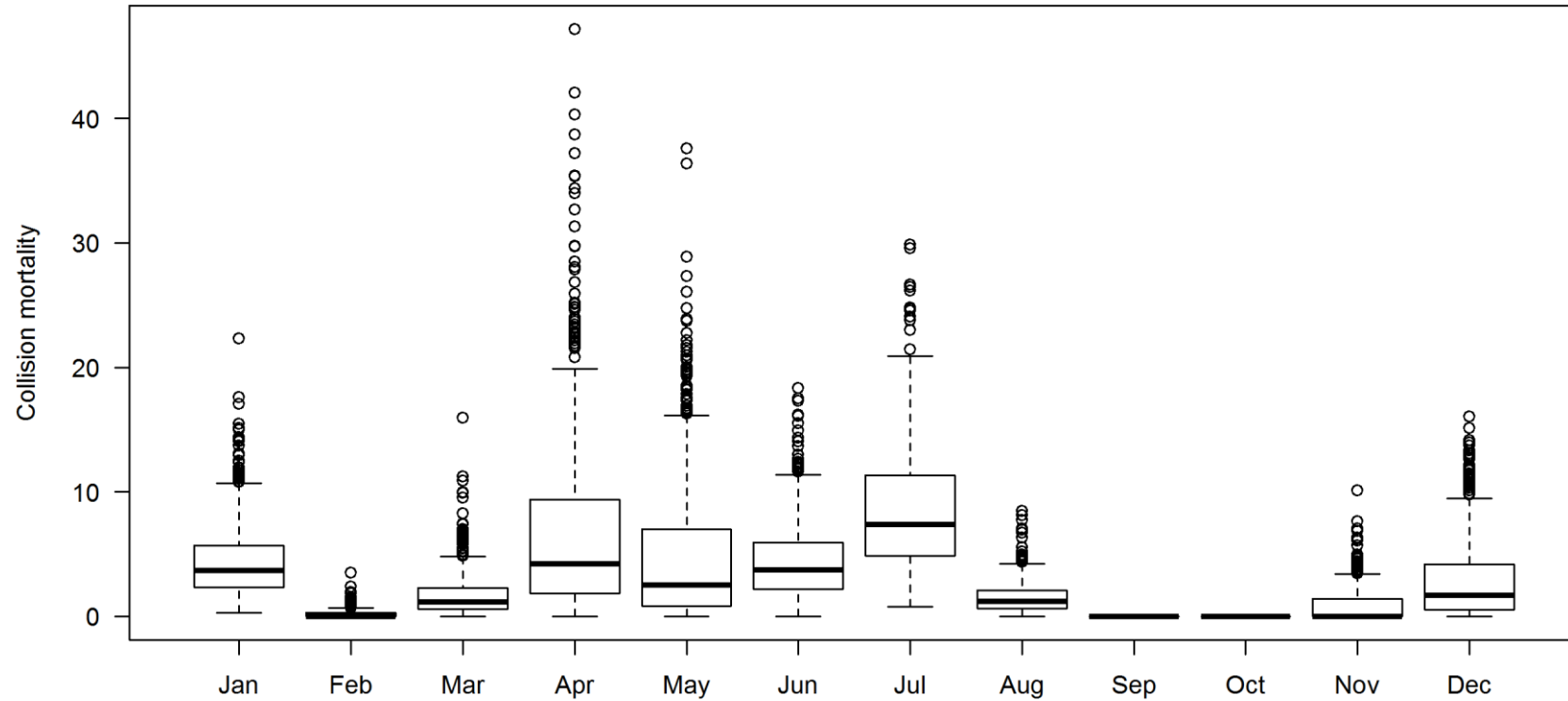


Figure 5. East Anglia TWO, Kittiwake Option 2 collision mortality estimates calculated with stochasticity in seabird density, avoidance rate, flight height and nocturnal activity. Solid bars are the median, boxes indicate the 50% range, whiskers the 95% range and circles are outliers.

### East Anglia TWO - Black-headed Gull

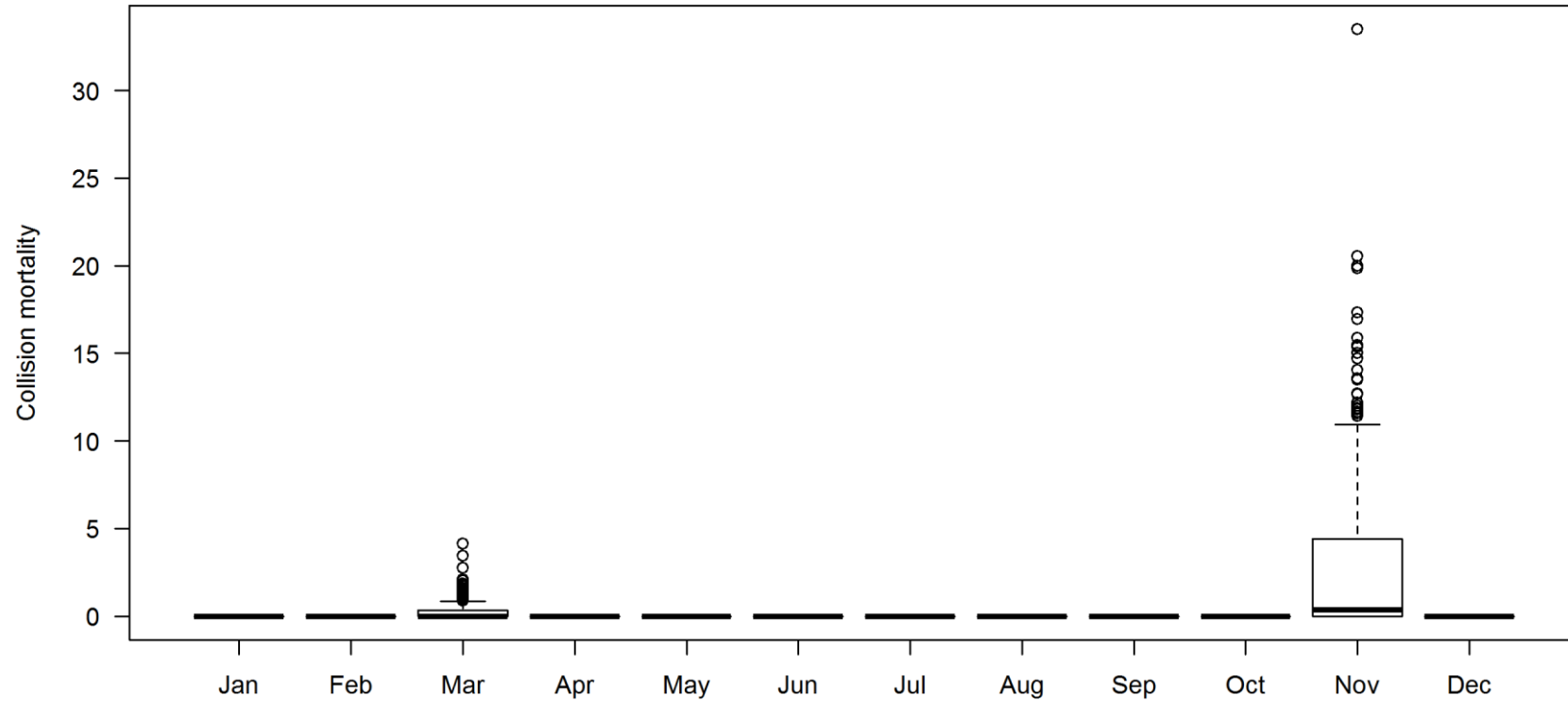


Figure 6. East Anglia TWO, Black-headed Gull Option 2 collision mortality estimates calculated with stochasticity in seabird density, avoidance rate, flight height and nocturnal activity. Solid bars are the median, boxes indicate the 50% range, whiskers the 95% range and circles are outliers.



### East Anglia TWO - Little Gull

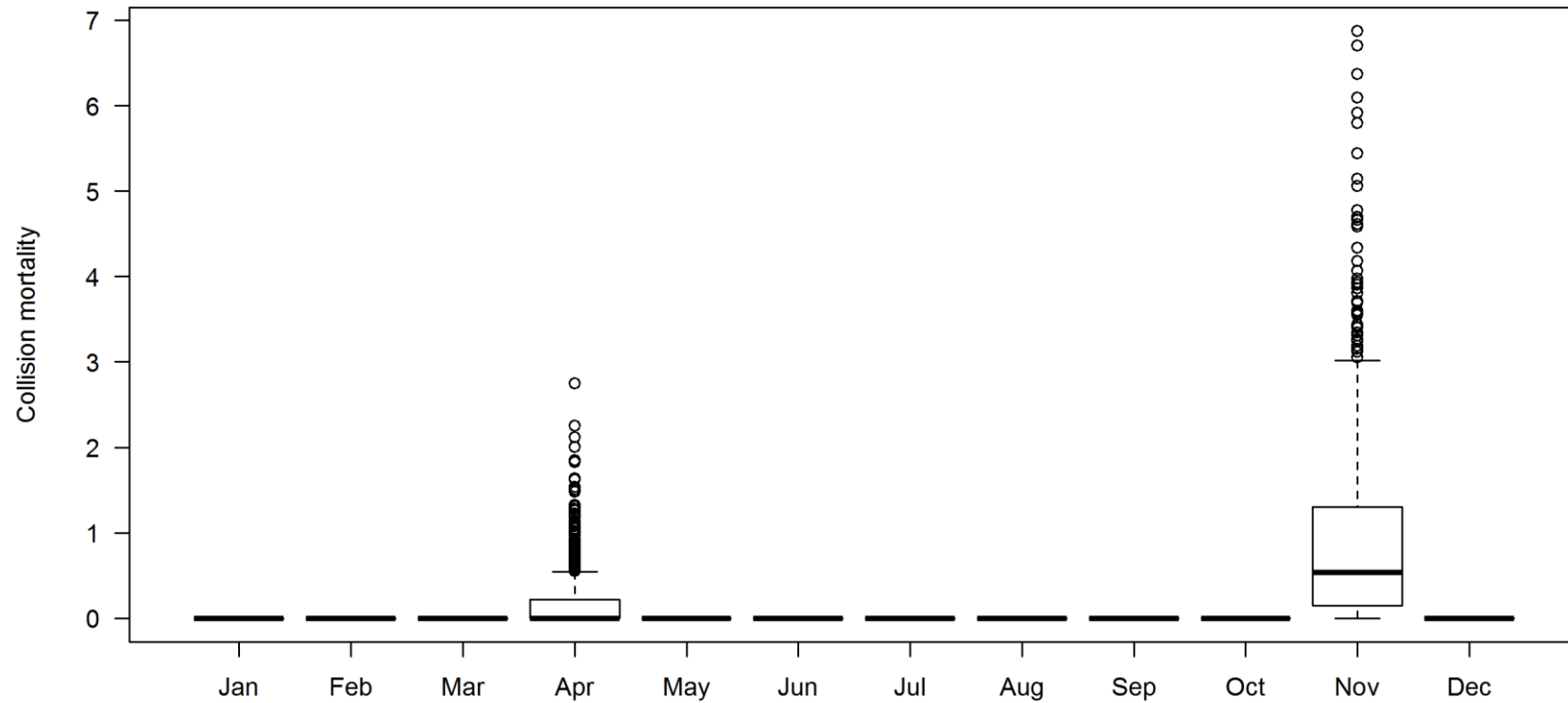


Figure 7. East Anglia TWO, Little Gull Option 2 collision mortality estimates calculated with stochasticity in seabird density, avoidance rate, flight height and nocturnal activity. Solid bars are the median, boxes indicate the 50% range, whiskers the 95% range and circles are outliers.

**East Anglia TWO - Common Gull**

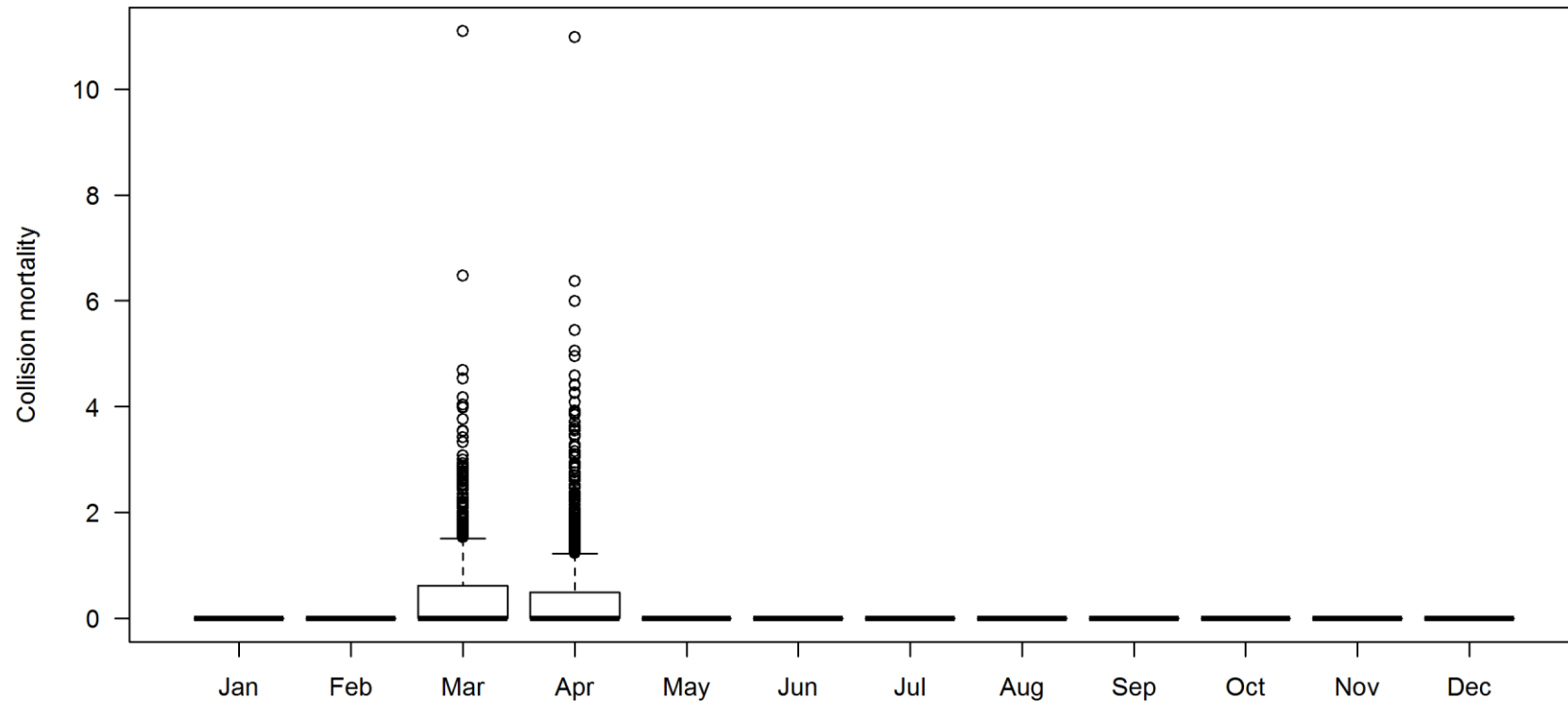


Figure 8. East Anglia TWO, Common Gull Option 2 collision mortality estimates calculated with stochasticity in seabird density, avoidance rate, flight height and nocturnal activity. Solid bars are the median, boxes indicate the 50% range, whiskers the 95% range and circles are outliers.

**East Anglia TWO - Lesser Black-backed Gull**

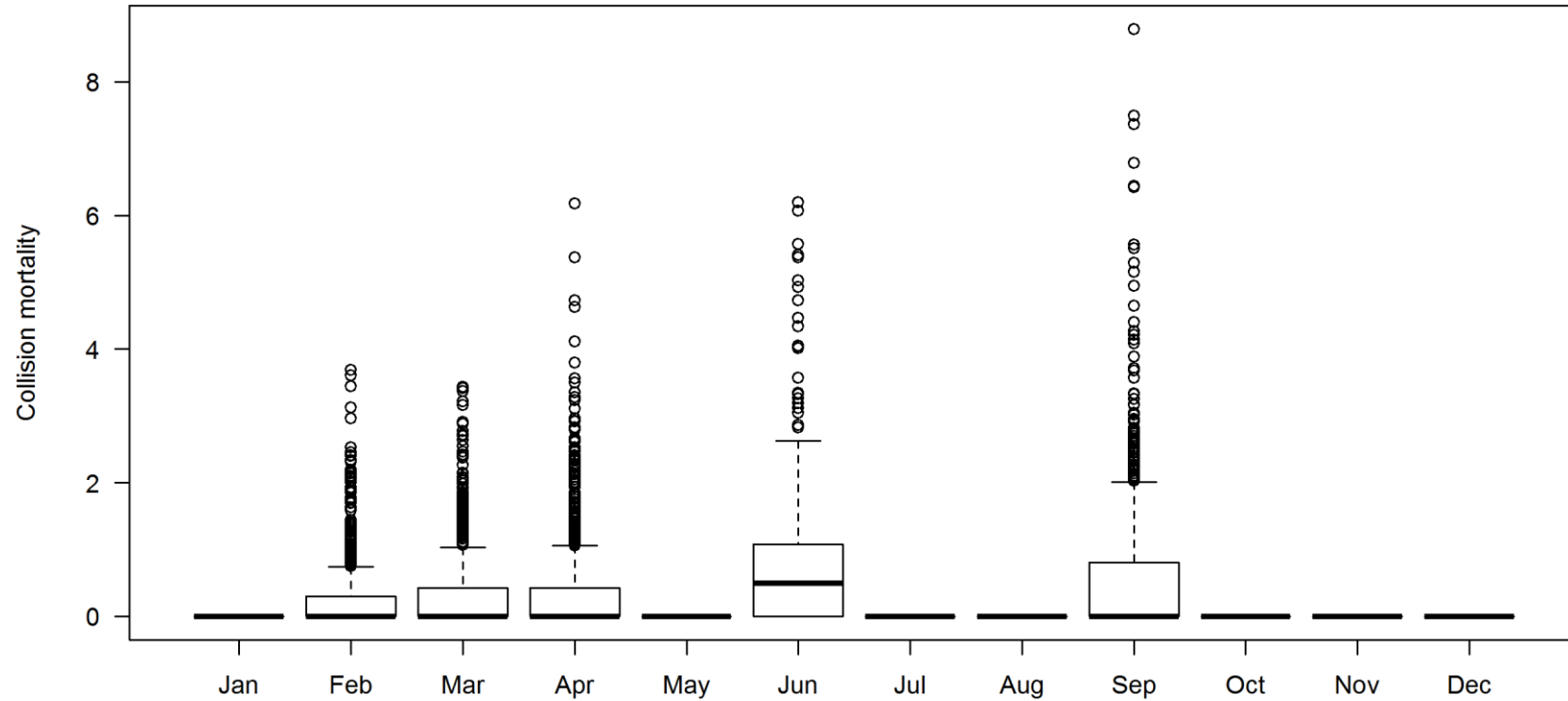


Figure 9. East Anglia TWO, Lesser Black-backed Gull Option 2 collision mortality estimates calculated with stochasticity in seabird density, avoidance rate, flight height and nocturnal activity. Solid bars are the median, boxes indicate the 50% range, whiskers the 95% range and circles are outliers.

### East Anglia TWO - Herring Gull

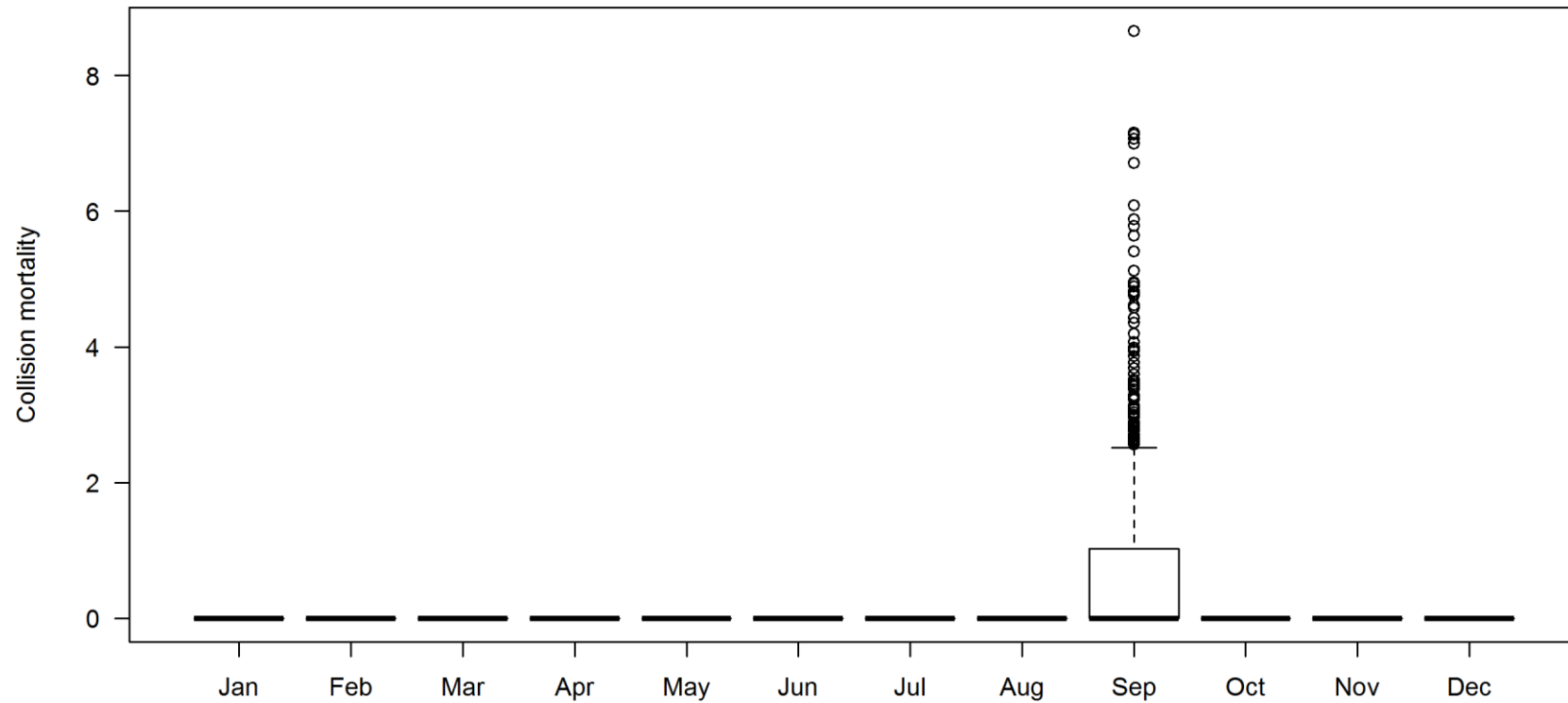


Figure 10. East Anglia TWO, Herring Gull Option 2 collision mortality estimates calculated with stochasticity in seabird density, avoidance rate, flight height and nocturnal activity. Solid bars are the median, boxes indicate the 50% range, whiskers the 95% range and circles are outliers.

**East Anglia TWO - Great Black-backed Gull**

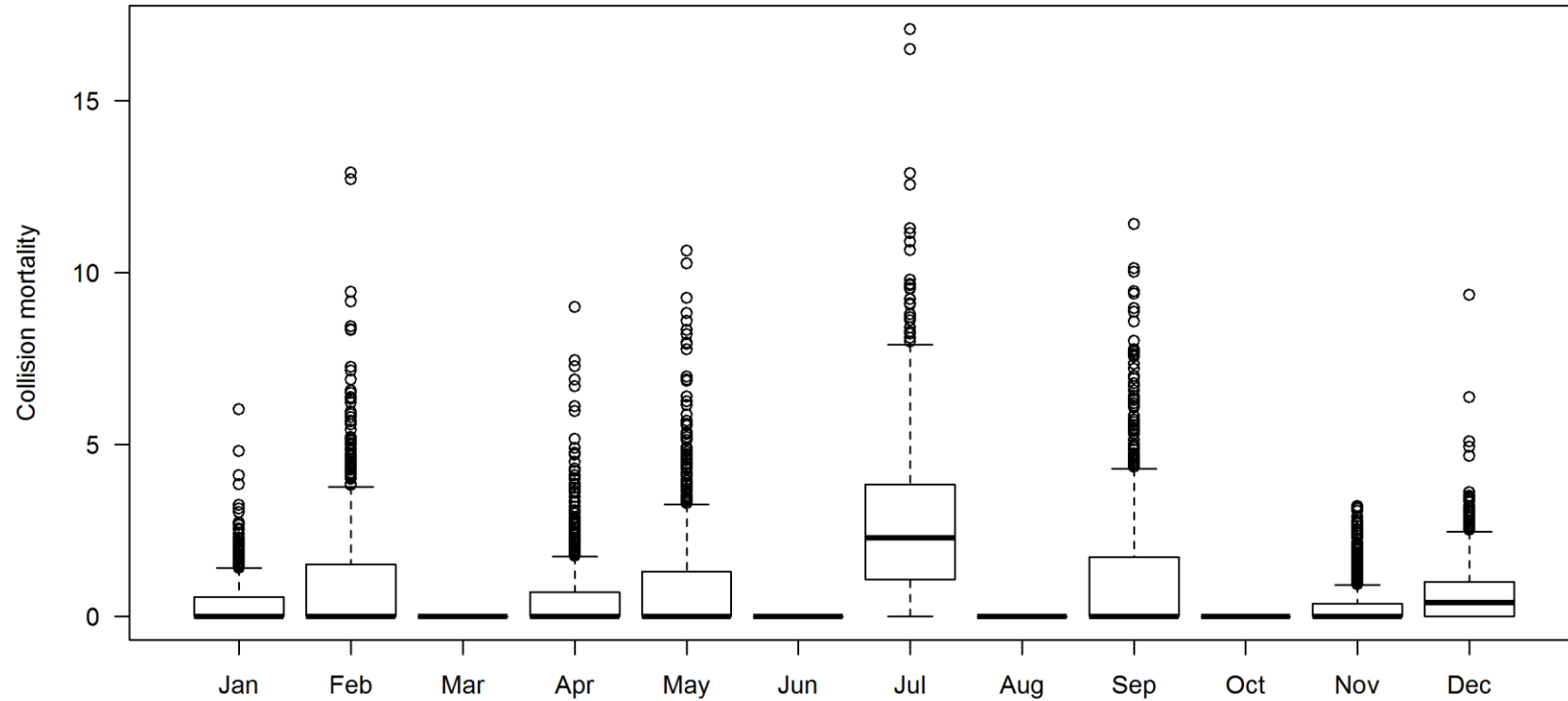


Figure 11. East Anglia TWO, Great Black-backed Gull Option 2 collision mortality estimates calculated with stochasticity in seabird density, avoidance rate, flight height and nocturnal activity. Solid bars are the median, boxes indicate the 50% range, whiskers the 95% range and circles are outliers.



**East Anglia TWO Offshore Windfarm PEI**

**Appendix 12.1**

**Offshore Ornithology**

**Annex 6**

**Species abundance plots**

---

**Prepared by:** Mark Trinder  
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---

**Document Quality Record.**

<b>Version</b>	<b>Status</b>	<b>Person Responsible</b>	<b>Date</b>
1	Draft	Mark Trinder	25/04/2018
2	Reviewed	Bob Furness	25/04/2018
3	Updated		
4	Internal Approval	Benjamin King	27/08/2018
5	Final Client Approval		

## 1 INTRODUCTION

1. This appendix provides plots of species abundance in each month for the East Anglia TWO windfarm site alone and with the inclusion of the 4km buffer. Where appropriate the abundance estimates include unidentified birds (e.g. large gulls, small gulls, auks), added to the positively identified species totals using species and survey specific proportions. Razorbill and guillemot totals have also been adjusted to account for availability bias. Details on analysis methods are provided in Appendix 12.1.
2. Table A6 provides a key to figure numbering.

Table A6. Key to figure numbering.

Species	Figure number
Red-throated diver	1
Black-throated diver	2
Great northern diver	3
Fulmar	4
Gannet	5
Cormorant	6
Shag	7
Great skua	8
Puffin	9
Razorbill	10
Guillemot	11
Commic tern	12
Kittiwake	13
Black-headed gull	14
Little gull	15
Common gull	16
Lesser black-backed gull	17
Herring gull	18
Great black-backed gull	19



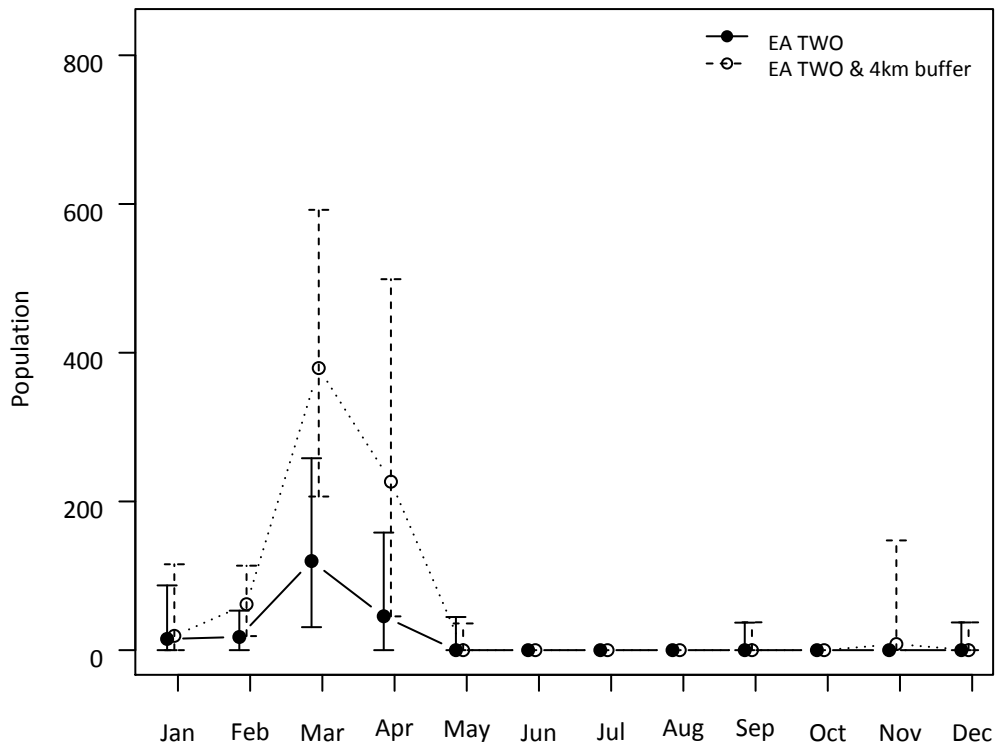


Figure 1. Red-throated Diver. Median design based abundance estimates (plus 95% confidence intervals) of birds in flight and on the sea in East Anglia TWO (filled circles, solid lines) and East Anglia TWO plus 4km buffer (open circles, dashed lines).

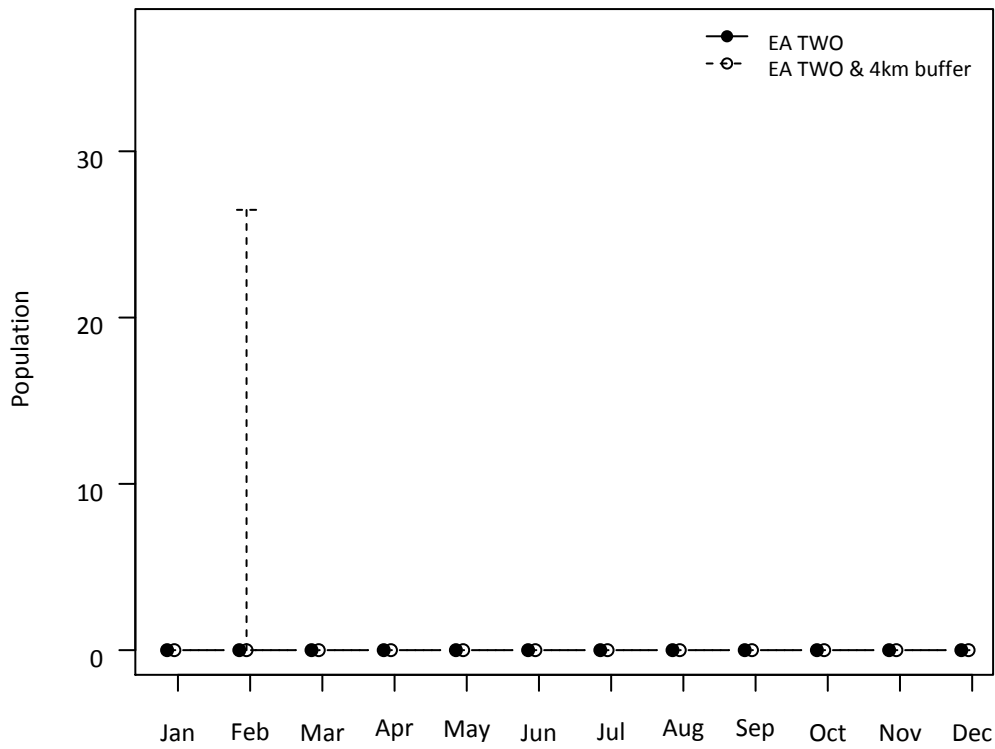


Figure 2. Black-throated Diver. Median design based abundance estimates (plus 95% confidence intervals) of birds in flight and on the sea in East Anglia TWO (filled circles, solid lines) and East Anglia TWO plus 4km buffer (open circles, dashed lines).

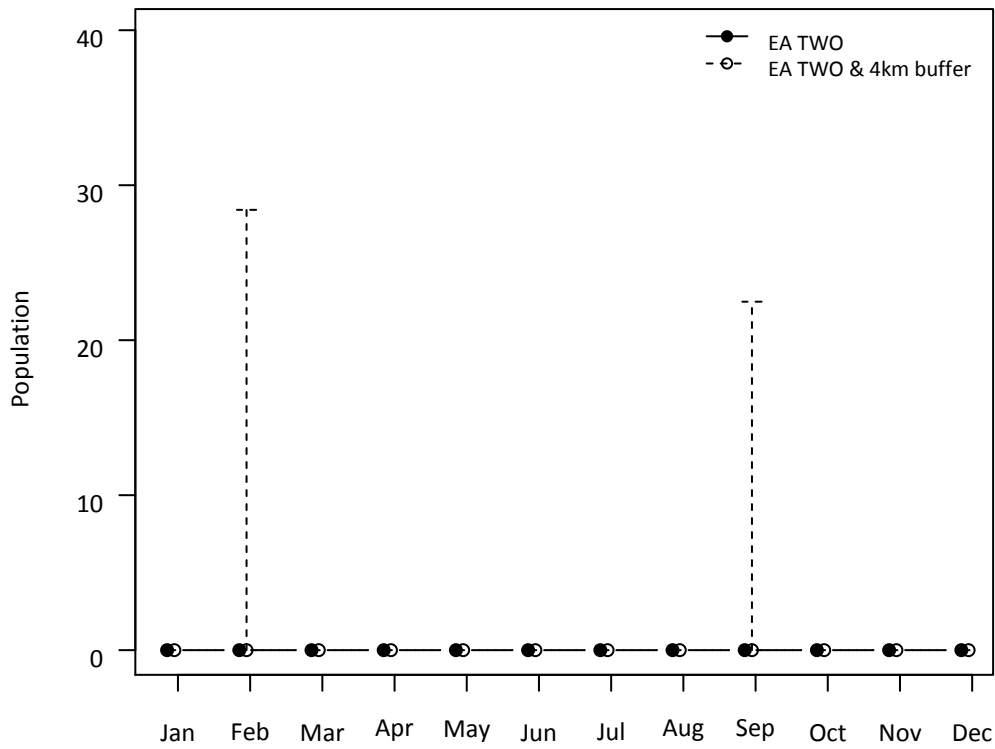


Figure 3. Great Northern Diver. Median design based abundance estimates (plus 95% confidence intervals) of birds in flight and on the sea in East Anglia TWO (filled circles, solid lines) and East Anglia TWO plus 4km buffer (open circles, dashed lines).

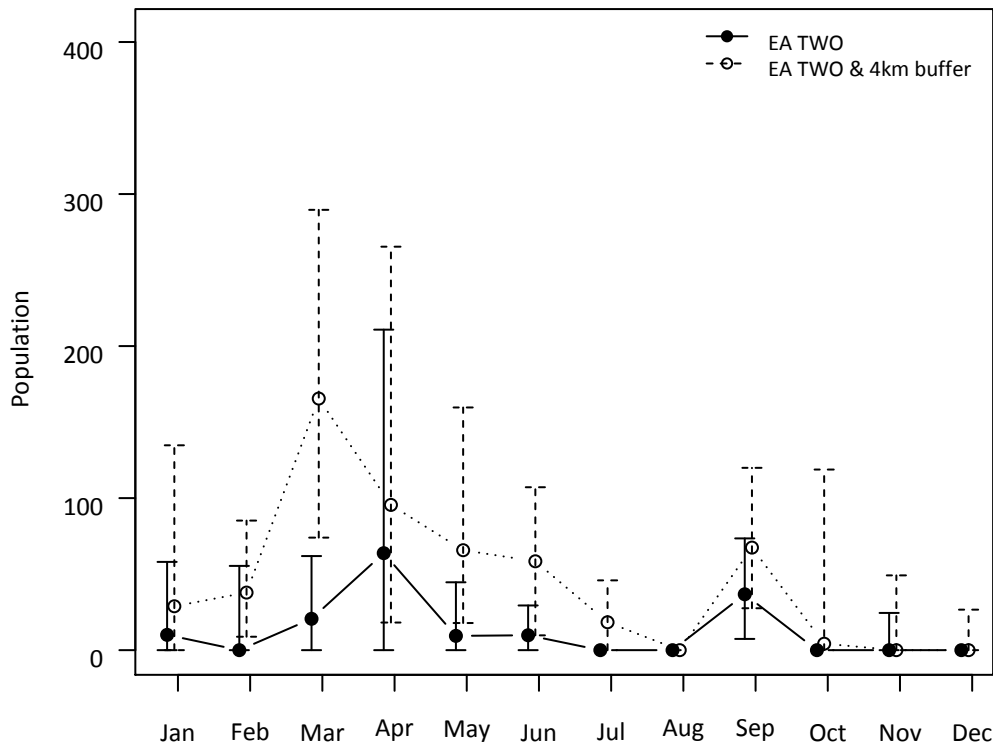


Figure 4. Fulmar. Median design based abundance estimates (plus 95% confidence intervals) of birds in flight and on the sea in East Anglia TWO (filled circles, solid lines) and East Anglia TWO plus 4km buffer (open circles, dashed lines).

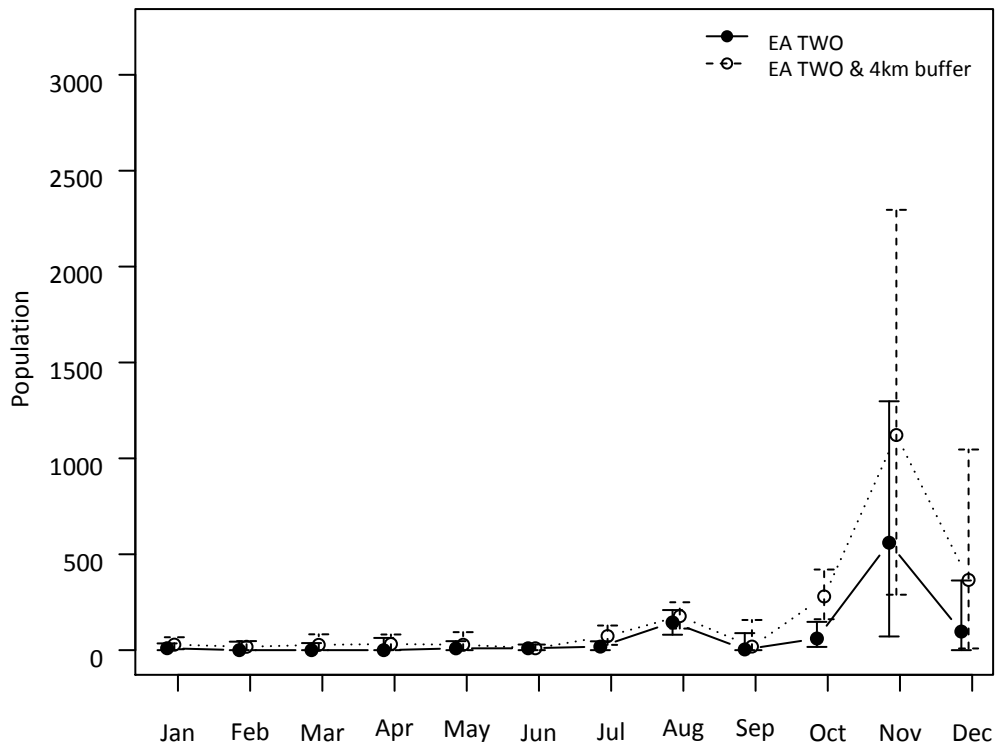


Figure 5. Gannet. Median design based abundance estimates (plus 95% confidence intervals) of birds in flight and on the sea in East Anglia TWO (filled circles, solid lines) and East Anglia TWO plus 4km buffer (open circles, dashed lines).

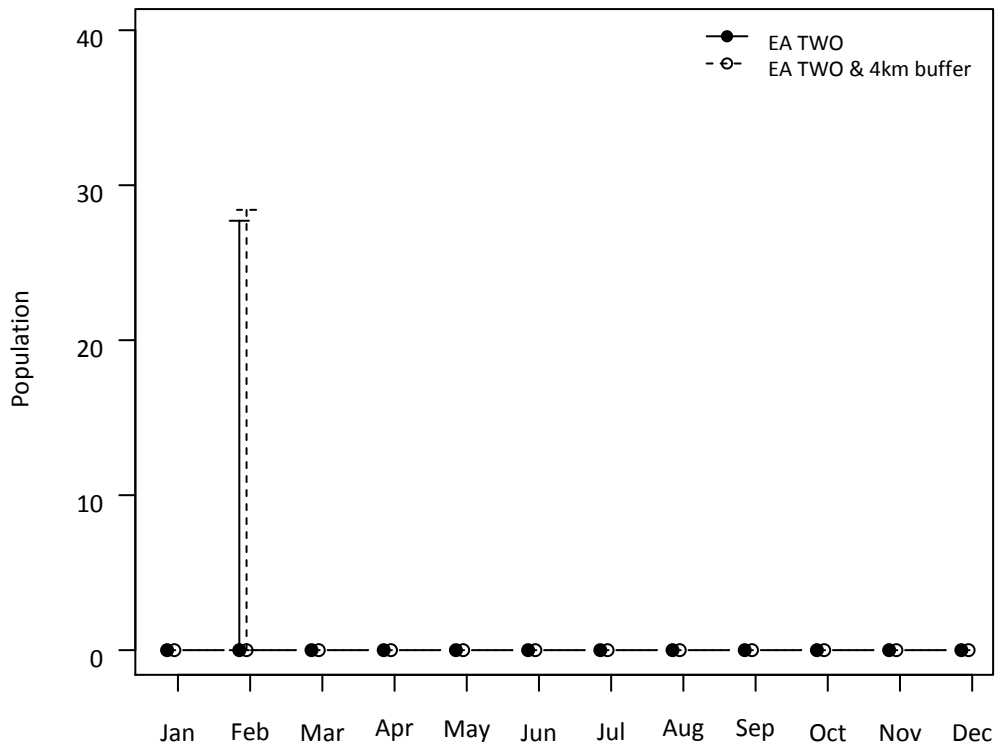


Figure 6. Cormorant. Median design based abundance estimates (plus 95% confidence intervals) of birds in flight and on the sea in East Anglia TWO (filled circles, solid lines) and East Anglia TWO plus 4km buffer (open circles, dashed lines).

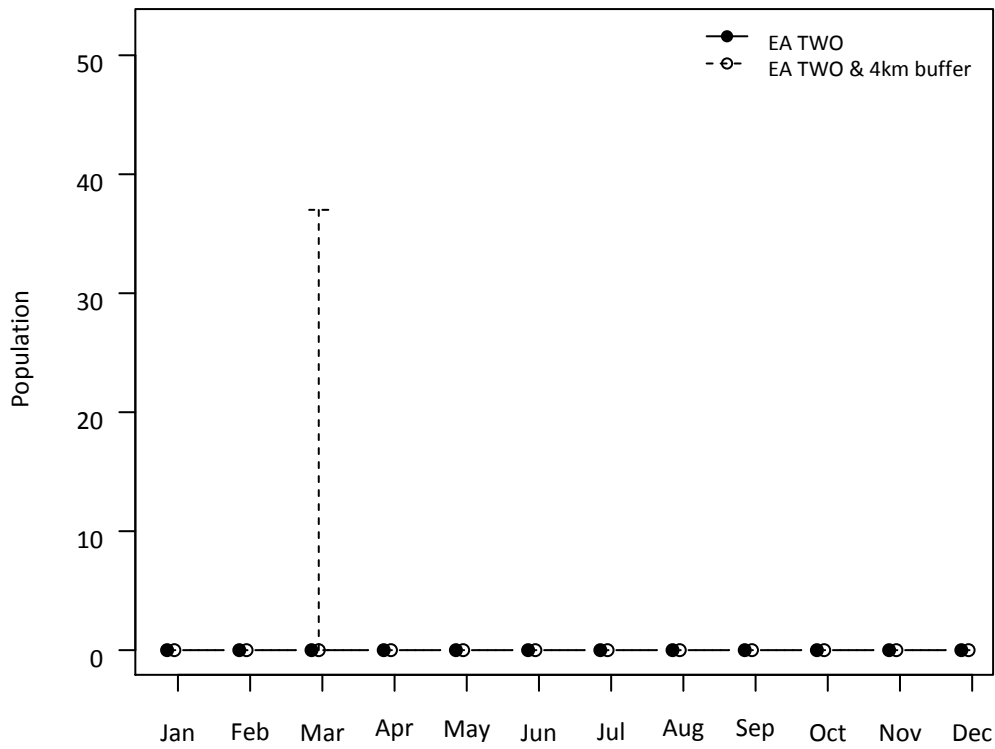


Figure 7. Shag. Median design based abundance estimates (plus 95% confidence intervals) of birds in flight and on the sea in East Anglia TWO (filled circles, solid lines) and East Anglia TWO plus 4km buffer (open circles, dashed lines).

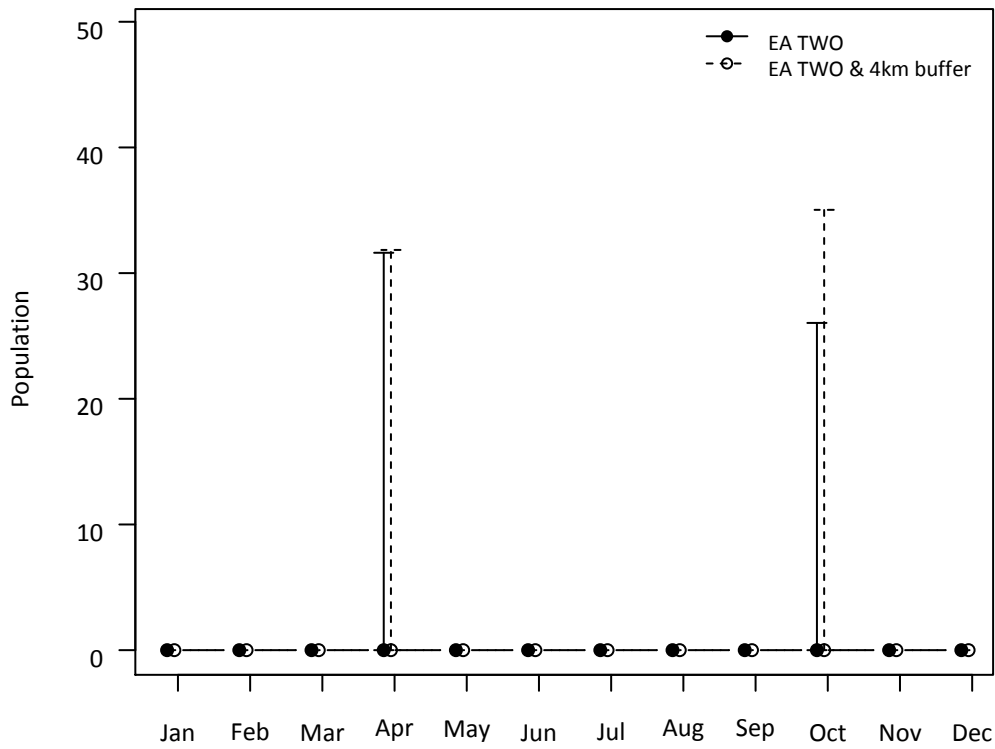


Figure 8. Great Skua. Median design based abundance estimates (plus 95% confidence intervals) of birds in flight and on the sea in East Anglia TWO (filled circles, solid lines) and East Anglia TWO plus 4km buffer (open circles, dashed lines).



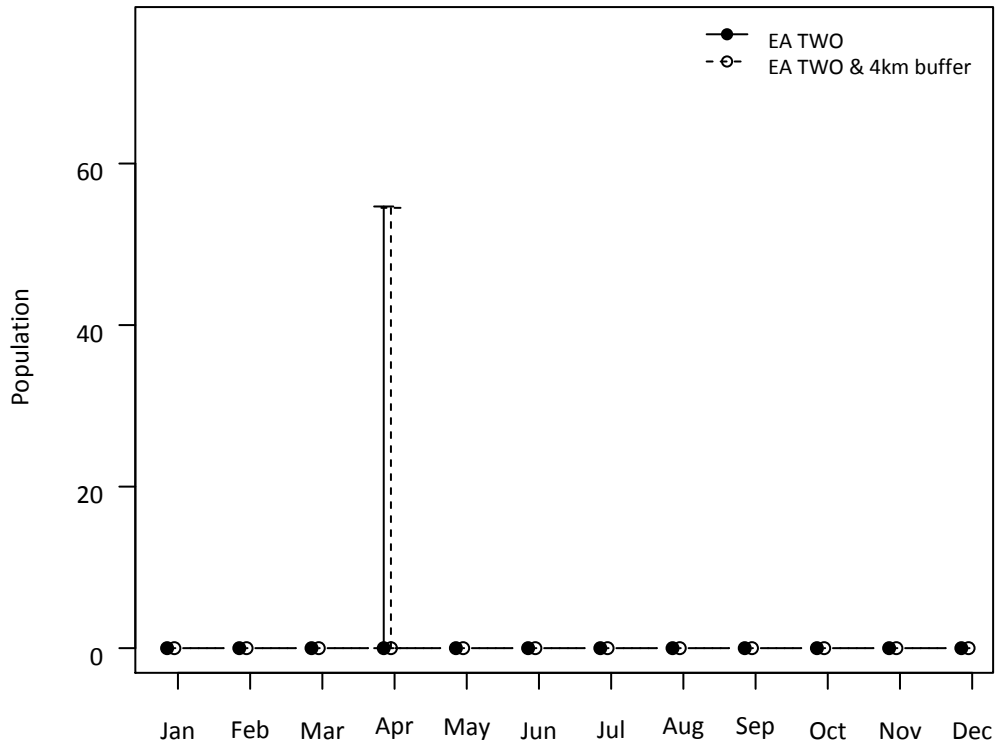


Figure 9. Puffin. Median design based abundance estimates (plus 95% confidence intervals) of birds in flight and on the sea in East Anglia TWO (filled circles, solid lines) and East Anglia TWO plus 4km buffer (open circles, dashed lines).

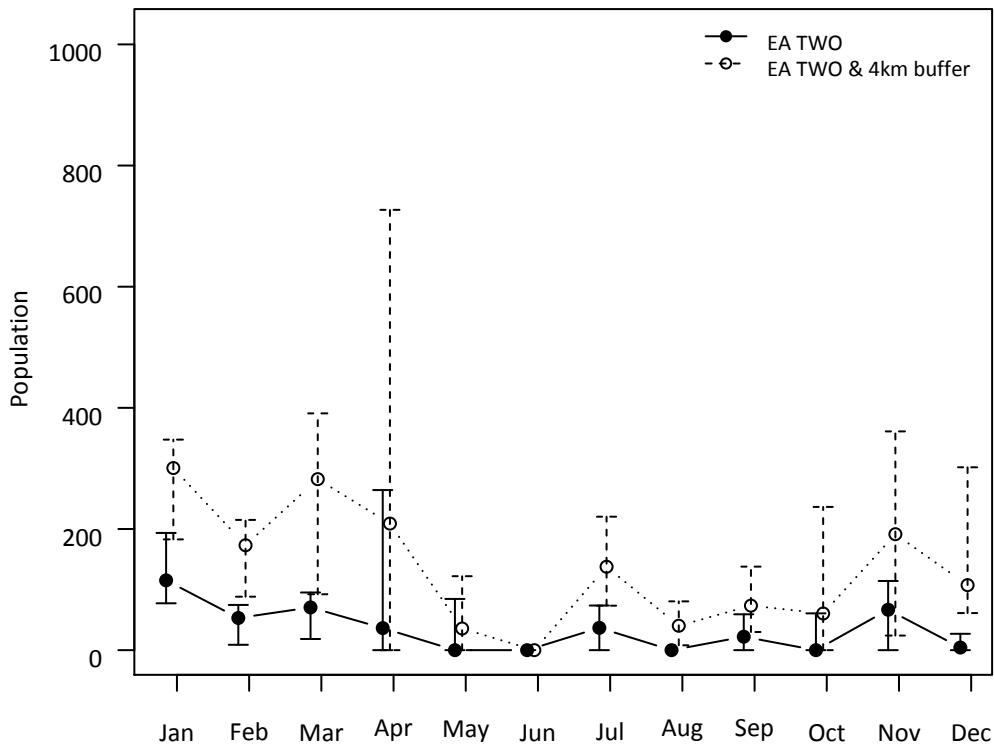


Figure 10. Razorbill. Median design based abundance estimates (plus 95% confidence intervals) of birds in flight and on the sea in East Anglia TWO (filled circles, solid lines) and East Anglia TWO plus 4km buffer (open circles, dashed lines).

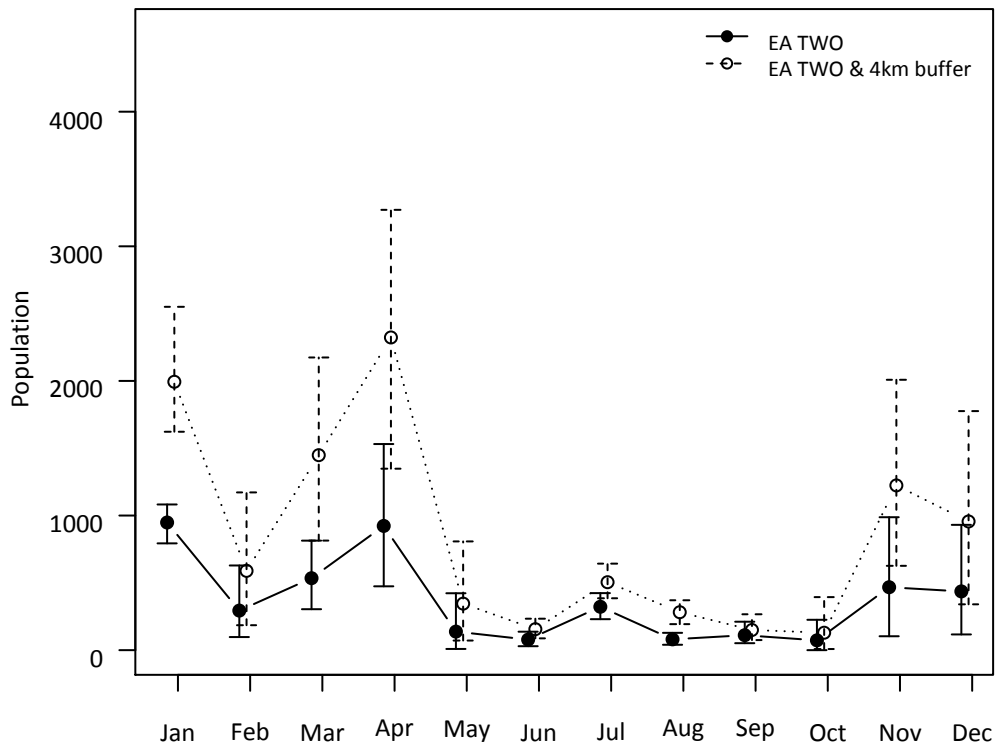


Figure 11. Guillemot. Median design based abundance estimates (plus 95% confidence intervals) of birds in flight and on the sea in East Anglia TWO (filled circles, solid lines) and East Anglia TWO plus 4km buffer (open circles, dashed lines).

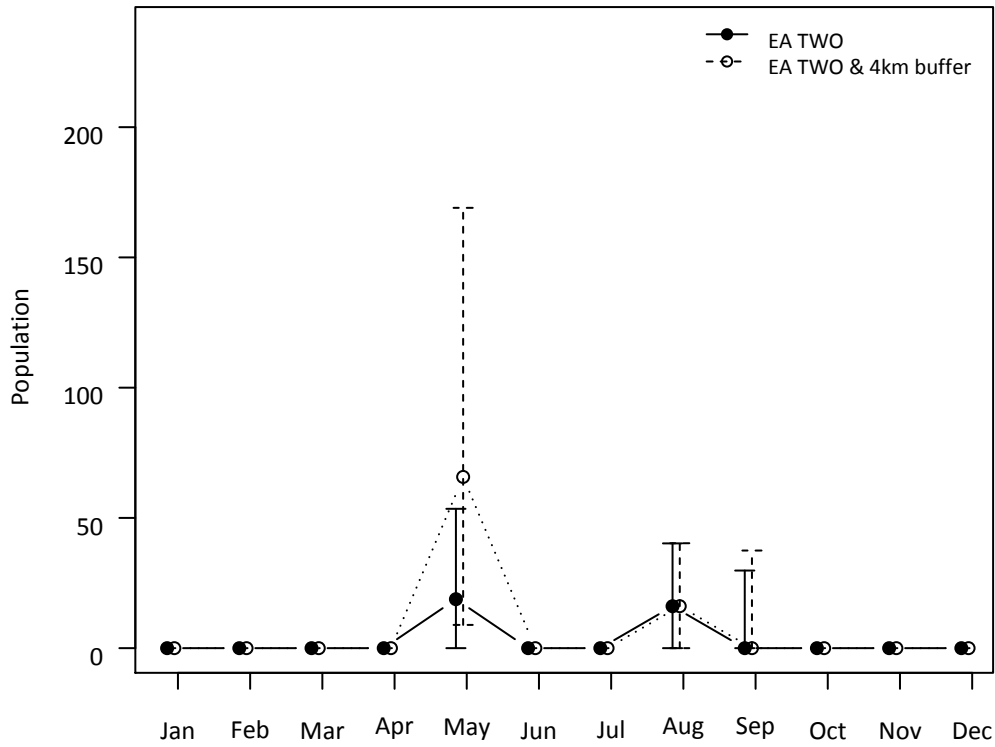


Figure 12. Common Tern. Median design based abundance estimates (plus 95% confidence intervals) of birds in flight and on the sea in East Anglia TWO (filled circles, solid lines) and East Anglia TWO plus 4km buffer (open circles, dashed lines).

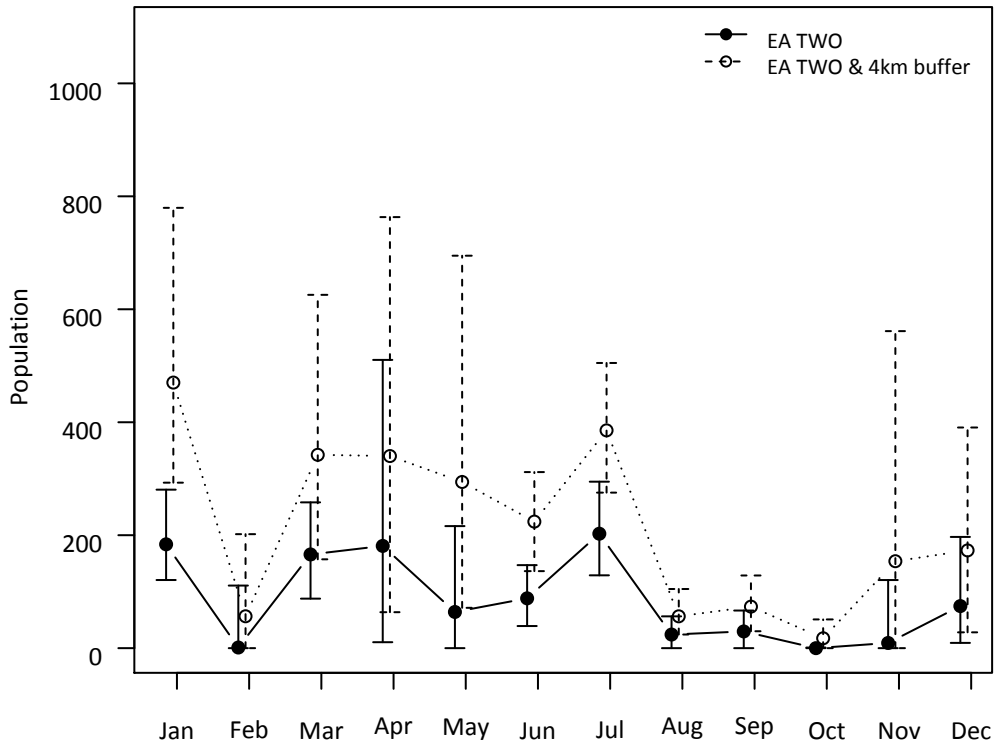


Figure 13. Kittiwake. Median design based abundance estimates (plus 95% confidence intervals) of birds in flight and on the sea in East Anglia TWO (filled circles, solid lines) and East Anglia TWO plus 4km buffer (open circles, dashed lines).

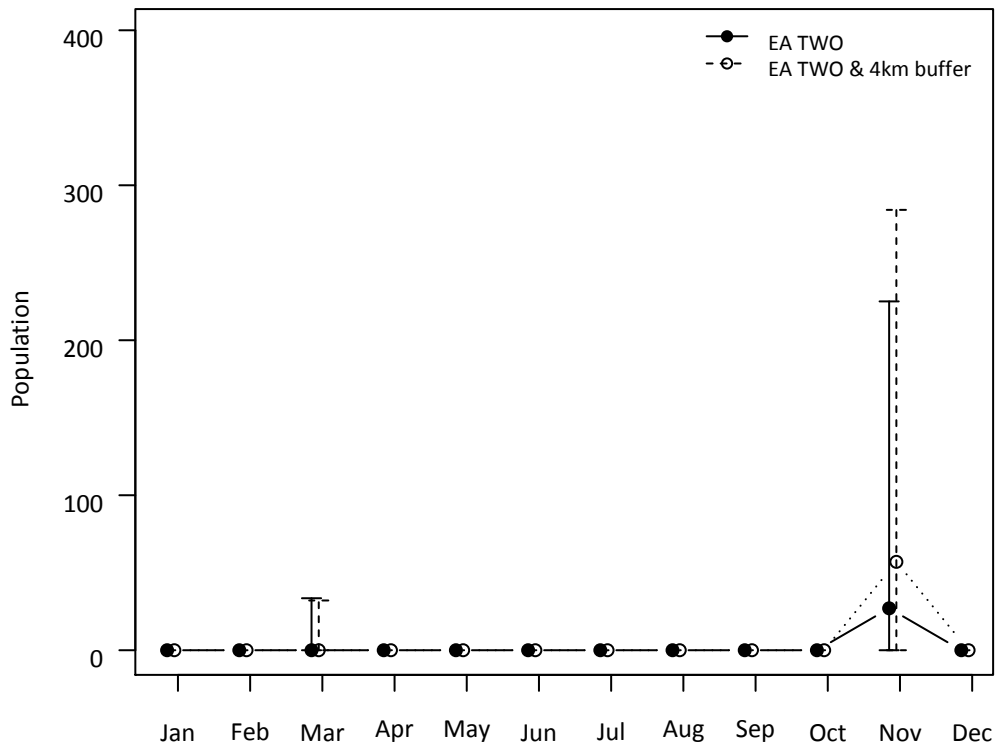


Figure 14. Black-headed Gull. Median design based abundance estimates (plus 95% confidence intervals) of birds in flight and on the sea in East Anglia TWO (filled circles, solid lines) and East Anglia TWO plus 4km buffer (open circles, dashed lines).

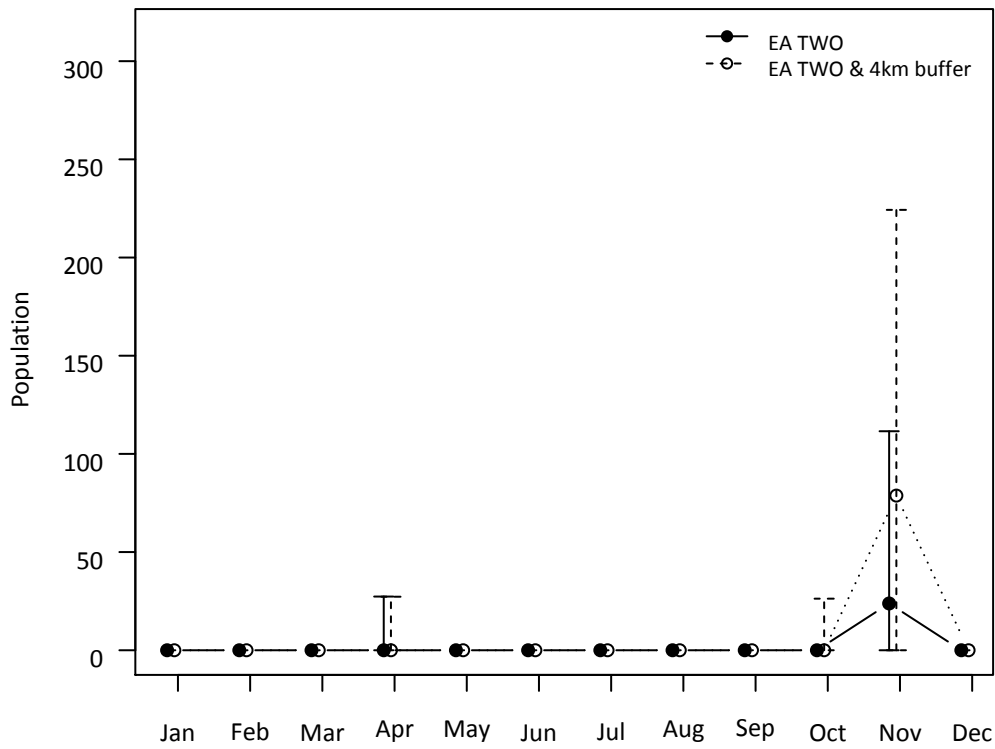


Figure 15. Little Gull. Median design based abundance estimates (plus 95% confidence intervals) of birds in flight and on the sea in East Anglia TWO (filled circles, solid lines) and East Anglia TWO plus 4km buffer (open circles, dashed lines).

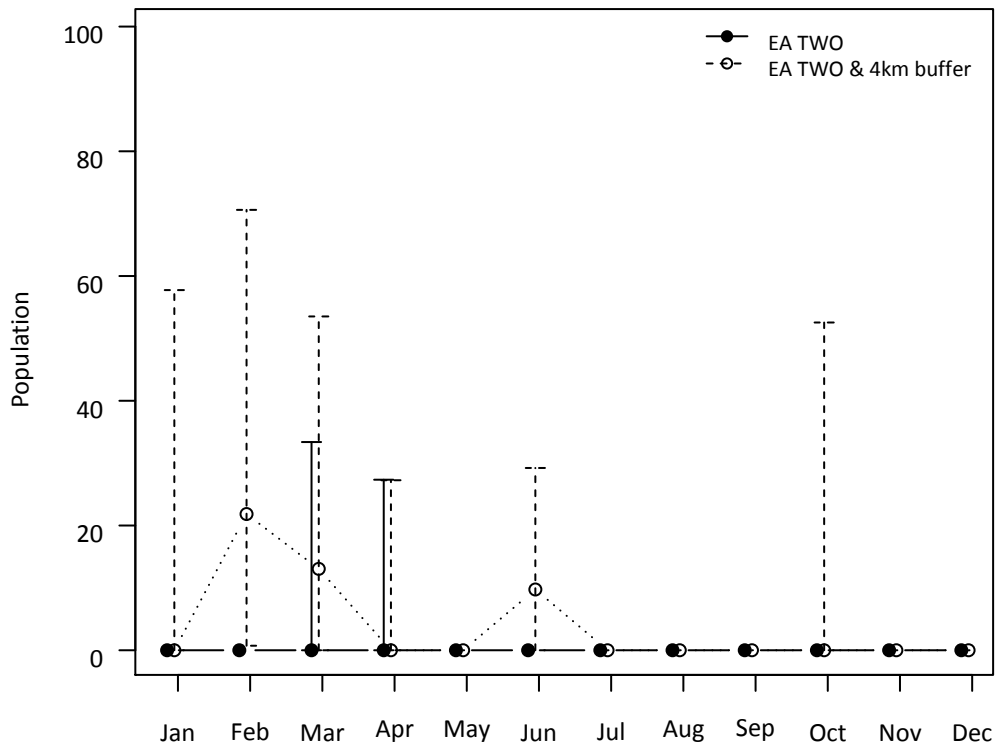


Figure 16. Common Gull. Median design based abundance estimates (plus 95% confidence intervals) of birds in flight and on the sea in East Anglia TWO (filled circles, solid lines) and East Anglia TWO plus 4km buffer (open circles, dashed lines).



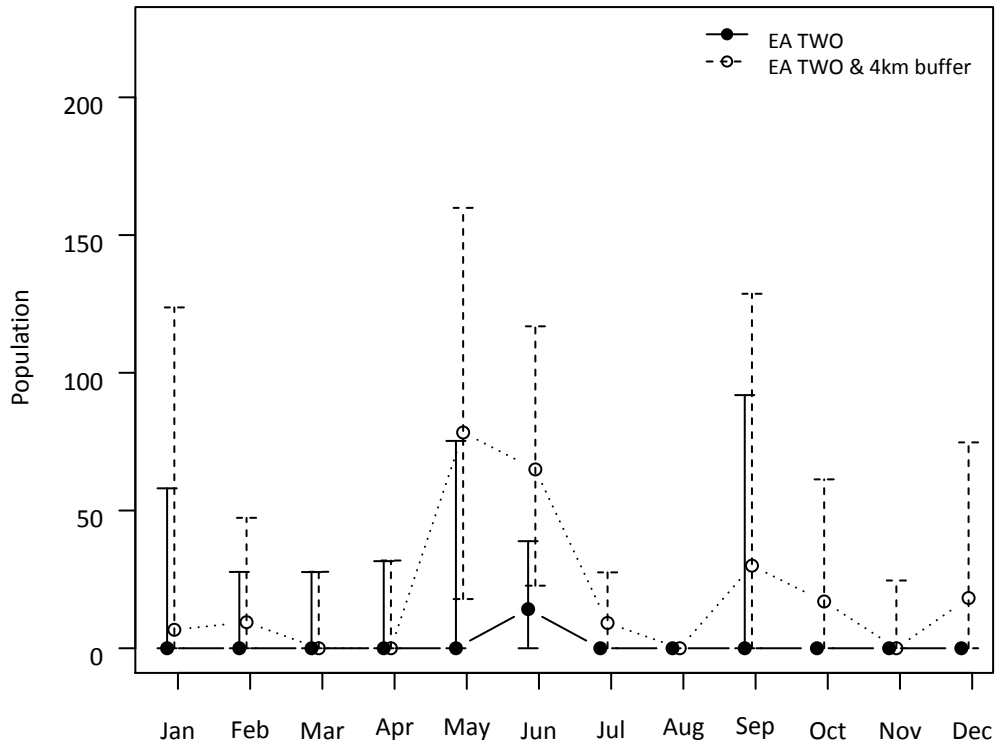


Figure 17. Lesser Black-backed Gull. Median design based abundance estimates (plus 95% confidence intervals) of birds in flight and on the sea in East Anglia TWO (filled circles, solid lines) and East Anglia TWO plus 4km buffer (open circles, dashed lines).

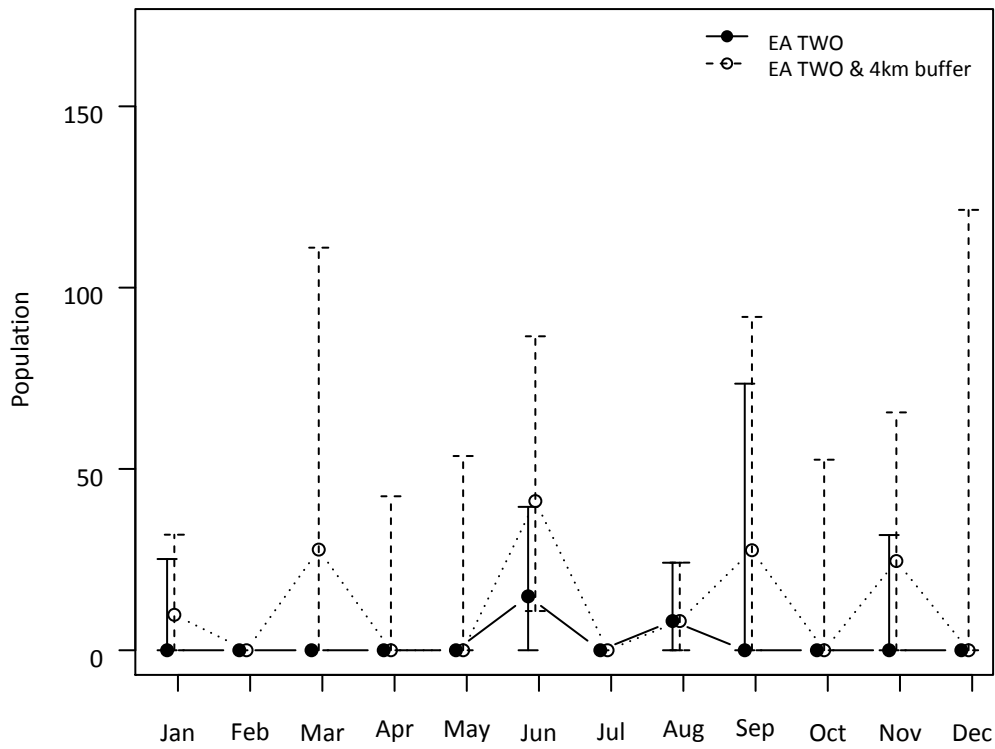


Figure 18. Herring Gull. Median design based abundance estimates (plus 95% confidence intervals) of birds in flight and on the sea in East Anglia TWO (filled circles, solid lines) and East Anglia TWO plus 4km buffer (open circles, dashed lines).

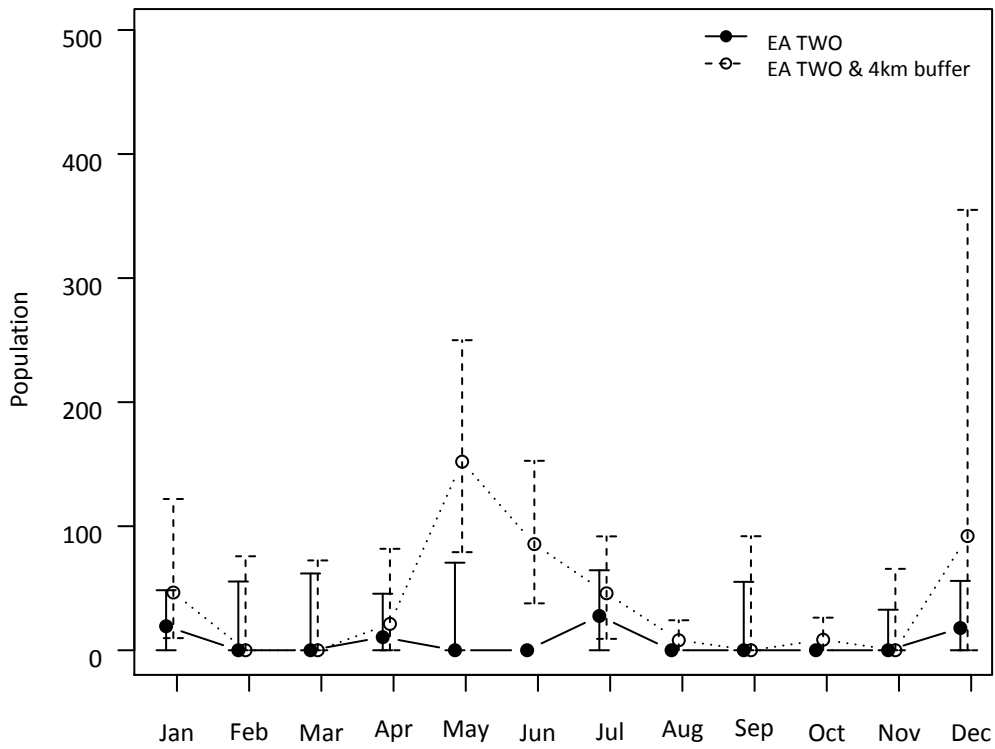


Figure 19. Great Black-backed Gull. Median design based abundance estimates (plus 95% confidence intervals) of birds in flight and on the sea in East Anglia TWO (filled circles, solid lines) and East Anglia TWO plus 4km buffer (open circles, dashed lines).



**East Anglia TWO Offshore Windfarm**

**Appendix 12.1**

**Ornithology Technical Appendix**

**Annex 7**

**Figures**

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---

Legend:

**Count**<sup>1</sup>

- 1
- 2 - 10
- 11 - 20
- 21 - 40
- 40 +

**Season**<sup>1</sup>

- Black-throated Diver
- Great Northern Diver
- Red-throated Diver

**Site and Buffer**

- East Anglia Two Windfarm Site
- East Anglia Two Windfarm Site 4km Buffer
- Export Cable Corridor

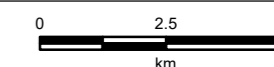
<sup>1</sup> APEM, 2017



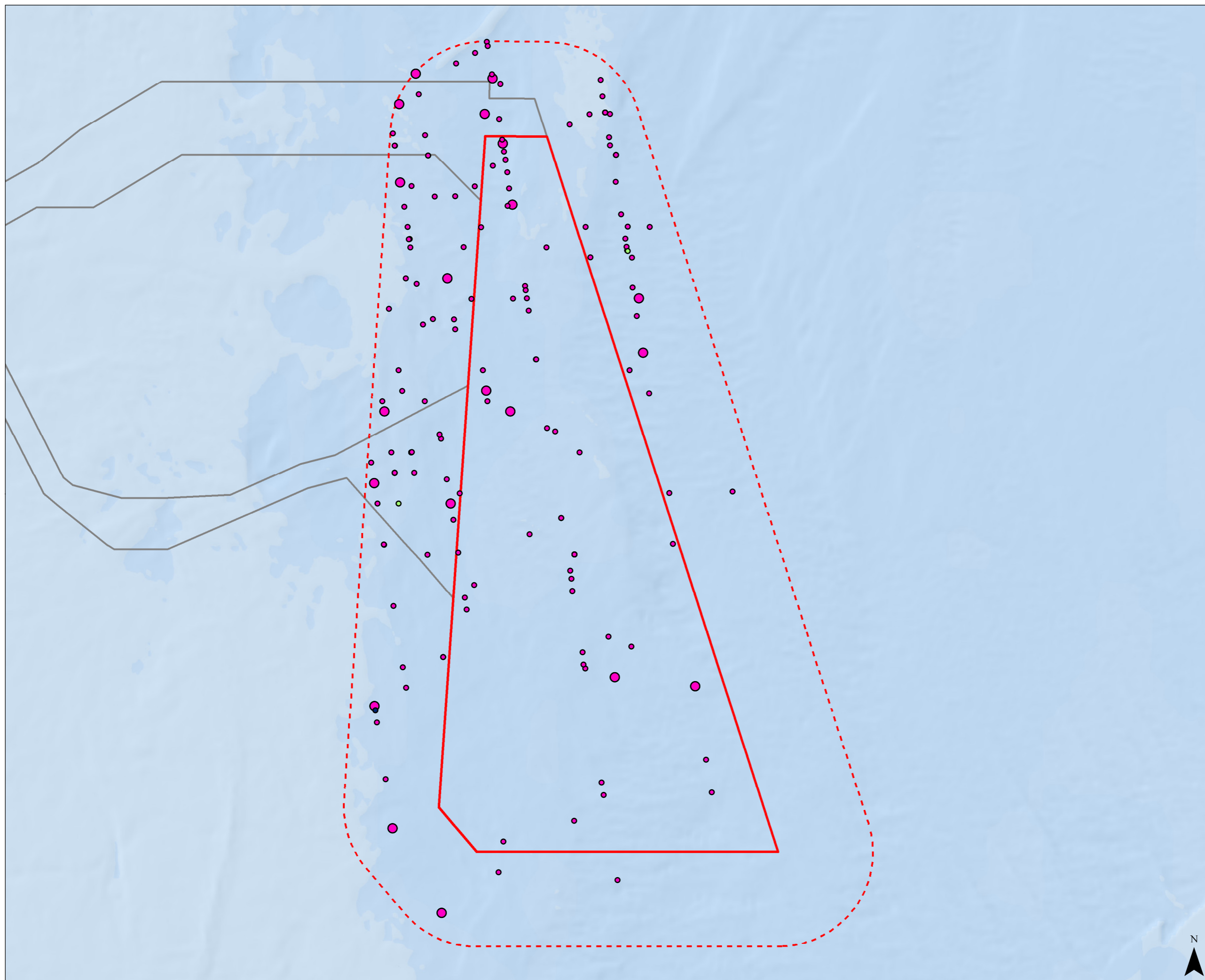
**East Anglia TWO**

**Figure 12.7.1**

**Diver Species  
2015 - 2017**



MAP SCALE: 1:150,000 @ A3



Legend:

**Count**<sup>1</sup>

- 1
- 2 - 10
- 11 - 20
- 21 - 40
- 40 +

**Season**<sup>1</sup>

- Autumn Migration
- Winter
- Spring Migration
- Breeding

**Site and Buffer**

- ▭ East Anglia Two Windfarm Site
- ▭ East Anglia Two Windfarm Site 4km Buffer
- ▭ Export Cable Corridor

<sup>1</sup> APEM, 2017

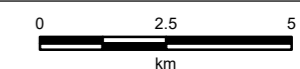


MacArthur Green

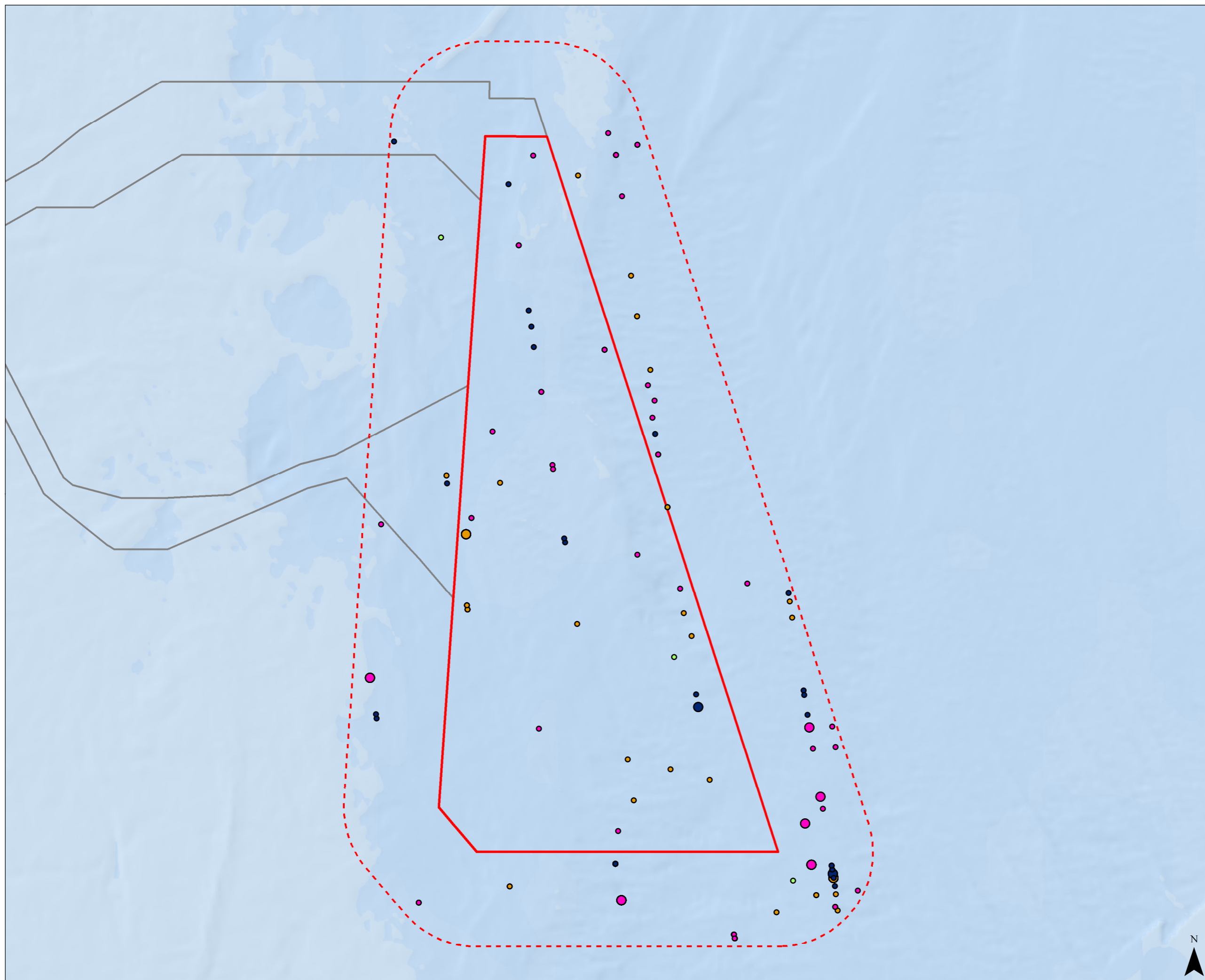
**East Anglia TWO**

**Figure 12.7.2**

**Fulmar  
2015 - 2017**



MAP SCALE: 1:150,000 @ A3





Legend:

**Count**<sup>1</sup>

- 1
- 2 - 10
- 11 - 20
- 21 - 40
- 40 +

**Season**<sup>1</sup>

- Autumn Migration
- Spring Migration
- Breeding

**Site and Buffer**

- East Anglia Two Windfarm Site
- East Anglia Two Windfarm Site 4km Buffer
- Export Cable Corridor

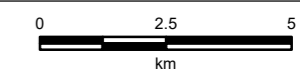
<sup>1</sup> APEN, 2017



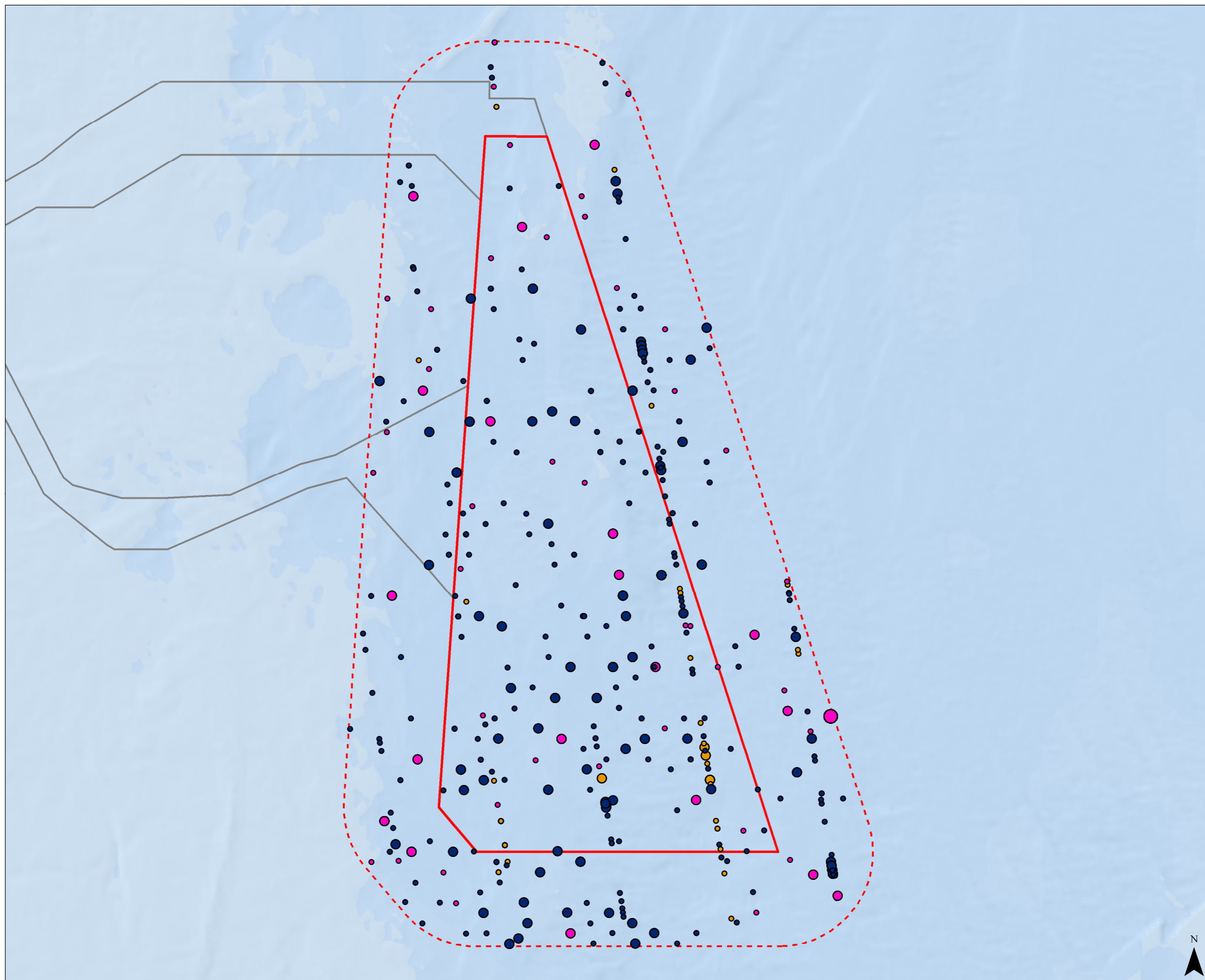
**East Anglia TWO**

**Figure 12.7.3**

**Gannet  
2015 - 2017**



MAP SCALE: 1:150,000 @ A3



Legend:

**Count**<sup>1</sup>

- 1
- 2 - 10
- 11 - 20
- 21 - 40
- 40 +

**Species**<sup>1</sup>

- Great Skua

**Site and Buffer**

- East Anglia Two Windfarm Site
- East Anglia Two Windfarm Site 4km Buffer
- Export Cable Corridor

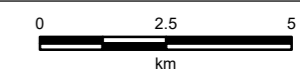
<sup>1</sup> APEM, 2017



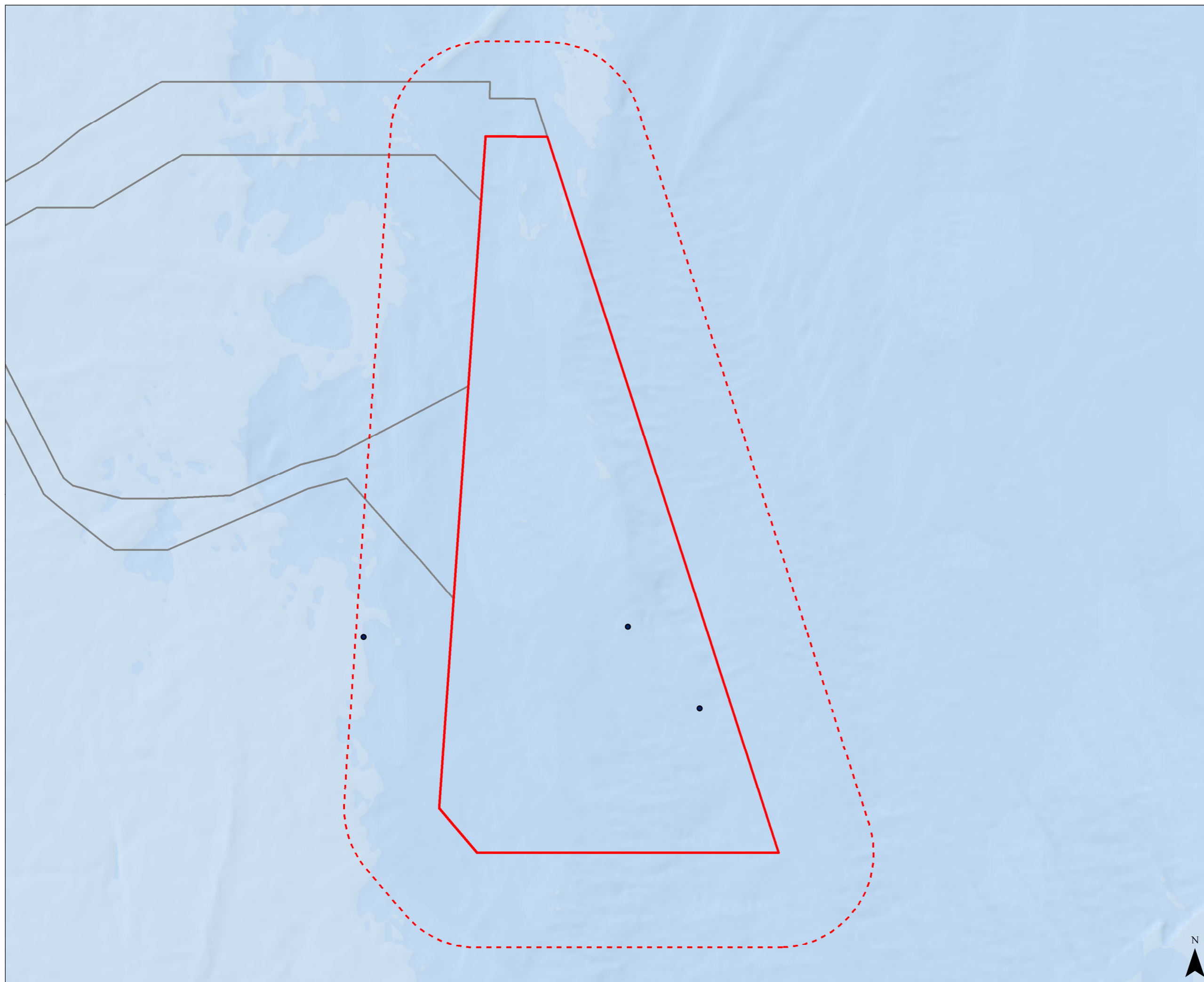
**East Anglia TWO**

**Figure 12.7.4**

**Great Skua  
2015 - 2017**



MAP SCALE: 1:150,000 @ A3





Legend:

**Count**<sup>1</sup>

- 1
- 2 - 10
- 11 - 20
- 21 - 40
- 40 +

**Season**<sup>1</sup>

- Breeding

**Site and Buffer**

- East Anglia Two Windfarm Site
- East Anglia Two Windfarm Site 4km Buffer
- Export Cable Corridor

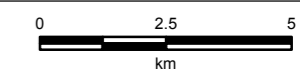
<sup>1</sup>APEM, 2017



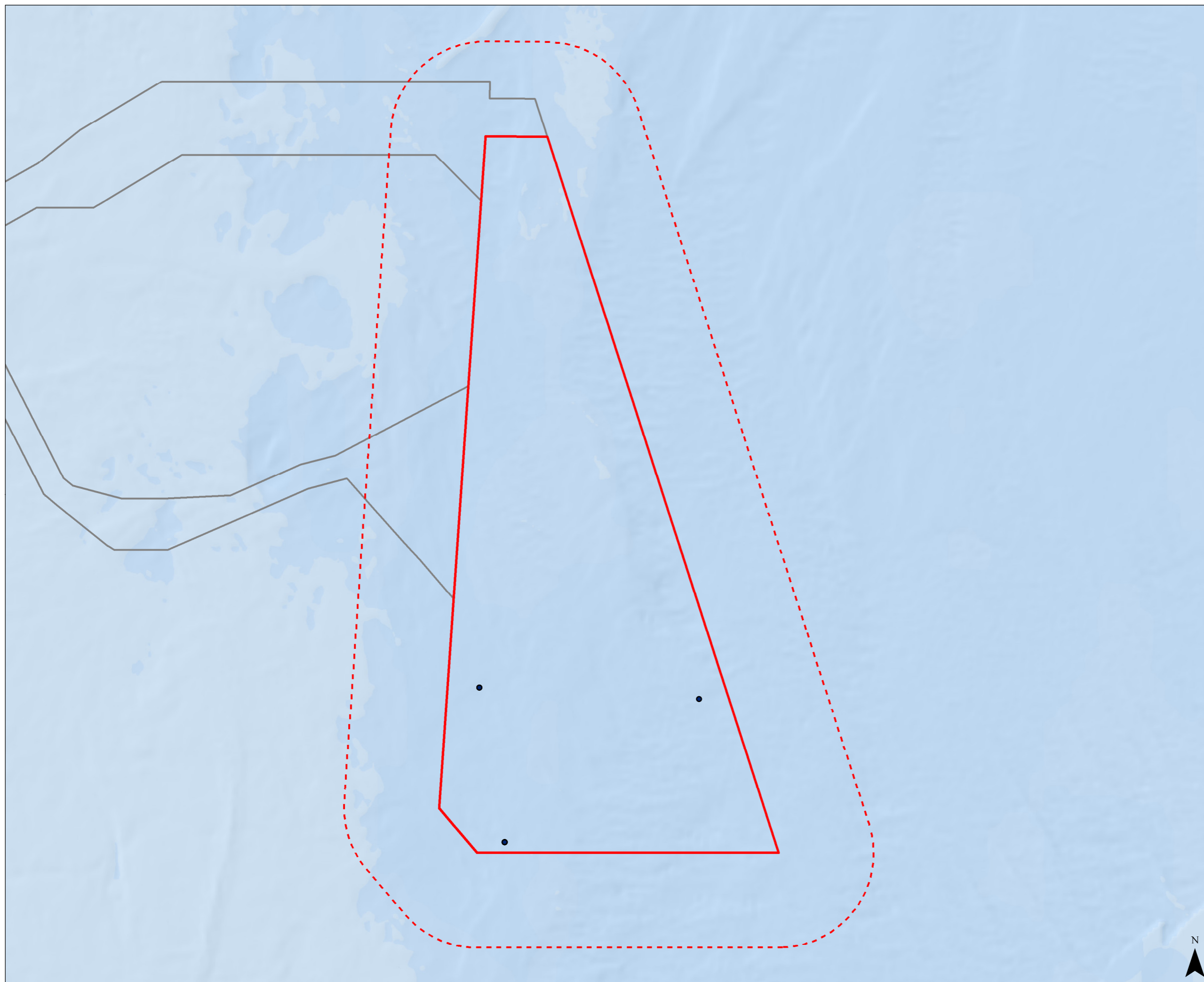
**East Anglia TWO**

**Figure 12.7.5**

**Puffin  
2015 - 2017**



MAP SCALE: 1:150,000 @ A3



Legend:

**Count**<sup>1</sup>

- 1
- 2 - 10
- 11 - 20
- 21 - 40
- 40 +

**Season**<sup>1</sup>

- Autumn Migration
- Winter
- Spring Migration
- Breeding

**Site and Buffer**

- ▭ East Anglia Two Windfarm Site
- - - East Anglia Two Windfarm Site 4km Buffer
- ▭ Export Cable Corridor

<sup>1</sup> APEM, 2017

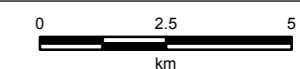


MacArthur Green

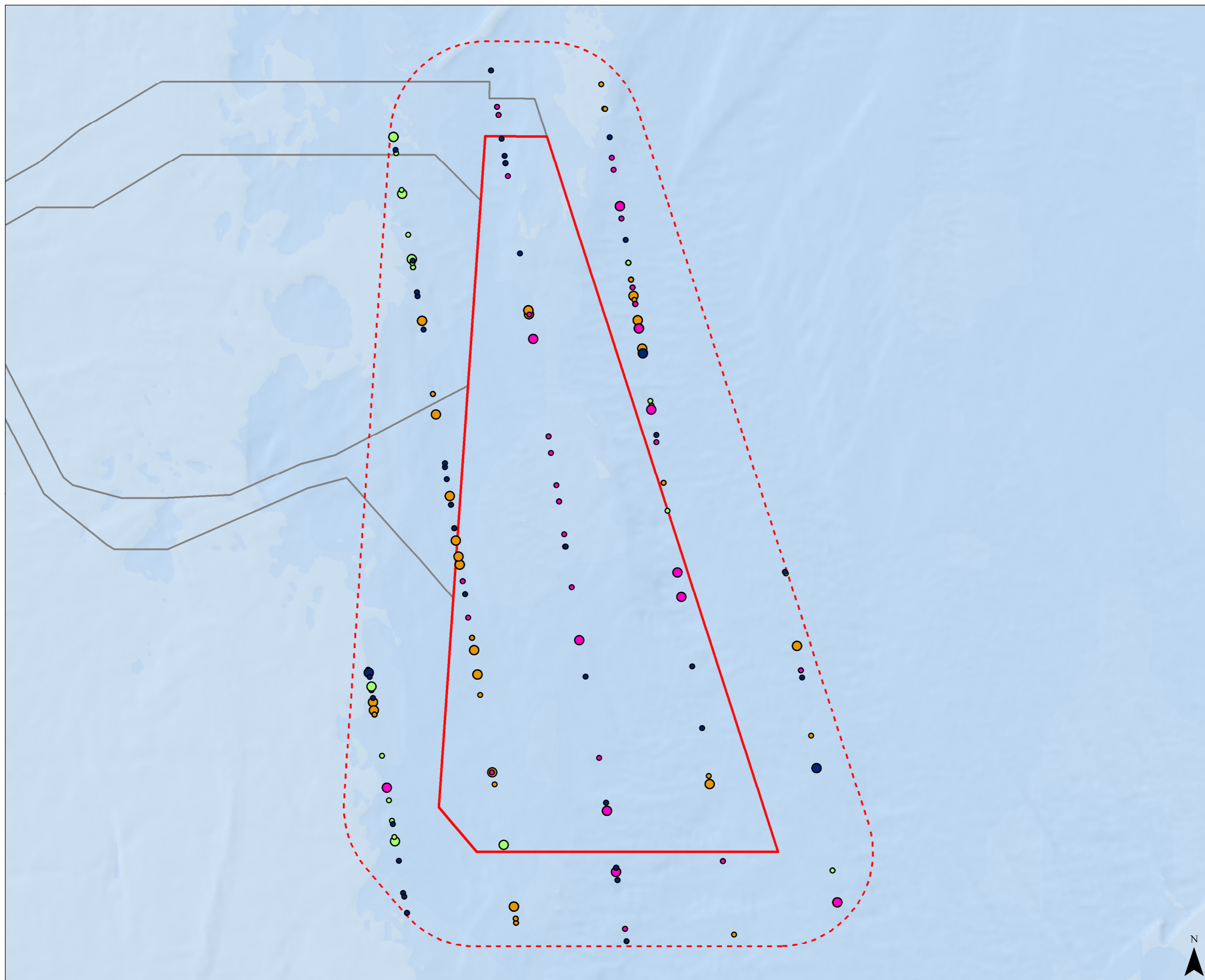
**East Anglia TWO**

**Figure 12.7.6**

**Razorbill  
2015 - 2017**



MAP SCALE: 1:150,000 @ A3



Legend:

**Count**<sup>1</sup>

- 1
- 2 - 10
- 11 - 20
- 21 - 40
- 40 +

**Season**<sup>1</sup>

- Nonbreeding
- Breeding

**Site and Buffer**

- East Anglia Two Windfarm Site
- East Anglia Two Windfarm Site 4km Buffer
- Export Cable Corridor

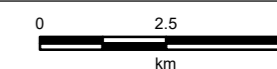
<sup>1</sup>APEM, 2017



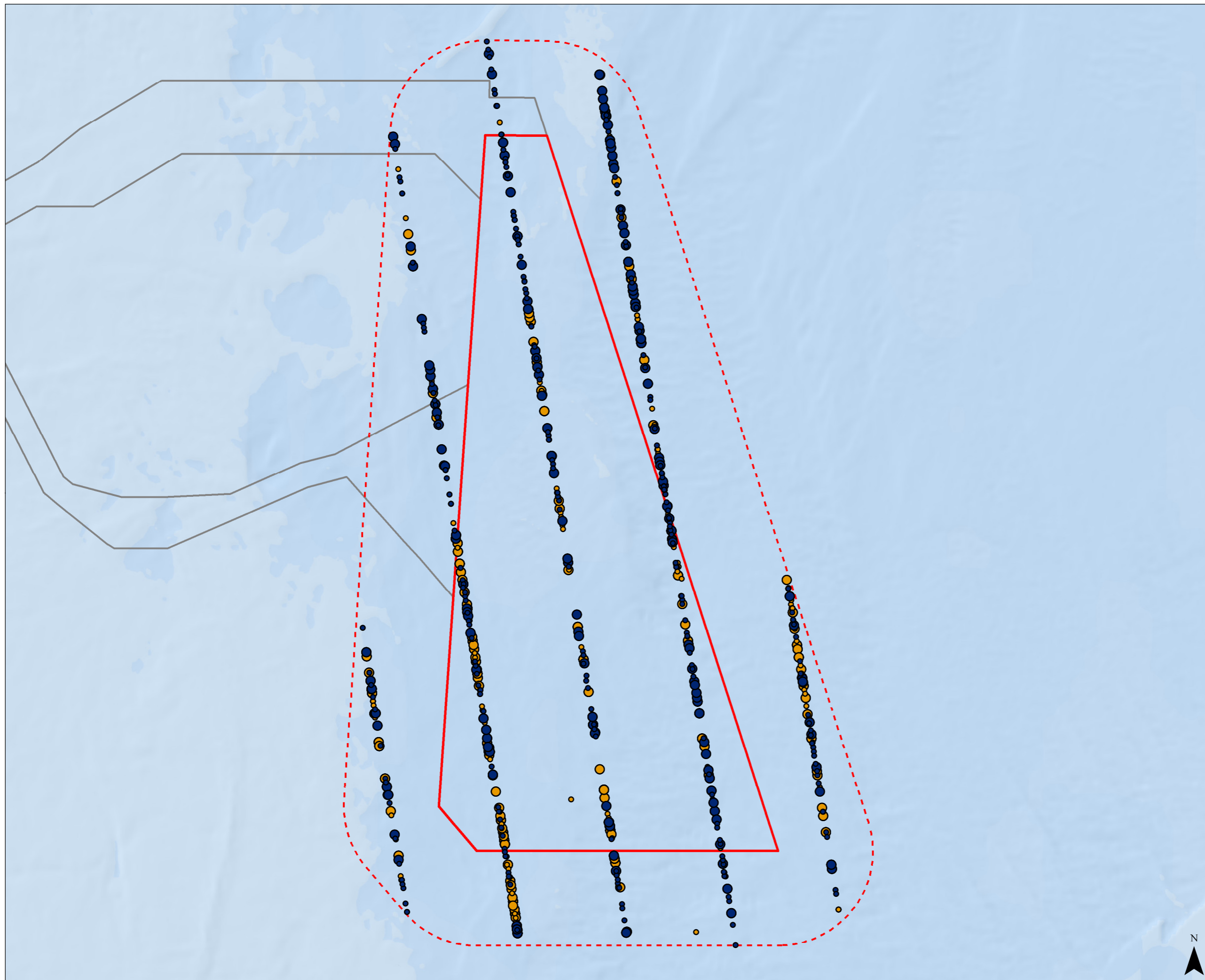
MacArthur Green  
East Anglia TWO

Figure 12.7.7

Guillemot  
2015 - 2017



MAP SCALE: 1:150,000 @ A3





Legend:

**Count**<sup>1</sup>

- 1
- 2 - 10
- 11 - 20
- 21 - 40
- 40 +

**Species**<sup>1</sup>

- Guillemot\Razorbill

**Site and Buffer**

- East Anglia Two Windfarm Site
- East Anglia Two Windfarm Site 4km Buffer
- Export Cable Corridor

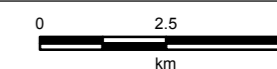
<sup>1</sup>APEM, 2017



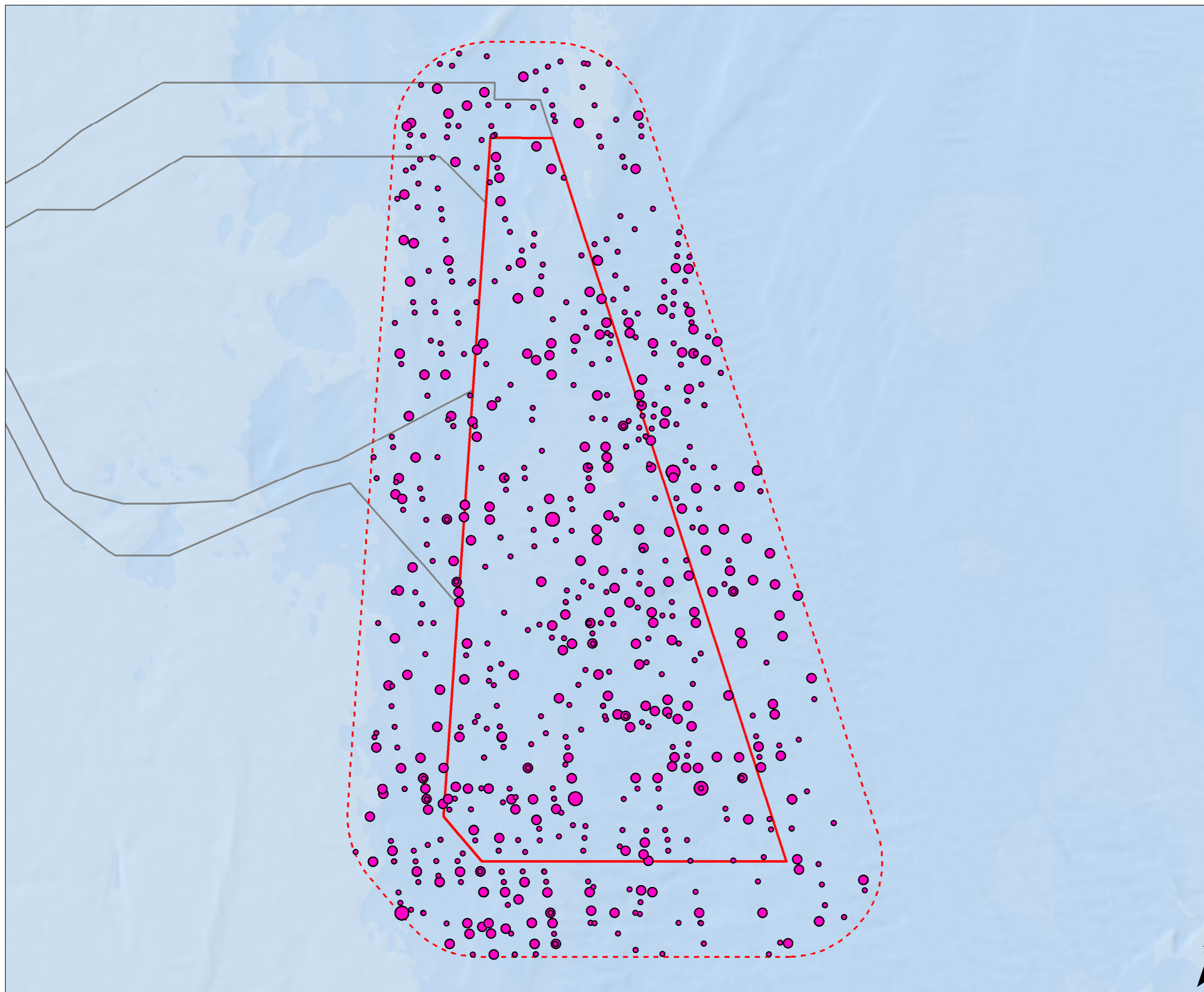
**East Anglia TWO**

**Figure 12.7.8**

**Guillemot\Razorbill  
2015 - 2017**



MAP SCALE: 1:150,000 @ A3



Legend:

**Count**<sup>1</sup>

- 1
- 2 - 10
- 11 - 20
- 21 - 40
- 40 +

**Species**<sup>1</sup>

- Commic Tern
- Tern Species

**Site and Buffer**

- East Anglia Two Windfarm Site
- East Anglia Two Windfarm Site 4km Buffer
- Export Cable Corridor

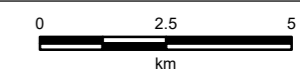
<sup>1</sup>APEM, 2017



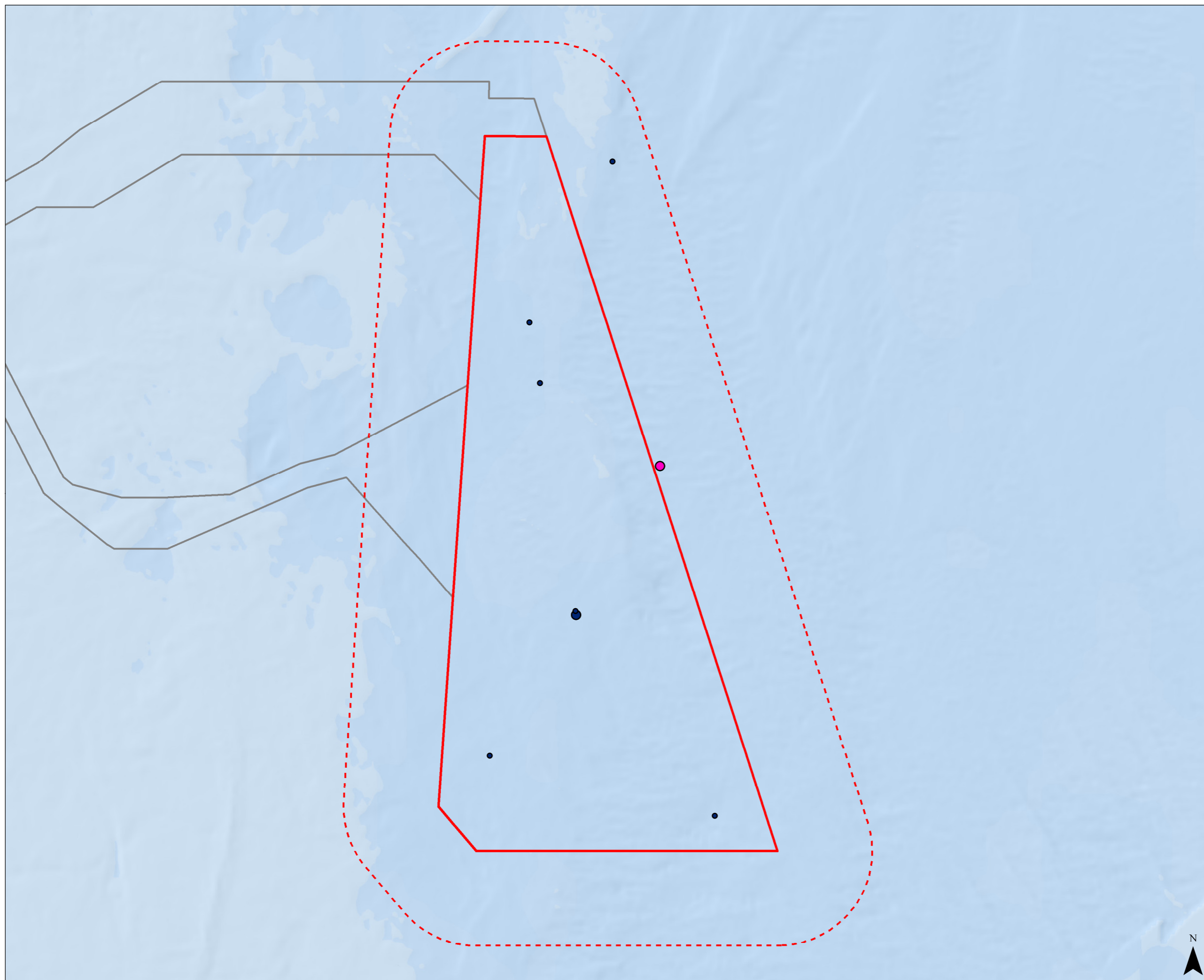
**East Anglia TWO**

**Figure 12.7.9**

**Tern Species  
2015 - 2017**



MAP SCALE: 1:150,000 @ A3



Legend:

**Count**<sup>1</sup>

- 1
- 2 - 10
- 11 - 20
- 21 - 40
- 40 +

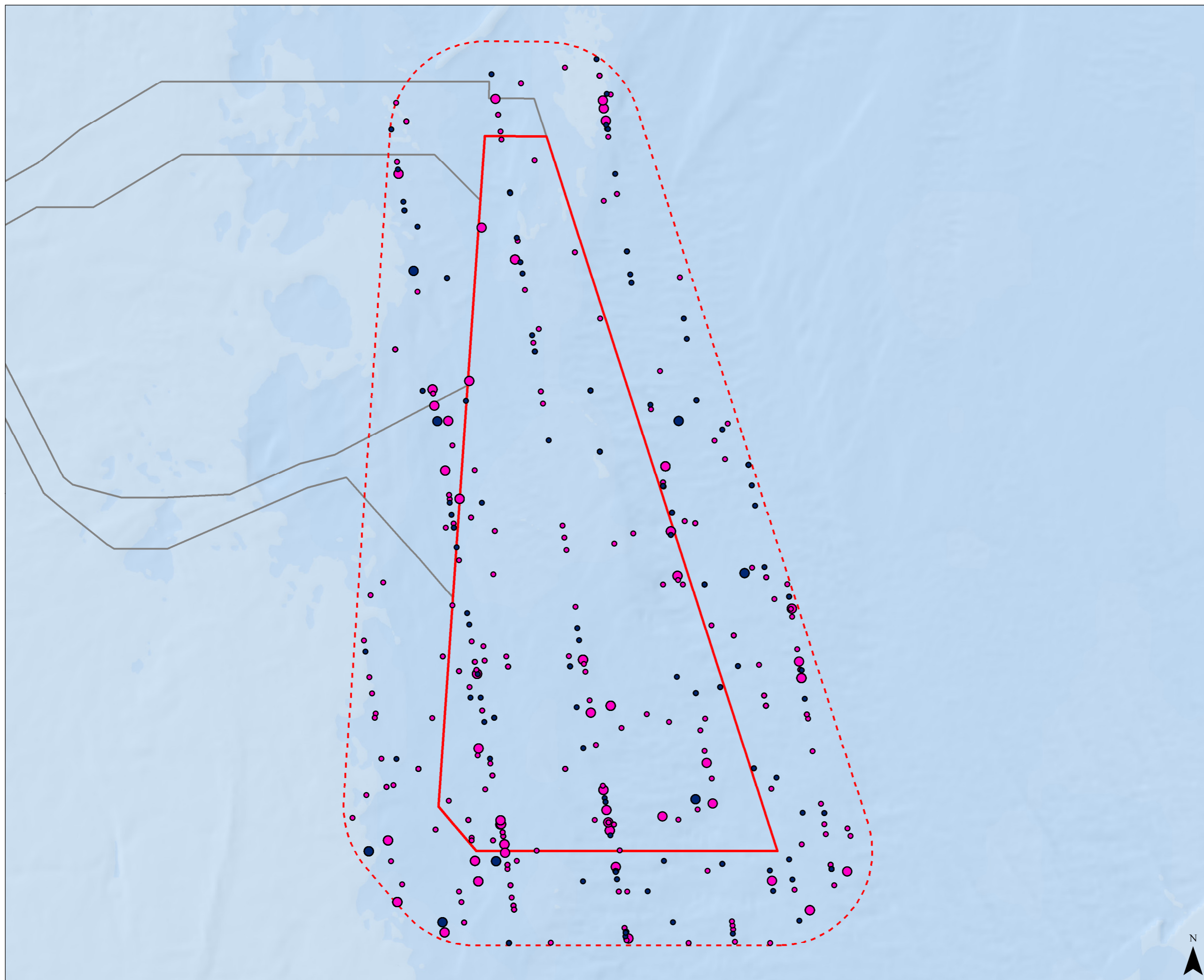
**Species**<sup>1</sup>

- Autumn Migration
- Spring Migration
- Breeding

**Site and**

- East Anglia Two Windfarm
- East Anglia Two Windfarm Site 4km Buffer
- Export Cable

<sup>1</sup> APEM, 2017





Legend:

**Count**<sup>1</sup>

- 1
- 2 - 10
- 11 - 20
- 21 - 40
- 40 +

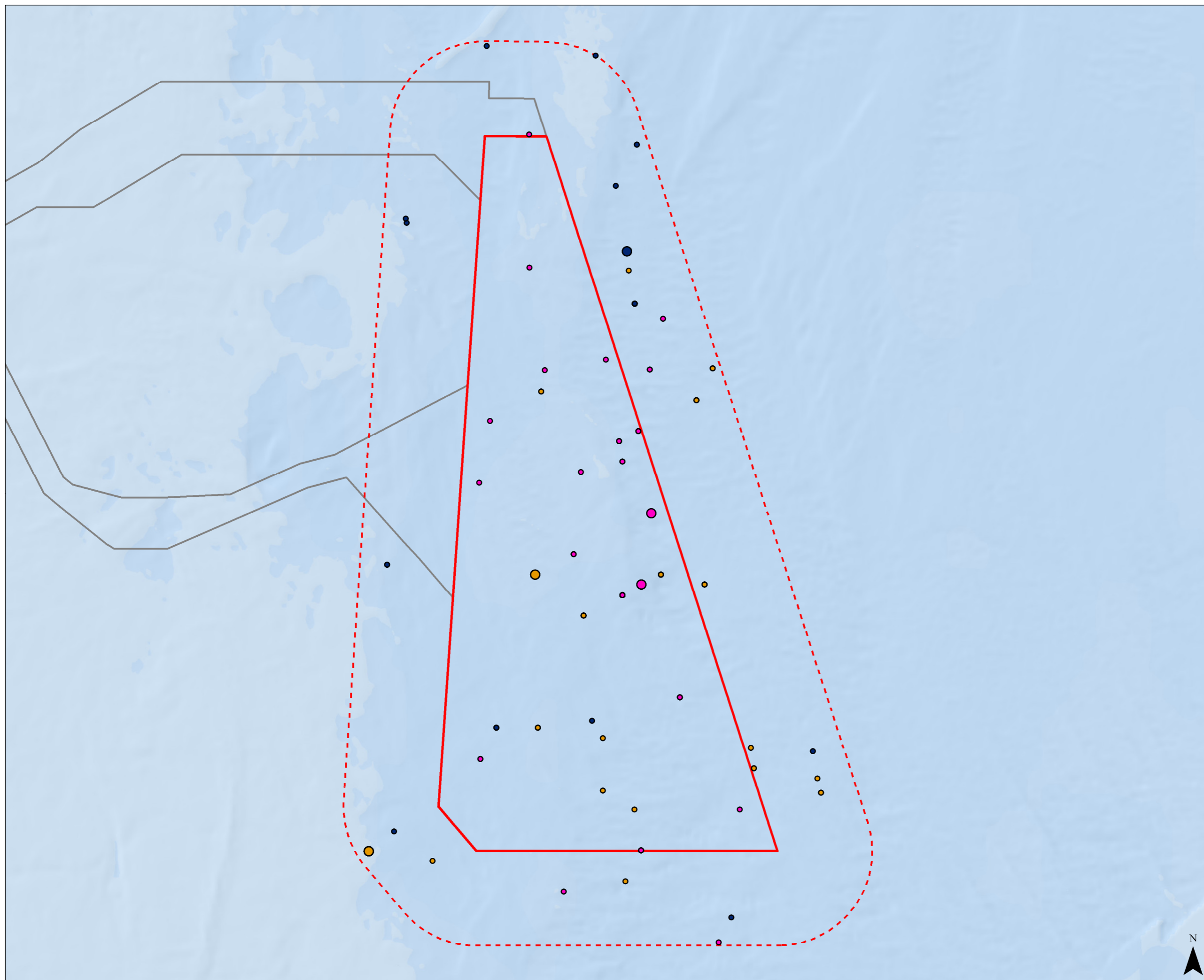
**Species**<sup>1</sup>

- Black-headed Gull
- Common Gull
- Little Gull

**Site and**

- East Anglia Two Windfarm
- East Anglia Two Windfarm Site 4km Buffer
- Export Cable

<sup>1</sup>APEM, 2017



Legend:

**Count**<sup>1</sup>

- 1
- 2 - 10
- 11 - 20
- 21 - 40
- 40 +

**Species**<sup>1</sup>

- Autumn Migration
- Winter
- Spring Migration
- Breeding

**Site and Buffer**

- East Anglia Two Windfarm Site
- East Anglia Two Windfarm Site 4km Buffer
- Export Cable Corridor

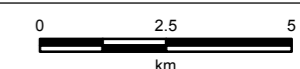
<sup>1</sup> APEM, 2017



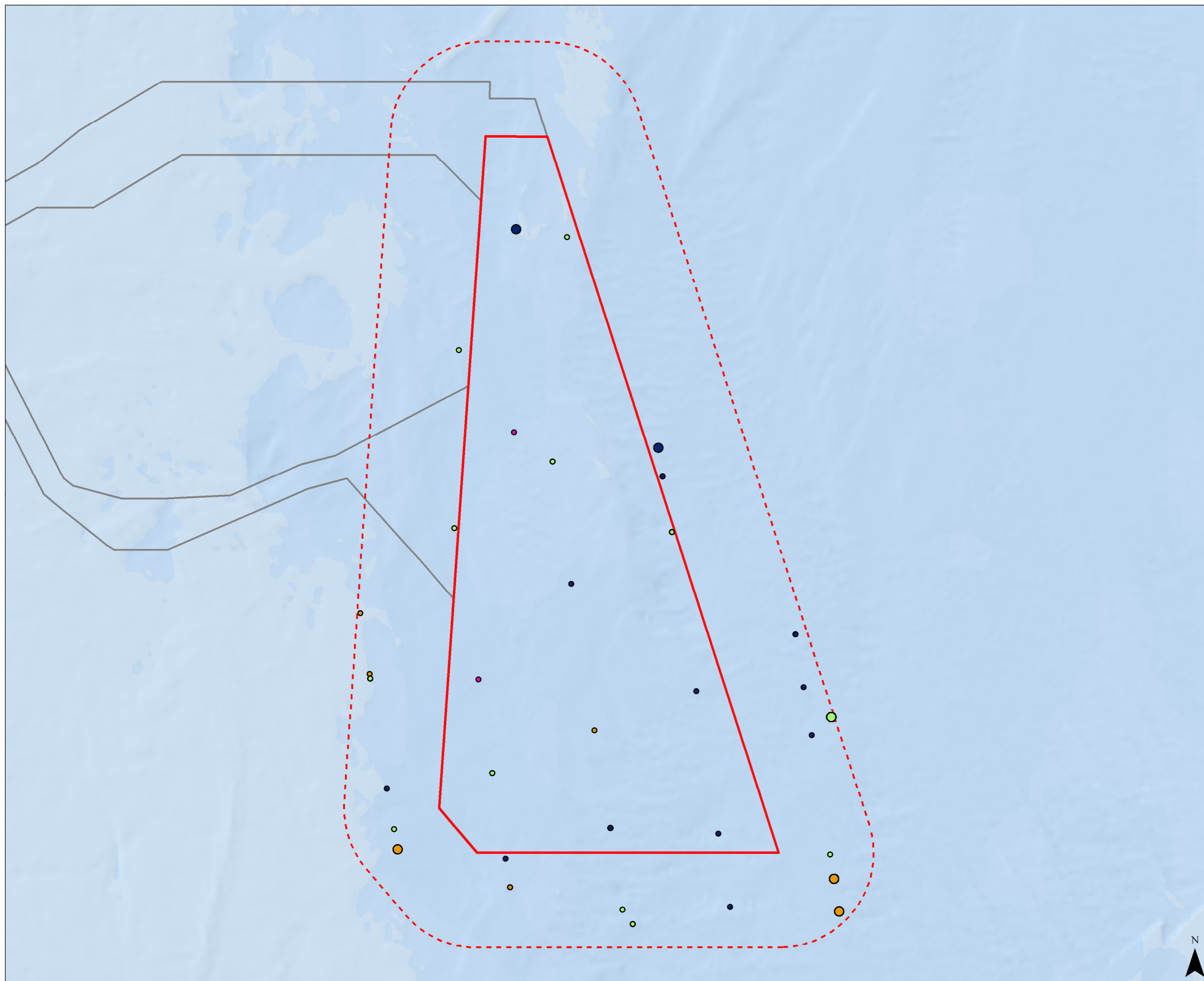
**East Anglia TWO**

**Figure 12.7.12**

**Lesser Black-backed Gull  
2015 - 2017**



MAP SCALE: 1:150,000 @ A3





Legend:

**Count**<sup>1</sup>

- 1
- 2 - 10
- 11 - 20
- 21 - 40
- 40 +

**Season**<sup>1</sup>

- Nonbreeding
- Breeding

**Site and Buffer**

- ▭ East Anglia Two Windfarm Site
- ▭ East Anglia Two Windfarm Site 4km Buffer
- ▭ Export Cable Corridor

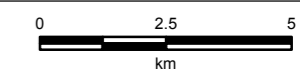
<sup>1</sup>APEM, 2017



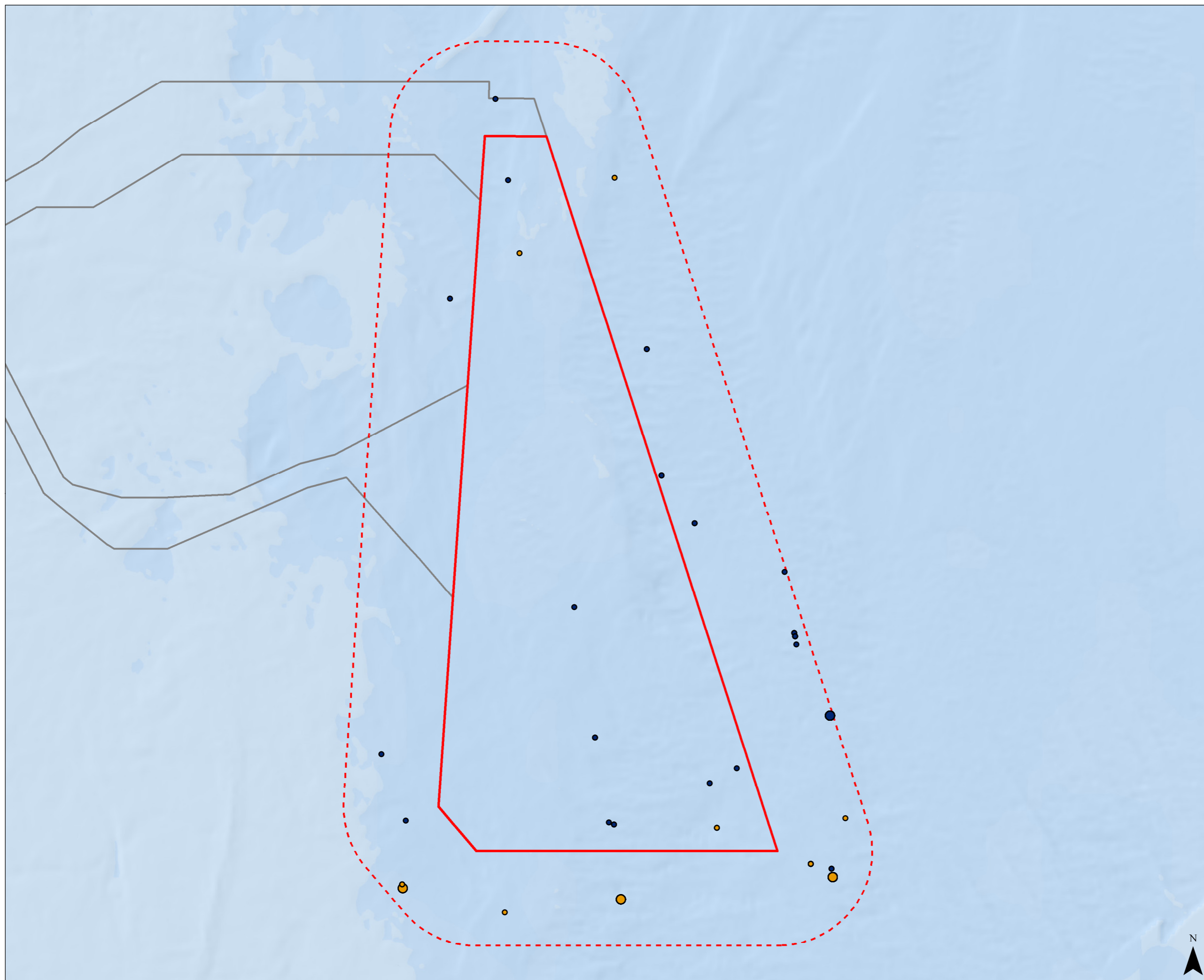
**East Anglia TWO**

**Figure 12.7.13**

**Herring Gull  
2015 - 2017**



MAP SCALE: 1:150,000 @ A3



Legend:

**Count**<sup>1</sup>

- 1
- 2 - 10
- 11 - 20
- 21 - 40
- 40 +

**Season**<sup>1</sup>

- Nonbreeding
- Breeding

**Site and Buffer**

- East Anglia Two Windfarm Site
- East Anglia Two Windfarm Site 4km Buffer
- Export Cable Corridor

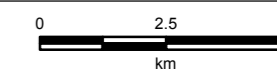
<sup>1</sup> APEM, 2017



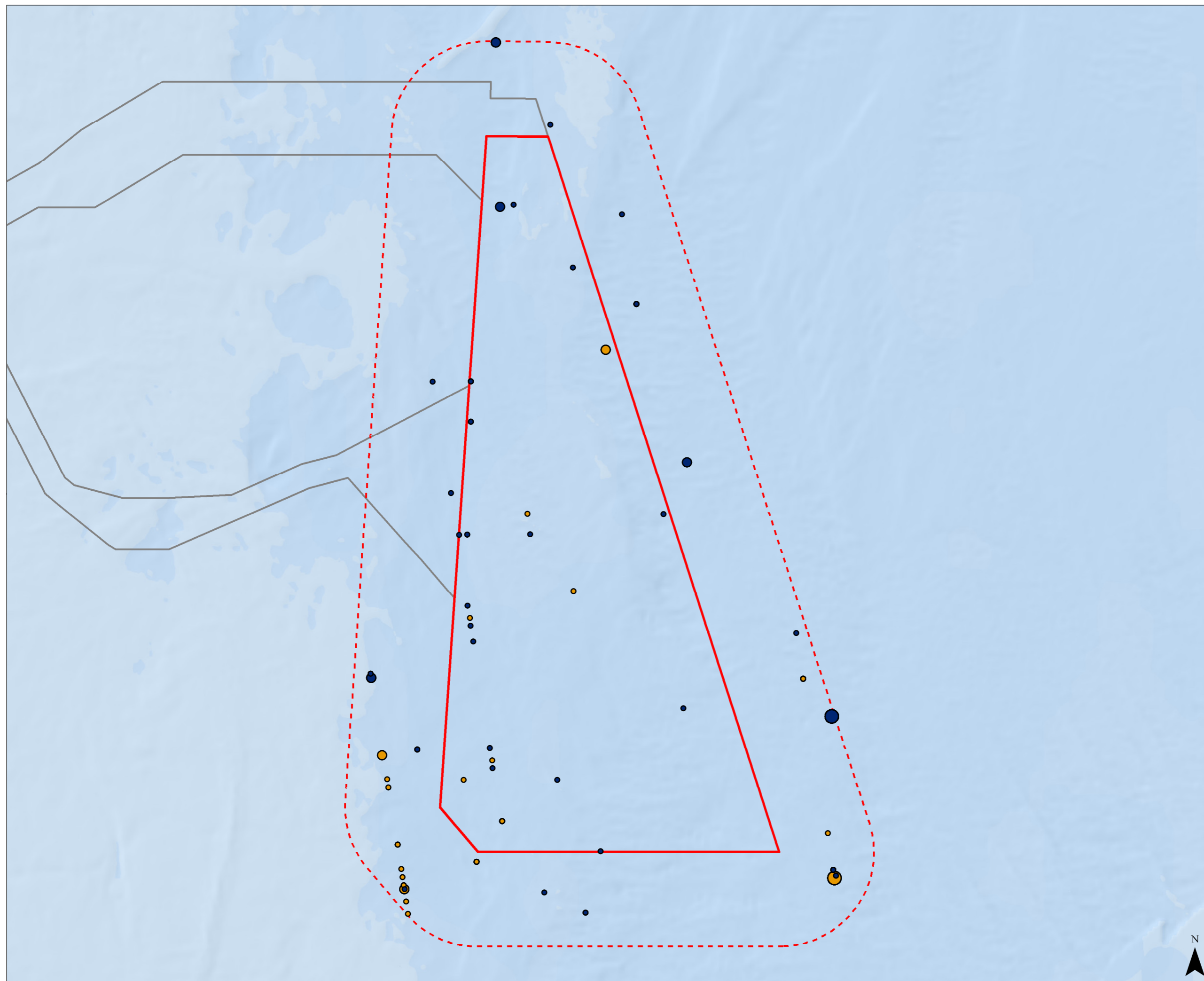
MacArthur Green  
East Anglia TWO

Figure 12.7.14

Great Black-backed Gull  
2015 - 2017



MAP SCALE: 1:150,000 @ A3



Legend:

**Count**<sup>1</sup>

- 1
- 2 - 10
- 11 - 20
- 21 - 40
- 40 +

**Species**<sup>1</sup>

- Small Gull Species
- Large Gull Species

**Site and Buffer**

- ▭ East Anglia Two Windfarm Site
- ▭ East Anglia Two Windfarm Site 4km Buffer
- ▭ Export Cable Corridor

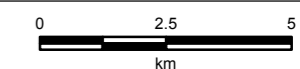
<sup>1</sup>APEM, 2017



**East Anglia TWO**

**Figure 12.7.15**

**Unidentified Gull Species  
2015 - 2017**



MAP SCALE: 1:150,000 @ A3

