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**RWE Renewables UK Dogger Bank  
South (West) Limited**

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South (East) Limited**

# **Dogger Bank South Offshore Wind Farms**

**Environmental Statement**

**Volume 7**

**Appendix 12-6a Seasonal Peak Density (All) (Revision 2)**

**Appendix 12-6b Seasonal Peak Density (Sitting)  
(Revision 2)**

**Appendix 12-6c Seasonal Peak Density (Flying) (Revision 2)**

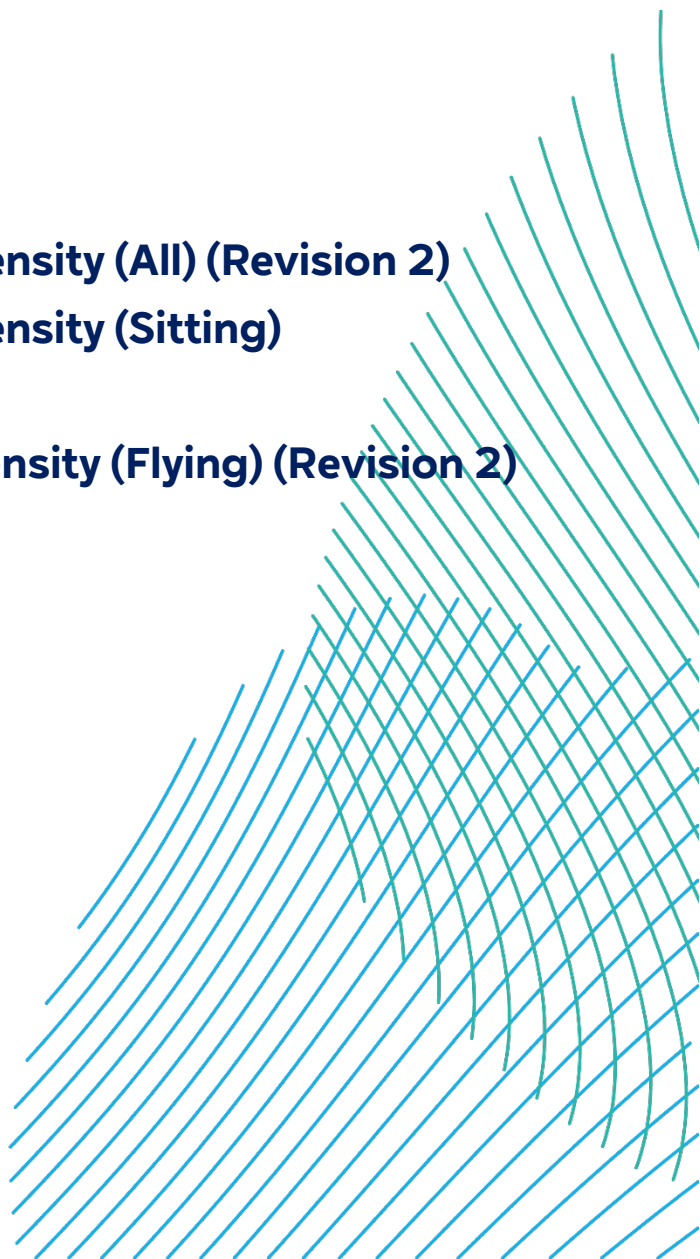
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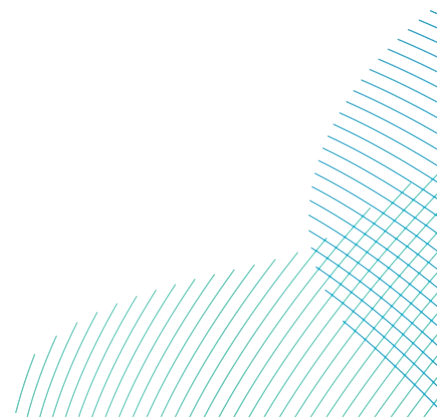
**Revision: 02**

**Unrestricted**



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<b>Rev No.</b>	<b>Date</b>	<b>Status/Reason for Issue</b>	<b>Author</b>	<b>Checked by</b>	<b>Approved by</b>
01	June 2024	Final for DCO Application	MacArthur Green	RWE	RWE
02	November 2024	Revision for Updated NE Guidance and Relevant Representations	MacArthur Green	RWE	RWE

<b>Revision Change Log</b>			
<b>Rev No.</b>	<b>Page</b>	<b>Section</b>	<b>Description</b>
01	N/A	N/A	Submitted for DCO Application
02	Appendix 6a, 24 - 37	Appendix 6a, Section 1	Updates to the numbers presented in Table 46 to Table 69 to reflect Updated NE Guidance and Relevant Representations received post submission.
02	Appendix 6b, 25 - 38	Appendix 6b, Section 1	Updates to the numbers presented in Table 48 to Table 69 to reflect Updated NE Guidance and Relevant Representations received post submission.
02	Appendix 6c, 24 - 36	Appendix 6c, Section 1	Updates to the numbers presented in Table 46 to Table 69 to reflect Updated NE Guidance and Relevant Representations received post submission.





MacArthur  
Green

# Dogger Bank South Offshore Windfarm

## Ornithology Technical Appendix 12-6a Seabird peak seasonal densities: birds in flight and on the sea

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## Document Quality Record

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0.2	Reviewed	Dr Shirley Raveh	31/10/2023
0.3	Updated and approved	Dr Mark Trinder	18/03/2024
0.4	Updated	Dr Mark Trinder	22/11/2024

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## 1 INTRODUCTION

This appendix provides tables of seabird peak densities in each species-specific season, as defined in Furness (2015)<sup>1</sup> for each species recorded during baseline surveys for the DBS East and West Offshore Wind Farm projects (March 2021 – February 2023).

Densities were estimated using design-based methods and are summarised as central estimate (i.e. extrapolated from the number seen in the surveyed area to the whole area) and 95% confidence range, derived from 1,000 nonparametric bootstrap samples.

This appendix (a) provides the combined peak density in each species-specific season on the water and in flight.

Appendix (b) provides the peak density in each species-specific season on the water.

Appendix (c) provides the peak density in each species-specific season in flight.

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<sup>1</sup> Furness, R.W. 2015. Non-breeding season populations of seabirds in UK waters: Population sizes for Biologically Defined Minimum Population Scales (BDMPS). Natural England Commissioned Report Number 164. 389 pp.

Table 1. DBS - East. Seasonal peak density (birds per square km) of Arctic skua recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0.01 (0.02)	0-0.07	0.01 (0.01)	0-0.05	0.01 (0.01)	0-0.04
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0.01 (0.02)	0-0.07	0.01 (0.01)	0-0.05	0.01 (0.01)	0-0.04

Table 2. DBS - East. Seasonal peak density (birds per square km) of Arctic tern recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0.11 (0.12)	0-0.36	0.11 (0.11)	0-0.31	0.12 (0.13)	0-0.35
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 3. DBS - East. Seasonal peak density (birds per square km) of Common gull recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0.06 (0.07)	0-0.24	0.04 (0.04)	0-0.16	0.04 (0.04)	0-0.12

Table 4. DBS - East. Seasonal peak density (birds per square km) of Common tern recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0.01 (0.02)	0-0.07	0.02 (0.02)	0-0.08	0.01 (0.02)	0-0.06
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0



Table 5. DBS - East. Seasonal peak density (birds per square km) of Fulmar recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.06 (0.05)	0-0.19	0.06 (0.06)	0-0.18	0.08 (0.07)	0-0.21
Breeding (full)	0.32 (0.27)	0.05-1.06	0.27 (0.18)	0.08-0.74	0.23 (0.15)	0.06-0.59
Autumn migration	0.28 (0.2)	0.02-0.65	0.46 (0.43)	0.02-1.26	0.55 (0.51)	0.01-1.39
Winter	0.15 (0.16)	0-0.44	0.15 (0.16)	0-0.42	0.16 (0.15)	0-0.4
Non-breeding	0.28 (0.2)	0.02-0.65	0.46 (0.43)	0.02-1.26	0.55 (0.51)	0.01-1.39

Table 6. DBS - East. Seasonal peak density (birds per square km) of Gannet recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.2 (0.28)	0-0.93	0.15 (0.2)	0-0.7	0.12 (0.15)	0-0.5
Breeding (full)	1.71 (0.39)	0.97-2.48	1.48 (0.4)	0.8-2.39	1.76 (0.9)	0.83-4.07
Autumn migration	1.37 (0.49)	0.74-2.47	1.52 (0.65)	0.75-2.89	1.4 (0.46)	0.81-2.42
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 7. DBS - East. Seasonal peak density (birds per square km) of Great black-backed gull recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.26 (0.16)	0.05-0.67	0.21 (0.1)	0.07-0.46	0.25 (0.09)	0.08-0.46
Breeding (full)	0.12 (0.14)	0-0.44	0.12 (0.13)	0-0.37	0.13 (0.14)	0-0.41
Autumn migration	0.01 (0.02)	0-0.07	0.05 (0.08)	0-0.26	0.05 (0.03)	0-0.11
Winter	0.01 (0.02)	0-0.07	0.03 (0.03)	0-0.11	0.05 (0.04)	0-0.15
Non-breeding	0.26 (0.16)	0.05-0.67	0.21 (0.1)	0.07-0.46	0.25 (0.09)	0.08-0.46

Table 8. DBS - East. Seasonal peak density (birds per square km) of Great skua recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0.01 (0.01)	0-0.05	0.01 (0.01)	0-0.04
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0.01 (0.02)	0-0.07	0.01 (0.01)	0-0.05	0.01 (0.01)	0-0.04
Non-breeding	0.01 (0.02)	0-0.07	0.01 (0.01)	0-0.05	0.01 (0.01)	0-0.04

Table 9. DBS - East. Seasonal peak density (birds per square km) of Guillemot recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	5.23 (3.61)	1.21-10.92	5.16 (2.09)	2.55-8.59	5.44 (2.5)	2.6-9.64
Breeding (full)	7.96 (3.03)	3.05-13.01	7.3 (2.84)	3.07-11.78	7.24 (0.85)	5.72-9.05
Post-breeding	11.54 (9.98)	1.85-31.92	10.47 (8.48)	1.8-26.11	10.78 (8.33)	2.24-25.65
Winter	15.01 (1.78)	11.71-18.88	14.44 (1.3)	11.76-17.06	13.83 (1.24)	11.28-15.95
Non-breeding	15.01 (1.78)	11.71-18.88	14.44 (1.3)	11.76-17.06	13.83 (1.24)	11.28-15.95

Table 10. DBS - East. Seasonal peak density (birds per square km) of Guillemot (including unidentified auks apportioned using identified auk ratios) recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	8.02 (2.85)	4.17-13.07	7.98 (3.23)	3.95-13.28	8.13 (3.73)	3.89-14.41
Breeding (full)	14.96 (5.69)	5.73-24.44	13.78 (5.36)	5.79-22.24	13.26 (4.97)	5.93-20.8
Post-breeding	12.7 (10.98)	2.03-35.12	11.49 (9.3)	1.97-28.63	12.05 (9.32)	2.51-28.69
Winter	19.2 (2.28)	14.98-24.15	18.85 (1.7)	15.36-22.28	18.17 (1.62)	14.81-20.95
Non-breeding	19.2 (2.28)	14.98-24.15	18.85 (1.7)	15.36-22.28	18.17 (1.62)	14.81-20.95

Table 11. DBS - East. Seasonal peak density (birds per square km) of Guillemot (including unidentified auks apportioned using identified auk ratios and accounting for availability bias) recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	10.5 (3.73)	5.46-17.11	10.45 (4.23)	5.16-17.38	10.64 (4.88)	5.1-18.86
Breeding (full)	19.19 (7.3)	7.35-31.35	17.71 (6.9)	7.45-28.59	17.07 (6.4)	7.64-26.78
Post-breeding	16.65 (14.4)	2.67-46.05	15.06 (12.2)	2.58-37.54	15.8 (12.21)	3.29-37.61
Winter	25.1 (2.98)	19.58-31.58	24.62 (2.22)	20.06-29.1	23.73 (2.12)	19.35-27.36
Non-breeding	25.1 (2.98)	19.58-31.58	24.62 (2.22)	20.06-29.1	23.73 (2.12)	19.35-27.36

Table 12. DBS - East. Seasonal peak density (birds per square km) of Herring gull recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.02 (0.04)	0-0.14	0.02 (0.03)	0-0.1	0.01 (0.02)	0-0.07
Breeding (full)	0.04 (0.05)	0-0.14	0.03 (0.04)	0-0.12	0.02 (0.03)	0-0.1
Autumn migration	0.01 (0.02)	0-0.07	0.02 (0.02)	0-0.05	0.02 (0.02)	0-0.09
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0.02 (0.04)	0-0.14	0.02 (0.03)	0-0.1	0.02 (0.02)	0-0.09

Table 13. DBS - East. Seasonal peak density (birds per square km) of Kittiwake recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	2.71 (1.19)	1.34-5.62	2.64 (0.93)	1.52-4.98	2.88 (1.13)	1.57-5.29
Breeding (full)	16.48 (6.81)	6.14-28.49	14.89 (5.04)	6.95-23.65	13.88 (3.58)	8.14-20.41
Autumn migration	4.78 (3.37)	1.11-10.65	4.81 (3.61)	1.13-11.41	6.06 (6.16)	0.12-16.55
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	4.78 (3.37)	1.11-10.65	4.81 (3.61)	1.13-11.41	6.06 (6.16)	0.12-16.55

Table 14. DBS - East. Seasonal peak density (birds per square km) of Lesser black-backed gull recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.01 (0.02)	0-0.07	0.01 (0.01)	0-0.05	0.01 (0.01)	0-0.04
Breeding (full)	0.02 (0.04)	0-0.14	0.02 (0.02)	0-0.05	0.02 (0.02)	0-0.06
Autumn migration	0 (0)	0-0	0 (0)	0-0	0.01 (0.01)	0-0.04
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0.01 (0.02)	0-0.07	0.01 (0.01)	0-0.05	0.01 (0.01)	0-0.04

Table 15. DBS - East. Seasonal peak density (birds per square km) of Little gull recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0.2 (0.31)	0-1.14	0.18 (0.25)	0-0.76

Table 16. DBS - East. Seasonal peak density (birds per square km) of Manx shearwater recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0.01 (0.02)	0-0.07	0.01 (0.01)	0-0.05	0.01 (0.01)	0-0.04
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0.01 (0.02)	0-0.07	0.01 (0.01)	0-0.05	0.01 (0.01)	0-0.04

Table 17. DBS - East. Seasonal peak density (birds per square km) of Puffin recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.06 (0.07)	0-0.22	0.06 (0.06)	0-0.18	0.07 (0.08)	0-0.23
Breeding (full)	0.12 (0.12)	0-0.31	0.11 (0.11)	0-0.29	0.1 (0.11)	0-0.3
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0.27 (0.27)	0-0.81	0.26 (0.24)	0-0.68	0.27 (0.25)	0.01-0.68
Non-breeding	0.27 (0.27)	0-0.81	0.26 (0.24)	0-0.68	0.27 (0.25)	0.01-0.68

Table 18. DBS - East. Seasonal peak density (birds per square km) of Puffin (including unidentified auks apportioned using identified auk ratios) recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.06 (0.07)	0-0.22	0.06 (0.06)	0-0.18	0.07 (0.08)	0-0.23
Breeding (full)	0.12 (0.12)	0-0.31	0.11 (0.11)	0-0.29	0.1 (0.11)	0-0.3
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0.3 (0.3)	0-0.88	0.3 (0.28)	0-0.79	0.31 (0.28)	0.01-0.79
Non-breeding	0.3 (0.3)	0-0.88	0.3 (0.28)	0-0.79	0.31 (0.28)	0.01-0.79

Table 19. DBS - East. Seasonal peak density (birds per square km) of Puffin (including unidentified auks apportioned using identified auk ratios and accounting for availability bias) recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.07 (0.09)	0-0.26	0.07 (0.07)	0-0.21	0.08 (0.09)	0-0.27
Breeding (full)	0.14 (0.15)	0-0.37	0.12 (0.13)	0-0.34	0.12 (0.13)	0-0.35
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0.35 (0.35)	0-1.02	0.35 (0.33)	0-0.92	0.36 (0.33)	0.02-0.91
Non-breeding	0.35 (0.35)	0-1.02	0.35 (0.33)	0-0.92	0.36 (0.33)	0.02-0.91

Table 20. DBS - East. Seasonal peak density (birds per square km) of Razorbill recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	3.13 (1.94)	0.56-6.54	3.25 (2.04)	0.5-6.41	3.16 (1.97)	0.58-5.96
Breeding (full)	0.57 (0.21)	0.24-1.05	0.61 (0.23)	0.25-1.11	0.87 (0.49)	0.34-1.98
Autumn migration	7.72 (8.69)	0-25.52	7.17 (7.83)	0.08-22.33	6.18 (6.56)	0.06-18.04
Winter	4.55 (0.74)	3.1-5.9	4.26 (0.6)	3.26-5.46	4 (0.59)	3.02-5.16
Non-breeding	7.72 (8.69)	0-25.52	7.17 (7.83)	0.08-22.33	6.18 (6.56)	0.06-18.04



Table 21. DBS - East. Seasonal peak density (birds per square km) of Razorbill (including unidentified auks apportioned using identified auk ratios) recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	5.66 (3.52)	1.01-11.83	5.84 (3.66)	0.89-11.51	5.7 (3.55)	1.05-10.76
Breeding (full)	0.82 (0.3)	0.34-1.51	0.91 (0.35)	0.36-1.65	1.29 (0.72)	0.5-2.93
Autumn migration	8.25 (9.3)	0-27.3	7.59 (8.3)	0.09-23.66	6.56 (6.97)	0.06-19.16
Winter	5.76 (0.93)	3.92-7.47	5.47 (0.78)	4.18-7.01	5.14 (0.76)	3.88-6.63
Non-breeding	8.25 (9.3)	0-27.3	7.59 (8.3)	0.09-23.66	6.56 (6.97)	0.06-19.16

Table 22. DBS - East. Seasonal peak density (birds per square km) of Razorbill (including unidentified auks apportioned using identified auk ratios and accounting for availability bias) recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	6.82 (4.23)	1.21-14.25	7.02 (4.41)	1.07-13.84	6.87 (4.28)	1.27-12.96
Breeding (full)	0.98 (0.36)	0.41-1.79	1.09 (0.42)	0.44-1.97	1.55 (0.86)	0.59-3.51
Autumn migration	9.99 (11.26)	0-33.06	9.19 (10.05)	0.11-28.63	7.95 (8.44)	0.08-23.2
Winter	6.96 (1.13)	4.74-9.04	6.62 (0.94)	5.06-8.48	6.23 (0.92)	4.69-8.03
Non-breeding	9.99 (11.26)	0-33.06	9.19 (10.05)	0.11-28.63	7.95 (8.44)	0.08-23.2

Table 23. DBS - West. Seasonal peak density (birds per square km) of Arctic skua recorded in flight and on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0.01 (0.02)	0-0.07	0.01 (0.01)	0-0.05	0.01 (0.01)	0-0.04
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0.01 (0.02)	0-0.07	0.01 (0.01)	0-0.05	0.01 (0.01)	0-0.04

Table 24. DBS - West. Seasonal peak density (birds per square km) of Arctic tern recorded in flight and on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0.06 (0.08)	0-0.26	0.07 (0.07)	0-0.2	0.08 (0.09)	0-0.26
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 25. DBS - West. Seasonal peak density (birds per square km) of Common gull recorded in flight and on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0.16 (0.19)	0-0.58	0.13 (0.14)	0-0.38	0.11 (0.12)	0-0.32

Table 26. DBS - West. Seasonal peak density (birds per square km) of Common tern recorded in flight and on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0.02 (0.02)	0-0.07	0.02 (0.02)	0-0.05	0.01 (0.01)	0-0.04
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 27. DBS - West. Seasonal peak density (birds per square km) of Fulmar recorded in flight and on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.02 (0.03)	0-0.1	0.04 (0.03)	0-0.1	0.11 (0.11)	0-0.35
Breeding (full)	0.53 (0.45)	0.05-1.37	0.56 (0.44)	0.06-1.27	0.53 (0.43)	0.07-1.15
Autumn migration	0.15 (0.09)	0.02-0.36	0.17 (0.12)	0.02-0.39	0.15 (0.11)	0.01-0.31
Winter	0.11 (0.08)	0-0.28	0.18 (0.15)	0.02-0.51	0.22 (0.18)	0.02-0.54
Non-breeding	0.15 (0.09)	0.02-0.36	0.18 (0.15)	0.02-0.51	0.22 (0.18)	0.02-0.54

Table 28. DBS - West. Seasonal peak density (birds per square km) of Gannet recorded in flight and on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.18 (0.19)	0-0.51	0.17 (0.18)	0-0.46	0.2 (0.21)	0-0.59
Breeding (full)	1.61 (0.48)	0.78-2.56	1.55 (0.49)	0.83-2.53	1.4 (0.51)	0.73-2.35
Autumn migration	1.74 (1.06)	0.5-3.41	1.54 (0.95)	0.39-2.98	1.34 (0.81)	0.38-2.53
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 29. DBS - West. Seasonal peak density (birds per square km) of Great black-backed gull recorded in flight and on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.05 (0.03)	0-0.12	0.1 (0.08)	0-0.32	0.09 (0.06)	0.01-0.25
Breeding (full)	0.02 (0.04)	0-0.14	0.03 (0.06)	0-0.2	0.02 (0.04)	0-0.15
Autumn migration	0.05 (0.07)	0-0.22	0.11 (0.15)	0-0.46	0.08 (0.11)	0-0.35
Winter	0.08 (0.08)	0-0.29	0.07 (0.06)	0-0.21	0.08 (0.05)	0-0.18
Non-breeding	0.08 (0.08)	0-0.29	0.11 (0.15)	0-0.46	0.09 (0.06)	0.01-0.25

Table 30. DBS - West. Seasonal peak density (birds per square km) of Great northern diver recorded in flight and on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0.01 (0.01)	0-0.04
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0.01 (0.01)	0-0.04

Table 31. DBS - West. Seasonal peak density (birds per square km) of Great skua recorded in flight and on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0.01 (0.02)	0-0.07
Autumn migration	0.01 (0.02)	0-0.07	0.02 (0.02)	0-0.05	0.01 (0.01)	0-0.04
Winter	0.01 (0.02)	0-0.08	0.01 (0.02)	0-0.06	0.02 (0.02)	0-0.07
Non-breeding	0.01 (0.02)	0-0.08	0.02 (0.02)	0-0.05	0.02 (0.02)	0-0.07

Table 32. DBS - West. Seasonal peak density (birds per square km) of Guillemot recorded in flight and on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	12.22 (9.8)	2.07-26.73	11.4 (8.77)	2.01-23.55	11.23 (8.24)	2.49-22.06
Breeding (full)	9 (1.64)	5.61-12.65	9.06 (1.51)	6.17-12.68	8.77 (1.31)	5.7-11.17
Post-breeding	19.61 (17.64)	2.15-49.19	17.08 (15.06)	2.4-42.64	17.07 (14.9)	2.6-44.32
Winter	7.49 (1.02)	5.56-9.47	7.34 (0.84)	5.73-9.01	7.46 (0.71)	6.04-8.84
Non-breeding	12.22 (9.8)	2.07-26.73	11.4 (8.77)	2.01-23.55	11.23 (8.24)	2.49-22.06

Table 33. DBS - West. Seasonal peak density (birds per square km) of Guillemot (including unidentified auks apportioned using identified auk ratios) recorded in flight and on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	15.4 (12.35)	2.6-33.68	14.6 (11.23)	2.57-30.17	14.49 (10.63)	3.22-28.46
Breeding (full)	13.33 (3.38)	8.27-19.64	13.03 (2.71)	8.69-18.2	12.34 (1.86)	8.93-16.04
Post-breeding	20.54 (18.47)	2.25-51.52	18.37 (16.2)	2.58-45.85	18.38 (16.04)	2.79-47.73
Winter	9.51 (1.29)	7.05-12.03	9.4 (1.08)	7.35-11.55	9.73 (0.93)	7.87-11.54
Non-breeding	15.4 (12.35)	2.6-33.68	14.6 (11.23)	2.57-30.17	14.49 (10.63)	3.22-28.46

Table 34. DBS - West. Seasonal peak density (birds per square km) of Guillemot (including unidentified auks apportioned using identified auk ratios and accounting for availability bias) recorded in flight and on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	20.09 (16.12)	3.4-43.95	19.06 (14.67)	3.36-39.4	18.91 (13.87)	4.2-37.13
Breeding (full)	17.32 (4.39)	10.75-25.52	16.92 (3.51)	11.28-23.64	16.02 (2.42)	11.59-20.82
Post-breeding	26.92 (24.21)	2.95-67.53	24.08 (21.23)	3.38-60.1	24.1 (21.04)	3.66-62.58
Winter	12.31 (1.67)	9.14-15.58	12.17 (1.4)	9.51-14.95	12.62 (1.21)	10.21-14.96
Non-breeding	20.09 (16.12)	3.4-43.95	19.06 (14.67)	3.36-39.4	18.91 (13.87)	4.2-37.13

Table 35. DBS - West. Seasonal peak density (birds per square km) of Herring gull recorded in flight and on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.01 (0.02)	0-0.07	0.01 (0.01)	0-0.05	0.01 (0.01)	0-0.04
Breeding (full)	0.02 (0.03)	0-0.12	0.02 (0.02)	0-0.07	0.02 (0.03)	0-0.1
Autumn migration	0.02 (0.03)	0-0.1	0.02 (0.02)	0-0.07	0.03 (0.03)	0-0.1
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0.02 (0.03)	0-0.1	0.02 (0.02)	0-0.07	0.03 (0.03)	0-0.1

Table 36. DBS - West. Seasonal peak density (birds per square km) of Kittiwake recorded in flight and on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	3.66 (2.95)	0.77-9.87	3.16 (2.34)	0.75-7.89	2.84 (1.94)	0.85-6.57
Breeding (full)	11.99 (15.41)	0-48.53	10.64 (12.91)	0.02-39.86	9.2 (10.3)	0.05-31.46
Autumn migration	9.8 (14.38)	0.19-50.34	8.61 (11.23)	0.2-37.3	6.71 (8.46)	0.36-27.48
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	9.8 (14.38)	0.19-50.34	8.61 (11.23)	0.2-37.3	6.71 (8.46)	0.36-27.48



Table 37. DBS - West. Seasonal peak density (birds per square km) of Lesser black-backed gull recorded in flight and on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0.01 (0.02)	0-0.07	0.02 (0.04)	0-0.15	0.02 (0.03)	0-0.11
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 38. DBS - West. Seasonal peak density (birds per square km) of Little gull recorded in flight and on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0.01 (0.02)	0-0.07	0.04 (0.05)	0-0.2	0.03 (0.04)	0-0.14

Table 39. DBS - West. Seasonal peak density (birds per square km) of Puffin recorded in flight and on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.08 (0.09)	0-0.27	0.07 (0.07)	0-0.2	0.06 (0.06)	0-0.17
Breeding (full)	0.2 (0.21)	0-0.5	0.18 (0.18)	0-0.42	0.17 (0.18)	0-0.42
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0.24 (0.19)	0.02-0.62	0.31 (0.17)	0.05-0.62	0.32 (0.17)	0.07-0.63
Non-breeding	0.24 (0.19)	0.02-0.62	0.31 (0.17)	0.05-0.62	0.32 (0.17)	0.07-0.63

Table 40. DBS - West. Seasonal peak density (birds per square km) of Puffin (including unidentified auks apportioned using identified auk ratios) recorded in flight and on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.08 (0.09)	0-0.27	0.07 (0.07)	0-0.2	0.06 (0.06)	0-0.17
Breeding (full)	0.2 (0.21)	0-0.5	0.18 (0.18)	0-0.42	0.17 (0.18)	0-0.42
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0.25 (0.2)	0.03-0.65	0.32 (0.18)	0.05-0.65	0.34 (0.18)	0.08-0.67
Non-breeding	0.25 (0.2)	0.03-0.65	0.32 (0.18)	0.05-0.65	0.34 (0.18)	0.08-0.67

Table 41. DBS - West. Seasonal peak density (birds per square km) of Puffin (including unidentified auks apportioned using identified auk ratios and accounting for availability bias) recorded in flight and on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.1 (0.11)	0-0.3	0.08 (0.08)	0-0.23	0.07 (0.08)	0-0.2
Breeding (full)	0.24 (0.24)	0-0.58	0.21 (0.21)	0-0.5	0.2 (0.21)	0-0.49
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0.29 (0.22)	0.03-0.74	0.38 (0.21)	0.06-0.76	0.39 (0.2)	0.09-0.77
Non-breeding	0.29 (0.22)	0.03-0.74	0.38 (0.21)	0.06-0.76	0.39 (0.2)	0.09-0.77

Table 42. DBS - West. Seasonal peak density (birds per square km) of Razorbill recorded in flight and on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	5.5 (4.59)	0.59-12.81	5.24 (3.95)	0.75-11.22	5.25 (3.83)	0.94-10.89
Breeding (full)	2.6 (1.13)	0.88-4.9	2.35 (1.06)	0.74-4.23	2.01 (0.88)	0.63-3.59
Autumn migration	7.14 (10.21)	0.02-35.3	5.92 (7.65)	0.05-24.94	4.89 (6.57)	0.07-21.43
Winter	6.12 (5)	0.72-14.22	6.28 (5.23)	0.72-14.23	5.86 (5.09)	0.52-13.54
Non-breeding	7.14 (10.21)	0.02-35.3	6.28 (5.23)	0.72-14.23	5.86 (5.09)	0.52-13.54

Table 43. DBS - West. Seasonal peak density (birds per square km) of Razorbill (including unidentified auks apportioned using identified auk ratios) recorded in flight and on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	7.15 (5.96)	0.77-16.65	7.09 (5.34)	1.02-15.19	7.06 (5.14)	1.26-14.64
Breeding (full)	3.97 (1.72)	1.34-7.49	3.65 (1.66)	1.16-6.58	3.16 (1.38)	0.99-5.64
Autumn migration	8.6 (12.29)	0.03-42.51	7.79 (10.06)	0.06-32.79	6.38 (8.57)	0.09-27.95
Winter	7.76 (6.34)	0.92-18.03	8.07 (6.72)	0.93-18.29	7.43 (6.46)	0.66-17.19
Non-breeding	8.6 (12.29)	0.03-42.51	8.07 (6.72)	0.93-18.29	7.43 (6.46)	0.66-17.19

Table 44. DBS - West. Seasonal peak density (birds per square km) of Razorbill (including unidentified auks apportioned using identified auk ratios and accounting for availability bias) recorded in flight and on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	8.65 (7.22)	0.93-20.14	8.58 (6.46)	1.23-18.38	8.55 (6.22)	1.53-17.72
Breeding (full)	4.76 (2.06)	1.61-8.98	4.39 (1.99)	1.39-7.92	3.79 (1.66)	1.19-6.78
Autumn migration	10.4 (14.88)	0.03-51.44	9.41 (12.16)	0.08-39.64	7.71 (10.36)	0.11-33.79
Winter	9.39 (7.67)	1.11-21.81	9.76 (8.13)	1.12-22.13	9 (7.81)	0.79-20.81
Non-breeding	10.4 (14.88)	0.03-51.44	9.76 (8.13)	1.12-22.13	9 (7.81)	0.79-20.81

Table 45. DBS - West. Seasonal peak density (birds per square km) of Red-throated diver recorded in flight and on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0.01 (0.01)	0-0.04
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 46. DBS - East & West. Seasonal peak density (birds per square km) of Arctic skua recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0.0201 (0.0402)	0-0.1407	0.0201 (0.0201)	0-0.105	0.0201 (0.0201)	0-0.0804
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0.0201 (0.0402)	0-0.1407	0.0201 (0.0201)	0-0.105	0.0201 (0.0201)	0-0.0804

Table 47. DBS - East & West. Seasonal peak density (birds per square km) of Arctic tern recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0.4708 (0.21)	0-0.6231	0.4809 (0.4809)	0-0.5425	0.21 (0.2211)	0-0.643
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 48. DBS - East & West. Seasonal peak density (birds per square km) of Common gull recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0.2211 (0.2613)	0-0.8241	0.4709 (0.4809)	0-0.5427	0.4508 (0.4608)	0-0.4422

Table 49. DBS - East & West. Seasonal peak density (birds per square km) of Common tern recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0.0301 (0.0402)	0-0.4407	0.0402 (0.0402)	0-0.4307	0.0201 (0.0302)	0-0.405
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 50. DBS - East & West. Seasonal peak density (birds per square km) of Fulmar recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.0804 (0.0804)	0-0.2914	0.405 (0.0905)	0-0.2814	0.491 (0.4809)	0-0.5628
Breeding (full)	0.8543 (0.7236)	0.05-1-2.43.22	0.8341 (0.6231)	0.44-207-1.01	0.7638 (0.5829)	0.43-1.7407-0.87
Autumn migration	0.4322 (0.2915)	0.04-1.0402-0.5	0.6332 (0.5527)	0.04-1.6502-0.82	0.735 (0.6231)	0.02-1.701-0.85
Winter	0.2613 (0.2412)	0-0.7236	0.3316 (0.3416)	0.0201-0.9347	0.3819 (0.3316)	0.0201-0.9447
Non-breeding	0.4322 (0.2915)	0.04-1.0402-0.5	0.6432 (0.5829)	0.04-1.7702-0.88	0.7738 (0.6934)	0.03-1.9301-0.96

Table 51. DBS - East & West. Seasonal peak density (birds per square km) of Gannet recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.3819 (0.4724)	0.1440.72	0.3216 (0.3819)	0.1460.58	0.3216 (0.3618)	0.1090.55
Breeding (full)	3.321.66 (0.8743)	1.75- 5.040.87- 2.52	3.031.51 (0.8945)	1.63- 4.920.82- 2.46	3.46(1.4458 (0.71)	1.56- 6.420.78- 3.21
Autumn migration	3.11(1.5556 (0.77)	1.24- 5.880.62- 2.95	3.06(1.653 (0.8)	1.14- 5.870.57- 2.93	2.74(1.2737 (0.64)	1.19- 4.950.59- 2.48
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 52. DBS - East & West. Seasonal peak density (birds per square km) of Great black-backed gull recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.3416 (0.491)	0.0502- 0.7939	0.3415 (0.4809)	0.0703- 0.7839	0.3417 (0.4507)	0.0905- 0.7436
Breeding (full)	0.4407 (0.4809)	0-0.5829	0.4508 (0.4909)	0-0.5728	0.4507 (0.4809)	0-0.5628
Autumn migration	0.0603 (0.0905)	0-0.2914	0.4608 (0.2312)	0-0.7236	0.4306 (0.4407)	0-0.4623
Winter	0.0904 (0.405)	0-0.3618	0.405 (0.0904)	0-0.3216	0.4306 (0.0905)	0-0.3316
Non-breeding	0.3417 (0.2412)	0.0502- 0.9648	0.3216 (0.2513)	0.0703- 0.9246	0.3417 (0.4507)	0.0905- 0.7436



Table 53. DBS - East & West. Seasonal peak density (birds per square km) of Great northern diver recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0.01 (0.01)	0-0.0402
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0.01 (0.01)	0-0.0402

Table 54. DBS - East & West. Seasonal peak density (birds per square km) of Great skua recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0.04 (0.04)	0-0.0502	0.0201 (0.0301)	0-0.1106
Autumn migration	0.01 (0.0201)	0-0.0704	0.0201 (0.0201)	0-0.0503	0.01 (0.01)	0-0.0402
Winter	0.0201 (0.0402)	0-0.1507	0.0201 (0.0301)	0-0.1105	0.0301 (0.0301)	0-0.1106
Non-breeding	0.0201 (0.0402)	0-0.1507	0.0301 (0.0301)	0-0.105	0.0301 (0.0301)	0-0.1106

Table 55. DBS - East & West. Seasonal peak density (birds per square km) of Guillemot recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	<del>30.59</del> (19.85)8.75 (6.73)	<del>8.86-</del> <del>61.06</del> 1.64- 18.89	<del>29.51</del> (18.98)31 (5.46)	<del>8.52-</del> <del>56.78</del> 2.27- 16.14	<del>29.55</del> (18.75)8.37 (5.4)	<del>9.32</del> 55.99- 15.91
Breeding (full)	<del>36.51</del> (11.69)8.49 (2.33)	<del>18.1-</del> <del>56.87</del> 4.34- 12.83	<del>34.63</del> (10.44)8.19 (2.17)	<del>18.73-</del> <del>52.23</del> 4.63- 12.24	<del>33.09</del> (8.82)02 (1.08)	<del>19.23-</del> <del>47.65</del> 71- 10.12
Post-breeding	<del>43.57</del> (38.64)15.6 (13.84)	<del>52.40</del> 62- <del>113.58</del>	<del>39.14</del> (33.43)13.81 (11.8)	<del>5.96-</del> <del>97.64</del> 2.1- 34.45	<del>39.9</del> (33.25)13.95 (11.65)	<del>6.95-</del> <del>100.19</del> 2.42- 35.07
Winter	<del>37.41</del> (4.65)11.22 (1.39)	<del>28.72-</del> <del>47.16</del> 8.61- 14.13	<del>36.79</del> (3.62)10.86 (1.06)	<del>29.57-</del> <del>44.05</del> 8.72-13	<del>36.35</del> (3.33)10.61 (0.97)	<del>29.56-</del> <del>42.32</del> 8.64- 12.36
Non-breeding	<del>45.19</del> (19.13)6 (5.82)	<del>6.85</del> 22.98- <del>75.53</del> 83	<del>43.68</del> (16.89)12.91 (5.06)	<del>23.42-</del> <del>68.56</del> 8.4- 20.33	<del>42.64</del> (15.99)12.52 (4.77)	<del>23.55-</del> <del>64.49</del> 6.85- 19.03

Table 56. DBS - East & West. Seasonal peak density (birds per square km) of Guillemot (including unidentified auks apportioned using identified auk ratios) recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	<del>30.59</del> (19.85)11.74 (7.63)	<del>8.86-</del> <del>61.06</del> 3.38- 23.46	<del>29.51</del> (18.91)11.32 (7.27)	<del>3.26</del> 21.8-52- 56.78	<del>29.55</del> (18.75)11.34 (7.21)	<del>9.32</del> 55.99- 21.5
Breeding (full)	<del>36.51</del> (11.69)14.14 (4.52)	<del>18.1-</del> <del>56.87</del> 7.01- 22.02	<del>34.63</del> (10.44)13.4 (4.03)	<del>18.73-</del> <del>52.23</del> 7.25- 20.2	<del>33.09</del> (12.8)82 (3.4)	<del>19.23-</del> <del>47.67</del> 45- 18.39
Post-breeding	<del>43.57</del> (38.64)16.65 (14.76)	<del>5.62-</del> <del>113.58</del> 2.14- 43.39	<del>39.14</del> (33.43)96 (12.78)	<del>5.96-</del> <del>97.64</del> 2.28- 37.32	<del>39.9</del> (33.25)15.24 (12.71)	<del>6.95-</del> <del>100.19</del> 2.65- 38.29
Winter	<del>37.41</del> (4.65)14.31 (1.78)	<del>28.72-</del> <del>47.16</del> 10.98- 18.04	<del>36.79</del> (3.62)14.08 (1.38)	<del>29.57-</del> <del>44.05</del> 11.32- 16.87	<del>36.35</del> (3.33)13.91 (1.27)	<del>29.56-</del> <del>42.32</del> 11.31- 16.2

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Non-breeding	45.19 (19.417.28 (7.35))	22.98- 75.538.74- 28.96	43.68 (16.8971 (6.51))	23.42- 68.58.91- 26.26	42.64 (15.9916.31 (6.16))	23.55- 64.498.96- 24.74

Table 57. DBS - East & West. Seasonal peak density (birds per square km) of Guillemot (including unidentified auks apportioned using identified auk ratios and accounting for availability bias) recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	30.59 (19.8515.34 (9.97))	8.86- 61.064.42- 30.64	29.51 (18.14.8 (9.5))	8.52- 56.784.26- 28.49	29.55 (18.7514.81 (9.42))	9.3- 55.994.65- 28.08
Breeding (full)	36.51 (11.6918.25 (5.83))	18.1- 56.879.07- 28.41	34.63 (10.4117.32 (5.19))	18.73- 52.239.38- 26.1	33.09 (8.8216.54 (4.39))	19.9.63-23- 47.6.78
Post-breeding	43.57 (38.6421.83 (19.34))	5.62- 113.582.81- 56.88	39.14 (33.4319.61 (16.76))	5.96- 97.642.99- 48.92	39.9 (33.2519.99 (16.67))	6.95- 100.193.48- 50.21
Winter	37.41 (418.65 (2.32))	28.72- 47.1614.32- 23.51	36.79 (3.6218.34 (1.81))	29.57- 44.0514.74- 21.96	36.35 (3.3318.13 (1.66))	29.56- 42.3214.74- 21.1
Non-breeding	45.19 (19.422.58 (9.6))	22.98- 75.5311.42- 37.81	43.68 (16.8921.82 (8.5))	23.42- 68.511.64- 34.3	42.64 (15.9921.3 (8.05))	23.55- 64.4911.71- 32.29

Table 58. DBS - East & West. Seasonal peak density (birds per square km) of Herring gull recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.0302 (0.0603)	0-0.2411	0.0302 (0.0402)	0-0.4508	0.0201 (0.0302)	0-0.4405
Breeding (full)	0.0603 (0.0804)	0-0.2613	0.0502 (0.0603)	0-0.491	0.0402 (0.0603)	0-0.21

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Autumn migration	0.0301 (0.0503)	0-0.1708	0.0402 (0.0402)	0-0.1206	0.0503 (0.0503)	0-0.1909
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0.0402 (0.0704)	0-0.2412	0.0402 (0.0502)	0-0.1709	0.0503 (0.0503)	0-0.1909

Table 59. DBS - East & West. Seasonal peak density (birds per square km) of Kittiwake recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	<del>6.37</del> (4.14, 3.18) (2.08)	<del>2.11</del> <del>15.49</del> 1.05- 7.76	<del>5.8</del> (3.27, 2.9) (1.64)	<del>2.27</del> <del>12.87</del> 1.13- 6.45	<del>5.72</del> (3.07, 2.86) (1.54)	<del>2.42</del> <del>11.86</del> 1.21- 5.94
Breeding (full)	<del>28.47</del> <del>22.22</del> 14.21 (11.15)	<del>6.14</del> <del>77.02</del> 3.05- 38.59	<del>25.53</del> <del>17.95</del> 12.75 (9.01)	<del>6.97</del> <del>63.51</del> 3.45- 31.83	<del>23.08</del> <del>13.88</del> 11.52 (6.97)	<del>8.19</del> <del>51.87</del> 4.06- 25.98
Autumn migration	<del>14.58</del> (17.75, 7.31) (8.92)	<del>1.3</del> <del>60.99</del> 0.65- 30.65	<del>13.42</del> (14.84, 6.72) (7.46)	<del>1.33</del> <del>48.71</del> 0.66- 24.47	<del>12.77</del> (14.62, 6.39) (7.32)	<del>0.48</del> <del>44.03</del> 24- 22.07
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	<del>14.58</del> (17.75, 7.31) (8.92)	<del>1.3</del> <del>60.99</del> 0.65- 30.65	<del>13.42</del> (14.84, 6.72) (7.46)	<del>1.33</del> <del>48.71</del> 0.66- 24.47	<del>12.77</del> (14.62, 6.39) (7.32)	<del>0.48</del> <del>44.03</del> 24- 22.07

Table 60. DBS - East & West. Seasonal peak density (birds per square km) of Lesser black-backed gull recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	<del>0.04</del> (0.02, 0.1) (0.02)	0-0.0703	<del>0.04</del> (0-0.04)	0-0.0502	<del>0.04</del> (0-0.04)	0-0.0402
Breeding (full)	<del>0.0302</del> (0.06, 0.3) (0.06)	0-0.2411	<del>0.0402</del> (0.06, 0.3) (0.06)	0-0.21	<del>0.0402</del> (0.05, 0.3) (0.05)	0-0.1709
Autumn migration	0 (0)	0-0	0 (0)	0-0	<del>0.04</del> (0-0.04)	0-0.0402
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	<del>0.04</del> (0.02, 0.1) (0.02)	0-0.0703	<del>0.04</del> (0-0.04)	0-0.0502	<del>0.04</del> (0-0.04)	0-0.0402

Table 61. DBS - East & West. Seasonal peak density (birds per square km) of Little gull recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0.01 (0.0201)	0-0.0704	0.2412 (0.3618)	0-1.340.66	0.2411 (0.2914)	0-0.945

Table 62. DBS - East & West. Seasonal peak density (birds per square km) of Manx shearwater recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0.04 (0.0201)	0-0.0703	0.04 (0.04)	0-0.0502	0.04 (0.04)	0-0.0402
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0.04 (0.0201)	0-0.0703	0.04 (0.04)	0-0.0502	0.04 (0.04)	0-0.0402

Table 63. DBS - East & West. Seasonal peak density (birds per square km) of Puffin recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.4707 (0.208)	0-0.5625	0.4507 (0.4507)	0-0.4419	0.4506 (0.4707)	0-0.472
Breeding (full)	0.3816 (0.3917)	0-0.954	0.3314 (0.3414)	0-0.8435	0.3214 (0.3414)	0-0.8436
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0.6425 (0.5723)	<del>0.0347601-0.71</del>	0.7329 (0.5421)	<del>0.0646803-0.65</del>	0.7529 (0.5321)	<del>0.4146804-0.66</del>
Non-breeding	0.6425 (0.5723)	<del>0.0347601-0.71</del>	0.7329 (0.5421)	<del>0.0646803-0.65</del>	0.7529 (0.5321)	<del>0.4146804-0.66</del>

Table 64. DBS - East & West. Seasonal peak density (birds per square km) of Puffin (including unidentified auks apportioned using identified auk ratios) recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.4707 (0.208)	0-0.5625	0.4507 (0.4507)	0-0.4419	0.4506 (0.4707)	0-0.472
Breeding (full)	0.3816 (0.3917)	0-0.954	0.3314 (0.3414)	0-0.8435	0.3214 (0.3414)	0-0.8436
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0.6428 (0.5725)	<del>0.0347602-0.72</del>	0.7331 (0.5423)	<del>0.0646803-0.72</del>	0.7532 (0.5323)	<del>0.4146804-0.73</del>
Non-breeding	0.6428 (0.5725)	<del>0.0347602-0.72</del>	0.7331 (0.5423)	<del>0.0646803-0.72</del>	0.7532 (0.5323)	<del>0.4146804-0.73</del>

Table 65. DBS - East & West. Seasonal peak density (birds per square km) of Puffin (including unidentified auks apportioned using identified auk ratios and accounting for availability bias) recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.4708 (0.21)	0-0.5628	0.4507 (0.4507)	0-0.4422	0.4508 (0.4708)	0-0.4723
Breeding (full)	0.3819 (0.3919)	0-0.9547	0.3317 (0.3417)	0-0.8442	0.3216 (0.3417)	0-0.8442
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0.6432 (0.5728)	0.03-1.7602- 0.88	0.7336 (0.5427)	0.06-1.6803- 0.84	0.7538 (0.5326)	0.41-1.6806- 0.84
Non-breeding	0.6432 (0.5728)	0.03-1.7602- 0.88	0.7336 (0.5427)	0.06-1.6803- 0.84	0.7538 (0.5326)	0.41-1.6806- 0.84

Table 66. DBS - East & West. Seasonal peak density (birds per square km) of Razorbill recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	15.47 (11.454.32 (3.27)	2.14- 34.390.58- 9.7	15.6 (10.874.25 (3)	2.3- 32.220.63- 8.84	15.42 (10.54.22 (2.91)	2-0.76-8- 30.68.45
Breeding (full)	5.74 (2.421.59 (0.67)	0.56-2.02- 10.7799	5.48 (2.441.49 (0.64)	1.83- 9.890.49- 2.68	5.34 (2.521.44 (0.68)	1.78- 10.290.49- 2.79
Autumn migration	20.39 (26.147.43 (9.46)	0.03-84.501- 30.45	18.6 (22.24.54 (7.74)	0.19- 68.2707- 23.64	15.66 (18.85.53 (6.57)	0.07-19- 56.99.75
Winter	16.35 (8.85.34 (2.89)	5.85- 30.851.9- 10.1	16.38 (9.075.28 (2.94)	6.18- 30.641.98- 9.89	15.23 (8.734.94 (2.86)	5.48- 28.841.76- 9.39
Non-breeding	20.39 (26.147.43 (9.46)	0.03-84.501- 30.45	18.95 (18.186.72 (6.52)	1.23- 50.760.4- 18.24	16.95 (16.256.02 (5.82)	0.87- 44.0429- 15.77



Table 67. DBS - East & West. Seasonal peak density (birds per square km) of Razorbill (including unidentified auks apportioned using identified auk ratios) recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	<del>15.47</del> (11.45) <del>6.41</del> (4.75)	<del>2.08</del> <del>9.14</del> - <del>34.39</del> <del>2.6</del>	<del>15.6</del> ( <del>10.87</del> <del>4.7</del> ) (4.5)	<del>2.3</del> <del>32.22</del> <del>0.95</del> - <del>13.36</del>	<del>15.42</del> ( <del>10.56</del> <del>3.8</del> ) (4.35)	<del>2.8</del> <del>30.68</del> <del>1.16</del> - <del>12.72</del>
Breeding (full)	<del>5.74</del> ( <del>2.42</del> <del>4.1</del> ) (1.02)	<del>2.02</del> <del>10.77</del> <del>0.85</del> - <del>4.53</del>	<del>5.48</del> ( <del>2.44</del> <del>2.9</del> ) (1.01)	<del>1.83</del> <del>9.89</del> <del>0.77</del> - <del>4.14</del>	<del>5.34</del> ( <del>2.52</del> <del>2.3</del> ) (1.06)	<del>1.78</del> <del>10.29</del> <del>0.75</del> - <del>4.3</del>
Autumn migration	<del>20.39</del> <del>(26.14)</del> <del>8.42</del> (10.8)	<del>0.03</del> <del>84.50</del> <del>2</del> - <del>34.97</del>	<del>18.6</del> ( <del>22.24</del> <del>7.69</del> ) (9.19)	<del>0.19</del> <del>68.27</del> <del>0.7</del> - <del>28.26</del>	<del>15.66</del> ( <del>18.86</del> <del>4.7</del> ) (7.77)	<del>0.19</del> <del>56.99</del> <del>0.8</del> - <del>23.59</del>
Winter	<del>16.35</del> ( <del>8.86</del> <del>6.77</del> ) (3.66)	<del>5.85</del> <del>30.85</del> <del>2.4</del> - <del>12.79</del>	<del>16.38</del> ( <del>9.07</del> <del>6.78</del> ) (3.78)	<del>6.18</del> <del>30.64</del> <del>2.54</del> - <del>12.7</del>	<del>15.23</del> ( <del>8.73</del> <del>6.3</del> ) (3.64)	<del>5.48</del> <del>28.84</del> <del>2.25</del> - <del>11.95</del>
Non-breeding	<del>20.39</del> <del>(26.14)</del> <del>8.42</del> (10.8)	<del>0.03</del> <del>84.50</del> <del>2</del> - <del>34.97</del>	<del>18.95</del> ( <del>18.18</del> <del>7.83</del> ) (7.5)	<del>1.23</del> <del>50.76</del> <del>0.51</del> - <del>20.95</del>	<del>16.95</del> ( <del>16.25</del> <del>7</del> ) (6.71)	<del>0.87</del> <del>44.04</del> <del>36</del> - <del>18.16</del>

Table 68. DBS - East & West. Seasonal peak density (birds per square km) of Razorbill (including unidentified auks apportioned using identified auk ratios and accounting for availability bias) recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	<del>15.47</del> ( <del>11.45</del> <del>7.74</del> ) (5.74)	<del>2.14</del> <del>34.39</del> <del>1.07</del> - <del>17.22</del>	<del>15.6</del> ( <del>10.87</del> <del>7.81</del> ) (5.45)	<del>2.3</del> <del>32.22</del> <del>1.15</del> - <del>16.13</del>	<del>15.42</del> ( <del>10.7</del> <del>7.1</del> ) (5.26)	<del>2.8</del> <del>30.68</del> <del>1.4</del> - <del>15.36</del>
Breeding (full)	<del>5.74</del> ( <del>2.42</del> <del>8.9</del> ) (1.22)	<del>2.02</del> <del>10.77</del> <del>1.01</del> - <del>5.42</del>	<del>5.48</del> ( <del>2.44</del> <del>7.5</del> ) (1.21)	<del>1.83</del> <del>9.89</del> <del>0.92</del> - <del>4.98</del>	<del>5.34</del> ( <del>2.52</del> <del>6.8</del> ) (1.27)	<del>1.78</del> <del>10.29</del> <del>0.89</del> - <del>5.16</del>
Autumn migration	<del>20.39</del> <del>(26.14)</del> <del>10.19</del> (13.08)	<del>0.03</del> <del>84.50</del> <del>2</del> - <del>42.33</del>	<del>18.6</del> ( <del>22.24</del> <del>9.3</del> ) (11.11)	<del>0.09</del> <del>34.19</del> - <del>68.27</del>	<del>15.66</del> ( <del>18.87</del> <del>8.3</del> ) (9.41)	<del>0.19</del> <del>56.99</del> <del>1</del> - <del>28.54</del>
Winter	<del>16.35</del> ( <del>8.81</del> <del>8</del> ) (4.43)	<del>5.85</del> <del>30.85</del> <del>2.91</del> - <del>15.47</del>	<del>16.38</del> ( <del>9.07</del> <del>8.2</del> ) (4.57)	<del>6.18</del> <del>30.64</del> <del>3.08</del> - <del>15.36</del>	<del>15.23</del> ( <del>8.73</del> <del>7.63</del> ) (4.4)	<del>52.72</del> <del>14.48</del> - <del>28.84</del>

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Non-breeding	<del>20.39</del> (26.14, 10.19) (13.08)	0.03-84.50- 42.33	18.95 (18.18, 9.47) (9.08)	<del>4.23-</del> 50.76, 0.62- 25.35	16.95 (16.25, 8.48) (8.12)	0.87-44.04- 21.99

Table 69. DBS - East & West. Seasonal peak density (birds per square km) of Red-throated diver recorded in flight and on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0.01 (0.01)	0-0.04, 0.2
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0



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# Dogger Bank South Offshore Windfarm

## Ornithology Technical Appendix 12-6b Seabird peak seasonal densities: birds on the sea

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## 1 INTRODUCTION

This appendix provides tables of seabird peak densities in each species-specific season, as defined in Furness (2015)<sup>1</sup> for each species recorded during baseline surveys for the DBS East and West Offshore Wind Farm projects (March 2021 – February 2023).

Densities were estimated using design-based methods and are summarised as central estimate (i.e. extrapolated from the number seen in the surveyed area to the whole area) and 95% confidence range, derived from 1,000 nonparametric bootstrap samples.

Appendix (a) provides the combined peak density in each species-specific season on the water and in flight.

This appendix (b) provides the peak density in each species-specific season on the water.

Appendix (c) provides the peak density in each species-specific season in flight.

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<sup>1</sup> Furness, R.W. 2015. Non-breeding season populations of seabirds in UK waters: Population sizes for Biologically Defined Minimum Population Scales (BDMPS). Natural England Commissioned Report Number 164. 389 pp.

Table 1. DBS - East. Seasonal peak density (birds per square km) of Arctic skua recorded on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 2. DBS - East. Seasonal peak density (birds per square km) of Arctic tern recorded on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 3. DBS - East. Seasonal peak density (birds per square km) of Common gull recorded on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0.02 (0.04)	0-0.14	0.02 (0.03)	0-0.1	0.01 (0.02)	0-0.07

Table 4. DBS - East. Seasonal peak density (birds per square km) of Common tern recorded on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 5. DBS - East. Seasonal peak density (birds per square km) of Fulmar recorded on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.01 (0.02)	0-0.07	0.02 (0.02)	0-0.05	0.04 (0.03)	0-0.09
Breeding (full)	0.17 (0.18)	0-0.65	0.13 (0.13)	0-0.38	0.11 (0.12)	0-0.37
Autumn migration	0.18 (0.17)	0-0.53	0.3 (0.28)	0-0.77	0.4 (0.38)	0-0.97
Winter	0.04 (0.05)	0-0.15	0.02 (0.03)	0-0.1	0.05 (0.04)	0-0.13
Non-breeding	0.18 (0.17)	0-0.53	0.3 (0.28)	0-0.77	0.4 (0.38)	0-0.97

Table 6. DBS - East. Seasonal peak density (birds per square km) of Gannet recorded on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.17 (0.26)	0-0.93	0.11 (0.18)	0-0.65	0.08 (0.13)	0-0.48
Breeding (full)	1.51 (0.39)	0.82-2.37	1.25 (0.45)	0.6-2.32	1.54 (1)	0.52-3.97
Autumn migration	0.84 (0.63)	0.14-1.99	0.98 (0.71)	0.21-2.23	0.85 (0.53)	0.25-1.84
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0



Table 7. DBS - East. Seasonal peak density (birds per square km) of Great black-backed gull recorded on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.2 (0.13)	0.02-0.55	0.15 (0.09)	0.03-0.38	0.2 (0.08)	0.06-0.38
Breeding (full)	0.12 (0.14)	0-0.41	0.09 (0.1)	0-0.3	0.11 (0.12)	0-0.34
Autumn migration	0 (0)	0-0	0.04 (0.07)	0-0.25	0.03 (0.05)	0-0.18
Winter	0.01 (0.02)	0-0.07	0.02 (0.03)	0-0.1	0.03 (0.02)	0-0.08
Non-breeding	0.2 (0.13)	0.02-0.55	0.15 (0.09)	0.03-0.38	0.2 (0.08)	0.06-0.38

Table 8. DBS - East. Seasonal peak density (birds per square km) of Great skua recorded on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 9. DBS - East. Seasonal peak density (birds per square km) of Guillemot recorded on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	5.19 (3.61)	1.17-10.98	5.12 (2.08)	2.62-8.57	5.39 (2.49)	2.57-9.46
Breeding (full)	7.2 (2.62)	2.93-11.71	6.67 (2.4)	2.95-10.5	7.12 (0.82)	5.61-8.83
Post-breeding	11.54 (10.24)	1.85-32.2	10.47 (8.87)	1.78-27.26	10.78 (8.17)	2.3-25.21
Winter	14.83 (1.83)	11.61-18.71	14.22 (1.27)	11.57-16.65	13.61 (1.29)	11.03-15.78
Non-breeding	14.83 (1.83)	11.61-18.71	14.22 (1.27)	11.57-16.65	13.61 (1.29)	11.03-15.78

Table 10. DBS - East. Seasonal peak density (birds per square km) of Guillemot (including unidentified auks apportioned using identified auk ratios) recorded on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	7.96 (2.87)	4.18-13.02	7.94 (3.22)	4.06-13.29	8.09 (3.73)	3.86-14.21
Breeding (full)	13.87 (5.04)	5.64-22.55	12.9 (4.64)	5.72-20.32	12.46 (4.32)	5.82-19.21
Post-breeding	12.7 (11.27)	2.03-35.44	11.49 (9.72)	1.95-29.89	12.05 (9.14)	2.58-28.2
Winter	18.94 (2.34)	14.83-23.9	18.55 (1.66)	15.1-21.72	17.84 (1.69)	14.45-20.68
Non-breeding	18.94 (2.34)	14.83-23.9	18.55 (1.66)	15.1-21.72	17.84 (1.69)	14.45-20.68

Table 11. DBS - East. Seasonal peak density (birds per square km) of Guillemot (including unidentified auks apportioned using identified auk ratios and accounting for availability bias) recorded on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	10.44 (3.76)	5.48-17.08	10.42 (4.23)	5.33-17.44	10.61 (4.9)	5.05-18.62
Breeding (full)	18.19 (6.6)	7.39-29.56	16.91 (6.08)	7.5-26.64	16.34 (5.66)	7.63-25.18
Post-breeding	16.65 (14.77)	2.67-46.46	15.06 (12.75)	2.56-39.19	15.8 (11.98)	3.38-36.96
Winter	24.83 (3.06)	19.45-31.34	24.32 (2.18)	19.79-28.48	23.39 (2.21)	18.95-27.11
Non-breeding	24.83 (3.06)	19.45-31.34	24.32 (2.18)	19.79-28.48	23.39 (2.21)	18.95-27.11

Table 12. DBS - East. Seasonal peak density (birds per square km) of Herring gull recorded on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.01 (0.02)	0-0.07	0.01 (0.01)	0-0.05	0.01 (0.01)	0-0.04
Breeding (full)	0.04 (0.04)	0-0.14	0.03 (0.04)	0-0.12	0.02 (0.03)	0-0.08
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0.01 (0.02)	0-0.07	0.01 (0.01)	0-0.05	0.01 (0.01)	0-0.04

Table 13. DBS - East. Seasonal peak density (birds per square km) of Kittiwake recorded on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	1.44 (0.71)	0.65-3.24	1.44 (0.51)	0.69-2.7	1.6 (0.66)	0.8-3.1
Breeding (full)	11.97 (5.01)	4.26-21.18	10.32 (3.69)	4.28-17.04	9.13 (2.73)	4.6-13.67
Autumn migration	2.14 (2.12)	0.07-6.34	2.22 (2.2)	0.07-6.33	3.92 (4.08)	0.06-11.77
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	2.14 (2.12)	0.07-6.34	2.22 (2.2)	0.07-6.33	3.92 (4.08)	0.06-11.77

Table 14. DBS - East. Seasonal peak density (birds per square km) of Lesser black-backed gull recorded on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.01 (0.02)	0-0.07	0.01 (0.01)	0-0.05	0.01 (0.01)	0-0.04
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0.01 (0.01)	0-0.04
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0.01 (0.02)	0-0.07	0.01 (0.01)	0-0.05	0.01 (0.01)	0-0.04

Table 15. DBS - East. Seasonal peak density (birds per square km) of Little gull recorded on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0.13 (0.22)	0-0.79	0.13 (0.19)	0-0.65

Table 16. DBS - East. Seasonal peak density (birds per square km) of Manx shearwater recorded on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 17. DBS - East. Seasonal peak density (birds per square km) of Puffin recorded on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.05 (0.06)	0-0.17	0.05 (0.05)	0-0.15	0.07 (0.07)	0-0.21
Breeding (full)	0.12 (0.13)	0-0.33	0.11 (0.11)	0-0.31	0.1 (0.11)	0-0.29
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0.27 (0.27)	0-0.78	0.26 (0.24)	0-0.67	0.27 (0.24)	0.01-0.66
Non-breeding	0.27 (0.27)	0-0.78	0.26 (0.24)	0-0.67	0.27 (0.24)	0.01-0.66

Table 18. DBS - East. Seasonal peak density (birds per square km) of Puffin (including unidentified auks apportioned using identified auk ratios) recorded on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.05 (0.06)	0-0.17	0.05 (0.05)	0-0.15	0.07 (0.07)	0-0.21
Breeding (full)	0.12 (0.13)	0-0.33	0.11 (0.11)	0-0.31	0.1 (0.11)	0-0.29
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0.3 (0.3)	0-0.85	0.3 (0.28)	0-0.77	0.31 (0.28)	0.01-0.76
Non-breeding	0.3 (0.3)	0-0.85	0.3 (0.28)	0-0.77	0.31 (0.28)	0.01-0.76

Table 19. DBS - East. Seasonal peak density (birds per square km) of Puffin (including unidentified auks apportioned using identified auk ratios and accounting for availability bias) recorded on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.06 (0.07)	0-0.21	0.06 (0.06)	0-0.17	0.08 (0.09)	0-0.24
Breeding (full)	0.14 (0.15)	0-0.4	0.12 (0.13)	0-0.36	0.12 (0.13)	0-0.34
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0.35 (0.35)	0-0.99	0.35 (0.33)	0-0.9	0.36 (0.32)	0.02-0.88
Non-breeding	0.35 (0.35)	0-0.99	0.35 (0.33)	0-0.9	0.36 (0.32)	0.02-0.88

Table 20. DBS - East. Seasonal peak density (birds per square km) of Razorbill recorded on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	3.03 (1.87)	0.51-6.35	3.12 (1.89)	0.46-6.16	3.05 (1.85)	0.56-5.65
Breeding (full)	0.53 (0.18)	0.24-0.93	0.57 (0.25)	0.18-1.11	0.82 (0.5)	0.24-1.99
Autumn migration	7.72 (8.4)	0-24.57	7.17 (7.72)	0.08-21.31	6.18 (6.56)	0.05-17.8
Winter	4.52 (0.71)	3.17-5.88	4.25 (0.6)	3.21-5.44	3.97 (0.57)	2.98-5.14
Non-breeding	7.72 (8.4)	0-24.57	7.17 (7.72)	0.08-21.31	6.18 (6.56)	0.05-17.8

Table 21. DBS - East. Seasonal peak density (birds per square km) of Razorbill (including unidentified auks apportioned using identified auk ratios) recorded on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	5.59 (3.44)	0.94-11.69	5.72 (3.46)	0.85-11.31	5.62 (3.41)	1.03-10.42
Breeding (full)	0.76 (0.34)	0.21-1.49	0.87 (0.38)	0.27-1.69	1.24 (0.76)	0.36-3.01
Autumn migration	8.25 (8.99)	0-26.28	7.59 (8.18)	0.09-22.58	6.56 (6.96)	0.05-18.91
Winter	5.7 (0.9)	3.99-7.41	5.45 (0.77)	4.11-6.98	5.09 (0.74)	3.82-6.59
Non-breeding	8.25 (8.99)	0-26.28	7.59 (8.18)	0.09-22.58	6.56 (6.96)	0.05-18.91

Table 22. DBS - East. Seasonal peak density (birds per square km) of Razorbill (including unidentified auks apportioned using identified auk ratios and accounting for availability bias) recorded on the sea, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	6.77 (4.17)	1.13-14.16	6.93 (4.19)	1.03-13.69	6.8 (4.13)	1.25-12.62
Breeding (full)	0.93 (0.41)	0.26-1.82	1.05 (0.46)	0.33-2.04	1.5 (0.91)	0.44-3.63
Autumn migration	9.99 (10.89)	0-31.82	9.19 (9.9)	0.11-27.33	7.95 (8.43)	0.06-22.9
Winter	6.89 (1.08)	4.83-8.96	6.6 (0.94)	4.98-8.46	6.17 (0.89)	4.63-7.99
Non-breeding	9.99 (10.89)	0-31.82	9.19 (9.9)	0.11-27.33	7.95 (8.43)	0.06-22.9



Table 23. DBS - West. Seasonal peak density (birds per square km) of Arctic skua recorded on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 24. DBS - West. Seasonal peak density (birds per square km) of Arctic tern recorded on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 25. DBS - West. Seasonal peak density (birds per square km) of Common gull recorded on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0.05 (0.07)	0-0.24	0.04 (0.05)	0-0.16	0.03 (0.04)	0-0.12

Table 26. DBS - West. Seasonal peak density (birds per square km) of Common tern recorded on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 27. DBS - West. Seasonal peak density (birds per square km) of Fulmar recorded on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0.07 (0.09)	0-0.29
Breeding (full)	0.41 (0.36)	0.02-1.11	0.44 (0.37)	0.03-0.98	0.4 (0.35)	0.04-0.88
Autumn migration	0.1 (0.07)	0-0.24	0.07 (0.05)	0-0.18	0.06 (0.04)	0.01-0.13
Winter	0.04 (0.05)	0-0.17	0.1 (0.11)	0-0.34	0.1 (0.11)	0-0.31
Non-breeding	0.1 (0.07)	0-0.24	0.1 (0.11)	0-0.34	0.1 (0.11)	0-0.31

Table 28. DBS - West. Seasonal peak density (birds per square km) of Gannet recorded on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.11 (0.12)	0-0.31	0.07 (0.08)	0-0.23	0.12 (0.13)	0-0.38
Breeding (full)	0.65 (0.23)	0.31-1.16	0.58 (0.16)	0.31-0.91	0.48 (0.11)	0.28-0.73
Autumn migration	1.12 (0.82)	0.17-2.58	0.98 (0.75)	0.1-2.1	0.81 (0.61)	0.1-1.72
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 29. DBS - West. Seasonal peak density (birds per square km) of Great black-backed gull recorded on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.05 (0.06)	0-0.19	0.08 (0.08)	0-0.31	0.08 (0.06)	0-0.23
Breeding (full)	0.02 (0.04)	0-0.14	0.02 (0.03)	0-0.1	0.01 (0.02)	0-0.07
Autumn migration	0.04 (0.05)	0-0.17	0.08 (0.12)	0-0.39	0.06 (0.08)	0-0.28
Winter	0.08 (0.08)	0-0.29	0.07 (0.06)	0-0.21	0.05 (0.04)	0-0.16
Non-breeding	0.08 (0.08)	0-0.29	0.08 (0.12)	0-0.39	0.08 (0.06)	0-0.23

Table 30. DBS - West. Seasonal peak density (birds per square km) of Great northern diver recorded on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0.01 (0.01)	0-0.04
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0.01 (0.01)	0-0.04

Table 31. DBS - West. Seasonal peak density (birds per square km) of Great skua recorded on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 32. DBS - West. Seasonal peak density (birds per square km) of Guillemot recorded on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	11.98 (9.5)	1.95-26.16	11.21 (8.65)	1.93-23.25	10.99 (8)	2.53-21.85
Breeding (full)	8.93 (1.64)	5.58-12.55	9 (1.48)	6.01-12.49	8.67 (1.25)	5.87-11.15
Post-breeding	19.61 (17.93)	2.15-50.13	17.08 (15.23)	2.33-42.48	17.07 (14.95)	2.6-44.25
Winter	7.06 (0.99)	5.08-8.92	6.93 (0.81)	5.36-8.54	7.1 (0.77)	5.6-8.62
Non-breeding	11.98 (9.5)	1.95-26.16	11.21 (8.65)	1.93-23.25	10.99 (8)	2.53-21.85

Table 33. DBS - West. Seasonal peak density (birds per square km) of Guillemot (including unidentified auks apportioned using identified auk ratios) recorded on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	15.09 (11.97)	2.46-32.94	14.36 (11.08)	2.47-29.77	14.18 (10.33)	3.26-28.21
Breeding (full)	12.91 (3.76)	7.37-19.84	12.56 (3.08)	7.62-18.49	11.89 (2.26)	7.69-15.98
Post-breeding	20.54 (18.78)	2.25-52.5	18.37 (16.38)	2.51-45.67	18.38 (16.1)	2.79-47.65
Winter	8.95 (1.25)	6.45-11.31	8.93 (1.05)	6.9-11	9.28 (1.01)	7.32-11.26
Non-breeding	15.09 (11.97)	2.46-32.94	14.36 (11.08)	2.47-29.77	14.18 (10.33)	3.26-28.21

Table 34. DBS - West. Seasonal peak density (birds per square km) of Guillemot (including unidentified auks apportioned using identified auk ratios and accounting for availability bias) recorded on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	19.78 (15.68)	3.22-43.17	18.82 (14.52)	3.24-39.03	18.6 (13.54)	4.28-36.98
Breeding (full)	16.93 (4.93)	9.66-26.01	16.47 (4.04)	9.99-24.24	15.58 (2.96)	10.08-20.95
Post-breeding	26.92 (24.61)	2.95-68.81	24.08 (21.47)	3.29-59.88	24.1 (21.11)	3.66-62.48
Winter	11.75 (1.64)	8.46-14.84	11.7 (1.37)	9.05-14.42	12.16 (1.32)	9.6-14.76
Non-breeding	19.78 (15.68)	3.22-43.17	18.82 (14.52)	3.24-39.03	18.6 (13.54)	4.28-36.98

Table 35. DBS - West. Seasonal peak density (birds per square km) of Herring gull recorded on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0.01 (0.01)	0-0.04
Breeding (full)	0.01 (0.02)	0-0.07	0.01 (0.01)	0-0.05	0.01 (0.01)	0-0.04
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0.01 (0.01)	0-0.04

Table 36. DBS - West. Seasonal peak density (birds per square km) of Kittiwake recorded on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	2.45 (2.69)	0.12-8.41	1.87 (1.86)	0.14-5.99	1.67 (0.94)	0.49-3.6
Breeding (full)	7.33 (9.11)	0-28.45	6.86 (8.01)	0-25.1	5.61 (6.48)	0-19.24
Autumn migration	9.17 (13.26)	0.1-44.4	7.77 (10.88)	0.05-36.17	5.85 (7.99)	0.18-26.42
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	9.17 (13.26)	0.1-44.4	7.77 (10.88)	0.05-36.17	5.85 (7.99)	0.18-26.42

Table 37. DBS - West. Seasonal peak density (birds per square km) of Lesser black-backed gull recorded on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0.02 (0.04)	0-0.15	0.02 (0.03)	0-0.11
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 38. DBS - West. Seasonal peak density (birds per square km) of Little gull recorded on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0.01 (0.02)	0-0.07	0.01 (0.01)	0-0.05	0.01 (0.01)	0-0.04



Table 39. DBS - West. Seasonal peak density (birds per square km) of Puffin recorded on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.08 (0.09)	0-0.27	0.07 (0.07)	0-0.2	0.06 (0.06)	0-0.17
Breeding (full)	0.2 (0.2)	0-0.5	0.18 (0.18)	0-0.42	0.17 (0.18)	0-0.42
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0.24 (0.19)	0.02-0.62	0.31 (0.17)	0.05-0.62	0.31 (0.18)	0.06-0.62
Non-breeding	0.24 (0.19)	0.02-0.62	0.31 (0.17)	0.05-0.62	0.31 (0.18)	0.06-0.62

Table 40. DBS - West. Seasonal peak density (birds per square km) of Puffin (including unidentified auks apportioned using identified auk ratios) recorded on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.08 (0.09)	0-0.27	0.07 (0.07)	0-0.2	0.06 (0.06)	0-0.17
Breeding (full)	0.2 (0.2)	0-0.5	0.18 (0.18)	0-0.42	0.17 (0.18)	0-0.42
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0.25 (0.2)	0.03-0.65	0.32 (0.18)	0.05-0.65	0.33 (0.19)	0.06-0.66
Non-breeding	0.25 (0.2)	0.03-0.65	0.32 (0.18)	0.05-0.65	0.33 (0.19)	0.06-0.66

Table 41. DBS - West. Seasonal peak density (birds per square km) of Puffin (including unidentified auks apportioned using identified auk ratios and accounting for availability bias) recorded on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.1 (0.11)	0-0.3	0.08 (0.08)	0-0.23	0.07 (0.08)	0-0.2
Breeding (full)	0.24 (0.24)	0-0.58	0.21 (0.22)	0-0.5	0.2 (0.21)	0-0.49
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0.29 (0.23)	0.03-0.74	0.38 (0.21)	0.06-0.76	0.38 (0.22)	0.07-0.76
Non-breeding	0.29 (0.23)	0.03-0.74	0.38 (0.21)	0.06-0.76	0.38 (0.22)	0.07-0.76

Table 42. DBS - West. Seasonal peak density (birds per square km) of Razorbill recorded on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	5.45 (4.59)	0.59-12.76	5.21 (3.89)	0.75-11.09	5.23 (3.81)	0.93-10.95
Breeding (full)	2.42 (1.23)	0.64-4.9	2.22 (1.14)	0.63-4.15	1.9 (0.96)	0.5-3.56
Autumn migration	7.13 (10.27)	0.02-35.1	5.86 (7.92)	0.05-25.09	4.84 (6.36)	0.06-21.45
Winter	6.09 (5.03)	0.67-14.29	6.24 (5.23)	0.74-14.07	5.83 (5.05)	0.52-13.65
Non-breeding	7.13 (10.27)	0.02-35.1	6.24 (5.23)	0.74-14.07	5.83 (5.05)	0.52-13.65

Table 43. DBS - West. Seasonal peak density (birds per square km) of Razorbill (including unidentified auks apportioned using identified auk ratios) recorded on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	7.09 (5.97)	0.77-16.59	7.03 (5.25)	1.01-14.98	7.01 (5.1)	1.24-14.67
Breeding (full)	3.78 (1.92)	1-7.65	3.51 (1.79)	0.99-6.54	3.04 (1.54)	0.8-5.7
Autumn migration	8.55 (12.32)	0.03-42.11	7.71 (10.41)	0.06-33	6.31 (8.29)	0.08-27.96
Winter	7.72 (6.38)	0.86-18.14	8.04 (6.73)	0.95-18.1	7.41 (6.42)	0.66-17.36
Non-breeding	8.55 (12.32)	0.03-42.11	8.04 (6.73)	0.95-18.1	7.41 (6.42)	0.66-17.36

Table 44. DBS - West. Seasonal peak density (birds per square km) of Razorbill (including unidentified auks apportioned using identified auk ratios and accounting for availability bias) recorded on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	8.59 (7.23)	0.93-20.1	8.51 (6.36)	1.23-18.13	8.49 (6.18)	1.51-17.77
Breeding (full)	4.58 (2.33)	1.21-9.28	4.26 (2.17)	1.2-7.93	3.67 (1.87)	0.96-6.9
Autumn migration	10.35 (14.93)	0.03-51.01	9.33 (12.61)	0.08-39.96	7.64 (10.04)	0.1-33.86
Winter	9.35 (7.73)	1.04-21.96	9.73 (8.15)	1.15-21.91	8.98 (7.77)	0.8-21.02
Non-breeding	10.35 (14.93)	0.03-51.01	9.73 (8.15)	1.15-21.91	8.98 (7.77)	0.8-21.02

Table 45. DBS - West. Seasonal peak density (birds per square km) of Red-throated diver recorded on the sea, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0.01 (0.01)	0-0.04
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 46. DBS - East & West. Seasonal peak density (birds per square km) of Arctic skua recorded on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 47. DBS - East & West. Seasonal peak density (birds per square km) of Arctic tern recorded on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 48. DBS - East & West. Seasonal peak density (birds per square km) of Common gull recorded on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0.0704 (0.4406)	0-0.3819	0.0603 (0.0804)	0-0.2613	0.0402 (0.0603)	0-0.4909

Table 49. DBS - East & West. Seasonal peak density (birds per square km) of Common tern recorded on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 50. DBS - East & West. Seasonal peak density (birds per square km) of Fulmar recorded on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	<del>0.04</del> (0.0201)	0-0.0703	0.0201 (0.0201)	0-0.0502	0.4406 (0.4206)	0-0.3819
Breeding (full)	0.5829 (0.5427)	<del>0.02-1.7601-0.88</del>	0.5728 (0.525)	<del>0.03-1.3602-0.68</del>	0.5425 (0.4724)	<del>0.04-1.2502-0.62</del>
Autumn migration	0.2814 (0.2412)	0-0.7738	0.3719 (0.3317)	0-0.9547	0.4623 (0.4221)	0.01-1.40.55
Winter	0.0804 (0.405)	0-0.3216	0.4206 (0.4407)	0-0.4422	0.4507 (0.4508)	0-0.4422
Non-breeding	0.2814 (0.2412)	0-0.7738	0.42 (0.392)	0-1.40.55	0.525 (0.4925)	0-1.280.64

Table 51. DBS - East & West. Seasonal peak density (birds per square km) of Gannet recorded on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.2814 (0.3819)	0-1.240.62	0.1809 (0.2613)	0-0.8844	0.21 (0.2613)	0-0.8643
Breeding (full)	2.161.08 (0.6231)	0.57-1.43- 3-5376	1.83(0.6+91 (0.3)	0.91-3.2346- 1.61	2.02(1.44(0.56)	0.8-4.7-2.34
Autumn migration	1.96(1.450.98 (0.72)	0.31-4.5716- 2.29	1.96(1.460.98 (0.73)	0.31-4.3315- 2.16	1.66(1.140.83 (0.57)	0.35-3.5617- 1.78
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 52. DBS - East & West. Seasonal peak density (birds per square km) of Great black-backed gull recorded on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.2513 (0.1909)	0.0201- 0.7437	0.2311 (0.1708)	0.0301- 0.6935	0.2814 (0.1407)	0.0603- 0.6131
Breeding (full)	0.1407 (0.1809)	0-0.5527	0.1105 (0.1307)	0-0.42	0.1206 (0.1407)	0-0.4121
Autumn migration	0.0402 (0.0503)	0-0.1709	0.1206 (0.1909)	0-0.6432	0.0904 (0.1306)	0-0.4623
Winter	0.0904 (0.105)	0-0.3618	0.0905 (0.0904)	0-0.3116	0.0804 (0.0603)	0-0.2412
Non-breeding	0.2814 (0.21)	0.0201- 0.8442	0.2311 (0.21)	0.0301- 0.7739	0.2814 (0.1407)	0.0603- 0.6131

Table 53. DBS - East & West. Seasonal peak density (birds per square km) of Great northern diver recorded on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0.01 (0.01)	0-0.0402
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0.01 (0.01)	0-0.0402

Table 54. DBS - East & West. Seasonal peak density (birds per square km) of Great skua recorded on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0



Table 55. DBS - East & West. Seasonal peak density (birds per square km) of Guillemot recorded on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	<del>30.22 (19.44) 8.61</del> (6.58)	<del>8.7- 60.25 1.56-</del> 18.64	<del>29.24 (18.75) 8.2</del> (5.39)	<del>8.57- 56.47 2.27-</del> 15.98	<del>29.21 (18.44) 8.22</del> (5.27)	<del>9.33 2.55-6-</del> 15.72
Breeding (full)	<del>35.12 (11.53) 8.07</del> (2.13)	<del>17.05- 55.57 4.26-</del> 12.14	<del>33.38 (10.12) 7.85</del> (1.94)	<del>17.4.49- 50.88 11.5</del>	<del>31.92 (8.62) 7.9</del> (1.04)	<del>17.71- 46.13 5.74-10</del>
Post-breeding	<del>43.57 (39.38) 15.6</del> (14.12)	<del>5.62 115.27 2-</del> 41.24	<del>39.14 (34.22) 13.81</del> (12.08)	<del>5.85- 99.07 2.06-</del> 34.94	<del>39.9 (33.09) 13.95</del> (11.59)	<del>7.04- 99.44 2.45-</del> 34.82
Winter	<del>36.58 (4.71) 0.92</del> (1.41)	<del>27.91- 46.18 8.32-</del> 13.78	<del>36.02 (310.55</del> (1.04)	<del>28.84- 42.98.43-</del> 12.56	<del>35.55 (3.53) 10.32</del> (1.03)	<del>28.55- 41.87 8.29-</del> 12.17
Non-breeding	<del>44.61 (18.74) 13.4</del> (5.7)	<del>6.74 22.67-</del> 74.51 47	<del>43.14 (16.71) 2.71</del> (4.99)	<del>23.03- 67.51 6.7-</del> 19.98	<del>41.99 (15.75) 12.29</del> (4.68)	<del>23.23- 64.09 6.74-</del> 18.85

Table 56. DBS - East & West. Seasonal peak density (birds per square km) of Guillemot (including unidentified auks apportioned using identified auk ratios) recorded on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	<del>30.22 (19.44) 11.56</del> (7.45)	<del>8.7- 60.25 3.31-</del> 23.06	<del>29.24 (18.75) 11.17</del> (7.19)	<del>8.57- 56.47 3.26-</del> 21.61	<del>29.21 (18.44) 11.17</del> (7.06)	<del>9.33 3.55-6-</del> 21.27
Breeding (full)	<del>35.12 (11.53) 13.39</del> (4.4)	<del>17.05- 55.57 6.51-</del> 21.18	<del>33.38 (10.12) 7.3</del> (3.85)	<del>17.49- 50.88 6.67-</del> 19.4	<del>31.92 (8.62) 12.17</del> (3.28)	<del>6.76-17.71- 46.13 58</del>
Post-breeding	<del>43.57 (39.38) 16.65</del> (15.06)	<del>5.62- 115.27 2.14-</del> 44.04	<del>39.14 (34.22) 9.6</del> (13.08)	<del>52.24 37.85-</del> 99.07	<del>39.9 (33.09) 15.24</del> (12.65)	<del>7.04- 99.44 2.69-</del> 38.01
Winter	<del>36.58 (4.71) 3.9</del> (1.79)	<del>27.91- 46.18 10.61-</del> 17.55	<del>36.02 (3.55) 3.7</del> (1.35)	<del>28.84- 42.91 0.96-</del> 16.31	<del>13.52 (1.35) 55</del> (3.53)	<del>28.55- 41.87 10.85-</del> 15.92

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Non-breeding	<del>44.61</del> (18.74) (7.19)	<del>22.67</del> 74.54 8.6- 28.45	<del>43.14</del> (16.74) (6.41)	<del>23.03</del> 67.54 8.73- 25.78	<del>41.99</del> (15.75) 16 (6.05)	<del>23.23</del> 64.09 8.8- 24.47

Table 57. DBS - East & West. Seasonal peak density (birds per square km) of Guillemot (including unidentified auks apportioned using identified auk ratios and accounting for availability bias) recorded on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	<del>30.22</del> (19.44)15.15 (9.76)	<del>8.7</del> 60.254.34- 30.23	<del>29.24</del> (18.75)14.65 (9.43)	<del>8.57</del> 56.474.27- 28.33	<del>29.24</del> (18.44)14.65 (9.26)	<del>9.33</del> 55.64.66- 27.88
Breeding (full)	<del>35.12</del> (11.53)17.55 (5.75)	<del>17.05</del> 55.578.54- 27.77	<del>33.38</del> (10.12)16.69 (5.05)	<del>17.49</del> 50.888.76- 25.43	<del>31.92</del> (8.62)15.95 (4.29)	<del>17.71</del> 46.138.87- 23.04
Post-breeding	<del>43.57</del> (39.38)21.83 (19.73)	<del>5.62</del> 115.272.81- 57.72	<del>39.14</del> (34.22)19.61 (17.15)	<del>5.85</del> 99.072.93- 49.63	<del>39.9</del> (33.09)19.99 (16.58)	<del>7.04</del> 99.443.52- 49.84
Winter	<del>36.58</del> (4.71)8.24 (2.35)	<del>2713.91</del> 46.1823.02	<del>36.02</del> (3.55)17.95 (1.77)	<del>28.84</del> 42.914.38- 21.38	<del>35.55</del> (3.53)17.73 (1.76)	<del>28.55</del> 41.8714.23- 20.88
Non-breeding	<del>44.64</del> (18.74)22.29 (9.42)	<del>22.67</del> 74.5111.27- 37.3	<del>43.14</del> (16.72)1.54 (8.41)	<del>23.03</del> 67.5111.44- 33.8	<del>41.99</del> (15.75)20.98 (7.92)	<del>23.23</del> 6411.55- 32.09

Table 58. DBS - East & West. Seasonal peak density (birds per square km) of Herring gull recorded on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.04 (0.02)01	0-0.0703	0.04 (0.04)	0-0.0502	0.0201 (0.02)01	0-0.0804
Breeding (full)	0.0503 (0.06)03	0-0.2411	0.0402 (0.05)03	0-0.1709	0.0302 (0.04)02	0-0.1206
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0.04 (0.02)01	0-0.0703	0.04 (0.04)	0-0.0502	0.0201 (0.02)01	0-0.0804

Table 59. DBS - East & West. Seasonal peak density (birds per square km) of Kittiwake recorded on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	<del>3.89</del> (3.41-9.94) (1.71)	<del>0.77</del> 41.65-38-5.85	<del>3.31</del> (2.37-1.65) (1.19)	<del>0.83</del> 8.69-41- 4.36	<del>3.27</del> (1.66-3.0.8)	<del>4.29</del> 6.70-65-3.36
Breeding (full)	<del>19.3</del> (14.12-9.63) (7.07)	<del>4.26</del> 49.63-2.11- 24.84	<del>17.18</del> (11.78-5.57) (5.87)	<del>4.28</del> 42.14-2.12- 21.1	<del>14.74</del> (9.24-7.35) (4.62)	<del>4.6</del> 32.9+2.28- 16.48
Autumn migration	<del>11.31</del> (15.38-5.68) (7.73)	<del>0.17</del> 50.74-08- 25.52	<del>9.99</del> (13.08-5.02) (6.58)	<del>0.12</del> 42.506- 21.39	<del>9.77</del> (12.07-4.89) (6.05)	<del>0.24</del> 38.12- 19.16
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	<del>11.31</del> (15.38-5.68) (7.73)	<del>0.17</del> 50.74-08- 25.52	<del>9.99</del> (13.08-5.02) (6.58)	<del>0.12</del> 42.506- 21.39	<del>9.77</del> (12.07-4.89) (6.05)	<del>0.24</del> 38.12- 19.16

Table 60. DBS - East & West. Seasonal peak density (birds per square km) of Lesser black-backed gull recorded on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	<del>0.04</del> (0.02-0.1)	0-0.0703	<del>0.04</del> (0.04)	0-0.0502	<del>0.04</del> (0.04)	0-0.0402
Breeding (full)	0 (0)	0-0	<del>0.0201</del> (0.0402)	0-0.1508	<del>0.0301</del> (0.0402)	0-0.1508
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	<del>0.04</del> (0.02-0.1)	0-0.0703	<del>0.04</del> (0.04)	0-0.0502	<del>0.04</del> (0.04)	0-0.0402

Table 61. DBS - East & West. Seasonal peak density (birds per square km) of Little gull recorded on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0.01 (0. <del>02</del> 01)	0-0. <del>07</del> 04	0. <del>44</del> 07 (0. <del>23</del> 12)	0-0. <del>84</del> 42	0. <del>44</del> 07 (0. <del>21</del> )	0-0. <del>69</del> 34

Table 62. DBS - East & West. Seasonal peak density (birds per square km) of Manx shearwater recorded on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 63. DBS - East & West. Seasonal peak density (birds per square km) of Puffin recorded on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.4606 (0.4808)	0-0.5422	0.4406 (0.4406)	0-0.417	0.4506 (0.4706)	0-0.4419
Breeding (full)	0.3816 (0.3916)	0-0.9841	0.3314 (0.3514)	0-0.8636	0.3214 (0.3414)	0-0.8335
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0.6425 (0.5823)	0.0347301-0.7	0.7329 (0.5421)	0.06466603-0.64	0.7429 (0.5421)	0.09403-0.64
Non-breeding	0.6425 (0.5823)	0.0347301-0.7	0.7329 (0.5421)	0.06466603-0.64	0.7429 (0.5421)	0.09403-0.64

Table 64. DBS - East & West. Seasonal peak density (birds per square km) of Puffin (including unidentified auks apportioned using identified auk ratios) recorded on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.4606 (0.4808)	0-0.5422	0.4406 (0.4406)	0-0.417	0.4506 (0.4706)	0-0.4419
Breeding (full)	0.3816 (0.3916)	0-0.9841	0.3314 (0.3514)	0-0.8636	0.3214 (0.3414)	0-0.8335
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0.6428 (0.5825)	0.0347302-0.75	0.7331 (0.5423)	0.06466603-0.71	0.7432 (0.5424)	0.0946403-0.71
Non-breeding	0.6428 (0.5825)	0.0347302-0.75	0.7331 (0.5423)	0.06466603-0.71	0.7432 (0.5424)	0.0946403-0.71

Table 65. DBS - East & West. Seasonal peak density (birds per square km) of Puffin (including unidentified auks apportioned using identified auk ratios and accounting for availability bias) recorded on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.4608 (0.4809)	0-0.5425	0.4407 (0.4407)	0-0.42	0.4508 (0.4708)	0-0.4422
Breeding (full)	0.3819 (0.3919)	0-0.9849	0.3317 (0.3517)	0-0.8643	0.3216 (0.3417)	0-0.8342
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0.6432 (0.5829)	0.03-1.7302- 0.86	0.7336 (0.5427)	0.06-1.6603- 0.83	0.7437 (0.5427)	0.09-1.6405- 0.82
Non-breeding	0.6432 (0.5829)	0.03-1.7302- 0.86	0.7336 (0.5427)	0.06-1.6603- 0.83	0.7437 (0.5427)	0.09-1.6405- 0.82

Table 66. DBS - East & West. Seasonal peak density (birds per square km) of Razorbill recorded on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	45.36 (11.4.25 (3.24)	2.06- 34.260.55- 9.58	45.44 (10.554.18 (2.9)	2.26- 34.820.61- 8.64	4.15-29 (10.34 (2.84)	2.76- 30.390.75- 8.33
Breeding (full)	5.51 (2.741.48 (0.71)	1.47- 11.40.44-2.93	5.31 (2.631.4 (0.7)	1.53- 9.970.41- 2.64	5.17 (2.781.37 (0.73)	1.4- 10.530.37- 2.79
Autumn migration	20.34 (25.827.42 (9.35)	0.03- 82.8301- 29.88	18.52 (226.51 (7.83)	0.19- 67.2907- 23.22	15.59 (18.475.5 (6.46)	0.16- 56.7605- 19.64
Winter	46.24 (8.845.31 (2.89)	5.87- 30.921.91- 10.12	46.33 (9.095.26 (2.94)	6.13- 30.371.96- 9.8	15.15 (8.664.91 (2.83)	5.43- 29.041.74- 9.44
Non-breeding	20.34 (25.827.42 (9.35)	0.03- 82.8301- 29.88	18.92 (18.056.7 (6.47)	1.26- 49.240.41- 17.66	16.93 (16.26 (5.8)	0.86- 43.9228- 15.71

Table 67. DBS - East & West. Seasonal peak density (birds per square km) of Razorbill (including unidentified auks apportioned using identified auk ratios) recorded on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	15.36 (11.6, 34) (4.72)	2.06- 34.26 0.86- 14.16	15.44 (10.5, 56.38) (4.36)	2.26- 31.82 0.93- 13.16	15.29 (10.3, 16.32) (4.26)	2.76- 30.39 1.14- 12.56
Breeding (full)	5.51 (2.7, 4.29) (1.14)	1.47-11.10 0.6- 4.6	5.31 (2.6, 3.2) (1.09)	1.53- 9.97 0.63- 4.14	5.17 (2.7, 8.14) (1.16)	1.05-8.4- 10.53 0.37
Autumn migration	20.34 (25.8, 28.4) (10.67)	0.03- 82.83 0.2- 34.25	18.52 (22.5, 17.65) (9.3)	0.19- 67.29 0.7- 27.84	15.59 (18.4, 76.43) (7.63)	0.16- 56.76 0.6- 23.48
Winter	16.24 (8.8, 16.72) (3.67)	5.87- 30.92 2.41- 12.82	16.33 (9.0, 96.76) (3.78)	6.13- 30.37 2.52- 12.59	15.15 (8.6, 66.26) (3.61)	5.43- 29.04 2.22- 12.02
Non-breeding	20.34 (25.8, 28.4) (10.67)	0.03- 82.83 0.2- 34.25	18.92 (18.0, 57.82) (7.45)	1.26- 49.24 0.52- 20.32	16.93 (16.2, 6.99) (6.69)	0.86- 43.92 35- 18.13

Table 68. DBS - East & West. Seasonal peak density (birds per square km) of Razorbill (including unidentified auks apportioned using identified auk ratios and accounting for availability bias) recorded on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	15.36 (11.4, 7.69) (5.71)	2.06- 34.26 1.03- 17.15	15.44 (10.5, 57.22) (5.29)	2.26- 31.82 1.13- 15.93	15.29 (10.3, 17.65) (5.17)	2.76- 30.39 1.38- 15.22
Breeding (full)	5.51 (2.7, 4.77) (1.37)	1.47- 11.10 0.74-5.58	5.31 (2.6, 3.67) (1.32)	1.53- 9.97 0.77- 5.01	5.17 (2.7, 8.59) (1.39)	1.4-10.53 0.7- 5.28
Autumn migration	20.34 (25.8, 10.17) (12.92)	0.03- 82.83 0.2- 41.49	18.52 (22.5, 19.26) (11.27)	0.19- 67.29 0.9- 33.7	15.59 (18.4, 77.8) (9.25)	0.16- 56.76 0.8- 28.43
Winter	16.24 (8.8, 11.3) (4.44)	5.87-30.2 0.92- 15.51	16.33 (9.0, 98.18) (4.58)	6.13- 30.37 3.05- 15.24	15.15 (8.6, 67.59) (4.36)	5.43- 29.04 2.69- 14.57



Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Non-breeding	<del>20.34</del> (25.82-10.17) (12.92)	<del>0.03-</del> <del>82.83</del> 02- 41.49	<del>18.92</del> (18.05-9.46) (9.02)	<del>1.26-</del> <del>49.06</del> 3- 24.59	<del>16.93</del> (16.28-8.47) (8.1)	<del>0.86-43.92-</del> <del>21.95</del>

Table 69. DBS - East & West. Seasonal peak density (birds per square km) of Red-throated diver recorded on the sea, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0.01 (0.01)	0-0.0402
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0



MacArthur  
Green

# Dogger Bank South Offshore Windfarm

## Ornithology Technical Appendix 12-6c Seabird peak seasonal densities: birds in flight

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## 1 INTRODUCTION

This appendix provides tables of seabird peak densities in each species-specific season, as defined in Furness (2015)<sup>1</sup> for each species recorded during baseline surveys for the DBS East and West Offshore Wind Farm projects (March 2021 – February 2023).

Densities were estimated using design-based methods and are summarised as central estimate (i.e. extrapolated from the number seen in the surveyed area to the whole area) and 95% confidence range, derived from 1,000 nonparametric bootstrap samples.

Appendix (a) provides the combined peak density in each species-specific season on the water and in flight.

Appendix (b) provides the peak density in each species-specific season on the water.

This appendix (c) provides the peak density in each species-specific season in flight.

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<sup>1</sup> Furness, R.W. 2015. Non-breeding season populations of seabirds in UK waters: Population sizes for Biologically Defined Minimum Population Scales (BDMPS). Natural England Commissioned Report Number 164. 389 pp.

Table 1. DBS - East. Seasonal peak density (birds per square km) of Arctic skua recorded in flight, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0.01 (0.02)	0-0.07	0.01 (0.01)	0-0.05	0.01 (0.01)	0-0.04
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0.01 (0.02)	0-0.07	0.01 (0.01)	0-0.05	0.01 (0.01)	0-0.04

Table 2. DBS - East. Seasonal peak density (birds per square km) of Arctic tern recorded in flight, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0.11 (0.12)	0-0.36	0.11 (0.11)	0-0.31	0.12 (0.13)	0-0.34
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 3. DBS - East. Seasonal peak density (birds per square km) of Common gull recorded in flight, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0.04 (0.03)	0-0.12	0.02 (0.04)	0-0.12	0.02 (0.02)	0-0.07

Table 4. DBS - East. Seasonal peak density (birds per square km) of Common tern recorded in flight, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0.01 (0.02)	0-0.07	0.02 (0.02)	0-0.07	0.01 (0.02)	0-0.06
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 5. DBS - East. Seasonal peak density (birds per square km) of Fulmar recorded in flight, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.05 (0.06)	0-0.16	0.05 (0.06)	0-0.18	0.05 (0.05)	0-0.15
Breeding (full)	0.16 (0.09)	0.02-0.36	0.16 (0.08)	0.03-0.33	0.11 (0.06)	0.02-0.24
Autumn migration	0.1 (0.06)	0-0.22	0.16 (0.18)	0-0.64	0.15 (0.16)	0-0.5
Winter	0.11 (0.12)	0-0.34	0.12 (0.13)	0-0.37	0.12 (0.11)	0-0.3
Non-breeding	0.11 (0.12)	0-0.34	0.16 (0.18)	0-0.64	0.15 (0.16)	0-0.5

Table 6. DBS - East. Seasonal peak density (birds per square km) of Gannet recorded in flight, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.04 (0.05)	0-0.14	0.03 (0.04)	0-0.13	0.05 (0.05)	0-0.15
Breeding (full)	0.6 (0.19)	0.31-1	0.64 (0.25)	0.29-1.11	0.72 (0.37)	0.29-1.35
Autumn migration	0.54 (0.23)	0.17-0.93	0.54 (0.15)	0.25-0.8	0.54 (0.14)	0.26-0.78
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0



Table 7. DBS - East. Seasonal peak density (birds per square km) of Great black-backed gull recorded in flight, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.06 (0.06)	0-0.22	0.06 (0.04)	0-0.17	0.05 (0.03)	0-0.13
Breeding (full)	0.02 (0.03)	0-0.1	0.02 (0.04)	0-0.12	0.02 (0.03)	0-0.1
Autumn migration	0.01 (0.02)	0-0.07	0.01 (0.02)	0-0.05	0.04 (0.02)	0-0.09
Winter	0 (0)	0-0	0.01 (0.01)	0-0.05	0.02 (0.03)	0-0.09
Non-breeding	0.06 (0.06)	0-0.22	0.06 (0.04)	0-0.17	0.05 (0.03)	0-0.13

Table 8. DBS - East. Seasonal peak density (birds per square km) of Great skua recorded in flight, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0.01 (0.01)	0-0.05	0.01 (0.01)	0-0.04
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0.01 (0.02)	0-0.07	0.01 (0.01)	0-0.05	0.01 (0.01)	0-0.04
Non-breeding	0.01 (0.02)	0-0.07	0.01 (0.01)	0-0.05	0.01 (0.01)	0-0.04

Table 9. DBS - East. Seasonal peak density (birds per square km) of Guillemot recorded in flight, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.19 (0.09)	0.02-0.38	0.2 (0.12)	0.02-0.43	0.2 (0.13)	0.02-0.42
Breeding (full)	0.76 (0.53)	0.1-1.71	0.64 (0.45)	0.08-1.43	0.57 (0.42)	0.09-1.27
Post-breeding	0 (0)	0-0	0.01 (0.01)	0-0.04	0.01 (0.01)	0-0.03
Winter	0.19 (0.2)	0-0.62	0.22 (0.06)	0.11-0.37	0.22 (0.07)	0.1-0.35
Non-breeding	0.19 (0.09)	0.02-0.38	0.22 (0.06)	0.11-0.37	0.22 (0.07)	0.1-0.35

Table 10. DBS - East. Seasonal peak density (birds per square km) of Guillemot (including unidentified auks apportioned using identified auk ratios) recorded in flight, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.19 (0.09)	0.02-0.38	0.21 (0.13)	0.02-0.45	0.21 (0.13)	0.02-0.44
Breeding (full)	1.02 (0.72)	0.13-2.3	0.82 (0.58)	0.11-1.84	0.73 (0.53)	0.11-1.61
Post-breeding	0 (0)	0-0	0.01 (0.01)	0-0.04	0.01 (0.01)	0-0.03
Winter	0.27 (0.07)	0.15-0.41	0.3 (0.08)	0.15-0.5	0.33 (0.1)	0.14-0.52
Non-breeding	0.27 (0.07)	0.15-0.41	0.3 (0.08)	0.15-0.5	0.33 (0.1)	0.14-0.52

Table 11. DBS - East. Seasonal peak density (birds per square km) of Guillemot (including unidentified auks apportioned using identified auk ratios and accounting for availability bias) recorded in flight, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.19 (0.09)	0.02-0.38	0.21 (0.13)	0.02-0.45	0.21 (0.13)	0.02-0.44
Breeding (full)	1.02 (0.72)	0.13-2.3	0.82 (0.58)	0.11-1.84	0.73 (0.53)	0.11-1.61
Post-breeding	0 (0)	0-0	0.01 (0.01)	0-0.04	0.01 (0.01)	0-0.03
Winter	0.27 (0.07)	0.15-0.41	0.3 (0.08)	0.15-0.5	0.33 (0.1)	0.14-0.52
Non-breeding	0.27 (0.07)	0.15-0.41	0.3 (0.08)	0.15-0.5	0.33 (0.1)	0.14-0.52

Table 12. DBS - East. Seasonal peak density (birds per square km) of Herring gull recorded in flight, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.01 (0.02)	0-0.07	0.01 (0.01)	0-0.05	0.01 (0.01)	0-0.04
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0.01 (0.01)	0-0.04
Autumn migration	0.01 (0.02)	0-0.07	0.02 (0.02)	0-0.05	0.02 (0.02)	0-0.09
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0.01 (0.02)	0-0.07	0.02 (0.02)	0-0.05	0.02 (0.02)	0-0.09

Table 13. DBS - East. Seasonal peak density (birds per square km) of Kittiwake recorded in flight, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	1.27 (0.54)	0.6-2.64	1.2 (0.43)	0.64-2.23	1.28 (0.53)	0.66-2.44
Breeding (full)	4.51 (1.9)	1.67-7.6	4.57 (1.31)	2.42-6.91	4.75 (0.92)	3.1-6.44
Autumn migration	3.52 (2.26)	1.02-7.24	3.55 (2.36)	1.03-7.72	3.47 (2.26)	1.07-7.22
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	3.52 (2.26)	1.02-7.24	3.55 (2.36)	1.03-7.72	3.47 (2.26)	1.07-7.22

Table 14. DBS - East. Seasonal peak density (birds per square km) of Lesser black-backed gull recorded in flight, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0.02 (0.04)	0-0.14	0.02 (0.02)	0-0.05	0.01 (0.01)	0-0.04
Autumn migration	0 (0)	0-0	0 (0)	0-0	0.01 (0.01)	0-0.04
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0.01 (0.01)	0-0.04

Table 15. DBS - East. Seasonal peak density (birds per square km) of Little gull recorded in flight, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0.07 (0.1)	0-0.28	0.05 (0.07)	0-0.2

Table 16. DBS - East. Seasonal peak density (birds per square km) of Manx shearwater recorded in flight, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0.01 (0.02)	0-0.07	0.01 (0.01)	0-0.05	0.01 (0.01)	0-0.04
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0.01 (0.02)	0-0.07	0.01 (0.01)	0-0.05	0.01 (0.01)	0-0.04

Table 17. DBS - East. Seasonal peak density (birds per square km) of Puffin recorded in flight, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.01 (0.02)	0-0.07	0.01 (0.01)	0-0.05	0.01 (0.01)	0-0.04
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0.01 (0.02)	0-0.07	0.01 (0.01)	0-0.05	0.01 (0.01)	0-0.04

Table 18. DBS - East. Seasonal peak density (birds per square km) of Puffin (including unidentified auks apportioned using identified auk ratios) recorded in flight, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.01 (0.02)	0-0.07	0.01 (0.01)	0-0.05	0.01 (0.01)	0-0.04
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0.01 (0.02)	0-0.07	0.01 (0.01)	0-0.05	0.01 (0.01)	0-0.04

Table 19. DBS - East. Seasonal peak density (birds per square km) of Puffin (including unidentified auks apportioned using identified auk ratios and accounting for availability bias) recorded in flight, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.01 (0.02)	0-0.07	0.01 (0.01)	0-0.05	0.01 (0.01)	0-0.04
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0.01 (0.02)	0-0.07	0.01 (0.01)	0-0.05	0.01 (0.01)	0-0.04

Table 20. DBS - East. Seasonal peak density (birds per square km) of Razorbill recorded in flight, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.1 (0.11)	0-0.31	0.13 (0.16)	0-0.49	0.11 (0.13)	0-0.34
Breeding (full)	0.06 (0.07)	0-0.19	0.04 (0.05)	0-0.16	0.05 (0.04)	0.01-0.14
Autumn migration	0.46 (0.5)	0-1.32	0.89 (1)	0-2.92	0.9 (0.9)	0-2.27
Winter	0.08 (0.1)	0-0.28	0.06 (0.08)	0-0.24	0.06 (0.06)	0-0.19
Non-breeding	0.46 (0.5)	0-1.32	0.89 (1)	0-2.92	0.9 (0.9)	0-2.27

Table 21. DBS - East. Seasonal peak density (birds per square km) of Razorbill (including unidentified auks apportioned using identified auk ratios) recorded in flight, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.13 (0.15)	0-0.43	0.17 (0.21)	0-0.65	0.15 (0.16)	0-0.44
Breeding (full)	0.06 (0.07)	0-0.19	0.04 (0.05)	0-0.16	0.06 (0.04)	0.01-0.16
Autumn migration	0.5 (0.55)	0-1.46	0.94 (1.06)	0-3.11	0.95 (0.95)	0-2.39
Winter	0.08 (0.1)	0-0.28	0.07 (0.09)	0-0.27	0.07 (0.08)	0-0.22
Non-breeding	0.5 (0.55)	0-1.46	0.94 (1.06)	0-3.11	0.95 (0.95)	0-2.39

Table 22. DBS - East. Seasonal peak density (birds per square km) of Razorbill (including unidentified auks apportioned using identified auk ratios and accounting for availability bias) recorded in flight, S.D. and 95% confidence intervals, in the Array Area, Array Area and 2km buffer and Array Area and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.13 (0.15)	0-0.43	0.17 (0.21)	0-0.65	0.15 (0.16)	0-0.44
Breeding (full)	0.06 (0.07)	0-0.19	0.04 (0.05)	0-0.16	0.06 (0.04)	0.01-0.16
Autumn migration	0.5 (0.55)	0-1.46	0.94 (1.06)	0-3.11	0.95 (0.95)	0-2.39
Winter	0.08 (0.1)	0-0.28	0.07 (0.09)	0-0.27	0.07 (0.08)	0-0.22
Non-breeding	0.5 (0.55)	0-1.46	0.94 (1.06)	0-3.11	0.95 (0.95)	0-2.39



Table 23. DBS - West. Seasonal peak density (birds per square km) of Arctic skua recorded in flight, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0.01 (0.02)	0-0.07	0.01 (0.01)	0-0.05	0.01 (0.01)	0-0.04
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0.01 (0.02)	0-0.07	0.01 (0.01)	0-0.05	0.01 (0.01)	0-0.04

Table 24. DBS - West. Seasonal peak density (birds per square km) of Arctic tern recorded in flight, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0.06 (0.09)	0-0.26	0.07 (0.07)	0-0.2	0.08 (0.1)	0-0.26
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 25. DBS - West. Seasonal peak density (birds per square km) of Common gull recorded in flight, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0.12 (0.15)	0-0.48	0.09 (0.11)	0-0.34	0.08 (0.1)	0-0.29

Table 26. DBS - West. Seasonal peak density (birds per square km) of Common tern recorded in flight, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0.02 (0.02)	0-0.07	0.02 (0.02)	0-0.05	0.01 (0.01)	0-0.04
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 27. DBS - West. Seasonal peak density (birds per square km) of Fulmar recorded in flight, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.02 (0.03)	0-0.1	0.04 (0.02)	0-0.08	0.04 (0.03)	0-0.1
Breeding (full)	0.12 (0.11)	0-0.33	0.12 (0.08)	0.02-0.26	0.13 (0.08)	0.01-0.28
Autumn migration	0.06 (0.04)	0-0.14	0.1 (0.08)	0-0.24	0.09 (0.07)	0-0.24
Winter	0.07 (0.04)	0-0.17	0.08 (0.05)	0.02-0.17	0.11 (0.08)	0.01-0.28
Non-breeding	0.07 (0.04)	0-0.17	0.1 (0.08)	0-0.24	0.11 (0.08)	0.01-0.28

Table 28. DBS - West. Seasonal peak density (birds per square km) of Gannet recorded in flight, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.07 (0.08)	0-0.24	0.09 (0.1)	0-0.28	0.08 (0.08)	0-0.23
Breeding (full)	0.96 (0.58)	0.26-2.01	0.97 (0.57)	0.32-2.05	0.92 (0.53)	0.32-1.8
Autumn migration	0.62 (0.25)	0.19-1.07	0.63 (0.33)	0.15-1.2	0.53 (0.2)	0.24-0.86
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 29. DBS - West. Seasonal peak density (birds per square km) of Great black-backed gull recorded in flight, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.01 (0.02)	0-0.07	0.03 (0.04)	0-0.16	0.03 (0.04)	0-0.13
Breeding (full)	0 (0)	0-0	0.03 (0.06)	0-0.2	0.02 (0.04)	0-0.15
Autumn migration	0.01 (0.02)	0-0.07	0.02 (0.03)	0-0.1	0.02 (0.02)	0-0.07
Winter	0 (0)	0-0	0 (0)	0-0	0.02 (0.03)	0-0.12
Non-breeding	0.01 (0.02)	0-0.07	0.03 (0.04)	0-0.16	0.03 (0.04)	0-0.13

Table 30. DBS - West. Seasonal peak density (birds per square km) of Great northern diver recorded in flight, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 31. DBS - West. Seasonal peak density (birds per square km) of Great skua recorded in flight, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0.01 (0.02)	0-0.07
Autumn migration	0.01 (0.02)	0-0.07	0.02 (0.02)	0-0.05	0.01 (0.01)	0-0.04
Winter	0.01 (0.03)	0-0.08	0.01 (0.02)	0-0.06	0.02 (0.02)	0-0.06
Non-breeding	0.01 (0.03)	0-0.08	0.02 (0.02)	0-0.05	0.02 (0.02)	0-0.06

Table 32. DBS - West. Seasonal peak density (birds per square km) of Guillemot recorded in flight, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.24 (0.22)	0-0.68	0.21 (0.14)	0.03-0.48	0.24 (0.24)	0-0.68
Breeding (full)	0.44 (0.38)	0.02-1.23	0.45 (0.37)	0.03-1.13	0.47 (0.33)	0.06-1.02
Post-breeding	0.06 (0.08)	0-0.26	0.1 (0.11)	0-0.33	0.07 (0.08)	0-0.24
Winter	0.43 (0.32)	0.03-1.09	0.41 (0.25)	0.08-0.87	0.36 (0.21)	0.08-0.73
Non-breeding	0.43 (0.32)	0.03-1.09	0.41 (0.25)	0.08-0.87	0.36 (0.21)	0.08-0.73

Table 33. DBS - West. Seasonal peak density (birds per square km) of Guillemot (including unidentified auks apportioned using identified auk ratios) recorded in flight, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.29 (0.28)	0-0.85	0.3 (0.21)	0.05-0.7	0.32 (0.25)	0.04-0.78
Breeding (full)	0.54 (0.46)	0.03-1.49	0.55 (0.45)	0.04-1.39	0.54 (0.38)	0.07-1.18
Post-breeding	0.1 (0.13)	0-0.42	0.13 (0.15)	0-0.44	0.1 (0.12)	0-0.34
Winter	0.54 (0.4)	0.04-1.38	0.49 (0.3)	0.09-1.06	0.45 (0.27)	0.1-0.92
Non-breeding	0.54 (0.4)	0.04-1.38	0.49 (0.3)	0.09-1.06	0.45 (0.27)	0.1-0.92

Table 34. DBS - West. Seasonal peak density (birds per square km) of Guillemot (including unidentified auks apportioned using identified auk ratios and accounting for availability bias) recorded in flight, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.29 (0.28)	0-0.85	0.3 (0.21)	0.05-0.7	0.32 (0.25)	0.04-0.78
Breeding (full)	0.54 (0.46)	0.03-1.49	0.55 (0.45)	0.04-1.39	0.54 (0.38)	0.07-1.18
Post-breeding	0.1 (0.13)	0-0.42	0.13 (0.15)	0-0.44	0.1 (0.12)	0-0.34
Winter	0.54 (0.4)	0.04-1.38	0.49 (0.3)	0.09-1.06	0.45 (0.27)	0.1-0.92
Non-breeding	0.54 (0.4)	0.04-1.38	0.49 (0.3)	0.09-1.06	0.45 (0.27)	0.1-0.92

Table 35. DBS - West. Seasonal peak density (birds per square km) of Herring gull recorded in flight, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.01 (0.02)	0-0.07	0.01 (0.01)	0-0.05	0.01 (0.01)	0-0.04
Breeding (full)	0.01 (0.02)	0-0.07	0.02 (0.03)	0-0.1	0.02 (0.03)	0-0.08
Autumn migration	0.02 (0.03)	0-0.1	0.02 (0.02)	0-0.08	0.03 (0.03)	0-0.1
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0.02 (0.03)	0-0.1	0.02 (0.02)	0-0.08	0.03 (0.03)	0-0.1

Table 36. DBS - West. Seasonal peak density (birds per square km) of Kittiwake recorded in flight, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	1.21 (0.48)	0.51-2.17	1.29 (0.57)	0.56-2.31	1.32 (0.48)	0.66-2.12
Breeding (full)	4.66 (6.39)	0-22.22	3.98 (1.77)	1.7-7.99	3.67 (1.66)	1.47-7.02
Autumn migration	2.49 (1.75)	0.53-5.18	2.91 (2.34)	0.46-6.51	2.85 (2.17)	0.54-5.96
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	2.49 (1.75)	0.53-5.18	2.91 (2.34)	0.46-6.51	2.85 (2.17)	0.54-5.96

Table 37. DBS - West. Seasonal peak density (birds per square km) of Lesser black-backed gull recorded in flight, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0.01 (0.02)	0-0.07	0.01 (0.01)	0-0.05	0.01 (0.01)	0-0.04
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 38. DBS - West. Seasonal peak density (birds per square km) of Little gull recorded in flight, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0.03 (0.06)	0-0.2	0.02 (0.04)	0-0.14



Table 39. DBS - West. Seasonal peak density (birds per square km) of Puffin recorded in flight, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0.01 (0.02)	0-0.07
Non-breeding	0 (0)	0-0	0 (0)	0-0	0.01 (0.02)	0-0.07

Table 40. DBS - West. Seasonal peak density (birds per square km) of Puffin (including unidentified auks apportioned using identified auk ratios) recorded in flight, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0.01 (0.02)	0-0.07
Non-breeding	0 (0)	0-0	0 (0)	0-0	0.01 (0.02)	0-0.07

Table 41. DBS - West. Seasonal peak density (birds per square km) of Puffin (including unidentified auks apportioned using identified auk ratios and accounting for availability bias) recorded in flight, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0.01 (0.02)	0-0.07
Non-breeding	0 (0)	0-0	0 (0)	0-0	0.01 (0.02)	0-0.07

Table 42. DBS - West. Seasonal peak density (birds per square km) of Razorbill recorded in flight, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.18 (0.17)	0-0.57	0.13 (0.11)	0-0.35	0.14 (0.07)	0.01-0.31
Breeding (full)	0.18 (0.23)	0-0.76	0.12 (0.15)	0-0.45	0.11 (0.12)	0-0.38
Autumn migration	0.47 (0.62)	0-1.98	0.33 (0.43)	0-1.35	0.32 (0.36)	0-1.03
Winter	0.17 (0.2)	0-0.59	0.18 (0.16)	0-0.53	0.16 (0.15)	0-0.44
Non-breeding	0.47 (0.62)	0-1.98	0.33 (0.43)	0-1.35	0.32 (0.36)	0-1.03

Table 43. DBS - West. Seasonal peak density (birds per square km) of Razorbill (including unidentified auks apportioned using identified auk ratios) recorded in flight, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.22 (0.21)	0-0.72	0.17 (0.15)	0-0.46	0.17 (0.09)	0.01-0.37
Breeding (full)	0.18 (0.23)	0-0.76	0.13 (0.16)	0-0.48	0.11 (0.13)	0-0.4
Autumn migration	0.79 (1.05)	0-3.35	0.54 (0.69)	0-2.17	0.47 (0.53)	0-1.53
Winter	0.2 (0.24)	0-0.72	0.2 (0.19)	0-0.6	0.19 (0.18)	0-0.55
Non-breeding	0.79 (1.05)	0-3.35	0.54 (0.69)	0-2.17	0.47 (0.53)	0-1.53

Table 44. DBS - West. Seasonal peak density (birds per square km) of Razorbill (including unidentified auks apportioned using identified auk ratios and accounting for availability bias) recorded in flight, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.22 (0.21)	0-0.72	0.17 (0.15)	0-0.46	0.17 (0.09)	0.01-0.37
Breeding (full)	0.18 (0.23)	0-0.76	0.13 (0.16)	0-0.48	0.11 (0.13)	0-0.4
Autumn migration	0.79 (1.05)	0-3.35	0.54 (0.69)	0-2.17	0.47 (0.53)	0-1.53
Winter	0.2 (0.24)	0-0.72	0.2 (0.19)	0-0.6	0.19 (0.18)	0-0.55
Non-breeding	0.79 (1.05)	0-3.35	0.54 (0.69)	0-2.17	0.47 (0.53)	0-1.53

Table 45. DBS - West. Seasonal peak density (birds per square km) of Red-throated diver recorded in flight, S.D. and 95% confidence intervals, in the wind farm, wind farm and 2km buffer and wind farm and 4km buffer.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 46. DBS - East & West. Seasonal peak density (birds per square km) of Arctic skua recorded in flight, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0.0201 (0.0402)	0-0.1407	0.0201 (0.0201)	0-0.105	0.0201 (0.0201)	0-0.0804
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0.0201 (0.0402)	0-0.1407	0.0201 (0.0201)	0-0.105	0.0201 (0.0201)	0-0.0804

Table 47. DBS - East & West. Seasonal peak density (birds per square km) of Arctic tern recorded in flight, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0.4708 (0.2411)	0-0.6231	0.4809 (0.4809)	0-0.5425	0.21 (0.2311)	0-0.63
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 48. DBS - East & West. Seasonal peak density (birds per square km) of Common gull recorded in flight, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0.4608 (0.4809)	0-0.63	0.4406 (0.4508)	0-0.4623	0.405 (0.4206)	0-0.3618

Table 49. DBS - East & West. Seasonal peak density (birds per square km) of Common tern recorded in flight, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0.0301 (0.0402)	0-0.1407	0.0402 (0.0402)	0-0.1206	0.0201 (0.0302)	0-0.105
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 50. DBS - East & West. Seasonal peak density (birds per square km) of Fulmar recorded in flight, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.0703 (0.0905)	0-0.2613	0.0904 (0.0804)	0-0.2613	0.0904 (0.0804)	0-0.2512
Breeding (full)	0.2814 (0.21)	0.0201-0.6935	0.2814 (0.1608)	0.0502-0.5929	0.2412 (0.1407)	0.0302-0.5226
Autumn migration	0.1608 (0.105)	0-0.3618	0.2613 (0.2613)	0-0.8844	0.2412 (0.2312)	0-0.7437
Winter	0.1809 (0.1608)	0-0.5426	0.21 (0.1809)	0.0201-0.5427	0.2312 (0.1909)	0.01-0.5829
Non-breeding	0.1809 (0.1608)	0-0.5426	0.2613 (0.2613)	0-0.8844	0.2613 (0.2412)	0.01-0.7839

Table 51. DBS - East & West. Seasonal peak density (birds per square km) of Gannet recorded in flight, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.406 (0.1306)	0-0.3819	0.4206 (0.1407)	0-0.442	0.4306 (0.1306)	0-0.3819
Breeding (full)	1.56 (0.7778 (0.38))	0.573-0.128- 1.51	1.61 (0.8281 (0.41))	0.613-1.6- 1.58	1.64 (0.982 (0.45))	0.613-1.5- 1.58
Autumn migration	1.16 (0.4858 (0.24))	0.362-18-1	1.17 (0.4859 (0.24))	0.42-1.01	1.07 (0.3454 (0.17))	0.51-6425- 0.82
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 52. DBS - East & West. Seasonal peak density (birds per square km) of Great black-backed gull recorded in flight, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.0704 (0.0804)	0-0.2915	0.0905 (0.0804)	0-0.3316	0.0804 (0.0703)	0-0.2613
Breeding (full)	0.0201 (0.0301)	0-0.105	0.0503 (0.105)	0-0.3216	0.0402 (0.0703)	0-0.2513
Autumn migration	0.0201 (0.0402)	0-0.1407	0.0301 (0.0503)	0-0.1507	0.0603 (0.0402)	0-0.1608
Winter	0 (0)	0-0	0.04 (0.04)	0-0.0502	0.0402 (0.0603)	0-0.241
Non-breeding	0.0704 (0.0804)	0-0.2915	0.0905 (0.0804)	0-0.3316	0.0804 (0.0703)	0-0.2613

Table 53. DBS - East & West. Seasonal peak density (birds per square km) of Great northern diver recorded in flight, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0

Table 54. DBS - East & West. Seasonal peak density (birds per square km) of Great skua recorded in flight, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0.04 (0.04)	0-0.0502	0.0201 (0.0301)	0-0.1106
Autumn migration	0.01 (0.0201)	0-0.0704	0.0201 (0.0201)	0-0.0503	0.01 (0.01)	0-0.0402
Winter	0.0201 (0.0503)	0-0.1507	0.0201 (0.0301)	0-0.1105	0.0301 (0.0301)	0-0.105
Non-breeding	0.0201 (0.0503)	0-0.1507	0.0301 (0.0301)	0-0.105	0.0301 (0.0301)	0-0.105



Table 55. DBS - East & West. Seasonal peak density (birds per square km) of Guillemot recorded in flight, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.4821 (0.3715)	0.02-1.2301- 0.53	0.5421 (0.3413)	0.07-1.1503- 0.45	0.5322 (0.3818)	0.06-1.2201- 0.55
Breeding (full)	1.56 (1.180.6 (0.45))	0.16-3.7906- 1.47	1.37 (1.030.55 (0.41))	0.15-3.2306- 1.28	1.27 (0.9152 (0.38))	0.18-2.7907- 1.14
Post-breeding	0.403 (0.1304)	0-0.4213	0.4405 (0.1606)	0-0.4819	0.4404 (0.1304)	0-0.3713
Winter	0.8431 (0.4726)	0.19-1.7902- 0.86	0.7932 (0.3816)	0.24-1.5609- 0.62	0.7829 (0.3714)	0.24-1.4409- 0.54
Non-breeding	0.8431 (0.472)	0.19-1.7903- 0.74	0.7932 (0.3816)	0.24-1.5609- 0.62	0.7829 (0.3714)	0.24-1.4409- 0.54

Table 56. DBS - East & West. Seasonal peak density (birds per square km) of Guillemot (including unidentified auks apportioned using identified auk ratios) recorded in flight, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.4824 (0.3718)	0.02-1.2301- 0.62	0.5425 (0.3417)	0.07-1.1504- 0.57	0.5326 (0.3819)	0.06-1.2203- 0.61
Breeding (full)	1.56 (1.180.78 (0.59))	0.16-3.7908- 1.89	1.37 (1.030.69 (0.52))	0.15-3.2307- 1.61	1.27 (0.9163 (0.45))	0.18-2.7909- 1.4
Post-breeding	0.405 (0.1307)	0-0.4221	0.4407 (0.1608)	0-0.4824	0.4405 (0.1306)	0-0.3718
Winter	0.844 (0.4723)	0.19-1.7909- 0.9	0.794 (0.3819)	0.24-1.5612- 0.78	0.7839 (0.3719)	0.24-1.4412- 0.72
Non-breeding	0.844 (0.4723)	0.19-1.7909- 0.9	0.794 (0.3819)	0.24-1.5612- 0.78	0.7839 (0.3719)	0.24-1.4412- 0.72

Table 57. DBS - East & West. Seasonal peak density (birds per square km) of Guillemot (including unidentified auks apportioned using identified auk ratios and accounting for availability bias) recorded in flight, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.4824 (0.3718)	0.02-1.2301-0.62	0.5425 (0.3417)	0.07-1.1504-0.57	0.5326 (0.3819)	0.06-1.2203-0.61
Breeding (full)	1.56 (1.18-0.78 (0.59))	0.16-3.7908-1.89	1.37 (1.03-0.69 (0.52))	0.15-3.2307-1.61	1.27 (0.91-0.63 (0.45))	0.18-2.7909-1.4
Post-breeding	0.105 (0.1307)	0-0.4221	0.1407 (0.1608)	0-0.4824	0.1105 (0.1306)	0-0.3718
Winter	0.814 (0.4723)	0.19-1.7909-0.9	0.794 (0.3819)	0.24-1.5612-0.78	0.7839 (0.3719)	0.24-1.4412-0.72
Non-breeding	0.814 (0.4723)	0.19-1.7909-0.9	0.794 (0.3819)	0.24-1.5612-0.78	0.7839 (0.3719)	0.24-1.4412-0.72

Table 58. DBS - East & West. Seasonal peak density (birds per square km) of Herring gull recorded in flight, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.0201 (0.0402)	0-0.1407	0.0201 (0.0201)	0-0.105	0.0201 (0.0201)	0-0.0804
Breeding (full)	0.01 (0.0201)	0-0.0704	0.0201 (0.0302)	0-0.105	0.0301 (0.0402)	0-0.1206
Autumn migration	0.0301 (0.0503)	0-0.1708	0.0402 (0.0402)	0-0.1306	0.0503 (0.0503)	0-0.1909
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0.0301 (0.0503)	0-0.1708	0.0402 (0.0402)	0-0.1306	0.0503 (0.0503)	0-0.1909

Table 59. DBS - East & West. Seasonal peak density (birds per square km) of Kittiwake recorded in flight, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	<del>2.48</del> (1.02) <del>2.4</del> (0.51)	<del>1.11</del> 0.56- 2.4-8+	<del>2.49</del> (1.24) (0.5)	<del>1.06</del> 2- 4.54.27	<del>2.6</del> (1.0) <del>3</del> (0.5)	<del>1.32</del> <del>4.56</del> 0.66- 2.28
Breeding (full)	<del>9.17</del> (8.29) <del>4.59</del> (4.16)	<del>1.67</del> <del>29.82</del> 0.83- 14.97	<del>8.55</del> (3.08) <del>4.27</del> (1.54)	<del>4.12</del> <del>14.92</del> 0.06- 7.45	<del>8.42</del> (4.2) <del>5.8</del> (1.3)	<del>4.57</del> <del>13.46</del> 2.28- 6.73
Autumn migration	<del>63.01</del> (4.0) <del>2</del>	<del>1.55</del> <del>12.42</del> 0.78- 6.2	<del>6.46</del> (4.73) <del>2.3</del> (2.35)	<del>1.49</del> <del>14.23</del> 0.74- 7.11	<del>6.32</del> (4.4) <del>3.16</del> (2.21)	<del>1.61</del> <del>13.18</del> 0.8- 6.59
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	<del>63.01</del> (4.0) <del>2</del>	<del>1.55</del> <del>12.42</del> 0.78- 6.2	<del>6.46</del> (4.73) <del>2.3</del> (2.35)	<del>1.49</del> <del>14.23</del> 0.74- 7.11	<del>6.32</del> (4.4) <del>3.16</del> (2.21)	<del>1.61</del> <del>13.18</del> 0.8- 6.59

Table 60. DBS - East & West. Seasonal peak density (birds per square km) of Lesser black-backed gull recorded in flight, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	<del>0.03</del> 0.2 (0.06) <del>0.3</del>	0-0.2 <del>11</del>	<del>0.03</del> 0.2 (0.03) <del>0.2</del>	0-0.4 <del>05</del>	<del>0.02</del> 0.1 (0.02) <del>0.1</del>	0-0.08 <del>04</del>
Autumn migration	0 (0)	0-0	0 (0)	0-0	<del>0.04</del> (0.0) <del>4</del>	0-0.04 <del>02</del>
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	<del>0.04</del> (0.0) <del>4</del>	0-0.04 <del>02</del>

Table 61. DBS - East & West. Seasonal peak density (birds per square km) of Little gull recorded in flight, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0.405 (0.4608)	0-0.4824	0.0703 (0.4405)	0-0.3417

Table 62. DBS - East & West. Seasonal peak density (birds per square km) of Manx shearwater recorded in flight, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0.04 (0.0201)	0-0.0703	0.04 (0.04)	0-0.0502	0.04 (0.04)	0-0.0402
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0.04 (0.0201)	0-0.0703	0.04 (0.04)	0-0.0502	0.04 (0.04)	0-0.0402

Table 63. DBS - East & West. Seasonal peak density (birds per square km) of Puffin recorded in flight, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.04 (0.0201)	0-0.0703	0.04 (0.04)	0-0.0502	0.04 (0.04)	0-0.0402
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0.01 (0.0201)	0-0.0704
Non-breeding	0.04 (0.0201)	0-0.0703	0.04 (0.04)	0-0.0502	0.0201 (0.0301)	0-0.4406

Table 64. DBS - East & West. Seasonal peak density (birds per square km) of Puffin (including unidentified auks apportioned using identified auk ratios) recorded in flight, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.04 (0.0201)	0-0.0703	0.04 (0.04)	0-0.0502	0.04 (0.04)	0-0.0402
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0.01 (0.0201)	0-0.0704
Non-breeding	0.04 (0.0201)	0-0.0703	0.04 (0.04)	0-0.0502	0.0201 (0.0301)	0-0.4406

Table 65. DBS - East & West. Seasonal peak density (birds per square km) of Puffin (including unidentified auks apportioned using identified auk ratios and accounting for availability bias) recorded in flight, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.04 (0.0201)	0-0.0703	0.04 (0.04)	0-0.0502	0.04 (0.04)	0-0.0402
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0.01 (0.0201)	0-0.0704
Non-breeding	0.04 (0.0201)	0-0.0703	0.04 (0.04)	0-0.0502	0.0201 (0.0301)	0-0.1106

Table 66. DBS - East & West. Seasonal peak density (birds per square km) of Razorbill recorded in flight, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.3514 (0.3614)	0-1.150.44	0.3413 (0.3614)	0-1.110.42	0.3212 (0.251)	0.01-0.8133
Breeding (full)	0.2412 (0.315)	0-0.9547	0.1708 (0.241)	0-0.6431	0.1708 (0.1708)	0.01-0.5626
Autumn migration	1.29 (1.60.47 (0.56)	0-4.841.65	1.48 (1.750.61 (0.72)	0-5.282.13	1.42 (1.480.61 (0.63)	0-3.921.64
Winter	0.2813 (0.3415)	0-10.44	0.2712 (0.2812)	0-0.8739	0.2611 (0.2611)	0-0.7731
Non-breeding	1.29 (1.60.47 (0.56)	0-4.841.65	1.48 (1.750.61 (0.72)	0-5.282.13	1.42 (1.480.61 (0.63)	0-3.921.64

Table 67. DBS - East & West. Seasonal peak density (birds per square km) of Razorbill (including unidentified auks apportioned using identified auk ratios) recorded in flight, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.3517 (0.3618)	0-1.150.57	0.3417 (0.3618)	0-1.110.55	0.3216 (0.2513)	0.01-0.8441
Breeding (full)	0.2412 (0.315)	0-0.9547	0.1709 (0.241)	0-0.6432	0.1709 (0.1709)	0.01-0.5628
Autumn migration	1.29 (1.60.65 (0.8))	0-4.842.41	1.48 (1.750.74 (0.88))	0-5.282.63	1.42 (1.480.71 (0.74))	0-3.921.95
Winter	0.2814 (0.3417)	0-10.5	0.2713 (0.2814)	0-0.8743	0.2613 (0.2613)	0-0.7739
Non-breeding	1.29 (1.60.65 (0.8))	0-4.842.41	1.48 (1.750.74 (0.88))	0-5.282.63	1.42 (1.480.71 (0.74))	0-3.921.95

Table 68. DBS - East & West. Seasonal peak density (birds per square km) of Razorbill (including unidentified auks apportioned using identified auk ratios and accounting for availability bias) recorded in flight, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0.3517 (0.3618)	0-1.150.57	0.3417 (0.3618)	0-1.110.55	0.3216 (0.2513)	0.01-0.8441
Breeding (full)	0.2412 (0.315)	0-0.9547	0.1709 (0.241)	0-0.6432	0.1709 (0.1709)	0.01-0.5628
Autumn migration	1.29 (1.60.65 (0.8))	0-4.842.41	1.48 (1.750.74 (0.88))	0-5.282.63	1.42 (1.480.71 (0.74))	0-3.921.95
Winter	0.2814 (0.3417)	0-10.5	0.2713 (0.2814)	0-0.8743	0.2613 (0.2613)	0-0.7739
Non-breeding	1.29 (1.60.65 (0.8))	0-4.842.41	1.48 (1.750.74 (0.88))	0-5.282.63	1.42 (1.480.71 (0.74))	0-3.921.95

Table 69. DBS - East & West. Seasonal peak density (birds per square km) of Red-throated diver recorded in flight, S.D. and 95% confidence intervals, in the Array Areas, Array Areas and 2km buffers and Array Areas and 4km buffers.

Season	Density					
	Array Area		Array Area & 2km buffer		Array Area and 4km buffer	
	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.	Estimate (S.D.)	95% c.i.
Spring migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Breeding (full)	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Autumn migration	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Winter	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0
Non-breeding	0 (0)	0-0	0 (0)	0-0	0 (0)	0-0