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Document Number
WO1-WOW-PER-ENV-RPT-0038

Revision 01

Approved

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Limited

Oct 2, 2024, 5:11 PM GMT+1:00

West of Orkney Windfarm

Offshore Ornithology Supplementary Environmental Information

Annex 3A: Survey densities and calendar month densities

Date: 20 August 2024

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1 ANNEX 3A: SURVEY DENSITIES AND CALENDAR MONTH DENSITIES

Design based estimates, for each individual survey, were derived from bootstrap resampling of transect segments, for each digital aerial survey. See **Appendix 1 - EIA and HRA: Baseline Site Characterisation Technical Report** for more information. The mean and SD for each of the 24 digital aerial surveys is provided below. The 12 monthly mean densities of birds in flight for each calendar month is not identical to the average of the two digital aerial surveys in that calendar month as the calendar month mean was derived from the bootstrap resampled estimates from both surveys.

Table 1. Mean density and SD of birds in flight in the OAA on each individual digital aerial survey

Survey	Mean density (birds/km ²) and SD				
	Kittiwake	Great black-backed gull	Arctic tern	Great skua	Gannet
Oct-2020	0.51 (0.11)	0.01 (0.01)	0 (0)	0 (0)	0.56 (0.12)
Nov-2020	0.27 (0.07)	0.09 (0.03)	0 (0)	0 (0)	0.01 (0.01)
Dec-2020	0.05 (0.02)	0.01 (0.01)	0 (0)	0 (0)	0.05 (0.02)
Jan-2021	0.07 (0.03)	0.04 (0.02)	0 (0)	0 (0)	0.01 (0.01)
Feb-2021	0.19 (0.05)	0.02 (0.02)	0 (0)	0 (0)	0.08 (0.03)
Mar-2021	0.65 (0.13)	0 (0)	0 (0)	0 (0)	0.04 (0.02)
Apr-2021	0.43 (0.09)	0 (0)	0 (0)	0.06 (0.02)	0.28 (0.07)
May-2021	0.06 (0.05)	0 (0)	0 (0)	0 (0)	0.38 (0.11)
Jun-2021	0.05 (0.02)	0.02 (0.02)	0.15 (0.14)	0 (0)	0.25 (0.06)
Jul-2021	0.12 (0.04)	0 (0)	0 (0)	0.01 (0.01)	0.28 (0.07)
Aug-2021	0 (0)	0 (0)	0 (0)	0 (0)	0.6 (0.12)
Sep-2021	0.24 (0.08)	0 (0)	0 (0)	0 (0)	0.67 (0.12)
Oct-2021	0.76 (0.14)	0 (0)	0 (0)	0 (0)	0.60 (0.1)
Nov-2021	0.13 (0.04)	0.02 (0.02)	0 (0)	0 (0)	0.01 (0.01)
Dec-2021	0.05 (0.02)	0.17 (0.05)	0 (0)	0 (0)	0.01 (0.01)

Mean density (birds/km ²) and SD					
Survey	Kittiwake	Great black-backed gull	Arctic tern	Great skua	Gannet
Jan-2022*	0.08 (0.03)	0.01 (0.01)	0 (0)	0 (0)	0.02 (0.02)
Feb-2022	0.42 (0.09)	0.07 (0.03)	0 (0)	0 (0)	0.09 (0.03)
Mar-2022	1.08 (0.24)	0.01 (0.01)	0 (0)	0 (0)	0.22 (0.05)
Apr-2022	0.14 (0.05)	0 (0)	0 (0)	0 (0)	0.32 (0.07)
May-2022	0.09 (0.04)	0 (0)	0.01 (0.01)	0 (0)	0.09 (0.03)
Jun-2022	0.04 (0.02)	0 (0)	0 (0)	0 (0)	0.18 (0.05)
Jul-2022	1.22 (0.63)	0 (0)	0.02 (0.02)	0 (0)	0.31 (0.08)
Aug-2022	0.01 (0.01)	0 (0)	0.01 (0.01)	0.01 (0.01)	0.05 (0.02)
Sep-2022	0.01 (0.01)	0 (0)	0 (0)	0 (0)	0.29 (0.06)

*survey was actually carried out in February but was allocated to the calendar month of January