

Temporal patterns in offshore bird abundance during the breeding season at the Dutch North Sea coast

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ESM 1; ESAS 5.0 Data

The ESAS 5.0 (European Seabirds at Sea) database is an ship survey database (Reid and Camphuysen 1998) that incorporates all observational data made through a standardized protocol (Camphuysen et al. 2004) and is maintained by the NWO-NIOZ Royal Netherlands Institute for Sea Research. The database was queried for all bird species observed in the months of May, June and July since the year 2000 in the area between 51.8°N-53°N, 3.7°E-4.7°E, which describes a rectangular area around the radar location (52.427827°N, 4.185345°E) near the Dutch coast (Table 1). For readability, all species with an observation rate below 0.1% have been omitted from the table.

Table 1 Number of birds observed and percentage of total per species in the months of May, June and July from 2000 to 2020 in the area between 51.8°N-53°N, 3.7°E-4.7°E. Data was queried on 16 February 2021. For readability, all species with an observation rate below 0.1% have been omitted

Species name	Scientific name	Birds (#)	Percentage of total (%)
Lesser Black-backed Gull	<i>Larus fuscus</i>	64870	56.8
Herring Gull	<i>Larus argentatus</i>	18051	15.8
Great Cormorant	<i>Phalacrocorax carbo</i>	10982	9.6
large gull (unknown species)		7012	6.1
Herring / Lesser Black-backed gull		2076	1.8
gull (unknown species)		1372	1.2
Common Tern	<i>Sterna hirundo</i>	1265	1.1
Sandwich Tern	<i>Thalasseus sandvicensis</i>	1178	1.0
Northern Fulmar	<i>Fulmaris glacialis</i>	1024	0.9
Common Scoter	<i>Melanitta nigra</i>	977	0.9
Black-headed Gull	<i>Chroicocephalus ridibundus</i>	946	0.8
Common Gull	<i>Laruscanus</i>	891	0.8
Great Black-backed Gull	<i>Larus marinus</i>	827	0.7
Northern Gannet	<i>Morus bassanus</i>	694	0.6
Black-legged Kittiwake	<i>Rissa tridactyla</i>	578	0.5
Common / Arctic tern		249	0.2
Black Tern	<i>Chlidonias niger</i>	197	0.2
Common Shelduck	<i>Tadorna tadorna</i>	166	0.1
Common Swift	<i>Apus apus</i>	130	0.1
Arctic Tern	<i>Sterna paradosaea</i>	108	0.1
Whimbrel	<i>Numenius phaeopus</i>	87	0.1
Common Starling	<i>Sturnus vulgaris</i>	58	0.1

References

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- Camphuysen CJ, Fox AD, Leopold MF, Petersen IK (2004) Towards Standardised Seabirds at Sea Census Techniques in Connection with Environmental Impact Assessments for Offshore Wind Farms in the UK. Report commissioned by CORWRIE. Texel, The Netherlands: Royal Netherlands Institute for Sea Research. <https://doi.org/10.13140/RG.2.1.2230.0244>