

# Digital Aerial Survey (DAS) – Ornithology

## Introduction

To collect data on the birds present in the Offshore Array area throughout the year, Moor Vannin commissioned 24 months of Digital Aerial Surveys across the whole Offshore Array plus a 4km buffer area. This data enables the Environmental Impact Assessment team to understand which species are present in the area and how the populations change throughout the year. This data is used, along with supplementary information from organisations like Manx BirdLife and the Department for Environment, Food and Agriculture, to create a baseline description of the ornithological receptors present in the Offshore Array area and to assess these appropriately during the Environmental Impact Assessment. These surveys collected data on both birds and marine mammals. Further details on how the marine mammal data is used can be found in the document [Digital Aerial Survey \(DAS\) – Marine Mammals](#).

## Timeline

The surveys were undertaken once every month from August 2021 to July 2023.

## Methodology

The survey area consisted of the full 253km<sup>2</sup> Offshore Array area plus a 4km buffer area around this. The survey was undertaken by an aircraft with 4 specialist cameras attached to it facing down to the water. On each survey the aircraft flew over the survey area along the transect lines shown in Figure 1 at a height of approximately 550m above sea level. Whilst in flight along these lines the cameras recorded images of all birds in the transect area.



**Figure 1: Digital Aerial Survey transect lines across the site.**

This document is part of a suite of preliminary environmental materials prepared to fulfil pre-application consultation requirements under The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (of Parliament) as applied to the Island by the Climate Change (Infrastructure Planning) (Environmental Impact Assessment) (Application) Order 2024.

Once back on the land, the hours of video footage were reviewed by technical specialists and the birds identified where possible to species level and age range. 20% of these identifications were then subject to an additional blind quality assurance to confirm the accuracy of the identification. Additionally, the birds were categorised by their behaviour (sitting / in flight) to provide an understanding of how each species was using the area. For seabirds known to dive, an additional calculation was undertaken to account for the proportion of birds that may be diving when the aircraft passed overhead to ensure that numbers were not underestimated. This is especially important for species like guillemots that are known to dive for long periods of time when chasing prey.

This methodology is commonly used in Environmental Impact Assessments to gather site-specific ornithological data and was pre-agreed with the Isle of Man government as sufficient to provide a robust baseline description of the site.

## Findings

Over two years of surveys there were 22 species of birds identified across the survey area. As expected, the total number of birds varied between surveys, with the highest numbers recorded in October 2021 (1,250 birds), and the lowest observed in December 2022 (96 birds). The five most commonly seen species were: kittiwake, razorbill, Manx shearwater, northern gannet and guillemot, with guillemot being by far the most commonly observed species at a total count of 2,920 birds over the 24-month survey period.

This data has been combined into a baseline report with other available data and shared with the Offshore Environment Technical Advisory Group for review and comment. The Offshore Environment TAG includes representatives from Defra, Manx BirdLife and the Manx Wildlife Trust.

## Next Steps

- The data collected in the Digital Aerial Survey will be used for ornithological modelling, which will model the potential interactions of bird species with the Proposed Development.
- The baseline characterisation will be used with the modelling outputs within the Environmental Impact Assessment to predict the potential impacts on birds resulting from the construction, operation and decommissioning of the Moor Vannin Offshore Wind Farm.
- These Environmental Impact Assessment outcomes will be used to inform appropriate mitigation and monitoring of impacts that have a significant effect on the bird populations.
- The Environmental Impact Assessment outcomes and mitigation will be discussed with the Offshore Environment Technical Advisory Group and presented within the Environmental Statement included within the Application in 2025.