

Volume 2: Appendices

Appendix A24
Migratory Bird Survey
Report 2026

Migratory Bird Survey Report 2026

North Irish Sea Array



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Contents

Executive Summary	8
1 Introduction	9
1.2 Project Background	11
1.3 Purpose of this Document	11
2 Methodology	12
2.1 Boat-based migratory bird surveys	12
2.2 VP surveys	16
2.3 PAM Surveys	21
2.4 Surveyors and data analysis	22
2.5 Limitations	24
Boat-based Surveys	24
VP Surveys	24
PAM Surveys	25
3 Results	26
3.1 Boat-based Surveys	26
Migratory birds	26
Wildfowl	26
Waders	26
Passerines	26
3.2 VP Surveys	27
Waders	30
Wildfowl, seaducks and grebes	31
Passerines	31
Raptors	32
Total target species results by VP location	33
3.3 Bioacoustic surveys	37
Hérons	38
Grey heron <i>Ardea cinerea</i>	38
Wildfowl and rails	38
Brent goose <i>Branta bernicla</i>	38
Wigeon <i>Mareca penelope</i>	38
Mallard <i>Anas platyrhynchos</i>	38



Moorhen <i>Gallinula chloropus</i>	38
Waders.....	39
Dotterel <i>Charadrius morinellus</i>	39
Golden plover <i>Pluvialis apricaria</i>	39
Ringed plover <i>Charadrius hiaticula</i>	39
Lapwing <i>Vanellus vanellus</i>	39
Purple sandpiper <i>Calidris maritima</i>	39
Sanderling <i>Calidris alba</i>	39
Oystercatcher <i>Haematopus ostralegus</i>	39
Turnstone <i>Arenaria interpres</i>	40
Dunlin <i>Calidris alpina</i>	40
Common sandpiper <i>Acticis hypoleucos</i>	40
Redshank <i>Tringa totanus</i>	40
Greenshank <i>Tringa nebularia</i>	40
Black-tailed godwit <i>Limosa limosa</i>	40
Curlew <i>Numenius arquata</i>	40
Snipe <i>Gallinago gallinago</i>	40
Raptors.....	41
Long-eared owl <i>Asio otus</i>	41
Passerines.....	42
Firecrest <i>Regulus ignicapillus</i>	42
Rock pipit <i>Anthus petrosus</i>	42
Meadow pipit <i>Anthus pratensis</i>	42
Pied/ white wagtail <i>Motacilla alba</i>	42
Robin <i>Erithacus rubecula</i>	42
Song thrush <i>Turdus Philomena</i>	42
Redwing <i>Turdus iliacus</i>	42
Blackbird <i>Turdus merula</i>	42
Chiffchaff <i>Phylloscopus collybita</i>	43
Goldcrest <i>Regulus regulus</i>	43
Yellowhammer <i>Emberiza citrinella</i>	43
Chaffinch <i>Fringilla coelebs</i>	43
Linnet <i>Linaria cannabina</i>	43
Lesser redpoll <i>Acanthis flammea</i>	43



	Goldfinch <i>Carduelis carduelis</i>	43
	Siskin <i>Carduelis spinus</i>	43
	Reed bunting <i>Emberiza schoeniclus</i>	43
	Starling <i>Sturnus vulgaris</i>	44
	Skylark <i>Alauda arvensis</i>	44
4	Discussion.....	45
4.1	Boat-based Surveys.....	45
4.2	VP Surveys	45
4.3	PAM Surveys.....	46
5	Conclusions	47
6	References.....	48

Appendices

	Appendix A: Boat-based Survey Results	49
	Appendix B: Full VP Survey Results	53

Figures

	Figure A 2-1 Offshore survey area with survey transects.....	13
	Figure A 2-2 Vantage Point Survey Locations	18
	Figure A 2-3 Passive Acoustic Monitoring Locations	23

Tables

	Table A 1-1 RFI submissions from the An Coimisiún Pleanála relevant to the Migratory Survey Report 2026.....	9
	Table A 2-1 Boat-based survey times and dates	12
	Table A 2-2 Migratory bird survey environmental data	14
	Table A 2-3 VP visit dates, times and environmental conditions in chronological order	19
	Table A 3-1 Migratory bird boat-based surveys results.....	26
	Table A 3-2 Flight height results of migrating birds from the 2025 VP survey programme	28
	Table A 3-3 Distance offshore results of migrating birds from the 2025 VP survey programme	29
	Table A 3-4 Flight direction results of migrating birds from the 2025 VP survey programme	29
	Table A 3-5 Total waders recorded during the 2025 VP survey programme.....	30
	Table A 3-6 Total wildfowl and grebes recorded during the 2025 VP survey programme.....	31
	Table A 3-7 Total passerines recorded during the 2025 VP survey programme	32
	Table A 3-8 Total raptors recorded during the 2025 VP survey programme.....	32



Table A 3-9 Total individuals of target species recorded on migration at VP1 during the 2025 VP survey programme by visit 34

Table A 3-10 Total individuals of target species recorded on migration at VP2 during the 2025 VP survey programme by visit 35

Table A 3-11 Total individuals of target species recorded on migration at VP3 (offshore) during the 2025 VP survey programme by visit..... 36

Table A 3-12 Summary table of wildfowl and rail records from the PAM unit..... 38

Table A 3-13 Summary table of wader records from the PAM unit..... 41

Table A 3-14 Summary table of raptor records from the PAM unit..... 41

Table A 3-15 Summary table of passerine records from the PAM unit..... 44

Table A 6-1 Full boat-based survey results 50

Table A 6-2 Full VP Survey Results: VP1 54

Table A 6-3 Full VP Survey Results: VP2 70

Table A 6-4 Full VP Survey Results: VP3 83



Acronyms

Term	Definition
BTO	British Trust for Ornithology
DAS	Digital Aerial Survey
ECC	Export Cable Corridor
GPS	Global Positioning System
HWM	High Water Mark
HVAC	High Voltage Alternating Current
LAT	Lowest Astronomical Tide
NISA	North Irish Sea Array
NPWS	National Parks and Wildlife Service
NWIS	North West Irish Sea
OWF	Offshore Wind Farm
PAM	Passive Acoustic Monitoring
SP	Species
SPA	Special Protection Area
QA	Quality assurance
WTG	Wind Turbine Generator
VP	Vantage Point

Measurements

Term	Definition
km	Kilometre
km ²	Kilometre squared
kv	Kilovolt
m	Metre



Executive Summary

Following completion of the North Irish Sea Array Offshore Wind Farm digital aerial survey programme, the National Parks and Wildlife Service raised concerns over the accuracy of migratory bird data captured within the Proposed Development Array Area. Consequently, GoBe Consultants Ltd. was commissioned by North Irish Sea Array Offshore Wind Farm Ltd. to undertake migratory bird surveys to capture data on migrating waders, waterfowl and terrestrial bird species.

The survey programme comprised a combination of boat-based surveys, onshore and offshore diurnal Vantage Point surveys, as well as bioacoustics data capture from two (one onshore and one offshore) nocturnal Passive Acoustic Monitoring (PAM) units. The aim of the survey programme was to record the diversity and abundance (where possible) of migratory waders, waterfowl and terrestrial bird species in the vicinity of the Proposed Development Array Area. This document provides an overview of the survey data captured during November 2024 and between mid-September and mid-December 2025, covering the 2024 and 2025 post-breeding (autumn) migratory bird seasons.

Results of the three boat-based surveys indicate that relatively few species and individuals are utilising the offshore area for their migration. These surveys also provide preliminary flight height data that is supported by the results from the VP programme.

A total of 36 VP surveys were scheduled and this report presents data from the 36 completed surveys from three different VPs. During these 36 surveys a total of 702 observations were made comprising 11,847 individuals of 55 species. Wildfowl and passerine species made up the majority of the birds counted, with 7,406 and 3,960 individual birds respectively. Common scoter was the most numerous species observed, with 3,081 individuals counted.

PAM data were analysed from two recording stations. In total 71 nights, over the period of 4th September 2025 to 13th November 2025 and comprising of 830 recording blocks, were covered. During this period 1,908 records of migrant or migrating birds were obtained, comprising 40 species and 4,395 (estimated) individual birds.



1 Introduction

- 1.1.1 North Irish Sea Array Windfarm Ltd (NISA, hereafter referred to as ‘the Developer’) has been considering the Request for Further Information (RFI) issued by An Bord Pleanála (now An Coimisiún Pleanála) as well as the third-party submissions received following public consultation. At An Coimisiún Pleanála’s behest, the Developer has also continued to consult with stakeholders in respect of the 2024 planning application throughout 2024-2026. The Developer has refined elements of the design to respond to the third-party submissions, the continued public and stakeholder consultation and the RFI. Full details of consultation undertaken can be found in Appendix A2 of the SISAA.
- 1.1.2 Any cross reference to a chapter, section, table, image, figure or appendix within this document is to another location within the Addendum to the EIAR or NIS unless explicitly stated otherwise. Any cross reference to anything included in the 2024 EIAR or NIS will be clearly labelled as such.
- 1.1.3 The sections relevant to Migratory Survey Report 2026 are included in below.

Table A 1-1 RFI submissions from the An Coimisiún Pleanála relevant to the Migratory Survey Report 2026

RFI Section	RFI	Relevance to Chapter
1b	The scientific information provided as part of the planning application documentation should be based on up-to-date survey reports and data. Accordingly, the applicant is requested to confirm/provide justification/verification that the information submitted in support of the planning application remains relevant and appropriate at the point of submitting further information or to update same as required.	The timeframes associated with the RFI have necessitated a review of the datasets previously used in the 2024 EIAR to ensure any necessary updates to the baseline environment are captured. This survey report ensures that additional data has fed into the ornithological assessment and therefore remains valid and representative of up to date information.
1c	The applicant is requested to confirm whether any on-going or additional surveying has been carried out since the application was lodged and, if so, the applicant is invited to submit any further survey data results and analysis and update the planning application documentation, as appropriate.	Additional ornithological surveys have been undertaken since submission of the Application. This includes the surveys and associated results reported on in this report.
8aiv	<p>Migratory Waterbirds: Chapter 15 of the EIAR, and NIS Appendix 19 Offshore and Intertidal Ornithology Migration Collision, address migratory waterbird species.</p> <p>The DAU notes that a significant number of migratory waterbirds (in terms of species and absolute numbers) migrate to and from Ireland across the Irish Sea. The DAU observation raises concerns in relation to the lack of sufficient collection of spatially relevant field data at key migration times (i.e. spring and autumn) in the EIAR, combined with the acknowledged low confidence levels applied in relation to avoidance rates in the migratory Collision Risk Modelling</p>	<p>The Developer has undertaken an updated assessment on migratory waterbirds using a bespoke modelling specific to Irish bird populations, detailed in Appendix A23: Offshore Ornithology Migratory Collision Risk Modelling: Irish East Coast Phase One Offshore Wind Projects Cumulative Assessment, with outputs presented in Chapter 15 Offshore Ornithology.</p> <p>Likewise, as outlined in this report, the Developer has collected additional Vantage-point (VP) and Passive Acoustic Monitoring (PAM) data in autumn 2024 and 2025 which has been presented to</p>



(mCRM) Tool. The DAU states the information submitted is insufficient to assess the migratory movements of birds through the development area. The DAU has concerns that the proposed development has the potential to have significant impacts upon migratory waterbirds and the Conservation Objectives of the SPAs for which they are listed. The DAU recommends that the applicant develops and implements more appropriate survey methodologies to detect and robustly characterise and assess the level of bird migration through the proposed development area, working collectively with the other Irish Sea ORE applicants.

The Board notes the Vantage-point survey results submitted by the applicant have spatial limitations in terms of robustness and have not been used in quantifiable assessments. There is also limited information on flux or passage of birds through the proposed array area itself during migration (east-west and north-south). The data query is only partially filled by the applicant's approach to assessing collision risk, where GIS and straight-lines have been applied to identify potential migration pathways/flight routes to assess the proportion of flights (as a proxy for population) which may pass through the proposed array area.

Having reviewed all the information presented, the Board requests that further assessment is carried out regarding impacts to migratory species. The applicant is requested to address the purported data gap relating to migratory birds to enable the assessment of potential impacts of the proposed development. Radar (horizontal and vertical surveys) (or similar) at the array area during peak migration periods should be utilised to provide site-specific data, which could be used to support the applicant's current assessment and provide quantitative information on passage of birds to feed into collision modelling. Should radar not be conducted and an alternative survey methodology utilised, comprehensive justification for the alternative should be provided. Peak migration periods during which data are to be collected can be further informed through review of existing data and published literature relevant to the project area and region. Whilst the DAU makes reference to the key migration times being spring and autumn, the Board considers that migration information during the winter months

DAU and used to inform the migratory bird assessment in Chapter 15: Offshore Ornithology.

Radar was considered but not utilised due to a number of technical and logistical reasons. While radar and other specialised survey techniques can provide general movement data, they do not reliably identify birds to species level, nor do they robustly characterise species-specific flight heights or behaviours required for quantitative CRM. Given the dispersed nature of migration across the Irish Sea, the absence of narrow, high-density migration fronts, and the inherently precautionary nature of the modelling applied, radar-based surveys would not meaningfully reduce uncertainty or alter the assessment conclusions.

The Developer therefore considers that the existing empirical data, enhanced by additional VP and PAM surveys, together with the cumulative Irish-centric mCRM, provide a robust and proportionate evidence base for the assessment. Further site-specific migration surveys, including radar, would be unlikely to materially change the findings or improve the assessment of potential impacts on migratory waterbirds.



would also be of assistance to the assessment (e.g. irruptive cold weather movements from the continent and UK). The applicant is invited to consider this aspect for inclusion also.

The applicant should note reliance on literature to fill knowledge gaps, while useful, does not provide adequate data to ensure a comprehensive assessment of potential effects on birds.

1.2 Project Background

1.2.1 The Developer is proposing to develop the North Irish Sea Array (NISA) Offshore Wind Farm (OWF) (hereafter referred to as the Proposed Development). The Proposed Development comprises the offshore development area off the coast of Counties Dublin, Meath, and Louth, as well as the onshore development area within County (Co.) Dublin (Fingal and Dublin City Council administrative areas) with the interface between the two being the coastal High-Water Mark (HWM). The Proposed Development array area covers approximately 88.5 kilometres squared (km²) and is located approximately 11.3 kilometres (km) from land at the closest point, in water depths of approximately 30 metres (m) to 63 m below Lowest Astronomical Tide (LAT). The closest Wind Turbine Generator (WTG) is situated approximately 12.3 km from the Irish coastline. The landfall site, in the vicinity of Bremore, north of Balbriggan, Co. Dublin, is defined as where the 220 kilovolt (kV) high voltage alternating current (HVAC) offshore Export Cable Corridor (ECC) comes ashore.

1.3 Purpose of this Document

1.3.1 In August 2024, the National Parks and Wildlife Service (NPWS), in response to the NISA OWF baseline Digital Aerial Survey (DAS) data submission, expressed concern over the data captured and its validity for migratory bird species, therefore highlighting the paucity of robust, site and region specific data on migratory birds. A desk-based review concluded that existing data were not appropriate to provide for the Developer’s migratory collision risk modelling (mCRM) and that a bespoke approach to data collection was necessary to provide this context. Therefore, boat-based surveys were undertaken in November 2024 to capture data on the bird species present within the Proposed Development array area during the autumn migration bioseason.

1.3.2 The boat-based surveys were followed by a comprehensive programme of Vantage Point (VP) and Passive Acoustic Monitoring (PAM) surveys to capture data on the bird species present within the Proposed Development array area during the 2025 post-breeding (autumn) migration season. The results of these surveys between mid-September and mid-December 2025 are presented herein.

1.3.3 The Developer considers that in utilising PAM the specific DAU recommendation, as noted in RFI 8 a iv and v, regarding the collection of additional data on the migration of terrestrial birds and waterbirds has been met, and as such considers that the PAM surveys augment the data collected during the VP surveys. The Developer considers that appropriate methods of data collection have been used, with VP and PAM surveys selected as they give species specific data. This makes them more appropriate than radar or thermal imaging surveys where species identification cannot be inferred with confidence. As such, this combination of approaches can inform assessment of levels of migration through the wider area as requested by the DAU, which can be used to give context to the Developer’s mCRM assessment of migratory collisions predicted for the proposed development.



2 Methodology

2.1 Boat-based migratory bird surveys

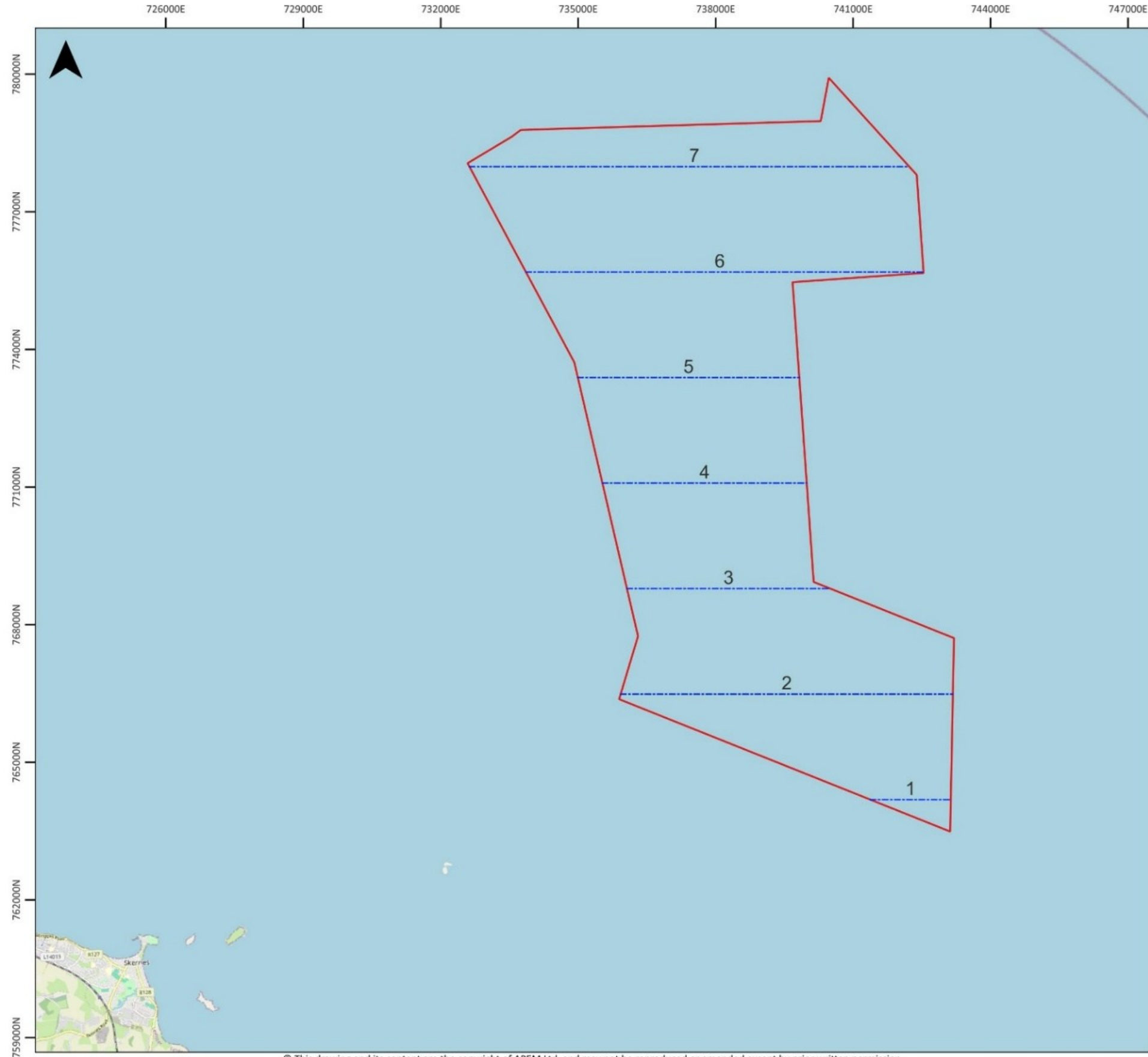
- 2.1.1 The boat-based bird surveys were undertaken in November 2024 within the Proposed Development’s array area. The survey methodology was based upon ESAS methodology and guidance, as is the industry standard (Camphuysen *et al.*, 2004; Maclean *et al.*, 2009).
- 2.1.2 The surveys were undertaken using seven pre-determined transects, as presented in Figure A 2-1, with the transect lines matching those used to capture DAS data for consistency. The spacing of transects 2.3km apart served to minimise double recording; any sightings between the transects were recorded as such (e.g. ‘Transect 1.5’). Survey dates and times are presented within Table A 2-1.

Table A 2-1 Boat-based survey times and dates

Survey day	Date	Start time	End time
1	05/11/2024	7:50	16:46
2	11/11/2024	7:08	16:26
3	12/11/2024	7:30	16:24

- 2.1.3 The boat followed the survey transects at 8-10 knots (kts), surveying the area in two trips along each transect from south to north (first pass) during the morning, and then following each transect from north to south (second pass) in the afternoon on each survey day. During the surveys, the vessel’s Global Positioning System (GPS) location along the transect was recorded every 1.2km in addition to the transect start and end times. Environmental data was recorded every 1.2-2.4km and is presented in Table A 2-2.
- 2.1.4 Target species comprised of all migratory bird species, inclusive of wildfowl, waders, passerines and raptors. Surveyors collected data on the species, count, direction of flight, flight height, age, sex and behaviour where possible. Flight heights were recorded using the same bands as set out for the VP surveys in Section 2.2





Migratory Bird Surveys

P00015941

November 2024

Legend

- - - Transect lines
- Site boundary



Scale: 1: 114,000 Date: 04/11/2024 Drawn by: MRO

Coordinate System:
IRENET95 / Irish Transverse
Mercator

Basemap: Google Earth Satellite © URL:
<http://mt0.google.com/vt/lyrs=s&hl=en&x={x}&y={y}&z={z}>

Figure A 2-1 Offshore survey area with survey transects



Table A 2-2 Migratory bird survey environmental data

Date	Transect Number	Time	Wind Force	Wind Direction	Precipitation	Temperature (°C)	Visibility	Cloud cover (oktas)	Sea state
05/11/2024	1	07:30	3	SE	None	12	Good	8	3
05/11/2024	1.5	07:49	3	SE	None	12	Good	8	3
05/11/2024	2	07:59	3	SE	None	12	Good	8	3
05/11/2024	3	08:44	3-4	SE	None	12	Good	8	4
05/11/2024	3.5	09:11	3-4	SE	None	12	Good	8	4
05/11/2024	4	09:23	3-4	SE	None	12	Good	8	4
05/11/2024	4.5	09:39	3-4	SE	None	12	Good	8	4
05/11/2024	5	09:55	3-4	SE	None	12	Good	8	4
05/11/2024	5.5	10:23	4	SE	None	12	Good	8	4
05/11/2024	6	10:37	4	SE	None	12	Good	8	4
05/11/2024	6.5	11:17	4	SE	None	12	Good	8	4
05/11/2024	7	11:37	4	SE	Drizzle	12	Good	8	4
05/11/2024	6	11:41	4	SE	Drizzle	10	Moderate	8	4-5
05/11/2024	5.5	13:22	4	SE	Drizzle	11	Moderate	8	4-5
05/11/2024	4.5	14:10	4	SE	Drizzle	11	Moderate	8	4-5
05/11/2024	3.5	14:40	4	SE	Drizzle	11	Good	8	4-5
05/11/2024	3	14:52	4	SE	None	11	Good	8	5
05/11/2024	2.5	15:12	4	SE	None	11	Good	8	5
05/11/2024	2	15:28	4	SE	Drizzle	11	Good	8	5
05/11/2024	2	16:00	4-5	SE	Drizzle	10	Good	8	5
05/11/2024	1.5	16:30	4-5	SE	None	11	Good	8	5
05/11/2024	1	16:40	4-5	SE	Drizzle	11	Good	8	5
11/11/2024	1	07:08	3	NW	None	10	Good	6	3
11/11/2024	2.5	07:58	3	NW	None	10	Good	6	4
11/11/2024	3.5	08:37	3	NW	None	10	Good	5	4
11/11/2024	4.5	09:17	3	NW	None	10	Good	4	4
11/11/2024	5.5	09:56	3	NW	None	10	Good	5	3
11/11/2024	6	10:15	3	NW	None	10	Good	6	3-4
11/11/2024	7	11:30	3	NW	None	12	Good	5	3



11/11/2024	6	12:30	3	N	None	12	Good	6	3
11/11/2024	5.5	13:14	2-3	N	None	12	Good	5	3
11/11/2024	5	13:31	2-3	N	None	12	Good	5	3
11/11/2024	4.5	13:57	2	N	None	12	Good	4	3
11/11/2024	4	14:01	2-3	N	None	12	Good	4	3
11/11/2024	3.5	14:23	2	N	None	12	Good	4-5	3
11/11/2024	3	14:53	2	N	None	12	Good	4	3
11/11/2024	2.5	14:55	2	N	None	12	Good	4	3
11/11/2024	2	15:00	2	N	None	10	Good	4	3
11/11/2024	2	15:24	2	N	None	10	Good	4	3
11/11/2024	1.5	16:14	2	N	None	10	Good	3-4	3
11/11/2024	1	16:26	2	N	None	9	Good	2	3
12/11/2024	1	07:30	2	NW	None	6	Good	3	3
12/11/2024	1.5	08:12	2	NW	None	6	Good	3	3
12/11/2024	2	08:49	2-3	NW	None	9	Good	4	3
12/11/2024	3	09:05	2-3	NW	None	5	Good	4-5	3
12/11/2024	4.5	10:11	3	NW	None	6	Good	5	3
12/11/2024	5	10:25	3	NW	None	6	Good	5	3
12/11/2024	6.5	12:02	2-3	NW	None	8	Good	4-5	4
12/11/2024	7	13:13	2-3	NW	None	8	Good	4-5	4
12/11/2024	6	13:24	2-3	NW	None	8	Good	3-4	3
12/11/2024	5.5	14:13	2-3	NW	None	8	Good	3	3
12/11/2024	5	14:28	2-3	NW	None	8	Good	3	3
12/11/2024	4.5	14:56	2	NW	None	8	Good	2-3	3
12/11/2024	4	15:09	2	NW	None	8	Good	3	3
12/11/2024	3.5	15:27	2	NW	None	8	Good	3	3
12/11/2024	3	15:48	3	NW	None	8	Good	3	3
12/11/2024	2.5	16:03	3	NW	None	8	Good	3	3
12/11/2024	2	16:24	2	NW	None	6	Good	3	3



2.2 VP surveys

2.2.1 VP surveys were undertaken on a weekly basis, where possible, between early September and mid-December 2025. Each survey visit comprised of a six-hour watch from one of three VP locations, referred to herein as VP1, VP2 and VP3. The survey locations were sited to the west of the Proposed Development with a view of the surrounding habitats (up to 5 kilometres (km) offshore in good viewing conditions) within the vicinity of the Proposed Development. The VP locations, as presented in Figure A 2-2, are as follows:

- VP1 (53.795109, -6.219967) to the north-west of the array area;
- VP2 (53.67833723, -6.23761576) to the west of the array area; and
- VP3 (53.59733466, -6.00431851) on the island of Rockabill to the south-west of the array area.

2.2.2 Survey visits commenced at sunrise and comprised of two sessions, each lasting three hours with a 30-minute break between them, consistent with NatureScot onshore wind farm survey guidelines (NatureScot, 2025). The survey methodology was designed to collect data on both nocturnal migrants arriving early in the morning after setting during the night, as well as diurnal migrants. This focus on surveying early in the day was considered appropriate when taking into consideration that the PAM units record from sunset to sunrise, and so will capture data on any species migrating at dusk. Furthermore, diurnal migrants are more likely to be on the move in the morning hours before foraging in the afternoon (Newton, 2023). In addition, as the day lengths reduced during autumn as the survey period progressed, the six-hour surveys naturally covered a higher percentage of daylight hours.

2.2.3 Target species were all waders, waterfowl and terrestrial bird species considered to be on migration (i.e., passing over open sea or the coast, or those in direct flight perpendicular to the coast, or those determined to be on a migratory stopover (Warnock, 2010), including any target species that had landed on Rockabill). Where possible VP survey visits were conducted during suitable weather conditions conducive to migration, avoiding strong winds and heavy precipitation, both of which reduce migratory flux and impair observers' ability to detect and identify birds. VP survey visit dates and environmental conditions are presented in Table A 2-3.

2.2.4 Flight height and distance bands were estimated using known geographical features (e.g., the Rockabill lighthouse), as well as surveyor experience/ expert judgement. Surveyors used a combination of binoculars and a telescope to record migrating birds, noting the following for each record:

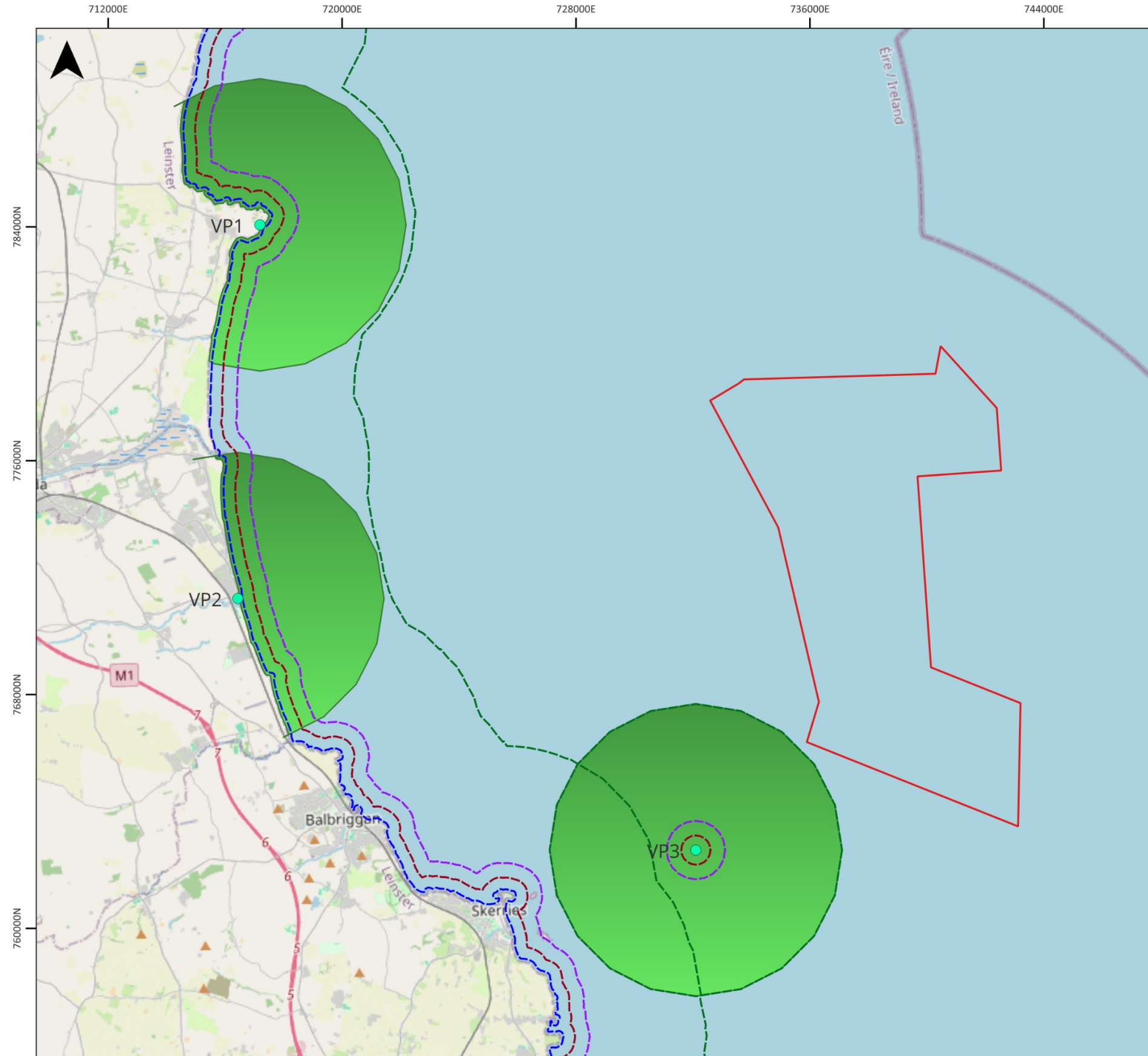
- Species;
- Abundance;
- Hour of record;
- Direction of flight;
- Vocalisations;
- Age (where possible);
- Sex (where possible);
- Behaviour;



- Flight height band1 (m); and
- Distance offshore band2 (m / km) (Figure A 2-2).

¹ A: 0-5 m; B: 5-20 m; C: 20-40 m; D: 40 m+ (noting any at 375 m +).

² A: 0-100 m; B: 100-500 m; C: 500-1,000m; D: 1-5 km; E: 5 km+.



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**NISA Migratory Bird Survey
Report 2026**

Vantage Point Survey Locations

Legend

- Vantage Point Survey Locations
 - Indicative Vantage Point Viewing Arcs
 - NISA Proposed Array Area
- Distance Bands**
- Distance Band A
 - Distance Band B
 - Distance Band C
 - Distance Band D



Scale: 1: 180,000 Date: 15/05/2026 Drawn by: AW

Coordinate System:
IRENET95 / Irish Transverse Mercator
Basemap: OpenStreetMap © URL:
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Figure A 2-2 Vantage Point Survey Locations



Table A 2-3 VP visit dates, times and environmental conditions in chronological order

Date	VP	Visit	Sunrise	Start time	End time	Start wind speed (BF ³)	End wind speed (BF)	Start wind direction	End wind direction	Start rain	End rain	Start temp. (°C)	End temp. (°C)	Start visibility	End visibility	Start cloud cover (x/8)	End cloud cover (x/8)	Start Douglas sea state ⁴	End Douglas sea state
04/09/25	3	1	06:40	09:00	15:30	2	2	W	W	None	None	12	18	Good	Good	8	8	2	2
12/09/25	1	1	06:53	06:53	13:23	4	4	SW	SW	None	None	10	10	Excellent	Excellent	3	6	4	4
16/09/25	2	1	07:00	07:00	13:30	4	5	W	W	None	None	11	15	Good	Good	2	4	4	4
16/09/25	3	2	07:01	09:30	16:00	3	3	W	W	None	None	12	18	Good	Good	2	3	2	3
17/09/25	1	2	07:02	07:02	13:32	4	4	SW	SW	Drizzle	None	16	18	Good	Good	4	8	4	4
18/09/25	2	2	07:03	07:03	13:33	3	4	SW	SW	None	None	12	15	Good	Good	4	8	3	3
26/09/25	1	3	07:19	07:18	13:50	3	3	SE	SE	None	None	14	16	Good	Good	2	2	4	5
28/09/25	2	3	07:28	07:28	14:00	1	1	SW	SW	None	None	8	12	Good	Good	6	7	1	1
01/10/25	3	3	07:27	08:00	14:30	3	5	S	S	None	Drizzle	11	16	Good	Good	4	6	3	3
01/10/25	1	4	07:27	07:27	13:57	4	4	SW	SW	None	None	14	16	Good	Good	8	7	4	4
06/10/25	2	4	07:34	07:34	14:04	4	5	SW	SW	None	None	12	16	Good	Good	3	7	3	4
09/10/25	1	5	07:41	07:41	14:11	2	4	W	W	None	None	10	14	Excellent	Excellent	8	8	2	3

³ **Beaufort scale** **Wind speed (km)** **Wave height (m)** **Wind and sea description**

0	<1	0	Calm, glassy
1	1-3	0	Light airs, glassy
2	4-6	0.1	Light breeze, smooth
3	7-10	0.4	Gentle breeze, slight
4	11-16	1	Moderate breeze, slight to moderate
5	17-21	2	Fresh breeze, moderate
6	22-27	3	Strong breeze, rough
7	29-33	4	Moderate gale, rough to very rough
8	34-40	5.5	Fresh gale, rough to high

⁴ **Sea state** **Wave height (m)** **Description**

0	no wave	Calm (Glassy)
1	0-0.10	Calm (rippled)
2	0.10-0.50	Smooth
3	0.50-1.25	Slight
4	1.25-2.50	Moderate
5	2.50-4.00	Rough
6	4.00-6.00	Very rough
7	6.00-9.00	High
8	9.00-14.00	Very high
9	>14.00	Phenomenal



10/10/25	2	5	07:43	07:43	14:13	3	4	W	W	None	None	10	12	Good	Good	8	8	2	2
13/10/25	1	6	07:49	07:49	14:19	2	2	SE	SE	None	None	10	13	Good	Good	8	6	2	2
16/10/25	2	6	07:54	07:54	14:24	2	3	E	E	None	None	12	11	Good	Good	8	8	3	4
16/10/25	3	4	07:54	08:00	14:30	3	3	E	E	None	None	10	13	Good	Good	7	8	2	2
20/10/25	1	7	08:02	08:02	14:32	1	3	NE	NE	Light Rain	None	11	13	Good	Good	7	8	4	4
22/10/25	2	7	08:05	08:05	14:35	2	4	SW	SW	None	None	7	12	Good	Good	2	6	2	4
01/11/25	1	8	07:25	07:25	13:55	3	4	W	SW	None	None	8	10	Good	Good	3	2	4	4
02/11/25	2	8	07:26	07:26	13:56	3	5	SW	SW	None	None	6	10	Good	Good	3	4	4	4
05/11/25	1	9	07:33	07:33	14:03	4	3	S	S	Drizzle	None	11	14	Moderate	Good	8	7	4	4
04/11/25	2	9	07:30	07:30	14:00	2	4	SSE	SW	None	None	12	15	Moderate	Good	8	7	4	4
13/11/25	1	10	07:48	07:48	14:18	3	2	W	NW	Drizzle	None	9	10	Moderate	Excellent	8	4	2	2
12/11/25	2	10	07:46	07:46	14:16	2	2	WSW	NW	None	None	10	11	Good	Good	6	8	2	3
20/11/25	1	11	08:01	08:01	14:31	4	5	NW	NW	None	None	2	4	Good	Good	2	2	4	4
20/11/25	2	11	08:01	08:01	14:31	3	4	WNW	WNW	None	None	-1	5	Good	Good	0	1	1	1
21/11/25	3	5	08:15	08:30	15:00	4	4	W	SW	None	None	4	7	Good	Good	2	7	4	4
25/11/25	1	12	08:10	08:10	14:40	4	3	NW	NW	None	None	5	8	Good	Good	1	1	4	4
28/11/25	2	12	08:15	08:14	14:44	6	6	SW	SW	Light Rain	None	8	9	Good	Good	8	4	5	5
01/12/25	1	13	08:20	08:16	14:46	2	2	S	SE	Drizzle	Drizzle	9	10	Good	Good	8	8	3	3
03/12/25	3	6	08:17	08:30	15:00	3	3	S	S	None	None	9	9	Excellent	Excellent	5	5	3	3
05/12/25	2	13	08:25	08:25	14:55	3	4	SSE	SSE	Light Rain	Light Rain	3	8	Moderate	Moderate	3	8	3	4
10/12/25	2	14	08:31	08:31	15:01	6	5	SW	SW	None	None	9	11	Good	Good	3	4	5	4
11/12/25	1	14	08:33	08:32	15:02	6	5	SSW	SW	None	Persistent	11	11	Good	Moderate	8	8	5	5
15/12/25	2	15	08:36	08:36	15:06	1	1	W	WSW	None	None	7	7	Good	Good	5	8	1	1
08/01/26	1	15	08:39	08:39	15:09	1	3	NW	NNE	None	None	2	4	Good	Good	5	8	1	3



2.3 PAM Surveys

- 2.3.1 Acoustic data were collected using two Song Meter 4 (SM4) acoustic detectors (PAM units) during nocturnal hours (between sunset and sunrise). The SM4s were deployed strategically in relation to the Proposed Development in order to capture sounds from birds migrating south-west and therefore likely to have flown through the offshore development area, with one located on a headland to the west of the Proposed Development array area and one deployed offshore to the south-west of the Proposed Development array area (Figure A 2-3), as follows:
- Onshore PAM at Bremore (53.62726981, -6.19262626) west of the array area; and
 - Offshore PAM on the island of Rockabill (53.59733466, -6.00431851) to the south-west of the array area.
- 2.3.2 Note that the onshore PAM unit was deployed as a backup to the offshore PAM unit. Therefore, offshore PAM data captured between early-September and mid-November has been analysed and are presented herein, where available. Where there are data gaps, these are filled using data from the onshore PAM unit.
- 2.3.3 Bioacoustic data from the PAM units were analysed manually using Audacity. Audacity is widely used for bioacoustic data analysis, and especially for nocturnal bird recordings, as there is an abundance of software-specific guidance available in the public domain that details how best to configure the software for this task.
- 2.3.4 The SM4s recorded audio data in blocks of one hour (or less, when sunrise begins part-way through a block). During analysis, each block was assigned a recording quality classification of either 'Good', 'Moderate' or 'Poor' as a broad indication of the audio quality. The quality was found to vary with changing environmental conditions (e.g., strength of wind and amount of rain), with high levels of either having the potential to compromise the ability of the analyst to detect bird vocalisations. Recording blocks with high levels of wind and/ or rain are classified herein as being of 'Poor' quality. Detections were assumed to be complete in both recording blocks with both 'Good' and 'Moderate' recording quality.
- 2.3.5 The blocks were uploaded into Audacity, with spectrograms reviewed by experienced bioacoustic analysts visually to identify bird vocalisations. Where present, the species identification was informed by both the spectrogram shape and frequency, as well as the audio. For each bird vocalisation recorded the following attributes were noted:
- Record ID: a unique identifier for each record, recorded as a sequential number;
 - Unit: a unique identifier for the two PAM units deployed;
 - Location: the location of the unit;
 - Date: the date at the start of the hour-long recording block;
 - Time: the time at the start of the hour-long recording block;
 - Species: the species, or species group, that the vocalisations are from;



- Number of calls: the number of bird calls recorded⁵;
- Abundance best estimate: how many individual birds the analyst thinks were present during each event; and
- QA file: A link to an audio clip of the recording so that the record can be quality assured (QA).

2.3.6 Quality assurance was undertaken by selecting a randomised 20% of bioacoustics records and confirming that the identification and accompanying details made by the analyst aligns with that determined at the QA stage. If a $\geq 10\%$ discrepancy between the identifications made during analysis and QA was detected, the whole batch (comprising all recordings analysed by that reviewer) was re-analysed. Where identifications did not match, or the identification was debateable, the identification was discussed amongst selected bioacoustics experts, detailed in Section 2.4. The QA process for the data analysis was considered complete when no discrepancies existed between analysts' identifications, either through experts agreeing to change the species identification, or agreeing a lower taxonomic rank (e.g., 'gull sp⁶'). In addition, identifications of potentially rare or unexpected species were also discussed among bioacoustics experts in order to obtain robust identifications.

2.4 Surveyors and data analysis

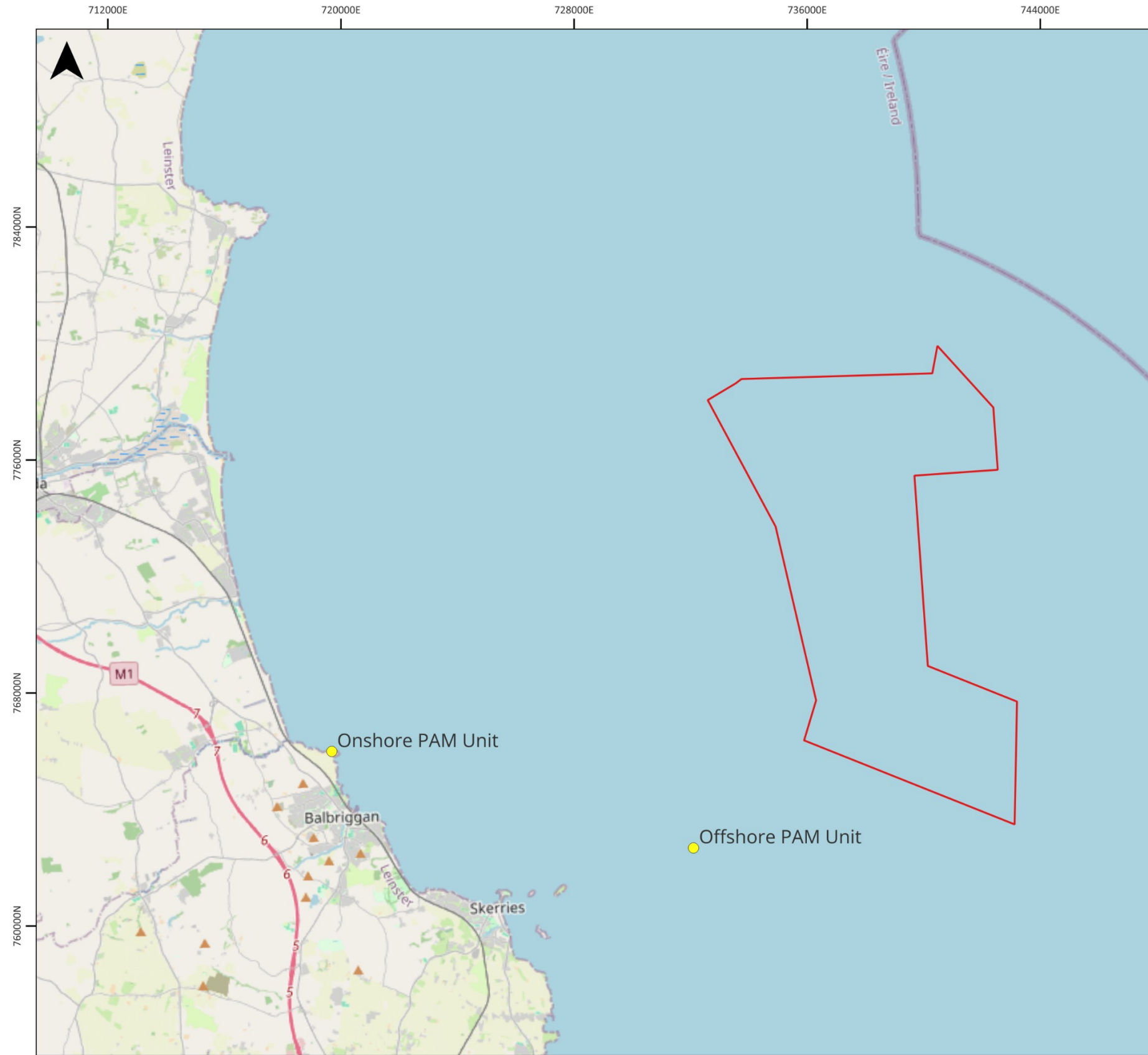
2.4.1 All VP survey work was undertaken by GoBe's trusted subcontractors Niall Keogh, Cian Cardiff (CC Ornithology) and Nick Veale (Veale Ecology). All are extremely experienced, professional ornithologists with an in-depth knowledge both of Ireland's bird species and environmental legislation pertaining to birds in Ireland, as well as the survey methods employed and the equipment used.

2.4.2 Analysis of the bioacoustics data was led by the designated experts Mark Lewis (GoBe Principal Ornithologist), Ryan Irvine (GoBe Senior Ornithologist) and Dante Shepard (APEM Marine Wildlife Survey QA analyst). Both Mark and Ryan have extensive experience in analysis of bioacoustic data for birds using Audacity and excellent knowledge of the nocturnal vocalisations of European bird species. Dante is an acknowledged expert in bird identification including through vocalisations.

⁵ In species where calls are made up of compound sounds (e.g., the three-note call of a redshank *Tringa totanus*), each phrase (i.e., collection of three notes) was counted as one call.

⁶ Species





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**NISA Migratory Bird Survey
Report 2026**

**Passive Acoustic Monitoring Unit
Locations**

Legend

- NISA Proposed Array Area
- PAM locations



Scale: 1: 180,000 Date: 15/05/2026 Drawn by: AW

Coordinate System:
IRENET95 / Irish Transverse Mercator
Basemap: OpenStreetMap © URL:
<https://www.openstreetmap.org/copyright>

Figure A 2-3 Passive Acoustic Monitoring Locations



2.5 Limitations

Boat-based Surveys

- 2.5.1 On survey day 1 (05/11/2024) during the second pass of the Offshore Survey Area, the sea state reached five on the Douglas scale. According to the guidance, ESAS surveys must be undertaken in conditions in a sea state of four or below. During a sea state of five, visibility conditions are considered to be poor. However, despite the sea state visibility was classed as good by the surveyors and vessel skipper throughout the survey period, and therefore the survey was not curtailed.
- 2.5.2 Assessing accurate flight heights can be challenging for surveyors due to the potential for inaccuracy when on a moving vessel. The height band estimates are based on fixed objects around the vessel, which have the potential to provide an overestimate of flight heights of birds at surface level (Aonghais *et al.*, 2012). Estimating flight heights using a rangefinder can also be limited in accuracy, especially in rain and foggy conditions (Borkenhagen *et al.*, 2018). Furthermore, vessels can cause birds that are vulnerable to disturbance, such as divers, to flush from the sea surface and may cause an overestimate in the number of birds recorded at potential collision height (Aonghais *et al.*, 2012).
- 2.5.3 The bird survey dates were slightly delayed due to inclement weather and surveyor availability during late October. However, given the poor weather conditions prior to the survey dates, it is considered that birds would not be migrating in large numbers at this time, and that the data captured are both robust and fit for purpose.

VP Surveys

- 2.5.4 Due to VP3 (Rockabill) being offshore, weather windows and logistics impacted the number and frequency of visits that were undertaken for both VP surveys and PAM unit maintenance. Storms and other unsettled weather conditions in the Irish sea throughout autumn and early winter meant that the survey visits were only able to be undertaken when it was safe to transit to Rockabill by boat. These inherent safety and logistical considerations and associated costs are considered to be minor limitations to the survey programme as the visits were unable to be undertaken at the same frequency as for the onshore VP sites. However, the dataset captured from Rockabill is considered to be robust and fit for purpose given the location of the VP in relation to the Proposed Development array area, as well as being a valuable insight to the behaviour of target species migrating in the region.
- 2.5.5 Where PAM data is not available from Rockabill and data from the Bremore unit has been used as back-up, this is considered robust given the location of the recorder in relation to the offshore development area, and the anticipated direction of travel of birds migrating through the offshore development area. As such, in terms of providing evidence based regional context to the Developer's assessments the combination of these datasets is considered robust.



- 2.5.6 Due to limited weather windows, some VP surveys at different locations were undertaken concurrently. While surveying on separate days is preferable to avoid the risk of double-counting species, given the distance between the VP locations the risk was deemed to be minimal. Indeed, anecdotal evidence from the surveyors showed that while target species may be seen migrating at one area of coastline, they will not necessarily be recorded at a different area of the coast on the same day. This is because birds on migration may change flight trajectory between areas, or land to rest or forage. Consequently, the VP dataset is still considered to be both robust and fit for purpose.
- 2.5.7 Likewise, the 15th and final visit to VP1 was delayed and occurred on 08/01/2026. However, for completeness of the data and to allow better comparison between the VPs, this visit has been retained in this report and included in the totals for VP1.
- 2.5.8 The detection of birds can be limited by weather conditions which can impact visibility. Moreover, species detection rates will decay with distance from shore, especially for smaller species such as passerines, even in good viewing conditions. Therefore, detection rates within the indicative 5 km viewing arc (Figure A 2-2) have the potential to differ between different species and between visits. The decline in detection rates with distance from shore is an inherent limitation of VP surveys.

PAM Surveys

- 2.5.9 Results from the PAM survey specifically (and PAM data in general) should be considered within the context of the following limitations:
- Bioacoustic data capture is only effective for those birds that vocalise audibly while migrating.
 - Certain species, such as warblers, tend not to vocalise while migrating. Therefore, even with best efforts, PAM may present an incomplete dataset with regard to migrating birds. However, warblers will often vocalise once landed and can be picked up by the onshore PAM unit, and by the VP surveyors.
 - Certain species tend not to migrate by night (mostly highly aerial species such as hirundines or soaring birds such as raptors), however data on these species would be captured via the VP surveys.
 - Similarly, some birds may fly too high on migration for their vocalisations to be captured by the acoustic recorders. However, it can be concluded using expert judgement that any birds flying at this height, especially louder species such as geese, would likely be flying above collision risk height.
- 2.5.10 Furthermore, there is limited information available to accompany each bioacoustic record captured. The abundance of birds can only be estimated using professional judgement, and the analyst can glean no information relating to the flight direction. Moreover, there is no way of realistically estimating the flight height of birds detected acoustically. However, given that these data will not inform a data-informed assessment and will instead be used to provide local and wider regional context to the Developer's model-based assessments, these limitations are not considered to be significant.



3 Results

3.1 Boat-based Surveys

Migratory birds

3.1.1 Nine species were recorded in total, five of which were considered to be migrating, with the individuals of three species (black-headed gull, common gull, and common scoter) displaying non-migratory behaviours and great northern diver were not considered a target species (Table A 3-1).

Table A 3-1 Migratory bird boat-based surveys results

Species	Survey day 1 count	Survey day 2 count	Survey day 3 count	Total
Whooper swan	-	-	2	2
Bar-tailed godwit	-	-	1	1
Dunlin	-	-	5	5
Skylark	-	-	1	1
Starling	6	79	32	117
Total	6	79	41	126

Wildfowl

3.1.2 A single observation of two whooper swans was recorded, with birds flying north-west on Survey Day 3 in flight height Band A. This was the only target wildfowl species recorded.

Waders

3.1.3 Two wader species, bar-tailed godwit and dunlin, were recorded on Survey Day 3. All waders were observed flying northwards, with the five dunlin flying in flight height Band A while the single bar-tailed godwit was observed at within flight height Band C.

Passerines

3.1.4 Starlings were the most abundant target species recorded, with a total of 117 individuals recorded and a peak count of 79 on Survey Day 2. The majority of birds were recorded flying in westerly directions (south-west, west, or north-west), with a single observation of five individuals flying northwards on Survey Day 1. A single skylark, the only other passerine species recorded, was observed flying northwards on Survey Day 3.

3.1.5 The majority of passerines were recorded flying below potential collision height, with the only exception being a single observation of a starling flying within flight height Band C.



3.2 VP Surveys

- 3.2.1 A total of 55 target species undertaking migration were recorded across 702 records, which have been defined as per sighting, either of a single bird or a flock, from the three VP locations. These data are estimated to comprise 11,847 individual birds. The majority of these birds were observed in direct flight, however, two records of roosting waders have been considered as migratory stopovers and included.
- 3.2.2 Of the total 953 records of target species, 700 were undertaking direct flight, two records were considered as migratory stopover, 45 records could not have a behaviour attributed, and the remaining 206 records displayed non-migratory behaviours such as foraging trips or short commuting flights.
- 3.2.3 Migratory common scoter were recorded in the highest numbers (n=3,081), however, a further 4,152 birds were recorded undertaking local movements or generally rafting and foraging within view of the VPs. These results appear consistent with the movement of common scoter into coastal waters in autumn, forming wintering flocks. Migratory common scoter were recorded almost exclusively from the onshore VPs, totalling 99.4% of the individuals recorded and with only 19 individuals recorded from the offshore VP on Rockabill Island.
- 3.2.4 The other most common species by total individuals are meadow pipit (n=2,520), linnet (n=1,390), barn swallow (n=1,100) and goldfinch (n=937). The least abundant migratory target species recorded were brambling, fieldfare, goldcrest, grey heron, greylag goose, peregrine falcon, redwing, ruff and snow bunting (all with n=1). While many of these species have resident populations in Ireland and the Great Britain, more northern populations often migrate south during autumn and it is likely some of these birds were undertaking these migrations.
- 3.2.5 A total of 5,670 birds were recorded at VP1 compared with 6,056 at VP2. The highest number of birds recorded during visits was 2,073 at VP1 (17th September), 892 at VP2 (5th December) and 148 at VP3 (3rd December). The high count at VP1 on 17th September is attributed to a large movement of hirundines (200 house martin and 555 barn swallow), meadow pipit (n=665) and linnet (n=295). The highest count at VP2 on 5th December was driven by a movement of migrating common scoter (n=705). The highest count at VP3 was relatively low, consisting exclusively of 48 migrating starling.
- 3.2.6 Accounting for the different number of visits to the onshore VPs (15 visits each) and offshore VP (6 visits) by calculating the mean number of migratory individuals per visit reveals 378 birds/visit at VP1, 404 birds/visit at VP2 and only 20 birds/visit at VP3.
- 3.2.7 The distinct difference in number of individuals recorded between the onshore VPs (VP1 and VP2) and the offshore VP (VP3) indicates that migratory movements likely to interact with the offshore development area are substantially smaller than those associated with inshore or coastal areas. This suggests that migratory movements along Ireland's east coast comprise a number of birds that may have crossed the Irish Sea within the vicinity of the offshore development area, but these birds are outnumbered by those that have either crossed the Irish Sea further north, or are birds from Irish breeding populations.



- 3.2.8 Of the total 55 target species recorded from all VPs, 50 were able to have their flight heights estimated within pre-defined bands, while 54 were able to have their distance estimated in the same way. These results are presented in Table A 3-2 and respectively. Recorded flight heights were predominantly within Bands A and B, with 89.2% of birds with available flight height data flying below 20m. Only 10.8% of birds with available flight height data were flying in height band C, with meadow pipit the most common (19.8%) but no one species dominated this height band, consisting of waders, wildfowl and passerines. The only species recorded as flying at over 40 m were golden plover, with two records of birds (groups of 14 and 300) travelling North in distance band B, these birds are considered non-migratory and likely undertaking an inshore commute rather than migration which would likely be a southwards movement. This indicates that a large majority of migratory birds are flying at low heights, with only a small proportion of individuals flying within the height bands in the precautionary rotor swept area.
- 3.2.9 Similarly, the vast majority of individuals were recorded in inshore areas, with 83.4% of individuals recorded in distance Band A (0-100 m) alone and 94.9% of individuals with distance data flying within 1 km of shore. All individuals with distance data recorded from VP3 on Rockabill Island were within 500 m of shore, indicating that few birds are likely to be migrating further offshore.
- 3.2.10 Common scoter were the most common species recorded migrating through distance Bands C, D and E (n=659) with 62.1% of all birds recorded in these bands being common scoter, additionally this was the only species recorded in distance band E. Since common scoter were the most commonly recorded species in distance Bands C, D and E they may be more likely to utilise flyways further from shore. However, they were almost exclusively recorded in flight height Bands A and B (98.3% of individual common scoter), indicating any risk of collision remains low. Conclusions regarding the proportion of birds flying in each distance band should be drawn with some caution given that more distant birds are less likely to be detected by observers.

Table A 3-2 Flight height results of migrating birds from the 2025 VP survey programme

Flight Height Band	Band Definition	Number of individuals	Percentage of total individuals (with height data)
A	0-5 m	1,391	28.2
B	5-20 m	3,007	61.0
C	20-40 m	530	10.8
D	40 m+	0	0
Total		4,928	



Table A 3-3 Distance offshore results of migrating birds from the 2025 VP survey programme

Distance Offshore Band	Band Definition	Number of individuals	Percentage of total individuals (with height data)
A	0-100 m	7,356	83.4
B	100-500 m	402	4.6
C	500-1,000 m	612	6.9
D	1-5 km	196	2.2
E	5 km+	254	2.9
Total		8,820	

3.2.11 Of the target species considered to be migrating, 92% were recorded flying south and 3.0% were flying north, typically following the contours of the coastline or flying over open sea adjacent to the land. Almost all species with flight direction data were recorded flying south on at least one occasion. Common scoter were the most common species flying north (82.1% of individuals), followed predominantly by waders and wildfowl. Starling were the most common species recorded flying west, totalling 276 individuals (79.1% of birds flying west), with the next most common species being 45 shelduck and ten greylag goose.

Table A 3-4 Flight direction results of migrating birds from the 2025 VP survey programme

Flight direction	Number of individuals	Percentage of total individuals (with direction data)
North	270	2.96
North-east	16	0.18
East	0	0
South-east	2	0.02
South	8,403	92.02
South-west	47	0.51
West	349	3.82
North-west	45	0.49
Total	9,132	

Waders

3.2.12 Migratory waders were recorded in the greatest numbers from VP1 (n=271) followed by VP2 (n=195) with eight species recorded at each. Only 11 waders of three species were recorded at VP3 on Rockabill Island, where wading birds might have been expected on migratory stopover. These results are consistent with waders using inshore flyways and therefore unlikely to pass through the proposed development area.

Table A 3-5 Total waders recorded during the 2025 VP survey programme

Species	Latin name	Total number of individuals recorded
Bar-tailed godwit	<i>Limosa lapponica</i>	2
Black-tailed godwit	<i>Limosa limosa</i>	92
Curlew	<i>Numenius arquata</i>	15
Curlew sandpiper	<i>Calidris ferruginea</i>	2
Dunlin	<i>Calidris alpina</i>	30
Golden plover	<i>Pluvialis apricaria</i>	43
Knot	<i>Calidris canutus</i>	42
Lapwing	<i>Vanellus Vanellus</i>	157
Oystercatcher	<i>Haematopus ostralegus</i>	89
Redshank	<i>Tringa tetanus</i>	2
Ruff	<i>Philomachus pugnax</i>	1
Snipe	<i>Calidris alba</i>	2
Total		477

Wildfowl, seaducks and grebes

3.2.13 Migrating wildfowl, seaducks and grebes were the second most represented group, while being exclusively recorded from the onshore VPs, except 19 common scoter and one heron record from VP3. These results suggest wildfowl habitually use more inshore routes, following the coastline as they migrate and unlikely to interact with the Proposed Development array area. Common scoter were the most prevalent species, representing 77.8% of individuals. Brent goose was the next most common wildfowl species recorded, moving in the greatest numbers during late November and into early December.

Table A 3-6 Total wildfowl and grebes recorded during the 2025 VP survey programme

Species	Latin name	Total number of individuals recorded
Brent goose	<i>Branta bernicla</i>	464
Common scoter	<i>Melanitta nigra</i>	3081
Eider	<i>Somateria mollissima</i>	16
Great crested grebe	<i>Podiceps cristatus</i>	156
Grey heron	<i>Ardea cinerea</i>	1
Greylag goose	<i>Anser anser</i>	12
Little egret	<i>Egretta garzetta</i>	2
Long-tailed duck	<i>Clangula hyemalis</i>	4
Mallard	<i>Anas platyrhynchos</i>	37
Mute swan	<i>Cygnus olor</i>	2
Red-breasted merganser	<i>Mergus serrator</i>	41
Scaup	<i>Aythya marila</i>	10
Shelduck	<i>Tadorna tadorna</i>	49
Teal	<i>Anas crecca</i>	19
Velvet scoter	<i>Melanitta fusca</i>	13
Whooper swan	<i>Cygnus cygnus</i>	12
Wigeon	<i>Mareca penelope</i>	41
Total		3,960

Passerines

3.2.14 Passerines were recorded in large numbers from the onshore VPs, totalling 4,324 and 2,992 individuals at VP1 and VP2 respectively. The offshore VP (VP3) only recorded 90 individual migrating passerines. VP1 and VP2 had a mean of 288 birds/visit and 199 birds/visit respectively, compared to just 15 birds/visit at VP3. Like other groups, this indicates that the majority of passerines were migrating either along the coast or along inshore flyways. The onshore VPs also recorded a greater diversity of passerines at 24 species, compared to 4 species at the offshore VP. Other species of passerine were recorded at the offshore VP, however, many of these were exhibiting behaviours consistent with residency and for others their behaviour could not be determined.



Table A 3-7 Total passerines recorded during the 2025 VP survey programme

Species	Latin name	Total number of individuals recorded
Barn swallow	<i>Hirundo rustica</i>	1100
Brambling	<i>Fringilla montifringilla</i>	1
Chaffinch	<i>Fringilla coelebs</i>	200
Fieldfare	<i>Turdus pilaris</i>	1
Goldcrest	<i>Regulus regulus</i>	1
Goldfinch	<i>Carduelis carduelis</i>	937
Grey wagtail	<i>Motacilla cinerea</i>	24
House martin	<i>Delichon urbicum</i>	250
House sparrow	<i>Passer domesticus</i>	11
Lesser redpoll	<i>Acanthis flammea</i>	66
Linnet	<i>Linaria cannabina</i>	1390
Long-tailed tit	<i>Aegithalos caudatus</i>	2
Meadow pipit	<i>Anthus pratensis</i>	2520
Pied wagtail	<i>Motacilla alba</i>	111
Redwing	<i>Turdus iliacus</i>	6
Reed bunting	<i>Emberiza schoeniclus</i>	29
Rook	<i>Crovus frugilegus</i>	22
Sand martin	<i>Riparia riparia</i>	10
Siskin	<i>Spinus spinus</i>	78
Skylark	<i>Alauda arvensis</i>	285
Snow bunting	<i>Plectrophenax nivalis</i>	1
Starling	<i>Sturnus vulgaris</i>	313
Tree sparrow	<i>Passer montanus</i>	42
Yellowhammer	<i>Emberiza citrinella</i>	6
Total		7,406

Raptors

3.2.15 Four individuals of two raptor species were recorded over the survey period, with all being recorded from the onshore VP1. These species are often resident, however, buzzards can undertake an eastwards movement and this may be what was recorded in the survey period.

Table A 3-8 Total raptors recorded during the 2025 VP survey programme

Species	Latin name	Total number of individuals recorded
Buzzard	<i>Buteo buteo</i>	3
Peregrine	<i>Falco peregrinus</i>	1
Total		4

Total target species results by VP location

3.2.16 The total migratory individuals of the target species recorded on each visit are presented for VP1, VP2 and VP3 in, Table A 3-9, Table A 3-10 and Table A 3-11 respectively. The individuals recorded in the tables were those considered migrating, as determined by their behaviours, meaning that for Visit 1 at VP3 where no birds were determined to be on migration there are none reported below. A full account of birds recorded during the surveys is found in Appendix B.

Table A 3-9 Total individuals of target species recorded on migration at VP1 during the 2025 VP survey programme by visit

Species	Visit															Total
	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Visit 7	Visit 8	Visit 9	Visit 10	Visit 11	Visit 12	Visit 13	Visit 14	Visit 15	
Barn swallow	210	555	-	-	8	1	1	-	-	1	-	-	-	-	-	776
Bar-tailed godwit	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Brambling	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
Brent goose	1	-	-	2	-	7	22	33	-	13	-	-	3	29	63	173
Buzzard	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Chaffinch	4	-	-	10	20	67	3	29	-	-	-	-	-	-	-	133
Common scoter	59	287	-	-	9	-	-	-	-	-	-	-	9	228	214	806
Curlew	-	-	1	1	3	2	1	-	-	-	-	-	-	-	-	8
Dunlin	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30
Eider	-	-	-	-	-	4	-	-	1	-	-	-	-	10	-	15
Fieldfare	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1
Golden plover	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Goldfinch	20	45	-	20	20	90	43	-	-	-	-	-	-	-	-	238
Great crested grebe	-	-	1	-	-	-	-	-	-	-	-	-	-	-	4	5
Grey wagtail	-	-	-	1	3	3	1	-	-	-	-	-	-	-	-	8
Greylag goose	-	-	-	-	-	-	-	-	-	-	10	1	-	-	-	11
House martin	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	200
House sparrow	-	-	-	-	3	-	-	8	-	-	-	-	-	-	-	11
Knot	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26
Lapwing	-	-	-	-	-	-	-	-	-	150	-	-	-	-	-	150
Lesser redpoll	6	-	-	3	2	17	4	5	23	1	-	-	-	-	-	61
Linnet	290	295	-	65	55	50	27	20	70	-	-	-	-	-	-	872
Little egret	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	2
Long-tailed tit	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Meadow pipit	360	665	-	196	116	100	-	8	-	-	-	-	-	-	-	1445
Mute swan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2
Oystercatcher	16	-	34	-	-	-	-	-	-	-	-	-	-	-	-	50
Peregrine falcon	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Pied wagtail	8	9	-	3	12	10	2	7	-	-	-	-	-	-	-	51
Red-breasted merganser	1	-	1	3	-	-	6	6	-	-	-	-	-	-	2	19
Redshank	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	2
Redwing	-	-	-	-	-	-	1	-	-	5	-	-	-	-	-	6
Reed bunting	-	-	-	1	1	2	1	3	-	-	-	-	-	-	-	8
Rook	-	-	-	-	-	-	-	16	6	-	-	-	-	-	-	22
Sand martin	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Scaup	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1
Siskin	-	-	1	-	4	6	15	13	-	-	-	-	-	-	-	39
Skylark	2	4	-	2	6	24	2	50	94	4	-	-	-	-	-	188
Snow bunting	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1
Starling	-	-	-	-	-	-	-	37	-	-	-	173	-	-	-	210
Tree sparrow	-	-	-	-	7	-	-	33	-	-	-	-	-	-	-	40
Velvet scoter	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	4
Whooper swan	-	-	-	-	2	-	-	-	-	2	-	-	-	-	-	4
Wigeon	-	-	6	-	-	-	-	-	-	-	-	-	-	-	23	29
Yellowhammer	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1
Total	1041	2073	46	308	271	384	129	271	194	178	10	178	12	267	308	5670



Table A 3-10 Total individuals of target species recorded on migration at VP2 during the 2025 VP survey programme by visit

Species	Visit															Total
	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Visit 7	Visit 8	Visit 9	Visit 10	Visit 11	Visit 12	Visit 13	Visit 14	Visit 15	
Barn swallow	55	260	3	-	2	-	-	-	-	-	-	-	-	-	-	320
Black-tailed godwit	-	7	-	-	-	-	-	-	10	-	-	-	-	75	-	92
Brent goose	2	-	-	-	-	3	39	9	-	-	83	2	86	23	44	291
Chaffinch	1	1	-	12	20	2	6	-	25	-	-	-	-	-	-	67
Common scoter	15	-	-	-	-	65	-	-	35	-	725	35	705	-	676	2256
Curlew sandpiper	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Eider	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
Goldcrest	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1
Golden plover	2	-	8	-	-	-	-	-	30	-	-	-	-	-	-	40
Goldfinch	-	50	-	295	177	17	115	-	45	-	-	-	-	-	-	699
Great crested grebe	-	-	-	-	-	-	-	-	-	-	67	-	46	-	38	151
Grey wagtail	3	3	-	3	-	1	5	-	-	1	-	-	-	-	-	16
Greylag goose	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1
House martin	-	50	-	-	-	-	-	-	-	-	-	-	-	-	-	50
Knot	-	6	-	-	-	-	-	-	10	-	-	-	-	-	-	16
Lapwing	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	3
Lesser redpoll	-	-	-	-	-	-	-	2	-	3	-	-	-	-	-	5
Linnet	170	55	-	150	93	5	5	-	25	15	-	-	-	-	-	518
Long-tailed duck	-	-	-	-	-	-	-	-	-	-	2	-	2	-	-	4
Mallard	4	1	-	25	2	-	-	-	5	-	-	-	-	-	-	37
Meadow pipit	605	300	-	72	52	9	13	-	5	10	-	-	-	-	-	1066
Oystercatcher	-	-	-	-	-	-	-	-	-	-	-	-	39	-	-	39
Pied wagtail	2	15	-	21	9	4	3	-	4	2	-	-	-	-	-	60
Red-throated diver	1	19	1	4	2	8	5	7	8	3	19	3	9	7	7	103
Reed bunting	-	2	-	1	6	3	2	-	3	4	-	-	-	-	-	21
Ruff	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1
Scaup	-	-	-	-	-	-	-	-	-	-	9	-	-	-	-	9
Shelduck	-	-	-	-	2	-	45	-	-	-	-	-	-	-	2	49
Siskin	-	4	-	17	-	2	12	3	-	1	-	-	-	-	-	39
Skylark	-	-	11	28	5	4	23	3	3	16	-	-	-	-	-	93
Snipe	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	2
Starling	-	-	-	-	-	-	30	-	-	-	-	-	-	-	-	30
Teal	-	4	-	-	-	1	-	14	-	-	-	-	-	-	-	19
Tree sparrow	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	2
Velvet scoter	-	-	-	-	-	-	-	-	-	-	5	-	2	-	2	9
Whooper swan	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	8
Wigeon	-	4	-	-	-	-	-	3	-	5	-	-	-	-	-	12
Yellowhammer	-	-	-	1	1	-	2	-	1	-	-	-	-	-	-	5
Total	861	764	24	639	369	117	300	34	202	57	897	37	892	99	764	6056



Table A 3-11 Total individuals of target species recorded on migration at VP3 (offshore) during the 2025 VP survey programme by visit

Species	Visit						Total
	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	
Barn swallow	-	4	-	-	-	-	4
Common scoter	-	-	-	19	-	-	19
Curlew	-	3	3	1	-	-	7
Grey heron	-	-	-	1	-	-	1
Lapwing	-	-	-	4	-	-	4
Meadow pipit	-	9	-	-	-	-	9
Skylark	-	-	-	4	-	-	4
Starling	-	-	-	-	25	48	73
Total	0	16	3	29	25	48	121



3.3 Bioacoustic surveys

- 3.3.1 A total of 71 nights of bioacoustic data collected from the offshore monitoring unit on Rockabill, and the onshore back-up site at Bremore were analysed for this report, covering the data capture period of 4th September 2025 to 13th November 2025 and comprising of 830 recording blocks.
- 3.3.2 Of the 830 recording blocks processed, 233 were classified as being of ‘good’ audio quality, 450 of ‘moderate’ quality, and 147 were deemed to be of ‘poor’ quality. A further 20 recording blocks were considered to be unsuitable for analysis based on their ‘very poor’ audio quality. As such, detections of bird vocalisations are assumed to be a complete representation of those present in 98% of the blocks analysed.
- 3.3.3 Where recording quality was poor (e.g., due to wind and/ or rain) but bird vocalisations were still detected, these data were considered appropriate for analysis with the caveat that some vocalisations may have gone undetected.
- 3.3.4 Target species for the PAM survey were as per the VP surveys, defined as all waders, waterfowl and terrestrial bird species. A total of 40 target species and four ‘target species groups’ (where a specific identification could not be made) were detected from the onshore PAM audio files. Of these, one species (wren *Troglodytes troglodytes*) was determined to comprise resident, non-migratory birds, based either on knowledge of the species ecology/ behaviour and/ or the type of vocalisations that were recorded. This species is, therefore, not considered within this summary of migratory bird activity.
- 3.3.5 Where PAM detected species that may either have been a migrant or a resident (for example robin, or blackbird) a judgement was made as to whether the bird detected was a migrant based on location (all species were assumed to be migrants on Rockabill, for example, but on the mainland species such as robin and blackbird may be resident) and call type (e.g. if a robin gave a flight call at Bremore it would be considered to be actively migrating whereas a singing bird would be considered to be resident).
- 3.3.6 In addition, three species of seabird were detected, as follows:
- Roseate tern *Sterna dougallii*
 - Great black-backed gull *Larus marinus*
 - Herring gull *Larus argentatus*
- 3.3.7 These are also not considered within this summary of migratory bird activity as seabirds were not target species.
- 3.3.8 Summaries of the 40 species identified as migrants are presented in the following sections by species group.



Hérons

Grey heron *Ardea cinerea*

3.3.9 Grey heron were encountered a total of 18 times throughout the survey period, comprising an estimated 20 individuals. There were two peaks of activity between 24-28th October and 7-13th November 2025 with 7 and 10 individuals recorded respectively.

Wildfowl and rails

Brent goose *Branta bernicla*

3.3.10 A single record of brent goose, comprising four calls interpreted as given by a single bird, was recorded at 22:05 on 25th October. It is considered likely that this bird was engaged in active migration.

Wigeon *Mareca penelope*

3.3.11 A single record of wigeon, comprising sixteen calls interpreted as given by two individuals, was recorded at 07:43 on 6th November.

Mallard *Anas platyrhynchos*

3.3.12 Two individual mallard were recorded, one on the 26th September and another on 13th November, at 06:15 and 06:31 respectively.

Moorhen *Gallinula chloropus*

3.3.13 A single record of moorhen, comprising one call, was recorded at 08:03 on 27th October.

Table A 3-12 Summary table of wildfowl and rail records from the PAM unit

Species	Number of encounters	Estimated number of individuals	First date recorded	Last date recorded	Number of calls recorded
Brent goose	1	1	25/10/2025	25/10/2025	4
Mallard	2	2	26/09/2025	13/11/2025	5
Moorhen	1	1	27/10/2025	27/10/2025	1
Wigeon	1	2	06/11/2025	06/11/2025	16



Waders

Dotterel *Charadrius morinellus*

3.3.14 A single dotterel record, comprising three calls interpreted as given by one individual bird, was recorded on 13th October at 18:32. It is highly likely that this species was actively migrating as the species doesn't breed in Ireland and the timing is consistent with a southerly autumn migration from breeding areas in Scotland.

Golden plover *Pluvialis apricaria*

3.3.15 There were 27 records of golden plover, comprising an estimated 33 individuals. Encounters were spread evenly throughout the survey period. Only some birds encountered were considered to be actively migrating, as peak activity for this species and most other waders was recorded from Bremeore not Rockabill, therefore the peak is likely to be as a result of birds using appropriate habitat as opposed to actively migrating.

Ringed plover *Charadrius hiaticula*

3.3.16 Seven records from eight individual birds were recorded from 9th October to 13th November. It is likely the birds were engaged in active migration due to the timing of calls.

Lapwing *Vanellus vanellus*

3.3.17 Lapwing were commonly recorded, with 113 records comprised of an estimated 299 individuals. The majority of records were from early November (238 individuals), but a proportion were also recorded at Bremeore in late October (60 individuals), therefore the large numbers were potentially a result of birds using a mainland agricultural site.

Purple sandpiper *Calidris maritima*

3.3.18 There were 20 records of purple sandpiper, comprising an estimated 28 individuals. This species is a non-breeding feature of the Rockabill SPA. All records were from Rockabill, suggesting that the birds detected were using suitable habitat on Rockabill rather than being engaged in active migration.

Sanderling *Calidris alba*

3.3.19 A single record of sanderling, comprising four calls interpreted as given by one individual, was recorded at 04:10 on 28th September.

Oystercatcher *Haematopus ostralegus*

3.3.20 Detections of oystercatcher were very numerous, with 504 records, comprising an estimated 860 individual birds. Detections peaked in early October and early November and this species was consistently recorded at high abundances throughout the survey period.



Turnstone *Arenaria interpres*

3.3.21 Detections of turnstone were very frequent, with 412 records, comprising an estimated 895 individual birds. Detections peaked in early October, and this species was consistently recorded at high frequency until late-October when records became sparse. Turnstone detections often featured a long series of calls from single, pairs or groups of individuals, with the number of calls within each record ranging from 1 to 100+.

Dunlin *Calidris alpina*

3.3.22 There were 13 records of dunlin from an estimated 16 individual birds. This species was more common in mid-September and early-mid November and was not recorded more than once in October.

Common sandpiper *Acticis hypoleucos*

3.3.23 Three records of common sandpiper from an estimated three individuals were detected in mid-September.

Redshank *Tringa totanus*

3.3.24 There were 19 records of redshank from an estimated 29 individuals. This species was more common in November.

Greenshank *Tringa nebularia*

3.3.25 There were 25 records of greenshank from an estimated 39 individual birds. Detections were more common in late-October to early November.

Black-tailed godwit *Limosa limosa*

3.3.26 There were four records of black-tailed godwit from an estimated four individual birds between 27th to 30th October.

Curlew *Numenius arquata*

3.3.27 Detections of curlew were common with 161 records from an estimated 416 individuals. There were two peaks, including in the last week of October and in early November, although the records in late October were recorded in Bremeore and not Rockabill, so this data comes from a mainland agricultural site as opposed to offshore. The larger peak of 193 individuals, however, is from Rockabill, therefore these birds are considered to have been on active migration.

Snipe *Gallinago gallinago*

3.3.28 There were 30 records of snipe from an estimated 66 individuals between 29th September and 13th November. Snipe detections often featured a long series of calls, with the number of calls within each record ranging from 1 to 41.



Table A 3-13 Summary table of wader records from the PAM unit

Species	Number of encounters	Estimated number of individuals	First date recorded	Last date recorded	Number of calls recorded
Dotterel	1	1	13/10/2025	13/10/2025	3
Golden plover	27	33	19/09/2025	13/11/2025	91
Ringed plover	7	8	10/09/2025	13/11/2025	21
Lapwing	113	299	19/09/2025	13/11/2025	1,465
Purple sandpiper	20	28	14/09/2025	29/10/2025	81
Sanderling	1	1	28/09/2025	28/09/2025	4
Oystercatcher	504	860	05/09/2025	13/11/2025	8,123
Turnstone	412	895	04/09/2025	04/11/2025	3,468
Dunlin	13	16	14/09/2025	13/11/2025	66
Common sandpiper	3	3	14/09/2025	17/09/2025	7
Redshank	19	29	06/09/2025	13/11/2025	70
Greenshank	25	39	23/10/2025	12/11/2025	331
Black-tailed godwit	4	4	27/10/2025	30/10/2025	15
Curlew	161	416	12/09/2025	13/11/2025	1,576
Snipe	30	66	29/09/2025	13/11/2025	333

Raptors

Long-eared owl *Asio otus*

3.3.29 There were eight records of long-eared owl, from an estimated eight individuals. All detections were during a single week in mid-November.

Table A 3-14 Summary table of raptor records from the PAM unit

Species	Number of encounters	Estimated number of individuals	First date recorded	Last date recorded	Number of calls recorded
Long-eared owl	8	8	08/11/2025	13/11/2025	20



Passerines

Firecrest *Regulus ignicapillus*

3.3.30 There were three records of firecrest from an estimated three individuals. However, given the rarity of this species in Ireland, treating these records as the same individual encountered three different times would be prudent. These detections occurred between 13th and 16th October and were of numerous calls. This rare species was also detected by the observer during the VP survey on 16th October.

Rock pipit *Anthus petrosus*

3.3.31 There were four records of rock pipit from an estimated eight individuals. These detections occurred between 25th September and 22nd October.

Meadow pipit *Anthus pratensis*

3.3.32 There were 20 records of meadow pipit, comprising an estimated 41 individuals. This species was present throughout the survey period, with two peaks in early September and late October.

Pied/ white wagtail *Motacilla alba*

3.3.33 There were seven records of pied wagtail, from an estimated eight individuals. Calls ranged from 1 to 15 and this species was primarily detected in late October.

Robin *Erithacus rubecula*

3.3.34 Detections of robin were common, with a total of 140 records, comprising an estimated 210 individuals. This species was present throughout September and October, with detections peaking in the last week of September and stopping around early November.

Song thrush *Turdus Philomena*

3.3.35 There were 13 records of song thrush from an estimated 17 individuals. This species was detected in all months of the survey period, although peaking in early November.

Redwing *Turdus iliacus*

3.3.36 Redwing were common with 170 records, comprising an estimated 991 individual birds. Detections peaked in early November with an estimated 555 individuals, as well as a smaller peak in mid-October with an estimated 305 individuals.

Blackbird *Turdus merula*

3.3.37 There were a total of 69 records of blackbird, comprising an estimated 89 individual birds. Detections were evenly spread across the survey period, with a peak in mid-late October.



Chiffchaff Phylloscopus collybita

3.3.38 There were five records of chiffchaff, comprising an estimated six individuals. This species was present in all months of the survey period.

Goldcrest Regulus regulus

3.3.39 There were 26 records of goldcrest, comprising an estimated 36 individuals. Detections were primarily between late September and late October, peaking in the third week of October.

Yellowhammer Emberiza citrinella

3.3.40 Yellowhammer was recorded a total of 14 times, comprising an estimated 16 individuals. This species was not observed until 24th October, and was recorded up to 13th November. Detections featured a range of 1 to 13 calls.

Chaffinch Fringilla coelebs

3.3.41 There were 12 records of chaffinch from an estimated 62 individual birds. This species was only detected between 22nd October and 4th November.

Linnet Linaria cannabina

3.3.42 There were three records of linnet from an estimated 18 individual birds. This species called numerous times in each detection, which occurred only between 22nd and 29th October. It is considered highly likely that this species was actively migrating.

Lesser redpoll Acanthis flammea

3.3.43 Two records of lesser redpoll comprising an estimated five individuals. Detections occurred on 22nd and 25th October and consisted of 12 and 20 calls respectively. It is highly likely that this species was actively migrating.

Goldfinch Carduelis carduelis

3.3.44 A total of two records of goldfinch, comprising five and ten calls from an estimated six individual birds were recorded on 24th and 29th October.

Siskin Carduelis spinus

3.3.45 A single record of siskin of an estimated three individuals, comprising two calls. This detection occurred on 30th October. It is highly likely that this species was actively migrating.

Reed bunting Emberiza schoeniclus

3.3.46 Two records, comprising one and six calls, interpreted as given by two individuals, were recorded on 10th November and 12th October respectively.



Starling Sturnus vulgaris

3.3.47 There were three records of starling during late-September and mid-October. Each detection featured numerous calls, although they were considered to be from single individuals.

Skylark Alauda arvensis

3.3.48 A total of 31 records of skylark from an estimated 93 individuals were recorded on consecutive days in October and November. Skylark detections often featured a long series of calls, with the number of calls within each record ranging from 1 to 60.

Table A 3-15 Summary table of passerine records from the PAM unit

Species	Number of encounters	Estimated number of individuals	First date recorded	Last date recorded	Number of calls recorded
Blackbird	69	89	04/09/2025	12/11/2025	196
Chiffchaff	5	6	20/09/2025	24/10/2025	64
Chaffinch	12	62	24/10/2025	10/11/2025	121
Firecrest	3	3	13/10/2025	16/10/2025	32
Goldcrest	26	36	24/09/2025	10/11/2025	125
Goldfinch	2	6	10/24/2025	29/10/2025	15
Linnet	3	18	25/10/2025	29/10/2025	66
Lesser redpoll	2	5	25/10/2025	25/10/2025	32
Meadow pipit	20	41	14/09/2025	11/10/2025	177
Pied wagtail	7	8	24/09/2025	29/10/2025	37
Robin	140	210	04/09/2025	02/11/2025	1,457
Reed bunting	2	2	12/10/2025	10/11/2025	7
Rock pipit	4	8	25/09/2025	22/10/2025	25
Redwing	170	991	25/09/2025	13/11/2025	881
Skylark	31	93	24/10/2025	12/11/2025	353
Starling	3	3	16/10/2025	30/09/2025	45
Siskin	1	1	30/10/2025	30/10/2025	2
Song thrush	13	17	25/09/2025	13/11/2025	68
Yellowhammer	14	16	24/10/2025	13/11/2025	59



4 Discussion

4.1 Boat-based Surveys

- 4.1.1 The boat-based surveys provided a strong indication of the species composition of the migratory assemblage that utilises the offshore flyways that might see birds pass through the Proposed Development array area.
- 4.1.2 The low number of birds and relatively low diversity recorded on these surveys suggests that not many birds are utilising offshore flyways and therefore the number of birds that may pass through the Proposed Development array area is relatively low. These findings are confirmed by the VP survey programme (see below) which recorded far fewer species and individuals at the offshore VP.

4.2 VP Surveys

- 4.2.1 Passerines were the most abundant species group recorded during the VP survey programme (n=7,406 individuals), with the bulk of the records being meadow pipit, barn swallow and linnet. Wildfowl, seaducks and grebes (n=3,960 individuals) were the next most abundant species group, followed by waders (n=477 individuals), and raptors (n=4 individuals).
- 4.2.2 The vast majority of target species migration flights (95%) were birds moving either north or south along or perpendicular to the coast, with the remainder (5%) recorded flying in a direction that indicates that they had the potential to have passed through the Proposed Development array area. Moreover, most (89.2%) target species records that were subject to flight height estimation were recorded flying within flight height bands A or B (i.e., below 20 m). The remaining 10.8% were estimated to be flying at a height greater than 20 m, however, all of these remaining individuals were flying between 20m and 40m, with no migratory flights occurring at over 40m. Similarly, 94.9% of target species migratory flights recorded were within 1 km of the coast (Offshore Distance Bands A to C), with the remaining 5.1% comprising of predominantly common scoter. Only common scoter were recorded migrating beyond 5 km offshore, though it is recognised that many passerines and other species may not be detectable at this distance and beyond.

4.3 PAM Surveys

Birds detected using PAM during nocturnal migration were dominated by waders with 15 species recorded, totalling 1,340 records comprising of an estimated 2,698 individuals. Passerines were next most common, with 19 species recorded, totalling 526 records comprising of an estimated 1,613 individuals. In addition, many of the passerine species noted herein (in particular, hirundines, pipits, and finches) are diurnal migrants. As such, it is considered likely that the PAM unit recorded the beginning of diurnal movements around sunrise, rather than true nocturnal movements. It is therefore considered highly unlikely that these birds would have crossed the Irish Sea and interacted with any offshore infrastructure. For these species, the VP data should be considered to be more appropriate. As such, among the passerines recorded, only the data for thrushes (including closely related *Muscicapidae* species such as robin) should be considered as true nocturnal migrants. Four species of wildfowl and rails were recorded, comprising of 5 records of 6 individuals. While these species will migrate both by day and by night, it is considered that these records are all comprised of migrating birds.

- 4.3.1 Additional species were recorded, including long-eared owl and grey heron.
- 4.3.2 In addition to the target species, three seabird species, roseate tern, great black-backed gull and herring gull, were recorded. As the roseate tern is a breeding feature of Rockabill SPA, and terns are known to migrate nocturnally, these records during September are considered to be true nocturnal migration from their breeding grounds.
- 4.3.3 Some caution should be used when interpreting phenology of bird migration from a dataset comprised of two discrete (and very different) sites, where data from the second site are used as back-up when data are not available at the first. Given the differences in habitat between the two PAM locations, apparent temporal patterns in wader frequency may be related to the use of data from Bremore (where a suite of wader species such as lapwing, curlew, and greenshank appeared to be at least temporarily resident) as a back-up when data from Rockabill are not available.



5 Conclusions

- 5.1.1 The Developer has undertaken a series of boat-based, vantage point and passive acoustic monitoring surveys in response to the DAU recommendation. The combination of these surveys appropriately characterises the nature and scale of bird migration across the inshore and offshore waters close to the Proposed Development array area, providing context to the Developer's mCRM assessment. The surveys carried out provide more appropriate data than alternative such as radar or thermal imaging surveys, allowing differentiation of species and therefore a better understanding of the migratory bird assemblage.
- 5.1.2 For diurnal species such as most passerines, VP surveys provided the most robust data, while PAM data provided more information on species which migrate nocturnally such as waders.
- 5.1.3 Passerines were the most abundant species group recorded during the VP survey programme, the majority of which were hirundine species, primarily house martin and swallow. Waders, wildfowl and grebes, and raptors were the next most abundant groups, respectively. Waders were the most common group recorded during the PAM survey programme, with passerines also common, however, since many of these are believed to be diurnal migrants, the VP data should be the main reference for these species. The diversity of species recorded by the boat-based surveys was low, however, passerines dominated due to large numbers of starling but waders and wildfowl were also recorded, albeit in low numbers.
- 5.1.4 Passerines were the most abundant species group recorded during the boat-based survey programme, the majority of which were hirundine species, primarily house martin and swallow. Waders, wildfowl and grebes, and raptors were the next most abundant groups, respectively.
- 5.1.5 The low number species and individuals recorded on the boat-based surveys indicate that few birds are migrating along offshore flyways where they might interact with the Proposed Development array area. These findings are confirmed by the VP survey programme which recorded far fewer species and individuals at the offshore VP (See Below).
- 5.1.6 Only 5% of birds were recorded flying in a direction that suggests they may have crossed the sea and through the Proposed Development array area. However, 89.2% of target species were recorded flying below 20 m suggesting negligible collision risk. Only common scoter were recorded undertaking migratory flights beyond 5 km offshore, however, their low flight heights indicate they remain at low collision risk. Further to this, the diversity of species and number of individuals recorded at the offshore VP was far lower than the onshore VPs, indicating reduced utilisation of the offshore area for migration.

6 References

Aonghais S.C.P. Cook, Alison Johnston, Lucy J. Wright and Niall H.K. Burton. (2012). 'A review of flight heights and avoidance rates of birds in relation to offshore wind farms'. BTO Research Report Number 618.

Lank, D. B. (1989). 'Why fly by night? Inferences from tidally-induced migratory departures of sandpipers'. *Journal of Field Ornithology*, pp.154-161.

Borkenhagen, K., Corman, A. M., & Garthe, S. (2018). 'Estimating flight heights of seabirds using optical rangefinders and GPS data loggers: a methodological comparison'. *Marine Biology*, 165(1), 17.

British Trust for Ornithology (2021). 'Birds of Conservation Concern 5: The status of birds in the UK, Channel Islands and Isle of Man'. BTO. Available at: <https://www.bto.org/sites/default/files/publications/bocc-5-a5-4pp-single-pages.pdf> [Accessed: November 2025].

Camphuysen, C. J., Fox, A. D. and Leopold, M. F. (2004). 'Towards standardised seabirds at sea census techniques in connection with environmental impact assessments for offshore wind farms in the U.K: A comparison of ship and aerial sampling for marine birds, and their applicability to offshore wind farm assessments'. Report commissioned by COWRIE.

Gilbert, G., Stanbury, A. and Lewis, L. (2021). Birds of conservation concern in Ireland 4: 2020–2026. *Irish Birds*, 43, pp.1-22.

Maclean, I M D, Wright, L J, Showler, D A and Rehfisch, M. (2009). 'A review of assessment methodologies for offshore wind farms'. British Trust for Ornithology Report Commissioned by COWRIE.

National Parks and Wildlife Service (NPWS). (2010). 'NPWS HARBOUR SEAL POPULATION MONITORING 2009-2012: Report No. 1. Report on a Pilot Monitoring Study carried out in Southern and Western Ireland, 2009'.

Rutledge, R. F. (1970). 'Winter Distribution and Numbers of Scaup, Long-tailed Duck and Common Scoter in Ireland'. *Bird Study*, 17(3), 241-246, DOI: 10.1080/00063657009476281

Thaxter, C. B., Ross-Smith, V. H. and Cook, A. S. C. P. (2016). 'How High Do Birds Fly?: A Review of Current Datasets and an Appraisal of Current Methodologies for Collecting Flight Height Data; Literature Review'. British Trust for Ornithology.

Warnock, N. (2010). 'Stopping vs. staging: The difference between a hop and a jump'. *Journal of Avian Biology*, 41(6), 621-626. <https://doi.org/10.1111/j.1600-048X.2010.05155.x>



Appendix A: Boat-based Survey Results

A.1.1 The following table presents the full results from the boat-based surveys undertaken in November 2024.



Table A 6-1 Full boat-based survey results

Date	Transect	Species	Count	Direction	Flight Height Band	Behaviour
05/11/2024	1	Common scoter	2	SW	B	Flying
05/11/2024	1.5	Common scoter	14	S	A	Flying
05/11/2024	2	Common gull	1	S	A	Flying
05/11/2024	2	Common gull	1	SW	B	Flying
05/11/2024	4	Common gull	2	E	A	Flying
05/11/2024	4	Common gull	3	E	B	Flying
05/11/2024	5	Common gull	1	N	20	Flying
05/11/2024	6	Common gull	1	E	A	Flying
05/11/2024	6	Common gull	1	E	A	Flying
05/11/2024	6	Common gull	2	NE	B	Flying
05/11/2024	6	Common gull	1	E	A	Flying
05/11/2024	6.5	Common gull	2	S	A	Flying
05/11/2024	7	Starling	5	N	A	Migrating
05/11/2024	6	Common gull	1	S	B	Flying
05/11/2024	3	Starling	1	W	A	Migrating
11/11/2024	2	Great northern diver	1	S	D	Flying
11/11/2024	2	Common gull	1	NE	B	Flying
11/11/2024	2	Black-headed gull	1	N	A	Flying
11/11/2024	2.5	Common gull	5	N	B	Flying
11/11/2024	2.5	Common gull	1	N	B	Flying
11/11/2024	2.5	Black-headed gull	1	N	B	Flying
11/11/2024	2.5	Great northern diver	2	S	A	Flying
11/11/2024	3	Common gull	1	N	A	Flying
11/11/2024	3	Common gull	1	N	B	Flying
11/11/2024	5	Common gull	2	N	B	Flying
11/11/2024	3.4	Common gull	1	N	B	Flying
11/11/2024	3.5	Common gull	1	N	A	Flying
11/11/2024	4	Starling	40	SW	A	Migrating



Date	Transect	Species	Count	Direction	Flight Height Band	Behaviour
11/11/2024	5	Starling	1	W	A	Migrating
11/11/2024	6	Starling	35	W	A	Migrating
11/11/2024	6	Great northern diver	1	S	A	Flying
11/11/2024	6.5	Common scoter	2	NW	A	Flying
11/11/2024	7	Common gull	2	N	A	Foraging
11/11/2024	7	Great northern diver	1	NW	A	Flying
11/11/2024	7	Great northern diver	1	S	D	Migrating
11/11/2024	6	Common gull	2	N	B	Flying
11/11/2024	6	Starling	3	NW	A	Migrating
11/11/2024	5	Common gull	1	W	A	Flying
11/11/2024	5	Common gull	1	SE	B	Flying
11/11/2024	5	Common gull	1	E	B	Flying
11/11/2024	4.5	Common gull	3	NE	A	Flying
11/11/2024	2	Common gull	3	SW	B	Flying
12/11/2024	1.5	Starling	6	W	B	Flying
12/11/2024	1.5	Starling	5	W	A	Flying
12/11/2024	2	Starling	1	W	C	Flying
12/11/2024	2	Bar-tailed godwit	1	N	C	Flying
12/11/2024	2	Common gull	4	NE	B	Flying
12/11/2024	2	Skylark	1	N	A	Flying
12/11/2024	2	Common gull	1	E	B	Flying
12/11/2024	2	Starling	2	W	A	Flying
12/11/2024	3	Common scoter	9	S	A	Flying
12/11/2024	3	Starling	4	W	A	Flying
12/11/2024	3	Starling	3	W	NA	Flying
12/11/2024	3.5	Black-headed gull	5	SW	D	Flying
12/11/2024	4.5	Starling	5	W	B	Migrating
12/11/2024	5	Common gull	2	N	B	Flying
12/11/2024	5	Common gull	3	N	B	Flying
12/11/2024	5.5	Starling	6	W	B	Migrating



Date	Transect	Species	Count	Direction	Flight Height Band	Behaviour
12/11/2024	7	Common gull	1	E	B	Flying
12/11/2024	7	Whooper swan	2	NW	A	Migrating
12/11/2024	7	Common gull	4	NW	B	Flying
12/11/2024	6	Common gull	4	N	B	Flying
12/11/2024	6	Common gull	2	E	B	Flying
12/11/2024	5	Dunlin	5	N	A	Flying



Appendix B: Full VP Survey Results

- A.1.2 The following tables present complete results from the VP surveys. While waders, waterfowl and terrestrial species were the target species, records of other species types (including marine and seabirds) have been included for completeness.



Table A 6-2 Full VP Survey Results: VP1

Visit	Date	Survey hour	Species	Count	Flight direction	Flight height band	Distance band	Behaviour
1	12/09/2025	1	Barn swallow	65	S	NA	A	Direct Flight
1	12/09/2025	1	Linnet	105	S	NA	A	Direct Flight
1	12/09/2025	1	Lesser redpoll	4	S	NA	A	Direct Flight
1	12/09/2025	1	Meadow pipit	115	S	NA	A	Direct Flight
1	12/09/2025	1	Buzzard	1	S	NA	A	Direct Flight
1	12/09/2025	1	Sandwich tern	45	S	A	C	Direct Flight
1	12/09/2025	1	Roseate tern	3	S	A	C	Direct Flight
1	12/09/2025	1	Common tern	170	S	A	C	Direct Flight
1	12/09/2025	1	Black tern	2	S	A	C	Direct Flight
1	12/09/2025	1	Arctic tern	1	S	A	C	Direct Flight
1	12/09/2025	1	Gannet	2	S	A	C	Direct Flight
1	12/09/2025	1	Common scoter	2	S	A	C	Direct Flight
1	12/09/2025	1	Common scoter	2	S	A	C	Direct Flight
1	12/09/2025	1	Red-breasted merganser	1	S	A	C	Direct Flight
1	12/09/2025	1	Brent goose	1	S	A	C	Direct Flight
1	12/09/2025	1	Common scoter	2	S	A	C	Direct Flight
1	12/09/2025	1	Common scoter	3	N	A	C	Direct Flight
1	12/09/2025	1	Common scoter	5	S	A	C	Direct Flight
1	12/09/2025	1	Red-throated diver	1	S	A	C	Direct Flight
1	12/09/2025	1	Common scoter	3	S	A	C	Direct Flight
1	12/09/2025	1	Common scoter	1	S	A	C	Direct Flight
1	12/09/2025	1	Common scoter	2	S	A	C	Direct Flight
1	12/09/2025	1	Red-throated diver	2	S	A	B	Direct Flight
1	12/09/2025	1	Common scoter	1	S	A	B	Direct Flight
1	12/09/2025	2	Barn swallow	10	S	NA	A	Direct Flight
1	12/09/2025	2	Linnet	80	S	NA	A	Direct Flight
1	12/09/2025	2	Long-tailed tit	2	S	NA	A	Direct Flight
1	12/09/2025	2	Chaffinch	2	S	NA	A	Direct Flight
1	12/09/2025	2	Meadow pipit	120	S	NA	A	Direct Flight
1	12/09/2025	2	Buzzard	2	S	NA	A	Direct Flight
1	12/09/2025	2	Skylark	1	S	NA	A	Direct Flight
1	12/09/2025	2	White wagtail	1	S	NA	A	Direct Flight
1	12/09/2025	2	Sandwich tern	5	S	A	C	Direct Flight
1	12/09/2025	2	Roseate tern	4	S	A	C	Direct Flight
1	12/09/2025	2	Common tern	75	S	A	C	Direct Flight
1	12/09/2025	2	Black tern	2	S	A	C	Direct Flight
1	12/09/2025	2	Gannet	15	S	A	C	Direct Flight
1	12/09/2025	2	Knot	26	S	A	B	Direct Flight
1	12/09/2025	2	Common scoter	2	S	A	B	Direct Flight
1	12/09/2025	2	Common scoter	5	S	A	B	Direct Flight
1	12/09/2025	2	Common scoter	1	S	A	B	Direct Flight
1	12/09/2025	2	Common scoter	1	S	A	C	Direct Flight
1	12/09/2025	2	Red-throated diver	1	S	A	C	Direct Flight
1	12/09/2025	2	Common scoter	1	N	B	D	Direct Flight
1	12/09/2025	2	Common scoter	1	S	B	B	Direct Flight
1	12/09/2025	2	Red-throated diver	1	S	A	C	Direct Flight
1	12/09/2025	2	Common scoter	2	S	B	C	Direct Flight



Visit	Date	Survey hour	Species	Count	Flight direction	Flight height band	Distance band	Behaviour
1	12/09/2025	3	Barn swallow	5	S	C	A	Direct Flight
1	12/09/2025	3	Meadow pipit	75	S	C	A	Direct Flight
1	12/09/2025	3	Linnet	60	S	C	A	Direct Flight
1	12/09/2025	3	Chaffinch	2	S	C	A	Direct Flight
1	12/09/2025	3	Lesser redpoll	2	S	C	A	Direct Flight
1	12/09/2025	3	Skylark	1	S	C	A	Direct Flight
1	12/09/2025	3	Pied wagtail	6	S	C	A	Direct Flight
1	12/09/2025	3	Sandwich tern	10	S	A	C	Direct Flight
1	12/09/2025	3	Common tern	25	S	A	C	Direct Flight
1	12/09/2025	3	Gull species	25	S	A	C	Direct Flight
1	12/09/2025	3	Gannet	25	S	A	C	Direct Flight
1	12/09/2025	3	Little gull	1	S	A	D	Direct Flight
1	12/09/2025	3	Common scoter	7	N	B	B	Direct Flight
1	12/09/2025	3	Bar-tailed godwit	1	S	C	B	Direct Flight
1	12/09/2025	3	Common scoter	1	S	B	C	Direct Flight
1	12/09/2025	3	Red-throated diver	3	S	A	C	Direct Flight
1	12/09/2025	4	Barn swallow	10	S	A	A	Direct Flight
1	12/09/2025	4	Linnet	35	S	A	A	Direct Flight
1	12/09/2025	4	Goldfinch	10	S	A	A	Direct Flight
1	12/09/2025	4	Meadow pipit	40	S	A	A	Direct Flight
1	12/09/2025	4	Pied wagtail	1	S	A	A	Direct Flight
1	12/09/2025	4	Sandwich tern	NA	S	A	C	Direct Flight
1	12/09/2025	4	Common tern	NA	S	A	C	Direct Flight
1	12/09/2025	4	Gannet	NA	S	A	C	Direct Flight
1	12/09/2025	4	Red-throated diver	1	S	A	C	Direct Flight
1	12/09/2025	4	Common scoter	1	N	A	C	Direct Flight
1	12/09/2025	4	Red-throated diver	1	S	A	D	Direct Flight
1	12/09/2025	4	Common scoter	1	N	A	D	Direct Flight
1	12/09/2025	4	Bar-tailed godwit	1	S	C	A	Direct Flight
1	12/09/2025	5	Barn swallow	80	S	NA	A	Direct Flight
1	12/09/2025	5	Goldfinch	10	S	NA	A	Direct Flight
1	12/09/2025	5	Meadow pipit	5	S	NA	A	Direct Flight
1	12/09/2025	5	Linnet	5	S	NA	A	Direct Flight
1	12/09/2025	5	Sandwich tern	15	S	NA	B	Direct Flight
1	12/09/2025	5	Common tern	2	S	NA	B	Direct Flight
1	12/09/2025	5	Gannet	20	S	NA	B	Direct Flight
1	12/09/2025	5	Oystercatcher	16	N	C	A	Direct Flight
1	12/09/2025	5	Red-throated diver	1	S	A	D	Direct Flight
1	12/09/2025	5	Common scoter	7	S	A	C	Direct Flight
1	12/09/2025	5	Red-throated diver	1	S	A	B	Direct Flight
1	12/09/2025	5	Common scoter	1	N	A	C	Direct Flight
1	12/09/2025	5	Common scoter	1	N	A	B	Direct Flight
1	12/09/2025	5	Peregrine falcon	1	S	B	A	Direct Flight
1	12/09/2025	5	Common scoter	1	S	A	B	Direct Flight
1	12/09/2025	5	Dunlin	30	S	A	B	Direct Flight
1	12/09/2025	5	Common scoter	1	N	A	C	Direct Flight
1	12/09/2025	6	Barn swallow	40	S	NA	A	Direct Flight
1	12/09/2025	6	Linnet	5	S	NA	A	Direct Flight
1	12/09/2025	6	Meadow pipit	5	S	NA	A	Direct Flight



Visit	Date	Survey hour	Species	Count	Flight direction	Flight height band	Distance band	Behaviour
1	12/09/2025	6	Sandwich tern	15	S	NA	C	Foraging
1	12/09/2025	6	Gannet	30	S	NA	C	Foraging
1	12/09/2025	6	Common scoter	1	N	A	D	Direct Flight
1	12/09/2025	6	Red-throated diver	1	S	A	D	Direct Flight
1	12/09/2025	6	Common scoter	1	S	A	C	Direct Flight
1	12/09/2025	6	Red-throated diver	1	S	A	D	Direct Flight
1	12/09/2025	6	Red-throated diver	1	S	A	B	Direct Flight
1	12/09/2025	6	Common scoter	2	S	B	C	Direct Flight
1	12/09/2025	6	Red-throated diver	1	S	A	C	Direct Flight
1	12/09/2025	6	Red-throated diver	1	S	A	B	Direct Flight
2	17/09/2025	1	Red-throated diver	2	S	A	C	Direct Flight
2	17/09/2025	1	Red-throated diver	1	S	A	B	Direct Flight
2	17/09/2025	1	Red-throated diver	2	S	A	B	Direct Flight
2	17/09/2025	1	Red-throated diver	1	S	A	B	Direct Flight
2	17/09/2025	1	Red-throated diver	2	S	A	B	Direct Flight
2	17/09/2025	1	Arctic skua	1	S	A	B	Direct Flight
2	17/09/2025	1	Red-throated diver	1	S	A	B	Direct Flight
2	17/09/2025	1	Red-throated diver	3	N	C	C	Direct Flight
2	17/09/2025	1	Red-throated diver	1	S	A	B	Direct Flight
2	17/09/2025	1	Red-throated diver	1	S	A	B	Direct Flight
2	17/09/2025	1	Red-throated diver	1	S	A	B	Direct Flight
2	17/09/2025	1	Red-throated diver	3	S	A	B	Direct Flight
2	17/09/2025	1	Red-throated diver	1	S	A	B	Direct Flight
2	17/09/2025	1	Arctic skua	1	S	A	D	Direct Flight
2	17/09/2025	1	Arctic skua	1	S	A	C	Direct Flight
2	17/09/2025	1	Red-throated diver	1	S	A	C	Direct Flight
2	17/09/2025	1	Great northern diver	1	S	B	C	Direct Flight
2	17/09/2025	1	Meadow pipit	350	S	NA	A	Direct Flight
2	17/09/2025	1	Barn swallow	50	S	NA	A	Direct Flight
2	17/09/2025	1	Kittiwake	150	S	NA	E	Direct Flight
2	17/09/2025	1	Gannet	45	S	NA	E	Direct Flight
2	17/09/2025	1	Sandwich tern	25	S	NA	E	Direct Flight
2	17/09/2025	1	Common tern	450	S	NA	E	Direct Flight
2	17/09/2025	1	Fulmar	2	S	NA	E	Direct Flight
2	17/09/2025	1	Manx shearwater	10	S	NA	E	Direct Flight
2	17/09/2025	1	Common scoter	95	S	NA	E	Direct Flight
2	17/09/2025	1	Common scoter	15	N	NA	E	Direct Flight
2	17/09/2025	2	Red-throated diver	3	S	A	B	Direct Flight
2	17/09/2025	2	Red-throated diver	2	S	A	B	Direct Flight
2	17/09/2025	2	Red-throated diver	1	S	A	C	Direct Flight
2	17/09/2025	2	Red-throated diver	2	S	A	C	Direct Flight
2	17/09/2025	2	Red-throated diver	1	S	A	B	Direct Flight
2	17/09/2025	2	Black tern	2	S	A	B	Foraging
2	17/09/2025	2	Great northern diver	1	S	B	C	Direct Flight
2	17/09/2025	2	Red-throated diver	1	S	A	B	Direct Flight
2	17/09/2025	2	Red-throated diver	1	S	A	B	Direct Flight
2	17/09/2025	2	Barn swallow	140	S	NA	A	Direct Flight
2	17/09/2025	2	House martin	60	S	NA	A	Direct Flight
2	17/09/2025	2	Skylark	3	S	NA	A	Direct Flight



Visit	Date	Survey hour	Species	Count	Flight direction	Flight height band	Distance band	Behaviour
2	17/09/2025	2	Pied wagtail	2	S	NA	A	Direct Flight
2	17/09/2025	2	Linnet	50	S	NA	A	Direct Flight
2	17/09/2025	2	Meadow pipit	240	S	NA	A	Direct Flight
2	17/09/2025	2	Common tern	20	S	NA	E	Direct Flight
2	17/09/2025	2	Sandwich tern	25	S	NA	E	Direct Flight
2	17/09/2025	2	Gannet	40	S	NA	E	Direct Flight
2	17/09/2025	2	Kittiwake	75	S	NA	E	Direct Flight
2	17/09/2025	2	Manx shearwater	18	S	NA	E	Direct Flight
2	17/09/2025	2	Fulmar	10	S	NA	E	Direct Flight
2	17/09/2025	2	Common scoter	55	S	NA	E	Direct Flight
2	17/09/2025	2	Common scoter	5	N	NA	E	Direct Flight
2	17/09/2025	3	Red-throated diver	1	S	A	D	Direct Flight
2	17/09/2025	3	Red-throated diver	1	S	A	B	Direct Flight
2	17/09/2025	3	Red-throated diver	1	S	A	C	Direct Flight
2	17/09/2025	3	Great skua	1	N	A	E	Foraging
2	17/09/2025	3	Red-throated diver	1	S	A	C	Direct Flight
2	17/09/2025	3	Red-throated diver	4	N	A	D	Direct Flight
2	17/09/2025	3	Red-throated diver	1	N	B	B	Direct Flight
2	17/09/2025	3	Linnet	160	S	NA	A	Direct Flight
2	17/09/2025	3	Barn swallow	125	S	NA	NA	Direct Flight
2	17/09/2025	3	House martin	90	S	NA	NA	Direct Flight
2	17/09/2025	3	Sand martin	5	S	NA	NA	Direct Flight
2	17/09/2025	3	Pied wagtail	3	S	NA	NA	Direct Flight
2	17/09/2025	3	Gannet	50	S	NA	NA	Direct Flight
2	17/09/2025	3	Kittiwake	15	S	NA	NA	Direct Flight
2	17/09/2025	3	Sandwich tern	5	S	NA	NA	Direct Flight
2	17/09/2025	3	Common tern	10	S	NA	NA	Direct Flight
2	17/09/2025	3	Manx shearwater	4	S	NA	NA	Direct Flight
2	17/09/2025	3	Fulmar	2	S	NA	NA	Direct Flight
2	17/09/2025	3	Common scoter	30	S	NA	NA	Direct Flight
2	17/09/2025	3	Common scoter	3	N	NA	NA	Direct Flight
2	17/09/2025	4	Arctic skua	1	S	A	E	Direct Flight
2	17/09/2025	4	Arctic skua	1	S	A	E	Direct Flight
2	17/09/2025	4	Red-throated diver	1	S	A	C	Direct Flight
2	17/09/2025	4	Red-throated diver	1	S	A	B	Direct Flight
2	17/09/2025	4	Red-throated diver	2	S	A	C	Direct Flight
2	17/09/2025	4	Golden plover	3	NW	A	C	Direct Flight
2	17/09/2025	4	Sand martin	3	S	NA	A	Direct Flight
2	17/09/2025	4	Skylark	1	S	NA	A	Direct Flight
2	17/09/2025	4	Pied wagtail	4	S	NA	A	Direct Flight
2	17/09/2025	4	Linnet	70	S	NA	A	Direct Flight
2	17/09/2025	4	Barn swallow	110	S	NA	A	Direct Flight
2	17/09/2025	4	House martin	35	S	NA	A	Direct Flight
2	17/09/2025	4	Goldfinch	20	S	NA	A	Direct Flight
2	17/09/2025	4	Meadow pipit	60	S	NA	A	Direct Flight
2	17/09/2025	4	Gannet	40	S	NA	E	Direct Flight
2	17/09/2025	4	Kittiwake	10	S	NA	E	Direct Flight
2	17/09/2025	4	Manx shearwater	4	S	NA	E	Direct Flight
2	17/09/2025	4	Sandwich tern	10	S	NA	E	Direct Flight



Visit	Date	Survey hour	Species	Count	Flight direction	Flight height band	Distance band	Behaviour
2	17/09/2025	4	Common scoter	10	N	NA	E	Direct Flight
2	17/09/2025	4	Common scoter	52	S	NA	E	Direct Flight
2	17/09/2025	5	Red-throated diver	1	N	B	C	Direct Flight
2	17/09/2025	5	Meadow pipit	10	S	NA	A	Direct Flight
2	17/09/2025	5	Barn swallow	60	S	NA	A	Direct Flight
2	17/09/2025	5	House martin	10	S	NA	A	Direct Flight
2	17/09/2025	5	Sand martin	2	S	NA	A	Direct Flight
2	17/09/2025	5	Linnet	15	S	NA	A	Direct Flight
2	17/09/2025	5	Goldfinch	15	S	NA	A	Direct Flight
2	17/09/2025	5	Gannet	10	S	NA	E	Direct Flight
2	17/09/2025	5	Kittiwake	5	S	NA	E	Direct Flight
2	17/09/2025	5	Common tern	15	S	NA	E	Direct Flight
2	17/09/2025	5	Sandwich tern	5	S	NA	E	Direct Flight
2	17/09/2025	5	Common scoter	16	S	NA	E	Direct Flight
2	17/09/2025	5	Common scoter	2	N	NA	E	Direct Flight
2	17/09/2025	6	Meadow pipit	5	S	NA	A	Direct Flight
2	17/09/2025	6	Barn swallow	70	S	NA	A	Direct Flight
2	17/09/2025	6	House martin	5	S	NA	A	Direct Flight
2	17/09/2025	6	Goldfinch	10	S	NA	A	Direct Flight
2	17/09/2025	6	Common tern	10	S	NA	E	Direct Flight
2	17/09/2025	6	Sandwich tern	5	S	NA	E	Direct Flight
2	17/09/2025	6	Gannet	15	S	NA	E	Direct Flight
2	17/09/2025	6	Kittiwake	5	S	NA	E	Direct Flight
2	17/09/2025	6	Common scoter	4	S	NA	E	Direct Flight
3	26/09/2025	N/A	Common scoter	NA	S	B	NA	Commuting
3	26/09/2025	N/A	Siskin	1	W	B	B	Direct Flight
3	26/09/2025	N/A	Great crested grebe	1	W	A	C	Direct Flight
3	26/09/2025	N/A	Wigeon	6	NW	B	D	Direct Flight
3	26/09/2025	N/A	Curlew	1	N	A	C	Direct Flight
3	26/09/2025	N/A	Sandwich tern	1	S	A	B	Foraging
3	26/09/2025	N/A	Red-throated diver	1	S	A	C	Direct Flight
3	26/09/2025	N/A	Red-throated diver	1	S	A	D	Direct Flight
3	26/09/2025	N/A	Red-breasted merganser	1	W	B	B	Direct Flight
3	26/09/2025	N/A	Oystercatcher	17	NW	B	B	Direct Flight
3	26/09/2025	N/A	Oystercatcher	16	NW	B	B	Direct Flight
3	26/09/2025	N/A	Oystercatcher	1	NW	A	A	Direct Flight
3	26/09/2025	N/A	Redshank	1	N	A	B	Direct Flight
3	26/09/2025	N/A	Redshank	1	S	A	A	Direct Flight
4	01/10/2025	1	Curlew	1	S	B	A	Direct Flight
4	01/10/2025	1	Red-throated diver	1	S	A	B	Direct Flight
4	01/10/2025	1	Red-throated diver	1	S	A	B	Direct Flight
4	01/10/2025	1	Red-throated diver	3	S	A	B	Direct Flight
4	01/10/2025	1	Red-throated diver	2	S	A	B	Direct Flight
4	01/10/2025	1	Great northern diver	1	S	B	B	Direct Flight
4	01/10/2025	1	Red-throated diver	1	S	A	B	Direct Flight
4	01/10/2025	1	Red-throated diver	1	S	A	B	Direct Flight
4	01/10/2025	1	Arctic skua	3	S	A	C	Direct Flight
4	01/10/2025	1	Red-throated diver	1	S	A	B	Direct Flight
4	01/10/2025	1	Common scoter	1	N	A	B	Local Movement



Visit	Date	Survey hour	Species	Count	Flight direction	Flight height band	Distance band	Behaviour
4	01/10/2025	1	Common scoter	16	S	A	B	Local Movement
4	01/10/2025	1	Gannet	91	S	B	B	Local Movement
4	01/10/2025	1	Sandwich tern	153	S	B	A	Direct Flight
4	01/10/2025	1	Razorbill	3000	S	A	B	Local Movement
4	01/10/2025	1	Guillemot	100	S	A	B	Local Movement
4	01/10/2025	1	Kittiwake	400	S	A	B	Direct Flight
4	01/10/2025	1	Meadow pipit	75	S	B	A	Direct Flight
4	01/10/2025	1	Reed bunting	1	S	B	A	Direct Flight
4	01/10/2025	1	Skylark	2	S	B	A	Direct Flight
4	01/10/2025	1	Linnet	15	S	B	A	Direct Flight
4	01/10/2025	1	Chaffinch	5	S	B	A	Direct Flight
4	01/10/2025	2	Red-throated diver	1	S	A	C	Direct Flight
4	01/10/2025	2	Red-breasted merganser	3	S	B	B	Direct Flight
4	01/10/2025	2	Scaup	1	S	A	B	Direct Flight
4	01/10/2025	2	Red-throated diver	1	S	A	B	Direct Flight
4	01/10/2025	2	Gannet	61	S	B	B	Local Movement
4	01/10/2025	2	Common scoter	34	S	A	B	Local Movement
4	01/10/2025	2	Razorbill	100	S	A	B	Local Movement
4	01/10/2025	2	Guillemot	10	S	A	B	Local Movement
4	01/10/2025	2	Kittiwake	50	S	A	B	Local Movement
4	01/10/2025	2	Sandwich tern	12	S	A	A	Local Movement
4	01/10/2025	2	Linnet	35	S	B	A	Direct Flight
4	01/10/2025	2	Goldfinch	5	S	B	A	Direct Flight
4	01/10/2025	2	Meadow pipit	70	S	B	A	Direct Flight
4	01/10/2025	2	Pied wagtail	1	S	B	A	Direct Flight
4	01/10/2025	3	Brent goose	2	S	A	A	Direct Flight
4	01/10/2025	3	Arctic skua	1	NA	C	D	Direct Flight
4	01/10/2025	3	Gannet	8	S	A	B	Local Movement
4	01/10/2025	3	Common scoter	26	S	A	B	Local Movement
4	01/10/2025	3	Common scoter	6	S	A	B	Local Movement
4	01/10/2025	3	Sandwich tern	2	S	A	B	Direct Flight
4	01/10/2025	3	Meadow pipit	25	S	B	A	Direct Flight
4	01/10/2025	3	Linnet	5	S	B	A	Direct Flight
4	01/10/2025	3	Chaffinch	5	S	B	A	Direct Flight
4	01/10/2025	3	Pied wagtail	1	S	B	A	Direct Flight
4	01/10/2025	3	Goldfinch	10	S	B	A	Direct Flight
4	01/10/2025	3	Lesser redpoll	3	S	B	A	Direct Flight
4	01/10/2025	3	Red-throated diver	1	S	A	B	Direct Flight
4	01/10/2025	4	Meadow pipit	15	S	B	A	Direct Flight
4	01/10/2025	4	Pied wagtail	1	S	B	A	Direct Flight
4	01/10/2025	4	Linnet	10	S	B	A	Direct Flight
4	01/10/2025	4	Common scoter	12	S	A	B	Local Movement
4	01/10/2025	4	Common scoter	3	N	A	B	Local Movement
4	01/10/2025	4	Gannet	4	S	A	C	Local Movement
4	01/10/2025	4	Red-throated diver	1	S	A	C	Direct Flight
4	01/10/2025	4	Red-throated diver	1	S	A	C	Direct Flight
4	01/10/2025	5	Meadow pipit	7	S	B	A	Direct Flight
4	01/10/2025	5	Goldfinch	5	S	A	A	Direct Flight
4	01/10/2025	5	Common scoter	15	S	A	B	Local Movement



Visit	Date	Survey hour	Species	Count	Flight direction	Flight height band	Distance band	Behaviour
4	01/10/2025	5	Common scoter	4	N	A	C	Local Movement
4	01/10/2025	5	Gannet	4	S	B	C	Local Movement
4	01/10/2025	5	Red-throated diver	1	S	A	B	Direct Flight
4	01/10/2025	5	Great northern diver	1	S	B	C	Direct Flight
4	01/10/2025	6	Meadow pipit	4	S	B	A	Direct Flight
4	01/10/2025	6	Grey wagtail	1	S	B	A	Direct Flight
4	01/10/2025	6	Common scoter	20	S	A	B	Local Movement
4	01/10/2025	6	Common scoter	5	N	A	C	Local Movement
4	01/10/2025	6	Gannet	8	S	A	C	Local Movement
4	01/10/2025	6	Red-throated diver	1	N	B	C	Direct Flight
4	01/10/2025	6	Red-throated diver	2	S	A	B	Direct Flight
5	09/10/2025	1	Goldfinch	10	S	B	A	Direct Flight
5	09/10/2025	1	Chaffinch	10	S	B	A	Direct Flight
5	09/10/2025	1	Pied wagtail	4	S	B	A	Direct Flight
5	09/10/2025	1	Meadow pipit	5	S	B	A	Direct Flight
5	09/10/2025	1	Linnet	20	S	B	A	Direct Flight
5	09/10/2025	1	Tree sparrow	7	S	B	A	Direct Flight
5	09/10/2025	1	Grey wagtail	1	S	B	A	Direct Flight
5	09/10/2025	1	Siskin	3	S	B	A	Direct Flight
5	09/10/2025	1	Gannet	48	S	A	C	Local Movement
5	09/10/2025	1	Common scoter	96	S	A	C	Local Movement
5	09/10/2025	1	Common scoter	4	N	A	C	Local Movement
5	09/10/2025	1	Red-throated diver	2	S	B	C	Direct Flight
5	09/10/2025	1	Curlew	3	S	B	B	Direct Flight
5	09/10/2025	2	Goldfinch	10	S	A	A	Direct Flight
5	09/10/2025	2	Pied wagtail	3	S	A	A	Direct Flight
5	09/10/2025	2	Meadow pipit	18	S	A	A	Direct Flight
5	09/10/2025	2	Chaffinch	6	S	A	A	Direct Flight
5	09/10/2025	2	Linnet	20	S	A	A	Direct Flight
5	09/10/2025	2	Grey wagtail	1	S	A	A	Direct Flight
5	09/10/2025	2	Lesser redpoll	2	S	A	A	Direct Flight
5	09/10/2025	2	Siskin	1	S	A	A	Direct Flight
5	09/10/2025	2	Skylark	1	S	A	A	Direct Flight
5	09/10/2025	2	Gannet	18	S	A	C	Local Movement
5	09/10/2025	2	Common scoter	13	S	A	C	Local Movement
5	09/10/2025	2	Common scoter	1	N	A	C	Direct Flight
5	09/10/2025	2	Common scoter	8	S	C	B	Direct Flight
5	09/10/2025	2	Whooper swan	2	N	C	C	Direct Flight
5	09/10/2025	2	Sandwich tern	1	S	A	B	Direct Flight
5	09/10/2025	2	Red-throated diver	1	S	A	C	Direct Flight
5	09/10/2025	2	Red-throated diver	1	S	A	C	Direct Flight
5	09/10/2025	3	Skylark	3	S	A	A	Direct Flight
5	09/10/2025	3	Linnet	10	S	A	A	Direct Flight
5	09/10/2025	3	Reed bunting	1	S	A	A	Direct Flight
5	09/10/2025	3	Barn swallow	4	S	A	A	Direct Flight
5	09/10/2025	3	Pied wagtail	4	S	A	A	Direct Flight
5	09/10/2025	3	Meadow pipit	55	S	A	A	Direct Flight
5	09/10/2025	3	House sparrow	3	S	A	A	Direct Flight
5	09/10/2025	3	Gannet	20	S	A	C	Direct Flight



Visit	Date	Survey hour	Species	Count	Flight direction	Flight height band	Distance band	Behaviour
5	09/10/2025	3	Common scoter	12	S	A	C	Local Movement
5	09/10/2025	3	Common scoter	1	N	B	C	Local Movement
5	09/10/2025	3	Sandwich tern	1	S	B	B	Direct Flight
5	09/10/2025	4	Barn swallow	2	S	A	A	Direct Flight
5	09/10/2025	4	Skylark	1	S	A	A	Direct Flight
5	09/10/2025	4	Linnet	5	S	A	A	Direct Flight
5	09/10/2025	4	Meadow pipit	15	S	A	A	Direct Flight
5	09/10/2025	4	Chaffinch	4	S	A	A	Direct Flight
5	09/10/2025	4	Pied wagtail	1	S	A	A	Direct Flight
5	09/10/2025	4	Gannet	15	S	A	C	Local Movement
5	09/10/2025	4	Common scoter	16	S	A	B	Local Movement
5	09/10/2025	4	Common scoter	3	N	B	C	Local Movement
5	09/10/2025	4	Red-throated diver	1	S	A	C	Direct Flight
5	09/10/2025	4	Sandwich tern	2	S	B	B	Direct Flight
5	09/10/2025	5	Meadow pipit	15	S	B	A	Direct Flight
5	09/10/2025	5	Skylark	1	S	B	A	Direct Flight
5	09/10/2025	5	Grey wagtail	1	S	B	A	Direct Flight
5	09/10/2025	5	Gannet	9	S	A	C	Direct Flight
5	09/10/2025	5	Common scoter	17	S	A	C	Local Movement
5	09/10/2025	5	Common scoter	4	N	B	C	Local Movement
5	09/10/2025	5	Red-throated diver	1	S	A	B	Direct Flight
5	09/10/2025	5	Red-throated diver	2	S	A	C	Direct Flight
5	09/10/2025	6	Meadow pipit	8	S	B	A	Direct Flight
5	09/10/2025	6	Barn swallow	2	S	B	A	Direct Flight
5	09/10/2025	6	Gannet	7	S	A	C	Direct Flight
5	09/10/2025	6	Common scoter	18	S	A	B	Local Movement
5	09/10/2025	6	Common scoter	2	N	A	B	Local Movement
6	13/10/2025	1	Chaffinch	16	S	C	A	Direct Flight
6	13/10/2025	1	Goldfinch	30	S	C	A	Direct Flight
6	13/10/2025	1	Reed bunting	1	S	C	A	Direct Flight
6	13/10/2025	1	Skylark	4	S	C	A	Direct Flight
6	13/10/2025	1	Grey wagtail	1	S	C	A	Direct Flight
6	13/10/2025	1	Linnet	20	S	C	A	Direct Flight
6	13/10/2025	1	Lesser redpoll	5	S	C	A	Direct Flight
6	13/10/2025	1	Yellowhammer	1	S	C	A	Direct Flight
6	13/10/2025	1	Siskin	4	S	C	A	Direct Flight
6	13/10/2025	1	Pied wagtail	3	S	C	A	Direct Flight
6	13/10/2025	1	Meadow pipit	30	S	C	A	Direct Flight
6	13/10/2025	1	Gannet	15	S	A	C	Direct Flight
6	13/10/2025	1	Common scoter	120	S	A	C	Local Movement
6	13/10/2025	1	Common scoter	10	N	A	C	Local Movement
6	13/10/2025	1	Brent goose	7	S	B	B	Direct Flight
6	13/10/2025	2	Chaffinch	26	S	B	A	Direct Flight
6	13/10/2025	2	Linnet	10	S	B	A	Direct Flight
6	13/10/2025	2	Pied wagtail	3	S	B	A	Direct Flight
6	13/10/2025	2	Lesser redpoll	5	S	B	A	Direct Flight
6	13/10/2025	2	Reed bunting	1	S	B	A	Direct Flight
6	13/10/2025	2	Goldfinch	20	S	B	A	Direct Flight
6	13/10/2025	2	Meadow pipit	50	S	B	A	Direct Flight



Visit	Date	Survey hour	Species	Count	Flight direction	Flight height band	Distance band	Behaviour
6	13/10/2025	2	Grey wagtail	1	S	B	A	Direct Flight
6	13/10/2025	2	Siskin	1	S	B	A	Direct Flight
6	13/10/2025	2	Skylark	6	S	B	A	Direct Flight
6	13/10/2025	2	Gannet	10	S	A	C	Direct Flight
6	13/10/2025	2	Common scoter	65	S	A	C	Local Movement
6	13/10/2025	2	Common scoter	5	N	A	C	Local Movement
6	13/10/2025	2	Great northern diver	1	N	B	C	Direct Flight
6	13/10/2025	3	Chaffinch	15	S	B	A	Direct Flight
6	13/10/2025	3	Linnet	5	S	B	A	Direct Flight
6	13/10/2025	3	Pied wagtail	2	S	B	A	Direct Flight
6	13/10/2025	3	Skylark	7	S	B	A	Direct Flight
6	13/10/2025	3	Lesser redpoll	5	S	B	A	Direct Flight
6	13/10/2025	3	Goldfinch	15	S	B	A	Direct Flight
6	13/10/2025	3	Meadow pipit	15	S	B	A	Direct Flight
6	13/10/2025	3	Grey wagtail	1	S	B	A	Direct Flight
6	13/10/2025	3	Siskin	1	S	B	A	Direct Flight
6	13/10/2025	3	Gannet	20	S	A	C	Direct Flight
6	13/10/2025	3	Common scoter	40	S	A	C	Local Movement
6	13/10/2025	3	Common scoter	5	N	A	C	Local Movement
6	13/10/2025	3	Eider	4	S	A	B	Direct Flight
6	13/10/2025	3	Curlew	2	S	B	B	Direct Flight
6	13/10/2025	4	Chaffinch	7	S	B	A	Direct Flight
6	13/10/2025	4	Goldfinch	10	S	B	A	Direct Flight
6	13/10/2025	4	Pied wagtail	1	S	B	A	Direct Flight
6	13/10/2025	4	Meadow pipit	3	S	B	A	Direct Flight
6	13/10/2025	4	Lesser redpoll	2	S	B	A	Direct Flight
6	13/10/2025	4	Skylark	3	S	B	A	Direct Flight
6	13/10/2025	4	Gannet	12	S	A	C	Direct Flight
6	13/10/2025	4	Common scoter	50	N	A	C	Local Movement
6	13/10/2025	4	Common scoter	5	S	A	C	Local Movement
6	13/10/2025	4	Red-throated diver	1	S	A	B	Direct Flight
6	13/10/2025	4	Oystercatcher	6	S	A	B	Local Movement
6	13/10/2025	5	Skylark	1	S	B	A	Direct Flight
6	13/10/2025	5	Meadow pipit	2	S	B	A	Direct Flight
6	13/10/2025	5	Chaffinch	3	S	B	A	Direct Flight
6	13/10/2025	5	Goldfinch	10	S	B	A	Direct Flight
6	13/10/2025	5	Pied wagtail	1	S	B	A	Direct Flight
6	13/10/2025	5	Linnet	5	S	B	A	Direct Flight
6	13/10/2025	5	Gannet	7	S	A	C	Direct Flight
6	13/10/2025	5	Common scoter	30	N	A	C	Local Movement
6	13/10/2025	5	Common scoter	4	S	B	C	Local Movement
6	13/10/2025	5	Lesser black-backed gull	1	S	C	B	Direct Flight
6	13/10/2025	5	Red-throated diver	1	S	A	B	Direct Flight
6	13/10/2025	5	Oystercatcher	3	S	A	B	Local Movement
6	13/10/2025	6	Barn swallow	1	S	B	A	Direct Flight
6	13/10/2025	6	Skylark	3	S	B	A	Direct Flight
6	13/10/2025	6	Linnet	10	S	B	A	Direct Flight
6	13/10/2025	6	Goldfinch	5	S	B	A	Direct Flight
6	13/10/2025	6	Gannet	6	S	A	C	Direct Flight



Visit	Date	Survey hour	Species	Count	Flight direction	Flight height band	Distance band	Behaviour
6	13/10/2025	6	Common scoter	25	N	A	C	Local Movement
6	13/10/2025	6	Common scoter	4	S	A	C	Local Movement
6	13/10/2025	6	Red-throated diver	1	S	A	C	Direct Flight
7	20/10/2025	1	Redwing	1	W	B	A	Direct Flight
7	20/10/2025	1	Common scoter	25	S	A	C	Local Movement
7	20/10/2025	1	Common scoter	5	N	A	C	Local Movement
7	20/10/2025	1	Little egret	1	N	B	B	Local Movement
7	20/10/2025	2	Red-breasted merganser	4	N	B	B	Direct Flight
7	20/10/2025	2	Red-breasted merganser	2	S	B	B	Direct Flight
7	20/10/2025	2	Common scoter	40	S	A	C	Local Movement
7	20/10/2025	2	Common scoter	10	N	A	B	Local Movement
7	20/10/2025	3	Common scoter	25	S	A	C	Local Movement
7	20/10/2025	3	Common scoter	5	N	A	B	Local Movement
7	20/10/2025	3	Oystercatcher	6	N	B	B	Local Movement
7	20/10/2025	3	Siskin	7	S	B	A	Direct Flight
7	20/10/2025	3	Lesser redpoll	2	S	B	A	Direct Flight
7	20/10/2025	3	Linnet	12	S	B	A	Direct Flight
7	20/10/2025	3	Reed bunting	1	S	B	A	Direct Flight
7	20/10/2025	3	Goldfinch	20	S	B	A	Direct Flight
7	20/10/2025	3	Chaffinch	3	S	B	A	Direct Flight
7	20/10/2025	4	Common scoter	5	S	A	C	Local Movement
7	20/10/2025	4	Common scoter	20	N	A	B	Local Movement
7	20/10/2025	4	Skylark	2	S	B	A	Direct Flight
7	20/10/2025	4	Goldfinch	13	S	B	A	Direct Flight
7	20/10/2025	4	Linnet	15	S	B	A	Direct Flight
7	20/10/2025	4	Siskin	8	S	B	A	Direct Flight
7	20/10/2025	4	Lesser redpoll	2	S	B	A	Direct Flight
7	20/10/2025	4	Brent goose	22	S	A	C	Direct Flight
7	20/10/2025	4	Red-throated diver	1	S	A	C	Direct Flight
7	20/10/2025	5	Goldfinch	10	S	B	A	Direct Flight
7	20/10/2025	5	Pied wagtail	2	S	B	A	Direct Flight
7	20/10/2025	5	Barn Swallow	1	S	B	A	Direct Flight
7	20/10/2025	5	Grey wagtail	1	S	B	A	Direct Flight
7	20/10/2025	5	Common scoter	25	S	A	C	Local Movement
7	20/10/2025	5	Common scoter	5	N	A	B	Local Movement
7	20/10/2025	5	Gannet	6	S	A	D	Direct Flight
7	20/10/2025	6	Common scoter	15	S	A	C	Local Movement
7	20/10/2025	6	Common scoter	2	N	A	B	Local Movement
7	20/10/2025	6	Red-throated diver	1	S	A	B	Direct Flight
7	20/10/2025	6	Curlew	1	N	B	B	Direct Flight
8	01/11/2025	1	Reed bunting	2	S	B	A	Direct Flight
8	01/11/2025	1	Siskin	3	S	B	A	Direct Flight
8	01/11/2025	1	Skylark	1	S	B	A	Direct Flight
8	01/11/2025	1	Lesser redpoll	2	S	B	A	Direct Flight
8	01/11/2025	1	Chaffinch	5	S	B	A	Direct Flight
8	01/11/2025	1	Starling	5	S	B	A	Direct Flight
8	01/11/2025	1	Red-throated diver	1	S	B	B	Direct Flight
8	01/11/2025	1	Great northern diver	1	S	A	C	Direct Flight
8	01/11/2025	1	Peregrine	1	N	B	B	Hunting



Visit	Date	Survey hour	Species	Count	Flight direction	Flight height band	Distance band	Behaviour
8	01/11/2025	1	Red-breasted merganser	3	S	B	A	Direct Flight
8	01/11/2025	1	Common scoter	22	S	A	C	Local Movement
8	01/11/2025	1	Common scoter	5	N	A	B	Local Movement
8	01/11/2025	1	Gannet	17	S	B	C	Foraging
8	01/11/2025	2	Great northern diver	1	S	C	B	Direct Flight
8	01/11/2025	2	Great northern diver	1	S	A	C	Direct Flight
8	01/11/2025	2	Brent goose	4	S	B	A	Direct Flight
8	01/11/2025	2	Great northern diver	2	S	A	C	Direct Flight
8	01/11/2025	2	Great northern diver	1	S	A	B	Direct Flight
8	01/11/2025	2	Little egret	2	N	A	C	Direct Flight
8	01/11/2025	2	Great northern diver	2	S	A	B	Direct Flight
8	01/11/2025	2	Rook	5	S	B	A	Direct Flight
8	01/11/2025	2	Tree sparrow	10	S	B	A	Direct Flight
8	01/11/2025	2	Reed bunting	1	S	B	A	Direct Flight
8	01/11/2025	2	Meadow pipit	5	S	B	A	Direct Flight
8	01/11/2025	2	Brambling	1	S	B	A	Direct Flight
8	01/11/2025	2	House sparrow	8	S	B	A	Direct Flight
8	01/11/2025	2	Skylark	12	S	B	A	Direct Flight
8	01/11/2025	2	Linnet	5	S	B	A	Direct Flight
8	01/11/2025	2	Chaffinch	10	S	B	A	Direct Flight
8	01/11/2025	2	Siskin	3	S	B	A	Direct Flight
8	01/11/2025	2	Lesser redpoll	1	S	B	A	Direct Flight
8	01/11/2025	2	Common scoter	21	S	A	C	Local Movement
8	01/11/2025	2	Common scoter	3	N	A	B	Local Movement
8	01/11/2025	2	Gannet	11	S	B	C	Foraging
8	01/11/2025	3	Tree sparrow	23	S	B	A	Direct Flight
8	01/11/2025	3	Pied wagtail	4	S	B	A	Direct Flight
8	01/11/2025	3	Siskin	3	S	B	A	Direct Flight
8	01/11/2025	3	Skylark	24	S	B	A	Direct Flight
8	01/11/2025	3	Chaffinch	8	S	B	A	Direct Flight
8	01/11/2025	3	Meadow pipit	3	S	B	A	Direct Flight
8	01/11/2025	3	Lesser redpoll	1	S	B	A	Direct Flight
8	01/11/2025	3	Rook	9	S	B	A	Direct Flight
8	01/11/2025	3	Common scoter	17	S	A	C	Local Movement
8	01/11/2025	3	Common scoter	4	N	A	B	Local Movement
8	01/11/2025	3	Gannet	7	S	B	C	Foraging
8	01/11/2025	3	Brent goose	5	S	B	A	Direct Flight
8	01/11/2025	3	Brent goose	8	S	B	A	Direct Flight
8	01/11/2025	3	Sandwich tern	2	S	A	A	Foraging
8	01/11/2025	3	Red-breasted merganser	3	S	C	B	Direct Flight
8	01/11/2025	3	Brent goose	2	S	B	A	Direct Flight
8	01/11/2025	4	Skylark	6	S	B	A	Direct Flight
8	01/11/2025	4	Rook	2	S	B	A	Direct Flight
8	01/11/2025	4	Chaffinch	3	S	B	A	Direct Flight
8	01/11/2025	4	Pied wagtail	1	S	B	A	Direct Flight
8	01/11/2025	4	Siskin	2	S	B	A	Direct Flight
8	01/11/2025	4	Common scoter	13	S	A	C	Local Movement
8	01/11/2025	4	Common scoter	6	N	A	B	Local Movement
8	01/11/2025	4	Gannet	7	S	B	C	Foraging



Visit	Date	Survey hour	Species	Count	Flight direction	Flight height band	Distance band	Behaviour
8	01/11/2025	4	Brent goose	6	S	B	A	Direct Flight
8	01/11/2025	4	Brent goose	4	S	B	A	Direct Flight
8	01/11/2025	4	Red-throated diver	1	S	A	B	Direct Flight
8	01/11/2025	5	Skylark	2	S	B	A	Direct Flight
8	01/11/2025	5	Chaffinch	3	S	B	A	Direct Flight
8	01/11/2025	5	Starling	13	S	B	A	Direct Flight
8	01/11/2025	5	Pied wagtail	2	S	B	A	Direct Flight
8	01/11/2025	5	Lesser redpoll	1	S	B	A	Direct Flight
8	01/11/2025	5	Siskin	2	S	B	A	Direct Flight
8	01/11/2025	5	Common scoter	19	S	A	C	Local Movement
8	01/11/2025	5	Common scoter	4	N	A	B	Local Movement
8	01/11/2025	5	Gannet	6	S	B	C	Foraging
8	01/11/2025	5	Red-throated diver	2	N	B	C	Direct Flight
8	01/11/2025	5	Brent goose	4	S	B	A	Direct Flight
8	01/11/2025	6	Skylark	5	S	B	A	Direct Flight
8	01/11/2025	6	Starling	19	S	B	A	Direct Flight
8	01/11/2025	6	Linnet	15	S	B	A	Direct Flight
8	01/11/2025	6	Common scoter	22	S	A	B	Local Movement
8	01/11/2025	6	Common scoter	3	N	A	B	Local Movement
8	01/11/2025	6	Gannet	5	S	B	C	Foraging
8	01/11/2025	6	Red-throated diver	1	S	A	B	Direct Flight
8	01/11/2025	6	Red-throated diver	2	S	A	B	Direct Flight
8	01/11/2025	6	Great northern diver	1	S	B	C	Direct Flight
9	05/11/2025	1	Great northern diver	1	S	B	C	Direct Flight
9	05/11/2025	1	Pomarine skua	1	S	A	C	Direct Flight
9	05/11/2025	1	Kittiwake	50	S	A	C	Direct Flight
9	05/11/2025	1	Gannet	40	S	A	C	Direct Flight
9	05/11/2025	1	Common scoter	15	S	A	C	Local Movement
9	05/11/2025	1	Common scoter	1	N	A	C	Local Movement
9	05/11/2025	2	Red-throated diver	1	S	A	B	Direct Flight
9	05/11/2025	2	Kittiwake	20	S	A	C	Direct Flight
9	05/11/2025	2	Gannet	10	S	A	C	Direct Flight
9	05/11/2025	2	Common scoter	7	S	A	C	Local Movement
9	05/11/2025	2	Common scoter	2	N	A	C	Local Movement
9	05/11/2025	3	Rook	6	S	B	A	Direct Flight
9	05/11/2025	3	Lesser redpoll	23	S	B	A	Direct Flight
9	05/11/2025	3	Skylark	94	S	B	A	Direct Flight
9	05/11/2025	3	Linnet	70	S	B	A	Direct Flight
9	05/11/2025	3	Golden plover	14	N	D	B	Local Movement
9	05/11/2025	3	Kittiwake	5	S	A	C	Direct Flight
9	05/11/2025	3	Gannet	3	S	A	C	Direct Flight
9	05/11/2025	3	Common scoter	6	S	A	C	Local Movement
9	05/11/2025	3	Common scoter	1	N	A	C	Local Movement
9	05/11/2025	4	Eider	1	N	A	B	Direct Flight
9	05/11/2025	4	Red-throated diver	1	S	A	B	Direct Flight
9	05/11/2025	4	Kittiwake	3	S	A	C	Direct Flight
9	05/11/2025	4	Gannet	3	S	A	C	Direct Flight
9	05/11/2025	4	Common scoter	8	S	A	C	Local Movement
9	05/11/2025	4	Common scoter	12	N	A	C	Local Movement



Visit	Date	Survey hour	Species	Count	Flight direction	Flight height band	Distance band	Behaviour
9	05/11/2025	5	Great northern diver	1	S	B	C	Direct Flight
9	05/11/2025	5	Kittiwake	10	S	A	C	Direct Flight
9	05/11/2025	5	Gannet	4	S	A	C	Direct Flight
9	05/11/2025	5	Common scoter	8	S	A	C	Local Movement
9	05/11/2025	5	Common scoter	1	N	A	C	Local Movement
9	05/11/2025	6	Red-throated diver	1	S	A	B	Direct Flight
9	05/11/2025	6	Kittiwake	12	S	A	C	Direct Flight
9	05/11/2025	6	Gannet	5	S	A	C	Direct Flight
9	05/11/2025	6	Common scoter	5	S	A	C	Local Movement
9	05/11/2025	6	Common scoter	3	N	A	C	Local Movement
10	13/11/2025	1	Whooper swan	2	S	C	A	Direct Flight
10	13/11/2025	1	Brent goose	13	S	B	B	Local Movement
10	13/11/2025	1	Red-throated diver	2	S	A	C	Direct Flight
10	13/11/2025	1	Great northern diver	1	N	A	C	Direct Flight
10	13/11/2025	1	Eider	3	N	B	B	Local Movement
10	13/11/2025	1	Great northern diver	1	S	A	C	Direct Flight
10	13/11/2025	1	Red-throated diver	1	S	A	B	Direct Flight
10	13/11/2025	1	Snow bunting	1	S	A	A	Direct Flight
10	13/11/2025	1	Fieldfare	1	S	A	A	Direct Flight
10	13/11/2025	1	Redwing	5	S	A	A	Direct Flight
10	13/11/2025	2	Brent goose	2	S	C	B	Local Movement
10	13/11/2025	2	Red-throated diver	1	S	A	C	Direct Flight
10	13/11/2025	2	Red-throated diver	1	S	A	C	Direct Flight
10	13/11/2025	3	Lapwing	150	NA	NA	NA	Roosting
10	13/11/2025	3	Great northern diver	1	S	D	C	Direct Flight
10	13/11/2025	3	Brent goose	2	S	C	D	Direct Flight
10	13/11/2025	4	Brent goose	4	S	A	C	Direct Flight
10	13/11/2025	4	Lesser redpoll	1	S	A	A	Direct Flight
10	13/11/2025	4	Skylark	4	S	B	A	Direct Flight
10	13/11/2025	4	Barn swallow	1	S	C	A	Direct Flight
10	13/11/2025	4	Great crested grebe	35	NA	NA	NA	Foraging
10	13/11/2025	4	Red-throated diver	45	NA	NA	NA	Rafting
10	13/11/2025	4	Great northern diver	6	NA	NA	NA	Rafting
10	13/11/2025	5	Brent goose	7	S	C	C	Direct Flight
10	13/11/2025	5	Red-throated diver	1	S	A	C	Direct Flight
10	13/11/2025	6	Red-throated diver	1	S	A	B	Direct Flight
10	13/11/2025	6	Red-throated diver	2	S	B	C	Direct Flight
11	20/11/2025	1	Curlew	9	W	C	A	Local Movement
11	20/11/2025	1	Common scoter	6	S	A	B	Local Movement
11	20/11/2025	1	Common scoter	1	N	A	B	Local Movement
11	20/11/2025	2	Red-throated diver	1	S	A	C	Direct Flight
11	20/11/2025	2	Common scoter	20	S	A	B	Local Movement
11	20/11/2025	2	Common scoter	6	N	A	B	Local Movement
11	20/11/2025	3	Black-tailed godwit	3	N	C	B	Local Movement
11	20/11/2025	3	Greylag goose	10	W	A	D	Direct Flight
11	20/11/2025	3	Common scoter	2	S	A	B	Local Movement
11	20/11/2025	3	Common scoter	2	N	A	B	Local Movement
11	20/11/2025	4	Common scoter	13	S	A	B	Local Movement
11	20/11/2025	4	Common scoter	2	N	A	B	Local Movement



Visit	Date	Survey hour	Species	Count	Flight direction	Flight height band	Distance band	Behaviour
11	20/11/2025	4	Brent goose	4	S	B	B	Local Movement
11	20/11/2025	4	Red-throated diver	1	S	A	C	Direct Flight
11	20/11/2025	5	Common scoter	15	S	A	B	Local Movement
11	20/11/2025	5	Common scoter	6	N	A	B	Local Movement
11	20/11/2025	6	Common scoter	27	S	A	B	Local Movement
11	20/11/2025	6	Common scoter	3	N	A	B	Local Movement
11	20/11/2025	6	Brent goose	11	S	B	B	Local Movement
11	20/11/2025	6	Brent goose	7	S	B	B	Local Movement
12	25/11/2025	1	Red-throated diver	1	N	A	C	Direct Flight
12	25/11/2025	1	Kestrel	1	NA	B	A	Foraging
12	25/11/2025	3	Red-throated diver	1	N	A	D	Direct Flight
12	25/11/2025	3	Red-throated diver	1	N	A	C	Direct Flight
12	25/11/2025	3	Velvet scoter	4	N	A	C	Direct Flight
12	25/11/2025	3	Starling	23	W	A	D	Direct Flight
12	25/11/2025	3	Red-throated diver	1	N	A	C	Direct Flight
12	25/11/2025	3	Greylag goose	1	N	C	B	Direct Flight
12	25/11/2025	3	Starling	40	W	B	A	Direct Flight
12	25/11/2025	3	Starling	35	W	B	A	Direct Flight
12	25/11/2025	4	Starling	25	W	B	C	Direct Flight
12	25/11/2025	4	Starling	15	W	B	A	Direct Flight
12	25/11/2025	4	Red-throated diver	1	S	A	C	Direct Flight
12	25/11/2025	5	Red-throated diver	1	S	A	C	Direct Flight
12	25/11/2025	5	Starling	35	W	B	A	Direct Flight
12	25/11/2025	6	Red-throated diver	1	S	B	B	Direct Flight
13	01/12/2025	2	Red-throated diver	1	S	A	D	Direct Flight
13	01/12/2025	2	Red-throated diver	1	N	A	D	Direct Flight
13	01/12/2025	3	Red-throated diver	3	S	A	D	Direct Flight
13	01/12/2025	3	Red-throated diver	1	S	A	D	Direct Flight
13	01/12/2025	3	Red-throated diver	1	S	A	D	Direct Flight
13	01/12/2025	3	Red-throated diver	2	S	A	D	Direct Flight
13	01/12/2025	3	Gannet	1	S	A	D	Direct Flight
13	01/12/2025	3	Red-throated diver	1	N	B	D	Direct Flight
13	01/12/2025	3	Red-throated diver	1	S	B	D	Direct Flight
13	01/12/2025	3	Red-throated diver	1	S	A	D	Direct Flight
13	01/12/2025	3	Red-throated diver	1	S	B	D	Direct Flight
13	01/12/2025	4	Brent goose	3	S	A	B	Direct Flight
13	01/12/2025	4	Red-throated diver	1	S	A	C	Direct Flight
13	01/12/2025	4	Common scoter	3	N	A	D	Direct Flight
13	01/12/2025	5	Red-throated diver	1	S	A	D	Direct Flight
13	01/12/2025	5	Red-throated diver	1	N	A	C	Direct Flight
13	01/12/2025	6	Gannet	1	S	A	D	Direct Flight
13	01/12/2025	6	Common scoter	6	S	A	D	Direct Flight
14	11/12/2025	1	Brent goose	20	S	B	B	Direct Flight
14	11/12/2025	1	Red-throated diver	1	S	A	C	Direct Flight
14	11/12/2025	1	Red-throated diver	2	S	A	D	Direct Flight
14	11/12/2025	1	Brent goose	1	N	B	B	Direct Flight
14	11/12/2025	1	Red-throated diver	3	S	A	C	Direct Flight
14	11/12/2025	1	Brent goose	8	S	B	B	Direct Flight
14	11/12/2025	1	Great northern diver	1	S	A	B	Direct Flight



Visit	Date	Survey hour	Species	Count	Flight direction	Flight height band	Distance band	Behaviour
14	11/12/2025	2	Eider	10	S	A	B	Direct Flight
14	11/12/2025	2	Great northern diver	1	S	A	B	Direct Flight
14	11/12/2025	3	Great northern diver	1	S	A	B	Direct Flight
14	11/12/2025	3	Red-throated diver	6	S	A	C	Direct Flight
14	11/12/2025	3	Red-throated diver	7	S	A	C	Direct Flight
14	11/12/2025	3	Great northern diver	1	N	A	C	Direct Flight
14	11/12/2025	3	Red-throated diver	2	S	B	B	Direct Flight
14	11/12/2025	3	Red-throated diver	21	S	A	C	Direct Flight
14	11/12/2025	1	Common scoter	36	S	A	C	Direct Flight
14	11/12/2025	2	Common scoter	46	S	A	C	Direct Flight
14	11/12/2025	3	Common scoter	84	S	A	C	Direct Flight
14	11/12/2025	4	Common scoter	25	S	A	C	Direct Flight
14	11/12/2025	1	Common scoter	8	N	A	C	Direct Flight
14	11/12/2025	2	Common scoter	15	N	A	NA	Direct Flight
14	11/12/2025	3	Common scoter	8	N	A	NA	Direct Flight
14	11/12/2025	4	Common scoter	6	N	A	C	Direct Flight
14	11/12/2025	2	Kittiwake	43	S	A	C	Direct Flight
14	11/12/2025	3	Kittiwake	52	S	A	C	Direct Flight
14	11/12/2025	3	Kittiwake	35	S	A	C	Direct Flight
14	11/12/2025	5	Kittiwake	18	S	A	C	Direct Flight
14	11/12/2025	5	Red-throated diver	17	S	A	C	Direct Flight
14	11/12/2025	5	Great northern diver	1	S	A	D	Direct Flight
14	11/12/2025	6	Red-throated diver	2	S	A	B	Direct Flight
15	08/01/2026	1	Great northern diver	2	S	A	D	Direct Flight
15	08/01/2026	1	Red-throated diver	1	SSW	A	D	Direct Flight
15	08/01/2026	1	Brent goose	34	SW	A	B	Direct Flight
15	08/01/2026	1	Great northern diver	1	S	A	C	Direct Flight
15	08/01/2026	1	Brent goose	18	SSW	A	B	Direct Flight
15	08/01/2026	1	Common scoter	106	NA	NA	NA	Direct Flight
15	08/01/2026	2	Great northern diver	1	SW	A	C	Direct Flight
15	08/01/2026	2	Great northern diver	1	S	A	D	Direct Flight
15	08/01/2026	2	Mute swan	2	SSW	A	B	Direct Flight
15	08/01/2026	2	Red-throated diver	2	S	A	D	Direct Flight
15	08/01/2026	2	Common scoter	52	N	NA	NA	Direct Flight
15	08/01/2026	3	Great northern diver	1	S	A	C	Direct Flight
15	08/01/2026	3	Red-breasted merganser	2	NNW	A	B	Direct Flight
15	08/01/2026	3	Great northern diver	1	S	A	C	Direct Flight
15	08/01/2026	3	Red-throated diver	3	SSE	A	D	Direct Flight
15	08/01/2026	3	Common scoter	19	NA	NA	NA	Direct Flight
15	08/01/2026	4	Wigeon	23	NA	A	C	Direct Flight
15	08/01/2026	4	Red-throated diver	1	NA	A	C	Direct Flight
15	08/01/2026	4	Red-throated diver	1	NA	A	C	Direct Flight
15	08/01/2026	4	Great northern diver	1	NA	B	D	Direct Flight
15	08/01/2026	4	Common scoter	18	NA	NA	NA	Foraging
15	08/01/2026	5	Great northern diver	1	NA	A	D	Direct Flight
15	08/01/2026	5	Red-throated diver	2	NA	A	D	Direct Flight
15	08/01/2026	5	Brent goose	11	NA	A	C	Direct Flight
15	08/01/2026	5	Great northern diver	1	NA	A	C	Direct Flight
15	08/01/2026	5	Common scoter	37	NA	NA	NA	Direct Flight



Visit	Date	Survey hour	Species	Count	Flight direction	Flight height band	Distance band	Behaviour
15	08/01/2026	6	Red-throated diver	2	NA	A	D	Direct Flight
15	08/01/2026	6	Great crested grebe	4	NA	A	D	Direct Flight



Table A 6-3 Full VP Survey Results: VP2

Visit	Date	Survey hour	Species	Count	Flight direction	Flight height band	Distance band	Behaviour
1	16/09/2025	1	Meadow pipit	230	S	NA	A	Direct Flight
1	16/09/2025	1	Linnet	35	S	B	A	Direct Flight
1	16/09/2025	1	Barn swallow	10	S	A	A	Direct Flight
1	16/09/2025	1	Grey wagtail	3	S	C	A	Direct Flight
1	16/09/2025	1	Chaffinch	1	S	C	A	Direct Flight
1	16/09/2025	1	Gannet	15	S	NA	D	Direct Flight
1	16/09/2025	1	Sandwich tern	70	S	NA	D	Direct Flight
1	16/09/2025	1	Common tern	5	S	B	C	Direct Flight
1	16/09/2025	1	Common scoter	20	S	NA	D	Commuting
1	16/09/2025	1	Common scoter	5	N	A	D	Commuting
1	16/09/2025	1	Golden plover	2	S	B	A	Direct Flight
1	16/09/2025	2	Meadow pipit	120	S	NA	A	Direct Flight
1	16/09/2025	2	Barn swallow	10	S	A	A	Direct Flight
1	16/09/2025	2	Linnet	30	S	B	A	Direct Flight
1	16/09/2025	2	Gannet	10	S	NA	D	Direct Flight
1	16/09/2025	2	Sandwich tern	130	S	NA	D	Direct Flight
1	16/09/2025	2	Common tern	10	S	B	C	Direct Flight
1	16/09/2025	2	Common scoter	8	S	NA	D	Commuting
1	16/09/2025	2	Common scoter	6	N	B	D	Commuting
1	16/09/2025	2	Red-throated diver	1	S	A	D	Direct Flight
1	16/09/2025	2	Curlew sandpiper	2	NA	NA	NA	Roosting
1	16/09/2025	2	Roseate tern	1	NA	NA	NA	Roosting
1	16/09/2025	3	Meadow pipit	125	S	NA	A	Direct Flight
1	16/09/2025	3	Linnet	40	S	NA	A	Direct Flight
1	16/09/2025	3	Barn swallow	5	S	NA	A	Direct Flight
1	16/09/2025	3	Gannet	15	S	NA	D	Direct Flight
1	16/09/2025	3	Sandwich tern	75	S	NA	D	Direct Flight
1	16/09/2025	3	Common tern	160	S	NA	D	Direct Flight
1	16/09/2025	3	Common scoter	6	S	A	D	Commuting
1	16/09/2025	3	Common scoter	3	N	A	D	Commuting
1	16/09/2025	4	Meadow pipit	80	S	NA	A	Direct Flight
1	16/09/2025	4	Linnet	30	S	NA	A	Direct Flight
1	16/09/2025	4	Barn swallow	15	S	A	A	Direct Flight
1	16/09/2025	4	Gannet	10	S	NA	D	Direct Flight
1	16/09/2025	4	Sandwich tern	50	S	NA	D	Direct Flight
1	16/09/2025	4	Common tern	30	S	NA	D	Direct Flight
1	16/09/2025	4	Common scoter	10	S	A	D	Direct Flight
1	16/09/2025	4	Common scoter	5	N	A	D	Direct Flight
1	16/09/2025	4	Pied wagtail	2	S	B	A	Direct Flight
1	16/09/2025	4	Brent goose	2	S	B	B	Direct Flight
1	16/09/2025	5	Meadow pipit	30	S	NA	A	Direct Flight
1	16/09/2025	5	Linnet	15	S	NA	A	Direct Flight
1	16/09/2025	5	Barn swallow	5	S	A	A	Direct Flight
1	16/09/2025	5	Gannet	5	S	NA	D	Direct Flight
1	16/09/2025	5	Sandwich tern	40	S	NA	D	Direct Flight
1	16/09/2025	5	Common tern	25	S	NA	D	Direct Flight
1	16/09/2025	5	Common scoter	4	S	A	D	Commuting



Visit	Date	Survey hour	Species	Count	Flight direction	Flight height band	Distance band	Behaviour
1	16/09/2025	5	Common scoter	2	N	A	D	Commuting
1	16/09/2025	5	Mallard	4	S	B	B	Direct Flight
1	16/09/2025	6	Meadow pipit	20	S	NA	A	Direct Flight
1	16/09/2025	6	Linnet	20	S	NA	A	Direct Flight
1	16/09/2025	6	Barn swallow	10	S	A	A	Direct Flight
1	16/09/2025	6	Gannet	5	S	NA	D	Direct Flight
1	16/09/2025	6	Sandwich tern	20	S	NA	D	Direct Flight
1	16/09/2025	6	Common tern	20	S	NA	D	Direct Flight
1	16/09/2025	6	Common scoter	3	S	A	D	Commuting
1	16/09/2025	6	Common scoter	1	N	A	D	Commuting
2	18/09/2025	1	Mallard	1	N	B	A	Direct Flight
2	18/09/2025	1	Red-throated diver	1	S	A	D	Direct Flight
2	18/09/2025	1	Knot	6	S	A	B	Direct Flight
2	18/09/2025	1	Red-throated diver	1	S	A	B	Direct Flight
2	18/09/2025	1	Arctic skua	1	S	NA	D	Direct Flight
2	18/09/2025	1	Snipe	1	S	C	A	Direct Flight
2	18/09/2025	1	Red-throated diver	1	S	B	C	Direct Flight
2	18/09/2025	1	Meadow pipit	160	S	NA	A	Direct Flight
2	18/09/2025	1	Barn swallow	85	S	NA	A	Direct Flight
2	18/09/2025	1	House martin	25	S	NA	A	Direct Flight
2	18/09/2025	1	Pied wagtail	8	S	NA	A	Direct Flight
2	18/09/2025	Throughout	Gannet	40	Varying	NA	NA	Commuting
2	18/09/2025	Throughout	Sandwich tern	80	Varying	NA	NA	Commuting
2	18/09/2025	Throughout	Common tern	30	Varying	NA	NA	Commuting
2	18/09/2025	Throughout	Roseate tern	1	Varying	NA	NA	Commuting
2	18/09/2025	Throughout	Kittiwake	30	Varying	NA	NA	Commuting
2	18/09/2025	Throughout	Common scoter	200	Varying	NA	NA	Commuting
2	18/09/2025	2	Wigeon	1	S	B	D	Commuting
2	18/09/2025	2	Red-throated diver	1	S	A	D	Direct Flight
2	18/09/2025	2	Red-throated diver	1	S	A	C	Direct Flight
2	18/09/2025	2	Black-tailed godwit	7	S	B	B	Direct Flight
2	18/09/2025	2	Red-throated diver	1	N	A	D	Direct Flight
2	18/09/2025	2	Meadow pipit	60	S	NA	A	Direct Flight
2	18/09/2025	2	Barn swallow	70	S	NA	A	Direct Flight
2	18/09/2025	2	House martin	5	S	NA	A	Direct Flight
2	18/09/2025	2	Reed bunting	1	S	NA	A	Direct Flight
2	18/09/2025	2	Siskin	3	S	NA	A	Direct Flight
2	18/09/2025	2	Pied wagtail	3	S	NA	A	Direct Flight
2	18/09/2025	2	Grey wagtail	1	S	NA	A	Direct Flight
2	18/09/2025	3	Lesser black-backed gull	1	S	B	C	Direct Flight
2	18/09/2025	3	Red-throated diver	1	S	A	D	Direct Flight
2	18/09/2025	3	Red-throated diver	2	S	A	C	Direct Flight
2	18/09/2025	3	Teal	4	S	A	D	Direct Flight
2	18/09/2025	3	Red-throated diver	1	N	B	D	Direct Flight
2	18/09/2025	3	Meadow pipit	40	S	NA	A	Direct Flight
2	18/09/2025	3	Barn swallow	25	S	NA	A	Direct Flight
2	18/09/2025	3	Pied wagtail	2	S	NA	A	Direct Flight
2	18/09/2025	3	Grey wagtail	1	S	NA	A	Direct Flight
2	18/09/2025	3	Linnet	30	S	NA	A	Direct Flight



Visit	Date	Survey hour	Species	Count	Flight direction	Flight height band	Distance band	Behaviour
2	18/09/2025	4	Arctic skua	1	S	NA	D	Direct Flight
2	18/09/2025	4	Black tern	5	S	NA	NA	Commuting
2	18/09/2025	4	Arctic tern	1	S	NA	NA	Commuting
2	18/09/2025	4	Common tern	150	S	NA	NA	Commuting
2	18/09/2025	4	Roseate tern	3	S	NA	NA	Commuting
2	18/09/2025	4	Sandwich tern	20	S	NA	NA	Commuting
2	18/09/2025	4	Red-throated diver	1	S	A	D	Direct Flight
2	18/09/2025	4	Red-throated diver	2	S	B	C	Direct Flight
2	18/09/2025	4	Red-throated diver	1	S	A	D	Direct Flight
2	18/09/2025	4	Red-throated diver	1	S	A	D	Direct Flight
2	18/09/2025	4	Barn swallow	35	S	NA	A	Direct Flight
2	18/09/2025	4	House martin	10	S	NA	A	Direct Flight
2	18/09/2025	4	Meadow pipit	20	S	NA	A	Direct Flight
2	18/09/2025	4	Chaffinch	1	S	NA	A	Direct Flight
2	18/09/2025	4	Goldfinch	20	S	NA	A	Direct Flight
2	18/09/2025	4	Siskin	1	S	NA	A	Direct Flight
2	18/09/2025	4	Red-throated diver	17	NA	NA	NA	Foraging
2	18/09/2025	4	Great crested grebe	20	NA	NA	NA	Foraging
2	18/09/2025	5	Red-throated diver	1	S	A	D	Direct Flight
2	18/09/2025	5	Lesser black-backed gull	2	S	B	B	Direct Flight
2	18/09/2025	5	Red-breasted merganser	1	S	B	C	Direct Flight
2	18/09/2025	5	Red-throated diver	1	S	A	D	Direct Flight
2	18/09/2025	5	Barn swallow	15	S	NA	A	Direct Flight
2	18/09/2025	5	House martin	5	S	NA	A	Direct Flight
2	18/09/2025	5	Grey wagtail	1	S	NA	A	Direct Flight
2	18/09/2025	5	Pied wagtail	1	S	NA	A	Direct Flight
2	18/09/2025	5	Meadow pipit	10	S	NA	A	Direct Flight
2	18/09/2025	5	Linnet	20	S	NA	A	Direct Flight
2	18/09/2025	5	Goldfinch	10	S	NA	A	Direct Flight
2	18/09/2025	6	Red-throated diver	1	S	A	D	Direct Flight
2	18/09/2025	6	Wigeon	4	S	A	C	Direct Flight
2	18/09/2025	6	Red-throated diver	1	S	A	C	Direct Flight
2	18/09/2025	6	Barn swallow	30	S	NA	A	Direct Flight
2	18/09/2025	6	House martin	5	S	NA	A	Direct Flight
2	18/09/2025	6	Meadow pipit	10	S	NA	A	Direct Flight
2	18/09/2025	6	Linnet	5	S	NA	A	Direct Flight
2	18/09/2025	6	Goldfinch	20	S	NA	A	Direct Flight
2	18/09/2025	6	Reed bunting	1	S	NA	A	Direct Flight
2	18/09/2025	6	Pied wagtail	1	S	NA	A	Direct Flight
3	28/09/2025	N/A	Common scoter	NA	NA	NA	NA	Commuting
3	28/09/2025	N/A	Red-throated diver	1	S	A	D	Direct Flight
3	28/09/2025	N/A	Skylark	7	S	B	A	Direct Flight
3	28/09/2025	N/A	Greylag goose	1	NW	B	A	Flyover
3	28/09/2025	N/A	Snipe	1	NW	B	A	Direct Flight
3	28/09/2025	N/A	Golden plover	8	S	B	A	Direct Flight
3	28/09/2025	N/A	Skylark	4	SW	B	A	Direct Flight
3	28/09/2025	N/A	Barn swallow	3	S	B	A	Direct Flight
3	28/09/2025	N/A	Common scoter	NA	NA	NA	NA	Commuting
3	28/09/2025	N/A	Red-throated diver	1	S	A	D	Direct Flight



Visit	Date	Survey hour	Species	Count	Flight direction	Flight height band	Distance band	Behaviour
3	28/09/2025	N/A	Skylark	7	S	B	A	Direct Flight
3	28/09/2025	N/A	Greylag goose	1	NW	B	A	Flyover
3	28/09/2025	N/A	Snipe	1	NW	B	A	Direct Flight
3	28/09/2025	N/A	Golden plover	8	S	B	A	Direct Flight
3	28/09/2025	N/A	Skylark	4	SW	B	A	Direct Flight
3	28/09/2025	N/A	Barn swallow	3	S	B	A	Direct Flight
4	06/10/2025	1	Common scoter	150	S	A	C	Commuting
4	06/10/2025	1	Common scoter	20	N	A	C	Commuting
4	06/10/2025	1	Sandwich tern	1	S	B	B	Direct Flight
4	06/10/2025	1	Meadow pipit	20	S	B	A	Direct Flight
4	06/10/2025	1	Linnet	60	S	B	A	Direct Flight
4	06/10/2025	1	Siskin	10	S	B	A	Direct Flight
4	06/10/2025	1	Grey wagtail	1	S	B	A	Direct Flight
4	06/10/2025	1	Goldfinch	100	S	B	A	Direct Flight
4	06/10/2025	1	Chaffinch	6	S	B	A	Direct Flight
4	06/10/2025	1	Lapwing	3	S	B	A	Direct Flight
4	06/10/2025	1	Pied wagtail	6	S	B	A	Direct Flight
4	06/10/2025	1	Reed bunting	1	S	B	A	Direct Flight
4	06/10/2025	2	Meadow pipit	10	S	B	A	Direct Flight
4	06/10/2025	2	Linnet	20	S	B	A	Direct Flight
4	06/10/2025	2	Pied wagtail	2	S	B	A	Direct Flight
4	06/10/2025	2	Siskin	5	S	B	A	Direct Flight
4	06/10/2025	2	Goldfinch	40	S	B	A	Direct Flight
4	06/10/2025	2	Skylark	6	S	B	A	Direct Flight
4	06/10/2025	2	Grey wagtail	2	S	B	A	Direct Flight
4	06/10/2025	2	Common scoter	80	S	A	C	Commuting
4	06/10/2025	2	Common scoter	10	S	A	C	Commuting
4	06/10/2025	2	Whooper swan	8	S	C	B	Direct Flight
4	06/10/2025	3	Meadow pipit	30	S	B	A	Direct Flight
4	06/10/2025	3	Linnet	45	S	B	A	Direct Flight
4	06/10/2025	3	Pied wagtail	6	S	B	A	Direct Flight
4	06/10/2025	3	Yellowhammer	1	S	B	A	Direct Flight
4	06/10/2025	3	Goldfinch	80	S	B	A	Direct Flight
4	06/10/2025	3	Skylark	14	S	B	A	Direct Flight
4	06/10/2025	3	Siskin	2	S	B	A	Direct Flight
4	06/10/2025	3	Chaffinch	3	S	B	A	Direct Flight
4	06/10/2025	3	Common scoter	50	S	A	C	Commuting
4	06/10/2025	3	Common scoter	20	N	A	C	Commuting
4	06/10/2025	3	Mallard	25	S	C	B	Direct Flight
4	06/10/2025	3	Red-throated diver	1	S	A	D	Direct Flight
4	06/10/2025	3	Red-throated diver	1	S	A	C	Direct Flight
4	06/10/2025	4	Skylark	6	S	B	A	Direct Flight
4	06/10/2025	4	Meadow pipit	7	S	B	A	Direct Flight
4	06/10/2025	4	Linnet	10	S	B	A	Direct Flight
4	06/10/2025	4	Goldcrest	1	S	B	A	Direct Flight
4	06/10/2025	4	Chaffinch	3	S	B	A	Direct Flight
4	06/10/2025	4	Goldfinch	35	S	B	A	Direct Flight
4	06/10/2025	4	Tree sparrow	2	S	B	A	Direct Flight
4	06/10/2025	4	Pied wagtail	3	S	B	A	Direct Flight



Visit	Date	Survey hour	Species	Count	Flight direction	Flight height band	Distance band	Behaviour
4	06/10/2025	4	Common scoter	120	S	A	C	Commuting
4	06/10/2025	4	Common scoter	40	N	A	C	Commuting
4	06/10/2025	4	Red-throated diver	1	S	A	C	Direct Flight
4	06/10/2025	5	Goldfinch	20	S	B	A	Direct Flight
4	06/10/2025	5	Pied wagtail	2	S	B	A	Direct Flight
4	06/10/2025	5	Meadow pipit	3	S	B	A	Direct Flight
4	06/10/2025	5	Linnet	5	S	B	A	Direct Flight
4	06/10/2025	5	Skylark	1	S	B	A	Direct Flight
4	06/10/2025	5	Common scoter	40	S	A	C	Commuting
4	06/10/2025	5	Common scoter	25	N	A	C	Commuting
4	06/10/2025	6	Goldfinch	20	S	B	A	Direct Flight
4	06/10/2025	6	Skylark	1	S	B	A	Direct Flight
4	06/10/2025	6	Linnet	10	S	B	A	Direct Flight
4	06/10/2025	6	Meadow pipit	2	S	B	A	Direct Flight
4	06/10/2025	6	Pied wagtail	2	S	B	A	Direct Flight
4	06/10/2025	6	Common scoter	40	S	A	C	Commuting
4	06/10/2025	6	Common scoter	25	N	A	C	Commuting
4	06/10/2025	6	Red-throated diver	1	S	A	D	Direct Flight
5	10/10/2025	1	Meadow pipit	25	S	B	A	Direct Flight
5	10/10/2025	1	Reed bunting	4	S	B	A	Direct Flight
5	10/10/2025	1	Skylark	3	S	B	A	Direct Flight
5	10/10/2025	1	Yellowhammer	1	S	B	A	Direct Flight
5	10/10/2025	1	Chaffinch	5	S	B	A	Direct Flight
5	10/10/2025	1	Pied wagtail	4	S	B	A	Direct Flight
5	10/10/2025	1	Goldfinch	65	S	B	A	Direct Flight
5	10/10/2025	1	Linnet	70	S	B	A	Direct Flight
5	10/10/2025	1	Gannet	5	S	A	C	Direct Flight
5	10/10/2025	1	Common scoter	41	S	A	C	Commuting
5	10/10/2025	1	Common scoter	9	N	A	C	Commuting
5	10/10/2025	1	Red-throated diver	1	S	A	D	Direct Flight
5	10/10/2025	1	Shelduck	2	S	B	C	Direct Flight
5	10/10/2025	2	Meadow pipit	13	S	B	A	Direct Flight
5	10/10/2025	2	Pied wagtail	3	S	B	A	Direct Flight
5	10/10/2025	2	Linnet	10	S	B	A	Direct Flight
5	10/10/2025	2	Reed bunting	1	S	B	A	Direct Flight
5	10/10/2025	2	Goldfinch	70	S	B	A	Direct Flight
5	10/10/2025	2	Gannet	6	S	A	C	Commuting
5	10/10/2025	2	Common scoter	41	S	A	C	Commuting
5	10/10/2025	2	Common scoter	12	N	A	C	Commuting
5	10/10/2025	2	Red-throated diver	1	S	A	D	Direct Flight
5	10/10/2025	3	Meadow pipit	6	S	B	A	Direct Flight
5	10/10/2025	3	Linnet	5	S	B	A	Direct Flight
5	10/10/2025	3	Skylark	2	S	B	A	Direct Flight
5	10/10/2025	3	Goldfinch	15	S	B	A	Direct Flight
5	10/10/2025	3	Pied wagtail	1	S	B	A	Direct Flight
5	10/10/2025	3	Reed bunting	1	S	B	A	Direct Flight
5	10/10/2025	3	Chaffinch	13	S	B	A	Direct Flight
5	10/10/2025	3	Gannet	4	S	A	C	Direct Flight
5	10/10/2025	3	Common scoter	51	S	A	C	Commuting



Visit	Date	Survey hour	Species	Count	Flight direction	Flight height band	Distance band	Behaviour
5	10/10/2025	3	Common scoter	5	N	A	C	Commuting
5	10/10/2025	4	Goldfinch	10	S	B	A	Direct Flight
5	10/10/2025	4	Linnet	8	S	B	A	Direct Flight
5	10/10/2025	4	Barn swallow	2	S	B	A	Direct Flight
5	10/10/2025	4	Meadow pipit	3	S	B	A	Direct Flight
5	10/10/2025	4	Gannet	6	S	A	C	Direct Flight
5	10/10/2025	4	Common scoter	42	S	A	C	Commuting
5	10/10/2025	4	Common scoter	8	N	A	C	Commuting
5	10/10/2025	5	Goldfinch	12	S	B	A	Direct Flight
5	10/10/2025	5	Meadow pipit	2	S	B	A	Direct Flight
5	10/10/2025	5	Pied wagtail	1	S	B	A	Direct Flight
5	10/10/2025	5	Chaffinch	2	S	B	A	Direct Flight
5	10/10/2025	5	Gannet	4	S	A	C	Direct Flight
5	10/10/2025	5	Common scoter	31	S	A	C	Commuting
5	10/10/2025	5	Common scoter	4	N	A	C	Commuting
5	10/10/2025	5	Red-throated diver	1	S	A	D	Commuting
5	10/10/2025	5	Mallard	2	N	B	B	Direct Flight
5	10/10/2025	6	Goldfinch	5	S	B	A	Direct Flight
5	10/10/2025	6	Meadow pipit	3	S	B	A	Direct Flight
5	10/10/2025	6	Gannet	7	S	A	C	Direct Flight
5	10/10/2025	6	Common scoter	28	S	A	C	Commuting
5	10/10/2025	6	Common scoter	3	N	A	C	Commuting
6	16/10/2025	1	Common scoter	15	N	A	C	Commuting
6	16/10/2025	1	Common scoter	100	S	A	C	Commuting
6	16/10/2025	1	Gannet	5	S	A	C	Direct Flight
6	16/10/2025	1	Pied wagtail	1	S	B	A	Direct Flight
6	16/10/2025	1	Reed bunting	1	S	B	A	Direct Flight
6	16/10/2025	1	Goldfinch	12	S	B	A	Direct Flight
6	16/10/2025	1	Meadow pipit	3	S	B	A	Direct Flight
6	16/10/2025	1	Linnet	5	S	B	A	Direct Flight
6	16/10/2025	1	Red-throated diver	1	S	A	D	Direct Flight
6	16/10/2025	1	Red-throated diver	1	S	A	D	Direct Flight
6	16/10/2025	1	Red-throated diver	1	S	A	C	Direct Flight
6	16/10/2025	2	Red-throated diver	1	N	A	B	Direct Flight
6	16/10/2025	2	Common scoter	5	N	A	C	Commuting
6	16/10/2025	2	Common scoter	50	S	A	C	Commuting
6	16/10/2025	2	Gannet	10	S	A	C	Commuting
6	16/10/2025	2	Meadow pipit	3	S	A	C	Direct Flight
6	16/10/2025	2	Pied wagtail	1	S	B	A	Direct Flight
6	16/10/2025	2	Reed bunting	1	S	B	A	Direct Flight
6	16/10/2025	2	Skylark	1	S	B	A	Direct Flight
6	16/10/2025	2	Red-throated diver	1	S	A	C	Direct Flight
6	16/10/2025	3	Meadow pipit	1	S	B	A	Direct Flight
6	16/10/2025	3	Reed bunting	1	S	B	A	Direct Flight
6	16/10/2025	3	Siskin	2	S	B	A	Direct Flight
6	16/10/2025	3	Common scoter	25	N	A	C	Direct Flight
6	16/10/2025	3	Common scoter	40	S	A	C	Direct Flight
6	16/10/2025	3	Gannet	3	S	A	C	Direct Flight
6	16/10/2025	3	Teal	1	S	A	D	Direct Flight



Visit	Date	Survey hour	Species	Count	Flight direction	Flight height band	Distance band	Behaviour
6	16/10/2025	3	Sandwich tern	2	S	B	B	Direct Flight
6	16/10/2025	3	Ruff	1	N	A	D	Direct Flight
6	16/10/2025	4	Red-throated diver	1	S	A	C	Direct Flight
6	16/10/2025	4	Red-throated diver	1	S	A	C	Direct Flight
6	16/10/2025	4	Common scoter	5	N	A	C	Commuting
6	16/10/2025	4	Common scoter	35	S	A	C	Commuting
6	16/10/2025	4	Gannet	5	S	A	C	Commuting
6	16/10/2025	4	Goldfinch	5	S	B	A	Direct Flight
6	16/10/2025	4	Chaffinch	2	S	B	A	Direct Flight
6	16/10/2025	4	Meadow pipit	1	S	B	A	Direct Flight
6	16/10/2025	4	Pied wagtail	1	S	B	A	Direct Flight
6	16/10/2025	4	Skylark	1	S	B	A	Direct Flight
6	16/10/2025	5	Grey wagtail	1	S	B	A	Direct Flight
6	16/10/2025	5	Pied wagtail	1	S	B	A	Direct Flight
6	16/10/2025	5	Meadow pipit	1	S	B	A	Direct Flight
6	16/10/2025	5	Gannet	5	S	A	C	Direct Flight
6	16/10/2025	5	Common scoter	30	S	A	C	Commuting
6	16/10/2025	5	Common scoter	10	S	A	C	Commuting
6	16/10/2025	5	Brent goose	3	S	B	B	Direct Flight
6	16/10/2025	5	Red-throated diver	1	S	A	C	Direct Flight
6	16/10/2025	6	Skylark	2	S	C	A	Direct Flight
6	16/10/2025	6	Gannet	10	S	A	C	Direct Flight
6	16/10/2025	6	Common scoter	30	N	A	C	Commuting
6	16/10/2025	6	Common scoter	5	N	A	C	Commuting
7	22/10/2025	1	Skylark	3	S	B	A	Direct Flight
7	22/10/2025	1	Yellowhammer	1	S	B	A	Direct Flight
7	22/10/2025	1	Meadow pipit	5	S	B	A	Direct Flight
7	22/10/2025	1	Chaffinch	3	S	B	A	Direct Flight
7	22/10/2025	1	Pied wagtail	1	S	B	A	Direct Flight
7	22/10/2025	1	Reed bunting	1	S	B	A	Direct Flight
7	22/10/2025	1	Siskin	3	S	B	A	Direct Flight
7	22/10/2025	1	Goldfinch	20	S	B	A	Direct Flight
7	22/10/2025	1	Common scoter	50	S	A	C	Commuting
7	22/10/2025	1	Common scoter	100	N	A	C	Commuting
7	22/10/2025	2	Skylark	5	S	A	A	Direct Flight
7	22/10/2025	2	Meadow pipit	3	S	A	A	Direct Flight
7	22/10/2025	2	Grey wagtail	2	S	A	A	Direct Flight
7	22/10/2025	2	Siskin	5	S	A	A	Direct Flight
7	22/10/2025	2	Chaffinch	3	S	A	A	Direct Flight
7	22/10/2025	2	Goldfinch	30	S	A	A	Direct Flight
7	22/10/2025	2	Pied wagtail	1	S	A	A	Direct Flight
7	22/10/2025	2	Yellowhammer	1	S	A	A	Direct Flight
7	22/10/2025	2	Common scoter	50	S	A	C	Commuting
7	22/10/2025	2	Common scoter	10	N	A	C	Commuting
7	22/10/2025	3	Meadow pipit	5	S	B	A	Direct Flight
7	22/10/2025	3	Skylark	7	S	B	A	Direct Flight
7	22/10/2025	3	Grey wagtail	1	S	B	A	Direct Flight
7	22/10/2025	3	Siskin	1	S	B	A	Direct Flight
7	22/10/2025	3	Goldfinch	25	S	B	A	Direct Flight



Visit	Date	Survey hour	Species	Count	Flight direction	Flight height band	Distance band	Behaviour
7	22/10/2025	3	Pied wagtail	1	S	B	A	Direct Flight
7	22/10/2025	3	Common scoter	50	S	A	C	Commuting
7	22/10/2025	3	Common scoter	10	N	A	C	Commuting
7	22/10/2025	3	Brent goose	6	S	A	D	Direct Flight
7	22/10/2025	3	Brent goose	5	S	A	C	Direct Flight
7	22/10/2025	3	Brent goose	28	S	B	D	Direct Flight
7	22/10/2025	3	Starling	30	W	C	A	Direct Flight
7	22/10/2025	4	Siskin	3	S	B	A	Direct Flight
7	22/10/2025	4	Grey wagtail	1	S	B	A	Direct Flight
7	22/10/2025	4	Goldfinch	15	S	B	A	Direct Flight
7	22/10/2025	4	Skylark	3	S	B	A	Direct Flight
7	22/10/2025	4	Common scoter	50	S	A	C	Commuting
7	22/10/2025	4	Common scoter	10	N	A	C	Commuting
7	22/10/2025	4	Red-throated diver	1	S	A	C	Direct Flight
7	22/10/2025	4	Shelduck	45	W	C	A	Direct Flight
7	22/10/2025	5	Reed bunting	1	S	B	A	Direct Flight
7	22/10/2025	5	Linnet	5	S	B	A	Direct Flight
7	22/10/2025	5	Skylark	3	S	B	A	Direct Flight
7	22/10/2025	5	Goldfinch	10	S	B	A	Direct Flight
7	22/10/2025	5	Common scoter	20	S	A	C	Commuting
7	22/10/2025	5	Common scoter	5	N	A	C	Commuting
7	22/10/2025	5	Red-throated diver	1	S	A	C	Direct Flight
7	22/10/2025	5	Red-throated diver	2	N	B	D	Direct Flight
7	22/10/2025	5	Red-throated diver	1	S	A	D	Direct Flight
7	22/10/2025	6	Grey wagtail	1	S	B	A	Direct Flight
7	22/10/2025	6	Skylark	2	S	B	A	Direct Flight
7	22/10/2025	6	Goldfinch	15	S	B	A	Direct Flight
7	22/10/2025	6	Common scoter	40	S	A	C	Commuting
7	22/10/2025	6	Common scoter	10	N	A	C	Commuting
8	02/11/2025	1	Red-throated diver	1	S	B	C	Direct Flight
8	02/11/2025	1	Brent goose	2	S	B	B	Direct Flight
8	02/11/2025	1	Common scoter	100	S	A	C	Local movement
8	02/11/2025	1	Common scoter	20	N	A	C	Local movement
8	02/11/2025	2	Common scoter	100	S	A	C	Local movement
8	02/11/2025	2	Common scoter	20	N	A	C	Local movement
8	02/11/2025	2	Golden plover	96	N	D	B	Local movement
8	02/11/2025	2	Skylark	3	S	B	A	Direct Flight
8	02/11/2025	2	Siskin	3	S	B	A	Direct Flight
8	02/11/2025	2	Lesser redpoll	2	S	B	A	Direct Flight
8	02/11/2025	3	Common scoter	50	S	A	C	Local movement
8	02/11/2025	3	Common scoter	10	N	A	C	Local movement
8	02/11/2025	3	Red-throated diver	1	S	A	C	Direct Flight
8	02/11/2025	3	Brent goose	7	S	B	B	Direct Flight
8	02/11/2025	3	Wigeon	3	S	B	C	Direct Flight
8	02/11/2025	4	Common scoter	30	S	A	C	Local movement
8	02/11/2025	4	Common scoter	5	N	A	C	Local movement
8	02/11/2025	4	Red-throated diver	1	S	A	D	Direct Flight
8	02/11/2025	4	Red-throated diver	1	S	A	D	Direct Flight
8	02/11/2025	4	Brent goose	4	S	A	B	Local movement



Visit	Date	Survey hour	Species	Count	Flight direction	Flight height band	Distance band	Behaviour
8	02/11/2025	5	Common scoter	20	S	A	C	Local movement
8	02/11/2025	5	Common scoter	3	N	A	D	Local movement
8	02/11/2025	5	Teal	14	S	A	C	Direct Flight
8	02/11/2025	5	Brent goose	3	S	B	B	Local movement
8	02/11/2025	5	Red-throated diver	1	S	A	C	Direct Flight
8	02/11/2025	6	Common scoter	30	S	A	C	Local movement
8	02/11/2025	6	Common scoter	5	N	A	C	Local movement
8	02/11/2025	6	Red-throated diver	1	S	A	C	Direct Flight
8	02/11/2025	6	Red-throated diver	1	S	A	D	Direct Flight
9	04/11/2025	1	Common scoter	20	S	A	C	Local movement
9	04/11/2025	1	Common scoter	5	N	A	C	Local movement
9	04/11/2025	2	Common scoter	50	S	A	C	Local movement
9	04/11/2025	2	Common scoter	10	N	A	C	Local movement
9	04/11/2025	2	Mallard	5	S	C	B	Direct Flight
9	04/11/2025	2	Golden plover	30	S	A	C	Direct Flight
9	04/11/2025	2	Black-tailed godwit	10	S	A	B	Direct Flight
9	04/11/2025	2	Knot	10	S	A	B	Direct Flight
9	04/11/2025	2	Red-throated diver	1	S	A	C	Direct Flight
9	04/11/2025	2	Red-throated diver	1	S	A	C	Direct Flight
9	04/11/2025	3	Common scoter	150	S	A	C	Local movement
9	04/11/2025	3	Common scoter	35	N	A	C	Direct Flight
9	04/11/2025	3	Skylark	3	S	B	A	Direct Flight
9	04/11/2025	3	Meadow pipit	2	S	B	A	Direct Flight
9	04/11/2025	3	Linnet	15	S	B	A	Direct Flight
9	04/11/2025	3	Yellowhammer	1	S	B	A	Direct Flight
9	04/11/2025	3	Pied wagtail	2	S	B	A	Direct Flight
9	04/11/2025	3	Chaffinch	10	S	B	A	Direct Flight
9	04/11/2025	3	Goldfinch	25	S	B	A	Direct Flight
9	04/11/2025	3	Reed bunting	2	S	B	A	Direct Flight
9	04/11/2025	3	Red-throated diver	1	S	A	C	Direct Flight
9	04/11/2025	3	Red-throated diver	1	S	A	C	Direct Flight
9	04/11/2025	3	Great northern diver	1	S	A	C	Direct Flight
9	04/11/2025	3	Great northern diver	1	S	A	C	Direct Flight
9	04/11/2025	3	Great northern diver	1	S	A	C	Direct Flight
9	04/11/2025	3	Red-breasted merganser	1	S	B	D	Direct Flight
9	04/11/2025	3	Sandwich tern	2	S	B	B	Foraging
9	04/11/2025	4	Common scoter	50	S	A	C	Local movement
9	04/11/2025	4	Common scoter	5	N	A	C	Local movement
9	04/11/2025	4	Pied wagtail	2	S	B	A	Direct Flight
9	04/11/2025	4	Chaffinch	15	S	B	A	Direct Flight
9	04/11/2025	4	Goldfinch	20	S	B	A	Direct Flight
9	04/11/2025	4	Meadow pipit	3	S	B	A	Direct Flight
9	04/11/2025	4	Linnet	10	S	B	A	Direct Flight
9	04/11/2025	4	Reed bunting	1	S	B	A	Direct Flight
9	04/11/2025	4	Red-throated diver	1	S	A	C	Direct Flight
9	04/11/2025	4	Great northern diver	1	S	A	C	Direct Flight
9	04/11/2025	4	Red-throated diver	1	S	A	C	Direct Flight
9	04/11/2025	5	Common scoter	20	S	A	C	Local movement
9	04/11/2025	5	Common scoter	3	N	A	C	Local movement



Visit	Date	Survey hour	Species	Count	Flight direction	Flight height band	Distance band	Behaviour
9	04/11/2025	5	Red-throated diver	1	S	B	C	Direct Flight
9	04/11/2025	5	Red-throated diver	1	S	A	B	Direct Flight
9	04/11/2025	6	Common scoter	30	S	A	C	Local movement
9	04/11/2025	6	Common scoter	5	N	A	C	Local movement
10	12/11/2025	1	Common scoter	80	S	A	C	Local movement
10	12/11/2025	1	Common scoter	15	N	A	C	Local movement
10	12/11/2025	1	Siskin	1	S	B	A	Direct Flight
10	12/11/2025	1	Lesser redpoll	1	S	B	A	Direct Flight
10	12/11/2025	1	Skylark	3	S	B	A	Direct Flight
10	12/11/2025	1	Meadow pipit	5	S	B	A	Direct Flight
10	12/11/2025	1	Reed bunting	2	S	B	A	Direct Flight
10	12/11/2025	2	Common scoter	100	S	A	C	Local movement
10	12/11/2025	2	Common scoter	20	N	A	C	Local movement
10	12/11/2025	2	Skylark	10	S	B	A	Direct Flight
10	12/11/2025	2	Meadow pipit	5	S	B	A	Direct Flight
10	12/11/2025	2	Lesser redpoll	2	S	B	A	Direct Flight
10	12/11/2025	2	Linnet	15	S	B	A	Direct Flight
10	12/11/2025	2	Reed bunting	2	S	B	A	Direct Flight
10	12/11/2025	2	Red-throated diver	1	N	A	B	Direct Flight
10	12/11/2025	3	Common scoter	50	S	A	C	Local movement
10	12/11/2025	3	Common scoter	5	N	A	C	Local movement
10	12/11/2025	3	Skylark	3	S	B	A	Direct Flight
10	12/11/2025	3	Grey wagtail	1	S	B	A	Direct Flight
10	12/11/2025	3	Pied wagtail	2	S	B	A	Direct Flight
10	12/11/2025	3	Red-throated diver	1	S	B	D	Direct Flight
10	12/11/2025	3	Wigeon	5	S	B	D	Direct Flight
10	12/11/2025	4	Common scoter	30	S	A	C	Local movement
10	12/11/2025	4	Common scoter	5	N	A	C	Local movement
10	12/11/2025	4	Red-throated diver	1	N	A	D	Direct Flight
10	12/11/2025	5	Common scoter	20	S	A	C	Local movement
10	12/11/2025	5	Common scoter	5	N	A	C	Local movement
10	12/11/2025	5	Gannet	3	S	A	D	Direct Flight
10	12/11/2025	6	Common scoter	20	S	A	C	Local movement
10	12/11/2025	6	Common scoter	2	N	A	C	Local movement
11	20/11/2025	1	Great northern diver	2	S	A	D	Direct Flight
11	20/11/2025	1	Red-throated diver	1	S	A	D	Direct Flight
11	20/11/2025	1	Great northern diver	1	S	A	D	Direct Flight
11	20/11/2025	1	Red-throated diver	3	S	A	D	Direct Flight
11	20/11/2025	1	Common scoter	320	NA	NA	NA	Direct Flight
11	20/11/2025	1	Brent goose	19	NA	NA	NA	Direct Flight
11	20/11/2025	1	Great crested grebe	26	NA	NA	NA	Direct Flight
11	20/11/2025	2	Great northern diver	1	S	A	D	Direct Flight
11	20/11/2025	2	Red-throated diver	2	S	A	D	Direct Flight
11	20/11/2025	2	Red-throated diver	2	S	A	C	Direct Flight
11	20/11/2025	2	Common scoter	178	NA	NA	NA	Direct Flight
11	20/11/2025	2	Velvet scoter	4	NA	NA	NA	Direct Flight
11	20/11/2025	2	Scaup	9	NA	NA	NA	Direct Flight
11	20/11/2025	3	Great northern diver	1	S	A	D	Direct Flight
11	20/11/2025	3	Great northern diver	2	S	A	C	Direct Flight



Visit	Date	Survey hour	Species	Count	Flight direction	Flight height band	Distance band	Behaviour
11	20/11/2025	3	Long-tailed duck	2	N	A	C	Direct Flight
11	20/11/2025	3	Common scoter	85	NA	NA	NA	Direct Flight
11	20/11/2025	3	Velvet scoter	1	NA	NA	NA	Direct Flight
11	20/11/2025	3	Great crested grebe	9	NA	NA	NA	Direct Flight
11	20/11/2025	4	Red-throated diver	2		A	D	Direct Flight
11	20/11/2025	4	Red-breasted merganser	4	N	A	C	Direct Flight
11	20/11/2025	4	Brent goose	14	SSE	A	D	Direct Flight
11	20/11/2025	4	Great northern diver	1	S	A	D	Direct Flight
11	20/11/2025	4	Red-throated diver	3	S	A	D	Direct Flight
11	20/11/2025	4	Common scoter	57	NA	NA	NA	Direct Flight
11	20/11/2025	4	Great crested grebe	12	NA	NA	NA	Direct Flight
11	20/11/2025	5	Brent goose	9	S	A	D	Direct Flight
11	20/11/2025	5	Great northern diver	1	S	A	D	Direct Flight
11	20/11/2025	5	Red-throated diver	2	N	A	C	Direct Flight
11	20/11/2025	5	Great northern diver	1	S	A	C	Direct Flight
11	20/11/2025	5	Common scoter	42	NA	NA	NA	Direct Flight
11	20/11/2025	5	Great crested grebe	13	NA	NA	NA	Direct Flight
11	20/11/2025	6	Red-throated diver	2	S	A	D	Direct Flight
11	20/11/2025	6	Red-throated diver	1	S	A	C	Direct Flight
11	20/11/2025	6	Red-breasted merganser	2	N	A	B	Direct Flight
11	20/11/2025	6	Great northern diver	1	SSE	A	D	Direct Flight
11	20/11/2025	6	Brent goose	18	SSE	A	D	Direct Flight
11	20/11/2025	6	Red-throated diver	1	S	A	D	Direct Flight
11	20/11/2025	6	Common scoter	43	NA	NA	NA	Direct Flight
11	20/11/2025	6	Great crested grebe	7	NA	NA	NA	Direct Flight
11	20/11/2025	6	Brent goose	23	NA	NA	NA	Direct Flight
12	28/11/2025	1	Gannet	1	S	A	C	Direct Flight
12	28/11/2025	1	Brent goose	2	S	B	B	Direct Flight
12	28/11/2025	1	Red-throated diver	1	S	A	C	Direct Flight
12	28/11/2025	2	Brent goose	2	S	A	A	Commuting
12	28/11/2025	2	Black-tailed godwit	3	S	B	A	Commuting
12	28/11/2025	2	Common scoter	25	S	A	D	Direct Flight
12	28/11/2025	2	Common scoter	10	N	A	D	Direct Flight
12	28/11/2025	3	Gannet	1	N	B	C	Direct Flight
12	28/11/2025	4	Common scoter	6	N	A	C	Commuting
12	28/11/2025	5	Black-tailed godwit	1	S	B	B	Commuting
12	28/11/2025	5	Red-throated diver	1	S	A	D	Direct Flight
12	28/11/2025	5	Common scoter	8	S	A	D	Commuting
12	28/11/2025	5	Red-throated diver	1	S	A	C	Direct Flight
13	05/12/2025	1	Oystercatcher	39	S	A	A	Direct Flight
13	05/12/2025	1	Great crested grebe	2	S	A	C	Direct Flight
13	05/12/2025	1	Great northern diver	1	S	A	C	Direct Flight
13	05/12/2025	1	Red-throated diver	2	S	A	C	Direct Flight
13	05/12/2025	1	Great northern diver	2	S	A	D	Direct Flight
13	05/12/2025	1	Brent goose	37	S	A	C	Direct Flight
13	05/12/2025	1	Common scoter	215	NA	NA	NA	Direct Flight
13	05/12/2025	1	Velvet scoter	2	NA	NA	NA	Direct Flight
13	05/12/2025	2	Great northern diver	1	S	A	D	Direct Flight
13	05/12/2025	2	Red-throated diver	1	S	A	D	Direct Flight



Visit	Date	Survey hour	Species	Count	Flight direction	Flight height band	Distance band	Behaviour
13	05/12/2025	2	Great northern diver	1	S	B	C	Direct Flight
13	05/12/2025	2	Common scoter	183	NA	NA	NA	Direct Flight
13	05/12/2025	2	Great crested grebe	11	NA	NA	NA	Direct Flight
13	05/12/2025	3	Great northern diver	1	N	A	D	Direct Flight
13	05/12/2025	3	Red-breasted merganser	6	S	A	C	Direct Flight
13	05/12/2025	3	Red-throated diver	2	S	A	D	Direct Flight
13	05/12/2025	3	Common scoter	68	NA	NA	NA	Direct Flight
13	05/12/2025	3	Great crested grebe	7	NA	NA	NA	Direct Flight
13	05/12/2025	3	Brent goose	31	NA	NA	NA	Direct Flight
13	05/12/2025	4	Great northern diver	1	S	A	D	Direct Flight
13	05/12/2025	4	Red-throated diver	2	S	A	C	Direct Flight
13	05/12/2025	4	Brent goose	18	S	A	C	Direct Flight
13	05/12/2025	4	Great northern diver	1	N	A	B	Direct Flight
13	05/12/2025	4	Common scoter	95	NA	NA	NA	Direct Flight
13	05/12/2025	4	Great crested grebe	11	NA	NA	NA	Direct Flight
13	05/12/2025	5	Great northern diver	1	N	A	D	Direct Flight
13	05/12/2025	5	Great northern diver	1	S	B	C	Direct Flight
13	05/12/2025	5	Red-throated diver	2	S	A	C	Direct Flight
13	05/12/2025	5	Red-breasted merganser	4	S	A	C	Direct Flight
13	05/12/2025	5	Common scoter	108	NA	NA	NA	Direct Flight
13	05/12/2025	5	Great crested grebe	9	NA	NA	NA	Direct Flight
13	05/12/2025	6	Great northern diver	1	S	A	D	Direct Flight
13	05/12/2025	6	Great northern diver	2	S	A	C	Direct Flight
13	05/12/2025	6	Red-breasted merganser	2	S	A	C	Direct Flight
13	05/12/2025	6	Long-tailed duck	2	S	A	C	Direct Flight
13	05/12/2025	6	Great northern diver	1	S	A	C	Direct Flight
13	05/12/2025	6	Common scoter	36	NA	NA	NA	Direct Flight
13	05/12/2025	6	Great crested grebe	6	NA	NA	NA	Direct Flight
14	10/12/2025	1	Red-throated diver	1	S	A	C	Direct Flight
14	10/12/2025	1	Great northern diver	1	S	B	C	Direct Flight
14	10/12/2025	1	Red-throated diver	1	S	A	B	Direct Flight
14	10/12/2025	2	Red-throated diver	1	S	A	C	Direct Flight
14	10/12/2025	2	Brent goose	4	S	A	B	Direct Flight
14	10/12/2025	3	Golden plover	300	N	D	B	Commuting
14	10/12/2025	3	Brent goose	6	S	A	B	Direct Flight
14	10/12/2025	4	Eider	1	S	A	C	Direct Flight
14	10/12/2025	5	Brent goose	13	S	A	B	Direct Flight
14	10/12/2025	5	Red-throated diver	1	S	A	C	Direct Flight
14	10/12/2025	5	Great northern diver	1	S	B	D	Direct Flight
14	10/12/2025	5	Red-throated diver	1	S	A	D	Direct Flight
14	10/12/2025	5	Black-tailed godwit	75	S	C	A	Direct Flight
14	10/12/2025	6	Knot	150	S	A	B	Commuting
14	10/12/2025	6	Red-throated diver	1	S	A	D	Direct Flight
14	10/12/2025	6	Red-throated diver	1	N	B	C	Direct Flight
15	15/12/2025	1	Great northern diver	1	S	A	D	Direct Flight
15	15/12/2025	1	Shelduck	2	S	A	C	Direct Flight
15	15/12/2025	1	Red-throated diver	1	N	A	C	Direct Flight
15	15/12/2025	1	Brent goose	7	SW	NA	NA	Direct Flight
15	15/12/2025	1	Great northern diver	1	S	A	D	Direct Flight



Visit	Date	Survey hour	Species	Count	Flight direction	Flight height band	Distance band	Behaviour
15	15/12/2025	1	Common scoter	298	NA	NA	NA	Direct Flight
15	15/12/2025	1	Velvet scoter	2	NA	NA	NA	Direct Flight
15	15/12/2025	1	Great crested grebe	12	NA	NA	NA	Direct Flight
15	15/12/2025	2	Great northern diver	1	S	A	C	Direct Flight
15	15/12/2025	2	Brent goose	16	SSE	A	C	Direct Flight
15	15/12/2025	2	Great northern diver	1	S	A	B	Direct Flight
15	15/12/2025	2	Red-throated diver	2	SE	A	D	Direct Flight
15	15/12/2025	2	Great crested grebe	4	S	A	C	Direct Flight
15	15/12/2025	2	Common scoter	142	NA	NA	NA	Direct Flight
15	15/12/2025	3	Great northern diver	2	S	A	D	Direct Flight
15	15/12/2025	3	Great northern diver	1	SSE	A	C	Direct Flight
15	15/12/2025	3	Red-throated diver	1	S	A	C	Direct Flight
15	15/12/2025	3	Common scoter	84	NA	NA	NA	Direct Flight
15	15/12/2025	3	Brent goose	10	NA	NA	NA	Direct Flight
15	15/12/2025	3	Great crested grebe	7	NA	NA	NA	Direct Flight
15	15/12/2025	4	Great northern diver	1	SE	A	C	Direct Flight
15	15/12/2025	4	Great northern diver	1	S	A	D	Direct Flight
15	15/12/2025	4	Red-throated diver	1	SE	A	C	Direct Flight
15	15/12/2025	4	Great northern diver	1	SSE	A	D	Direct Flight
15	15/12/2025	4	Brent goose	11	NA	NA	NA	Direct Flight
15	15/12/2025	4	Common scoter	29	NA	NA	NA	Direct Flight
15	15/12/2025	4	Great crested grebe	4	NA	NA	NA	Direct Flight
15	15/12/2025	5	Red-throated diver	1	SSE	A	D	Direct Flight
15	15/12/2025	5	Red-throated diver	1	NNW	A	C	Direct Flight
15	15/12/2025	5	Great northern diver	1	S	A	D	Direct Flight
15	15/12/2025	5	Great northern diver	2	SSE	A	D	Direct Flight
15	15/12/2025	5	Common scoter	81	NA	NA	NA	Direct Flight
15	15/12/2025	5	Great crested grebe	8	NA	NA	NA	Direct Flight
15	15/12/2025	6	Red-breasted merganser	2	SE	A	D	Direct Flight
15	15/12/2025	6	Great northern diver	1	SSE	A	D	Direct Flight
15	15/12/2025	6	Great northern diver	1	S	A	D	Direct Flight
15	15/12/2025	6	Common scoter	42	NA	NA	NA	Direct Flight
15	15/12/2025	6	Great crested grebe	3	NA	NA	NA	Direct Flight



Table A 6-4 Full VP Survey Results: VP3

Visit	Date	Survey hour	Species	Count	Flight direction	Flight height band	Distance band	Behaviour
1	04/09/2025	N/A	Roseate tern	1	N	A	B	Direct Flight
1	04/09/2025	N/A	Common tern	2	W	A	C	Direct Flight
1	04/09/2025	N/A	Common tern	4	W	A	C	Direct Flight
1	04/09/2025	N/A	Sandwich tern	2	W	A	C	Direct Flight
1	04/09/2025	N/A	Roseate tern	3	S	A	B	Direct Flight
1	04/09/2025	N/A	Sandwich tern	5	NW	A	B	Direct Flight
1	04/09/2025	N/A	Arctic tern	1	W	A	B	Direct Flight
1	04/09/2025	N/A	Purple sandpiper	9	NA	NA	NA	NA
1	04/09/2025	N/A	Kittiwake	NA	NA	NA	NA	NA
1	04/09/2025	N/A	Willow warbler	1	NA	NA	NA	NA
1	04/09/2025	N/A	Chiffchaff	1	NA	NA	NA	NA
1	04/09/2025	N/A	Goldcrest	1	NA	NA	NA	NA
1	04/09/2025	N/A	Robin	1	NA	NA	NA	NA
1	04/09/2025	N/A	Blackbird	1	NA	NA	NA	NA
1	04/09/2025	N/A	Meadow pipit	1	NA	NA	NA	NA
1	04/09/2025	N/A	Wheatear	1	NA	NA	NA	NA
1	04/09/2025	N/A	Barn Swallow	1	NA	NA	NA	NA
1	04/09/2025	N/A	Pied wagtail	1	NA	NA	NA	NA
2	16/09/2025	N/A	Willow warbler	1	NA	NA	NA	NA
2	16/09/2025	N/A	Robin	1	NA	NA	NA	NA
2	16/09/2025	N/A	Meadow pipit	1	W	A	A	Direct Flight
2	16/09/2025	N/A	Curlew	1	W	B	A	Direct Flight
2	16/09/2025	N/A	Barn swallow	4	S	A	A	Direct Flight
2	16/09/2025	N/A	Common tern	2	W	A	B	Direct Flight
2	16/09/2025	N/A	Meadow pipit	2	W	A	A	Direct Flight
2	16/09/2025	N/A	Meadow pipit	4	W	B	A	Direct Flight
2	16/09/2025	N/A	Meadow pipit	2	W	B	A	Direct Flight
2	16/09/2025	N/A	Sandwich tern	2	N	B	B	Direct Flight
2	16/09/2025	N/A	Curlew	1	N	B	B	Direct Flight
2	16/09/2025	N/A	Curlew	1	S	B	B	Direct Flight
2	16/09/2025	N/A	Roseate tern	1	S	A	C	Direct Flight
3	01/10/2025	N/A	Linnet	1	NA	NA	NA	NA
3	01/10/2025	N/A	Goldfinch	1	NA	NA	NA	NA
3	01/10/2025	N/A	Robin	1	NA	NA	NA	NA
3	01/10/2025	N/A	Blackbird	1	NA	NA	NA	NA
3	01/10/2025	N/A	Meadow pipit	3	NA	NA	NA	NA
3	01/10/2025	N/A	Goldcrest	1	NA	NA	NA	NA
3	01/10/2025	N/A	Chiffchaff	1	NA	NA	NA	NA
3	01/10/2025	N/A	Curlew	1	N	B	A	Direct Flight
3	01/10/2025	N/A	Curlew	2	S	A	A	Direct Flight
3	01/10/2025	N/A	Purple sandpiper	NA	NA	NA	NA	NA
3	01/10/2025	N/A	Kittiwake	NA	NA	NA	NA	NA
4	16/10/2025	N/A	Goldcrest	10	NA	NA	NA	NA
4	16/10/2025	N/A	Chiffchaff	3	NA	NA	NA	NA
4	16/10/2025	N/A	Blackcap	1	NA	NA	NA	NA
4	16/10/2025	N/A	Robin	5	NA	NA	NA	NA
4	16/10/2025	N/A	Wren	1	NA	NA	NA	NA



Visit	Date	Survey hour	Species	Count	Flight direction	Flight height band	Distance band	Behaviour
4	16/10/2025	N/A	Song thrush	1	NA	NA	NA	NA
4	16/10/2025	N/A	Mistle thrush	1	NA	NA	NA	NA
4	16/10/2025	N/A	Redwing	1	NA	NA	NA	NA
4	16/10/2025	N/A	Blackbird	7	NA	NA	NA	NA
4	16/10/2025	N/A	Linnet	25	NA	NA	NA	NA
4	16/10/2025	N/A	Reed bunting	1	NA	NA	NA	NA
4	16/10/2025	N/A	Meadow pipit	7	NA	NA	NA	NA
4	16/10/2025	N/A	Sparrowhawk	1	NA	NA	NA	NA
4	16/10/2025	N/A	Firecrest	1	NA	NA	NA	NA
4	16/10/2025	N/A	Lapwing	4	W	A	A	Direct Flight
4	16/10/2025	N/A	Grey heron	1	SW	B	A	Direct Flight
4	16/10/2025	N/A	Skylark	4	S	B	A	Direct Flight
4	16/10/2025	N/A	Common scoter	3	S	A	B	Direct Flight
4	16/10/2025	N/A	Common scoter	16	NE	A	B	Direct Flight
4	16/10/2025	N/A	Curlew	1	SW	B	A	Direct Flight
4	16/10/2025	N/A	Arctic skua	1	E	B	A	Direct Flight
5	21/11/2025	2	Starling	13	W	C	B	Direct Flight
5	21/11/2025	3	Starling	12	W	C	NA	Direct Flight
5	21/11/2025	5	Gannet	1	S	A	NA	Direct Flight
5	21/11/2025	1	Kittiwake	20	NA	NA	NA	Foraging
5	21/11/2025	6	Purple sandpiper	45	NA	NA	NA	Foraging
5	21/11/2025	N/A	Turnstone	35	NA	NA	NA	NA
5	21/11/2025	N/A	Curlew	1	NA	NA	NA	NA
5	21/11/2025	N/A	Oystercatcher	2	NA	NA	NA	NA
5	21/11/2025	N/A	Herring gull	150	NA	NA	NA	NA
5	21/11/2025	N/A	Great Black-backed gull	NA	NA	NA	NA	NA
5	21/11/2025	N/A	Common gull	NA	NA	NA	NA	NA
5	21/11/2025	6	Black guillemot	2	NA	NA	NA	Foraging
5	21/11/2025	N/A	Guillemot	10	NA	NA	NA	NA
5	21/11/2025	N/A	Cormorant	1	NA	NA	NA	NA
5	21/11/2025	N/A	Shag	6	NA	NA	NA	NA
5	21/11/2025	6	Snow bunting	2	NA	NA	NA	Foraging
5	21/11/2025	N/A	Chaffinch	2	NA	NA	NA	NA
5	21/11/2025	N/A	Rock pipit	2	NA	NA	NA	NA
5	21/11/2025	N/A	Robin	2	NA	NA	NA	NA
5	21/11/2025	N/A	Blackbird	3	NA	NA	NA	NA
5	21/11/2025	N/A	Wren	7	NA	NA	NA	NA
5	21/11/2025	N/A	Chiffchaff	2	NA	NA	NA	NA
5	21/11/2025	N/A	Hooded crow	1	NA	NA	NA	NA
5	21/11/2025	N/A	Hooded crow x Carrion Crow	1	NA	NA	NA	NA
6	03/12/2025	5	Starling	8	W	B	A	Direct Flight
6	03/12/2025	6	Starling	40	W	B	A	Direct Flight



