MachairWind Offshore Windfarm

Annex 11.2A Project DAS Final Report (All Project Surveys)

Ornithological and Marine Mammal Baseline Characterisation Surveys

MachairWind Option Agreement Area

Final Report

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1. Executive Summary

This report constitutes the final report outlining the results from 30 Digital Aerial Surveys (DAS) conducted between April 2021 and September 2023 at the MachairWind offshore wind farm Option Agreement Area (OAA) (hereafter referred to as the 'Site') for MachairWind Limited (MachairWind). MachairWind initially contracted APEM to carry out 10 monthly DAS of the Site, plus a 6-kilometre (km) buffer, of which the imagery for the first 4 km would be analysed and the remaining 2 km was stored appropriately in case it was required for future use ('banked'). Of the ten DAS contracted, nine were completed successfully – the December 2021 survey was missed owing to poor weather conditions. In February 2022, a revised survey programme commenced, with APEM contracted to conduct an additional 15 monthly DAS of the Site plus a 10 km buffer; the increase in buffer size from 6 km to 10 km was made to incorporate updated research on potential displacement distances. As with previous months, the imagery for the first 4 km would be analysed, with the remaining 6 km banked. The programme of 15 DAS began in February 2022 and ended in March 2023; one DAS was completed in each calendar month, besides December 2022 whereby two DAS were completed to recover data not captured in December 2021. The survey programme was extended from April 2023 to September 2023, with APEM contracted to carry out an additional six aerial surveys of the Site, plus the 10 km buffer. Analysis requirements for all six surveys again included imagery from the first 4 km of the buffer, with the remaining 6 km banked. In total, a programme of 30 surveys was carried out, commencing in April 2021, and finishing in September 2023.

Where the Site and the 4 km analysed buffer are combined, they are referred to as the 'Survey Area'; where the Site and the 6 km or 10 km survey buffer are combined, they are referred to as the 'Extended Survey Area'. DAS were undertaken to provide baseline information on the abundance, distribution and behaviour of birds and marine megafauna to inform the environmental impact assessment (EIA), using APEM's high-resolution camera system to capture digital still imagery of birds and marine megafauna. No technical or safety issues were reported.

The poor weather conditions off the western coast of Scotland, particularly during the winter months, interrupted the consecutive schedule of monthly DAS. On three occasions (February 2022, June 2022, and October 2022), the surveys had to be flown in the following month. A prolonged period of sustained poor weather meant a survey was missed in December 2021, with an additional survey carried out in December 2022. One survey (May 2023) was flown on consecutive days, with another (March 2023) flown over two flights spaced four days apart, due to unsuitable weather conditions partway through the survey.

This report contains detailed accounts of key species only. Species recorded in numbers determined to be too low to warrant detailed analysis are presented in Appendix I: Raw Count Data.

A total of 20 individuals of key species were recorded as deceased, consisting of gannet (n=16), kittiwake (n=2), fulmar (n=1) and guillemot (n=1). The highest number of mortalities recorded in August 2022 (n=7) (Table 9). It is not unusual, although relatively rare, to encounter deceased animals during surveys. The occurrence of deceased birds, especially from 2022 onwards, is notable within the broader context of highly pathological avian influenza (HPAI), occurring at the same time as the recording of deceased birds. HPAI has been occurring in large outbreaks amongst coastal seabirds since summer 2022, affecting gannets in particular (JNCC, 2022).

The following trends were observed for each of the key species, with further detail included in the species accounts:

- Kittiwake

Kittiwakes were recorded in all the surveys, with the highest abundance of 17,971 and density of 14.49 birds/km^2 recorded in the Survey Area in November 2021. The greatest seasonal abundance (n=32,857) of kittiwakes was recorded during the 2022-2023 winter non-breeding season (September 2022 to March 2023). Kittiwakes had a widespread distribution throughout the Survey Area.

- Great black-backed gull

Great black-backed gulls were recorded in 16 out of 30 surveys, with the highest abundance of 1,219 and density of 0.98 birds/km^2 recorded in the Survey Area in November 2021. The greatest seasonal abundance (n=1,311) of great black-backed gulls was recorded during the 2021-2022 winter non-breeding season (September 2021 to February 2022). Great black-backed gulls were distributed across the Survey Area, although lower densities were recorded in the south.

- Herring gull

Herring gulls were recorded in 10 out of 30 surveys, with the highest abundance of 1,302 and density of 1.05 birds/km^2 recorded in the Survey Area in November 2021. The greatest seasonal abundance (n=1,607) of herring gulls was recorded during the 2022-2023 winter non-breeding season (September 2022 to February 2023). Herring gulls were distributed across the Survey Area, however a general absence from the south and west of the Survey Area was notable.

- Common tern

Common terns were recorded in four out of 30 surveys, with the highest abundance of 160 and density of 0.13 birds/km^2 recorded in the Survey Area in August 2021. The greatest seasonal abundance (n=206) of common terns was during the 2021 breeding period (May to September 2021). Common terns were recorded mainly in the Site with one record in the 4 km buffer zone. Most records occurred in the central and northern regions of the Survey Area.

- Arctic tern

Arctic terns were recorded in 13 out of 30 surveys, with the highest abundance of 403 and density of 0.32 birds/km^2 recorded in the Survey Area in August 2022. The greatest seasonal abundance (n=721) of common terns was recorded during the 2022 breeding period (May to August 2022). Arctic terns were recorded across the Survey Area, showing no apparent distribution pattern.

- Guillemot

Guillemots were recorded in all the surveys, with the highest abundance estimate of 61,666 and density of 49.72 birds/km^2 recorded in the Survey Area in April 2022. The greatest seasonal abundance (n=154,543) of guillemots was recorded during the 2023 breeding period (April to August). Guillemots were recorded across the Survey Area, showing no apparent distribution pattern.

- Razorbill

Razorbills were recorded in all the surveys, with the highest abundance of 18,063 birds and density of 14.56 birds/km^2 recorded in the Survey Area in October 2022. The greatest seasonal abundance (n=37,629) of razorbills was recorded during the 2022-2023 winter non-breeding season (September 2022 to February 2023). Razorbills were recorded across the Survey Area, showing no apparent distribution pattern.

- Puffin

Puffins were recorded in 26 out of 30 surveys, with the highest abundance of 16,022 and density of 12.92 birds/km^2 recorded in the Survey Area in June 2022. The greatest seasonal abundance (n=23,004) of puffins was recorded during the 2022 breeding season (April 2022 to August 2022). Puffins were recorded across the Survey Area, showing no apparent distribution pattern.

- Great northern diver

Great northern divers were recorded in 17 out of 30 surveys, with the highest abundance of 37 and density of 0.03 birds/km^2 recorded in the Survey Area in February 2023. The greatest seasonal abundance (n=158) of great northern divers was recorded during the 2022-2023 winter non-breeding season (October 2022 to May 2023). Great northern divers were recorded across the Survey Area, but with higher densities in the southeast of the Survey Area, the closest part to land.

- European storm petrel/storm petrel species

European storm petrels were identified to species level in one survey, with individuals from the storm petrel species group recorded in eight surveys. The highest abundance of 298 and density of 0.24 birds/km^2 was recorded in the Survey Area in July 2023. The greatest seasonal abundance (n=562) was recorded during the 2023 breeding period (May to September 2023). They were distributed across the Survey Area, however lower densities were recorded in the southeast area, with higher densities generally in the western half of the Survey Area.

- Fulmar

Fulmars were recorded in 28 out of 30 surveys, with the highest abundance of 425 and density of 0.34 birds/km^2 recorded in the Survey Area in January 2022. The greatest seasonal abundance (n=798) was recorded during the 2022-2023 winter non-breeding season (September 2022 to March 2023). These were recorded across the Survey Area, but with higher densities in the northwest.

- Manx shearwater

Manx shearwaters were recorded in 22 of 30 surveys, with the highest abundance of 20,983 and density of 16.92 birds/km^2 recorded in the Survey Area in April 2022. The greatest seasonal abundance (n=41,904) was recorded during the 2022 breeding period (April 2022-October 2022). Manx shearwaters had a widespread distribution throughout the Survey Area.

- Gannet

Gannets were recorded in 29 out of 30 surveys, with the highest abundance of 1,082 and density of 0.87 birds/km^2 recorded in the Survey Area in May 2022. The greatest seasonal abundance (n= 452) was recorded during the 2022 breeding season (March 2022 to September 2022). Gannets were recorded across the Survey Area, with no apparent distributional pattern.

- Grey seal

Grey seals were recorded in 27 out of 30 surveys, with the highest abundance of 222 seals and density of 0.18 individuals/km^2 recorded in the Survey Area in August 2023. The greatest seasonal abundance (n=470) was recorded during the summer season in 2023 (June to August 2023). Grey seals were recorded throughout the Survey Area.

- Common dolphin

Common dolphins were recorded in 29 out of 30 surveys, with the highest abundance of 2,170 and density of 1.75 individuals/km^2 recorded in the Survey Area in February 2023. The greatest seasonal abundance (n=2,790) was recorded during the winter season in 2021/2022 (December 2021 to February 2022). Common dolphins were recorded throughout the Survey Area.

- Bottlenose dolphin

Bottlenose dolphins were recorded in the northwest of the Site in October 2021, which falls into the autumn season (September to November), with an abundance of 24 and a density of 0.03 individuals/km^2.

- Risso's dolphin

Risso's dolphins were recorded in the south of the 4 km buffer in the first December 2022 Survey (Survey 20), which falls into the winter season (December to February), with an abundance of 14 and a density of 0.02 individuals/km^2.

- Harbour porpoise

Harbour porpoises were recorded in 28 out of 30 surveys, with the highest abundance of 541 and density of 0.44 individuals/km^2 recorded in the Survey Area in March 2022. The greatest seasonal abundance (n=841) was recorded during the spring season in 2022 (March to May 2022). Harbour porpoises were recorded throughout the Survey Area.

- Common minke whale

Common minke whales were recorded in 15 out of 30 surveys, with the highest abundance of 57 and density of 0.05 individuals/km^2 recorded in the Survey Area in July 2023. The greatest seasonal abundance (n=99) was recorded during the summer season in 2023 (June to August 2023). Common minke whales were recorded throughout the Survey Area.

- Basking shark

Basking sharks were recorded in four out of 30 surveys, with the highest abundance of 29 and density of 0.02 individuals/km^2 recorded in the Survey Area in April 2023. The greatest seasonal abundance (n=29) was recorded during the spring season in 2023 (March to May 2023). Basking sharks were recorded in the northern half of the Survey Area.

2. Introduction

2.1 Background

APEM was contracted by MachairWind Limited for the supply of 30 monthly DAS of the MachairWind OAA (Site), located off the west coast of Scotland, that commenced in April 2021. The purpose of the surveys was to provide site-specific baseline information on the abundance, distribution and behaviour of birds and marine megafauna in connection with the Site to inform the EIA and Habitats Regulations Appraisal (HRA) of the proposed wind farm development.

The survey method was designed to optimise the data collection for all bird and marine megafauna species to achieve a minimum of 10% coverage using high-resolution digital still imagery captured from a twin-engine aircraft. Coverage captured exceeded 10% with an average of 13.13% achieved across the 30 surveys. The surveys were carried out to meet the aims and objectives of the work required by MachairWind. Images were captured and analysed using a transect-based survey design with a 1.5-centimetre (cm) ground sampling distance (GSD). All images and resultant data were analysed and quality assured (QA) by APEM.

2.2 Aim of Report

The report presents information on marine birds, mammals, and other megafauna derived from 30 months of DAS (April 2021 to September 2023) of the Site plus a 4 km buffer (the Survey Area). The information that is presented within this report and its appendices includes the following:

- Methodology and summary of surveys including health and safety (Section 3).
- Design-based abundance and density estimates for all avian and marine mammal species, as well as any other marine megafauna recorded per month within the Survey Area that have been apportioned and corrected for availability bias where applicable (Section 4).
- Bird flight direction (Section 4) and flight height (Section 5).
- Design-based abundance and density estimates for behaviours of all avian and marine mammal species, as well as any other marine megafauna recorded per month within the Survey Area (Appendix II Raw Data Abundance and Density).
- Spatial distribution maps of all avian, marine mammal, and other marine megafauna species (Appendix III Distribution Maps).
- Spatial density maps of all avian, marine mammal, and other marine megafauna species (Appendix IV Spatial Density Distribution Maps).

2.3 Site Description

The Site is located off West Scotland, approximately 6.6 km from the nearest point on Islay and 11.3 km from the nearest point on Colonsay Island. The Site covers an area of approximately 754 km^2, increasing to 2,153 km^2 when including the 10 km survey buffer, 1,519 km^2 when including the 6 km survey buffer (Extended Survey Area), and 1,241 km^2 when including the analysed 4 km buffer (Survey Area; pertaining to analysed data presented in this report) (Figure 1). The survey method has been designed to optimise the data collection for all bird and marine megafauna species using a transect-based survey design at 1.5 cm resolution using a twin-engine aircraft.

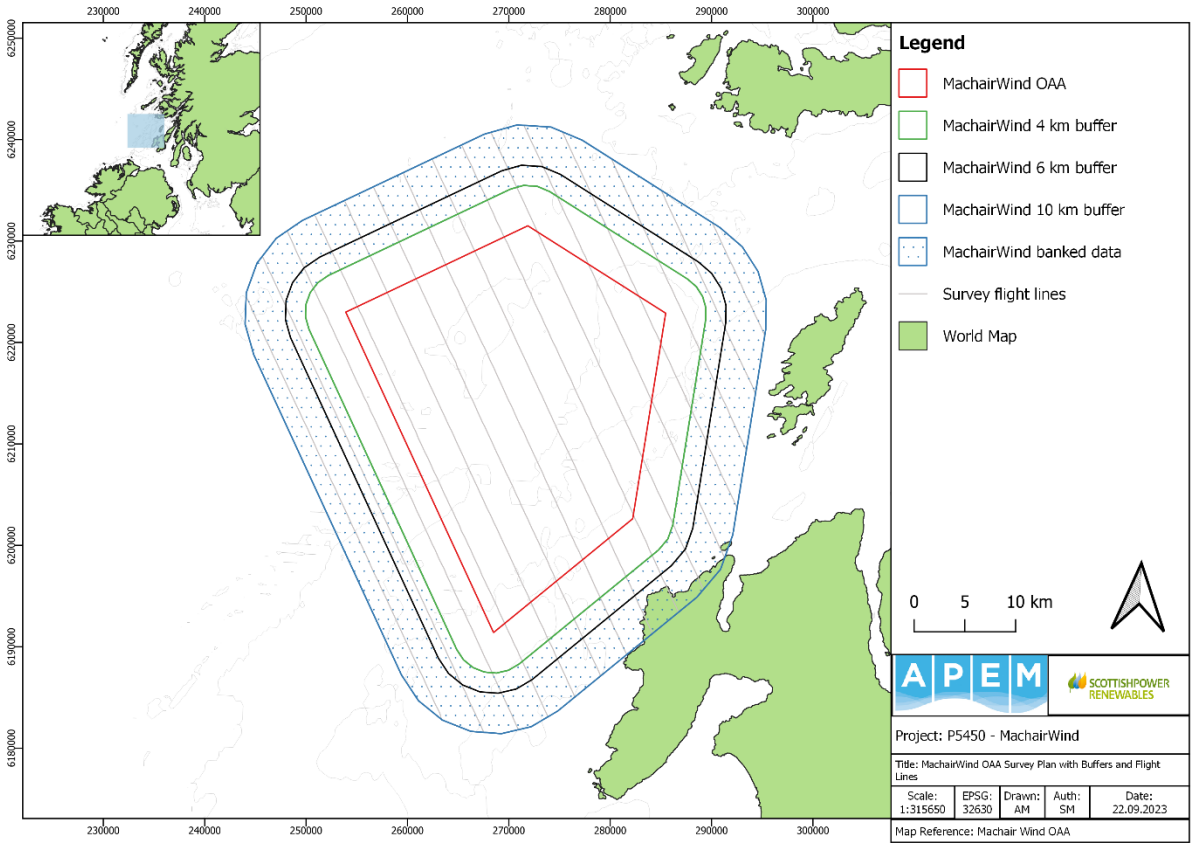


Figure 1 Transect Flight Lines over MachairWind Option Agreement Area (OAA; the Site) plus 4 km buffer (referred to as the Survey Area) including the extent of 'banked' (unanalysed) data of 4-6 km for surveys conducted during April 2021-January 2022 and 4-10 km for surveys conducted during February 2022-April 2023

The Survey Area is within 100 km of several areas of conservation concern or Marine Protected Areas (MPAs), including Special Areas of Conservation (SAC), Special Protection Areas (SPAs), Nature Conservation MPAs, Sites of Special Scientific Interest (SSSIs) and Ramsar sites. In addition, to MPAs, the Survey Area is also within 100 km of various designated seal haul-out sites, protected for the rest, moult and breeding of seals (Morris et al., 2014). Designated sites (SPAs, SACs and MPAs) with notable species expected to be present in the area are detailed below (Figure 2; Table 1). The utilisation of a 100 km radius serves as a general indication of species connectivity and assemblage within proximity to the Survey Area for the purpose of this report. It is acknowledged that other species of conservation interest may interact with the Survey Area during migratory periods. Table 1 does not encompass a comprehensive list beyond the specified 100 km range e.g. considering species foraging ranges, which will be expanded upon during the EIA.

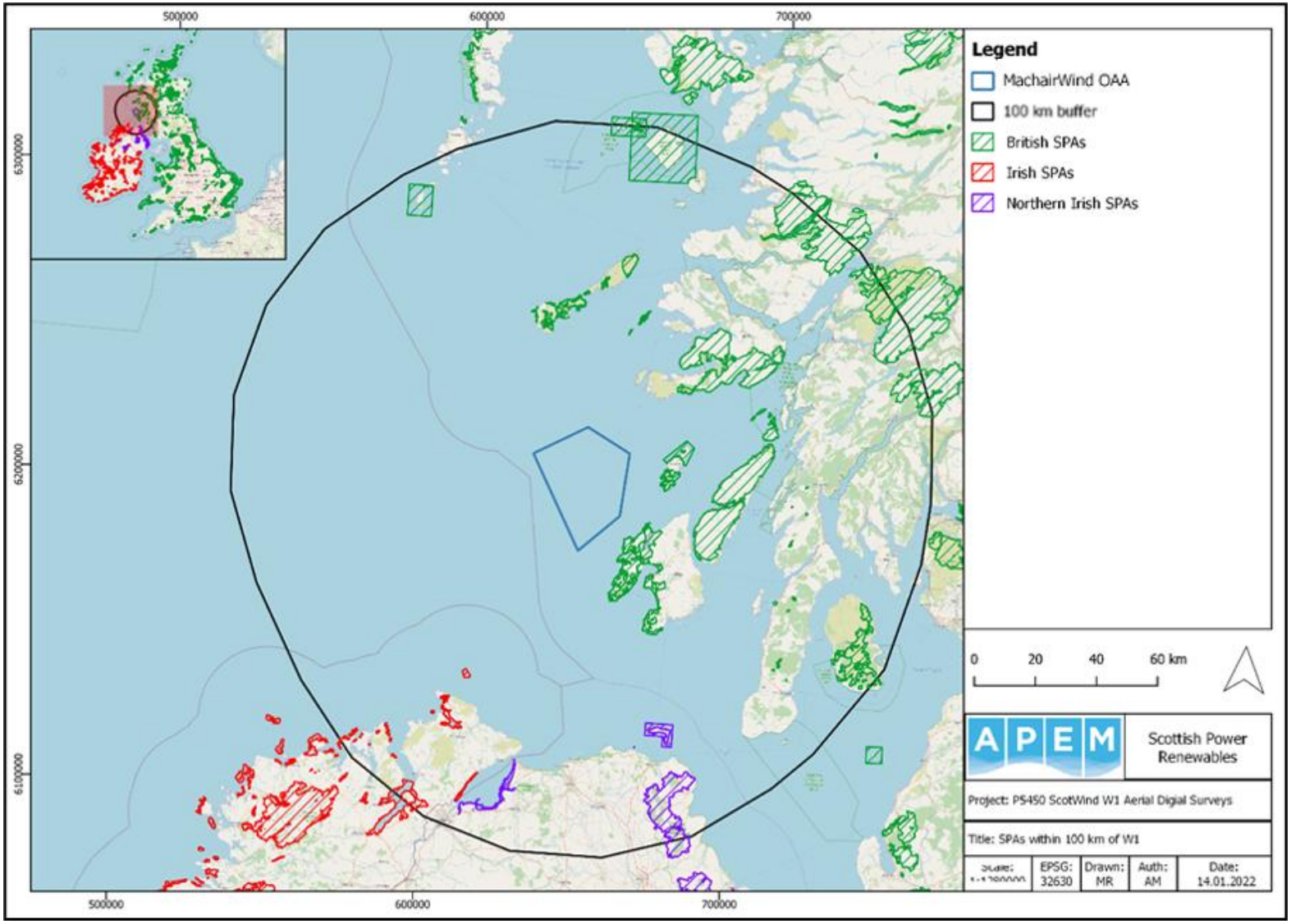


Figure 2 **Location of MachairWind Option Agreement Area (OAA; Site) with surrounding features of conservation interest**

Table 1 Proximity of the MachairWind Option Agreement Area (OAA; Site) to designated sites (MPAs, SPAs and SACs) and the qualifying features of each.

Designated site	Approximate distance from the Site (km)	Qualifying feature(s)
Inner Hebrides and the Minches	<1.0	Harbour porpoise *Phocoena phocoena*
Sea of the Hebrides	1.5	Basking shark *Cetorhinus maximus*
		Minke whale *Balaenoptera acutorostrata*
Rinns of Islay	6.6	Hen harrier *Circus cyaneus*
		Corncrake *Crex crex*
		Chough *Pyrrhocorax pyrrhocorax*
		Whooper swan *Cygnus cygnus*
		Greenland white-fronted goose *Anser albifrons*
		Common scoter *Melanitta nigra* (migratory)
Gruinart Flats, Islay	8.9	Greenland barnacle goose *Branta leucopsis*
		Greenland white-fronted goose *Anser albifrons flavirostris*
		Chough
		Canadian light-bellied brent goose *Branta bernicla hrota* (migratory)
Oronsay and South Colonsay	11.0	Chough
		Corncrake
North Colonsay and Western Cliffs	11.3	Chough
		>20,000 no. (regularly 30,000 no.) seabird assemblage, including nationally important populations of kittiwake *Rissa tridactlya* and common guillemot *Uria aalge.*
Bridgend Flats, Islay	18.5	Greenland barnacle goose
		Whooper swan
		Greenland white-fronted goose
		Peregrine *Falco peregrinus*
		Golden plover *Pluvialis apricaria*
		Migrating waterfowl spp.
Laggan, Islay	21.3	Greenland barnacle goose
		Greenland white-fronted goose
		Peregrine
		Golden plover (migratory)
		Little tern *Sternula albifrons*
		Short-eared owl *Asio flammeus*

Designated site	Approximate distance from the Site (km)	Qualifying feature(s)
		Chough
Eilean na Muice Duibhe (Duich Moss), Islay	24.0	Greenland white-fronted goose
Coll and Tiree	24.6	Common eider *Somateria mollissima*
		Great northern diver *Gavia immer*
Jura, Scarba and the Garvellachs	24.9	Golden eagle *Aquila chrysaetos*
Cnuic agus Cladach Mhuile	25.7	Golden eagle
The Oa	29.9	Chough
Treshnish Isles	32.7	European storm petrel *Hydrobates pelagicus*
		Greenland barnacle goose
		Grey seal *Halichoerus grypus*
Sléibhtean agus Cladach Thiriodh (Tiree Wetlands and Coast)	33.6	Greenland white-fronted goose
		Greenland barnacle goose
		Dunlin *Calidris alpina*
		Ringed plover *Charadrius hiaticula* (migratory)
		Redshank *Tringa totanus* (migratory)
		Oystercatcher *Haematopus ostralegus* (migratory)
		Turnstone *Arenaria interpres*
Tiree (corncrake)	34.1	Corncrake
South-East Islay Skerries	38.6	Harbour seal *Phoca vitulina*
Coll	43.1	Greenland white-fronted goose
		Greenland barnacle goose
		Red-throated diver *Gavia stellata*
		Arctic tern *Stercorarius parasiticus*
Coll (corncrake)	45.1	Corncrake
Sound of Gigha	48.1	Great northern diver
		Red-breasted merganser *Mergus serrator*
		Slavonian grebe *Podiceps auritus*
		Common eider
Inishtrahull	52.8	European shag *Gulosus aristotelis*
		Greenland barnacle goose
		Common gull *Larus canus*
Knapdale Lochs	55.1	Black-throated diver *Gavia arctica*
Kintyre Goose Roosts	57.7	Greenland white-fronted goose
Skerries and Causeway	59.3	Harbour porpoise

Designated site	Approximate distance from the Site (km)	Qualifying feature(s)
Rathlin Island	60.2	Peregrine
		Razorbill
		Common guillemot
		Kittiwake
		>20,000 no. (regularly 30,000 no.) seabird assemblage, including nationally important populations of fulmar, European shag, eider, common gull, herring gull, lesser black-backed gull, black guillemot, Atlantic puffin, and Manx shearwater *Puffinus puffinus*.
Malin Head	63.4	Corncrake
Glas Eileanan	62.3	Common tern
Sheep Island	66.2	Cormorant *Phalacrocorax Carbo*
Trawbreaga Bay	66.7	Greenland barnacle goose
		Light-bellied brent goose
		Chough
		Wetland and waterbird assemblage
Eileanan agus Sgeiran Lios mor	77.1	Harbour seal
Antrim Hills	77.9	Hen harrier
		Merlin *Falco columbarius*
Lough Foyle	79.0	Red-throated diver
		Great crested grebe *Podiceps cristatus*
		Bewick's swan *Cygnus columbianus bewickii*
		Whooper swan
		Greylag goose *Anser anser*
		Light-bellied brent goose
		Shelduck *Tadorna tadorna*
		Wigeon *Anas penelope*
		Teal *Anas crecca*
		Mallard *Anas platyrhynchos*
		Common eider
		Red-breasted merganser
		Oystercatcher
		Golden plover
		Lapwing *Vanellus vanellus*

Designated site	Approximate distance from the Site (km)	Qualifying feature(s)
		Knot *Calidris canutus*
		Dunlin *Calidris alpina*
		Bar-tailed godwit *Limosa lapponica*
		Curlew *Numenius arquata*
		Redshank
		Black-headed gull
		Common gull
		Herring gull
		Wetland and waterbird assemblage
Clyde Sea Sill	80.5	Black guillemot *Cepphus grylle*
Rum	81.7	Red-throated diver
		Golden eagle
		Manx shearwater
		Kittiwake
		Guillemot
Moidart and Ardgour	81.8	Golden eagle
Loch Shiel	82.7	Black-throated diver
Fanad Head	83.7	Corncrake
Arran Moors	83.7	Hen harrier
Mingulay and Berneray	83.8	Razorbill *Alca torda*
		>20,000 no. (regularly 105,000 no.) seabird assemblage, including nationally important populations of Northern fulmar *Fulmaris glacialis*, European shag *Phalacrocorax aristotelis*, kittiwake, common guillemot, and Atlantic puffin *Fratercula arctica*.
Horn Head to Fanad Head	84.1	Fulmar *Fulmar glacialis*
		Cormorant
		European shag
		Greenland barnacle goose
		Peregrine
		Kittiwake
		Guillemot
		Razorbill
		Chough

Designated site	Approximate distance from the Site (km)	Qualifying feature(s)
		Greenland white-fronted goose
Glen Etive and Glen Fyne	85.8	Golden eagle
Lough Swilly	88.6	Harbour Porpoise
Greers Isle	92.9	Black-headed gull *Chroicocephalus ridibundus*
		Common gull
		Sandwich tern *Sterna sandvicensis*
Lough Swilly	93.1	Great crested grebe *Podiceps cristatus*
		Grey heron *Ardea cinerea*
		Whooper swan
		Greylag goose
		Shelduck
		Wigeon
		Teal
		Mallard
		Shoveler *A. clypeata*
		Scaup *Aythya marila*
		Goldeneye *Bucephala clangula*
		Red-breasted merganser
		Coot *Fulica atra*
		Oystercatcher
		Knot
		Dunlin
		Curlew
		Redshank
		Greenshank *Tringa nebularia*
		Black-headed gull
		Common gull
		Sandwich tern *Thalasseus sandvicensis*
		Common tern *Sterna hirundo*
		Greenland white-fronted goose
		Wetland and waterbird assemblage
West Coast of the Outer Hebrides	94.6	Long-tailed duck *Clangula hyemalis*
		Black-throated diver
		Great northern diver

Designated site	Approximate distance from the Site (km)	Qualifying feature(s)
		Red-throated diver
		Red-breasted merganser
		Slavonian grebe
		Eider
Canna and Sanday	95.5	>20,000 no. (regularly 21,000 no.) seabird assemblage, including nationally important populations of European shag, herring gull *L. argentatus*, kittiwake, common guillemot, and Atlantic puffin.
Small Isles	96.3	Black guillemot
Sound of Barra	97.6	Harbour seal

3. Survey and Analysis Methodologies

3.1 Digital Aerial Survey Methods

A programme of 30 DAS took place between April 2021 and September 2023 inclusive.

Surveys were conducted using APEM's bespoke camera system, termed "Shearwater IV", customised by in-house specialists for surveying the offshore environment. The camera system is integrated with custom flight planning software that allowed each survey transect to be accurately mapped out before the aircraft leaves the ground. Each image capture node is precisely defined, allowing the system to fire the camera exposures at exactly the right location. This ensures that each survey is flown with the same transect orientation and the camera is triggered at the same position along each transect within set tolerances. APEM's planning systems enable tolerances on flight path along survey lines to be set automatically aborting survey lines that drift away from the aircraft's planned flight line. APEM's on-board camera technician continually monitored the imagery as it was collected to ensure the data collected was fit for purpose. The camera technician would make the decision to cease data collection should the conditions become unsuitable for surveying and/or data collection. Subsequently, the survey would then be resumed at the next earliest opportunity.

Surveys were completed with a transect-based design to collect abutting digital still imagery at 1.5 cm GSD with flight lines spaced approximately 3.2 km apart, with a transect width of 0.46 km. Between April 2021 and January 2022, 13 flight lines covered the Site plus 6 km buffer. From February 2022 onwards, 15 flight lines covered the Site plus a wider, 10 km buffer, with the increase in buffer size implemented to cover a wider area based on updated research on potential displacement distances (Figure 1). For all surveys, analysed data covered the Site plus 4 km buffer (Survey Area) which represents data from 11 flight lines, and has been presented in this report.

Imagery was captured in raw format and post-processed to ensure optimal quality for the subsequent stage of image analysis, to extract information on marine fauna or other notable occurrences. When a survey was completed, data were checked to ensure the number of lines and the number of images collected was correct, and that the quality of the imagery was acceptable. Once the image analysis was completed, further QA processes took place (see Summary of Quality Assurance).

No health or safety issues were reported during the surveys.

The date(s), start times, end times and weather conditions are provided for each DAS in Table 2.

Table 2 Date and start/end time (local time) and weather conditions for each flight for the April 2021 to September 2023 surveys

Survey No.	Date	UTC Start Time (HH:MM)	UTC End Time (HH:MM)	Douglas Sea State[1]	Turbidity[2]	Wind Speed (knots) / Direction	Cloud Cover (%)[3]	Visibility (km)	Air Temp (°C)
Apr-21 (S01)	20-Apr-21	13:15	16:07	3	1	28 / N	0	10+	4
May-21 (S02)	11-May-21	09:38	12:21	2	1 - 2	21 / SW	30 - 50	10+	7
Jun-21 (S03)	12-Jun-21	12:34	15:14	2	0	26 / SW	95-100	10+	10
Jul-21 (S04)	06-July-21	14:45	17:45	0	0	5 / NW	0	10+	14
Aug-21 (S05)	14-Aug-21	10:13	10:35	1-3	1	10-15 / SW, NW	0-80	10+	8-10
		14:34	17:05						
Sep-21 (S06)	29-Sep-21	13:00	15:36	4	3	23 / SSE	75	10+	10
Oct-21 (S07)	22-Oct-21	11:50	14:31	3-4	1	15-20 / NW	40-60	10+	8-9
Nov-21 (S08)	23-Nov-21	10:00	13:19	2-3	1-2	20 / N-NW	100	10+	9
Jan-22 (S09)	20-Jan-22	10:09	12:36	1-2	0	15 / N	60-80	10+	4
Mar-22 (S10)	21-Mar-22	12:41	16:16	2	2	25 / S-SE	10-50	5	4
Mar-22 (S11)	28-Mar-22	09:36	13:11	1	2	10 / S-SE	0	10+	12
Apr-22 (S12)	24-Apr-22	13:53	17:16	2	1	5 / N	1-10	10+	8
May-22 (S13)	28-May-22	11:17	14:18	0-1	0-1	17-29 / WNW	10-70	10+	10
		18:18	18:44						
Jun-22 (S14)	11-Jul-22	08:45	12:22	2-3	2	15-20 / S	100	10+	15-16
Jul-22 (S15)	27-Jul-22	10:40	14:04	1	1	4 / SSE	65	10+	12
Aug-22 (S16)	21-Aug-22	10:47	14:10	2	1	10 / W	70-90	10+	13
Sep-22 (S17)	13-Sep-22	11:36	15:00	1	1	12-15 / W-NNW	85	10+	12
Oct-22 (S18)	04-Nov-22	10:51	13:25	2-3	2	12-20 / N-NW	50-90	10+	8
		15:05	15:55						
Nov-22 (S19)	22-Nov-22	11:37	15:08	1	1	5 / E	50	10+	6
Dec-22 (S20)	02-Dec-22	10:47	14:26	1-2	1	17 / S	40-70	10+	7
Dec-22 (S21)	14-Dec-22	10:53	14:36	3	2	12-29 / NE	50-100	10+	2
Jan-23 (S22)	28-Jan-23	12:21	15:46	1	2	7-14 / W-NW	70-90	10+	4-6
Feb-23 (S23)	24-Feb-23	12:11	15:44	1	3	7-12 / E	0	10+	3
Mar-23 (S24)	19-Mar-23	11:34	14:12	1-2	1	7-9 / S	70-100	10+	5
	23-Mar-23	10:50	11:43	2-3	2-3	20-23 / S	30-79	10+	5
Apr-23 (S25)	22-Apr-23	10:29	14:00	1-2	1	7-19 / E-NE	10-40	10+	9-11
May-23 (S26)	13-May-23	13:24	16:35	1-2	1-2	30-40 / SW	10-80	8-10	9-10
	14-May-23	10:38	11:07	3	3	30 / W-SW	30	8	5
Jun-23 (S27)	07-Jun-23	10:21	12:31	0	0	10-17 / NE	50	10+	10-11
		14:39	15:53						
Jul-23 (S28)	21-Jul-23	07:55	11:29	1	0	5 / NW	90	10+	10-11
Aug-23 (S29)	16-Aug-23	14:34	18:01	0-1	0	3-4 / W-SW	10-70	10+	13-14
Sep-23 (S30)	06-Sep-23	08:33	12:20	1-2	1	25-28 / S	60-70	10+	16-18

[1] 0 = Calm (Glassy), 1 = Calm (Rippled), 2 = Smooth, 3 = Slightly Moderate, 4 = Moderate

[2] 0 = Clear, 1 = Slightly Turbid, 2 = Moderately Turbid, 3 = Highly Turbid

[3] 0 = Clear, 1-10 = Few, 11-50 = Scattered, 51-95 = Broken, 96-100 = Overcast

Weather conditions during all completed surveys were conducive to collecting and analysing imagery for the purpose of providing data on the identification, distribution, and abundance of bird species and marine fauna within the Survey Area. Favourable conditions for surveying were defined as: a cloud base of at least 1,300 ft, visibility of greater than 5 km, wind speed of less than 30 knots, and sea state of 4 (moderate) or less. For safety reasons, no surveying took place in icing conditions.

On four occasions, DAS occurred in a different month due to sustained periods of strong winds, low clouds and/or rain/snow in the planned month. The affected months/surveys were:

- The December 2021 survey was completed as an additional survey in December 2022. Throughout the report, this survey is referred to as the first December 2022 survey (Survey 20).
- The February 2022 survey (Survey 10) was completed on 21st March 2022. Throughout the report, this survey is referred to as the first March 2022 survey (Survey 10).
- The June 2022 survey (Survey 14) was completed on 11th July 2022. Throughout the report, this survey is referred to as the June 2022 survey.
- The October 2022 survey (Survey 18) was completed on 4th November 2022. Throughout the report, this survey is referred to as the October 2022 survey.

On two occasions, the survey had to be split over different days due to unsuitable weather conditions partway through the survey. The March 2023 survey (Survey 24) was split due to an incoming weather front with heavy rain during the first flight on 19th March, resulting in the survey being aborted early. During this first survey flight, lines 6 to 15 were captured. Heavy rain was persistent for a further three days with the remaining lines 1 to 5 captured on 23rd March, when the next suitable weather window occurred. The May 2023 survey (Survey 26) was started on the 13th of May 2023, with lines 1 to 13 captured in the initial flight. Strong winds resulted in the survey being aborted, with lines 14 and 15 completed on the following day.

Measures were taken to minimise glint and glare, such as avoiding surveying when the sun angle had the greatest potential to impact image quality. Furthermore, additional imagery was collected throughout the survey, providing an alternative set of images for analysis to ensure that sufficient coverage is achieved in the case that imagery was affected strongly by glint or glare. Such conditions were not encountered during the 30 surveys and therefore alternative imagery was not used for analysis.

On four occasions (Survey 5: August 2021, Survey 13: May 2022, Survey 18: October 2022 and Survey 27: June 2023) the survey flight had to be split over two flights, either to accommodate a refuel of the aircraft or to minimise the occurrence of glint and glare.

The number of transects flown, transects analysed and coverage analysed per survey is presented in Table 3.

Table 3 Number of transects and analysed survey coverage for each monthly survey

Survey No.	Number Transects Flown	Number Transects Analysed	Analysed Transect Area (km^2)	Analysed Coverage (%)
Apr-21 (S01)	13	11	174.46	14.08%
May-21 (S02)	13	11	174.15	14.05%
Jun-21 (S03)	13	11	171.93	13.88%
Jul-21 (S04)	13	11	173.48	14.00%
Aug-21 (S05)	13	11	173.22	13.98%
Sep-21 (S06)	13	11	174.54	14.09%

Survey No.	Number Transects Flown	Number Transects Analysed	Analysed Transect Area (km^2)	Analysed Coverage (%)
Oct-21 (S07)	13	11	173.44	14.00%
Nov-21 (S08)	13	11	170.65	13.77%
Jan-22 (S09)	13	11	177.74	14.34%
Mar-22 (S10)	15	11	186.44	15.05%
Mar-22 (S11)	15	11	170.50	13.76%
Apr-22 (S12)	15	11	173.28	13.98%
May-22 (S13)	15	11	174.13	14.05%
Jun-22 (S14)	15	11	171.24	13.82%
Jul-22 (S15)	15	11	174.34	14.07%
Aug-22 (S16)	15	11	174.79	14.11%
Sep-22 (S17)	15	11	175.54	14.17%
Oct-22 (S18)	15	11	173.97	14.04%
Nov-22 (S19)	15	11	174.11	14.05%
Dec-22 (S20)	15	11	174.17	14.06%
Dec-22 (S21)	15	11	173.95	14.04%
Jan-23 (S22)	15	11	173.65	14.01%
Feb-23 (S23)	15	11	168.37	13.59%
Mar-23 (S24)	15	11	173.38	13.99%
Apr-23 (S25)	15	11	172.97	13.96%
May-23 (S26)	15	11	173.84	14.03%
Jun-23 (S27)	15	11	175.24	14.14%
Jul-23 (S28)	15	11	174.59	14.09%
Aug-23 (S29)	15	11	173.23	13.98%
Sep-23 (S30)	15	11	173.37	13.99%

3.2 Species Identification

The images were analysed to enumerate birds and marine megafauna to species level where possible. Targets identified from the images were 'snagged' (i.e., located within the images) and categorised. Scientific names and taxonomy of species recorded are provided in Appendix V Scientific Names and Taxonomy.

There were occasions when it was not possible to identify an individual in the DAS imagery to the species level and the individual was therefore identified as belonging to a higher-level taxonomic group (e.g., 'small gull species' or 'dolphin / porpoise species'). The possible groups and the individual species attributed to them are listed in Table 4 for birds and Table 5 for marine mammals. Whilst some species groups have been included for clarity as part of the broader group levels (i.e., skua species), they were not recorded in the surveys. Some designations (e.g., small gull species) are not exhaustive and only include species recorded.

Table 4 Avian species included within 'unidentified' groups.

Species	Group Level 1	Group Level 2	Group Level 3	Group Level 4
Golden Plover	Wader species			
Dunlin				
Grey Phalarope				
Red-throated Diver	Diver species			
Great Northern Diver				
Black-throated Diver				
Kittiwake	Small gulls		Gull species	Fulmar/Gull species
Black-headed Gull				
Little Gull				
Common Gull				
Great Black-backed Gull	Black-backed gulls	Large gulls		
Lesser Black-backed Gull				
Herring Gull				
Fulmar				
Common Tern	'Commic' Tern		Tern species	
Arctic Tern				
Great Skua	Skua species			
Arctic Skua				
Guillemot	Guillemot/Razorbill	Auk species	Auk/Shearwater species	
Razorbill				
Black Guillemot				
Puffin				
Manx Shearwater	Small Shearwater species	Shearwater species		
Sooty Shearwater				
Great Shearwater				
European Storm Petrel	Storm petrel species			
Cormorant	Cormorant/Shag			
Shag				

Table 5 Marine mammal species included in 'Unidentified Groups'

Species	Group Level 1	Group Level 2	Group Level 3	Group Level 4
Grey Seal	Seal species			Unidentified Marine Mammal species
Risso's Dolphin	Dolphin species		Dolphin / porpoise species	
Common Dolphin				
Bottlenose Dolphin				
White-beaked Dolphin				
Harbour Porpoise				
Common Minke Whale				

3.3 Summary of Quality Assurance

Internal QA was conducted on the data collected from each of the surveys. Images were assessed in batches with a different staff member responsible for each batch. Each image containing birds was reviewed and checked by APEM's dedicated QA Manager, ensuring that 100% of birds and marine megafauna found were subject to internal QA to ensure that species identification was correct. Images containing no birds and / or marine megafauna were removed and kept separately for further internal QA. Of these 'blank' images, 20% were randomly selected for QA. If there was less than 90% agreement, a different person independently re-analysed the entire batch than who initially analysed the imagery.

3.4 Species Abundance Estimates

Design-based population estimates were calculated for all birds, marine mammals and marine megafauna/basking sharks recorded in the Survey Area. For each monthly survey, geo-referenced locations of birds, marine mammals, and marine megafauna/basking sharks, contained within each individual digital still image, were used to generate raw counts. Individual locations were then extracted using QGIS and clipped to the relevant boundaries, providing raw count data. These data are presented in this technical report for all species recorded (Appendix I Raw Count Data – All Species). Please note that deceased individuals were excluded from the abundance and density estimate calculations, as a result, raw counts henceforth may not reflect those reported in monthly reports. In addition, for species abundance and density estimates, raw counts are 'clipped' to the relevant boundaries, thus observations made outside the area are excluded. As a result, raw counts presented herein may not necessarily reflect those reported in individual monthly survey reports or flight height sections, which may include species captured outside the boundary if part of that analysed image extended beyond the boundary.

The raw counts were then divided by the number of transects collected to give the mean number of animals per transect (i). Population estimates (N) for each survey month were then generated by multiplying the mean number of animals per transect by the total number of transects required to cover the entire Survey Area (A):

$$N = i\,A$$

Each transect was treated as statistically independent. Non-parametric block bootstrap methods were used for variance estimation. A variability statistic was generated by re-sampling 999 times with replacement from the raw count data (Buckland et al., 2004). The statistic was evaluated from each of these 999 bootstrap samples and upper and lower 95% confidence intervals of these 999 values were taken as the variability of the statistic over the population (Efron & Tibshirani, 1993).

A measure of precision was calculated using a Poisson precision. This produced a CV' (Coefficient of Variation) based on the relationship of the standard error to the mean (Thomas et al., 2010). A target precision of ≤ 0.16 allows the detection of a population change of a factor of 2 (Bohlin, 1990). Abundance estimates were calculated separately for each survey area and behaviour, and therefore may not add up, when considering the Site and 4 km buffer versus the Survey Area, due to rounding.

All analysis carried out by APEM was conducted in the R programming language (R Development Core Team, 2022) and non-parametric 95% confidence intervals were generated using the 'boot' library of function (Canty and Ripley, 2021). This results in species-specific monthly abundance estimates being calculated from the raw count data, with upper and lower confidence limits. Dividing the monthly abundance estimates by the size of the Site, the 4 km buffer, and the Survey Area gives the density (e.g., birds per km^2) for any given species.

Abundance estimates with behaviours for each species for the Survey Area are presented in Appendix II Raw Data Abundance and Density.

3.5 Species Distribution Maps

Each animal recorded during the surveys was geo-referenced, allowing those locations to be related to the boundary of the Survey Area. Monthly spatial distribution maps for each species within the Survey Area were produced using QGIS, by separating individual species records during the surveys and representing these as symbols on a map. Symbols are determined by the species group, with a relevant icon and a unique colour assigned on a per species basis, the latter of which allows for a differentiation between species that use the same icon. Icons in the distribution map will appear to overlap when individuals recorded during the surveys are near each other.

Prior to the creation of spatial distribution maps, bird and marine megafauna observations were categorised into seasonal groups. Bird behaviour and abundance are recognised to differ across a calendar year dependent upon the season (Table 6). Separate seasons are recognised in this report to establish the level of importance any species has within the Survey Area during any particular period.

To create the spatial distribution maps, the point shapefiles of bird and marine megafauna observations were loaded into QGIS (version 3.10) and the 'interpolation kernel density estimation' function was used. A density kernel radius of 4 km was selected, which was determined to provide the most appropriate smoothing between the data points. All other default settings were accepted. The output raster size was limited to 2,500-pixel rows to limit very large file sizes being created. For each species per survey, a GeoTIFF spatial distribution map was created. The spatial distribution 'heatmaps' are visualised using pale purple to dark purple showing a quantile distribution. The darker the colour depicted in the 'heatmaps' relates to a higher density of birds or marine megafauna (individuals per km^2) predicted to be in that area in comparison to the lighter coloured areas of the spatial distribution maps. These spatial distribution maps present estimated relative densities and not absolute abundances and should be interpreted accordingly.

Dot-density maps were created if there were too few individuals in each month to generate a heatmap. Dot-density distribution maps were produced using QGIS (version 3.10) by summing the number of individuals recorded in each image and then representing this sum of individuals as a dot on a map that was proportional to the number of individuals in that image node; large numbers of individuals per image are represented by larger dots than smaller numbers of individuals per image. The collective results of all distribution maps are presented in Appendix III Distribution Maps and Appendix IV Spatial Density Distribution Maps.

Table 6 Seasons for key species according to NatureScot (2020)

Species	Breeding Period	Breeding Site Attendance	Migration Period	Flightless Moult Period	Winter (non-breeding)	Not present in significant numbers in Scottish Waters
Kittiwake	Mid-April to August	Early April	N/A	N/A	September to March	N/A
Great Black-Backed Gull	April to August	March	N/A	N/A	September to February	N/A
Herring Gull	April to August	March	N/A	N/A	September to February	N/A
Common Tern	May to mid-September	N/A	N/A	N/A	N/A	Mid-September to April
Arctic Tern	May to August	N/A	N/A	N/A	N/A	September to April
Guillemot	April to mid-August	February to March and late August	N/A	August to mid-October	September to January	N/A
Razorbill	April to mid-August	March and late August	N/A	Mid-August to November	September to February	N/A
Puffin	April to mid-August	Mid-March and late August	N/A	February to mid-March	September to mid-March	N/A
Great Northern Diver	N/A	N/A	N/A	February to mid-April	October to mid-May	Mid-May to September
Storm Petrel	Mid-May to October	N/A	N/A	N/A	N/A	November to mid-May
Fulmar	April to mid-September	N/A	N/A	N/A	Mid-September to March	N/A
Manx Shearwater	April to mid-October	N/A	N/A	N/A	N/A	Mid-October to March
Gannet	Mid-March to September	Mid-February to mid-March	N/A	N/A	October to mid-February	N/A

For consistency, marine megafauna abundance and density have been summarised in a similar way using the seasonal definition according to the correction factors (Voet et al., 2017):

- Winter: December-February
- Spring: March-May
- Summer: June-August
- Autumn: September-November

3.6 Attribution and Apportionment of Unidentified Individuals

Although most individuals recorded from the surveys are identified to species level, a number remained identified to group level only. To account for these unidentified individuals, the abundance estimates within this baseline technical report include an attribution of unidentified individuals into the monthly abundance estimates and densities. This is based upon an apportionment of the group level identified individuals between those species within that group that were identified to species level within each individual monthly abundance estimate.

The number of unidentified individuals in a group is proportioned to the specific species that are contained within that group based on the relative abundance of the positively identified species in that month's survey. For example, in the case of kittiwake, the total count consists of:

Positively identified kittiwake + proportion of group level-identified small gulls

Group level identifications contained within the dataset were:

- Wader Species
- Small Gull Species
- Large Gull Species
- Gull Species
- 'Commic' Terns
- Tern Species
- Guillemot/Razorbill
- Auk Species
- Storm Petrel Species
- Shearwater Species
- Small Shearwater Species
- Auk/Shearwater Species
- Cormorant/Shag
- Unidentified Bird Species
- Seal Species
- Dolphin/Porpoise
- Dolphin Species
- Marine Mammal Species
- Shark Species

As a wide-ranging group, unidentified bird species counts do not undergo apportionment.

Within the key species accounts, where abundance estimates include apportionment, an asterisk (*) is annotated. For key species, raw counts from the digital aerial survey data and abundance estimates prior to any attribution of group level identified birds can be found in Appendix II Raw Data Abundance

and Density, whilst those key species that have been subjected to apportionment are presented in Appendix VII Apportioned Abundance and Density Estimates.

Instances can occur when there are no positively identified species in months where group level identified individuals have been recorded. A hierarchical approach was used to such cases with the preferable method being the first or the second, where possible.

i. Use the proportion from the same month, same year.
ii. Use the proportion from the same month, different year.
iii. Use the proportion from the same season, same year.
iv. Use the proportion from the same season, different year.
v. Use the proportion from the same month, wider area (i.e. using proportion from the 4 km buffer as a proxy for the Site).
vi. Use the proportion from the same season, wider area (i.e. using proportion from the 4 km buffer as a proxy for the Site).

Where proxy data from another year/month was used for a species group, the following applied:

- Small Gull Species
  - April 2021 – in the Site, data for sitting small gulls were taken from April 2022 – the same month in a different year.
- Large Gull Species
  - May 2021 – in the Survey Area and in the buffer, data for flying large gulls were taken from June 2021, the same bioseason (breeding season; April to August) in the same year.
  - July 2021 – in the buffer, data for flying large gulls were taken from June 2021 – the same bioseason (breeding season; April to August) for the same year. Data for sitting large gulls was taken from the same month in a wider area – July 2021 in the Site.
  - August 2021 – in the Survey Area, data for sitting large gulls were taken from July 2021, the same bioseason (breeding season; April to August) for the same year. In the buffer, data for sitting large gulls was taken from the same bioseason in a wider area – July 2021 in the Site.
  - October 2021 – in the Survey Area and the Site, data for sitting large gulls were taken from October 2022, the same month in a different year.
- Gull Species
  - April 2021 – in the Site, data for sitting gull species were taken from April 2022, the same month in a different year.

- 'Commic' Terns
    - May 2021 – in the Survey Area, data for sitting 'commic' terns were taken from August 2022, the same bioseason (breeding season; May to August/mid-September) in a different year. In the buffer, data for sitting 'commic' terns were taken from August 2022 in the Site, the same bioseason in a wider area.
    - August 2021 – in the buffer, data for flying 'commic' terns were taken from August 2022, the same month in a different year.
    - September 2021 – in the Survey Area and Site, data for flying 'commic' terns were taken from April 2022, the same bioseason (not present in significant numbers in Scottish Waters; September to April). In the buffer, data for flying 'commic' terns were taken from April 2021, the same bioseason in a different year.
    - May 2022 – in the Site, data for flying 'commic' terns were taken from May 2021, the same month in a different year.
    - July 2022 – in the Survey Area and the buffer, data for sitting 'commic' terns were taken from August 2022, the same bioseason (breeding season; April to August/mid-September) in the same year.
    - September 2022 – in the Survey Area and in the Site data for flying 'commic' terns were taken from April 2022, the same bioseason (not present in significant numbers in Scottish Waters; September to April) in a different year. In the buffer, data was taken from April 2022 in the Site, the same bioseason in a wider area.
    - July 2023 – in the Survey Area, data for sitting 'commic' terns were taken from August 2022, the same bioseason (breeding season; April to August/mid-September) in a different year. In the Site, data was taken from August 2022 in the buffer, the same bioseason in a wider area.
- Tern Species
    - April 2022 – in the Survey Area, data for sitting tern species were taken from August 2022, the same bioseason (breeding season; May to August/September) in the same year. In the Site, data was taken from August 2022 in the buffer – the same bioseason in a wider area.
    - August 2022 – in the Site, data for sitting tern species was taken from August 2022 in the buffer – the same month in a wider area.
    - May 2023 - in the Survey Area, data for sitting tern species were taken from August 2022, the same bioseason (breeding season; May to August/September) in a different year. In the Site, data was taken from August 2022 in the buffer – the same bioseason in a wider area.

- Guillemot/Razorbill
    - January 2022 – In the buffer, data for flying guillemot/razorbill species were taken from January 2023, the same month but different year.
    - June 2023 – In the Site, data for diving guillemot/razorbill species were taken from May 2023, the same bioseason (breeding site attendance season; April to mid-August) in the same year.
- Shearwater species
    - October 2022 – In the Survey Area and buffer, data for sitting shearwater species were taken from September 2022, the same bioseason (breeding period; April to mid-October) in the same year.
- Storm petrel species
    - Site, flying storm petrel species were recorded in June 2021, August 2021, June 2022, July 2022, August 2022, June 2023, July 2023, and August 2023. Data for storm petrel species was taken from May 2023 in the buffer, the same bioseason (breeding period; mid-May to August) in a wider area. All were apportioned to European storm petrel.
    - In the 4 km buffer, flying storm petrel species were recorded in June 2021, August 2021, July 2022, June 2023, July 2023, and August 2023. Data for storm petrel species was taken from May 2023 in the buffer, the same bioseason (breeding period; mid-May to August). All were apportioned to European storm petrel.
- Seal species
    - June 2021 – In the Survey Area and buffer, data for submerged seal species were taken from June 2022, the same month in a different year. Similarly, surfacing seal species recorded in the Site and buffer used data from June 2023, the same month in a different year.
    - September 2021 – in the Survey Area and buffer, data for surfacing seal species were taken from September 2022, the same month in a different year.
    - October 2021 – in the Survey Area and Site, data for surfacing seal species were taken from October 2022, the same month in a different year.
    - April 2022 – in the Site, data for submerged seal species were taken from April 2021, the same month in a different year.
    - August 2022 – in the Survey Area and buffer, data for surfacing seal species were taken from August 2021, the same month in a different year.
    - November 2022 – in the Survey Area data for submerged seal species were taken from November 2021, the same month in a different year. In the buffer, data for submerged seal species were taken from September 2021, the same bioseason in the same year.

- December 2022 (Survey 20) – in the Survey Area and buffer, data for submerged seal species were taken from January 2022, the same bioseason.
- January 2023 – in the Site, data for submerged seal species were taken from January 2022, the same month in a different year.
- February 2023 – in the Site, data for surfacing seal species were taken from the buffer in February 2023, the same month in a wider area. Similarly, in the buffer, data for submerged seal species were taken from January 2023, the same bioseason in the same year.

- Dolphin Species
  - April 2021 – in the Survey Area and Site, data for surfacing dolphin species were taken from May 2021, the same bioseason in the same year. The same approach was used for submerged dolphin species in the buffer, with data taken from May 2021.
  - June 2021 – in the Survey Area and buffer, data for submerged dolphin species were taken from June 2022, the same month in a different year.
  - October 2021 – in the buffer, data for submerged dolphin species were taken from October 2022, the same month in a different year.
- Dolphin/Porpoise Species
  - June 2021 – in the buffer, data for both submerged and surfacing dolphin/porpoise species were taken from June 2022, the same month in a different year.
  - September 2021 – in the buffer, data for surfacing dolphin/porpoise species were taken from November 2021, the same bioseason in the same year.
  - First March 2022 survey – in the buffer, data for submerged dolphin/porpoise species were taken from the second March 2022 survey, the same month in the same year.
  - September 2022 – in the Survey Area, data for surfacing dolphin/porpoise species were taken from September 2021, the same month in a different year. In the buffer, data for surfacing dolphin/porpoise species were taken from November 2022, the same bioseason in the same year.
- Marine Mammal Species
  - First March 2022 survey – in the buffer, data for submerged marine mammals was taken from the second March 2022 survey, the same month in the same year.
  - December 2022 (Survey 20) – in the Site, data for surfacing marine mammals was taken from the second December 2022 survey (Survey 21), the same month in the same year.

- Shark species
    - In October 2021, in the Survey Area data for submerged shark species was taken from November 2021, the same bioseason in the same year. In the Site, data was taken from November 2021 in the buffer, the same bioseason in a wider area.

Despite the multifaceted process of apportionment, there were a few instances where it was not possible to assign unidentified individuals recorded during a month to a species, as there were no positively identified species where group level identified individuals had been recorded. These included:

- Guillemot/razorbill species recorded diving in the Survey Area and Site in March 2022 because no identified guillemots or razorbills were recorded diving in months where the hierarchical approaches above could be applied.
- 'Commic' terns recorded sitting in the Survey Area and buffer in September 2023 because no identified Arctic or common terns were recorded sitting in months where the hierarchical approaches above could be applied.

3.7 Availability Bias

Diving birds, such as guillemots and razorbills, spend time foraging beneath the water surface. As a result of this, an unknown number of birds may go undetected due to the snapshot nature of aerial survey techniques. To account for this 'availability bias', a correction factor must be applied.

The correction factor applied to each relevant auk species was based on that recommended by the Joint Nature Conservation Committee (JNCC) in a submission during the examination phase of the East Anglia ONE offshore windfarm, referred to by JNCC as Method C (JNCC, 2013) with a copy of the specific text provided in Appendix VI Apportionment and Availability Bias. This applies a correction factor based on aerial surveys recording 76% of sitting guillemots and 83% of sitting razorbills, as 24% and 17% respectively, of these species will be underwater when aerial imagery is captured. For puffins the correction factor applied assumes that 14% are assumed to be underwater when imagery is captured (Spencer, 2012). Therefore, to correct for availability bias the 'unavailable' birds are added to the monthly totals to create revised population estimates. The 'corrected' abundance estimates for guillemots and razorbills are presented in the relevant sections later in this report.

For marine mammals, it is possible from aerial imagery to capture individuals at the sea surface as well as underneath. Correction factors are applied to account for the availability bias of individuals which may be beneath the water surface the moment an image is captured. For harbour porpoise, the seasonal correction factors from Voet et al. (2017) were applied to the total monthly abundance estimates (submerged and surfacing). The correction factors consider the probability of harbour porpoise being within the upper 2 m of the water column and therefore assumed to be detected by the aerial surveys (Teilmann et al., 2013).

The average time spent at the water surface is not as well studied for other marine megafauna species as it is for harbour porpoise, although some information does exist (e.g. grey seal, harbour seal, white-beaked dolphin, bottlenose dolphin and Atlantic white-sided dolphin; see Voet et al., 2017). However,

as correction factors are only applicable at the species level, the abundance estimates for dolphin species and seal species were not corrected for availability bias. The corrected abundance and densities for each behaviour are presented in Appendix VIII Corrected Abundance and Density Estimates.

3.8 Species Flight Direction Rose Diagrams

The flight direction of birds recorded has been ascertained from digital still images. Bearings of bird directions were plotted using the R statistical package to summarise overall directions of movement. The mean angle and mean vector have been used to describe directional patterns and extent of 'agreement'. A Rayleigh test that assumes a null hypothesis of uniformity (i.e., scattered orientation in all directions) was used, whereby a significant test indicates directionality of movement. The blue triangles show the frequency of birds captured flying with the same vector (heading). The red circle represents the critical value of the Rayleigh test of uniformity. The red arrow placement represents the mean vector, and the length of the arrow denotes how the vectors are clustered around the mean vector (longer arrows indicate the data are clustered more closely around the mean). Directionality of movement is significant if the red arrow extends beyond the circle.

For each rose diagram, the 'Number of Observations' only accounts for birds with a recorded heading direction; birds with no heading recorded are omitted from these counts and so may not match up with the behaviour counts presented in the Species Accounts or appendices. For any species with less than three individuals recorded as flying, rose diagrams are not presented due to the sample size being too low to draw significant results. In addition, any species for which the results are not significant (p-value >0.05), rose diagrams are not presented. As such, any species with less than three flying individuals in a month, or species with insignificant results, have their flight direction described in the text.

3.9 Species Flight Heights

Bird flight heights were estimated from the digital still images. They were determined using bespoke APEM software that applies a set of in-house developed rules and trigonometry to provide an estimate of flight height above mean sea level (MSL). The accuracy of the application of the trigonometric rules varies depending on the size and position of the bird. The trigonometric calculation is based on species-specific bird measurements, image GSD (the distance between pixel centres), the known height of the aircraft as the image was taken, and the pitch, roll, and yaw of the aircraft. These parameters are entered into APEM's flight height calculator to estimate the height of each individual bird captured in survey images. Flight height estimates are less reliable for birds that are diving or turning sharply (this affects the measurement of body length and wingspan from the image) or other aspects that may affect the body length measurement. Such birds are removed from the sample used to calculate flight heights.

Flight height boxplot graphs were produced for each species, where possible, by combining the suitable flight height data collected from the survey programme. The 'box' is the interquartile range, with the middle bold line representing the median of the data. The 'whiskers' are the largest and smallest non-outliers. The range of the entire data includes the outliers represented by circles. All individuals suitable for flight estimation and with greater than 3 individuals were used to create the species boxplots.

4. Species Accounts

The following species accounts present the raw counts, design-based abundance estimates following apportionment and accounting for availability bias where applicable, density estimates, peak month distribution, behaviour, and flight directions for key species. Those species either recorded in trivial numbers or numbers determined by expert judgement to be too low to warrant detailed species accounts are omitted from the main body of this report. A summary of the key species counts by month are presented in Table 7 for avian species and Table 8 for marine megafauna. All deceased individuals of key species are presented in Table 9**.** A full summary of all species counts by month and behaviour, including those omitted by expert judgement from the species accounts are provided in Appendix I Raw Count Data – All Species.

The abundance estimates for each of the three areas (the Survey Area, consisting of the MachairWind OAA plus 4 km buffer; the Site, consisting of the MachairWind OAA only; and the 4 km buffer) are likely to differ due to the abundance estimates being calculated independently based on the number of recorded targets per location and the area covered.

Within the species accounts, where abundance estimates include apportionment, an asterisk (*) is annotated. Where apportionment has been applied from other survey months, a raw count of zero may be presented alongside abundance and density estimates that have been calculated following the hierarchical approaches in Section 3.7 Attribution and Apportionment of Unidentified Individuals.

Table 7 Number of individuals of key avian species recorded within the MachairWind Survey Area for the April 2021 to September 2023 survey period

Group	Species	Apr-21 (S01)	May-21 (S02)	Jun-21 (S03)	Jul-21 (S04)	Aug-21 (S05)	Sep-21 (S06)	Oct-21 (S07)	Nov-21 (S08)	Jan-22 (S09)	Mar-22 (S10)	Mar-22 (S11)	Apr-22 (S12)	May-22 (S13)	Jun-22 (S14)	Jul-22 (S15)	Aug-22 (S16)	Sep-22 (S17)	Oct-22 (S18)	Nov-22 (S19)	Dec-22 (S20)	Dec-22 (S21)	Jan-23 (S22)	Feb-23 (S23)	Mar-23 (S24)	Apr-23 (S25)	May-23 (S26)	Jun-23 (S27)	Jul-23 (S28)	Aug-23 (S29)	Sep-23 (S30)	Total
Gull	Kittiwake	59	367	120	120	92	68	666	2,465	152	304	134	1,213	295	297	828	13	6	1,013	843	505	576	403	1,003	225	232	181	275	105	3	30	**12,593**
	Great black-backed gull	0	0	5	1	0	0	0	151	13	0	2	2	0	0	0	0	0	9	5	15	51	15	39	4	2	0	1	0	0	1	**316**
	Herring gull	0	0	0	2	1	0	0	162	0	0	0	0	0	0	0	0	0	15	20	2	153	14	19	1	0	0	0	0	0	0	**389**
Tern	Common tern	0	0	1	0	9	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**13**
	Arctic tern	3	17	2	0	1	0	0	0	0	0	0	1	1	16	12	43	0	0	0	0	0	0	0	0	0	10	3	5	10	0	**124**
Auk	Guillemot	1,559	2,731	1,108	3,071	807	154	658	1,038	953	1,610	4,714	6,396	902	1,846	4,646	585	191	1,293	1,880	759	625	2,457	4,929	2,081	2,071	4,077	3,828	5,289	612	867	**63,737**
	Razorbill	48	93	73	77	58	40	55	633	176	410	1,204	83	41	742	1,126	98	59	1,406	368	599	882	130	113	1,148	56	470	111	890	84	106	**11,379**
	Puffin	7	6	94	6	80	8	6	0	0	0	16	19	20	265	1,887	521	56	1	1	5	0	3	4	10	7	63	188	313	152	57	**3,795**
Shearwater	Manx shearwater	294	515	120	1,856	171	0	0	0	0	3	118	2,929	1,372	443	729	149	18	1	1	0	0	0	0	76	905	398	1,567	1,184	339	225	**13,413**
Diver	Great northern diver	3	2	2	0	0	0	0	0	2	3	3	2	5	0	1	0	0	1	3	0	0	1	5	4	5	3	1	0	0	0	**46**
Storm petrel	European storm petrel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	**1**
	Storm petrel species	0	0	8	0	6	0	0	0	0	0	0	0	0	2	17	5	0	0	0	0	0	0	0	0	0	0	11	42	25	0	**116**
Fulmar	Fulmar	3	15	2	14	23	2	7	20	61	10	11	7	2	17	44	11	19	35	6	13	0	12	0	27	9	15	10	22	13	1	**431**
Gannet	Gannet	47	58	46	100	57	34	17	36	2	6	23	138	152	37	12	60	42	32	6	4	0	4	92	31	25	16	91	17	42	94	**1,321**
Total		**2,023**	**3,804**	**1,581**	**5,247**	**1,305**	**306**	**1,409**	**4,505**	**1,359**	**2,346**	**6,225**	**10,791**	**2,790**	**3,665**	**9,304**	**1,485**	**391**	**3,806**	**3,133**	**1,902**	**2,287**	**3,039**	**6,204**	**3,607**	**3,312**	**5,234**	**6,086**	**7,867**	**1,280**	**1,381**	**107,674**

Table 8 Number of individuals of key marine megafauna recorded within the MachairWind Survey Area for the April 2021 to September 2023 survey period

Group	Species	Apr-21 (S01)	May-21 (S02)	Jun-21 (S03)	Jul-21 (S04)	Aug-21 (S05)	Sep-21 (S06)	Oct-21 (S07)	Nov-21 (S08)	Jan-22 (S09)	Mar-22 (S10)	Mar-22 (S11)	Apr-22 (S12)	May-22 (S13)	Jun-22 (S14)	Jul-22 (S15)	Aug-22 (S16)	Sep-22 (S17)	Oct-22 (S18)	Nov-22 (S19)	Dec-22 (S20)	Dec-22 (S21)	Jan-23 (S22)	Feb-23 (S23)	Mar-23 (S24)	Apr-23 (S25)	May-23 (S26)	Jun-23 (S27)	Jul-23 (S28)	Aug-23 (S29)	Sep-23 (S30)	Total
Marine mammal	Grey seal	5	8	0	16	5	1	0	2	3	0	7	1	6	5	18	4	5	1	1	1	1	2	5	3	5	6	14	11	20	9	**165**
	Common dolphin	20	23	0	4	23	6	12	4	94	6	14	2	8	27	20	11	6	8	78	12	5	64	265	60	4	59	178	140	45	111	**1,309**
	Bottlenose dolphin	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**
	Risso's dolphin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	**2**
	Dolphin species	2	0	5	0	0	0	2	0	7	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	**18**
	Harbour porpoise	6	5	8	23	10	2	2	5	6	5	42	8	12	6	20	0	1	4	12	0	1	5	21	2	13	8	10	5	12	11	**265**
	Common minke whale	0	1	0	4	6	0	0	0	0	0	2	4	2	2	4	1	0	0	1	0	0	0	0	0	2	0	5	8	1	1	**44**
Fish	Basking Shark	2	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	**8**
Total		**35**	**37**	**13**	**47**	**44**	**9**	**19**	**12**	**110**	**11**	**65**	**16**	**28**	**40**	**62**	**16**	**13**	**13**	**92**	**15**	**7**	**72**	**291**	**65**	**28**	**73**	**207**	**164**	**78**	**132**	**1,814**

Table 9 **Deceased individuals of key species recorded within the MachairWind Survey Area for the April 2021 to September 2023 survey period**

Survey No.	Survey Month	Species	Total
Survey 01	April 2021	Gannet	1
Survey 14	June 2022	Kittiwake	1
		Gannet	2
Survey 15	July 2022	Fulmar	1
		Gannet	1
Survey 16	August 2022	Gannet	7
Survey 17	September 2022	Gannet	2
Survey 19	November 2022	Gannet	1
Survey 23	February 2023	Kittiwake	1
Survey 25	April 2023	Guillemot	1
Survey 26	May 2023	Gannet	1
Survey 29	August 2023	Gannet	1
Total			**20**

4.1 Species Accounts - Birds

4.1.1 Kittiwake *Rissa tridactyla*

Kittiwakes were recorded in all surveys, with a peak abundance estimate of 17,971 recorded in the Survey Area in November 2021 (winter non-breeding season) equating to 14.49 birds/km^2 (Table 10). During November 2021, kittiwakes were widespread across the Survey Area, however higher densities were recorded in the north and east of the Survey Area (Figure 23).

Kittiwakes were generally distributed across the Survey Area during the breeding period (April to August) in 2021 and 2023, with higher aggregations in the Site (Figure 299; Figure 305). In 2022, higher concentrations were observed in the east of the Survey Area, with hot spots also recorded in the west (Figure 302). In all years, a high density of kittiwakes was observed in the east of the Survey Area, in both the Site and 4 km buffer; this is potentially due to the proximity of the site to the North Colonsay and Western Cliffs SPA which supports nationally important populations of kittiwake. The SPA is situated east of the Survey Area, and high records of kittiwakes in the east may indicate movement of kittiwakes between the Survey Area and the SPA (NatureScot, 2024).

In 2021 and 2023, breeding site attendance (April) of kittiwakes was highest in the south of the Survey Area (Figure 300; Figure 306). In 2022, breeding site attendance was highest in the east of the Survey Area, especially in the 4 km buffer (Figure 303).

During winter non-breeding (September to March), between 2021 and 2022 kittiwakes were distributed in the north of the buffer and southeast of the Survey Area (Figure 301). Between 2022 and 2023, kittiwakes were distributed more evenly across the Survey Area, with higher concentrations in the northwest and centre of the Survey Area (Figure 304). In September 2023, kittiwakes were distributed evenly across the Survey Area with slightly higher concentrations across the eastern half (Figure 307).

Table 10 Raw counts, abundance, upper and lower confidence intervals (CI), precision (coefficient of variation), and density estimates (individuals per km^2) of kittiwake in the Survey Area, Site, and the 4 km Buffer

Survey Area						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	59	433*	242	611	0.13	0.35*
May-21 (S02)	367	2,619*	1,893	3,360	0.05	2.11*
Jun-21 (S03)	120	872*	526	1,262	0.09	0.70*
Jul-21 (S04)	120	864*	536	1,229	0.09	0.70*
Aug-21 (S05)	92	658	422	916	0.10	0.53
Sep-21 (S06)	68	483	199	916	0.12	0.39
Oct-21 (S07)	666	4,803*	1,522	10,113	0.04	3.87*
Nov-21 (S08)	2,465	17,971*	10,606	25,693	0.02	14.49*
Jan-22 (S09)	152	1,060	628	1,527	0.08	0.85
Mar-22 (S10)	304	2,021	1,383	2,646	0.06	1.63
Mar-22 (S11)	134	981*	647	1,280	0.09	0.79*
Apr-22 (S12)	1,213	8,677	1,667	17,891	0.03	7.00
May-22 (S13)	295	2,100	1,239	2,833	0.06	1.69
Jun-22 (S14)	296	2,143	876	4,257	0.06	1.73

Survey Area						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Jul-22 (S15)	828	5,887	2,503	9,506	0.03	4.75
Aug-22 (S16)	13	92	50	142	0.28	0.07
Sep-22 (S17)	6	42	7	85	0.41	0.03
Oct-22 (S18)	1,013	7,225*	3,263	11,664	0.03	5.83*
Nov-22 (S19)	843	6,002	3,681	9,576	0.03	4.84
Dec-22 (S20)	505	3,594	1,473	6,178	0.04	2.90
Dec-22 (S21)	576	4,105	2,245	6,064	0.04	3.31
Jan-23 (S22)	403	2,877	1,685	4,526	0.05	2.32
Feb-23 (S23)	1,002	7,397*	3,482	11,551	0.03	5.96*
Mar-23 (S24)	225	1,616*	987	2,467	0.07	1.30*
Apr-23 (S25)	232	1,663	1,111	2,308	0.07	1.34
May-23 (S26)	181	1,297*	834	1,754	0.07	1.05*
Jun-23 (S27)	275	1,945	1,379	2,440	0.06	1.57
Jul-23 (S28)	105	745	504	1,015	0.10	0.60
Aug-23 (S29)	3	21	3	50	0.58	0.02
Sep-23 (S30)	30	215*	114	343	0.18	0.17*
Site						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	38	275*	131	426	0.16	0.36*
May-21 (S02)	235	1,618	1,164	2,032	0.07	2.15
Jun-21 (S03)	77	544*	251	933	0.11	0.72*
Jul-21 (S04)	73	504	262	759	0.12	0.67
Aug-21 (S05)	69	478	256	727	0.12	0.63
Sep-21 (S06)	49	336	110	659	0.14	0.45
Oct-21 (S07)	541	3,753*	924	8,532	0.04	4.98*
Nov-21 (S08)	1,344	9,444*	6,260	12,968	0.03	12.52*
Jan-22 (S09)	110	738	443	1,074	0.10	0.98
Mar-22 (S10)	231	1,487	1,004	1,988	0.07	1.97
Mar-22 (S11)	87	611	372	877	0.11	0.81
Apr-22 (S12)	670	4,629*	724	10,967	0.04	6.13*
May-22 (S13)	229	1,579	945	2,179	0.07	2.10
Jun-22 (S14)	134	937	538	1,356	0.09	1.24
Jul-22 (S15)	597	4,097	1,510	7,193	0.04	5.44
Aug-22 (S16)	8	55	14	103	0.35	0.07
Sep-22 (S17)	3	20	3	41	0.58	0.03
Oct-22 (S18)	663	4,568	1,419	8,950	0.04	6.06
Nov-22 (S19)	442	3,037	1,924	4,445	0.05	4.03
Dec-22 (S20)	315	2,168	681	4,232	0.06	2.88
Dec-22 (S21)	423	2,913	1,515	4,580	0.05	3.87
Jan-23 (S22)	260	1,792	703	3,537	0.06	2.38
Feb-23 (S23)	685	4,888*	1,743	8,731	0.04	6.48*
Mar-23 (S24)	177	1,228*	663	1,919	0.08	1.63*
Apr-23 (S25)	156	1,084	611	1,675	0.08	1.44
May-23 (S26)	131	911*	580	1,277	0.09	1.21*
Jun-23 (S27)	212	1,446	1,023	1,882	0.07	1.92

Site						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Jul-23 (S28)	72	494	274	720	0.12	0.66
Aug-23 (S29)	2	14	2	35	0.71	0.02
Sep-23 (S30)	18	125	35	235	0.24	0.17
4 km Buffer						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	21	157	60	277	0.22	0.32
May-21 (S02)	132	999*	405	1,862	0.09	2.06*
Jun-21 (S03)	43	328	84	709	0.15	0.67
Jul-21 (S04)	47	364*	83	756	0.15	0.75*
Aug-21 (S05)	23	174	68	295	0.21	0.36
Sep-21 (S06)	19	143	45	263	0.23	0.29
Oct-21 (S07)	125	970*	265	2,150	0.09	2.00*
Nov-21 (S08)	1,121	8,664*	4,041	13,498	0.03	17.83*
Jan-22 (S09)	42	312	208	423	0.15	0.64
Mar-22 (S10)	73	512	126	1,185	0.12	1.05
Mar-22 (S11)	47	362	162	647	0.15	0.74
Apr-22 (S12)	543	4,122	543	9,557	0.04	8.48
May-22 (S13)	66	495	97	1,072	0.12	1.02
Jun-22 (S14)	162	1,241	162	3,403	0.08	2.55
Jul-22 (S15)	231	1,739	231	4,646	0.07	3.58
Aug-22 (S16)	5	38	8	75	0.45	0.08
Sep-22 (S17)	3	23	3	60	0.58	0.05
Oct-22 (S18)	350	2,633	534	5,470	0.05	5.42
Nov-22 (S19)	401	3,033*	905	6,888	0.05	6.23*
Dec-22 (S20)	190	1,428	504	2,631	0.07	2.94
Dec-22 (S21)	153	1,152	429	2,162	0.08	2.37
Jan-23 (S22)	143	1,080	438	1,896	0.08	2.22
Feb-23 (S23)	317	2,472*	770	4,840	0.06	5.09*
Mar-23 (S24)	48	363	159	621	0.14	0.75
Apr-23 (S25)	76	572	105	1,265	0.11	1.18
May-23 (S26)	50	376	135	752	0.14	0.77
Jun-23 (S27)	63	473	150	908	0.13	0.97
Jul-23 (S28)	33	248	83	443	0.17	0.51
Aug-23 (S29)	1	8	1	23	<<1.00	0.02
Sep-23 (S30)	12	90	38	143	0.29	0.19

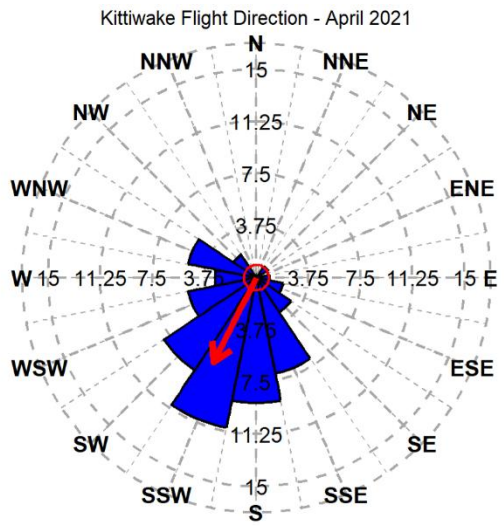
Table Note: * These numbers include the apportioned attribution of unidentified individuals

Significant predominant direction of flight was recorded in:

- January
  - 2023 – west to west-northwest (Figure 3s)
- February
  - 2023 – east-northeast to east (Figure 3t)
- March
  - 2022 (Survey 10) east-southeast (Figure 3i)
  - 2022 (Survey 11) – east-southeast (Figure 3j)

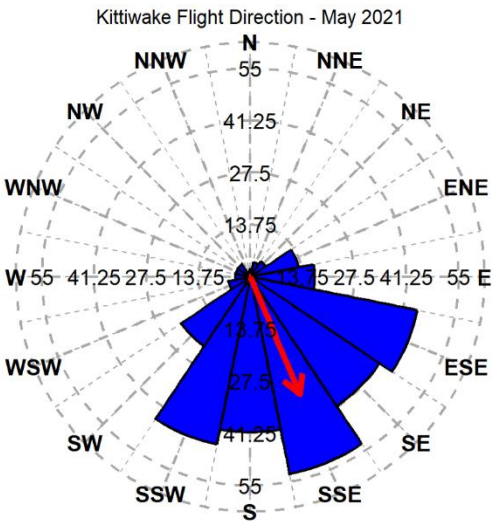
    - 2023 – south to south-southeast (Figure 3u)
- April
    - 2021 – south-southwest to south-west (Figure 3a)
    - 2022 – north to north-northwest (Figure 3k)
    - 2023 – north-northeast (Figure 3v)
- May
    - 2021 – south-southeast (Figure 3b)
    - 2022 – north (Figure 3l)
    - 2023 – southeast to south-southeast (Figure 3w)
- June
    - 2021 – west southwest (Figure 3c)
    - 2022 – south-southeast to south (Figure 3m)
- July
    - 2021 – north-northwest to north (Figure 3d)
    - 2022 – southwest (Figure 3n)
- August
    - 2021 – west-southwest to southwest (Figure 3e)
- September
    - 2021 - west (Figure 3f)
    - 2023 – east-southeast (Figure 3x)
- October
    - 2021 – west to west-northwest (Figure 3g)
    - 2022 – west to west-southwest (Figure 3o)
- November
    - 2021 - west (Figure 3h)
    - 2022 – south-south-east to south (Figure 3p)
- December
    - 2022 (Survey 20) – south-south-east to south (Figure 3q)
    - 2022 (Survey 21) – north to north-northeast (Figure 3r)

In August 2023, a single kittiwake was observed flying in a westerly direction.



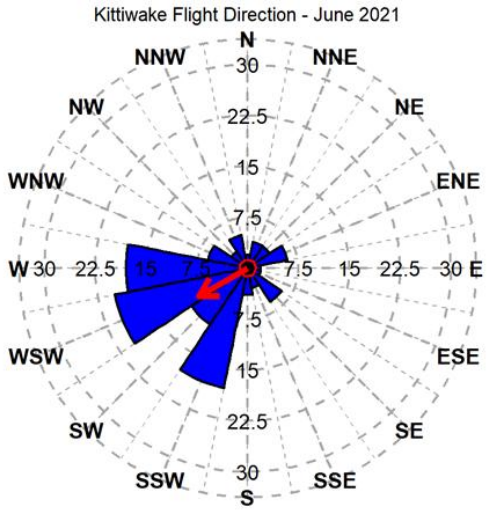
Number of Observations = 57
Mean Vector = 207.261
Length of mean vector (r) = 0.619
Rayleigh Test (Z) = 21.818
Rayleigh Test (p) = <0.001

Figure 3a kittiwake flight direction recorded in April 2021



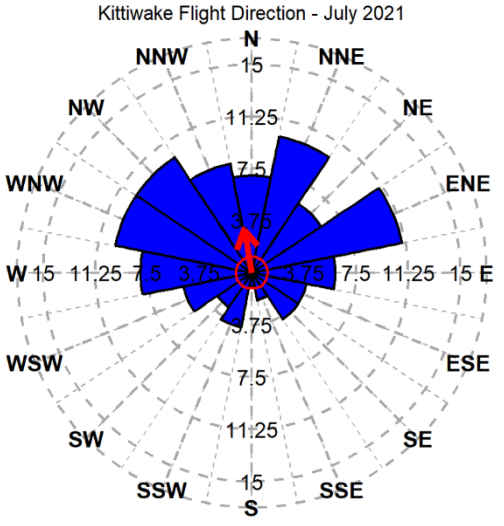
Number of Observations = 307
Mean Vector = 157.767
Length of mean vector (r) = 0.632
Rayleigh Test (Z) = 122.574
Rayleigh Test (p) = <0.001

Figure 3b kittiwake flight direction recorded in May 2021



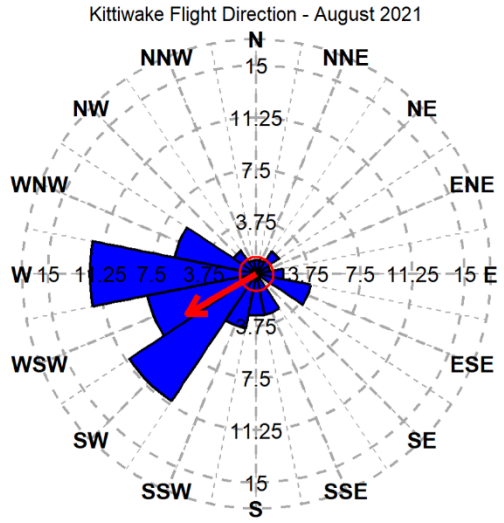
Number of Observations = 113
Mean Vector = 240.403
Length of mean vector (r) = 0.413
Rayleigh Test (Z) = 19.289
Rayleigh Test (p) = <0.001

Figure 3c kittiwake flight direction recorded in June 2021



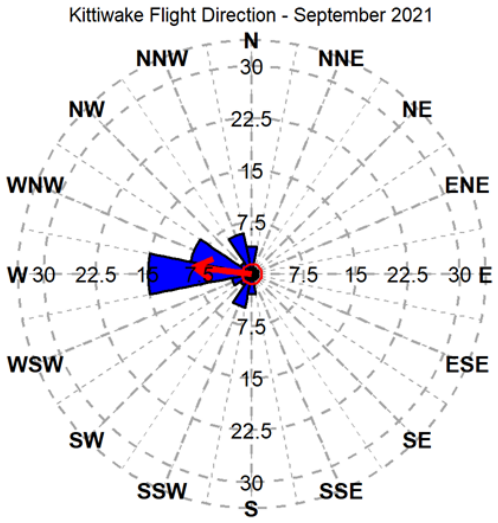
Number of Observations = 99
Mean Vector = 350.526
Length of mean vector (r) = 0.285
Rayleigh Test (Z) = 8.049
Rayleigh Test (p) = <0.001

Figure 3d kittiwake flight direction recorded in July 2021



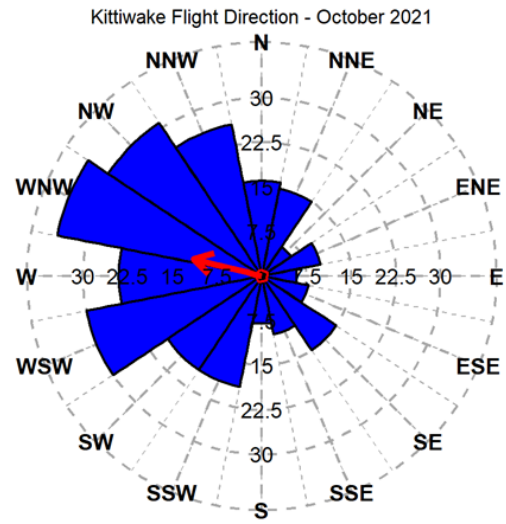
Number of Observations = 61
Mean Vector = 240.994
Length of mean vector (r) = 0.478
Rayleigh Test (Z) = 13.944
Rayleigh Test (p) = <0.001

Figure 3e kittiwake flight direction recorded in August 2021



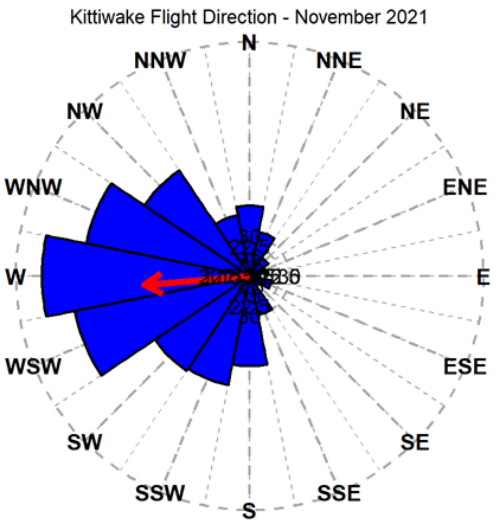
Number of Observations = 54
Mean Vector = 277.237
Length of mean vector (r) = 0.559
Rayleigh Test (Z) = 16.886
Rayleigh Test (p) = <0.001

Figure 3f kittiwake flight direction recorded in September 2021



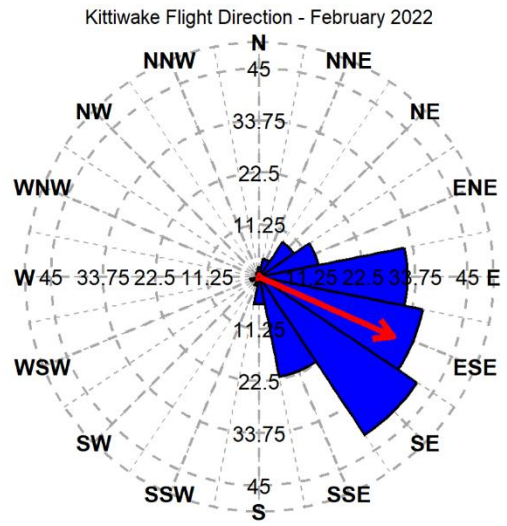
Number of Observations = 278
Mean Vector = 284.263
Length of mean vector (r) = 0.336
Rayleigh Test (Z) = 31.365
Rayleigh Test (p) = <0.001

Figure 3g kittiwake flight direction recorded in October 2021



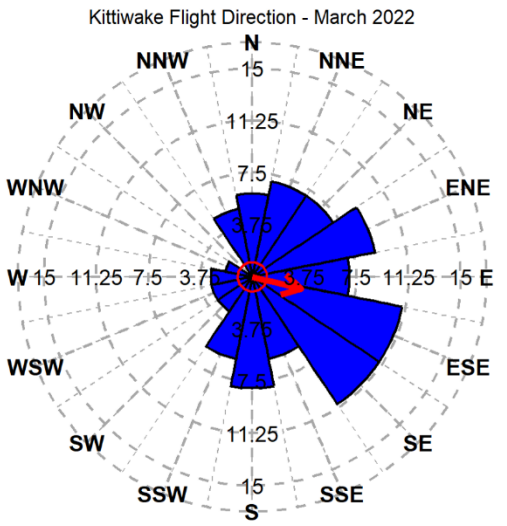
Number of Observations = 980
Mean Vector = 265.480
Length of mean vector (r) = 0.512
Rayleigh Test (Z) = 256.916
Rayleigh Test (p) = <0.001

Figure 3h kittiwake flight direction recorded in November 2021



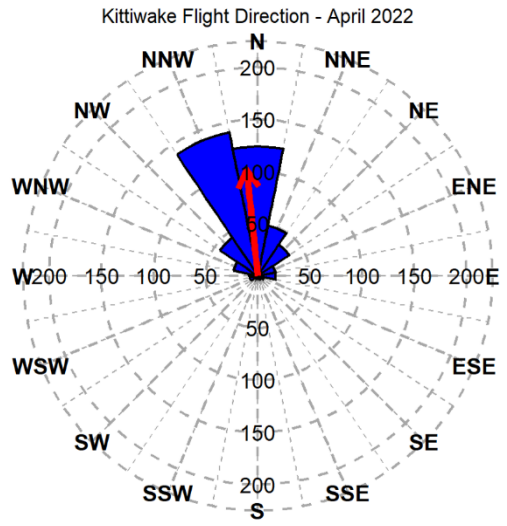
Number of Observations = 171
Mean Vector = 114.558
Length of mean vector (r) = 0.772
Rayleigh Test (Z) = 101.933
Rayleigh Test (p) = <0.001

Figure 3i kittiwake flight direction recorded in the first March 2022 survey (Survey 10)



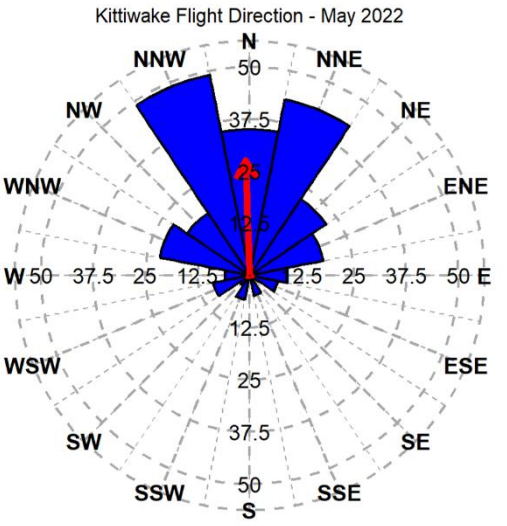
Number of Observations = 94
Mean Vector = 104.291
Length of mean vector (r) = 0.328
Rayleigh Test (Z) = 10.118
Rayleigh Test (p) = <0.001

Figure 3j kittiwake flight direction recorded in the second March 2022 survey (Survey 11)



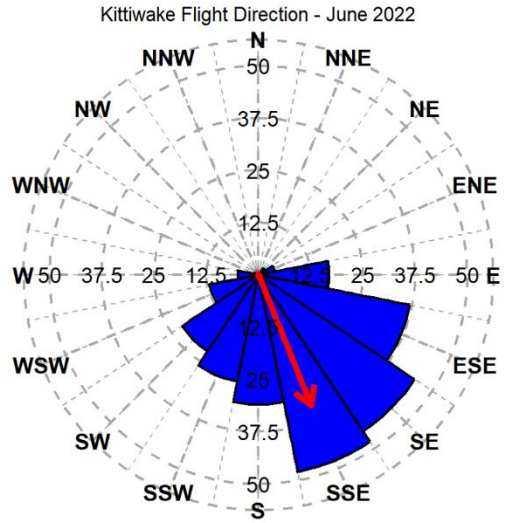
Number of Observations = 488
Mean Vector = 354.405
Length of mean vector (r) = 0.731
Rayleigh Test (Z) = 260.967
Rayleigh Test (p) = <0.001

Figure 3k kittiwake flight direction recorded in April 2022



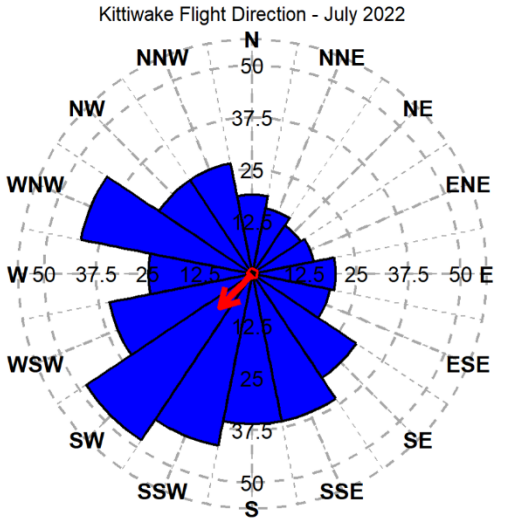
Number of Observations = 254
Mean Vector = 358.522
Length of mean vector (r) = 0.564
Rayleigh Test (Z) = 80.879
Rayleigh Test (p) = <0.001

Figure 3l kittiwake flight direction recorded in May 2022



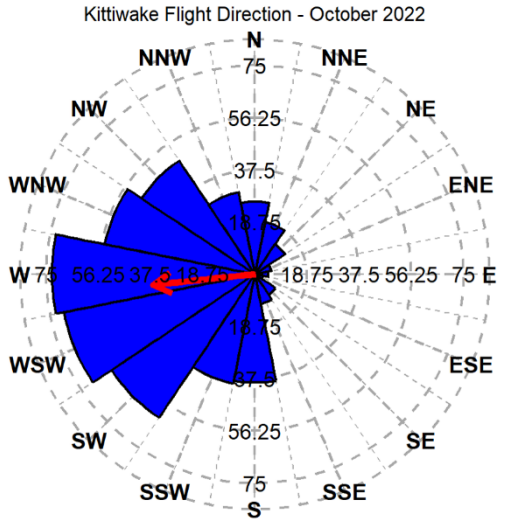
Number of Observations = 250
Mean Vector = 158.746
Length of mean vector (r) = 0.702
Rayleigh Test (Z) = 123.347
Rayleigh Test (p) = <0.001

Figure 3m kittiwake flight direction recorded in June 2022



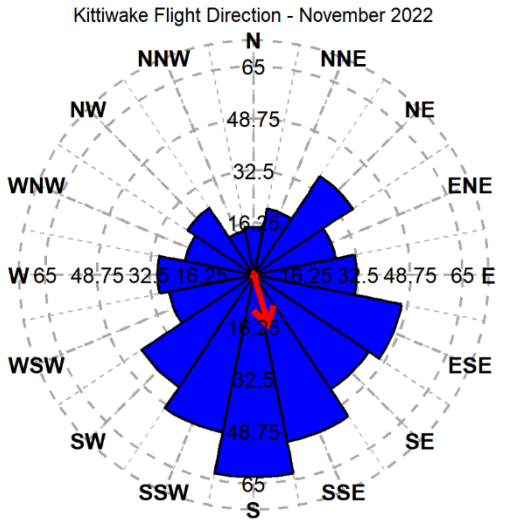
Number of Observations = 451
Mean Vector = 224.332
Length of mean vector (r) = 0.233
Rayleigh Test (Z) = 24.456
Rayleigh Test (p) = <0.001

Figure 3n kittiwake flight direction recorded in July 2022



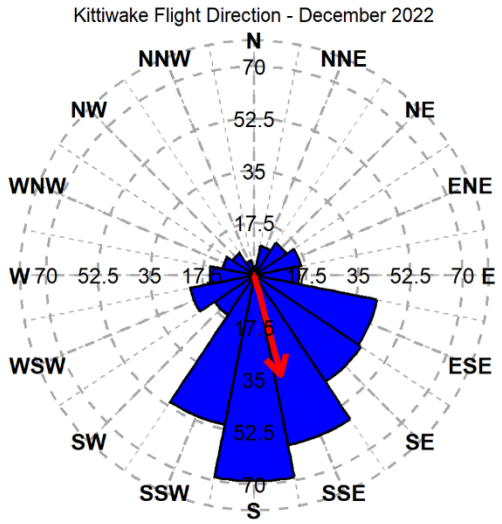
Number of Observations = 510
Mean Vector = 264.118
Length of mean vector (r) = 0.504
Rayleigh Test (Z) = 129.680
Rayleigh Test (p) = <0.001

Figure 3o kittiwake flight direction recorded in October 2022



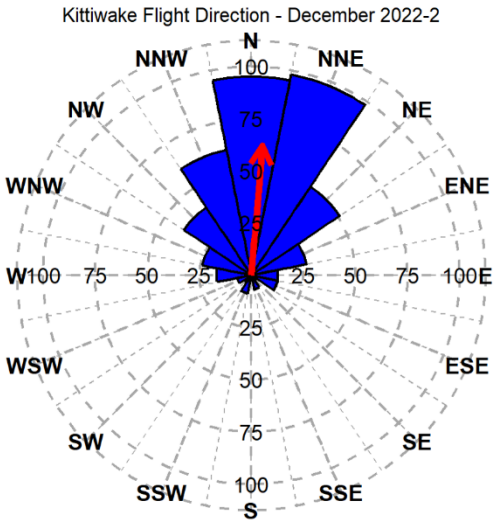
Number of Observations = 547
Mean Vector = 164.596
Length of mean vector (r) = 0.260
Rayleigh Test (Z) = 37.092
Rayleigh Test (p) = <0.001

Figure 3p kittiwake flight direction recorded in November 2022



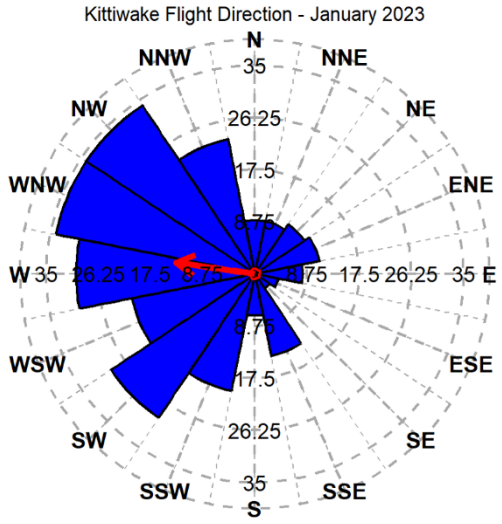
Number of Observations = 398
Mean Vector = 165.975
Length of mean vector (r) = 0.499
Rayleigh Test (Z) = 98.976
Rayleigh Test (p) = <0.001

Figure 3q kittiwake flight direction recorded in the first December 2022 survey (Survey 20)



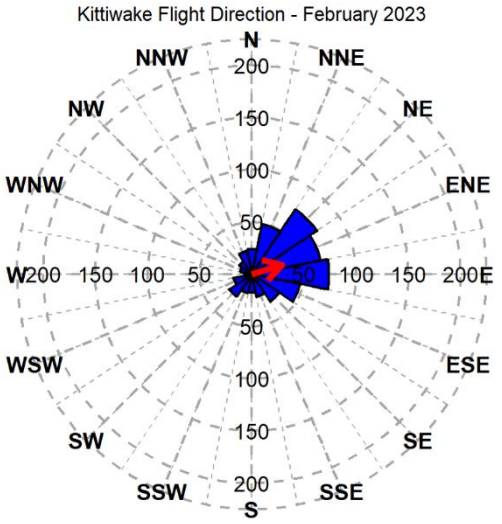
Number of Observations = 470
Mean Vector = 5.570
Length of mean vector (r) = 0.633
Rayleigh Test (Z) = 188.455
Rayleigh Test (p) = <0.001

Figure 3r kittiwake flight direction recorded in the second December survey 2022 (Survey 21)



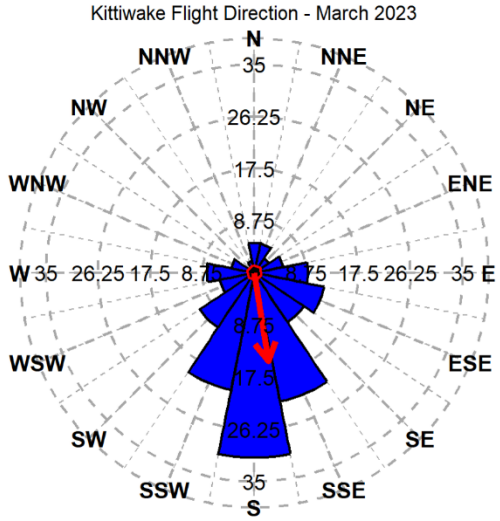
Number of Observations = 266
Mean Vector = 278.480
Length of mean vector (r) = 0.392
Rayleigh Test (Z) = 40.914
Rayleigh Test (p) = <0.001

Figure 3s kittiwake flight direction recorded in January 2023



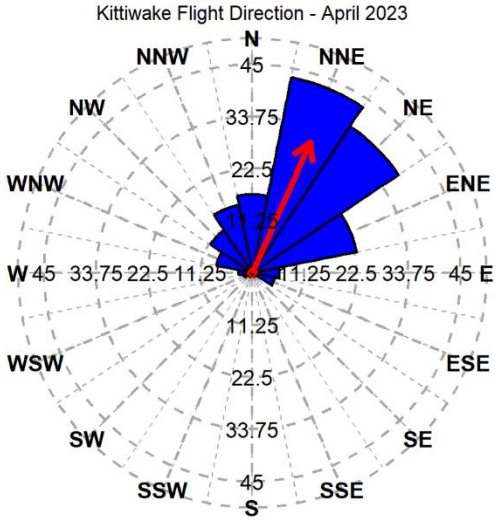
Number of Observations = 528
Mean Vector = 73.609
Length of mean vector (r) = 0.406
Rayleigh Test (Z) = 86.982
Rayleigh Test (p) = <0.001

Figure 3t kittiwake flight direction recorded in February 2023



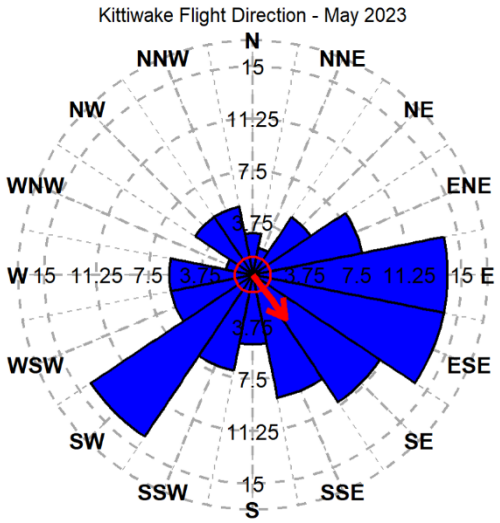
Number of Observations = 154
Mean Vector = 171.971
Length of mean vector (r) = 0.482
Rayleigh Test (Z) = 35.825
Rayleigh Test (p) = <0.001

Figure 3u kittiwake flight direction recorded in March 2023



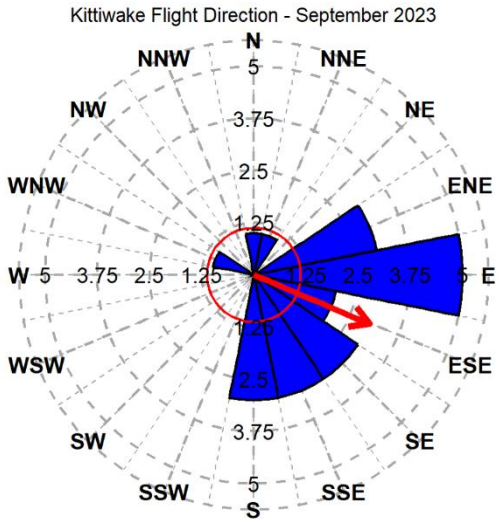
Number of Observations = 174
Mean Vector = 24.062
Length of mean vector (r) = 0.716
Rayleigh Test (Z) = 89.202
Rayleigh Test (p) = <0.001

Figure 3v kittiwake flight direction recorded in April 2023



Number of Observations = 116
Mean Vector = 143.232
Length of mean vector (r) = 0.279
Rayleigh Test (Z) = 8.999
Rayleigh Test (p) = <0.001

Figure 3w kittiwake flight direction recorded in May 2023



Number of Observations = 22
Mean Vector = 113.073
Length of mean vector (r) = 0.601
Rayleigh Test (Z) = 7.938
Rayleigh Test (p) = <0.001

Figure 3x kittiwake flight direction recorded in September 2023

Figure 3 Summary of flight direction of kittiwake during the survey period

4.1.2 Great Black-backed Gull *Larus marinus*

Great black-backed gulls were recorded in 16 surveys. Following apportionment, abundance and density estimates were produced for 18 surveys, with a peak abundance estimate of 1,219 and a density of 0.98 birds/km^2 recorded in the Survey Area (Table 11). During the peak in November 2021, great black-backed gulls were recorded mainly in the north, centre and east of the Survey Area, with higher densities in the north (Figure 23).

During the breeding period (April to August), great black-backed gulls were recorded in low numbers across all years; in 2021 a single gull was recorded in the Site with up to five recorded in the southeast of the 4 km buffer (Figure 308). In 2022 up to five individuals were recorded in the northeast of the 4 km buffer (Figure 310), whilst in 2023 three were recorded in the northeast of the 4 km buffer and one in the Site (Figure 313). Breeding site attendance (April) of great black-backed gulls was recorded in 2022 with two individuals in the northern half of the Site (Figure 311). In 2023, three were recorded in the northwest of the Site, and one individual was recorded in the southeast of the 4 km buffer (Figure 314). No breeding site attendance was recorded in April 2021.

During winter non-breeding (September to February), between 2021 and 2022 great black-backed gulls were recorded in highest densities in the north of the buffer, with smaller aggregations in the southeast of the Survey Area (Figure 309). Between 2022 and 2023, the highest densities of great black-backed gulls were recorded in the north of the 4 km buffer and in the southeast of the Site (Figure 312). In September 2023, a single great black-backed gull was recorded in the Site (Figure 315).

Table 11 Raw counts, abundance, upper and lower confidence intervals (CI), precision (coefficient of variation), and density estimates (individuals per km^2) of great black-backed gulls in the Survey Area, Site, and 4 km Buffer

Survey Area						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
May-21 (S02)	0	4*	-	-	-	<0.01*
Jun-21 (S03)	5	36	5	108	0.45	0.03
Jul-21 (S04)	1	11*	1	21	<<1.00	0.01*
Oct-21 (S07)	0	1*	-	-	-	<0.01*
Nov-21 (S08)	151	1,219*	479	1,772	0.08	0.98*
Jan-22 (S09)	13	91	13	230	0.28	0.07
Mar-22 (S11)	2	21*	2	36	0.71	0.02*
Apr-22 (S12)	2	14	2	43	0.71	0.01
Oct-22 (S18)	9	67*	21	114	0.33	0.05*
Nov-22 (S19)	5	36	7	64	0.45	0.03
Dec-22 (S20)	15	107	43	185	0.26	0.09
Dec-22 (S21)	51	366*	143	599	0.14	0.30*
Jan-23 (S22)	15	111*	50	178	0.26	0.09*
Feb-23 (S23)	39	289*	88	567	0.16	0.23*
Mar-23 (S24)	4	29	7	64	0.50	0.02
Apr-23 (S25)	2	14	2	36	0.71	0.01
Jun-23 (S27)	1	7	1	21	<1.00	0.01
Sep-23 (S30)	1	7	1	21	<1.00	0.01

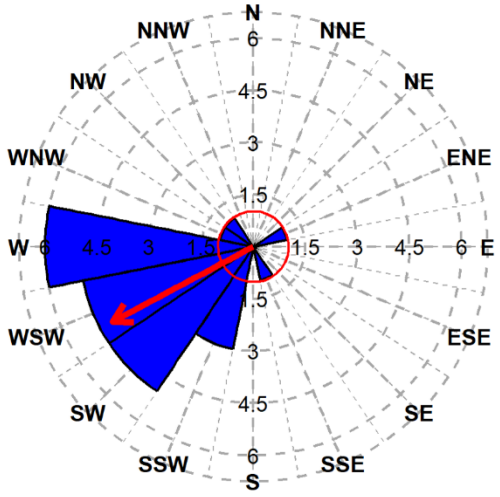
Site						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Jul-21 (S04)	1	7	1	21	<1.00	0.01
Oct-21 (S07)	0	4*	-	-	-	0.01*
Nov-21 (S08)	74	581*	218	940	0.12	0.77*
Jan-22 (S09)	10	67	10	201	0.32	0.09
Mar-22 (S11)	2	21*	2	35	0.71	0.03*
Oct-22 (S18)	6	41	7	83	0.41	0.05
Nov-22 (S19)	3	21	7	41	0.58	0.03
Dec-22 (S20)	8	55	28	83	0.35	0.07
Dec-22 (S21)	36	250*	69	448	0.17	0.33*
Jan-23 (S22)	5	39*	5	69	0.45	0.05*
Feb-23 (S23)	10	71	10	171	0.32	0.09
Mar-23 (S24)	3	21	3	48	0.58	0.03
Sep-23 (S30)	1	7	1	21	<1.00	0.01
4 km Buffer						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
May-21 (S02)	0	4*	-	-	-	0.01*
Jun-21 (S03)	5	38	5	114	0.45	0.08
Jul-21 (S04)	0	4*	-	-	-	0.01*
Nov-21 (S08)	77	655*	169	1,114	0.11	1.35*
Jan-22 (S09)	3	22	3	67	0.58	0.05
Apr-22 (S12)	2	15	2	46	0.71	0.03
Oct-22 (S18)	3	25*	8	45	0.58	0.05*
Nov-22 (S19)	2	15	2	38	0.71	0.03
Dec-22 (S20)	7	53	7	120	0.38	0.11
Dec-22 (S21)	15	113	15	264	0.26	0.23
Jan-23 (S22)	10	76	15	151	0.32	0.16
Feb-23 (S23)	29	227*	31	537	0.19	0.47*
Mar-23 (S24)	1	8	1	23	<1.00	0.02
Apr-23 (S25)	2	15	2	38	0.71	0.03
Jun-23 (S27)	1	8	1	23	<1.00	0.02

Table Note: * These numbers include the apportioned attribution of unidentified individuals

Significant predominant direction of flight was recorded in:

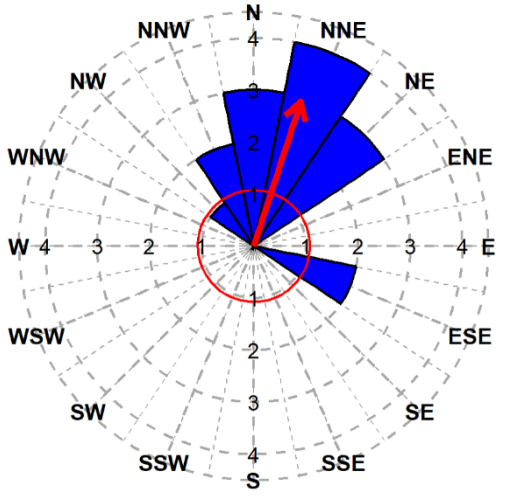
- November
  - 2021 – west-southwest (Figure 4a)
- December
  - 2022 (Survey 21) – north-northeast to north (Figure 4b)

In January 2022, March 2022, April 2023, June 2021, July 2021, September 2023 and October 2022, single great black-backed gulls were recorded flying in a west-south-westerly, easterly, north-north-easterly, south-easterly, north-north-westerly, north-easterly, and westerly direction respectively.



Number of Observations = 23
Mean Vector = 242.881
Length of mean vector (r) = 0.764
Rayleigh Test (Z) = 13.425
Rayleigh Test (p) = <0.001

Figure 4a Great black-backed gull flight direction recorded in November 2021



Number of Observations = 15
Mean Vector = 18.960
Length of mean vector (r) = 0.730
Rayleigh Test (Z) = 7.988
Rayleigh Test (p) = <0.001

Figure 4b Great black-backed gull flight direction recorded in the second December 2022 survey (Survey 21)

Figure 4 Summary of flight direction of great black-backed gull during the survey period

4.1.3 Herring Gull *Larus argentatus*

Herring gulls were recorded in 10 surveys. Following apportionment, abundance and density estimates were produced for 11 surveys, with a peak abundance estimate of 1,302 and a density of 1.05 birds/km^2 recorded in the Survey Area (Table 12). During the peak in November 2021, herring gulls were recorded mainly in the north, centre and east of the Survey Area, with higher densities in the north (Figure 23).

Herring gulls were only rarely recorded during the breeding period (April to August) in 2021, with three individuals recorded in the Site (Figure 316). Breeding site attendance (March) of herring gulls was only captured in 2023, with one individual recorded in the south of the 4 km buffer (Figure 319).

During winter non-breeding (September to February), between 2021 and 2022 herring gulls were recorded in highest densities in the north of the buffer, with smaller aggregations in east and centre of the Survey Area (Figure 317). Between 2022 and 2023, the highest densities of herring gulls were recorded in the south of the Site and the north of the 4 km buffer (Figure 318).

Table 12 Raw counts, abundance, upper and lower confidence intervals (CI), precision (coefficient of variation), and density estimates (individuals per km^2) of herring gulls in the Survey Area, Site, and 4 km Buffer

Survey Area						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Jul-21 (S04)	2	47*	2	29	0.71	0.04*
Aug-21 (S05)	1	14*	1	21	<1.00	0.01*
Oct-21 (S07)	0	6*	-	-	-	<0.01*
Nov-21 (S08)	162	1,302*	429	2,266	0.08	1.05*
Oct-22 (S18)	15	111*	29	235	0.26	0.09*
Nov-22 (S19)	20	142	64	242	0.22	0.11
Dec-22 (S20)	2	14	2	36	0.71	0.01
Dec-22 (S21)	153	1,096*	249	2,223	0.08	0.88*
Jan-23 (S22)	14	103*	14	200	0.27	0.08*
Feb-23 (S23)	19	140	19	317	0.23	0.11
Mar-23 (S24)	1	7	1	21	<1.00	0.01
Site						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Jul-21 (S04)	2	28*	2	35	0.71	0.04*
Aug-21 (S05)	1	7	1	21	<1.00	0.01
Oct-21 (S07)	0	3*	-	-	-	<0.01*
Nov-21 (S08)	47	366*	182	498	0.15	0.49*
Oct-22 (S18)	6	41	21	55	0.41	0.05
Nov-22 (S19)	15	103	41	192	0.26	0.14
Dec-22 (S20)	2	14	2	34	0.71	0.02
Dec-22 (S21)	147	1,018*	207	1,970	0.08	1.35*
Jan-23 (S22)	7	52*	7	131	0.38	0.07*
Feb-23 (S23)	3	21	3	57	0.58	0.03

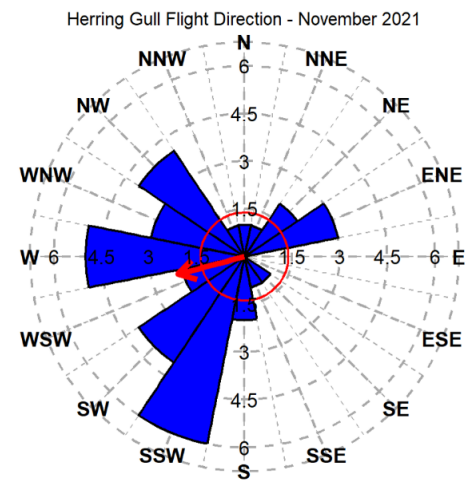
4 km Buffer						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Jul-21 (S04)	0	15*	-	-	-	0.03*
Aug-21 (S05)	0	8	-	-	-	0.02
Nov-21 (S08)	115	974*	177	1,936	0.09	2.01*
Oct-22 (S18)	9	74*	9	203	0.33	0.15*
Nov-22 (S19)	5	38	5	98	0.45	0.08
Dec-22 (S21)	6	45	6	136	0.41	0.09
Jan-23 (S22)	7	53	7	121	0.38	0.11
Feb-23 (S23)	16	125*	16	311	0.25	0.26*
Mar-23 (S24)	1	8	1	23	<1.00	0.02

Table Note: * These numbers include the apportioned attribution of unidentified individuals

Significant predominant direction of flight was recorded in:

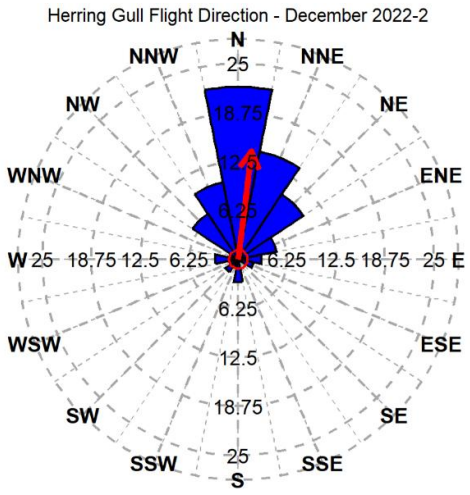
- November
  - 2021 – west-southwest to west (Figure 5a)
- December
  - 2022 (Survey 21) – north to northeast (Figure 5b)

In February 2023, July 2021, August 2021 and the first December 2022 survey (Survey 20), herring gulls were recorded flying in a southerly, northerly, southerly, and south-south-westerly direction respectively.



Number of Observations = 36
Mean Vector = 255.777
Length of mean vector (r) = 0.359
Rayleigh Test (Z) = 4.640
Rayleigh Test (p) = 0.009

Figure 5a herring gull flight direction recorded in November 2021



Number of Observations = 84
Mean Vector = 7.577
Length of mean vector (r) = 0.631
Rayleigh Test (Z) = 33.495
Rayleigh Test (p) = <0.001

Figure 5b herring gull flight direction recorded in the second December 2022 survey (Survey 21)

Figure 5 Summary of flight direction of herring gull during the survey period

4.1.4 Common Tern *Sterna hirundo*

Common terns were recorded in four surveys. Following apportionment, abundance and density estimates were produced for six surveys, with a peak abundance estimate of 160 birds and a density of 0.13 birds/km^2 recorded in the Survey Area (Table 13). During the peak in August 2021, common terns were recorded mainly in the north of the Site (Figure 49). The only recording of confirmed common tern in the buffer occurred in July 2022, in the northwest (Figure 54).

During the breeding period (May to September) in 2021, common terns were recorded in low numbers in the Survey area, with up to 11 in the north and one in the east on the boundary between the Site and the 4 km buffer (Figure 320). During the 2022 breeding period, one common tern was recorded in the Site and one in the west of the 4 km buffer (Figure 322). When common terns are not recorded in significant numbers in Scottish waters (September to April), between 2021 and 2022 only one common tern was recorded in the Site (Figure 321).

Table 13 Raw counts, abundance, upper and lower confidence intervals (CI), precision (coefficient of variation), and density estimates (individuals per km^2) of common terns in the Survey Area, Site, and 4 km Buffer

Survey Area						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Jun-21 (S03)	1	7	1	22	<1.00	0.01
Aug-21 (S05)	9	160*	9	179	0.33	0.13*
Sep-21 (S06)	0	39*	-	-	-	0.03*
Apr-22 (S12)	1	7	1	21	<1.00	0.01
Jul-22 (S15)	2	26*	2	36	0.71	0.02*
Sep-22 (S17)	0	78*	-	-	-	0.06*
Site						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Jun-21 (S03)	1	7	1	21	<1.00	0.01
Aug-21 (S05)	9	143*	9	173	0.33	0.19*
Sep-21 (S06)	0	7*	-	-	-	0.01
Apr-22 (S12)	1	7	1	21	<1.00	0.01
Jul-22 (S15)	1	10*	1	21	<1.00	0.01*
Sep-22 (S16)	0	41*	-	-	-	0.05*
4 km Buffer						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Jul-22 (S15)	1	8	1	23	<1.00	0.06
Sep-22 (S17)	0	38*	-	-	-	0.08*

Table Note: * These numbers include the apportioned attribution of unidentified individuals

Significant predominant direction of flight was recorded in:

- August
  - 2021 – west-southwest (Figure 6)

In April 2022 and June 2021 single common terns were recorded flying in a north-north-easterly and south-south easterly direction respectively.

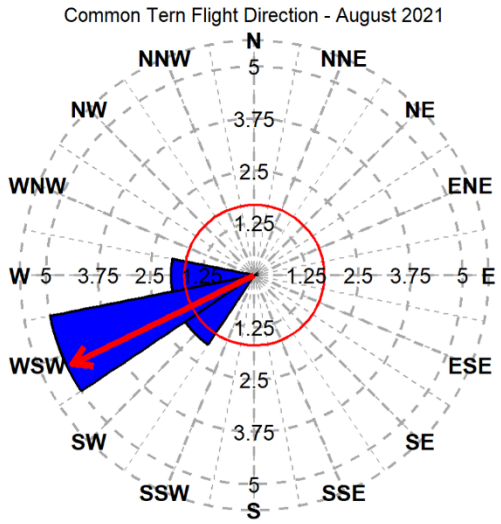


Figure 6a common tern flight direction recorded in August 2021

Figure 6 Summary of flight direction of common tern during the survey period

4.1.5 Arctic Tern *Sterna paradisaea*

Arctic terns were recorded in 13 surveys. Following apportionment, abundance and density estimates were produced for 15 surveys, with a peak abundance estimate of 403 birds and a density of 0.32 birds/km^2 recorded in the Survey Area (Table 14). During the peak in August 2022, Arctic terns were recorded scattered throughout the Survey Area, with higher densities in the south of the Site (Figure 55).

During the 2021 and 2023 breeding period (May to August), Arctic terns were recorded in low numbers in the Survey area, and most were recorded in the Site (Figure 323 and Figure 327). During the 2022 breeding period, higher numbers of Arctic terns were recorded, with the highest densities in the south of the Site (Figure 326). In April 2021, during the period when Arctic terns are not recorded in significant numbers in Scottish waters (September to April), low numbers were recorded in the northeast of the 4 km buffer (Figure 324); between September 2021 and April 2022, only one Arctic tern was recorded in north of the Site (Figure 325).

Table 14 Raw counts, abundance, upper and lower confidence intervals (CI), precision (coefficient of variation), and density estimates (individuals per km^2) of Arctic terns in the Survey Area, Site, and 4 km Buffer

Survey Area						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	3	21	3	64	0.58	0.02
May-21 (S02)	17	335*	36	235	0.24	0.27*
Jun-21 (S03)	2	14	2	43	0.71	0.01
Aug-21 (S05)	1	18*	1	21	<1.00	0.01*
Sep-21 (S06)	0	39*	-	-	-	0.03*
Apr-22 (S12)	1	28*	1	21	<1.00	0.02*
May-22 (S13)	1	28*	1	21	<1.00	0.02*
Jun-22 (S14)	16	123*	36	224	0.25	0.10*
Jul-22 (S15)	12	167*	28	149	0.29	0.13*
Aug-22 (S16)	43	403*	99	553	0.15	0.32*
Sep-22 (S17)	0	78*	-	-	-	0.06*
May-23 (S26)	10	100*	10	178	0.32	0.08*
Jun-23 (S27)	3	28*	3	42	0.58	0.02*
Jul-23 (S28)	5	63*	5	85	0.45	0.05*
Aug-23 (S29)	10	72	14	143	0.32	0.06
Site						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
May-21 (S02)	11	213*	28	131	0.30	0.28*
Jun-21 (S03)	2	14	2	42	0.71	0.02
Aug-21 (S05)	1	16*	1	21	<1.00	0.02*
Sep-21 (S06)	0	7*	-	-	-	0.01*
Apr-22 (S12)	1	28*	1	21	<1.00	0.04*
May-22 (S13)	0	7*	-	-	-	0.01*
Jun-22 (S14)	10	77*	21	126	0.32	0.10*
Jul-22 (S15)	10	94*	14	130	0.32	0.13*
Aug-22 (S16)	29	295*	55	411	0.19	0.39*

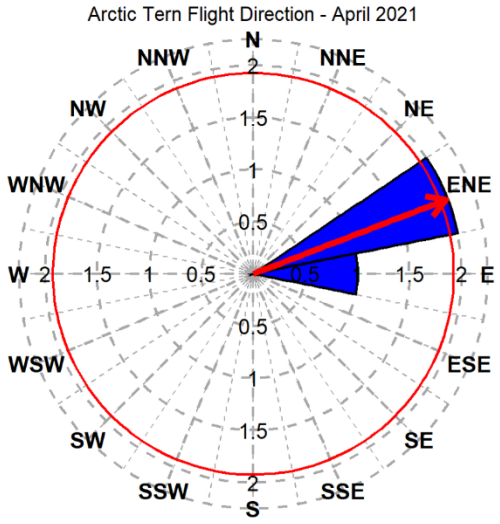
Site						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Sep-22 (S17)	0	41*	-	-	-	0.05*
May-23 (S26)	5	63*	5	104	0.45	0.08*
Jun-23 (S27)	1	7	1	20	<1.00	0.01
Jul-23 (S28)	5	61*	5	82	0.45	0.08*
Aug-23 (S29)	5	35	5	83	0.45	0.05
4 km Buffer						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	3	22	3	67	0.58	0.05
May-21 (S02)	6	120*	6	105	0.41	0.25*
Aug-21 (S05)	0	15*	-	-	-	0.03*
Sep-21 (S06)	0	68*	-	-	-	0.14*
May-22 (S13)	1	22*	1	22	<1.00	0.05*
Jun-22 (S14)	6	46	6	107	0.41	0.09
Jul-22 (S15)	2	63*	2	38	0.71	0.13*
Aug-22 (S16)	14	105	14	285	0.27	0.22
Sep-22 (S17)	0	38*	-	-	-	0.08*
May-23 (S26)	5	38	5	113	0.45	0.08
Jun-23 (S27)	2	23*	2	30	0.71	0.05*
Aug-23 (S29)	5	38	5	98	0.45	0.08

Table Note: * These numbers include the apportioned attribution of unidentified individuals

Significant predominant direction of flight was recorded in:

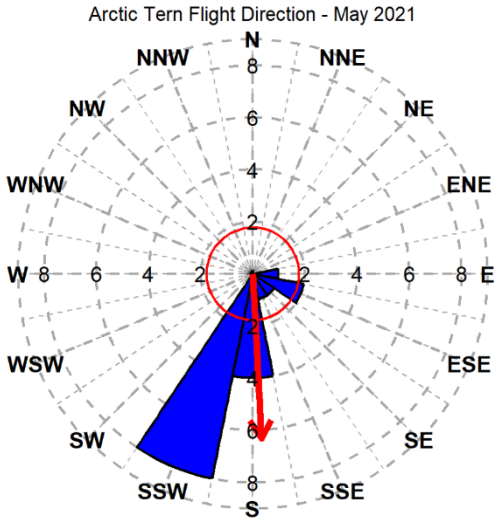
- April
  - 2021 – east-northeast (Figure 7a)
- May
  - 2021 – south (Figure 7b)
  - 2023 – south (Figure 7f)
- June
  - 2022 – south-southeast (Figure 7c)
- July
  - 2022 – south-southwest (Figure 7d)
- August
  - 2022 – west-southwest to west (Figure 7e)

In April 2022, May 2022 and August 2021, single Arctic terns were recorded flying in a north-north-westerly, south-south-westerly, and west-north-westerly direction respectively.



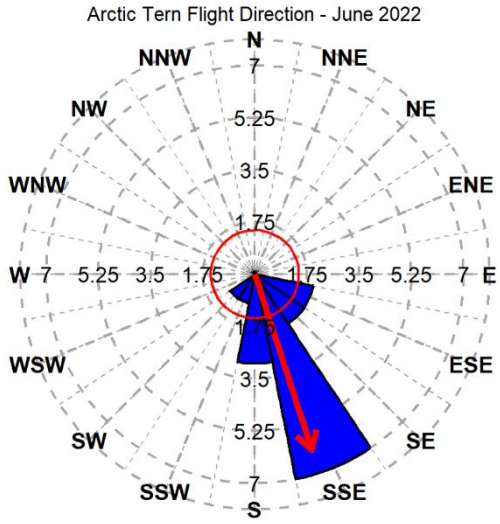
Number of Observations = 3
Mean Vector = 69.051
Length of mean vector (r) = 0.990
Rayleigh Test (Z) = 2.943
Rayleigh Test (p) = 0.037

Figure 7a arctic tern flight direction recorded in April 2021



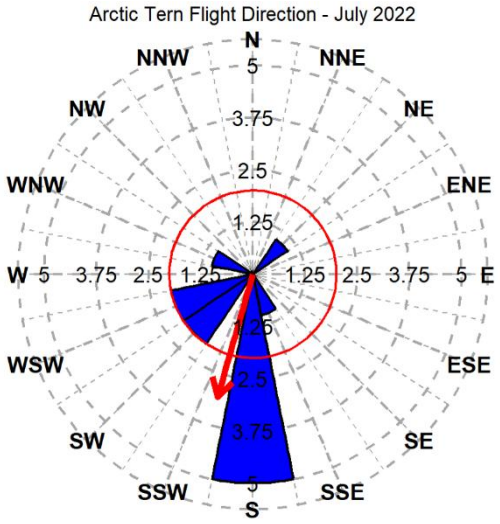
Number of Observations = 17
Mean Vector = 177.428
Length of mean vector (r) = 0.791
Rayleigh Test (Z) = 10.627
Rayleigh Test (p) = <0.001

Figure 7b arctic tern flight direction recorded in May 2021



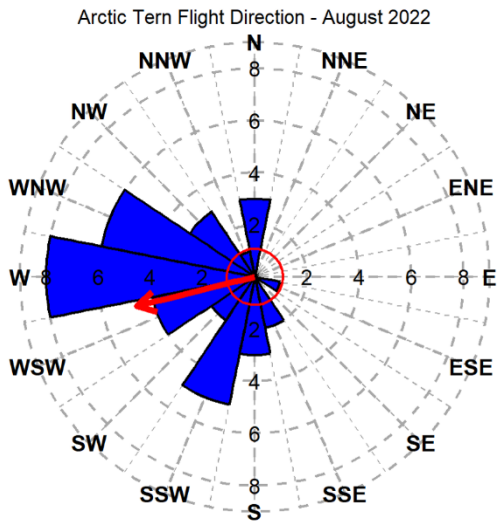
Number of Observations = 16
Mean Vector = 162.468
Length of mean vector (r) = 0.885
Rayleigh Test (Z) = 12.526
Rayleigh Test (p) = <0.001

Figure 7c arctic tern flight direction recorded in June 2022



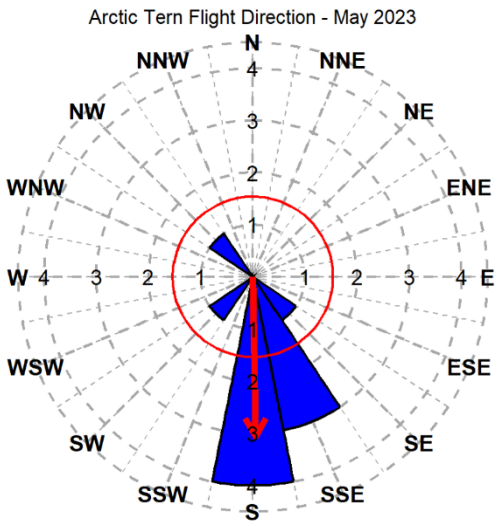
Number of Observations = 12
Mean Vector = 196.882
Length of mean vector (r) = 0.611
Rayleigh Test (Z) = 4.483
Rayleigh Test (p) = 0.008

Figure 7d arctic tern flight direction recorded in July 2022



Number of Observations = 38
Mean Vector = 256.110
Length of mean vector (r) = 0.582
Rayleigh Test (Z) = 12.879
Rayleigh Test (p) = <0.001

Figure 7e arctic tern flight direction recorded in August 2022



Number of Observations = 10
Mean Vector = 179.552
Length of mean vector (r) = 0.765
Rayleigh Test (Z) = 5.851
Rayleigh Test (p) = 0.001

Figure 7f arctic tern flight direction recorded in May 2023

Figure 7 Summary of flight direction of arctic tern during the survey period

4.1.6 Guillemot *Uria aalge*

Guillemots were recorded in all surveys, with a peak abundance estimate of 61,666 birds and a density of 49.72 birds/km^2 recorded in the Survey Area (Table 15). During the peak in April 2022, guillemots were recorded scattered across the Survey Area, with lower densities in the north (Figure 72).

Guillemots were recorded in high numbers across the Survey Area during all three breeding periods (April to August). In 2021, densities were highest in the north of the Site (Figure 328). In 2022, densities were highest across the middle of the Site, and the east and west of the 4 km buffer (Figure 332). In 2023, high densities were recorded in the north and south of the Survey Area (Figure 336).

During the breeding site attendance period (August), in 2021 guillemots were distributed across the Survey Area, with aggregations in the south and east of the buffer, and in the south and north of the Site (Figure 329). In 2022, guillemots were mostly distributed within the Site (Figure 333), whilst in 2023 they were concentrated in the centre of the Site and the north of the 4 km buffer (Figure 337).

During the flightless moult period (August to October) in 2021, guillemots were mostly distributed in the south of the Site (Figure 330); in 2022 and 2023, guillemots were distributed in the north of the Survey Area, with highest numbers recorded in the north west and east of the 4 km buffer and Site (Figure 334 and Figure 338).

During the winter non-breeding period (September to January), between 2021 and 2022, guillemots were distributed across the Survey Area, with highest densities in the north of the Site and 4 km buffer. High densities were also recorded in the south of the Site (Figure 331). Between 2022 and 2023, guillemots were mostly distributed in the north of the Survey Area (Figure 335). In September 2023, guillemots were mostly recorded in the east of the Survey Area (Figure 339).

Table 15 Raw counts, abundance, upper and lower confidence intervals (CI), precision (coefficient of variation), and density estimates (individuals per km^2) of guillemots in the Survey Area, Site, and 4 km Buffer

Survey Area						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	1,559	14,978*	7,347	14,914	0.03	12.08*
May-21 (S02)	2,731	26,437*	13,922	24,471	0.02	21.32*
Jun-21 (S03)	1,108	11,417*	5,861	10,360	0.03	9.21*
Jul-21 (S04)	3,071	30,483*	14,426	30,253	0.02	24.58*
Aug-21 (S05)	807	8,216*	3,850	7,929	0.04	6.63*
Sep-21 (S06)	154	3,781*	788	1,385	0.08	3.05*
Oct-21 (S07)	658	8,507*	1,830	7,976	0.04	6.86*
Nov-21 (S08)	1,038	32,346*	4,424	10,555	0.03	26.08*
Jan-22 (S09)	953	13,916*	4,073	9,262	0.03	11.22*
Mar-22 (S10)	1,610	17,780*	6,529	15,039	0.02	14.34*
Mar-22 (S11)	4,714	54,390*	24,028	45,010	0.01	43.86*
Apr-22 (S12)	6,396	61,667*	30,232	60,527	0.01	49.72*
May-22 (S13)	902	8,648*	3,887	9,226	0.03	6.97*
Jun-22 (S14)	1,846	19,360*	7,608	19,936	0.02	15.61*
Jul-22 (S15)	4,646	47,322*	13,275	54,961	0.01	38.16*
Aug-22 (S16)	585	6,456*	2,510	5,773	0.04	5.21*

Survey Area						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Sep-22 (S17)	191	2,605*	911	1,857	0.07	2.10*
Oct-22 (S18)	1,293	14,993*	6,106	12,505	0.03	12.09*
Nov-22 (S19)	1,880	19,916*	10,081	16,752	0.02	16.06*
Dec-22 (S20)	759	8,941*	4,498	6,220	0.04	7.21*
Dec-22 (S21)	625	7,170*	2,024	7,953	0.04	5.78*
Jan-23 (S22)	2,457	26,333*	12,706	22,128	0.02	21.23*
Feb-23 (S23)	4,929	50,096*	24,907	48,510	0.01	40.39*
Mar-23 (S24)	2,081	21,129*	9,116	21,398	0.02	17.04*
Apr-23 (S25)	2,070	19,672*	7,912	22,152	0.02	15.86*
May-23 (S26)	4,077	39,503*	23,153	34,733	0.02	31.85*
Jun-23 (S27)	3,828	36,182*	22,090	31,604	0.02	29.17*
Jul-23 (S28)	5,289	52,884*	19,454	59,327	0.01	42.64*
Aug-23 (S29)	612	6,302*	3,141	6,018	0.04	5.08*
Sep-23 (S30)	867	8,639*	4,326	8,308	0.03	6.97*
Site						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	1,175	10,883*	4,870	11,810	0.03	14.43*
May-21 (S02)	2,158	20,162*	10,743	18,690	0.02	26.73*
Jun-21 (S03)	761	7,460*	3,455	7,244	0.04	9.89*
Jul-21 (S04)	1,921	18,568*	7,426	19,138	0.02	24.62*
Aug-21 (S05)	515	5,069*	1,993	5,246	0.04	6.72*
Sep-21 (S06)	105	2,436*	439	1,015	0.10	3.23*
Oct-21 (S07)	534	6,733*	1,055	6,414	0.04	8.93*
Nov-21 (S08)	707	22,559*	2,814	7,186	0.04	29.91*
Jan-22 (S09)	718	10,192*	2,739	6,894	0.04	13.51*
Mar-22 (S10)	1,148	12,343*	4,099	10,933	0.03	16.36*
Mar-22 (S11)	3,956	43,653*	18,247	37,925	0.02	57.87*
Apr-22 (S12)	4,577	42,709*	18,595	44,454	0.01	56.62*
May-22 (S13)	665	6,175*	2,455	6,959	0.04	8.19*
Jun-22 (S14)	1,129	11,300*	3,858	12,357	0.03	14.98*
Jul-22 (S15)	2,883	28,902*	7,378	33,411	0.02	38.31*
Aug-22 (S16)	334	3,575*	1,089	3,932	0.05	4.74*
Sep-22 (S17)	107	1,479*	435	1,034	0.10	1.96*
Oct-22 (S18)	816	8,722*	2,618	9,150	0.04	11.56*
Nov-22 (S19)	1,284	12,617*	6,053	11,610	0.03	16.73*
Dec-22 (S20)	423	4,737*	1,968	3,812	0.05	6.28*
Dec-22 (S21)	333	3,806*	1,005	3,767	0.05	5.05*
Jan-23 (S22)	1,736	17,760*	8,266	15,505	0.02	23.54*
Feb-23 (S23)	3,414	33,506*	14,893	34,126	0.02	44.42*
Mar-23 (S24)	1,553	15,143*	5,701	16,448	0.03	20.08*
Apr-23 (S25)	1,329	12,176*	5,823	13,036	0.03	16.14*
May-23 (S26)	2,922	27,412*	14,866	24,983	0.02	36.34*
Jun-23 (S27)	2,966	27,030*	15,338	24,380	0.02	35.83*
Jul-23 (S28)	3,943	37,567*	12,374	45,710	0.02	49.80*

Site						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Aug-23 (S29)	385	3,808*	1,814	3,870	0.05	5.05*
Sep-23 (S30)	479	4,719*	2,410	4,294	0.05	6.26*
4 km Buffer						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	384	3,935*	404	6,073	0.05	8.10*
May-21 (S02)	573	5,902*	2,358	6,885	0.04	12.15*
Jun-21 (S03)	347	3,904*	1,098	5,077	0.05	8.03*
Jul-21 (S04)	1,150	11,914*	4,074	15,419	0.03	24.52*
Aug-21 (S05)	292	3,141*	1,050	3,573	0.06	6.47*
Sep-21 (S06)	49	1,309*	173	578	0.14	2.69*
Oct-21 (S07)	124	1,626*	515	1,492	0.09	3.35*
Nov-21 (S08)	331	9,783*	1,352	3,718	0.05	20.13*
Jan-22 (S09)	235	3,549*	1,121	2,539	0.07	7.31*
Mar-22 (S10)	462	5,297*	813	7,331	0.05	10.90*
Mar-22 (S11)	758	9,687*	1,702	12,150	0.04	19.94*
Apr-22 (S12)	1,819	18,457*	2,148	29,628	0.02	37.99*
May-22 (S13)	237	2,395*	659	3,140	0.06	4.93*
Jun-22 (S14)	717	8,120*	2,015	11,847	0.04	16.71*
Jul-22 (S15)	1,763	18,302*	1,763	35,826	0.02	37.67*
Aug-22 (S16)	251	2,914*	818	3,338	0.06	6.00*
Sep-22 (S17)	84	1,247*	353	1,103	0.11	2.57*
Oct-22 (S18)	477	6,398*	1,843	5,395	0.05	13.17*
Nov-22 (S19)	596	7,202*	3,138	6,556	0.04	14.82*
Dec-22 (S20)	336	4,323*	1,616	3,608	0.05	8.90*
Dec-22 (S21)	292	3,438*	512	4,715	0.06	7.08*
Jan-23 (S22)	721	8,396*	3,890	7,726	0.04	17.28*
Feb-23 (S23)	1,515	16,302*	4,645	20,129	0.03	33.55*
Mar-23 (S24)	528	5,762*	1,052	9,311	0.04	11.86*
Apr-23 (S25)	741	7,476*	741	13,468	0.04	15.39*
May-23 (S26)	1,155	11,787*	4,623	15,035	0.03	24.26*
Jun-23 (S27)	862	8,639*	2,950	10,734	0.03	17.78*
Jul-23 (S28)	1,346	14,794*	1,436	26,020	0.03	30.45*
Aug-23 (S29)	227	2,498*	1,110	2,340	0.07	5.14*
Sep-23 (S30)	388	3,973*	1,159	4,991	0.05	8.18*

Table Note: * These numbers include the apportioned attribution of unidentified individuals and availability bias corrections

Significant predominant direction of flight was recorded in:

- February
  - 2023 – northeast (Figure 8l)
- March
  - 2022 (Survey 10) – east (Figure 8e)
  - 2022 (Survey 11) – south-southwest to southwest (Figure 8f)
  - 2023 – east (Figure 8m)
- April
  - 2021 – south-southwest (Figure 8a)

- 2022 – north-northeast (Figure 8g)
- May
  - 2021 – south-southeast to south (Figure 8b)
  - 2022 – north-northeast to northeast (Figure 8h)
- June
  - 2021 – east-southeast (Figure 8c)
  - 2022 – southwest to south-southwest (Figure 8i)
- July
  - 2021 – east-northeast (Figure 8d)
  - 2023 – southwest Figure 8n)
- September
  - 2022 – north-northwest (Figure 8j)
- December
  - 2022 (Survey 21) – north-northeast (Figure 8k)

In August 2021 and 2023 single guillemots were recorded flying in a south-south-easterly and north-north-westerly direction respectively.

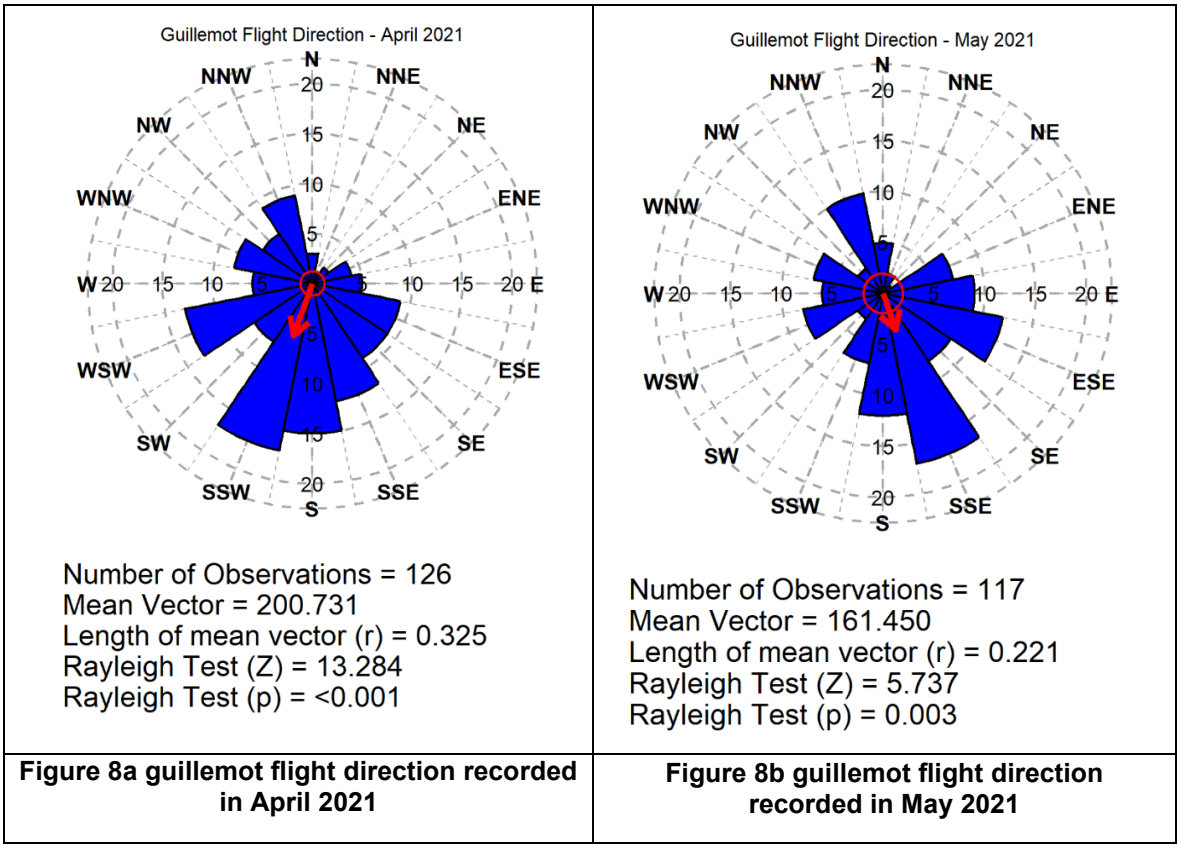
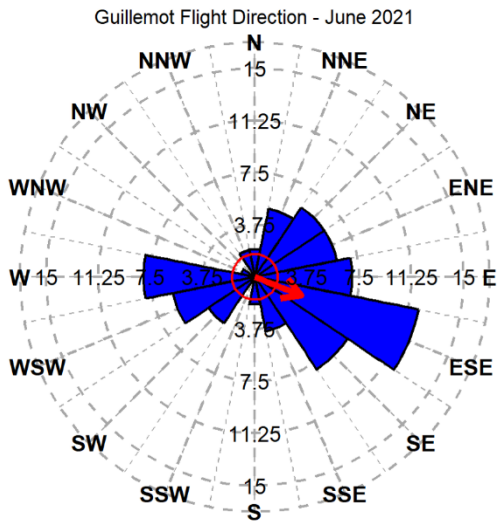


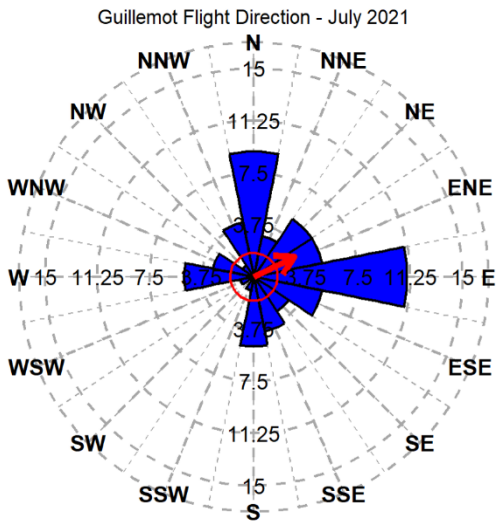
Figure 8a guillemot flight direction recorded in April 2021

Figure 8b guillemot flight direction recorded in May 2021



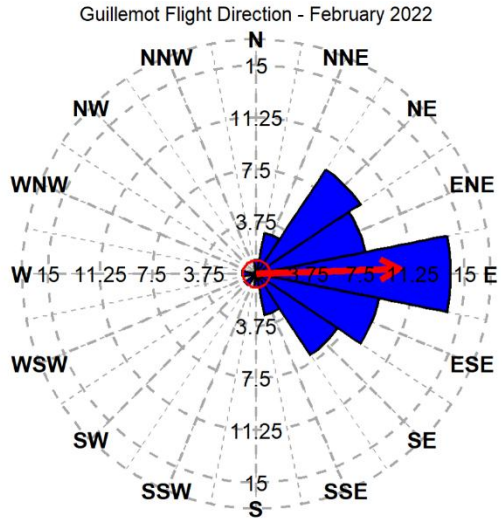
Number of Observations = 73
Mean Vector = 112.479
Length of mean vector (r) = 0.298
Rayleigh Test (Z) = 6.475
Rayleigh Test (p) = 0.002

Figure 8c guillemot flight direction recorded in June 2021



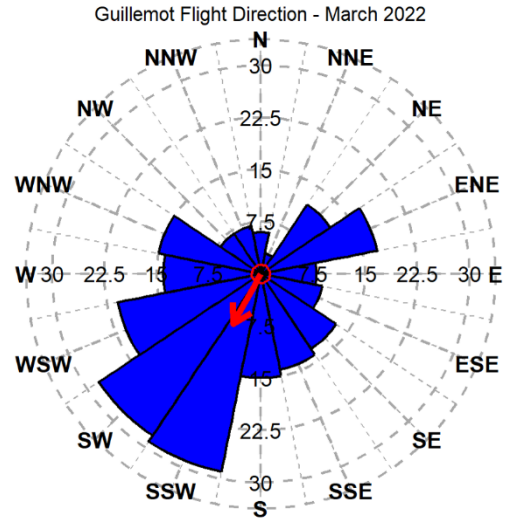
Number of Observations = 65
Mean Vector = 64.781
Length of mean vector (r) = 0.295
Rayleigh Test (Z) = 5.650
Rayleigh Test (p) = 0.004

Figure 8d guillemot flight direction recorded in July 2021



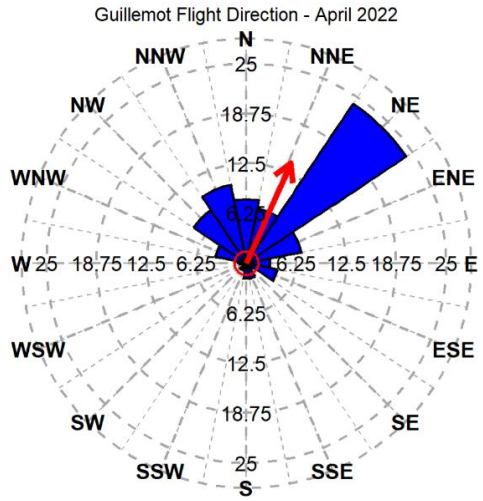
Number of Observations = 57
Mean Vector = 88.863
Length of mean vector (r) = 0.733
Rayleigh Test (Z) = 30.634
Rayleigh Test (p) = <0.001

Figure 8e guillemot flight direction recorded in the first March 2022 survey (Survey 10)



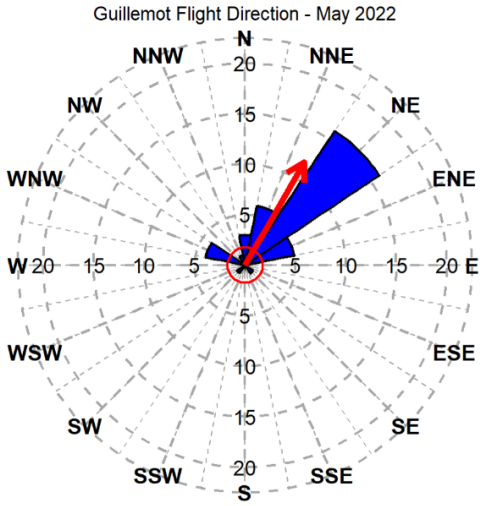
Number of Observations = 218
Mean Vector = 209.417
Length of mean vector (r) = 0.283
Rayleigh Test (Z) = 17.452
Rayleigh Test (p) = <0.001

Figure 8f guillemot flight direction recorded in the second March 2022 survey (Survey 11)



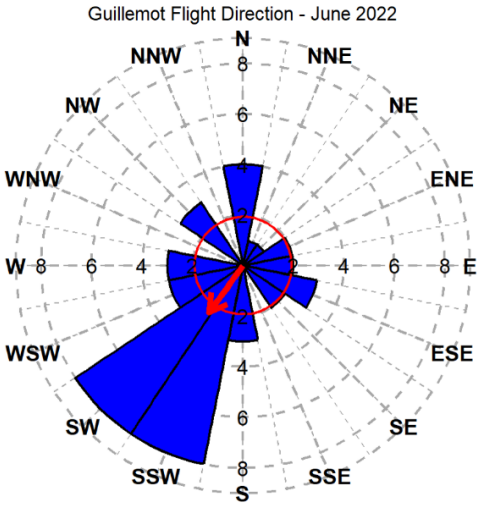
Number of Observations = 83
Mean Vector = 24.029
Length of mean vector (r) = 0.569
Rayleigh Test (Z) = 26.908
Rayleigh Test (p) = <0.001

Figure 8g guillemot flight direction recorded in April 2022



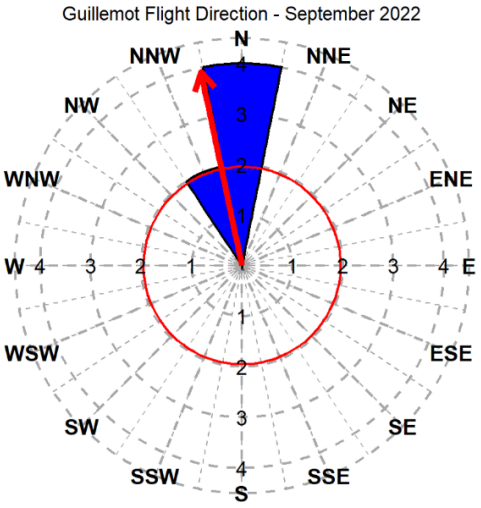
Number of Observations = 37
Mean Vector = 30.348
Length of mean vector (r) = 0.733
Rayleigh Test (Z) = 19.863
Rayleigh Test (p) = <0.001

Figure 8h guillemot flight direction recorded in May 2022



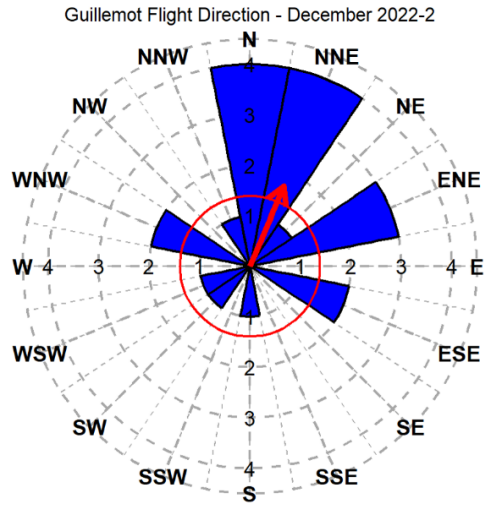
Number of Observations = 43
Mean Vector = 216.072
Length of mean vector (r) = 0.287
Rayleigh Test (Z) = 3.551
Rayleigh Test (p) = 0.028

Figure 8i guillemot flight direction recorded in June 2022



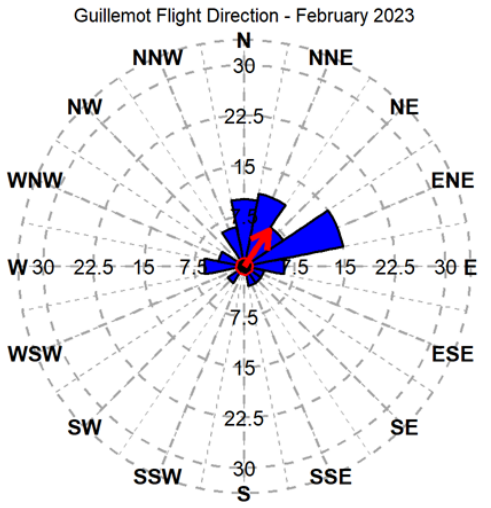
Number of Observations = 6
Mean Vector = 348.059
Length of mean vector (r) = 0.977
Rayleigh Test (Z) = 5.722
Rayleigh Test (p) = <0.001

Figure 8j guillemot flight direction recorded in September 2022



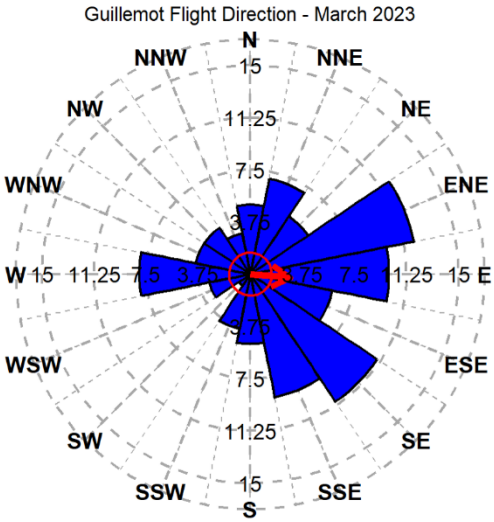
Number of Observations = 20
Mean Vector = 23.154
Length of mean vector (r) = 0.428
Rayleigh Test (Z) = 3.670
Rayleigh Test (p) = 0.023

Figure 8k guillemot flight direction recorded in the second December 2022 survey (Survey 21)



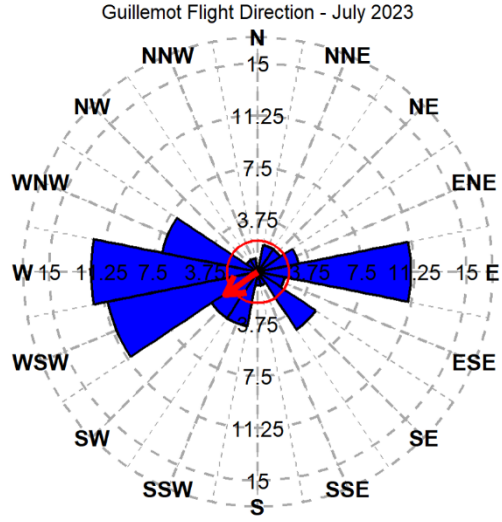
Number of Observations = 80
Mean Vector = 34.930
Length of mean vector (r) = 0.431
Rayleigh Test (Z) = 14.849
Rayleigh Test (p) = <0.001

Figure 8l guillemot flight direction recorded in February 2023



Number of Observations = 97
Mean Vector = 95.290
Length of mean vector (r) = 0.239
Rayleigh Test (Z) = 5.555
Rayleigh Test (p) = 0.004

Figure 8m guillemot flight direction recorded in March 2023



Number of Observations = 67
Mean Vector = 235.906
Length of mean vector (r) = 0.238
Rayleigh Test (Z) = 3.803
Rayleigh Test (p) = 0.022

Figure 8n guillemot flight direction recorded in July 2023

Figure 8 Summary of flight direction of guillemot during the survey period

4.1.7 Razorbill *Alca torda*

Razorbills were recorded in all surveys, with a peak abundance estimate 18,063 birds and a density of 14.56 birds/km^2 recorded in the Survey Area during the November 2021 survey (Table 16). During the peak in November 2021, razorbills were recorded scattered across the Survey Area, with higher densities in the north and southeast (Figure 68).

During the breeding period (April to August) in 2021 and 2023, razorbills were distributed across the Survey Area with higher densities recorded in the south (Figure 340 and Figure 348). In 2022, higher densities were recorded close to the centre of the Site (Figure 344).

In 2021, breeding site attendance for razorbills (August) was highest in the south of the Site (Figure 341). In 2022, breeding site attendance was highest in the Site, across the centre and south of the area (Figure 345), whilst in 2023 distribution was highest in the northwest of the Survey Area (Figure 349).

During the flightless moult period (August to November) in 2021, the razorbill densities were highest near the south/centre of the Site and in the north and east of the 4 km buffer (Figure 342), whilst in 2022 densities were highest in the north of the Survey Area (Figure 346). In 2023, densities of razorbill were much lower with no strong patterns of distribution (Figure 350).

During the winter non-breeding period (September to February) in 2021, razorbills were distributed across the Survey Area, with higher densities in the south of the Site and the north of the 4 km buffer (Figure 343). In 2022, densities were highest in the north of the Survey Area, particularly in the 4 km buffer (Figure 347). In 2023, densities were lower, with highest numbers recorded in the 4 km buffer (Figure 351).

Table 16 Raw counts, abundance, upper and lower confidence intervals (CI), precision (coefficient of variation), and density estimates (individuals per km^2) of razorbills in the Survey Area, Site, and 4 km Buffer

Survey Area						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	48	432*	199	497	0.14	0.35*
May-21 (S02)	93	841*	342	989	0.10	0.68*
Jun-21 (S03)	73	704*	353	707	0.12	0.57*
Jul-21 (S04)	77	709*	293	865	0.11	0.57*
Aug-21 (S05)	58	546*	165	701	0.13	0.44*
Sep-21 (S06)	40	908*	92	490	0.16	0.73*
Oct-21 (S07)	55	658*	57	779	0.13	0.53*
Nov-21 (S08)	633	18,063*	2,324	7,024	0.04	14.56*
Jan-22 (S09)	176	2,371*	572	2,043	0.08	1.91*
Mar-22 (S10)	410	4,190*	1,702	3,663	0.05	3.38*
Mar-22 (S11)	1,204	12,884*	5,743	11,771	0.03	10.39*
Apr-22 (S12)	83	737*	243	980	0.11	0.59*
May-22 (S13)	41	364*	149	434	0.16	0.29*
Jun-22 (S14)	742	7,226*	3,084	8,281	0.04	5.83*
Jul-22 (S15)	1,126	10,602*	4,145	12,940	0.03	8.55*
Aug-22 (S16)	98	999*	489	936	0.10	0.81*
Sep-22 (S17)	59	750*	127	876	0.13	0.60*

Survey Area						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Oct-22 (S18)	1,406	15,101*	4,304	16,808	0.03	12.18*
Nov-22 (S19)	368	3,592*	1,545	3,830	0.05	2.90*
Dec-22 (S20)	599	6,522*	1,502	8,540	0.04	5.26*
Dec-22 (S21)	882	9,306*	1,496	13,796	0.03	7.50*
Jan-23 (S22)	130	1,292*	514	1,399	0.09	1.04*
Feb-23 (S23)	113	1,065*	567	1,163	0.09	0.86*
Mar-23 (S24)	1,148	10,770*	4,497	11,997	0.03	8.68*
Apr-23 (S25)	56	497*	179	674	0.13	0.40*
May-23 (S26)	470	4,206*	1,604	5,312	0.05	3.39*
Jun-23 (S27)	111	980*	559	1,026	0.09	0.79*
Jul-23 (S28)	890	8,202*	4,075	8,548	0.03	6.61*
Aug-23 (S29)	84	799*	365	852	0.11	0.64*
Sep-23 (S30)	106	925*	365	1,266	0.10	0.75*
Site						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	35	305*	117	385	0.17	0.40*
May-21 (S02)	63	549*	248	627	0.13	0.73*
Jun-21 (S03)	37	343*	111	439	0.16	0.45*
Jul-21 (S04)	60	538*	207	676	0.13	0.71*
Aug-21 (S05)	51	464*	131	588	0.14	0.62*
Sep-21 (S06)	31	684*	55	405	0.18	0.91*
Oct-21 (S07)	37	432*	48	538	0.16	0.57*
Nov-21 (S08)	352	10,125*	1,102	4,028	0.05	13.42*
Jan-22 (S09)	118	1,551*	349	1,309	0.09	2.06*
Mar-22 (S10)	307	3,055*	1,165	2,902	0.06	4.05*
Mar-22 (S11)	982	10,070*	4,281	9,572	0.03	13.35*
Apr-22 (S12)	53	458*	117	635	0.14	0.61*
May-22 (S13)	22	188*	55	276	0.21	0.25*
Jun-22 (S14)	515	4,793*	1,559	5,836	0.04	6.35*
Jul-22 (S15)	881	8,165*	2,361	9,986	0.03	10.82*
Aug-22 (S16)	55	544*	219	589	0.13	0.72*
Sep-22 (S17)	42	432*	42	742	0.15	0.57*
Oct-22 (S18)	991	9,825*	1,488	13,642	0.03	13.02*
Nov-22 (S19)	204	1,849*	838	1,999	0.07	2.45*
Dec-22 (S20)	467	4,830*	874	7,239	0.05	6.40*
Dec-22 (S21)	442	4,685*	442	6,749	0.05	6.21*
Jan-23 (S22)	63	597*	193	696	0.13	0.79*
Feb-23 (S23)	73	662*	313	726	0.12	0.88*
Mar-23 (S24)	808	7,265*	3,154	7,869	0.04	9.63*
Apr-23 (S25)	25	214*	49	313	0.20	0.28*
May-23 (S26)	315	2,732*	766	3,679	0.06	3.62*
Jun-23 (S27)	79	670*	321	750	0.11	0.89*
Jul-23 (S28)	656	5,759*	2,406	6,697	0.04	7.63*
Aug-23 (S29)	63	575*	228	671	0.13	0.76*

Site						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Sep-23 (S30)	45	387*	139	506	0.15	0.51*
4 km Buffer						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	13	124*	22	210	0.28	0.25*
May-21 (S02)	30	291*	105	360	0.18	0.60*
Jun-21 (S03)	36	373*	145	427	0.17	0.77*
Jul-21 (S04)	17	163*	38	227	0.24	0.34*
Aug-21 (S05)	7	70*	7	113	0.38	0.14*
Sep-21 (S06)	9	233*	15	128	0.33	0.48*
Oct-21 (S07)	18	218*	18	363	0.24	0.45*
Nov-21 (S08)	281	7,773*	676	4,003	0.06	16.00*
Jan-22 (S09)	58	801*	141	809	0.13	1.65*
Mar-22 (S10)	103	1,094*	266	1,479	0.10	2.25*
Mar-22 (S11)	222	2,614*	524	3,688	0.07	5.38*
Apr-22 (S12)	30	279*	46	486	0.18	0.58*
May-22 (S13)	19	180*	45	262	0.23	0.37*
Jun-22 (S14)	227	2,384*	736	3,441	0.07	4.91*
Jul-22 (S15)	245	2,350*	926	3,253	0.06	4.84*
Aug-22 (S16)	43	462*	203	465	0.15	0.95*
Sep-22 (S17)	17	212*	30	240	0.24	0.44*
Oct-22 (S18)	415	5,131*	1,144	5,342	0.05	10.56*
Nov-22 (S19)	164	1,817*	445	2,369	0.08	3.74*
Dec-22 (S20)	132	1,565*	391	1,661	0.09	3.22*
Dec-22 (S21)	440	4,691*	459	6,771	0.05	9.65*
Jan-23 (S22)	67	723*	181	982	0.12	1.49*
Feb-23 (S23)	40	401*	70	584	0.16	0.83*
Mar-23 (S24)	340	3,439*	416	6,336	0.05	7.08*
Apr-23 (S25)	31	293*	31	542	0.18	0.60*
May-23 (S26)	155	1,460*	376	2,548	0.08	3.01*
Jun-23 (S27)	32	304*	128	368	0.18	0.62*
Jul-23 (S28)	234	2,374*	571	3,668	0.07	4.89*
Aug-23 (S29)	21	214*	68	249	0.22	0.44*
Sep-23 (S30)	61	548*	128	1,001	0.13	1.13*

Table Note: * These numbers include the apportioned attribution of unidentified individuals and availability bias corrections

Significant predominant direction of flight was recorded in:

- March
  - 2022 (Survey 10) – east-northeast to east (Figure 9c)
  - 2022 (Survey 11) – south to south-southeast (Figure 9d)
  - 2023 – southeast (Figure 9j)
- May
  - 2023 – east-northeast to northeast (Figure 9k)
- June
  - 2022 – north to north-northeast (Figure 9e)

- September
  - 2021 – southwest to west-southwest (Figure 9a)
  - 2022 – north (Figure 9f)
  - 2023 – east-southeast to southeast (Figure 9l)
- October
  - 2022 – north-northeast (Figure 9g)
- November
  - 2021 – north-northeast (Figure 9b)
  - 2022 – east-southeast (Figure 9h)
- December
  - 2022 (Survey 21) – north to north-northeast (Figure 9i)

In April 2021 a single razorbill was recorded flying in a north-north-easterly direction.

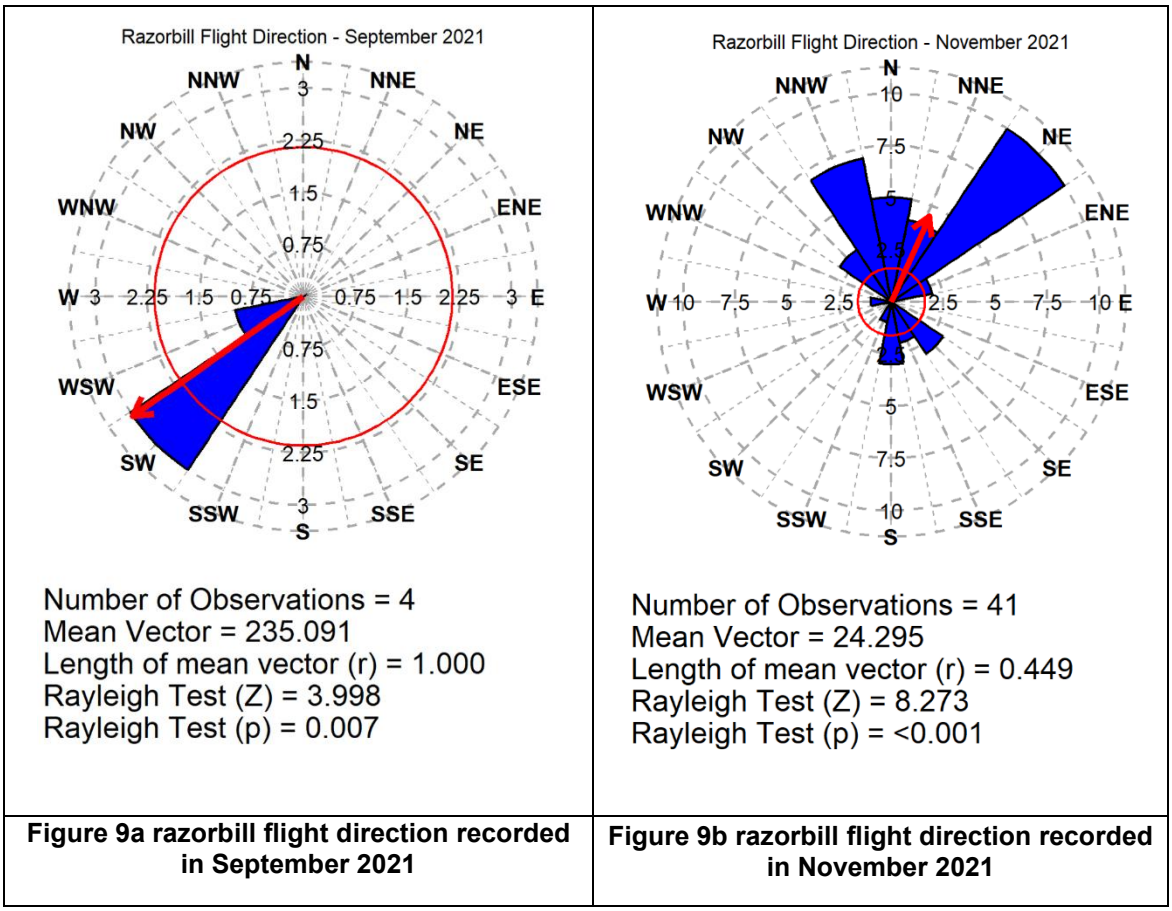
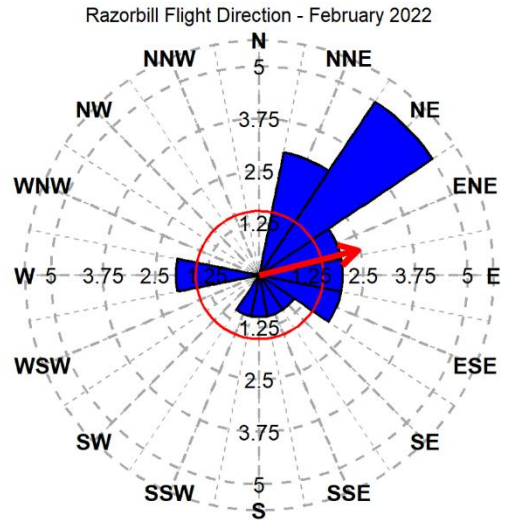


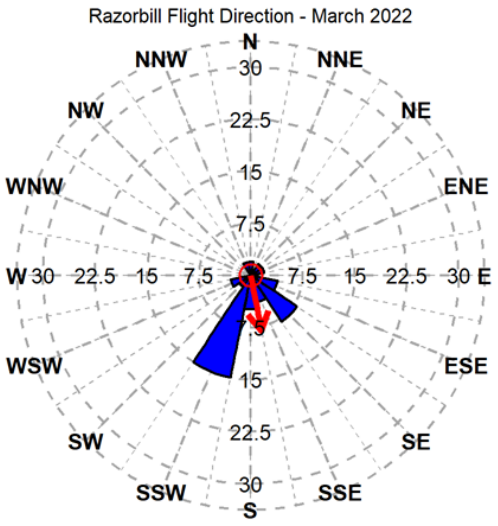
Figure 9a razorbill flight direction recorded in September 2021

Figure 9b razorbill flight direction recorded in November 2021



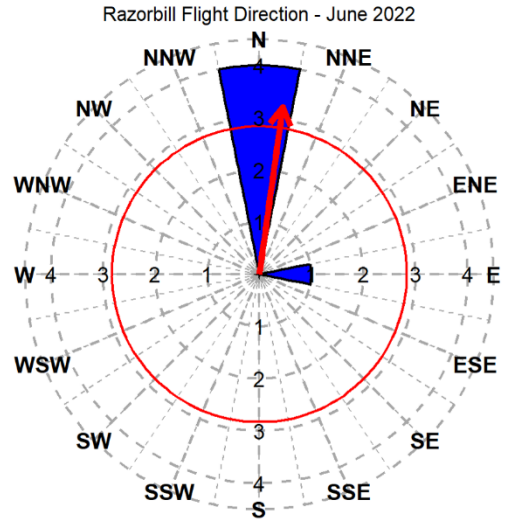
Number of Observations = 20
Mean Vector = 76.260
Length of mean vector (r) = 0.486
Rayleigh Test (Z) = 4.727
Rayleigh Test (p) = 0.007

Figure 9c razorbill flight direction recorded in the first March 2022 survey (Survey 10)



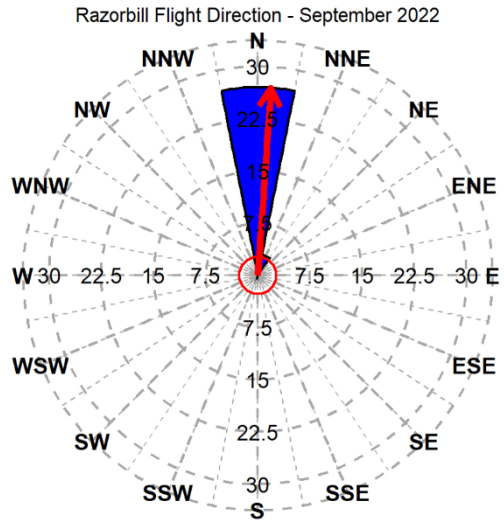
Number of Observations = 50
Mean Vector = 169.903
Length of mean vector (r) = 0.541
Rayleigh Test (Z) = 14.618
Rayleigh Test (p) = <0.001

Figure 9d razorbill flight direction recorded in the second March 2022 survey (Survey 11)



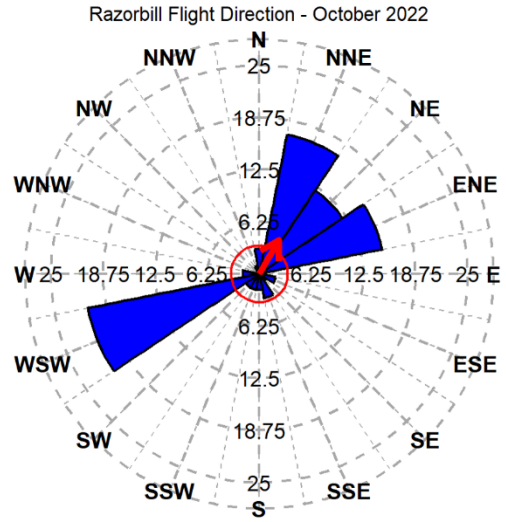
Number of Observations = 5
Mean Vector = 8.803
Length of mean vector (r) = 0.808
Rayleigh Test (Z) = 3.264
Rayleigh Test (p) = 0.029

Figure 9e razorbill flight direction recorded in June 2022



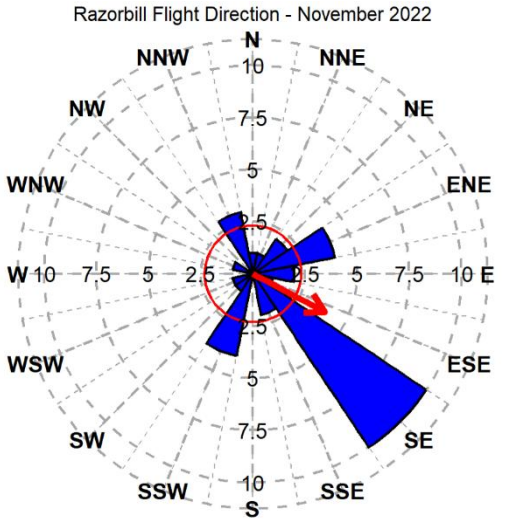
Number of Observations = 30
Mean Vector = 4.920
Length of mean vector (r) = 0.997
Rayleigh Test (Z) = 29.798
Rayleigh Test (p) = <0.001

Figure 9f razorbill flight direction recorded in September 2022



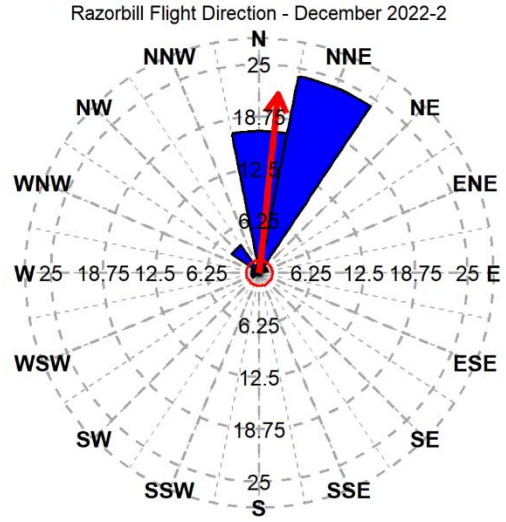
Number of Observations = 83
Mean Vector = 30.982
Length of mean vector (r) = 0.221
Rayleigh Test (Z) = 4.052
Rayleigh Test (p) = 0.017

Figure 9g razorbill flight direction recorded in October 2022



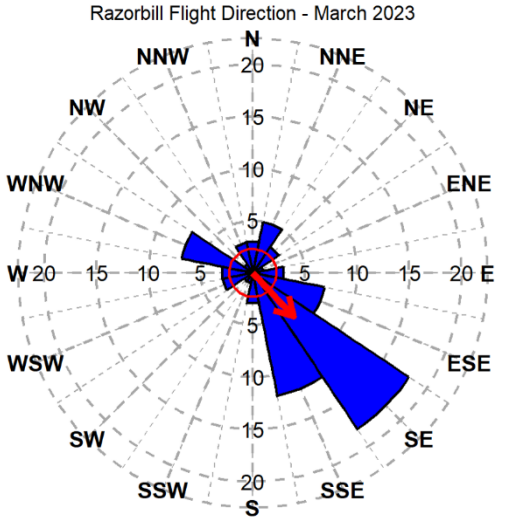
Number of Observations = 33
Mean Vector = 118.898
Length of mean vector (r) = 0.390
Rayleigh Test (Z) = 5.014
Rayleigh Test (p) = 0.006

Figure 9h razorbill flight direction recorded in November 2022



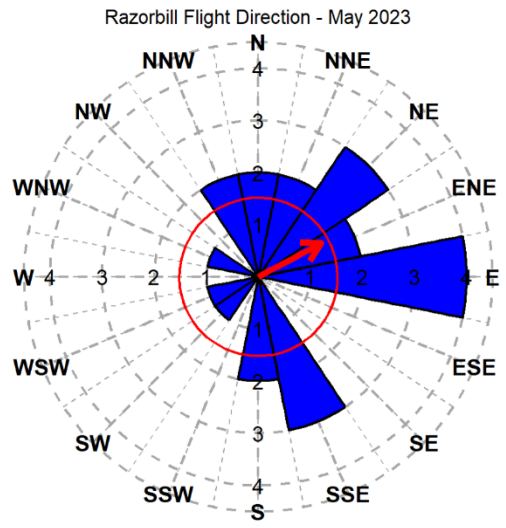
Number of Observations = 50
Mean Vector = 6.548
Length of mean vector (r) = 0.897
Rayleigh Test (Z) = 40.207
Rayleigh Test (p) = <0.001

Figure 9i razorbill flight direction recorded in the second December 2022 survey (Survey 21)



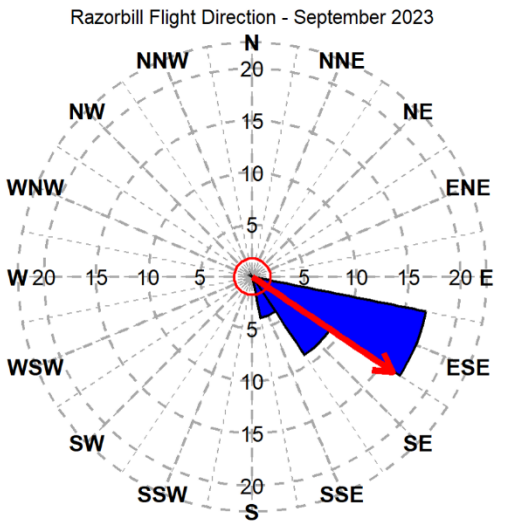
Number of Observations = 74
Mean Vector = 137.040
Length of mean vector (r) = 0.318
Rayleigh Test (Z) = 7.481
Rayleigh Test (p) = <0.001

Figure 9j razorbill flight direction recorded in March 2023



Number of Observations = 23
Mean Vector = 62.702
Length of mean vector (r) = 0.341
Rayleigh Test (Z) = 2.681
Rayleigh Test (p) = 0.067

Figure 9k razorbill flight direction recorded in May 2023



Number of Observations = 30
Mean Vector = 124.547
Length of mean vector (r) = 0.957
Rayleigh Test (Z) = 27.499
Rayleigh Test (p) = <0.001

Figure 9l razorbill flight direction recorded in September 2023

Figure 9 Summary of flight direction of razorbill during the survey period

4.1.8 Puffin *Fratercula arctica*

Puffins were recorded in 26 surveys, with a peak abundance estimate of 16,022 birds and a density of 12.92 birds/km^2 recorded in the Survey Area (Table 17). During the peak in July 2022, most puffins were recorded sitting on the water across the Survey Area, with higher densities in the western half of the Survey Area, specifically in the west and southwest (Figure 75).

During the breeding period (April to August) in 2021, puffin densities were highest in the south of the Survey Area (Figure 352). In 2022, higher densities of puffins were recorded, with most in the Site (Figure 355). In 2023, high densities were also recorded, with puffins spread across the Survey Area and highest densities recorded in the Site (Figure 359).

In 2021, puffin breeding site attendance showed slightly higher densities recorded in the south of the Site (Figure 353). In 2022, higher numbers were recorded with the highest densities near the centre of the Site, and the east and south of the 4 km buffer (Figure 356). In 2023, breeding site attendance was lower, with slightly higher densities in the north of the Site and 4 km buffer (Figure 360).

During the winter non-breeding period (September to March) between 2021 and 2022, puffins were recorded in low numbers in the northeast and southeast of the Survey Area, with highest numbers in the Site (Figure 354). Between 2022 and 2023, puffin numbers were slightly higher, distributed across the Survey Area (Figure 358). In September 2023, puffins were distributed across the survey area with higher numbers recorded in the south (Figure 362).

Table 17 Raw counts, abundance, upper and lower confidence intervals (CI), precision (coefficient of variation), and density estimates (individuals per km^2) of puffins in the Survey Area, Site, and 4 km Buffer

Survey Area						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	7	59	14	92	0.38	0.05
May-21 (S02)	6	50	7	78	0.41	0.04
Jun-21 (S03)	94	822*	447	923	0.10	0.66*
Jul-21 (S04)	6	51	7	79	0.41	0.04
Aug-21 (S05)	80	689*	286	866	0.11	0.56*
Sep-21 (S06)	8	72*	14	107	0.35	0.06*
Oct-21 (S07)	6	50	14	71	0.41	0.04
Mar-22 (S11)	16	138*	51	196	0.25	0.11*
Apr-22 (S12)	19	159	36	272	0.23	0.13
May-22 (S13)	20	167*	20	342	0.22	0.13*
Jun-22 (S14)	265	2,278*	1,108	3,019	0.06	1.84*
Jul-22 (S15)	1,887	16,022*	6,868	20,456	0.02	12.92*
Aug-22 (S16)	521	4,377*	2,440	4,837	0.04	3.53*
Sep-22 (S17)	56	482*	212	565	0.13	0.39*
Oct-22 (S18)	1	8	1	21	<1.00	0.01
Nov-22 (S19)	1	8	1	21	<1.00	0.01
Dec-22 (S20)	5	42	5	71	0.45	0.03
Jan-23 (S22)	3	24	3	50	0.58	0.02
Feb-23 (S23)	4	34	4	59	0.50	0.03
Mar-23 (S24)	10	85*	36	122	0.32	0.07*

Survey Area						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-23 (S25)	7	59	14	100	0.38	0.05
May-23 (S26)	63	529*	214	677	0.13	0.43*
Jun-23 (S27)	188	1,554*	948	1,754	0.07	1.25*
Jul-23 (S28)	313	2,633*	1,576	2,797	0.06	2.12*
Aug-23 (S29)	152	1,292*	587	1,674	0.08	1.04*
Sep-23 (S30)	57	485*	200	651	0.13	0.39*
Site						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	3	25	3	55	0.58	0.03
May-21 (S02)	6	48	14	76	0.41	0.06
Jun-21 (S03)	59	496*	223	613	0.13	0.66*
Jul-21 (S04)	4	33	4	55	0.50	0.04
Aug-21 (S05)	49	408*	138	554	0.14	0.54*
Sep-21 (S06)	3	25	7	41	0.58	0.03
Oct-21 (S07)	4	33	7	62	0.50	0.04
Mar-22 (S11)	13	106	35	154	0.28	0.14
Apr-22 (S12)	7	56	7	110	0.38	0.07
May-22 (S13)	13	106*	13	200	0.28	0.14*
Jun-22 (S14)	166	1,385*	545	1,859	0.08	1.84*
Jul-22 (S15)	1,423	11,705*	4,310	16,150	0.03	15.52*
Aug-22 (S16)	324	2,637*	1,171	3,302	0.06	3.50*
Sep-22 (S17)	38	321*	129	388	0.16	0.43*
Oct-22 (S18)	1	8	1	21	<1.00	0.01
Nov-22 (S19)	1	8	1	21	<1.00	0.01
Dec-22 (S20)	4	33	4	55	0.50	0.04
Feb-23 (S23)	4	33	4	57	0.50	0.04
Mar-23 (S24)	7	57*	14	90	0.38	0.08*
Apr-23 (S25)	6	49	7	90	0.41	0.07
May-23 (S26)	40	325*	97	469	0.16	0.43*
Jun-23 (S27)	120	954*	559	1,064	0.09	1.26*
Jul-23 (S28)	229	1,859*	939	2,125	0.07	2.46*
Aug-23 (S29)	105	861*	360	1,121	0.10	1.14*
Sep-23 (S30)	38	314*	152	388	0.16	0.42*
4 km Buffer						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	4	35	4	75	0.50	0.07
Jun-21 (S03)	35	327*	114	427	0.17	0.67*
Jul-21 (S04)	2	18	2	45	0.71	0.04
Aug-21 (S05)	31	282*	91	408	0.18	0.58*
Sep-21 (S06)	5	53*	8	68	0.45	0.11*
Oct-21 (S07)	2	18	2	38	0.71	0.04
Mar-22 (S11)	3	29*	3	62	0.58	0.06*
Apr-22 (S12)	12	107	12	213	0.29	0.22
May-22 (S13)	7	61	7	135	0.38	0.13

4 km Buffer						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Jun-22 (S14)	99	893*	299	1,326	0.10	1.84*
Jul-22 (S15)	464	4,140*	1,054	7,665	0.05	8.52*
Aug-22 (S16)	197	1,745*	788	2,295	0.07	3.59*
Sep-22 (S17)	18	161*	30	308	0.24	0.33*
Dec-22 (S20)	1	9	1	23	<1.00	0.02
Jan-23 (S22)	3	27	3	53	0.58	0.06
Mar-23 (S24)	3	27	3	61	0.58	0.06
Apr-23 (S25)	1	9	1	23	<1.00	0.02
May-23 (S26)	23	204*	75	308	0.21	0.42*
Jun-23 (S27)	68	599*	270	811	0.12	1.23*
Jul-23 (S28)	84	750*	248	1,075	0.11	1.54*
Aug-23 (S29)	47	424*	136	612	0.15	0.87*
Sep-23 (S30)	19	169*	19	399	0.23	0.35*

Table Note: * These numbers include the apportioned attribution of unidentified individuals and availability bias corrections

Significant predominant direction of flight was recorded in:

- March
  - 2022 – north-northwest (Figure 10a)
- June
  - 2022 – southeast to east-southeast (Figure 10b)

In August 2022, a single puffin was recorded flying in a south-south-easterly direction.

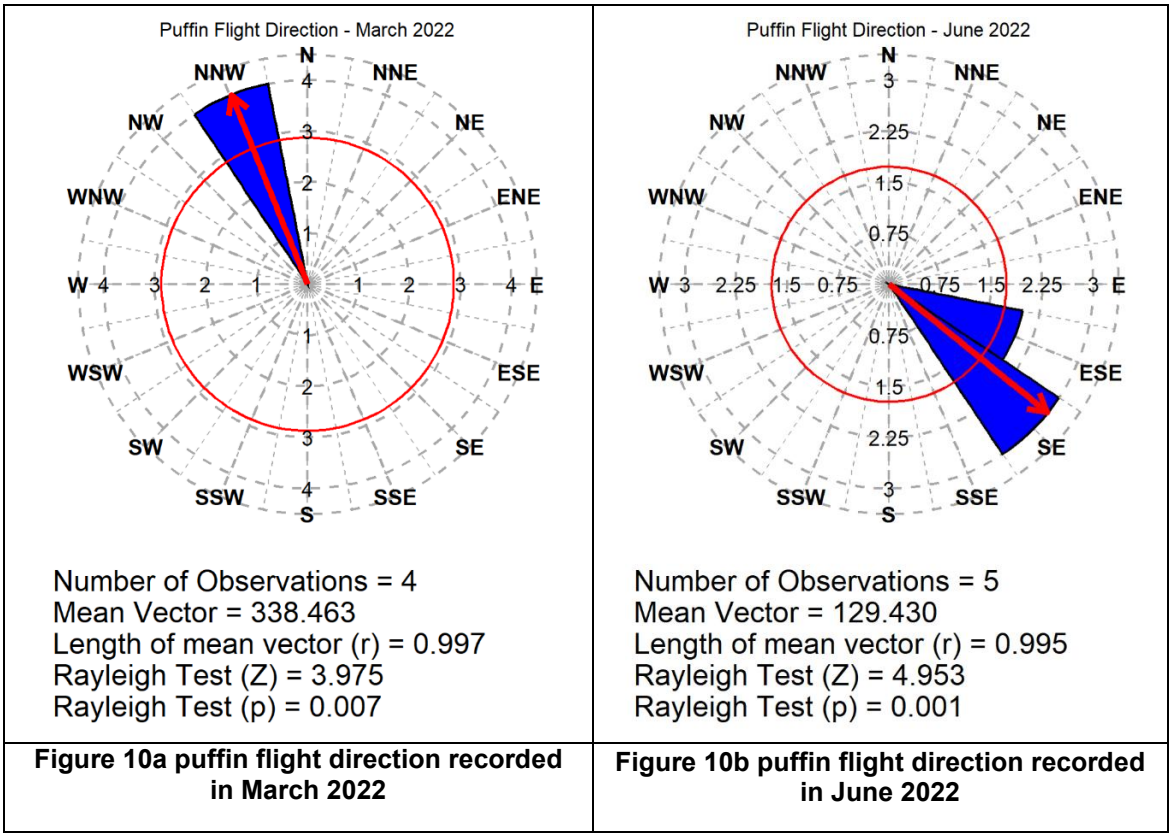


Figure 10a puffin flight direction recorded in March 2022

Figure 10b puffin flight direction recorded in June 2022

Figure 10 Summary of flight direction of puffin during the survey period

4.1.9 Great Northern Diver *Gavia immer*

Great northern divers were recorded in 17 surveys, with a peak abundance estimate of 37 and a density of 0.03 birds/km^2 recorded in the Survey Area in February 2023 (Table 18). During the peak in February 2023, great northern divers were recorded in the southeast of the buffer (Figure 103).

During the flightless moult period (April) in 2021 low numbers of great northern divers were recorded in the 4 km buffer and in the Site (Figure 363). In 2022 and 2023, slightly higher numbers were recorded again with most recorded in 4 km buffer and few records in the Site (Figure 366; Figure 369). During the winter non-breeding period (October to May) between 2021 and 2022, most great northern divers were recorded in the 4 km buffer, with lower numbers recorded in the Site (Figure 364). During the winter non-breeding period 2022-2023, great northern divers were distributed in the north and southeast of the Survey Area with equal numbers recorded in the Site and 4 km buffer (Figure 367). Between May and September 2021 and 2022, when great northern divers are not recorded in significant numbers in Scottish waters, low numbers were recorded in the west of the Site and the 4 km buffer (Figure 365; Figure 368). During the same period in 2023, all great northern divers were recorded in the Site (Figure 370).

Table 18 Raw counts, abundance, upper and lower confidence intervals (CI), precision (coefficient of variation), and density estimates (individuals per km^2) of great northern divers in the Survey Area, Site, and 4 km Buffer

Survey Area						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	3	21	3	43	0.58	0.02
May-21 (S02)	2	14	2	36	0.71	0.01
Jun-21 (S03)	2	14	2	43	0.71	0.01
Jan-22 (S09)	2	14	2	35	0.71	0.01
Mar-22 (S10)	3	20	3	47	0.58	0.02
Mar-22 (S11)	3	22	3	58	0.58	0.02
Apr-22 (S12)	2	14	2	43	0.71	0.01
May-22 (S13)	5	36	5	85	0.45	0.03
Jul-22 (S15)	1	7	1	21	<1.00	0.01
Oct-22 (S18)	1	7	1	21	<1.00	0.01
Nov-22 (S19)	3	21	3	64	0.58	0.02
Jan-23 (S22)	1	7	1	21	<1.00	0.01
Feb-23 (S23)	5	37	5	74	0.45	0.03
Mar-23 (S24)	4	29	4	86	0.50	0.02
Apr-23 (S25)	5	36	7	72	0.45	0.03
May-23 (S26)	3	21	3	57	0.58	0.02
Jun-23 (S27)	1	7	1	21	<1.00	0.01
Site						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	1	7	1	21	<1.00	0.01
May-21 (S02)	1	7	1	21	<1.00	0.01
Mar-22 (S10)	1	6	1	19	<1.00	0.01
Mar-22 (S11)	1	7	1	21	<1.00	0.01

Site						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
May-22 (S13)	1	7	1	21	<1.00	0.01
Oct-22 (S18)	1	7	1	21	<1.00	0.01
Nov-22 (S19)	3	21	3	62	0.58	0.03
Mar-23 (S24)	1	7	1	21	<1.00	0.01
May-23 (S26)	3	21	3	48	0.58	0.03
Jun-23 (S27)	1	7	1	20	<1.00	0.01
4 km Buffer						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	2	15	2	37	0.71	0.03
May-21 (S02)	1	8	1	23	<1.00	0.02
Jun-21 (S03)	2	15	2	46	0.71	0.03
Jan-22 (S09)	2	15	2	37	0.71	0.03
Mar-22 (S10)	2	14	2	35	0.71	0.03
Mar-22 (S11)	2	15	2	38	0.71	0.03
Apr-22 (S12)	2	15	2	46	0.71	0.03
May-22 (S13)	4	30	4	60	0.50	0.06
Jul-22 (S15)	1	8	1	23	<1.00	0.02
Jan-23 (S22)	1	8	1	23	<1.00	0.02
Feb-23 (S23)	5	39	5	86	0.45	0.08
Mar-23 (S24)	3	23	3	68	0.58	0.05
Apr-23 (S25)	5	38	8	68	0.45	0.08

In May 2022 and 2023, single great northern divers were recorded flying in a north-westerly and westerly direction respectively.

4.1.10 Storm Petrel Species/European Storm Petrel *Hydrobates pelagicus*

European storm petrels were identified to species level in one survey (May 2023, Survey 26), whilst storm petrel species were recorded in eight surveys. Following apportionment of storm petrel species into European storm petrels, a peak abundance estimate of 298 birds and a density of 0.24 birds/km^2 was recorded in the Survey Area (Table 19). During the peak in July 2023, they were recorded scattered across the Survey Area, with higher densities in the western half (Figure 115).

During the breeding period (May to September) in 2021, storm petrels were recorded in low numbers, with relatively higher densities recorded in the 4 km buffer (Figure 371); in 2022, they were distributed across the west of the Survey Area with higher densities in the Site (Figure 372). In 2023, higher densities were recorded with most in the north of the Survey Area (Figure 374). Where European storm petrels are not expected in significant abundance in Scottish waters (November to May), one was recorded in the north of the 4 km buffer (Figure 373).

Table 19 Raw counts, abundance, upper and lower confidence intervals (CI), precision (coefficient of variation), and density estimates (individuals per km^2) of European storm petrels in the Survey Area, Site, and 4 km Buffer

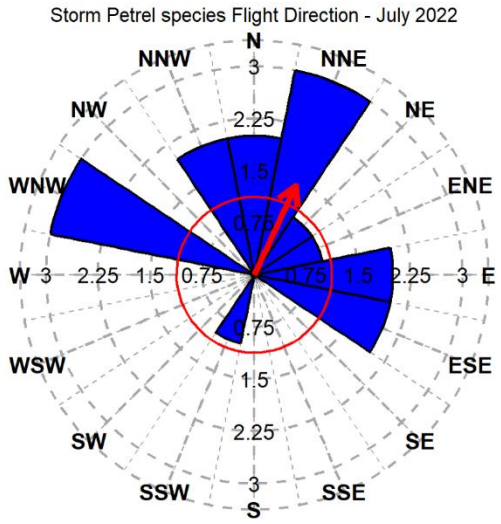
Survey Area						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Jun-21 (S03)	8	58*	8	144	0.35	0.05*
Aug-21 (S05)	6	43*	6	107	0.41	0.03*
Jun-22 (S14)	2	14*	2	43	0.71	0.01*
Jul-22 (S15)	17	121*	43	199	0.24	0.10*
Aug-22 (S16)	5	35*	5	92	0.45	0.03*
May-23 (S26)	1	7	1	21	<1.00	0.01
Jun-23 (S27)	11	78*	21	149	0.30	0.06*
Jul-23 (S28)	42	298*	163	447	0.15	0.24*
Aug-23 (S29)	25	179*	72	293	0.20	0.14*
Site						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Jun-21 (S03)	2	14*	2	42	0.71	0.02*
Aug-21 (S05)	3	21*	3	62	0.58	0.03*
Jun-22 (S14)	2	14*	2	42	0.71	0.02*
Jul-22 (S15)	13	89*	34	158	0.28	0.12*
Aug-22 (S16)	5	34*	5	96	0.45	0.05*
Jun-23 (S27)	5	34*	5	68	0.45	0.05*
Jul-23 (S28)	33	226*	103	370	0.17	0.30*
Aug-23 (S29)	6	42*	6	90	0.41	0.06*
4 km Buffer						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Jun-21 (S03)	6	46*	6	130	0.41	0.09*
Aug-21 (S05)	3	23*	3	68	0.58	0.05*
Jul-22 (S15)	4	30*	4	90	0.50	0.06*
May-23 (S26)	1	8	1	23	<1.00	0.02
Jun-23 (S27)	6	45*	8	113	0.41	0.09*
Jul-23 (S28)	9	68*	9	143	0.33	0.14*
Aug-23 (S29)	19	143*	45	264	0.23	0.29*

Table Note: * These numbers include the apportioned attribution of unidentified individuals

Significant predominant direction of flight was recorded in:

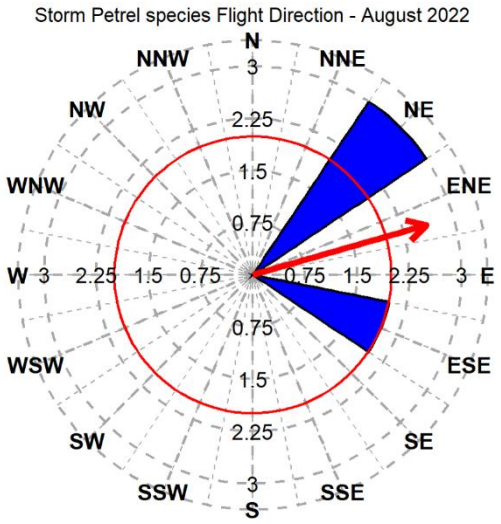
- June
  - 2023 – southwest (Figure 11c)
- July
  - 2022 – north-northeast (Figure 11a)
- August
  - 2022 – east-northeast to east (Figure 11b)
  - 2023 – north-northwest to north (Figure 11d)

In May 2023, a single European storm petrel was recorded flying in a west-north-westerly direction.



Number of Observations = 17
Mean Vector = 25.536
Length of mean vector (r) = 0.469
Rayleigh Test (Z) = 3.747
Rayleigh Test (p) = 0.021

Figure 11a storm petrel species flight direction recorded in July 2022



Number of Observations = 5
Mean Vector = 74.867
Length of mean vector (r) = 0.862
Rayleigh Test (Z) = 3.718
Rayleigh Test (p) = 0.015

Figure 11b storm petrel species flight direction recorded in August 2022

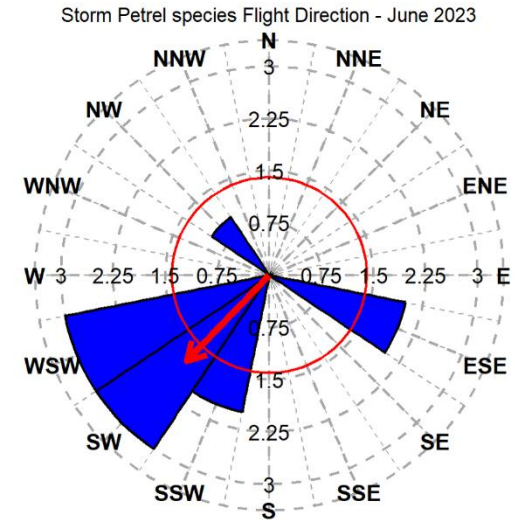


Figure 11c storm petrel species flight direction recorded in June 2023

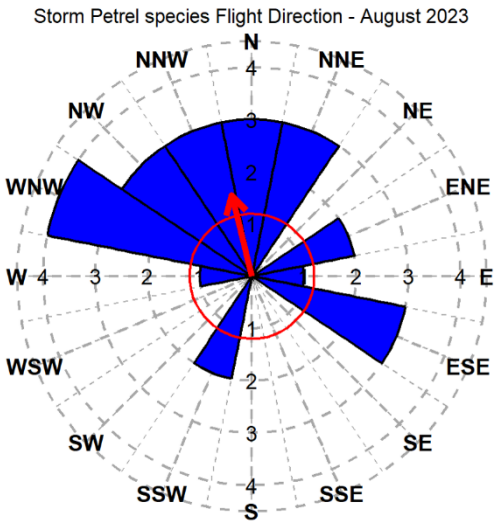


Figure 11d storm petrel species flight direction recorded in August 2023

Figure 11 Summary of flight direction of storm petrel species during the survey period

4.1.11 Fulmar *Fulmarus glacialis*

Fulmars were recorded in 28 surveys, with a peak abundance estimate 425 birds and a density of 0.34 birds/km^2 recorded in the Survey Area (Table 20). During the peak in January 2022, fulmars were recorded scattered across the Survey Area, with no apparent distributional pattern (Figure 125).

During the fulmar breeding period (April to September) in 2021 and 2023, fulmars were distributed across the survey area, with slightly higher densities in the northeast of the Site and the west of the 4 km buffer (Figure 375 and Figure 379). In 2022, higher numbers were recorded, with highest densities in the north of the Site (Figure 377). During winter non-breeding (September to March) between 2021 and 2022, fulmars were distributed across the Survey Area with highest densities in the northeast (Figure 376). Between 2022 and 2023, densities were higher in the north of the Site, and in the west and south of the 4 km buffer (Figure 378).

Table 20 Raw counts, abundance, upper and lower confidence intervals (CI), precision (coefficient of variation), and density estimates (individuals per km^2) of fulmars in the Survey Area, Site, and 4 km Buffer

Survey Area						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	3	21	3	43	0.58	0.02
May-21 (S02)	15	107	57	164	0.26	0.09
Jun-21 (S03)	2	14	2	36	0.71	0.01
Jul-21 (S04)	14	100	43	171	0.27	0.08
Aug-21 (S05)	23	165	72	272	0.21	0.13
Sep-21 (S06)	2	14	2	36	0.71	0.01
Oct-21 (S07)	7	50	7	114	0.38	0.04
Nov-21 (S08)	20	145	36	276	0.22	0.12
Jan-22 (S09)	61	425	223	690	0.13	0.34
Mar-22 (S10)	10	66	20	106	0.32	0.05
Mar-22 (S11)	11	80	44	124	0.30	0.06
Apr-22 (S12)	7	50	7	100	0.38	0.04
May-22 (S13)	2	14	2	36	0.71	0.01
Jun-22 (S14)	17	123	65	181	0.24	0.10
Jul-22 (S15)	43	306	71	647	0.15	0.25
Aug-22 (S16)	11	78	28	135	0.30	0.06
Sep-22 (S17)	19	134	28	297	0.23	0.11
Oct-22 (S18)	35	249	43	520	0.17	0.20
Nov-22 (S19)	6	43	7	78	0.41	0.03
Dec-22 (S20)	13	93	21	192	0.28	0.08
Jan-23 (S22)	12	86	21	178	0.29	0.07
Mar-23 (S24)	27	193	93	293	0.19	0.16
Apr-23 (S25)	9	64	29	100	0.33	0.05
May-23 (S26)	15	107	36	200	0.26	0.09
Jun-23 (S27)	10	71	28	120	0.32	0.06
Jul-23 (S28)	22	156	71	256	0.21	0.13
Aug-23 (S29)	13	93	43	157	0.28	0.08
Sep-23 (S30)	1	7	1	21	<1.00	0.01

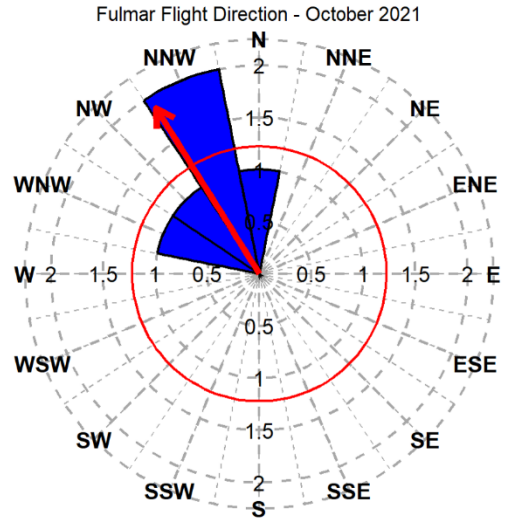
Site						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	1	7	1	21	<1.00	0.01
May-21 (S02)	9	62	21	103	0.33	0.08
Jun-21 (S03)	1	7	1	21	<1.00	0.01
Jul-21 (S04)	8	55	21	97	0.35	0.07
Aug-21 (S05)	13	90	35	166	0.28	0.12
Sep-21 (S06)	1	7	1	21	<1.00	0.01
Oct-21 (S07)	3	21	7	41	0.58	0.03
Nov-21 (S08)	14	98	21	196	0.27	0.13
Jan-22 (S09)	41	275	74	557	0.16	0.36
Mar-22 (S10)	5	32	5	71	0.45	0.04
Mar-22 (S11)	3	21	3	49	0.58	0.03
Apr-22 (S12)	4	28	4	69	0.50	0.04
Jun-22 (S14)	11	77	35	140	0.30	0.10
Jul-22 (S15)	43	295	82	625	0.15	0.39
Aug-22 (S16)	8	55	14	103	0.35	0.07
Sep-22 (S17)	7	48	20	82	0.38	0.06
Oct-22 (S18)	20	138	20	338	0.22	0.18
Nov-22 (S19)	2	14	2	34	0.71	0.02
Dec-22 (S20)	7	48	7	103	0.38	0.06
Jan-23 (S22)	8	55	14	117	0.35	0.07
Mar-23 (S24)	18	124	48	207	0.24	0.16
Apr-23 (S25)	4	28	7	56	0.50	0.04
May-23 (S26)	11	76	21	159	0.30	0.10
Jun-23 (S27)	9	61	27	102	0.33	0.08
Jul-23 (S28)	11	75	34	117	0.30	0.10
Aug-23 (S29)	7	48	21	76	0.38	0.06
4 km Buffer						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	2	15	2	37	0.71	0.03
May-21 (S02)	6	45	15	83	0.41	0.09
Jun-21 (S03)	1	8	1	23	<1.00	0.02
Jul-21 (S04)	6	45	15	83	0.41	0.09
Aug-21 (S05)	10	76	10	204	0.32	0.16
Sep-21 (S06)	1	8	1	23	<1.00	0.02
Oct-21 (S07)	4	30	4	76	0.50	0.06
Nov-21 (S08)	6	46	6	131	0.41	0.09
Jan-22 (S09)	20	148	59	260	0.22	0.30
Mar-22 (S10)	5	35	7	77	0.45	0.07
Mar-22 (S11)	8	62	31	92	0.35	0.13
Apr-22 (S12)	3	23	3	61	0.58	0.05
May-22 (S13)	2	15	2	37	0.71	0.03
Jun-22 (S14)	6	46	8	100	0.41	0.09
Aug-22 (S16)	3	23	3	60	0.58	0.05
Sep-22 (S17)	12	90	12	270	0.29	0.19

4 km Buffer						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Oct-22 (S18)	15	113	15	278	0.26	0.23
Nov-22 (S19)	4	30	4	75	0.50	0.06
Dec-22 (S20)	6	45	6	98	0.41	0.09
Jan-23 (S22)	4	30	4	68	0.50	0.06
Mar-23 (S24)	9	68	15	136	0.33	0.14
Apr-23 (S25)	5	38	5	75	0.45	0.08
May-23 (S26)	4	30	4	60	0.50	0.06
Jun-23 (S27)	1	8	1	23	<1.00	0.02
Jul-23 (S28)	11	83	23	158	0.30	0.17
Aug-23 (S29)	6	45	6	128	0.41	0.09
Sep-23 (S30)	1	8	1	23	<1.00	0.02

Significant predominant direction of flight was recorded in:

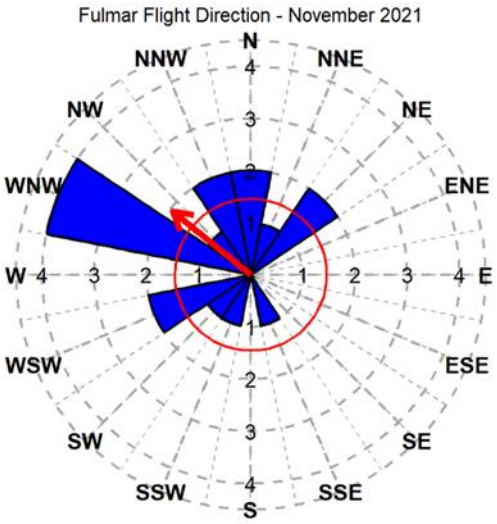
- January
  - 2022 – west-northwest to northwest (Figure 12c)
  - 2023 – west-southwest (Figure 12g)
- March
  - 2023 – west-southwest to west (Figure 12h)
- June
  - 2022 – south (Figure 12d)
- September
  - 2022 – north-northwest to north (Figure 12e)
- October
  - 2021 – north-northwest to northwest (Figure 12a)
  - 2022–northwest to north-northwest (Figure 12f)
- November
  - 2021 – northwest (Figure 12b)

In May 2022, June 2021 and September 2021, single fulmars were recorded flying in a south-easterly, southerly, and north-westerly direction respectively.



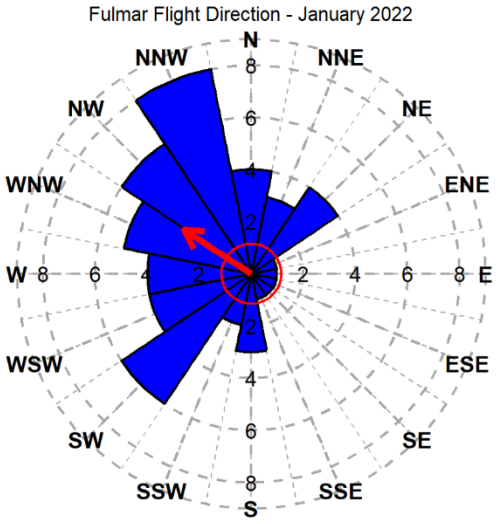
Number of Observations = 5
Mean Vector = 328.023
Length of mean vector (r) = 0.936
Rayleigh Test (Z) = 4.383
Rayleigh Test (p) = 0.005

Figure 12a fulmar flight direction recorded in October 2021



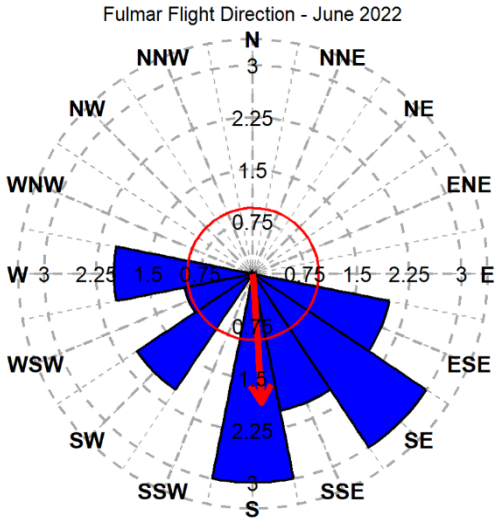
Number of Observations = 17
Mean Vector = 309.744
Length of mean vector (r) = 0.482
Rayleigh Test (Z) = 3.946
Rayleigh Test (p) = 0.017

Figure 12b fulmar flight direction recorded in November 2021



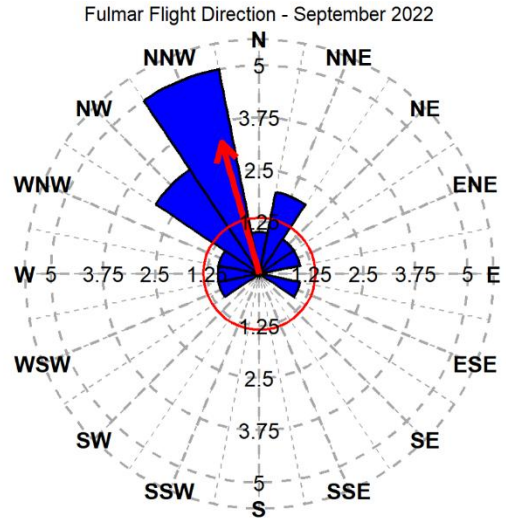
Number of Observations = 54
Mean Vector = 303.249
Length of mean vector (r) = 0.385
Rayleigh Test (Z) = 8.006
Rayleigh Test (p) = <0.001

Figure 12c fulmar flight direction recorded in January 2022



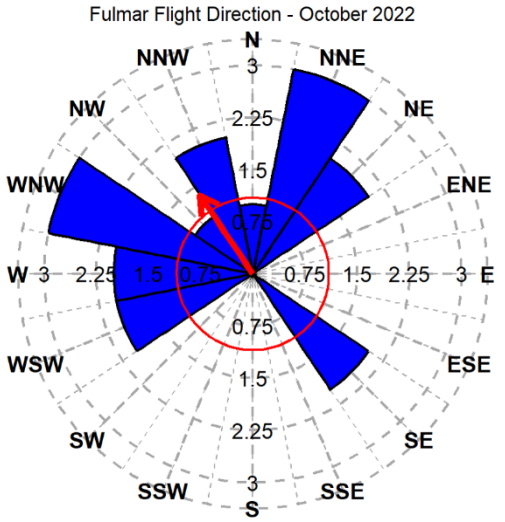
Number of Observations = 15
Mean Vector = 176.084
Length of mean vector (r) = 0.621
Rayleigh Test (Z) = 5.784
Rayleigh Test (p) = 0.002

Figure 12d fulmar flight direction recorded in June 2022



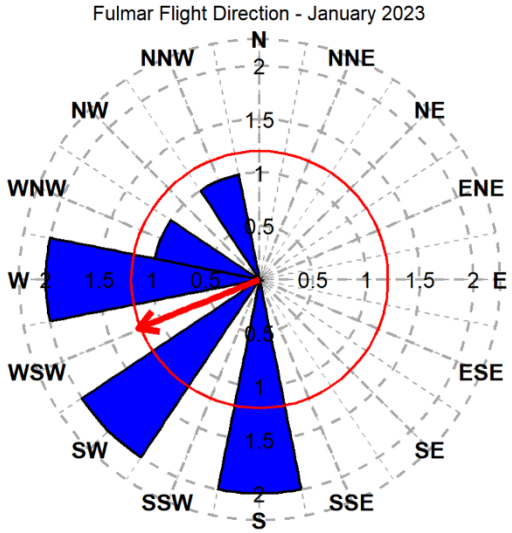
Number of Observations = 17
Mean Vector = 344.567
Length of mean vector (r) = 0.653
Rayleigh Test (Z) = 7.239
Rayleigh Test (p) = <0.001

Figure 12e fulmar flight direction recorded in September 2022



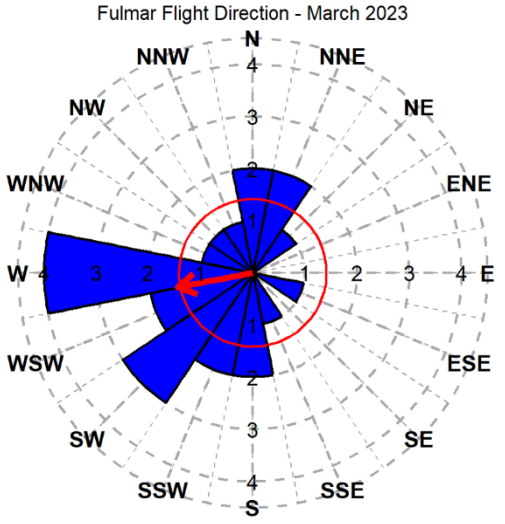
Number of Observations = 18
Mean Vector = 326.614
Length of mean vector (r) = 0.453
Rayleigh Test (Z) = 3.702
Rayleigh Test (p) = 0.022

Figure 12f fulmar flight direction recorded in October 2022



Number of Observations = 8
Mean Vector = 248.956
Length of mean vector (r) = 0.612
Rayleigh Test (Z) = 2.995
Rayleigh Test (p) = 0.045

Figure 12g fulmar flight direction recorded in January 2023



Number of Observations = 23
Mean Vector = 259.350
Length of mean vector (r) = 0.367
Rayleigh Test (Z) = 3.091
Rayleigh Test (p) = 0.044

Figure 12h fulmar flight direction recorded in March 2023

Figure 12 Summary of flight direction of fulmar during the survey period

4.1.12 Manx Shearwater *Puffinus puffinus*

Manx shearwaters were recorded in 22 surveys, with a peak abundance estimate of 20,983 birds and a density of 16.92 birds/km^2 recorded in the Survey Area (Table 22). During the peak in April 2022, Manx shearwaters were recorded scattered across the Survey Area, with higher densities in the east (Figure 152).

During the Manx shearwater breeding period (April to October) in 2021, densities were highest in the north of the Survey Area, in both the Site and in the 4 km buffer (Figure 380). In 2022, densities were highest across the centre of the Site, in the southeast of the 4 km buffer (Figure 382). In 2023, highest densities were across the Site and in the east of the 4 km buffer (Figure 384). When Manx shearwaters are not expected in significant abundance in Scottish waters (October to March) between 2021 and 2022, Manx shearwaters densities were highest in the north and south of the Site (Figure 381). Between 2022 and 2023 densities were highest in the north of the 4 km buffer (Figure 383).

Table 21 Raw counts, abundance, upper and lower confidence intervals (CI), precision (coefficient of variation), and density estimates (individuals per km^2) of Manx shearwaters in the Survey Area, Site, and 4 km Buffer

Survey Area						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	294	2,090*	441	4,107	0.06	1.69*
May-21 (S02)	515	3,683*	1,260	7,239	0.04	2.97*
Jun-21 (S03)	120	874*	397	1,572	0.09	0.71*
Jul-21 (S04)	1,856	13,304*	6,831	22,264	0.02	10.73*
Aug-21 (S05)	171	1,255*	730	1,717	0.08	1.01*
Mar-22 (S10)	3	20	3	47	0.58	0.02
Mar-22 (S11)	118	895*	480	1,287	0.09	0.72*
Apr-22 (S12)	2,929	20,983*	9,536	31,777	0.02	16.92*
May-22 (S13)	1,372	9,819*	1,623	20,737	0.03	7.92*
Jun-22 (S14)	442	4,100*	2,114	4,647	0.05	3.31*
Jul-22 (S15)	729	5,337*	1,408	10,103	0.04	4.30*
Aug-22 (S16)	149	1,501*	376	2,092	0.08	1.21*
Sep-22 (S17)	18	143*	28	261	0.24	0.12*
Oct-22 (S18)	1	21*	1	21	<1.00	0.02*
Nov-22 (S19)	1	7	1	21	<1.00	0.01
Mar-23 (S24)	76	554*	243	929	0.11	0.45*
Apr-23 (S25)	905	6,563*	3,332	11,294	0.03	5.29*
May-23 (S26)	398	2,851*	1,112	5,819	0.05	2.30*
Jun-23 (S27)	1,567	11,123*	6,783	15,385	0.03	8.97*
Jul-23 (S28)	1,184	12,398*	1,505	18,737	0.03	10.00*
Aug-23 (S29)	339	3,419*	339	6,562	0.05	2.76*
Sep-23 (S30)	225	1,848*	622	3,125	0.07	1.49*
Site						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	79	543	165	1,045	0.11	0.72
May-21 (S02)	412	2,853*	881	6,143	0.05	3.78*
Jun-21 (S03)	92	648*	258	1,226	0.10	0.86*

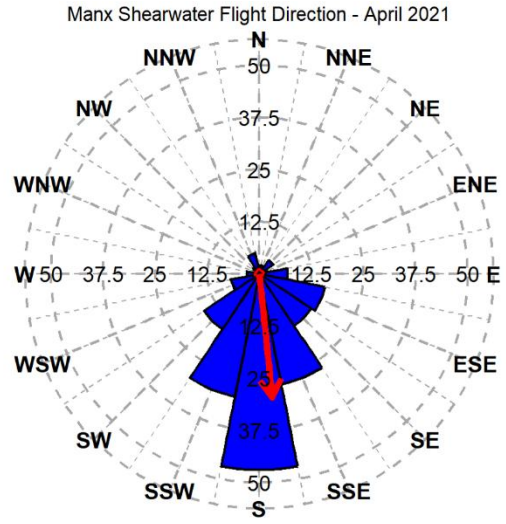
Site						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Jul-21 (S04)	682	4,717*	2,809	6,660	0.04	6.25*
Aug-21 (S05)	105	729*	318	1,149	0.10	0.97*
Mar-22 (S10)	1	6	1	19	<1.00	0.01
Mar-22 (S11)	85	621*	267	947	0.11	0.82*
Apr-22 (S12)	2,852	19,681*	10,001	29,845	0.02	26.09*
May-22 (S13)	724	5,023*	724	13,034	0.04	6.66*
Jun-22 (S14)	208	1,947*	923	2,041	0.07	2.58*
Jul-22 (S15)	655	4,640*	1,084	8,902	0.04	6.15*
Aug-22 (S16)	35	423*	116	363	0.17	0.56*
Sep-22 (S17)	3	20	3	48	0.58	0.03
Nov-22 (S19)	1	7	1	21	<1.00	0.01
Mar-23 (S24)	40	283*	117	469	0.16	0.37*
Apr-23 (S25)	526	3,718*	2,224	5,580	0.04	4.93*
May-23 (S26)	286	1,981*	566	4,313	0.06	2.63*
Jun-23 (S27)	1,092	7,467*	2,960	12,507	0.03	9.90*
Jul-23 (S28)	1,118	11,042*	1,118	16,596	0.03	14.64*
Aug-23 (S29)	27	492*	90	284	0.19	0.65*
Sep-23 (S30)	135	1,111*	229	2,043	0.09	1.47*
4 km Buffer						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	215	1,611*	215	3,662	0.07	3.32*
May-21 (S02)	103	775*	285	1,412	0.10	1.60*
Jun-21 (S03)	28	214*	46	427	0.19	0.44*
Jul-21 (S04)	1,174	8,906*	1,580	18,964	0.03	18.33*
Aug-21 (S05)	66	530*	166	906	0.12	1.09*
Mar-22 (S10)	2	14	2	42	0.71	0.03
Mar-22 (S11)	33	269*	69	562	0.17	0.55*
Apr-22 (S12)	77	587*	114	1,116	0.11	1.21*
May-22 (S13)	648	4,876*	648	13,309	0.04	10.04*
Jun-22 (S14)	234	2,203*	452	3,586	0.07	4.53*
Jul-22 (S15)	74	567*	74	1,589	0.12	1.17*
Aug-22 (S16)	114	1,122*	158	2,040	0.09	2.31*
Sep-22 (S17)	15	128*	15	255	0.26	0.26*
Oct-22 (S18)	1	24*	1	23	<1.00	0.05*
Mar-23 (S24)	36	276*	45	636	0.17	0.57*
Apr-23 (S25)	379	2,869*	542	6,267	0.05	5.90*
May-23 (S26)	112	848*	263	1,564	0.09	1.75*
Jun-23 (S27)	475	3,589*	796	6,741	0.05	7.39*
Jul-23 (S28)	66	1,014*	241	827	0.12	2.09*
Aug-23 (S29)	312	3,073*	312	6,742	0.06	6.32*
Sep-23 (S30)	90	741*	248	1,250	0.11	1.52*

Table Note: * These numbers include the apportioned attribution of unidentified individuals

Significant predominant direction of flight was recorded in:

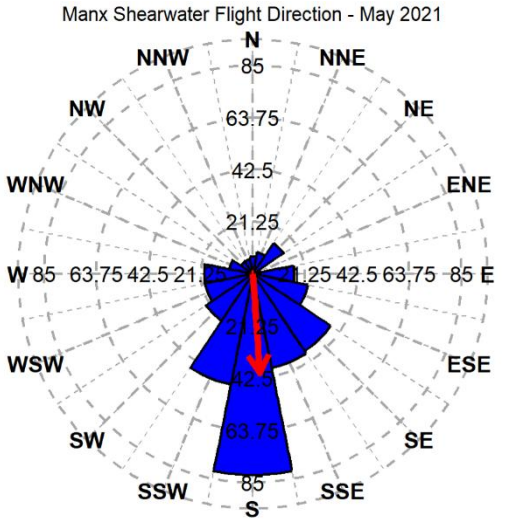
- April
  - 2021 – south to south-southeast (Figure 13a)
  - 2022 – north to north-northeast (Figure 13f)
  - 2023 – north-northeast to north (Figure 13k)
- May
  - 2021 – south (Figure 13b)
  - 2022 – north-northwest (Figure 13g)
  - 2023 – southeast (Figure 13l)
- June
  - 2021 – southwest to south-southwest (Figure 13c)
  - 2022 – southeast to south-southeast (Figure 13h)
  - 2023 – west (Figure 13m)
- July
  - 2021 – north (Figure 13d)
  - 2022 – west-southwest to west (Figure 13i)
  - 2023 – west (Figure 13n)
- August
  - 2021 – north to north-northwest (Figure 13e)
  - 2022 – west-northwest to northwest (Figure 13j)
  - 2023 – east to east-southeast (Figure 13o)
- September
  - 2023 – south-southeast to east (Figure 13p)

In October 2022 and November 2022, single Manx shearwaters were recorded flying in a westerly and easterly direction respectively.



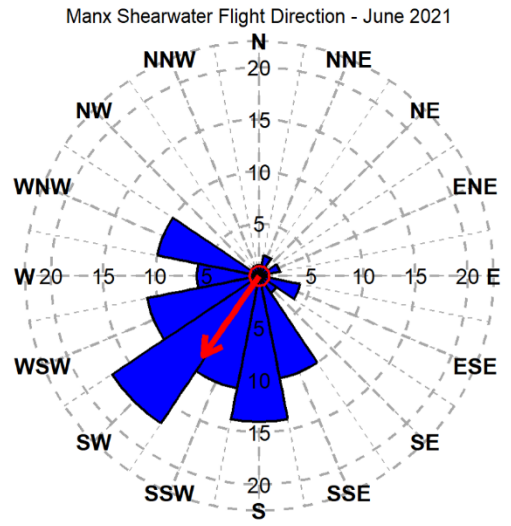
Number of Observations = 185
Mean Vector = 174.592
Length of mean vector (r) = 0.635
Rayleigh Test (Z) = 74.564
Rayleigh Test (p) = <0.001

Figure 13a Manx shearwater flight direction recorded in April 2021



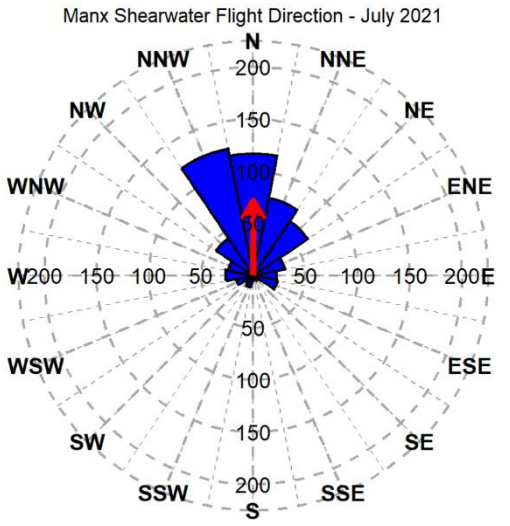
Number of Observations = 364
Mean Vector = 176.470
Length of mean vector (r) = 0.495
Rayleigh Test (Z) = 89.254
Rayleigh Test (p) = <0.001

Figure 13b Manx shearwater flight direction recorded in May 2021



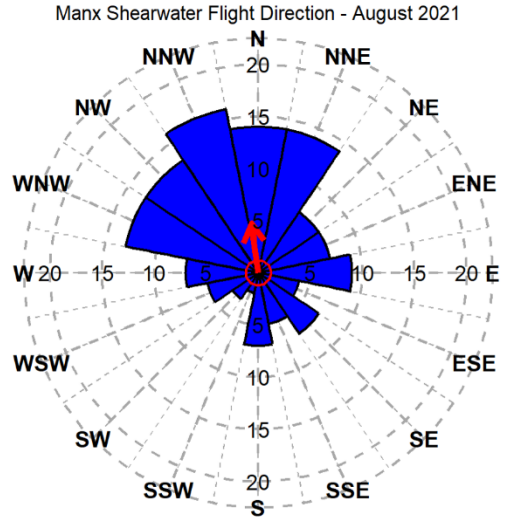
Number of Observations = 94
Mean Vector = 215.348
Length of mean vector (r) = 0.549
Rayleigh Test (Z) = 28.336
Rayleigh Test (p) = <0.001

Figure 13c Manx shearwater flight direction recorded in June 2021



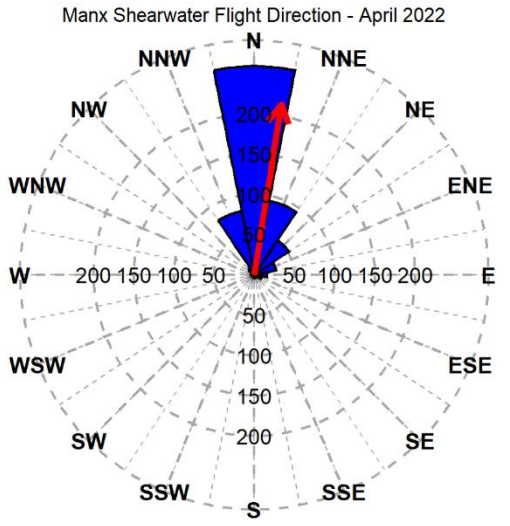
Number of Observations = 607
Mean Vector = 0.281
Length of mean vector (r) = 0.577
Rayleigh Test (Z) = 201.950
Rayleigh Test (p) = <0.001

Figure 13d Manx shearwater flight direction recorded in July 2021



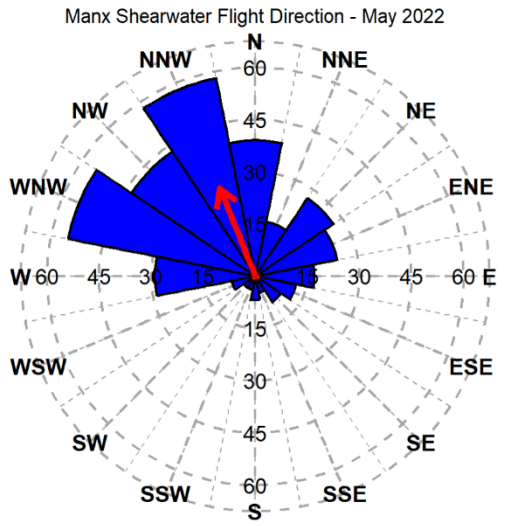
Number of Observations = 133
Mean Vector = 352.628
Length of mean vector (r) = 0.296
Rayleigh Test (Z) = 11.642
Rayleigh Test (p) = <0.001

Figure 13e Manx shearwater flight direction recorded in August 2021



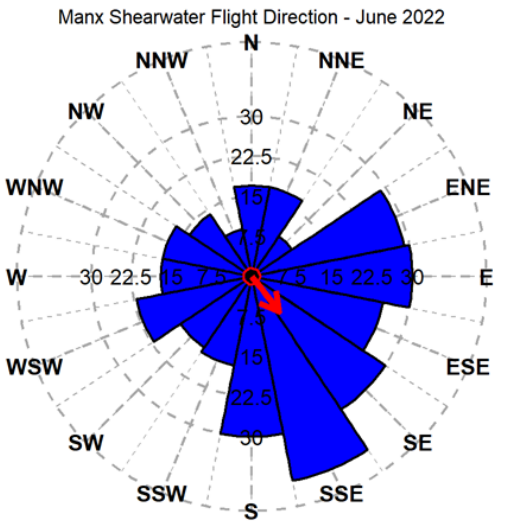
Number of Observations = 570
Mean Vector = 9.728
Length of mean vector (r) = 0.829
Rayleigh Test (Z) = 391.623
Rayleigh Test (p) = <0.001

Figure 13f Manx shearwater flight direction recorded in April 2022



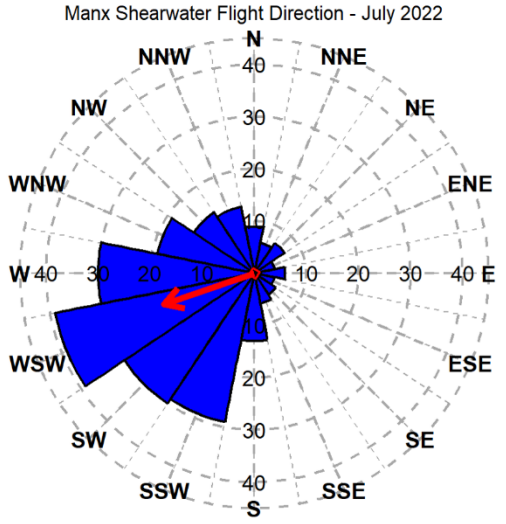
Number of Observations = 356
Mean Vector = 338.298
Length of mean vector (r) = 0.470
Rayleigh Test (Z) = 78.704
Rayleigh Test (p) = <0.001

Figure 13g Manx shearwater flight direction recorded in May 2022



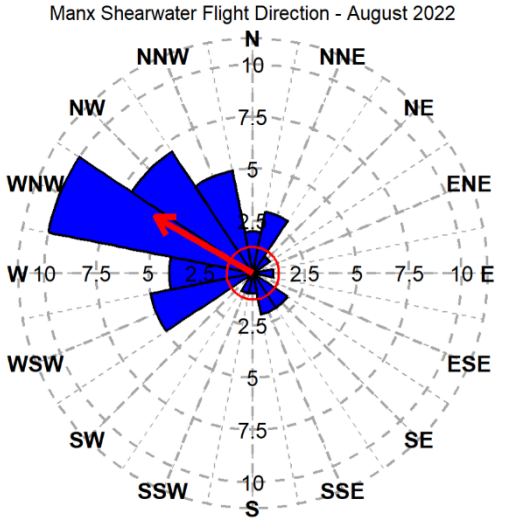
Number of Observations = 338
Mean Vector = 142.455
Length of mean vector (r) = 0.213
Rayleigh Test (Z) = 15.362
Rayleigh Test (p) = <0.001

Figure 13h Manx shearwater flight direction recorded in June 2022



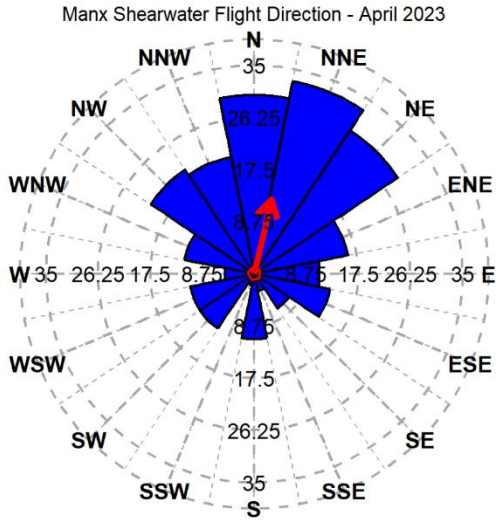
Number of Observations = 234
Mean Vector = 251.023
Length of mean vector (r) = 0.469
Rayleigh Test (Z) = 51.486
Rayleigh Test (p) = <0.001

Figure 13i Manx shearwater flight direction recorded in July 2022



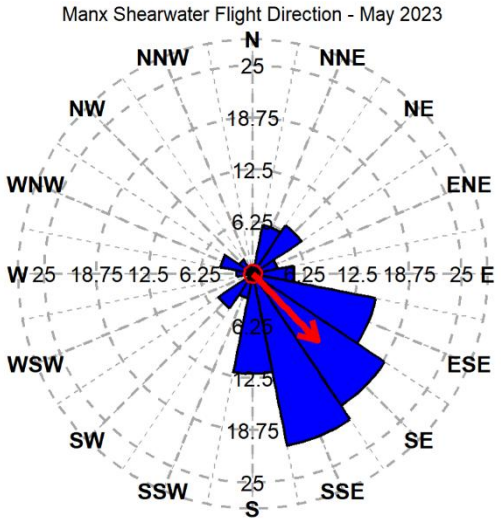
Number of Observations = 44
Mean Vector = 300.312
Length of mean vector (r) = 0.538
Rayleigh Test (Z) = 12.721
Rayleigh Test (p) = <0.001

Figure 183j Manx shearwater flight direction recorded in August 2022



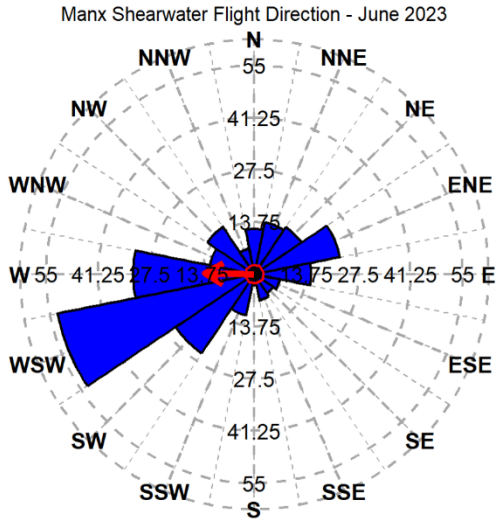
Number of Observations = 235
Mean Vector = 13.299
Length of mean vector (r) = 0.388
Rayleigh Test (Z) = 35.335
Rayleigh Test (p) = <0.001

Figure 13k Manx shearwater flight direction recorded in April 2023



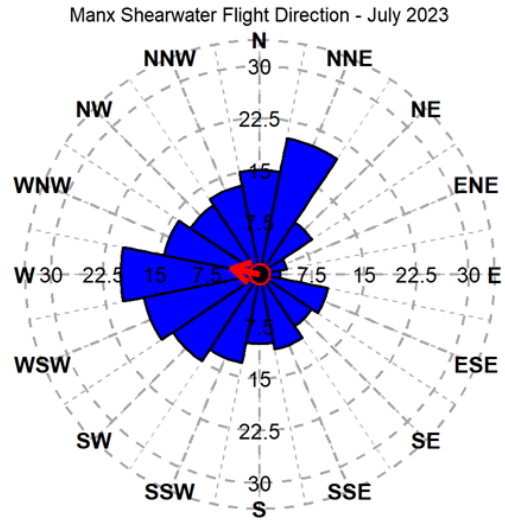
Number of Observations = 106
Mean Vector = 136.334
Length of mean vector (r) = 0.530
Rayleigh Test (Z) = 29.786
Rayleigh Test (p) = <0.001

Figure 13l Manx shearwater flight direction recorded in May 2023



Number of Observations = 257
Mean Vector = 271.617
Length of mean vector (r) = 0.246
Rayleigh Test (Z) = 15.554
Rayleigh Test (p) = <0.001

Figure 13m Manx shearwater flight direction recorded in June 2023



Number of Observations = 195
Mean Vector = 282.938
Length of mean vector (r) = 0.203
Rayleigh Test (Z) = 8.012
Rayleigh Test (p) = <0.001

Figure 13n Manx shearwater flight direction recorded in July 2023

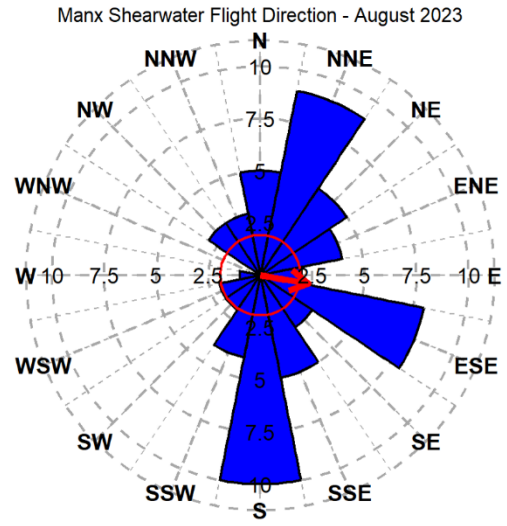


Figure 13o Manx shearwater flight direction recorded in August 2023

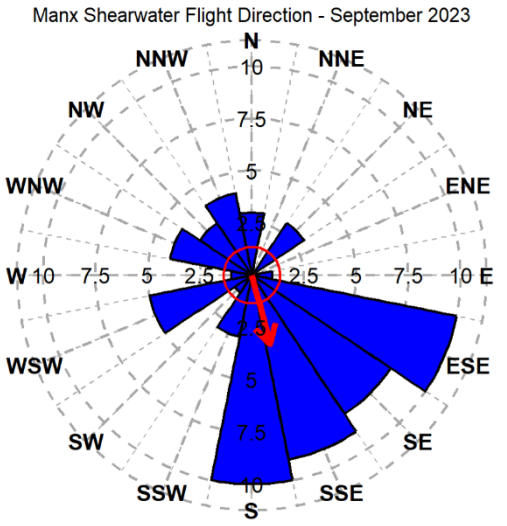


Figure 13p Manx shearwater flight direction recorded in September 2023

Figure 13 Summary of flight direction of Manx shearwater during the survey period

4.1.13 Gannet *Morus bassanus*

Gannets were recorded in 29 surveys, with a peak abundance estimate of 1,082 birds and a density of 0.87 birds/km^2 recorded in the Survey Area (Table 22). During the peak in May 2022, gannets were recorded scattered across the Survey Area, with higher densities in the south (Figure 179).

During the breeding period (March to September) in 2021, gannets were distributed across the Survey Area with higher densities recorded in the Site (Figure 385). In 2022 and 2023, higher densities were recorded in the northeast of the Survey Area (Figure 387 and Figure 390). In 2022, breeding site attendance of gannets (February to March) was distributed across the middle of the Survey Area (Figure 388). In 2023, breeding site attendance was highest in the north of the 4 km buffer (Figure 391). During the winter non-breeding period (October to February) between 2021 and 2022, densities were highest in the north of the 4 km buffer (Figure 386). Between 2022 and 2023, densities were highest in the north of the 4 km buffer and in the northwest of the Site (Figure 389).

Table 22 Raw counts, abundance, upper and lower confidence intervals (CI), precision (coefficient of variation), and density estimates (individuals per km^2) of gannets in the Survey Area, Site, and 4 km Buffer

Survey Area						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	46	327	171	526	0.15	0.26
May-21 (S02)	58	413	249	584	0.13	0.33
Jun-21 (S03)	46	332	144	562	0.15	0.27
Jul-21 (S04)	100	715	479	965	0.10	0.58
Aug-21 (S05)	57	408	258	587	0.13	0.33
Sep-21 (S06)	34	241	78	469	0.17	0.19
Oct-21 (S07)	17	121	29	243	0.24	0.10
Nov-21 (S08)	36	262	109	436	0.17	0.21
Jan-22 (S09)	2	14	2	35	0.71	0.01
Mar-22 (S10)	6	40	13	73	0.41	0.03
Mar-22 (S11)	23	167	95	240	0.21	0.13
Apr-22 (S12)	138	987	479	1,717	0.09	0.80
May-22 (S13)	152	1,082	626	1,588	0.08	0.87
Jun-22 (S14)	35	253	159	355	0.17	0.20
Jul-22 (S15)	11	78	36	114	0.30	0.06
Aug-22 (S16)	53	376	163	667	0.14	0.30
Sep-22 (S17)	40	282	162	424	0.16	0.23
Oct-22 (S18)	32	228	32	506	0.18	0.18
Nov-22 (S19)	5	36	7	71	0.45	0.03
Dec-22 (S20)	4	28	4	64	0.50	0.02
Jan-23 (S22)	4	29	7	50	0.50	0.02
Feb-23 (S23)	92	677	361	1,053	0.10	0.55
Mar-23 (S24)	31	222	57	429	0.18	0.18
Apr-23 (S25)	25	179	86	301	0.20	0.14
May-23 (S26)	15	114	57	178	0.25	0.09
Jun-23 (S27)	91	644	446	821	0.10	0.52
Jul-23 (S28)	17	121	28	277	0.24	0.10
Aug-23 (S29)	41	301	143	472	0.15	0.24
Sep-23 (S30)	94	672	400	980	0.10	0.54

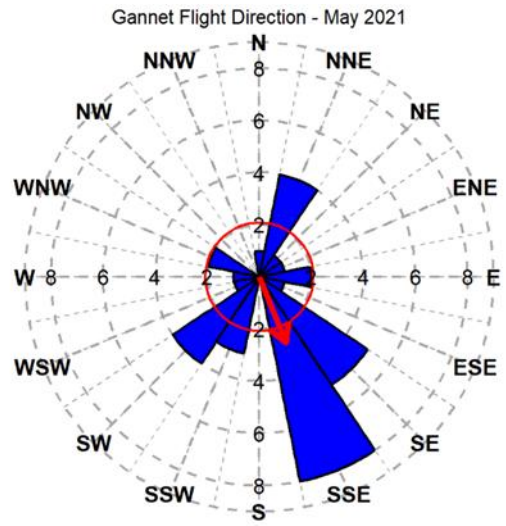
Site						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	22	151	62	241	0.21	0.20
May-21 (S02)	42	289	158	441	0.15	0.38
Jun-21 (S03)	29	202	70	341	0.19	0.27
Jul-21 (S04)	71	490	311	676	0.12	0.65
Aug-21 (S05)	45	311	180	443	0.15	0.41
Sep-21 (S06)	22	151	62	254	0.21	0.20
Oct-21 (S07)	15	103	28	221	0.26	0.14
Nov-21 (S08)	11	77	28	133	0.30	0.10
Mar-22 (S10)	3	19	3	51	0.58	0.03
Mar-22 (S11)	15	105	49	168	0.26	0.14
Apr-22 (S12)	109	752	269	1,448	0.10	1.00
May-22 (S13)	113	779	407	1,221	0.09	1.03
Jun-22 (S14)	24	168	84	252	0.20	0.22
Jul-22 (S15)	7	48	14	82	0.38	0.06
Aug-22 (S16)	42	288	103	555	0.15	0.38
Sep-22 (S17)	32	218	109	347	0.18	0.29
Oct-22 (S18)	31	214	31	448	0.18	0.28
Nov-22 (S19)	3	21	3	55	0.58	0.03
Dec-22 (S20)	1	7	1	21	<1.00	0.01
Jan-23 (S22)	2	14	2	34	0.71	0.02
Feb-23 (S23)	35	249	93	441	0.17	0.33
Mar-23 (S24)	19	131	19	331	0.23	0.17
Apr-23 (S25)	10	69	14	139	0.32	0.09
May-23 (S26)	11	83	41	124	0.29	0.11
Jun-23 (S27)	58	396	266	532	0.13	0.53
Jul-23 (S28)	16	110	21	260	0.25	0.15
Aug-23 (S29)	34	242	111	402	0.17	0.32
Sep-23 (S30)	63	436	270	616	0.13	0.58
4 km Buffer						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	24	180	60	315	0.20	0.37
May-21 (S02)	16	120	45	225	0.25	0.25
Jun-21 (S03)	17	130	17	343	0.24	0.27
Jul-21 (S04)	29	219	68	423	0.19	0.45
Aug-21 (S05)	12	91	45	144	0.29	0.19
Sep-21 (S06)	12	90	12	210	0.29	0.19
Oct-21 (S07)	2	15	2	38	0.71	0.03
Nov-21 (S08)	25	192	46	376	0.20	0.40
Jan-22 (S09)	2	15	2	37	0.71	0.03
Mar-22 (S10)	3	21	3	42	0.58	0.04
Mar-22 (S11)	8	62	8	123	0.35	0.13
Apr-22 (S12)	29	220	29	478	0.19	0.45
May-22 (S13)	39	292	45	689	0.16	0.60
Jun-22 (S14)	11	84	15	176	0.30	0.17

4 km Buffer						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Jul-22 (S15)	4	30	4	68	0.50	0.06
Aug-22 (S16)	11	83	45	128	0.30	0.17
Sep-22 (S17)	8	60	8	158	0.35	0.12
Oct-22 (S18)	1	8	1	23	<1.00	0.02
Nov-22 (S19)	2	15	2	38	0.71	0.03
Dec-22 (S20)	3	23	3	53	0.58	0.05
Jan-23 (S22)	2	15	2	38	0.71	0.03
Feb-23 (S23)	57	444	57	895	0.13	0.91
Mar-23 (S24)	12	91	12	204	0.29	0.19
Apr-23 (S25)	15	113	30	234	0.26	0.23
May-23 (S26)	4	30	4	75	0.50	0.06
Jun-23 (S27)	33	248	53	510	0.17	0.51
Jul-23 (S28)	1	8	1	23	<1.00	0.02
Aug-23 (S29)	7	53	23	83	0.38	0.11
Sep-23 (S30)	31	233	90	399	0.18	0.48

Significant predominant direction of flight was recorded in:

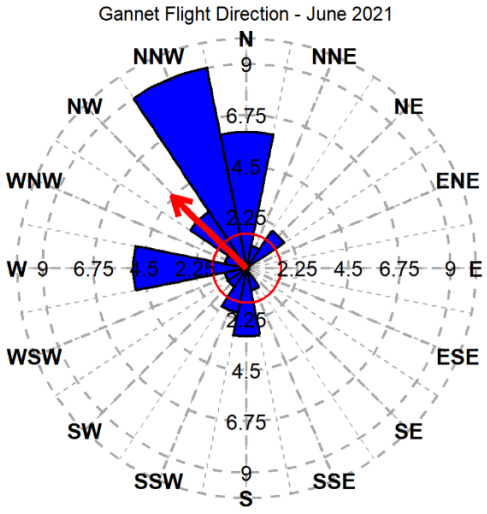
- March
  - 2022 – south-southeast (Figure 14f)
- May
  - 2021 – south-southeast (Figure 14a)
  - 2022 – north to north-northwest (Figure 14g)
- June
  - 2021 – northwest (Figure 14b
  - 2022 – southeast (Figure 14h)
- August
  - 2021 – north to north-northwest (Figure 14c)
  - 2022 – west-southwest to west (Figure 14i)
  - 2023 – north (Figure 14k)
- September
  - 2021 – south-southwest (Figure 14d)
  - 2022 – northwest (Figure 14j)
  - 2023 – southeast to south-southeast (Figure 14l)
- October
  - 2021 – north-northwest to northwest (Figure 14e)

In January 2022, a single gannet was recorded flying in an east-north-easterly direction.



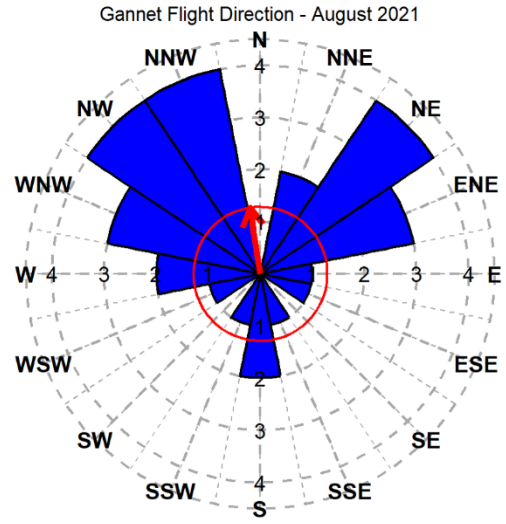
Number of Observations = 34
Mean Vector = 158.814
Length of mean vector (r) = 0.338
Rayleigh Test (Z) = 3.883
Rayleigh Test (p) = 0.019

Figure 14a gannet flight direction recorded in May 2021



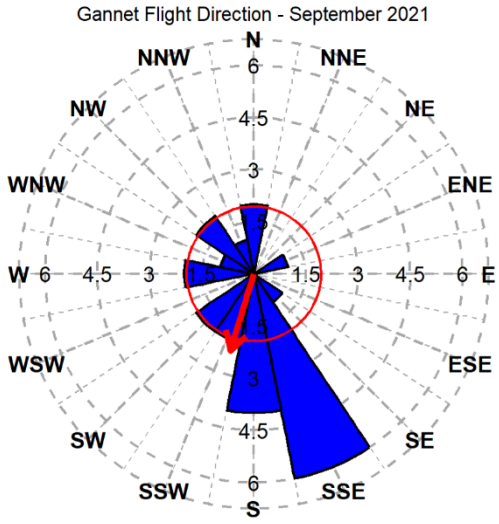
Number of Observations = 35
Mean Vector = 314.763
Length of mean vector (r) = 0.503
Rayleigh Test (Z) = 8.855
Rayleigh Test (p) = <0.001

Figure 14b gannet flight direction recorded in June 2021



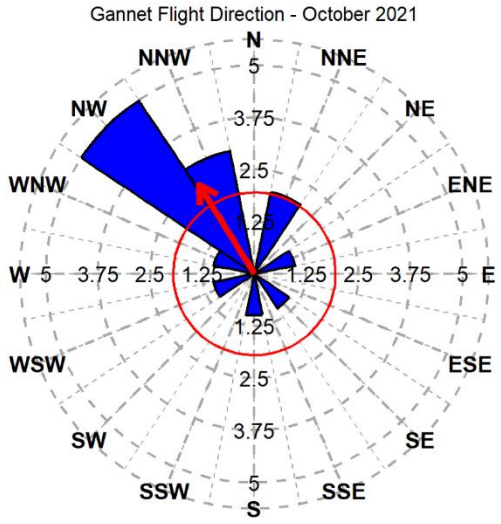
Number of Observations = 29
Mean Vector = 351.343
Length of mean vector (r) = 0.320
Rayleigh Test (Z) = 2.961
Rayleigh Test (p) = 0.050

Figure 14c gannet flight direction recorded in August 2021



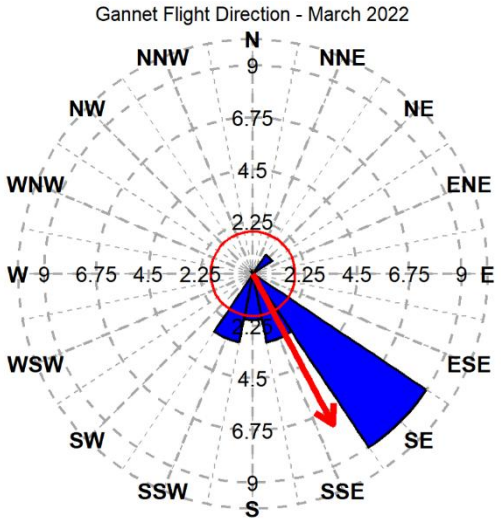
Number of Observations = 24
Mean Vector = 197.013
Length of mean vector (r) = 0.384
Rayleigh Test (Z) = 3.548
Rayleigh Test (p) = 0.027

Figure 14d gannet flight direction recorded in September 2021



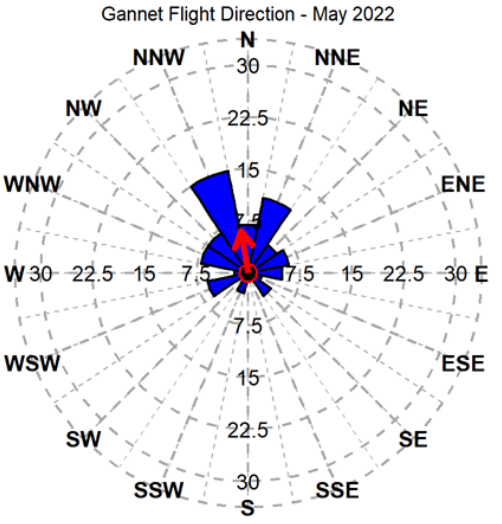
Number of Observations = 15
Mean Vector = 328.871
Length of mean vector (r) = 0.503
Rayleigh Test (Z) = 3.794
Rayleigh Test (p) = 0.020

Figure 14e gannet flight direction recorded in October 2021



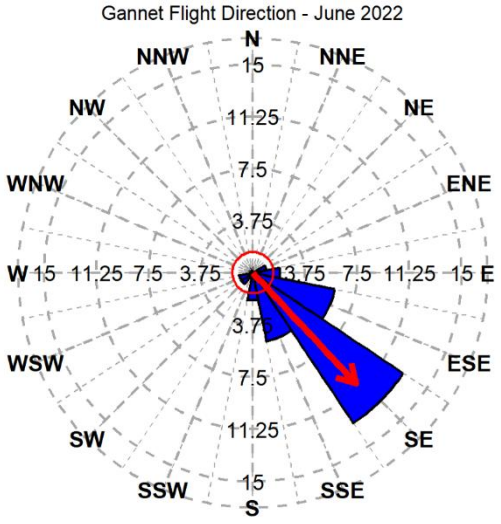
Number of Observations = 18
Mean Vector = 152.015
Length of mean vector (r) = 0.816
Rayleigh Test (Z) = 11.985
Rayleigh Test (p) = <0.001

Figure 14f gannet flight direction recorded in March 2022



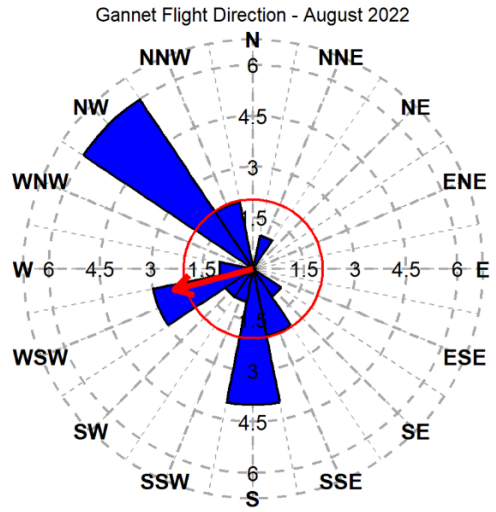
Number of Observations = 83
Mean Vector = 350.565
Length of mean vector (r) = 0.410
Rayleigh Test (Z) = 13.944
Rayleigh Test (p) = <0.001

Figure 14g gannet flight direction recorded in May 2022



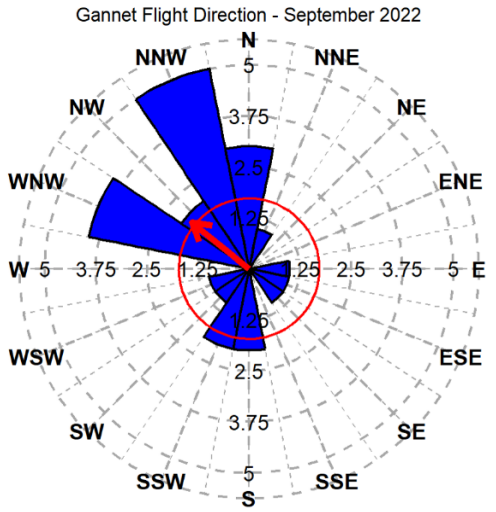
Number of Observations = 31
Mean Vector = 137.625
Length of mean vector (r) = 0.837
Rayleigh Test (Z) = 21.701
Rayleigh Test (p) = <0.001

Figure 14h gannet flight direction recorded in June 2022



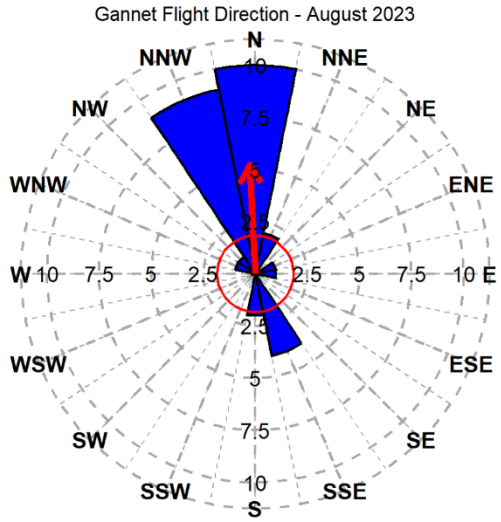
Number of Observations = 22
Mean Vector = 255.198
Length of mean vector (r) = 0.398
Rayleigh Test (Z) = 3.485
Rayleigh Test (p) = 0.029

Figure 14i gannet flight direction recorded in August 2022



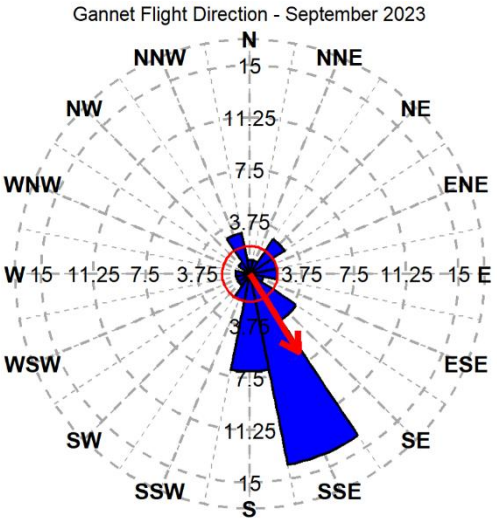
Number of Observations = 24
Mean Vector = 309.237
Length of mean vector (r) = 0.361
Rayleigh Test (Z) = 3.126
Rayleigh Test (p) = 0.042

Figure 14j gannet flight direction recorded in September 2023



Number of Observations = 31
Mean Vector = 357.414
Length of mean vector (r) = 0.523
Rayleigh Test (Z) = 8.491
Rayleigh Test (p) = <0.001

Figure 14k gannet flight direction recorded in August 2023



Number of Observations = 44
Mean Vector = 148.472
Length of mean vector (r) = 0.473
Rayleigh Test (Z) = 9.858
Rayleigh Test (p) = <0.001

Figure 14l gannet flight direction recorded in September 2023

Figure 14 Summary of flight direction of gannet during the survey period

4.2 Species Accounts – Marine Megafauna

4.2.1 Grey Seal *Halichoerus grypus*

Grey seals were recorded in 25 surveys. Following apportionment, abundance and density estimates were produced for 27 surveys, with a peak abundance estimate of 222 seals and a density of 0.18 individuals/km^2 recorded in the Survey Area (Table 23). During the peak in August 2023, grey seals were recorded scattered across the Survey Area, with higher densities in the northeast and east (Figure 221).

During spring 2021 and 2022, grey seals were mostly distributed in the Site, with records also in the south, northeast and northwest of the 4 km buffer (Figure 392 and Figure 396). In spring 2023, records were higher in the 4 km buffer (Figure 400). In all three summer seasons, grey seals were mostly recorded across the Site, with lower numbers recorded in the 4 km buffer (Figure 393, Figure 397 and Figure 401). In autumn 2021, grey seals were only recorded in the Site (Figure 394), whilst in 2022 and 2023 higher numbers were recorded in the Site with lower numbers also recorded in the 4 km buffer (Figure 398 and Figure 402). In winter 2021-2022, single records of grey seals were recorded in the north of the Site, and in the northeast and southwest of the 4 km buffer (Figure 395). Slightly higher numbers were recorded in winter 2022-2023, with most recorded in the 4 km buffer (Figure 399).

Most grey seals recorded across the survey period were observed submerged under the sea surface (n=905 out of a total of 1,730), with most of these (n=465) recorded in the 4 km buffer.

Table 23 Raw counts, abundance, upper and lower confidence intervals (CI), precision (coefficient of variation), and density estimates (individuals per km^2) of grey seals in the Survey Area, Site, and 4 km Buffer

Survey Area						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	5	42*	14	57	0.45	0.03*
May-21 (S02)	8	78*	28	85	0.35	0.06*
Jun-21 (S03)	0	36*	-	-	-	0.03*
Jul-21 (S04)	16	159*	50	193	0.25	0.13*
Aug-21 (S05)	5	36	5	79	0.45	0.03
Sep-21 (S06)	1	14*	1	21	<1.00	0.01*
Oct-21 (S07)	0	14*	-	-	-	0.01*
Nov-21 (S08)	2	15	2	36	0.71	0.01
Jan-22 (S09)	3	28*	3	42	0.58	0.02*
Mar-22 (S11)	7	80*	22	80	0.38	0.06*
Apr-22 (S12)	1	15*	1	21	<1.00	0.01*
May-22 (S13)	6	66*	21	64	0.41	0.05*
Jun-22 (S14)	5	43*	5	94	0.45	0.03*
Jul-22 (S15)	18	149*	71	192	0.24	0.12*
Aug-22 (S16)	4	56*	4	71	0.50	0.05*
Sep-22 (S17)	5	63*	7	64	0.45	0.05*
Oct-22 (S18)	1	7	1	21	<1.00	0.01
Nov-22 (S19)	1	29*	1	21	<1.00	0.02*
Dec-22 (S20)	1	23*	1	21	<1.00	0.02*
Dec-22 (S21)	1	7	1	21	<1.00	0.01

Survey Area						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Jan-23 (S22)	2	28*	2	36	0.71	0.02*
Feb-23 (S23)	5	103*	7	74	0.45	0.08*
Mar-23 (S24)	3	21	3	50	0.58	0.02
Apr-23 (S25)	5	42*	7	64	0.45	0.03*
May-23 (S26)	6	43	14	78	0.41	0.04
Jun-23 (S27)	14	99	42	163	0.27	0.08
Jul-23 (S28)	11	149*	50	114	0.30	0.12*
Aug-23 (S29)	20	222*	64	250	0.22	0.18*
Sep-23 (S30)	9	64	21	107	0.33	0.05
Site						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	3	28*	7	41	0.58	0.04*
May-21 (S02)	3	28*	3	41	0.58	0.04*
Jun-21 (S03)	0	21*	-	-	-	0.03*
Jul-21 (S04)	10	112*	28	124	0.32	0.15*
Aug-21 (S05)	4	28	4	76	0.50	0.04
Sep-21 (S06)	1	7	1	21	<1.00	0.01
Oct-21 (S07)	0	14*	-	-	-	0.02*
Nov-21 (S08)	2	14	2	35	0.71	0.02
Jan-22 (S09)	1	14*	1	20	<1.00	0.02*
Mar-22 (S11)	5	56*	14	56	0.45	0.07*
Apr-22 (S12)	0	7*	-	-	-	0.01*
May-22 (S13)	3	42*	3	41	0.58	0.06*
Jun-22 (S14)	3	21	3	63	0.58	0.03
Jul-22 (S15)	10	76*	27	110	0.32	0.10*
Aug-22 (S16)	4	48*	4	69	0.50	0.06*
Sep-22 (S17)	3	35*	3	41	0.58	0.05*
Oct-22 (S18)	1	7	1	21	<1.00	0.01
Jan-23 (S22)	0	7*	-	-	-	0.01*
Feb-23 (S23)	2	42*	2	36	0.71	0.06*
Mar-23 (S24)	1	7	1	21	<1.00	0.01
Apr-23 (S25)	2	21*	2	35	0.71	0.03*
May-23 (S26)	2	14	2	41	0.71	0.02
Jun-23 (S27)	8	55	14	109	0.35	0.07
Jul-23 (S28)	6	82*	14	69	0.41	0.11*
Aug-23 (S29)	14	146*	42	187	0.27	0.19*
Sep-23 (S30)	5	35*	7	62	0.45	0.05*
4 km Buffer						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	2	15	2	37	0.71	0.03
May-21 (S02)	5	53*	15	60	0.45	0.11*
Jun-21 (S03)	0	16*	-	-	-	0.03*
Jul-21 (S04)	6	45	6	113	0.41	0.09
Aug-21 (S05)	1	8	1	23	<1.00	0.02

4 km Buffer						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Sep-21 (S06)	0	8*	-	-	-	0.02*
Jan-22 (S09)	2	15	2	37	0.71	0.03
Mar-22 (S11)	2	24*	2	38	0.71	0.05*
Apr-22 (S12)	1	10*	1	23	<1.00	0.02*
May-22 (S13)	3	29*	3	45	0.58	0.06*
Jun-22 (S14)	2	23*	2	46	0.71	0.05*
Jul-22 (S15)	8	75*	15	128	0.35	0.15*
Aug-22 (S16)	0	8*	-	-	-	0.02*
Sep-22 (S17)	2	31*	2	38	0.71	0.06*
Nov-22 (S19)	1	31*	1	23	<1.00	0.06*
Dec-22 (S20)	1	23*	1	23	<1.00	0.05*
Dec-22 (S21)	1	8	1	23	<1.00	0.02
Jan-23 (S22)	2	24*	2	38	0.71	0.05*
Feb-23 (S23)	3	62*	3	47	0.58	0.13*
Mar-23 (S24)	2	15*	2	45	0.71	0.03*
Apr-23 (S25)	3	23	3	45	0.58	0.05
May-23 (S26)	4	31*	4	68	0.50	0.06*
Jun-23 (S27)	6	45	8	90	0.41	0.09
Jul-23 (S28)	5	68*	8	75	0.45	0.14*
Aug-23 (S29)	6	75*	6	106	0.41	0.15*
Sep-23 (S30)	4	30	4	75	0.50	0.06

Table Note: * These numbers include the apportioned attribution of unidentified individuals

4.2.2 Common Dolphin *Delphinus delphis*

Common dolphins were recorded in 28 surveys. Following apportionment, abundance and density estimates were produced for 29 surveys, with a peak abundance estimate of 2,170 dolphins and a density of 1.75 individuals/km^2 recorded in the Survey Area (Table 24). During the peak in February 2023, common dolphins were recorded spread across the Survey Area, with lower densities in the north, and higher densities recorded in the south and southeast of the Survey Area (Figure 244).

In spring 2021 and 2022, most common dolphins were recorded in the Site, with a small number also recorded in the south of the 4 km buffer (Figure 403 and Figure 407). Higher numbers were recorded in spring 2023, with most recorded in the north of the Site, and south of the 4 km buffer (Figure 411). In summer 2021, common dolphins were mostly recorded in the Site, with two recorded in the northwest of the 4 km buffer (Figure 404). Higher numbers were recorded in summer 2022 with most recorded in the west of the 4 km buffer (Figure 408). In summer 2023, higher numbers were again recorded, with aggregations in the north of the Site and buffer, the south of the Site, and in the east of the 4 km buffer (Figure 412). In autumn 2021, low numbers were recorded in the Site only (Figure 405). In autumn 2022 and 2023, numbers were higher with most recorded in the north of the Site and 4 km buffer in 2022 (Figure 409), and in the east of the Site and 4 km buffer in 2023 (Figure 413). In winter 2021-2022, common dolphins were mostly recorded in the northwest of the 4 km buffer (Figure 406); in winter 2022-2023, most common dolphins were recorded in the south of the Site (Figure 410).

Most common dolphins recorded across the survey period were observed submerged under the sea surface (n=9,194 out of a total of 10,201), with most of these (n=5,333) recorded in the Site.

Table 24 Raw counts, abundance, upper and lower confidence intervals (CI), precision (coefficient of variation), and density estimates (individuals per km^2) of common dolphins in the Survey Area, Site, and 4 km Buffer

Survey Area						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	20	200*	20	327	0.22	0.16*
May-21 (S02)	23	194*	23	342	0.21	0.16*
Jun-21 (S03)	0	36*	-	-	-	0.03*
Jul-21 (S04)	4	35*	4	64	0.50	0.03*
Aug-21 (S05)	23	186*	23	451	0.21	0.15*
Sep-21 (S06)	6	61*	6	99	0.41	0.05*
Oct-21 (S07)	12	104*	12	229	0.29	0.08*
Nov-21 (S08)	4	37*	4	87	0.50	0.03*
Jan-22 (S09)	94	742*	167	1,283	0.10	0.60*
Mar-22 (S10)	6	78*	6	120	0.41	0.06*
Mar-22 (S11)	14	104*	14	305	0.27	0.08*
Apr-22 (S12)	2	19*	2	43	0.71	0.01*
May-22 (S13)	8	67*	8	171	0.35	0.05*
Jun-22 (S14)	27	210*	27	514	0.19	0.17*
Jul-22 (S15)	20	142	20	356	0.22	0.11
Aug-22 (S16)	11	99*	14	149	0.30	0.08*
Sep-22 (S17)	6	69*	6	127	0.41	0.06*
Oct-22 (S18)	8	63*	8	143	0.35	0.05*
Nov-22 (S19)	78	598*	150	1,111	0.11	0.48*

Survey Area						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Dec-22 (S20)	12	96*	12	199	0.29	0.08*
Dec-22 (S21)	5	40*	5	78	0.45	0.03*
Jan-23 (S22)	64	484*	107	978	0.13	0.39*
Feb-23 (S23)	265	2,170*	847	3,446	0.06	1.75*
Mar-23 (S24)	60	429	64	794	0.13	0.35
Apr-23 (S25)	4	33*	4	86	0.50	0.03*
May-23 (S26)	59	439*	107	813	0.13	0.35*
Jun-23 (S27)	178	1,259	538	2,023	0.07	1.02
Jul-23 (S28)	140	1,043*	476	1,654	0.08	0.84*
Aug-23 (S29)	45	327*	64	637	0.15	0.25*
Sep-23 (S30)	111	839*	293	1,387	0.09	0.68*
Site						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	20	158*	20	323	0.22	0.21*
May-21 (S02)	11	100*	11	200	0.30	0.13*
Jul-21 (S04)	2	17*	2	35	0.71	0.02*
Aug-21 (S05)	23	183*	23	436	0.21	0.24*
Sep-21 (S06)	6	53*	6	110	0.41	0.07*
Oct-21 (S07)	12	90*	12	193	0.29	0.12*
Nov-21 (S08)	4	35*	4	84	0.50	0.05*
Jan-22 (S09)	43	320*	43	604	0.15	0.42*
Mar-22 (S10)	6	64*	6	116	0.41	0.08*
Mar-22 (S11)	14	101*	14	295	0.27	0.13*
Apr-22 (S12)	2	20*	2	41	0.71	0.03*
Jun-22 (S14)	2	18*	2	35	0.71	0.02*
Jul-22 (S15)	6	41	6	96	0.41	0.05
Aug-22 (S16)	2	14	2	41	0.71	0.02
Sep-22 (S17)	6	55*	6	122	0.41	0.07*
Oct-22 (S18)	3	26*	3	62	0.58	0.03*
Nov-22 (S19)	55	389*	55	921	0.13	0.52*
Dec-22 (S20)	6	55*	6	96	0.41	0.07*
Dec-22 (S21)	3	21	3	48	0.58	0.03
Jan-23 (S22)	49	344*	62	786	0.14	0.46*
Feb-23 (S23)	130	1,083*	420	1,551	0.09	1.44*
Mar-23 (S24)	33	228	33	525	0.17	0.30
Apr-23 (S25)	4	33*	4	83	0.50	0.04*
May-23 (S26)	36	248	36	525	0.17	0.33
Jun-23 (S27)	134	914	409	1,439	0.09	1.21
Jul-23 (S28)	103	746*	178	1,330	0.10	0.99*
Aug-23 (S29)	18	125	18	305	0.24	0.17
Sep-23 (S30)	54	392*	54	900	0.14	0.52*
4 km Buffer						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	0	7*	-	-	-	0.01*

4 km Buffer						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
May-21 (S02)	12	99*	12	270	0.29	0.20*
Jun-21 (S03)	0	65*	-	-	-	0.13*
Jul-21 (S04)	2	18*	2	45	0.71	0.04*
Oct-21 (S07)	0	15*	-	-	-	0.03*
Jan-22 (S09)	51	435*	51	1,002	0.14	0.90*
Mar-22 (S10)	0	21*	-	-	-	0.04*
May-22 (S13)	8	60	8	180	0.35	0.12
Jun-22 (S14)	25	204*	25	483	0.20	0.42*
Jul-22 (S15)	14	105	14	316	0.27	0.22
Aug-22 (S16)	9	91*	9	150	0.33	0.19*
Sep-22 (S17)	0	5*	-	-	-	0.01*
Oct-22 (S18)	5	38	5	113	0.45	0.08
Nov-22 (S19)	23	204*	23	415	0.21	0.42*
Dec-22 (S20)	6	45	6	135	0.41	0.09
Dec-22 (S21)	2	15	2	45	0.71	0.03
Jan-23 (S22)	15	136*	15	340	0.26	0.28*
Feb-23 (S23)	135	1,103*	135	2,529	0.09	2.27*
Mar-23 (S24)	27	204	27	568	0.19	0.42
May-23 (S26)	23	192*	23	459	0.21	0.40*
Jun-23 (S27)	44	330	53	653	0.15	0.68
Jul-23 (S28)	37	286*	37	699	0.16	0.59*
Aug-23 (S29)	27	204	27	521	0.19	0.42
Sep-23 (S30)	57	459*	75	948	0.13	0.94*

Table Note: * These numbers include the apportioned attribution of unidentified individuals

4.2.3 Bottlenose Dolphin *Tursiops truncates*

Bottlenose dolphins were only recorded in October 2021 (autumn), with an abundance estimate of 24 equating to 0.03 individuals/km^2 recorded in the Survey Area. These dolphins were recorded in the northwest of the Site (Figure 228, Figure 414), with an abundance estimate of 21 equating to 0.02 individuals/km^2 (Table 25).

All bottlenose dolphins were recorded as submerged under the sea surface.

Table 25 Raw counts, abundance, upper and lower confidence intervals (CI), precision (coefficient of variation), and density estimates (individuals per km^2) of bottlenose dolphins in the Survey Area, Site, and 4 km Buffer

Survey Area						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Oct-21 (S07)	3	24*	3	64	0.58	0.03*
Site						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Oct-21 (S07)	3	21	3	62	0.58	0.03
4 km Buffer						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
None recorded						

Table Note: * These numbers include the apportioned attribution of unidentified individuals

4.2.4 Risso's Dolphin *Grampus griseus*

Risso's dolphins were only recorded in the winter, during the first December 2022 survey (Survey 20), with an abundance estimate of 14 equating to 0.01 individuals/km^2 recorded in the Survey Area. These dolphins were recorded in the south of the 4 km buffer zone (Figure 241, Figure 415), with an abundance estimate of 15 equating to 0.01 individuals/km^2 for the 4 km buffer (Table 26).

All Risso's dolphins were recorded as submerged under the sea surface.

Table 26 Raw counts, abundance, upper and lower confidence intervals (CI), precision (coefficient of variation), and density estimates (individuals per km2) of Risso's dolphins in the Survey Area, Site, and 4 km Buffer

Survey Area						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Dec-22 (S20)	2	14	2	43	0.71	0.01
Site						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
None recorded						
4 km Buffer						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Dec-22 (S20)	2	15	2	45	0.71	0.03

Table Note: * These numbers include the apportioned attribution of unidentified individuals

4.2.5 Harbour Porpoise *Phocoena phocoena*

Harbour porpoises were recorded in 28 surveys, with a peak abundance estimate of 542 and a density of 0.44 individuals/km^2 recorded in the Survey Area (Table 27). During the peak in the second March 2022 survey (S11), harbour porpoises were recorded scattered across the Survey Area, apart from the south of the Survey Area (Figure 262).

Across all seasons, harbour porpoises were recorded in both the Site and the 4 km buffer. In spring 2021, low numbers of harbour porpoise were recorded, with most in the 4 km buffer (Figure 416). Higher numbers were recorded in spring 2022, with most in the Site (Figure 420). Low numbers were recorded again in 2023, with most in the Site (Figure 424). In summer 2021, highest numbers of harbour porpoise were recorded in the west of the Site (Figure 417), whilst in summer 2022 most were recorded in the east of the Survey Area (Figure 421). In summer 2023, most harbour porpoise were recorded in the Site (Figure 425). In autumn 2021, harbour porpoises were distributed across the Survey Area with most recorded in the 4 km buffer (Figure 418). In autumn 2022, harbour porpoises were distributed across the east of the Survey Area with most in the 4 km buffer (Figure 422). In 2023, most were recorded in the north of the Site with two in the north of the 4 km buffer (Figure 426). In both winter seasons, harbour porpoises were mostly recorded across the Site (Figure 419 and Figure 423).

Most harbour porpoise recorded across the survey period were observed submerged under the sea surface (n=1,575 out of a total of 2,133), with most of these (n=1,029) recorded in the Site.

Table 27 Raw counts, abundance, upper and lower confidence intervals (CI), precision (coefficient of variation), and density estimates (individuals per km^2) of harbour porpoise in the Survey Area, Site, and 4 km Buffer

Survey Area						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	6	85*	6	107	0.41	0.07*
May-21 (S02)	5	70*	7	85	0.45	0.06*
Jun-21 (S03)	8	170*	8	144	0.35	0.14*
Jul-21 (S04)	23	365*	64	293	0.21	0.29*
Aug-21 (S05)	10	143*	21	122	0.32	0.12*
Sep-21 (S06)	2	36*	2	36	0.71	0.03*
Oct-21 (S07)	2	46*	2	36	0.71	0.04*
Nov-21 (S08)	5	96*	5	73	0.45	0.08*
Jan-22 (S09)	6	99*	14	70	0.41	0.08*
Mar-22 (S10)	5	131*	5	80	0.45	0.11*
Mar-22 (S11)	42	542*	160	458	0.15	0.44*
Apr-22 (S12)	8	125*	21	93	0.35	0.10*
May-22 (S13)	12	175*	21	164	0.29	0.14*
Jun-22 (S14)	6	94*	7	80	0.41	0.08*
Jul-22 (S15)	20	260*	64	235	0.22	0.21
Sep-22 (S17)	1	18*	1	21	<1.00	0.01*
Oct-22 (S18)	4	65	7	57	0.50	0.05
Nov-22 (S19)	12	202*	12	206	0.29	0.16*
Dec-22 (S21)	1	19*	1	21	<1.00	0.01*

Survey Area						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Jan-23 (S22)	5	80*	5	86	0.45	0.06*
Feb-23 (S23)	21	365*	81	236	0.22	0.29*
Mar-23 (S24)	2	25	2	43	0.71	0.02
Apr-23 (S25)	13	180*	36	186	0.28	0.14
May-23 (S26)	8	104*	21	107	0.35	0.08
Jun-23 (S27)	10	130	35	106	0.32	0.10
Jul-23 (S28)	5	66*	7	64	0.45	0.05
Aug-23 (S29)	12	174*	29	157	0.29	0.14
Sep-23 (S30)	11	184*	14	179	0.30	0.15
Site						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	3	39*	3	62	0.58	0.05*
May-21 (S02)	2	31*	2	34	0.71	0.04*
Jun-21 (S03)	8	115*	8	139	0.35	0.15*
Jul-21 (S04)	14	219*	28	186	0.27	0.29*
Aug-21 (S05)	6	83*	6	90	0.41	0.11*
Sep-21 (S06)	2	36*	2	34	0.71	0.05*
Oct-21 (S07)	2	46*	2	34	0.71	0.06*
Nov-21 (S08)	1	15	1	21	<1.00	0.02
Jan-22 (S09)	4	61*	7	54	0.50	0.08*
Mar-22 (S10)	5	108*	6	71	0.45	0.14*
Mar-22 (S11)	34	424*	133	365	0.17	0.56*
Apr-22 (S12)	5	76*	7	62	0.45	0.10*
May-22 (S13)	7	121*	7	117	0.38	0.16*
Jun-22 (S14)	5	70*	5	70	0.45	0.09*
Jul-22 (S15)	11	139	34	117	0.30	0.18
Oct-22 (S18)	3	50*	7	41	0.58	0.07*
Nov-22 (S19)	4	66*	4	69	0.50	0.09*
Jan-23 (S22)	5	75*	5	76	0.45	0.10*
Feb-23 (S23)	16	284*	50	185	0.25	0.38*
Mar-23 (S24)	2	25	2	41	0.71	0.03
Apr-23 (S25)	9	126*	14	146	0.33	0.17*
May-23 (S26)	4	49	4	69	0.50	0.07
Jun-23 (S27)	5	62	7	68	0.45	0.08
Jul-23 (S28)	4	54*	4	62	0.50	0.07*
Aug-23 (S29)	7	115*	14	97	0.38	0.15*
Sep-23 (S30)	9	143	9	159	0.33	0.19*
4 km Buffer						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	3	103*	3	67	0.58	0.21*
May-21 (S02)	3	40	3	53	0.58	0.08
Jun-21 (S03)	0	6*	-	-	-	0.01*

4 km Buffer						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Jul-21 (S04)	9	147*	9	181	0.33	0.30*
Aug-21 (S05)	4	55	4	76	0.50	0.11
Sep-21 (S06)	0	18*	-	-	-	0.04*
Nov-21 (S08)	4	86*	4	77	0.50	0.18*
Jan-22 (S09)	2	36*	2	37	0.71	0.07*
Mar-22 (S11)	8	107	8	154	0.35	0.22
Apr-22 (S12)	3	51*	8	46	0.58	0.10*
May-22 (S13)	5	65	5	82	0.45	0.13
Jun-22 (S14)	1	20*	1	23	<1.00	0.04*
Jul-22 (S15)	9	124	9	136	0.33	0.26
Sep-22 (S17)	1	39*	1	23	<1.00	0.08*
Oct-22 (S18)	1	18	1	23	<1.00	0.04
Nov-22 (S19)	8	150*	8	151	0.35	0.31*
Dec-22 (S21)	1	34	1	23	<1.00	0.07
Feb-23 (S23)	5	87*	16	62	0.45	0.18*
Apr-23 (S25)	4	53	8	68	0.50	0.11
May-23 (S26)	4	59*	4	60	0.50	0.12*
Jun-23 (S27)	5	69	8	75	0.45	0.14
Jul-23 (S28)	1	15	1	23	<1.00	0.03
Aug-23 (S29)	5	69	5	98	0.45	0.14
Sep-23 (S30)	2	35*	2	38	0.71	0.07*

Table Note: * These numbers include the apportioned attribution of unidentified individuals plus availability bias corrections

4.2.6 Common Minke Whale *Balaenoptera acutorostrata*

Minke whales were recorded in 15 surveys, with a peak abundance estimate of 57 and a density of 0.05 individuals/km^2 recorded in the Survey Area (Table 28). During the peak in July 2023, common minke whales were recorded scattered across the Survey Area, with higher densities in south of the Site (Figure 292).

In spring 2021, a single minke whale was recorded in the south of the Site (Figure 427). In 2022, most minke whales were recorded in the Site, with a single minke whale recorded in the 4 km buffer (Figure 429). In 2023, two were recorded in the north of the Site (Figure 432). Across all summer seasons, minke whales were recorded in both the Site and the 4 km buffer, with most records in the Site (Figure 428, Figure 430, and Figure 433). Minke whales were not recorded in autumn 2021, with only single records captured in the Site in 2022 and 2023 (Figure 431 and Figure 434). Minke whales were not recorded in winter.

Most minke whales recorded across the survey period were observed submerged under the sea surface (n=273 out of a total of 315), with most of these (n=208) recorded in the Site.

Table 28 Raw counts, abundance, upper and lower confidence intervals (CI), precision (coefficient of variation), and density estimates (individuals per km^2) of common minke whales in the Survey Area, Site, and 4 km Buffer

Survey Area						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
May-21 (S02)	1	7	1	21	<1.00	0.01
Jul-21 (S04)	4	30*	4	57	0.50	0.02*
Aug-21 (S05)	6	43	14	79	0.41	0.03
Mar-22 (S11)	2	15	2	36	0.71	0.01
Apr-22 (S12)	4	30*	7	50	0.50	0.02*
May-22 (S13)	2	14	2	43	0.71	0.01
Jun-22 (S14)	2	14	2	43	0.71	0.01
Jul-22 (S15)	4	28	7	50	0.50	0.02
Aug-22 (S16)	1	7	1	21	<1.00	0.01
Nov-22 (S19)	1	7	1	21	<1.00	0.01
Apr-23 (S25)	2	14	2	36	0.71	0.01
Jun-23 (S27)	5	35	7	71	0.45	0.03
Jul-23 (S28)	8	57	28	92	0.35	0.05
Aug-23 (S29)	1	7	1	21	<1.00	0.01
Sep-23 (S30)	1	7	1	21	<1.00	0.01
Site						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
May-21 (S02)	1	7	1	21	<1.00	0.01
Jul-21 (S04)	1	7	1	21	<1.00	0.01
Aug-21 (S05)	6	42	14	69	0.41	0.06
Mar-22 (S11)	2	14	2	35	0.71	0.02
Apr-22 (S12)	3	21	3	41	0.58	0.03
May-22 (S13)	2	14	2	41	0.71	0.02
Jul-22 (S15)	4	27	7	48	0.50	0.04

Site						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Aug-22 (S16)	1	7	1	21	<1.00	0.01
Nov-22 (S19)	1	7	1	21	<1.00	0.01
Apr-23 (S25)	2	14	2	35	0.71	0.02
Jun-23 (S27)	5	34	14	61	0.45	0.05
Jul-23 (S28)	5	34	7	62	0.45	0.05
Sep-23 (S30)	1	7	1	21	<1.00	0.01
4 km Buffer						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Jul-21 (S04)	3	23	3	53	0.58	0.05
Apr-22 (S12)	1	8	1	23	<1.00	0.02
Jun-22 (S14)	2	15	2	46	0.71	0.03
Jul-23 (S28)	3	23	3	60	0.58	0.05
Aug-23 (S29)	1	8	1	23	<1.00	0.02

Table Note: * These numbers include the apportioned attribution of unidentified individuals

4.2.7 Basking Shark *Cetorhinus maximus*

Basking sharks were recorded in four surveys. Following apportionment of the unidentified shark species group, abundance and density estimates were produced for five surveys, with a peak abundance estimate of 29 sharks and a density of 0.02 individuals/km^2 recorded in the Survey Area (Table 29). During the peak in April 2023, basking sharks were recorded in the northwest and east of the Survey Area (Figure 298).

In spring 2021 and 2022, basking sharks were only recorded in the Site (Figure 435 and Figure 437); in 2023, basking sharks were recorded in both the Site and the 4 km buffer (Figure 438). In autumn 2021, a single basking shark was recorded in the north of the 4 km buffer (Figure 436).

All basking sharks were recorded as submerged under the sea surface.

Table 29 Raw counts, abundance, upper and lower confidence intervals (CI), precision (coefficient of variation), and density estimates (individuals per km^2) of basking sharks in the Survey Area, Site, and 4 km Buffer

Survey Area						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	2	14	2	43	0.71	0.01
Oct-21 (S07)	0	7*	-	-	-	0.01*
Nov-21 (S08)	1	7	1	22	<1.00	0.01
Apr-22 (S12)	1	7	1	21	<1.00	0.01
Apr-23 (S25)	4	29	4	64	0.50	0.02
Site						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Apr-21 (S01)	2	14	2	41	0.71	0.02
Oct-21 (S07)	0	7*	-	-	-	0.01*
Apr-22 (S12)	1	7	1	21	<1.00	0.01
Apr-23 (S25)	2	14	2	35	0.71	0.02
4 km Buffer						
Survey	**Raw Count**	**Abundance**	**95% CI Lower**	**95% CI Upper**	**Precision (CV)**	**Density**
Nov-21 (S08)	1	8	1	23	<1.00	0.02
Apr-23 (S25)	2	15	2	45	0.71	0.03

Table Note: * These numbers include the apportioned attribution of unidentified individuals

5. Avian Flight Heights

Of the 14,902 individuals of the key species that were imaged in flight during the 30 months of survey, 4,408 were suitable for flight height estimation above MSL (27%; Figure 15). Two puffins were recorded at a height of 66 m and 121 m MSL which were excluded from Figure 15 due to the sample size.

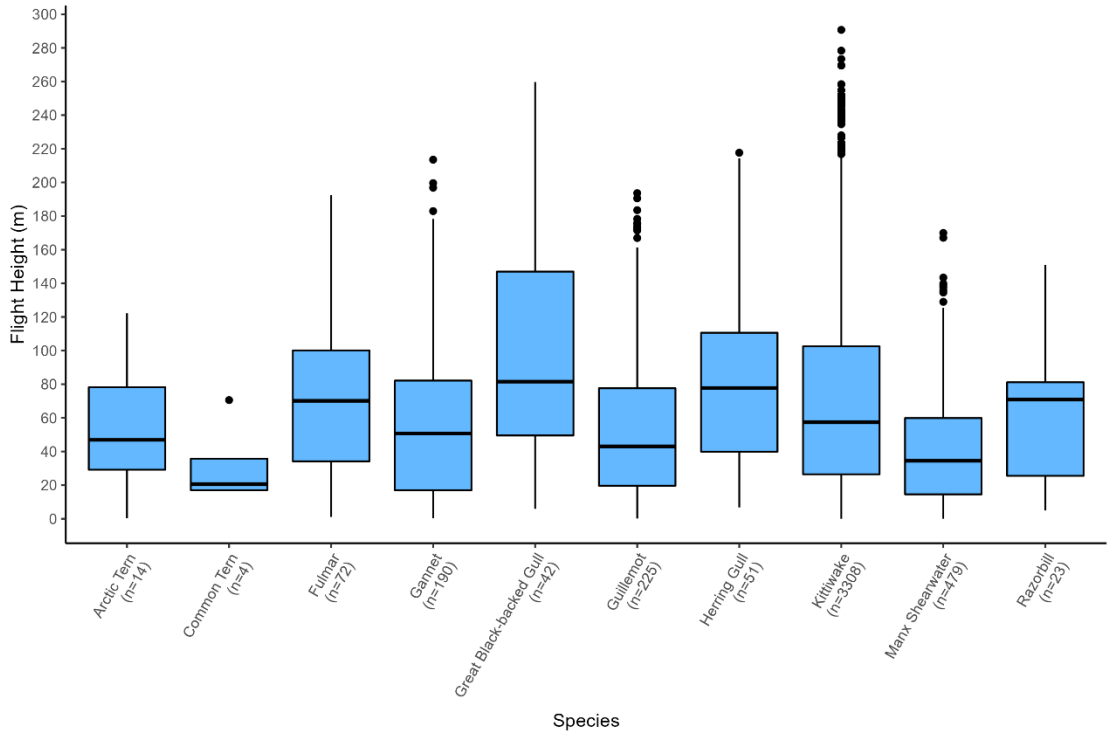


Figure 15 Boxplots of flight heights for all suitable species (≥3 individuals) recorded in the Survey Area (including median [min-max]): Arctic tern (med: 47 [0-122]), common tern (med: 21 [17-71]), fulmar (med: 70 [1,192]), gannet (med: 51 [0,214]), great black-backed gull (med: 82 [6,260]), guillemot (med: 43 [0,194]), herring gull (med: 78 [7,218]), kittiwake (med: 57 [0,291]), Manx shearwater (med: 34 [0,170]), and razorbill (med: 71 [5,151])

6. Additional Species Recorded

In addition to the key species noted in Section 4, Table 30 presents information on the other species recorded throughout the 30 DAS.

Table 30 Additional species recorded in the Survey Area

Species	Comment
Dunlin	Dunlin were only recorded in one survey (August 2021), flying in the Survey Area.
Grey Phalarope	A single grey phalarope was recorded during the survey programme, flying in the Survey Area in August 2023.
Golden Plover	A single golden plover was recorded during the survey programme, flying in the Survey Area in August 2022.
Black-headed Gull	Black-headed gulls were only recorded in August 2021, with three flying in the Survey Area.
Common Gull	Common gulls were recorded in 12 surveys, with a peak raw count of 15 in the second December 2022 survey (Survey 21). Most common gulls were recorded during the winter non-breeding season (September to February), with most recorded as flying in the Survey Area.
Lesser black-backed Gull	Lesser black backed gulls were only recorded in three surveys. In June 2021, one was recorded flying, and one was recorded perched in the Survey Area. During the first March 2022 survey (Survey 10), two were recorded flying in the Survey Area. In August 2022, one was recorded sitting in the Survey Area.
Great Skua	Great skuas were recorded in 11 surveys, mostly flying in the Survey Area. Great skuas were mostly recorded during the breeding period (mid-April to mid-September).
Arctic Skua	Arctic skuas were recorded in three surveys (June 2022, September 2022, and July 2023), with a peak of five recorded in June 2022. Most were flying across the Survey Area, during the breeding period (May to August).
Black Guillemot	A single black guillemot was recorded sitting in the Survey Area in March 2022.
Sooty Shearwater	Sooty shearwaters were recorded in three surveys (July 2022, November 2022, and August 2023) with a peak of three flying in the Survey Area in July 2022.
Great Shearwater	Great shearwaters were recorded in three surveys (August 2022, October 2022, and August 2023) with a peak of seven sitting in the Survey Area in August 2022.
Red-throated Diver	Red throated divers were recorded in two surveys, with single records of a flying bird captured in September 2021 and May 2023.
Little Egret	A single little egret was recorded flying in the Survey Area in May 2021.
Ocean Sunfish	A single ocean sunfish was recorded submerged in the Survey Area in August 2022.
Atlantic Bluefin Tuna	Atlantic bluefin tuna were recorded in August 2023, with a single individual submerged in the Survey Area; and in September 2023, with two submerged in the Survey Area.
Leatherback Turtle	Leatherback turtles were recorded in April 2021, with three submerged and three surfacing in the Survey Area; and in September 2022, with a single turtle surfacing in the Survey Area.

7. Abiotic Structures and Observations

The following abiotic structures were observed during the survey period:

- In June 2021, single fishing vessel was observed from the aircraft, heading in a westerly direction.
- In June 2022, a coastguard vessel was observed from the aircraft, heading in a south-easterly direction.
- In July 2022, a single cargo ship was observed from the aircraft, heading in a south-easterly direction.
- One vessel was observed from the aircraft during the October 2022 survey, comprising of one cargo ship.
- Two vessels were observed from the aircraft during the November 2022 survey, comprising of fishing vessels.
- One miscellaneous vessel and a buoy were observed in the imagery during the June 2023 survey.
- One miscellaneous vessel was observed in the imagery during the September 2023 survey.
- No vessels were recorded in any other survey.

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9. Appendix I Raw Count Data – All Species

9.1 Birds

9.1.1 Dunlin

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0
Aug-21 (S05)	17	0	0	0	0	17
Sep-21 (S06)	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0
Aug-22 (S16)	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0
Jun-23 (S27)	0	0	0	0	0	0
Jul-23 (S28)	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0
Total	**17**	**0**	**0**	**0**	**0**	**17**

9.1.2 Grey Phalarope

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
May-22 (S13)	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0
Aug-22 (S16)	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0
Jun-23 (S27)	0	0	0	0	0	0
Jul-23 (S28)	0	0	0	0	0	0
Aug-23 (S29)	1	0	0	0	0	1
Sep-23 (S30)	0	0	0	0	0	0
Total	**1**	**0**	**0**	**0**	**0**	**1**

9.1.3 Golden Plover

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0
Aug-22 (S16)	1	0	0	0	0	1
Sep-22 (S17)	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0
Jun-23 (S27)	0	0	0	0	0	0
Jul-23 (S28)	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0
Total	**1**	**0**	**0**	**0**	**0**	**1**

9.1.4 Wader Species

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	0	0	0	0	0	0
May-21 (S02)	2	0	0	0	0	2
Jun-21 (S03)	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0
Aug-22 (S16)	30	0	0	0	0	30
Sep-22 (S17)	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0
May-23 (S26)	2	0	0	0	0	2
Jun-23 (S27)	0	0	0	0	0	0
Jul-23 (S28)	0	0	0	0	0	0
Aug-23 (S29)	6	0	0	0	0	6
Sep-23 (S30)	11	0	0	0	0	11
Total	**51**	**0**	**0**	**0**	**0**	**51**

9.1.5 Kittiwake

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	57	2	0	0	0	59
May-21 (S02)	307	60	0	0	0	367
Jun-21 (S03)	113	7	0	0	0	120
Jul-21 (S04)	99	21	0	0	0	120
Aug-21 (S05)	61	31	0	0	0	92
Sep-21 (S06)	54	14	0	0	0	68
Oct-21 (S07)	279	387	0	0	0	666
Nov-21 (S08)	980	1,485	0	0	0	2,465
Jan-22 (S09)	79	73	0	0	0	152
Mar-22 (S10)	171	133	0	0	0	304
Mar-22 (S11)	94	40	0	0	0	134
Apr-22 (S12)	488	725	0	0	0	1,213
May-22 (S13)	254	41	0	0	0	295
Jun-22 (S14)	250	46	0	0	1	297

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Jul-22 (S15)	451	377	0	0	0	828
Aug-22 (S16)	9	4	0	0	0	13
Sep-22 (S17)	4	2	0	0	0	6
Oct-22 (S18)	510	503	0	0	0	1,013
Nov-22 (S19)	547	296	0	0	0	843
Dec-22 (S20)	398	107	0	0	0	505
Dec-22 (S21)	472	104	0	0	0	576
Jan-23 (S22)	266	137	0	0	0	403
Feb-23 (S23)	528	474	0	0	1	1,003
Mar-23 (S24)	154	71	0	0	0	225
Apr-23 (S25)	174	58	0	0	0	232
May-23 (S26)	116	65	0	0	0	181
Jun-23 (S27)	228	47	0	0	0	275
Jul-23 (S28)	86	19	0	0	0	105
Aug-23 (S29)	1	2	0	0	0	3
Sep-23 (S30)	22	8	0	0	0	30
Total	**7,252**	**5,339**	**0**	**0**	**2**	**12,593**

9.1.6 Black-headed gull

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0
Aug-21 (S05)	3	0	0	0	0	3
Sep-21 (S06)	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0
Aug-22 (S16)	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0
Jun-23 (S27)	0	0	0	0	0	0
Jul-23 (S28)	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0
Total	**3**	**0**	**0**	**0**	**0**	**3**

9.1.7 Common Gull

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0
Aug-21 (S05)	1	0	0	0	0	1
Sep-21 (S06)	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0
Nov-21 (S08)	14	0	0	0	0	14
Jan-22 (S09)	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0
Mar-22 (S11)	1	0	0	0	0	1
Apr-22 (S12)	0	0	0	0	0	0
May-22 (S13)	1	0	0	0	0	1
Jun-22 (S14)	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0
Aug-22 (S16)	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0
Nov-22 (S19)	1	0	0	0	0	1
Dec-22 (S20)	8	0	0	0	0	8
Dec-22 (S21)	9	6	0	0	0	15
Jan-23 (S22)	1	0	0	0	0	1
Feb-23 (S23)	5	3	0	0	0	8
Mar-23 (S24)	1	0	0	0	0	1
Apr-23 (S25)	0	0	0	0	0	0
May-23 (S26)	1	0	0	0	0	1
Jun-23 (S27)	3	0	0	0	0	3
Jul-23 (S28)	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0
Total	**46**	**9**	**0**	**0**	**0**	**55**

9.1.8 Small Gull Species

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	0	1	0	0	0	1
May-21 (S02)	0	0	0	0	0	0
Jun-21 (S03)	1	0	0	0	0	1
Jul-21 (S04)	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0
Oct-21 (S07)	1	5	0	0	0	6
Nov-21 (S08)	0	1	0	0	0	1
Jan-22 (S09)	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0
Mar-22 (S11)	1	0	0	0	0	1
Apr-22 (S12)	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Jul-22 (S15)	0	0	0	0	0	0
Aug-22 (S16)	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0
Oct-22 (S18)	1	0	0	0	0	1
Nov-22 (S19)	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0
Mar-23 (S24)	1	0	0	0	0	1
Apr-23 (S25)	0	0	0	0	0	0
May-23 (S26)	0	1	0	0	0	1
Jun-23 (S27)	0	0	0	0	0	0
Jul-23 (S28)	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0
Total	**5**	**8**	**0**	**0**	**0**	**13**

9.1.9 Great Black-backed Gull

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0
Jun-21 (S03)	1	0	4	0	0	5
Jul-21 (S04)	1	0	0	0	0	1
Aug-21 (S05)	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0
Nov-21 (S08)	23	128	0	0	0	151
Jan-22 (S09)	3	10	0	0	0	13
Mar-22 (S10)	0	0	0	0	0	0
Mar-22 (S11)	1	1	0	0	0	2
Apr-22 (S12)	2	0	0	0	0	2
May-22 (S13)	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0
Aug-22 (S16)	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0
Oct-22 (S18)	1	8	0	0	0	9
Nov-22 (S19)	3	2	0	0	0	5
Dec-22 (S20)	6	9	0	0	0	15
Dec-22 (S21)	15	36	0	0	0	51
Jan-23 (S22)	6	9	0	0	0	15
Feb-23 (S23)	7	32	0	0	0	39
Mar-23 (S24)	3	1	0	0	0	4
Apr-23 (S25)	1	1	0	0	0	2
May-23 (S26)	0	0	0	0	0	0
Jun-23 (S27)	0	1	0	0	0	1
Jul-23 (S28)	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0
Sep-23 (S30)	1	0	0	0	0	1
Total	**74**	**238**	**4**	**0**	**0**	**316**

9.1.10 Herring Gull

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0
Jul-21 (S04)	1	1	0	0	0	2
Aug-21 (S05)	1	0	0	0	0	1
Sep-21 (S06)	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0
Nov-21 (S08)	36	126	0	0	0	162
Jan-22 (S09)	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0
Aug-22 (S16)	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0
Oct-22 (S18)	4	11	0	0	0	15
Nov-22 (S19)	11	9	0	0	0	20
Dec-22 (S20)	1	1	0	0	0	2
Dec-22 (S21)	84	69	0	0	0	153
Jan-23 (S22)	6	8	0	0	0	14
Feb-23 (S23)	1	18	0	0	0	19
Mar-23 (S24)	0	1	0	0	0	1
Apr-23 (S25)	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0
Jun-23 (S27)	0	0	0	0	0	0
Jul-23 (S28)	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0
Total	**145**	**244**	**0**	**0**	**0**	**389**

9.1.11 Lesser Black-backed Gull

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0
Jun-21 (S03)	1	0	1	0	0	2
Jul-21 (S04)	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0
Mar-22 (S10)	2	0	0	0	0	2
Mar-22 (S11)	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Jul-22 (S15)	0	0	0	0	0	0
Aug-22 (S16)	0	1	0	0	0	1
Sep-22 (S17)	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0
Jun-23 (S27)	0	0	0	0	0	0
Jul-23 (S28)	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0
Total	**3**	**1**	**1**	**0**	**0**	**5**

9.1.12 Large Gull Species

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	0	0	0	0	0	0
May-21 (S02)	1	0	0	0	0	1
Jun-21 (S03)	0	0	0	0	0	0
Jul-21 (S04)	1	4	0	0	0	5
Aug-21 (S05)	0	1	0	0	0	1
Sep-21 (S06)	0	0	0	0	0	0
Oct-21 (S07)	0	1	0	0	0	1
Nov-21 (S08)	3	30	0	0	0	33
Jan-22 (S09)	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0
Mar-22 (S11)	0	1	0	0	0	1
Apr-22 (S12)	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0
Aug-22 (S16)	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0
Oct-22 (S18)	0	1	0	0	0	1
Nov-22 (S19)	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0
Dec-22 (S21)	0	1	0	0	0	1
Jan-23 (S22)	0	1	0	0	0	1
Feb-23 (S23)	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0
Jun-23 (S27)	0	0	0	0	0	0
Jul-23 (S28)	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0
Total	**5**	**40**	**0**	**0**	**0**	**45**

9.1.13 Gull Species

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	0	1	0	0	0	1
May-21 (S02)	0	1	0	0	0	1
Jun-21 (S03)	0	0	0	0	0	0
Jul-21 (S04)	0	1	0	0	0	1
Aug-21 (S05)	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0
Nov-21 (S08)	3	6	0	0	0	9
Jan-22 (S09)	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0
Aug-22 (S16)	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0
Feb-23 (S23)	0	3	0	0	0	3
Mar-23 (S24)	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0
Jun-23 (S27)	0	0	0	0	0	0
Jul-23 (S28)	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0
Total	**3**	**12**	**0**	**0**	**0**	**15**

9.1.14 Common Tern

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0
Jun-21 (S03)	1	0	0	0	0	1
Jul-21 (S04)	0	0	0	0	0	0
Aug-21 (S05)	9	0	0	0	0	9
Sep-21 (S06)	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0
Apr-22 (S12)	1	0	0	0	0	1
May-22 (S13)	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Jul-22 (S15)	2	0	0	0	0	2
Aug-22 (S16)	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0
Jun-23 (S27)	0	0	0	0	0	0
Jul-23 (S28)	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0
Total	**13**	**0**	**0**	**0**	**0**	**13**

9.1.15 Arctic Tern

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	3	0	0	0	0	3
May-21 (S02)	17	0	0	0	0	17
Jun-21 (S03)	2	0	0	0	0	2
Jul-21 (S04)	0	0	0	0	0	0
Aug-21 (S05)	1	0	0	0	0	1
Sep-21 (S06)	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0
Apr-22 (S12)	1	0	0	0	0	1
May-22 (S13)	1	0	0	0	0	1
Jun-22 (S14)	16	0	0	0	0	16
Jul-22 (S15)	12	0	0	0	0	12
Aug-22 (S16)	38	5	0	0	0	43
Sep-22 (S17)	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0
May-23 (S26)	10	0	0	0	0	10
Jun-23 (S27)	3	0	0	0	0	3
Jul-23 (S28)	5	0	0	0	0	5
Aug-23 (S29)	10	0	0	0	0	10
Sep-23 (S30)	0	0	0	0	0	0
Total	**119**	**5**	**0**	**0**	**0**	**124**

9.1.16 'Commic' Tern

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	0	0	0	0	0	0
May-21 (S02)	24	6	0	0	0	30
Jun-21 (S03)	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0
Aug-21 (S05)	15	0	0	0	0	15
Sep-21 (S06)	11	0	0	0	0	11
Oct-21 (S07)	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0
May-22 (S13)	3	0	0	0	0	3
Jun-22 (S14)	1	0	0	0	0	1
Jul-22 (S15)	12	1	0	0	0	13
Aug-22 (S16)	10	0	0	0	0	10
Sep-22 (S17)	22	0	0	0	0	22
Oct-22 (S18)	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0
Jun-23 (S27)	1	0	0	0	0	1
Jul-23 (S28)	0	4	0	0	0	4
Aug-23 (S29)	0	0	0	0	0	0
Sep-23 (S30)	0	1	0	0	0	1
Total	**99**	**12**	**0**	**0**	**0**	**111**

9.1.17 Tern Species

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0
Apr-22 (S12)	0	3	0	0	0	3
May-22 (S13)	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Jul-22 (S15)	0	0	0	0	0	0
Aug-22 (S16)	0	4	0	0	0	4
Sep-22 (S17)	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0
May-23 (S26)	0	4	0	0	0	4
Jun-23 (S27)	0	0	0	0	0	0
Jul-23 (S28)	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0
Total	**0**	**11**	**0**	**0**	**0**	**11**

9.1.18 Great Skua

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0
Jun-21 (S03)	2	0	0	0	0	2
Jul-21 (S04)	2	0	0	0	0	2
Aug-21 (S05)	1	1	0	0	0	2
Sep-21 (S06)	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0
Apr-22 (S12)	2	0	0	0	0	2
May-22 (S13)	8	3	0	0	0	11
Jun-22 (S14)	3	0	0	0	0	3
Jul-22 (S15)	1	1	0	0	0	2
Aug-22 (S16)	2	0	0	0	0	2
Sep-22 (S17)	0	0	0	0	0	0
Oct-22 (S18)	2	0	0	0	0	2
Nov-22 (S19)	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0
Apr-23 (S25)	0	1	0	0	0	1
May-23 (S26)	1	0	0	0	0	1
Jun-23 (S27)	1	0	0	0	0	1
Jul-23 (S28)	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0
Total	**25**	**6**	**0**	**0**	**0**	**31**

9.1.19 Arctic Skua

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0
Jun-22 (S14)	4	1	0	0	0	5
Jul-22 (S15)	0	0	0	0	0	0
Aug-22 (S16)	0	0	0	0	0	0
Sep-22 (S17)	2	0	0	0	0	2
Oct-22 (S18)	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0
Jun-23 (S27)	1	0	0	0	0	1
Jul-23 (S28)	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0
Total	**7**	**1**	**0**	**0**	**0**	**8**

9.1.20 Guillemot

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	126	1,433	0	0	0	1,559
May-21 (S02)	117	2,614	0	0	0	2,731
Jun-21 (S03)	73	1,035	0	0	0	1,108
Jul-21 (S04)	65	3,006	0	0	0	3,071
Aug-21 (S05)	1	806	0	0	0	807
Sep-21 (S06)	6	148	0	0	0	154
Oct-21 (S07)	4	654	0	0	0	658
Nov-21 (S08)	45	993	0	0	0	1,038
Jan-22 (S09)	8	945	0	0	0	953
Mar-22 (S10)	57	1,553	0	1	0	1,611
Mar-22 (S11)	218	4,496	0	0	0	4,714
Apr-22 (S12)	83	6,313	0	0	0	6,396
May-22 (S13)	37	865	0	0	0	902
Jun-22 (S14)	43	1,803	0	0	0	1,846
Jul-22 (S15)	22	4,624	0	0	0	4,646
Aug-22 (S16)	0	585	0	0	0	585

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Sep-22 (S17)	6	185	0	0	0	191
Oct-22 (S18)	74	1,219	0	0	0	1,293
Nov-22 (S19)	102	1,778	0	0	0	1,880
Dec-22 (S20)	31	728	0	0	0	759
Dec-22 (S21)	20	605	0	0	0	625
Jan-23 (S22)	31	2,426	0	0	0	2,457
Feb-23 (S23)	80	4,849	0	0	0	4,929
Mar-23 (S24)	97	1,984	0	0	0	2,081
Apr-23 (S25)	105	1,965	0	0	1	2,071
May-23 (S26)	132	3,941	0	4	0	4,077
Jun-23 (S27)	160	3,666	0	2	0	3,828
Jul-23 (S28)	67	5,221	0	1	0	5,289
Aug-23 (S29)	1	611	0	0	0	612
Sep-23 (S30)	5	862	0	0	0	867
Total	**1,816**	**61,913**	**0**	**8**	**1**	**63,738**

9.1.21 Black Guillemot

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0
Mar-22 (S11)	0	1	0	0	0	1
Apr-22 (S12)	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0
Aug-22 (S16)	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0
Jun-23 (S27)	0	0	0	0	0	0
Jul-23 (S28)	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0
Total	**0**	**1**	**0**	**0**	**0**	**1**

9.1.22 Razorbill

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	1	47	0	0	0	48
May-21 (S02)	0	93	0	0	0	93
Jun-21 (S03)	2	71	0	0	0	73
Jul-21 (S04)	0	77	0	0	0	77
Aug-21 (S05)	0	58	0	0	0	58
Sep-21 (S06)	4	36	0	0	0	40
Oct-21 (S07)	0	55	0	0	0	55
Nov-21 (S08)	41	592	0	0	0	633
Jan-22 (S09)	0	176	0	0	0	176
Mar-22 (S10)	20	390	0	0	0	410
Mar-22 (S11)	50	1,154	0	0	0	1,204
Apr-22 (S12)	2	81	0	0	0	83
May-22 (S13)	2	39	0	0	0	41
Jun-22 (S14)	5	737	0	0	0	742
Jul-22 (S15)	3	1,123	0	0	0	1,126
Aug-22 (S16)	0	98	0	0	0	98
Sep-22 (S17)	30	29	0	0	0	59
Oct-22 (S18)	83	1,323	0	0	0	1,406
Nov-22 (S19)	33	335	0	0	0	368
Dec-22 (S20)	28	571	0	0	0	599
Dec-22 (S21)	50	832	0	0	0	882
Jan-23 (S22)	0	130	0	0	0	130
Feb-23 (S23)	0	113	0	0	0	113
Mar-23 (S24)	74	1,074	0	0	0	1,148
Apr-23 (S25)	0	56	0	0	0	56
May-23 (S26)	23	447	0	0	0	470
Jun-23 (S27)	0	111	0	0	0	111
Jul-23 (S28)	24	866	0	0	0	890
Aug-23 (S29)	0	84	0	0	0	84
Sep-23 (S30)	30	76	0	0	0	106
Total	**505**	**10,874**	**0**	**0**	**0**	**11,379**

9.1.23 Guillemot / Razorbill

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	11	66	0	0	0	77
May-21 (S02)	0	116	0	0	0	116
Jun-21 (S03)	1	78	0	0	0	79
Jul-21 (S04)	4	153	0	0	0	157
Aug-21 (S05)	0	45	0	0	0	45
Sep-21 (S06)	19	288	0	0	0	307
Oct-21 (S07)	0	268	0	0	0	268
Nov-21 (S08)	97	3,715	0	0	0	3,812
Jan-22 (S09)	10	666	0	0	0	676
Mar-22 (S10)	34	516	0	0	0	550
Mar-22 (S11)	57	886	0	1	0	944
Apr-22 (S12)	1	181	0	0	0	182
May-22 (S13)	2	23	0	0	0	25
Jun-22 (S14)	1	229	0	0	0	230
Jul-22 (S15)	1	394	0	0	0	395
Aug-22 (S16)	0	116	0	0	0	116

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Sep-22 (S17)	29	92	0	0	0	121
Oct-22 (S18)	16	651	0	0	0	667
Nov-22 (S19)	21	316	0	0	0	337
Dec-22 (S20)	8	353	0	0	0	361
Dec-22 (S21)	9	339	0	0	0	348
Jan-23 (S22)	1	382	0	0	0	383
Feb-23 (S23)	2	256	0	0	0	258
Mar-23 (S24)	17	222	0	0	0	239
Apr-23 (S25)	1	35	0	0	0	36
May-23 (S26)	5	149	0	0	0	154
Jun-23 (S27)	1	96	0	1	0	98
Jul-23 (S28)	1	360	0	0	0	361
Aug-23 (S29)	0	55	0	0	0	55
Sep-23 (S30)	1	42	0	0	0	43
Total	**350**	**11,088**	**0**	**2**	**0**	**11,440**

9.1.24 Puffin

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	0	7	0	0	0	7
May-21 (S02)	0	6	0	0	0	6
Jun-21 (S03)	0	94	0	0	0	94
Jul-21 (S04)	0	6	0	0	0	6
Aug-21 (S05)	0	80	0	0	0	80
Sep-21 (S06)	0	8	0	0	0	8
Oct-21 (S07)	0	6	0	0	0	6
Nov-21 (S08)	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0
Mar-22 (S11)	4	12	0	0	0	16
Apr-22 (S12)	0	19	0	0	0	19
May-22 (S13)	0	20	0	0	0	20
Jun-22 (S14)	5	260	0	0	0	265
Jul-22 (S15)	6	1,881	0	0	0	1,887
Aug-22 (S16)	1	520	0	0	0	521
Sep-22 (S17)	0	56	0	0	0	56
Oct-22 (S18)	0	1	0	0	0	1
Nov-22 (S19)	0	1	0	0	0	1
Dec-22 (S20)	0	5	0	0	0	5
Dec-22 (S21)	0	0	0	0	0	0
Jan-23 (S22)	0	3	0	0	0	3
Feb-23 (S23)	0	4	0	0	0	4
Mar-23 (S24)	0	10	0	0	0	10
Apr-23 (S25)	0	7	0	0	0	7
May-23 (S26)	0	63	0	0	0	63
Jun-23 (S27)	3	185	0	0	0	188
Jul-23 (S28)	4	309	0	0	0	313
Aug-23 (S29)	0	152	0	0	0	152
Sep-23 (S30)	0	57	0	0	0	57
Total	**23**	**3,772**	**0**	**0**	**0**	**3,795**

9.1.25 Auk Species

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	0	5	0	0	0	5
May-21 (S02)	0	2	0	0	0	2
Jun-21 (S03)	1	14	0	0	0	15
Jul-21 (S04)	0	37	0	0	0	37
Aug-21 (S05)	0	23	0	0	0	23
Sep-21 (S06)	1	12	0	0	0	13
Oct-21 (S07)	0	4	0	0	0	4
Nov-21 (S08)	0	5	0	0	0	5
Jan-22 (S09)	0	10	0	0	0	10
Mar-22 (S10)	0	2	0	0	0	2
Mar-22 (S11)	0	12	0	0	0	12
Apr-22 (S12)	0	31	0	0	0	31
May-22 (S13)	0	9	0	0	0	9
Jun-22 (S14)	0	4	0	0	0	4
Jul-22 (S15)	0	35	0	0	0	35
Aug-22 (S16)	0	133	0	0	0	133
Sep-22 (S17)	0	13	0	0	0	13
Oct-22 (S18)	0	7	0	0	0	7
Nov-22 (S19)	0	18	0	0	0	18
Dec-22 (S20)	0	0	0	0	0	0
Dec-22 (S21)	0	6	0	0	0	6
Jan-23 (S22)	0	1	0	0	0	1
Feb-23 (S23)	0	22	0	0	0	22
Mar-23 (S24)	0	19	0	0	0	19
Apr-23 (S25)	0	0	0	0	0	0
May-23 (S26)	0	31	0	0	0	31
Jun-23 (S27)	1	4	0	0	0	5
Jul-23 (S28)	0	26	0	0	0	26
Aug-23 (S29)	0	10	0	0	0	10
Sep-23 (S30)	0	12	0	0	0	12
Total	**3**	**507**	**0**	**0**	**0**	**510**

9.1.26 Manx Shearwater

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	186	108	0	0	0	294
May-21 (S02)	364	151	0	0	0	515
Jun-21 (S03)	94	26	0	0	0	120
Jul-21 (S04)	607	1,249	0	0	0	1,856
Aug-21 (S05)	133	38	0	0	0	171
Sep-21 (S06)	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0
Mar-22 (S10)	2	1	0	0	0	3
Mar-22 (S11)	44	74	0	0	0	118
Apr-22 (S12)	570	2,359	0	0	0	2,929
May-22 (S13)	356	1,016	0	0	0	1,372
Jun-22 (S14)	338	105	0	0	0	443
Jul-22 (S15)	234	495	0	0	0	729
Aug-22 (S16)	44	105	0	0	0	149

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Sep-22 (S17)	6	12	0	0	0	18
Oct-22 (S18)	1	0	0	0	0	1
Nov-22 (S19)	1	0	0	0	0	1
Dec-22 (S20)	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0
Mar-23 (S24)	47	29	0	0	0	76
Apr-23 (S25)	236	669	0	0	0	905
May-23 (S26)	106	292	0	0	0	398
Jun-23 (S27)	257	1,309	0	1	0	1,567
Jul-23 (S28)	195	989	0	0	0	1,184
Aug-23 (S29)	66	273	0	0	0	339
Sep-23 (S30)	65	160	0	0	0	225
Total	**3,952**	**9,460**	**0**	**1**	**0**	**13,413**

9.1.27 Sooty Shearwater

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0
Jul-22 (S15)	3	0	0	0	0	3
Aug-22 (S16)	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0
Nov-22 (S19)	1	0	0	0	0	1
Dec-22 (S20)	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0
Jun-23 (S27)	0	0	0	0	0	0
Jul-23 (S28)	0	0	0	0	0	0
Aug-23 (S29)	0	1	0	0	0	1
Sep-23 (S30)	0	0	0	0	0	0
Total	**4**	**1**	**0**	**0**	**0**	**5**

9.1.28 Small Shearwater Species

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0
Jun-22 (S14)	118	1	0	0	0	119
Jul-22 (S15)	13	2	0	0	0	15
Aug-22 (S16)	32	18	0	0	0	50
Sep-22 (S17)	2	0	0	0	0	2
Oct-22 (S18)	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0
Jun-23 (S27)	0	0	0	0	0	0
Jul-23 (S28)	300	246	0	0	0	546
Aug-23 (S29)	69	60	0	0	0	129
Sep-23 (S30)	29	2	0	0	0	31
Total	**563**	**329**	**0**	**0**	**0**	**892**

9.1.29 Great Shearwater

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0
Aug-22 (S16)	0	0	0	0	0	0

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Sep-22 (S17)	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0
Nov-22 (S19)	1	0	0	0	0	1
Dec-22 (S20)	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0
Jun-23 (S27)	0	0	0	0	0	0
Jul-23 (S28)	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0
Total	**1**	**0**	**0**	**0**	**0**	**1**

9.1.30 Shearwater Species

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0
Aug-22 (S16)	0	7	0	0	0	7
Sep-22 (S17)	0	0	0	0	0	0
Oct-22 (S18)	1	1	0	0	0	2
Nov-22 (S19)	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0
Jun-23 (S27)	0	0	0	0	0	0
Jul-23 (S28)	0	0	0	0	0	0
Aug-23 (S29)	2	3	0	0	0	5
Sep-23 (S30)	0	0	0	0	0	0
Total	**3**	**11**	**0**	**0**	**0**	**14**

9.1.31 Auk/Shearwater Species

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	0	2	0	0	0	2
May-21 (S02)	2	17	0	0	0	19
Jun-21 (S03)	1	36	0	0	0	37
Jul-21 (S04)	2	15	0	0	0	17
Aug-21 (S05)	4	9	0	0	0	13
Sep-21 (S06)	1	4	0	0	0	5
Oct-21 (S07)	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0
Mar-22 (S11)	1	2	0	0	0	3
Apr-22 (S12)	4	355	0	0	0	359
May-22 (S13)	0	15	0	0	0	15
Jun-22 (S14)	0	14	0	0	0	14
Jul-22 (S15)	5	29	0	0	0	34
Aug-22 (S16)	3	66	0	0	0	69
Sep-22 (S17)	5	8	0	0	0	13
Oct-22 (S18)	0	6	0	0	0	6
Nov-22 (S19)	3	4	0	0	0	7
Dec-22 (S20)	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0
Feb-23 (S23)	0	7	0	0	0	7
Mar-23 (S24)	5	48	0	0	0	53
Apr-23 (S25)	10	16	0	0	0	26
May-23 (S26)	1	23	0	0	0	24
Jun-23 (S27)	0	22	0	0	0	22
Jul-23 (S28)	2	111	0	0	0	113
Aug-23 (S29)	3	8	0	0	0	11
Sep-23 (S30)	2	9	0	0	0	11
Total	**54**	**826**	**0**	**0**	**0**	**880**

9.1.32 Great Northern Diver

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	0	3	0	0	0	3
May-21 (S02)	0	2	0	0	0	2
Jun-21 (S03)	0	2	0	0	0	2
Jul-21 (S04)	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0
Jan-22 (S09)	0	2	0	0	0	2
Mar-22 (S10)	0	3	0	0	0	3
Mar-22 (S11)	0	3	0	0	0	3
Apr-22 (S12)	0	2	0	0	0	2
May-22 (S13)	1	4	0	0	0	5
Jun-22 (S14)	0	0	0	0	0	0
Jul-22 (S15)	0	1	0	0	0	1
Aug-22 (S16)	0	0	0	0	0	0

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Sep-22 (S17)	0	0	0	0	0	0
Oct-22 (S18)	0	1	0	0	0	1
Nov-22 (S19)	0	3	0	0	0	3
Dec-22 (S20)	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0
Jan-23 (S22)	0	1	0	0	0	1
Feb-23 (S23)	0	5	0	0	0	5
Mar-23 (S24)	0	4	0	0	0	4
Apr-23 (S25)	0	5	0	0	0	5
May-23 (S26)	1	2	0	0	0	3
Jun-23 (S27)	0	1	0	0	0	1
Jul-23 (S28)	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0
Total	**2**	**44**	**0**	**0**	**0**	**46**

9.1.33 Red-throated Diver

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0
Sep-21 (S06)	1	0	0	0	0	1
Oct-21 (S07)	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0
Aug-22 (S16)	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0
May-23 (S26)	1	0	0	0	0	1
Jun-23 (S27)	0	0	0	0	0	0
Jul-23 (S28)	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0
Total	**2**	**0**	**0**	**0**	**0**	**2**

9.1.34 European Storm Petrel

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0
Aug-22 (S16)	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0
May-23 (S26)	1	0	0	0	0	1
Jun-23 (S27)	0	0	0	0	0	0
Jul-23 (S28)	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0
Total	**1**	**0**	**0**	**0**	**0**	**1**

9.1.35 Storm Petrel Species

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0
Jun-21 (S03)	8	0	0	0	0	8
Jul-21 (S04)	0	0	0	0	0	0
Aug-21 (S05)	6	0	0	0	0	6
Sep-21 (S06)	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0
Jun-22 (S14)	2	0	0	0	0	2
Jul-22 (S15)	17	0	0	0	0	17
Aug-22 (S16)	5	0	0	0	0	5

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Sep-22 (S17)	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0
Jun-23 (S27)	11	0	0	0	0	11
Jul-23 (S28)	42	0	0	0	0	42
Aug-23 (S29)	25	0	0	0	0	25
Sep-23 (S30)	0	0	0	0	0	0
Total	**116**	**0**	**0**	**0**	**0**	**116**

9.1.36 Fulmar

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	3	0	0	0	0	3
May-21 (S02)	8	7	0	0	0	15
Jun-21 (S03)	1	1	0	0	0	2
Jul-21 (S04)	9	5	0	0	0	14
Aug-21 (S05)	15	8	0	0	0	23
Sep-21 (S06)	1	1	0	0	0	2
Oct-21 (S07)	5	2	0	0	0	7
Nov-21 (S08)	17	3	0	0	0	20
Jan-22 (S09)	54	7	0	0	0	61
Mar-22 (S10)	4	6	0	0	0	10
Mar-22 (S11)	6	5	0	0	0	11
Apr-22 (S12)	4	3	0	0	0	7
May-22 (S13)	1	1	0	0	0	2
Jun-22 (S14)	15	2	0	0	0	17
Jul-22 (S15)	7	36	0	0	1	44
Aug-22 (S16)	7	4	0	0	0	11
Sep-22 (S17)	17	2	0	0	0	19
Oct-22 (S18)	18	17	0	0	0	35
Nov-22 (S19)	4	2	0	0	0	6
Dec-22 (S20)	13	0	0	0	0	13
Dec-22 (S21)	0	0	0	0	0	0
Jan-23 (S22)	8	4	0	0	0	12
Feb-23 (S23)	0	0	0	0	0	0
Mar-23 (S24)	23	4	0	0	0	27
Apr-23 (S25)	8	1	0	0	0	9
May-23 (S26)	6	9	0	0	0	15
Jun-23 (S27)	4	6	0	0	0	10
Jul-23 (S28)	15	7	0	0	0	22
Aug-23 (S29)	5	8	0	0	0	13
Sep-23 (S30)	0	1	0	0	0	1
Total	**278**	**152**	**0**	**0**	**1**	**431**

9.1.37 Fulmar / Gull Species

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0
Aug-22 (S16)	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0
Jan-23 (S22)	1	0	0	0	0	1
Feb-23 (S23)	0	3	0	0	0	3
Mar-23 (S24)	0	0	0	0	0	0
Apr-23 (S25)	0	1	0	0	0	1
May-23 (S26)	0	0	0	0	0	0
Jun-23 (S27)	0	0	0	0	1	1
Jul-23 (S28)	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0
Total	**1**	**4**	**0**	**0**	**1**	**6**

9.1.38 Gannet

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	31	15	0	0	1	47
May-21 (S02)	34	24	0	0	0	58
Jun-21 (S03)	35	11	0	0	0	46
Jul-21 (S04)	25	75	0	0	0	100
Aug-21 (S05)	29	28	0	0	0	57
Sep-21 (S06)	24	10	0	0	0	34
Oct-21 (S07)	15	2	0	0	0	17
Nov-21 (S08)	11	25	0	0	0	36
Jan-22 (S09)	1	1	0	0	0	2
Mar-22 (S10)	5	1	0	0	0	6
Mar-22 (S11)	18	5	0	0	0	23
Apr-22 (S12)	22	115	0	1	0	138
May-22 (S13)	83	66	0	3	0	152
Jun-22 (S14)	31	4	0	0	2	37
Jul-22 (S15)	7	4	0	0	1	12
Aug-22 (S16)	22	31	0	0	7	60

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Sep-22 (S17)	24	16	0	0	2	42
Oct-22 (S18)	10	22	0	0	0	32
Nov-22 (S19)	3	2	0	0	1	6
Dec-22 (S20)	2	2	0	0	0	4
Dec-22 (S21)	0	0	0	0	0	0
Jan-23 (S22)	2	2	0	0	0	4
Feb-23 (S23)	10	82	0	0	0	92
Mar-23 (S24)	13	18	0	0	0	31
Apr-23 (S25)	11	13	0	1	0	25
May-23 (S26)	13	2	0	0	1	16
Jun-23 (S27)	40	48	0	3	0	91
Jul-23 (S28)	12	5	0	0	0	17
Aug-23 (S29)	31	10	0	0	1	42
Sep-23 (S30)	44	50	0	0	0	94
Total	**608**	**689**	**0**	**8**	**16**	**1,321**

9.1.39 Cormorant/Shag

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	0	0	0	0	0	0
May-21 (S02)	0	1	0	0	0	1
Jun-21 (S03)	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0
Mar-22 (S10)	0	3	0	0	0	3
Mar-22 (S11)	0	5	0	0	0	5
Apr-22 (S12)	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0
Jun-22 (S14)	1	0	0	0	0	1
Jul-22 (S15)	0	1	0	0	0	1
Aug-22 (S16)	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0
Nov-22 (S19)	0	2	0	0	0	2
Dec-22 (S20)	1	2	0	0	0	3
Dec-22 (S21)	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0
Feb-23 (S23)	0	2	0	0	0	2
Mar-23 (S24)	0	0	0	0	0	0
Apr-23 (S25)	1	0	0	0	0	1
May-23 (S26)	0	1	0	0	0	1
Jun-23 (S27)	0	0	0	0	0	0
Jul-23 (S28)	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0
Total	**3**	**17**	**0**	**0**	**0**	**20**

9.1.40 Little Egret

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	0	0	0	0	0	0
May-21 (S02)	1	0	0	0	0	1
Jun-21 (S03)	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0
Aug-22 (S16)	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0
Jun-23 (S27)	0	0	0	0	0	0
Jul-23 (S28)	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0
Total	**1**	**0**	**0**	**0**	**0**	**1**

9.1.41 Swan Species

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Jul-22 (S15)	0	0	0	0	0	0
Aug-22 (S16)	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	1	1
Jan-23 (S22)	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0
Jun-23 (S27)	0	0	0	0	0	0
Jul-23 (S28)	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**1**	**1**

9.1.42 Unidentified Bird Species

Survey	Flying	Sitting	Perched	Diving	Deceased	Total
Apr-21 (S01)	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0
Sep-21 (S06)	1	2	0	0	0	3
Oct-21 (S07)	3	3	0	0	0	6
Nov-21 (S08)	2	1	0	0	0	3
Jan-22 (S09)	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0
May-22 (S13)	0	3	0	0	0	3
Jun-22 (S14)	0	0	0	0	1	1
Jul-22 (S15)	2	5	0	0	3	10
Aug-22 (S16)	0	3	0	0	0	3
Sep-22 (S17)	0	6	0	0	0	6
Oct-22 (S18)	1	0	0	0	0	1
Nov-22 (S19)	0	3	0	0	0	3
Dec-22 (S20)	0	0	0	0	0	0
Dec-22 (S21)	0	3	0	0	0	3
Jan-23 (S22)	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0
Mar-23 (S24)	1	0	0	0	0	1
Apr-23 (S25)	0	1	0	0	0	1
May-23 (S26)	0	1	0	0	0	1
Jun-23 (S27)	0	0	0	0	1	1
Jul-23 (S28)	0	6	0	0	3	9
Aug-23 (S29)	2	5	0	0	0	7
Sep-23 (S30)	1	0	0	0	1	2
Total	**13**	**42**	**0**	**0**	**9**	**64**

9.2 Marine Megafauna

9.2.1 Grey seal

Survey	Submerged	Surfacing	Deceased	Total
Apr-21 (S01)	2	3	0	5
May-21 (S02)	8	0	0	8
Jun-21 (S03)	0	0	0	0
Jul-21 (S04)	8	8	0	16
Aug-21 (S05)	2	3	0	5
Sep-21 (S06)	1	0	0	1
Oct-21 (S07)	0	0	0	0
Nov-21 (S08)	2	0	0	2
Jan-22 (S09)	2	1	0	3
Mar-22 (S10)	0	0	0	0
Mar-22 (S11)	1	6	0	7
Apr-22 (S12)	1	0	0	1
May-22 (S13)	3	3	0	6
Jun-22 (S14)	5	0	0	5
Jul-22 (S15)	12	6	0	18
Aug-22 (S16)	4	0	0	4
Sep-22 (S17)	2	3	0	5
Oct-22 (S18)	0	1	0	1
Nov-22 (S19)	0	1	0	1
Dec-22 (S20)	0	1	0	1
Dec-22 (S21)	0	1	0	1
Jan-23 (S22)	1	1	0	2
Feb-23 (S23)	2	3	0	5
Mar-23 (S24)	3	0	0	3
Apr-23 (S25)	3	2	0	5
May-23 (S26)	4	2	0	6
Jun-23 (S27)	8	6	0	14
Jul-23 (S28)	8	3	0	11
Aug-23 (S29)	6	14	0	20
Sep-23 (S30)	6	3	0	9
Total	**94**	**71**	**0**	**165**

9.2.2 Seal Species

Survey	Submerged	Surfacing	Deceased	Total
Apr-21 (S01)	0	1	0	1
May-21 (S02)	3	0	0	3
Jun-21 (S03)	1	4	0	5
Jul-21 (S04)	1	5	0	6
Aug-21 (S05)	0	0	0	0
Sep-21 (S06)	0	1	0	1
Oct-21 (S07)	0	2	0	2
Nov-21 (S08)	0	0	0	0
Jan-22 (S09)	1	0	0	1
Mar-22 (S10)	0	0	0	0
Mar-22 (S11)	1	3	0	4
Apr-22 (S12)	1	0	0	1
May-22 (S13)	3	0	0	3
Jun-22 (S14)	1	0	0	1

Survey	Submerged	Surfacing	Deceased	Total
Jul-22 (S15)	0	3	0	3
Aug-22 (S16)	3	1	0	4
Sep-22 (S17)	3	1	0	4
Oct-22 (S18)	0	0	0	0
Nov-22 (S19)	2	1	0	3
Dec-22 (S20)	2	0	0	2
Dec-22 (S21)	0	0	0	0
Jan-23 (S22)	1	1	0	2
Feb-23 (S23)	3	6	0	9
Mar-23 (S24)	0	0	0	0
Apr-23 (S25)	1	0	0	1
May-23 (S26)	0	0	0	0
Jun-23 (S27)	0	0	0	0
Jul-23 (S28)	1	9	0	10
Aug-23 (S29)	5	6	0	11
Sep-23 (S30)	0	0	0	0
Total	**33**	**44**	**0**	**77**

9.2.3 Common Dolphin

Survey	Submerged	Surfacing	Deceased	Total
Apr-21 (S01)	20	0	0	20
May-21 (S02)	21	2	0	23
Jun-21 (S03)	0	0	0	0
Jul-21 (S04)	4	0	0	4
Aug-21 (S05)	21	2	0	23
Sep-21 (S06)	4	2	0	6
Oct-21 (S07)	11	1	0	12
Nov-21 (S08)	3	1	0	4
Jan-22 (S09)	84	10	0	94
Mar-22 (S10)	4	2	0	6
Mar-22 (S11)	14	0	0	14
Apr-22 (S12)	2	0	0	2
May-22 (S13)	7	1	0	8
Jun-22 (S14)	21	6	0	27
Jul-22 (S15)	16	4	0	20
Aug-22 (S16)	10	1	0	11
Sep-22 (S17)	6	0	0	6
Oct-22 (S18)	8	0	0	8
Nov-22 (S19)	73	5	0	78
Dec-22 (S20)	10	2	0	12
Dec-22 (S21)	2	3	0	5
Jan-23 (S22)	63	1	0	64
Feb-23 (S23)	242	23	0	265
Mar-23 (S24)	55	5	0	60
Apr-23 (S25)	4	0	0	4
May-23 (S26)	54	5	0	59
Jun-23 (S27)	160	18	0	178
Jul-23 (S28)	120	20	0	140
Aug-23 (S29)	44	1	0	45
Sep-23 (S30)	106	5	0	111
Total	**1,189**	**120**	**0**	**1,309**

9.2.4 Bottlenose Dolphin

Survey	Submerged	Surfacing	Deceased	Total
Apr-21 (S01)	0	0	0	0
May-21 (S02)	0	0	0	0
Jun-21 (S03)	0	0	0	0
Jul-21 (S04)	0	0	0	0
Aug-21 (S05)	0	0	0	0
Sep-21 (S06)	0	0	0	0
Oct-21 (S07)	3	0	0	3
Nov-21 (S08)	0	0	0	0
Jan-22 (S09)	0	0	0	0
Mar-22 (S10)	0	0	0	0
Mar-22 (S11)	0	0	0	0
Apr-22 (S12)	0	0	0	0
May-22 (S13)	0	0	0	0
Jun-22 (S14)	0	0	0	0
Jul-22 (S15)	0	0	0	0
Aug-22 (S16)	0	0	0	0
Sep-22 (S17)	0	0	0	0
Oct-22 (S18)	0	0	0	0
Nov-22 (S19)	0	0	0	0
Dec-22 (S20)	0	0	0	0
Dec-22 (S21)	0	0	0	0
Jan-23 (S22)	0	0	0	0
Feb-23 (S23)	0	0	0	0
Mar-23 (S24)	0	0	0	0
Apr-23 (S25)	0	0	0	0
May-23 (S26)	0	0	0	0
Jun-23 (S27)	0	0	0	0
Jul-23 (S28)	0	0	0	0
Aug-23 (S29)	0	0	0	0
Sep-23 (S30)	0	0	0	0
Total	**3**	**0**	**0**	**3**

9.2.5 Risso's Dolphin

Survey	Submerged	Surfacing	Deceased	Total
Apr-21 (S01)	0	0	0	0
May-21 (S02)	0	0	0	0
Jun-21 (S03)	0	0	0	0
Jul-21 (S04)	0	0	0	0
Aug-21 (S05)	0	0	0	0
Sep-21 (S06)	0	0	0	0
Oct-21 (S07)	0	0	0	0
Nov-21 (S08)	0	0	0	0
Jan-22 (S09)	0	0	0	0
Mar-22 (S10)	0	0	0	0
Mar-22 (S11)	0	0	0	0
Apr-22 (S12)	0	0	0	0
May-22 (S13)	0	0	0	0
Jun-22 (S14)	0	0	0	0
Jul-22 (S15)	0	0	0	0

Survey	Submerged	Surfacing	Deceased	Total
Aug-22 (S16)	0	0	0	0
Sep-22 (S17)	0	0	0	0
Oct-22 (S18)	0	0	0	0
Nov-22 (S19)	0	0	0	0
Dec-22 (S20)	2	0	0	2
Dec-22 (S21)	0	0	0	0
Jan-23 (S22)	0	0	0	0
Feb-23 (S23)	0	0	0	0
Mar-23 (S24)	0	0	0	0
Apr-23 (S25)	0	0	0	0
May-23 (S26)	0	0	0	0
Jun-23 (S27)	0	0	0	0
Jul-23 (S28)	0	0	0	0
Aug-23 (S29)	0	0	0	0
Sep-23 (S30)	0	0	0	0
Total	**2**	**0**	**0**	**2**

9.2.6 Dolphin Species

Survey	Submerged	Surfacing	Deceased	Total
Apr-21 (S01)	1	1	0	2
May-21 (S02)	0	0	0	0
Jun-21 (S03)	5	0	0	5
Jul-21 (S04)	0	0	0	0
Aug-21 (S05)	0	0	0	0
Sep-21 (S06)	0	0	0	0
Oct-21 (S07)	2	0	0	2
Nov-21 (S08)	0	0	0	0
Jan-22 (S09)	7	0	0	7
Mar-22 (S10)	0	0	0	0
Mar-22 (S11)	0	0	0	0
Apr-22 (S12)	0	0	0	0
May-22 (S13)	0	0	0	0
Jun-22 (S14)	0	0	0	0
Jul-22 (S15)	0	0	0	0
Aug-22 (S16)	0	0	0	0
Sep-22 (S17)	1	0	0	1
Oct-22 (S18)	0	0	0	0
Nov-22 (S19)	0	0	0	0
Dec-22 (S20)	0	0	0	0
Dec-22 (S21)	0	0	0	0
Jan-23 (S22)	0	0	1	1
Feb-23 (S23)	0	0	0	0
Mar-23 (S24)	0	0	0	0
Apr-23 (S25)	0	0	0	0
May-23 (S26)	0	0	0	0
Jun-23 (S27)	0	0	0	0
Jul-23 (S28)	0	0	0	0
Aug-23 (S29)	0	0	0	0
Sep-23 (S30)	0	0	0	0
Total	**16**	**1**	**1**	**18**

9.2.7 Harbour Porpoise

Survey	Submerged	Surfacing	Deceased	Total
Apr-21 (S01)	3	3	0	6
May-21 (S02)	5	0	0	5
Jun-21 (S03)	6	2	0	8
Jul-21 (S04)	19	4	0	23
Aug-21 (S05)	7	3	0	10
Sep-21 (S06)	2	0	0	2
Oct-21 (S07)	1	1	0	2
Nov-21 (S08)	4	1	0	5
Jan-22 (S09)	2	4	0	6
Mar-22 (S10)	3	2	0	5
Mar-22 (S11)	27	15	0	42
Apr-22 (S12)	6	2	0	8
May-22 (S13)	9	3	0	12
Jun-22 (S14)	3	3	0	6
Jul-22 (S15)	16	4	0	20
Aug-22 (S16)	0	0	0	0
Sep-22 (S17)	1	0	0	1
Oct-22 (S18)	2	2	0	4
Nov-22 (S19)	9	3	0	12
Dec-22 (S20)	0	0	0	0
Dec-22 (S21)	0	1	0	1
Jan-23 (S22)	4	1	0	5
Feb-23 (S23)	19	2	0	21
Mar-23 (S24)	0	2	0	2
Apr-23 (S25)	9	4	0	13
May-23 (S26)	7	1	0	8
Jun-23 (S27)	8	2	0	10
Jul-23 (S28)	3	2	0	5
Aug-23 (S29)	10	2	0	12
Sep-23 (S30)	11	0	0	11
Total	**196**	**69**	**0**	**265**

9.2.8 Dolphin/Porpoise

Survey	Submerged	Surfacing	Deceased	Total
Apr-21 (S01)	7	0	0	7
May-21 (S02)	3	1	0	4
Jun-21 (S03)	3	2	0	5
Jul-21 (S04)	4	1	0	5
Aug-21 (S05)	4	0	0	4
Sep-21 (S06)	1	2	0	3
Oct-21 (S07)	0	0	0	0
Nov-21 (S08)	0	2	0	2
Jan-22 (S09)	4	2	0	6
Mar-22 (S10)	7	1	0	8
Mar-22 (S11)	0	0	0	0
Apr-22 (S12)	2	0	0	2
May-22 (S13)	3	0	0	3
Jun-22 (S14)	0	3	0	3
Jul-22 (S15)	0	0	0	0

Survey	Submerged	Surfacing	Deceased	Total
Aug-22 (S16)	0	3	0	3
Sep-22 (S17)	1	2	0	3
Oct-22 (S18)	1	0	0	1
Nov-22 (S19)	5	0	0	5
Dec-22 (S20)	1	0	0	1
Dec-22 (S21)	0	1	0	1
Jan-23 (S22)	4	0	0	4
Feb-23 (S23)	29	3	0	32
Mar-23 (S24)	0	0	0	0
Apr-23 (S25)	2	0	0	2
May-23 (S26)	2	0	0	2
Jun-23 (S27)	0	0	0	0
Jul-23 (S28)	7	0	0	7
Aug-23 (S29)	0	2	0	2
Sep-23 (S30)	7	0	0	7
Total	**97**	**25**	**0**	**122**

9.2.9 Common Minke Whale

Survey	Submerged	Surfacing	Deceased	Total
Apr-21 (S01)	0	0	0	0
May-21 (S02)	1	0	0	1
Jun-21 (S03)	0	0	0	0
Jul-21 (S04)	4	0	0	4
Aug-21 (S05)	5	1	0	6
Sep-21 (S06)	0	0	0	0
Oct-21 (S07)	0	0	0	0
Nov-21 (S08)	0	0	0	0
Jan-22 (S09)	0	0	0	0
Mar-22 (S10)	0	0	0	0
Mar-22 (S11)	2	0	0	2
Apr-22 (S12)	3	1	0	4
May-22 (S13)	2	0	0	2
Jun-22 (S14)	2	0	0	2
Jul-22 (S15)	4	0	0	4
Aug-22 (S16)	1	0	0	1
Sep-22 (S17)	0	0	0	0
Oct-22 (S18)	0	0	0	0
Nov-22 (S19)	1	0	0	1
Dec-22 (S20)	0	0	0	0
Dec-22 (S21)	0	0	0	0
Jan-23 (S22)	0	0	0	0
Feb-23 (S23)	0	0	0	0
Mar-23 (S24)	0	0	0	0
Apr-23 (S25)	0	2	0	2
May-23 (S26)	0	0	0	0
Jun-23 (S27)	4	1	0	5
Jul-23 (S28)	7	1	0	8
Aug-23 (S29)	1	0	0	1
Sep-23 (S30)	1	0	0	1
Total	**38**	**6**	**0**	**44**

9.2.10 Marine Mammal Species

Survey	Submerged	Surfacing	Deceased	Total
Apr-21 (S01)	0	0	0	0
May-21 (S02)	0	1	0	1
Jun-21 (S03)	0	0	0	0
Jul-21 (S04)	1	0	0	1
Aug-21 (S05)	0	0	0	0
Sep-21 (S06)	0	0	0	0
Oct-21 (S07)	0	2	0	2
Nov-21 (S08)	0	0	0	0
Jan-22 (S09)	0	0	0	0
Mar-22 (S10)	2	0	0	2
Mar-22 (S11)	1	0	0	1
Apr-22 (S12)	1	0	0	1
May-22 (S13)	0	1	0	1
Jun-22 (S14)	0	0	0	0
Jul-22 (S15)	0	0	0	0
Aug-22 (S16)	0	0	0	0
Sep-22 (S17)	0	0	0	0
Oct-22 (S18)	0	0	0	0
Nov-22 (S19)	1	1	0	2
Dec-22 (S20)	0	1	0	1
Dec-22 (S21)	0	0	0	0
Jan-23 (S22)	0	0	0	0
Feb-23 (S23)	0	0	0	0
Mar-23 (S24)	0	0	0	0
Apr-23 (S25)	0	0	0	0
May-23 (S26)	1	0	0	1
Jun-23 (S27)	0	0	0	0
Jul-23 (S28)	0	0	0	0
Aug-23 (S29)	0	0	0	0
Sep-23 (S30)	0	0	0	0
Total	**7**	**6**	**0**	**13**

9.2.11 Basking Shark

Survey	Submerged	Surfacing	Deceased	Total
Apr-21 (S01)	2	0	0	2
May-21 (S02)	0	0	0	0
Jun-21 (S03)	0	0	0	0
Jul-21 (S04)	0	0	0	0
Aug-21 (S05)	0	0	0	0
Sep-21 (S06)	0	0	0	0
Oct-21 (S07)	0	0	0	0
Nov-21 (S08)	1	0	0	1
Jan-22 (S09)	0	0	0	0
Mar-22 (S10)	0	0	0	0
Mar-22 (S11)	0	0	0	0
Apr-22 (S12)	1	0	0	1
May-22 (S13)	0	0	0	0
Jun-22 (S14)	0	0	0	0
Jul-22 (S15)	0	0	0	0
Aug-22 (S16)	0	0	0	0

Survey	Submerged	Surfacing	Deceased	Total
Sep-22 (S17)	0	0	0	0
Oct-22 (S18)	0	0	0	0
Nov-22 (S19)	0	0	0	0
Dec-22 (S20)	0	0	0	0
Dec-22 (S21)	0	0	0	0
Jan-23 (S22)	0	0	0	0
Feb-23 (S23)	0	0	0	0
Mar-23 (S24)	0	0	0	0
Apr-23 (S25)	4	0	0	4
May-23 (S26)	0	0	0	0
Jun-23 (S27)	0	0	0	0
Jul-23 (S28)	0	0	0	0
Aug-23 (S29)	0	0	0	0
Sep-23 (S30)	0	0	0	0
Total	**8**	**0**	**0**	**8**

9.2.12 Shark Species

Survey	Submerged	Surfacing	Deceased	Total
Apr-21 (S01)	0	0	0	0
May-21 (S02)	0	0	0	0
Jun-21 (S03)	0	0	0	0
Jul-21 (S04)	0	0	0	0
Aug-21 (S05)	0	0	0	0
Sep-21 (S06)	0	0	0	0
Oct-21 (S07)	1	0	0	1
Nov-21 (S08)	0	0	0	0
Jan-22 (S09)	0	0	0	0
Mar-22 (S10)	0	0	0	0
Mar-22 (S11)	0	0	0	0
Apr-22 (S12)	0	0	0	0
May-22 (S13)	0	0	0	0
Jun-22 (S14)	0	0	0	0
Jul-22 (S15)	0	0	0	0
Aug-22 (S16)	0	0	0	0
Sep-22 (S17)	0	0	0	0
Oct-22 (S18)	0	0	0	0
Nov-22 (S19)	0	0	0	0
Dec-22 (S20)	0	0	0	0
Dec-22 (S21)	0	0	0	0
Jan-23 (S22)	0	0	0	0
Feb-23 (S23)	0	0	0	0
Mar-23 (S24)	0	0	0	0
Apr-23 (S25)	0	0	0	0
May-23 (S26)	0	0	0	0
Jun-23 (S27)	0	0	0	0
Jul-23 (S28)	0	0	0	0
Aug-23 (S29)	0	0	0	0
Sep-23 (S30)	0	0	0	0
Total	**1**	**0**	**0**	**1**

9.2.13 Ocean Sunfish

Survey	Submerged	Surfacing	Deceased	Total
Apr-21 (S01)	0	0	0	0
May-21 (S02)	0	0	0	0
Jun-21 (S03)	0	0	0	0
Jul-21 (S04)	0	0	0	0
Aug-21 (S05)	0	0	0	0
Sep-21 (S06)	0	0	0	0
Oct-21 (S07)	0	0	0	0
Nov-21 (S08)	0	0	0	0
Jan-22 (S09)	0	0	0	0
Mar-22 (S10)	0	0	0	0
Mar-22 (S11)	0	0	0	0
Apr-22 (S12)	0	0	0	0
May-22 (S13)	0	0	0	0
Jun-22 (S14)	0	0	0	0
Jul-22 (S15)	0	0	0	0
Aug-22 (S16)	1	0	0	1
Sep-22 (S17)	0	0	0	0
Oct-22 (S18)	0	0	0	0
Nov-22 (S19)	0	0	0	0
Dec-22 (S20)	0	0	0	0
Dec-22 (S21)	0	0	0	0
Jan-23 (S22)	0	0	0	0
Feb-23 (S23)	0	0	0	0
Mar-23 (S24)	0	0	0	0
Apr-23 (S25)	0	0	0	0
May-23 (S26)	0	0	0	0
Jun-23 (S27)	0	0	0	0
Jul-23 (S28)	0	0	0	0
Aug-23 (S29)	0	0	0	0
Sep-23 (S30)	0	0	0	0
Total	**1**	**0**	**0**	**1**

9.2.14 Atlantic Bluefin Tuna

Survey	Submerged	Surfacing	Deceased	Total
Apr-21 (S01)	0	0	0	0
May-21 (S02)	0	0	0	0
Jun-21 (S03)	0	0	0	0
Jul-21 (S04)	0	0	0	0
Aug-21 (S05)	0	0	0	0
Sep-21 (S06)	0	0	0	0
Oct-21 (S07)	0	0	0	0
Nov-21 (S08)	0	0	0	0
Jan-22 (S09)	0	0	0	0
Mar-22 (S10)	0	0	0	0
Mar-22 (S11)	0	0	0	0
Apr-22 (S12)	0	0	0	0
May-22 (S13)	0	0	0	0
Jun-22 (S14)	0	0	0	0
Jul-22 (S15)	0	0	0	0

Survey	Submerged	Surfacing	Deceased	Total
Aug-22 (S16)	0	0	0	0
Sep-22 (S17)	0	0	0	0
Oct-22 (S18)	0	0	0	0
Nov-22 (S19)	0	0	0	0
Dec-22 (S20)	0	0	0	0
Dec-22 (S21)	0	0	0	0
Jan-23 (S22)	0	0	0	0
Feb-23 (S23)	0	0	0	0
Mar-23 (S24)	0	0	0	0
Apr-23 (S25)	0	0	0	0
May-23 (S26)	0	0	0	0
Jun-23 (S27)	0	0	0	0
Jul-23 (S28)	0	0	0	0
Aug-23 (S29)	1	0	0	1
Sep-23 (S30)	2	0	0	2
Total	**3**	**0**	**0**	**3**

9.2.15 Leatherback Turtle

Survey	Submerged	Surfacing	Deceased	Total
Apr-21 (S01)	0	0	0	0
May-21 (S02)	0	0	0	0
Jun-21 (S03)	0	0	0	0
Jul-21 (S04)	0	0	0	0
Aug-21 (S05)	0	0	0	0
Sep-21 (S06)	0	0	0	0
Oct-21 (S07)	0	0	0	0
Nov-21 (S08)	0	0	0	0
Jan-22 (S09)	0	0	0	0
Mar-22 (S10)	0	0	0	0
Mar-22 (S11)	0	0	0	0
Apr-22 (S12)	0	0	0	0
May-22 (S13)	0	0	0	0
Jun-22 (S14)	0	0	0	0
Jul-22 (S15)	0	0	0	0
Aug-22 (S16)	0	0	0	0
Sep-22 (S17)	0	1	0	1
Oct-22 (S18)	0	0	0	0
Nov-22 (S19)	0	0	0	0
Dec-22 (S20)	0	0	0	0
Dec-22 (S21)	0	0	0	0
Jan-23 (S22)	0	0	0	0
Feb-23 (S23)	0	0	0	0
Mar-23 (S24)	0	0	0	0
Apr-23 (S25)	0	0	0	0
May-23 (S26)	0	0	0	0
Jun-23 (S27)	0	0	0	0
Jul-23 (S28)	0	0	0	0
Aug-23 (S29)	0	0	0	0
Sep-23 (S30)	0	0	0	0
Total	**0**	**1**	**0**	**1**

10.Appendix II Raw Data Abundance and Density

10.1 Birds

10.1.1 Kittiwake

Survey Area

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	2	14	2	36	0.71	0.01	57	405	234	611	0.13	0.33	59	419	242	611	0.13	0.34
May-21 (S02)	60	427	185	733	0.13	0.34	307	2,185	1,523	2,854	0.06	1.76	367	2,612	1,893	3,360	0.05	2.11
Jun-21 (S03)	7	50	7	115	0.38	0.04	113	815	526	1,182	0.09	0.66	120	865	526	1,262	0.09	0.70
Jul-21 (S04)	21	150	21	322	0.22	0.12	99	707	393	1,050	0.10	0.57	120	857	536	1,229	0.09	0.69
Aug-21 (S05)	31	222	93	386	0.18	0.18	61	437	279	580	0.13	0.35	92	658	422	916	0.10	0.53
Sep-21 (S06)	14	99	14	256	0.27	0.08	54	384	178	668	0.14	0.31	68	483	199	916	0.12	0.39
Oct-21 (S07)	387	2,766	387	7,518	0.05	2.23	279	1,994	1,236	2,923	0.06	1.61	666	4,760	1,522	10,113	0.04	3.84
Nov-21 (S08)	1,485	10,787	4,961	16,533	0.03	8.70	980	7,119	4,482	9,429	0.03	5.74	2,465	17,906	10,606	25,693	0.02	14.45
Jan-22 (S09)	73	509	272	774	0.12	0.41	79	551	342	767	0.11	0.44	152	1,060	628	1,527	0.08	0.86
Mar-22 (S10)	133	884	512	12,90	0.09	0.71	171	1,137	771	1,496	0.08	0.92	304	2,021	1,383	2,646	0.06	1.63
Mar-22 (S11)	40	291	160	429	0.16	0.23	94	683	436	945	0.10	0.55	134	974	647	1,280	0.09	0.79
Apr-22 (S12)	725	5,186	725	11,110	0.04	4.18	488	3,491	816	7,411	0.05	2.82	1,213	8,677	1,667	17,891	0.03	7.00
May-22 (S13)	41	292	107	513	0.16	0.24	254	1,808	1,089	2,570	0.06	1.46	295	2,100	1,239	2,833	0.06	1.69
Jun-22 (S14)	46	333	94	724	0.15	0.27	250	1,810	717	3,482	0.06	1.46	296	2,143	876	4,257	0.06	1.73
Jul-22 (S15)	377	2,681	711	4,885	0.05	2.16	451	3,207	1,500	5,183	0.05	2.59	828	5,887	2,503	9,506	0.03	4.75
Aug-22 (S16)	4	28	7	64	0.50	0.02	9	64	35	92	0.33	0.05	13	92	50	142	0.28	0.07
Sep-22 (S17)	2	14	2	35	0.71	0.01	4	28	4	64	0.50	0.02	6	42	7	85	0.41	0.03
Oct-22 (S18)	503	3,584	1,247	6,363	0.04	2.89	510	3,634	1,910	5,707	0.04	2.93	1,013	7,218	3,263	11,664	0.03	5.82
Nov-22 (S19)	296	2,107	296	4,770	0.06	1.70	547	3,894	3,211	4,734	0.04	3.14	843	6,002	3,681	9,576	0.03	4.84
Dec-22 (S20)	107	762	221	1,480	0.10	0.61	398	2,833	1,089	4,811	0.05	2.29	505	3,594	1,473	6,178	0.04	2.90
Dec-22 (S21)	104	741	178	1,454	0.10	0.60	472	3,364	2,002	5,081	0.05	2.71	576	4,105	2,245	6,064	0.04	3.31

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)
Jan-23 (S22)	137	978	471	1,563	0.09	0.79	266	1,899	1,121	2,912	0.06	1.53	403	2,877	1,685	4,526	0.05	2.32
Feb-23 (S23)	474	3,490	994	7,090	0.05	2.82	528	3,887	2,172	5,750	0.04	3.14	1,002	7,377	3,482	11,551	0.03	5.95
Mar-23 (S24)	71	508	265	786	0.12	0.41	154	1,101	579	1,923	0.08	0.89	225	1,609	987	2,467	0.07	1.30
Apr-23 (S25)	58	416	229	623	0.13	0.34	174	1,247	788	1,741	0.08	1.01	232	1,663	1,111	2,308	0.07	1.34
May-23 (S26)	65	463	185	813	0.12	0.37	116	827	556	1,091	0.09	0.67	181	1,291	834	1,754	0.07	1.04
Jun-23 (S27)	47	332	191	474	0.15	0.27	228	1,613	1,224	1,988	0.07	1.30	275	1,945	1,379	2,440	0.06	1.57
Jul-23 (S28)	19	135	43	248	0.23	0.11	86	611	398	831	0.11	0.49	105	745	504	1,015	0.10	0.60
Aug-23 (S29)	2	14	2	36	0.71	0.01	1	7	1	21	<1.00	0.01	3	21	3	50	0.58	0.02
Sep-23 (S30)	8	57	14	122	0.35	0.05	22	157	93	236	0.21	0.13	30	215	114	343	0.18	0.17

Site

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)
Apr-21 (S01)	0	0	0	0	0	0	38	261	131	440	0.16	0.35	38	261	131	426	0.16	0.35
May-21 (S02)	26	179	55	303	0.20	0.24	209	1,439	964	1,825	0.07	1.91	235	1,618	1,164	2,032	0.07	2.15
Jun-21 (S03)	6	42	6	98	0.41	0.06	71	495	258	801	0.12	0.66	77	536	251	933	0.11	0.71
Jul-21 (S04)	18	124	21	262	0.24	0.16	55	380	193	614	0.13	0.50	73	504	262	759	0.12	0.67
Aug-21 (S05)	26	180	76	305	0.20	0.24	43	298	152	450	0.15	0.40	69	478	256	727	0.12	0.63
Sep-21 (S06)	5	34	5	82	0.45	0.05	44	302	103	576	0.15	0.40	49	336	110	659	0.14	0.45
Oct-21 (S07)	323	2,228	323	6,421	0.06	2.96	218	1,504	807	2,235	0.07	2.00	541	3,731	924	8,532	0.04	4.95
Nov-21 (S08)	697	4,891	2,379	7,411	0.04	6.49	647	4,540	3,144	6,007	0.04	6.02	1,344	9,432	6,260	12,968	0.03	12.52
Jan-22 (S09)	54	362	195	550	0.14	0.48	56	376	222	550	0.13	0.50	110	738	443	1,074	0.10	0.98
Mar-22 (S10)	99	637	348	991	0.10	0.85	132	849	534	1,165	0.09	1.13	231	1,487	1,004	1,988	0.07	1.97
Mar-22 (S11)	21	147	84	218	0.22	0.20	66	463	267	681	0.12	0.61	87	611	372	877	0.11	0.81

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-22 (S12)	404	2,787	404	6,815	0.05	3.70	266	1,835	441	4,283	0.06	2.44	670	4,621	724	10,967	0.04	6.13
May-22 (S13)	26	179	55	331	0.20	0.24	203	1,400	800	2,014	0.07	1.86	229	1,579	945	2,179	0.07	2.10
Jun-22 (S14)	18	126	49	217	0.24	0.17	116	811	398	1,258	0.09	1.08	134	937	538	1,356	0.09	1.24
Jul-22 (S15)	326	2,237	625	4,585	0.06	2.97	271	1,860	782	3,061	0.06	2.47	597	4,097	1,510	7,193	0.04	5.44
Aug-22 (S16)	4	27	7	55	0.50	0.04	4	27	7	48	0.50	0.04	8	55	14	103	0.35	0.07
Sep-22 (S17)	1	7	1	20	<1.00	0.01	2	14	2	34	0.71	0.02	3	20	3	41	0.58	0.03
Oct-22 (S18)	384	2,646	413	5,519	0.05	3.51	279	1,922	889	3,273	0.06	2.55	663	4,568	1,419	8,950	0.04	6.06
Nov-22 (S19)	115	790	115	1,992	0.09	1.05	327	2,247	1,704	2,858	0.06	2.98	442	3,037	1,924	4,445	0.05	4.03
Dec-22 (S20)	69	475	89	1,129	0.12	0.63	246	1,693	495	3,227	0.06	2.25	315	2,168	681	4,232	0.06	2.88
Dec-22 (S21)	66	455	69	1,019	0.12	0.60	357	2,459	1,308	3,836	0.05	3.26	423	2,913	1,515	4,580	0.05	3.87
Jan-23 (S22)	74	510	124	1,138	0.12	0.68	186	1,282	552	2,330	0.07	1.70	260	1,792	703	3,537	0.06	2.38
Feb-23 (S23)	348	2,476	398	5,643	0.05	3.29	337	2,398	1,053	3,935	0.05	3.18	685	4,874	1,743	8,731	0.04	6.47
Mar-23 (S24)	59	407	200	663	0.13	0.54	118	814	380	1,532	0.09	1.08	177	1,222	663	1,919	0.08	1.62
Apr-23 (S25)	32	222	97	382	0.18	0.29	124	862	417	1,362	0.09	1.14	156	1,084	611	1,675	0.08	1.44
May-23 (S26)	48	331	83	663	0.14	0.44	83	573	373	759	0.11	0.76	131	904	580	1,277	0.09	1.20
Jun-23 (S27)	32	218	95	361	0.18	0.29	180	1,228	880	1,575	0.07	1.63	212	1,446	1,023	1,882	0.07	1.92
Jul-23 (S28)	11	75	21	137	0.30	0.10	61	418	213	638	0.13	0.55	72	494	274	720	0.12	0.66
Aug-23 (S29)	2	14	2	35	0.71	0.02	0	0	0	0	0	0	2	14	2	35	0.71	0.02
Sep-23 (S30)	7	48	7	111	0.38	0.06	11	76	28	132	0.30	0.10	18	125	35	235	0.24	0.17

4 km Buffer only

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	2	15	2	37	0.71	0.03	19	142	52	277	0.23	0.29	21	157	60	277	0.22	0.32
May-21 (S02)	34	255	34	488	0.17	0.52	98	736	293	1,472	0.10	1.51	132	991	405	1,862	0.09	2.04
Jun-21 (S03)	1	8	1	23	<1.00	0.02	42	320	84	686	0.15	0.66	43	328	84	709	0.15	0.67
Jul-21 (S04)	3	23	8	45	0.58	0.05	44	333	76	695	0.15	0.69	47	355	83	756	0.15	0.73
Aug-21 (S05)	5	38	5	76	0.45	0.08	18	136	45	234	0.24	0.28	23	174	68	295	0.21	0.36
Sep-21 (S06)	9	68	9	188	0.33	0.14	10	75	23	135	0.32	0.15	19	143	45	263	0.23	0.29
Oct-21 (S07)	64	485	64	1454	0.13	1.00	61	462	280	674	0.13	0.95	125	946	265	2,150	0.09	1.95
Nov-21 (S08)	788	6,054	2,028	10,802	0.04	12.46	333	2,558	1,283	4,241	0.05	5.26	1,121	8,612	4,041	13,498	0.03	17.72
Jan-22 (S09)	19	141	74	215	0.23	0.29	23	171	97	245	0.21	0.35	42	312	208	423	0.15	0.64
Mar-22 (S10)	34	238	35	526	0.17	0.49	39	273	63	638	0.16	0.56	73	512	126	1,185	0.12	1.05
Mar-22 (S11)	19	146	38	285	0.23	0.30	28	216	85	400	0.19	0.44	47	362	162	647	0.15	0.74
Apr-22 (S12)	321	2,437	321	5,875	0.06	5.01	222	1,685	281	3,568	0.07	3.47	543	4,122	543	9,557	0.04	8.48
May-22 (S13)	15	112	15	292	0.26	0.23	51	382	82	869	0.14	0.79	66	495	97	1,072	0.12	1.02
Jun-22 (S14)	28	215	28	613	0.19	0.44	134	1,027	134	2,797	0.09	2.11	162	1,241	162	3,403	0.08	2.55
Jul-22 (S15)	51	384	51	1,145	0.14	0.79	180	1,355	188	3,524	0.07	2.79	231	1,739	231	4,646	0.07	3.58
Aug-22 (S16)	0	0	0	0	0	0	5	38	5	83	0.45	0.08	5	38	8	75	0.45	0.08
Sep-22 (S17)	1	8	1	23	<1.00	0.02	2	15	2	45	0.71	0.03	3	23	3	60	0.58	0.05
Oct-22 (S18)	119	895	119	2,092	0.09	1.84	231	1,738	406	4,063	0.07	3.58	350	2,633	534	5,470	0.05	5.42
Nov-22 (S19)	181	1,365	181	4,044	0.07	2.81	220	1,660	883	2,799	0.07	3.42	401	3,025	905	6,888	0.05	6.22
Dec-22 (S20)	38	286	68	624	0.16	0.59	152	1,142	256	2,352	0.08	2.35	190	1,428	504	2,631	0.07	2.94
Dec-22 (S21)	38	286	38	776	0.16	0.59	115	866	377	1,521	0.09	1.78	153	1,152	429	2,162	0.08	2.37
Jan-23 (S22)	63	476	189	793	0.13	0.98	80	604	257	1,216	0.11	1.24	143	1,080	438	1,896	0.08	2.22
Feb-23 (S23)	126	980	126	2,474	0.09	2.02	191	1,486	591	2,451	0.07	3.06	317	2,467	770	4,840	0.06	5.08
Mar-23 (S24)	12	91	12	227	0.29	0.19	36	273	136	409	0.17	0.56	48	363	159	621	0.14	0.75
Apr-23 (S25)	26	196	26	444	0.20	0.40	50	377	98	866	0.14	0.78	76	572	105	1,265	0.11	1.18
May-23 (S26)	17	128	38	248	0.24	0.26	33	248	98	496	0.17	0.51	50	376	135	752	0.14	0.77
Jun-23 (S27)	15	113	30	218	0.26	0.23	48	360	98	736	0.14	0.74	63	473	150	908	0.13	0.97

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)
Jul-23 (S28)	8	60	8	150	0.35	0.12	25	188	53	361	0.20	0.39	33	248	83	443	0.17	0.51
Aug-23 (S29)	0	0	0	0	0	0	1	8	1	23	<1.00	0.02	1	8	1	23	<1.00	0.02
Sep-23 (S30)	1	8	1	23	<1.00	0.02	11	83	38	135	0.30	0.17	12	90	38	143	0.29	0.19

10.1.2 Great Black-backed Gull

Survey Area

Survey	Sitting						Flying						Perched						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)
Apr-21 (S01)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0	1	7	1	22	<1.00	0.01	4	29	4	87	0.50	0.02	5	36	5	108	0.45	0.03
Jul-21 (S04)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	1	7	1	21	<1.00	0.01
Aug-21 (S05)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-21 (S08)	128	930	400	1,525	0.09	0.75	23	167	73	269	0.21	0.13	0	0	0	0	0	0	151	1,097	479	1,772	0.08	0.88
Jan-22 (S09)	10	70	10	202	0.32	0.06	3	21	3	56	0.58	0.02	0	0	0	0	0	0	13	91	13	230	0.28	0.07
Mar-22 (S10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S11)	1	7	1	22	<1.00	0.01	1	7	1	22	<1.00	0.01	0	0	0	0	0	0	2	15	2	36	0.71	0.01
Apr-22 (S12)	0	0	0	0	0	0	2	14	2	43	0.71	0.01	0	0	0	0	0	0	2	14	2	43	0.71	0.01
May-22 (S13)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Survey	Sitting						Flying						Perched						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Aug-22 (S16)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-22 (S18)	8	57	21	100	0.35	0.05	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	9	64	21	114	0.33	0.05
Nov-22 (S19)	2	14	2	36	0.71	0.01	3	21	3	57	0.58	0.02	0	0	0	0	0	0	5	36	7	64	0.45	0.03
Dec-22 (S20)	9	64	14	128	0.33	0.05	6	43	7	93	0.41	0.03	0	0	0	0	0	0	15	107	43	185	0.26	0.09
Dec-22 (S21)	36	257	78	456	0.17	0.21	15	107	29	200	0.26	0.09	0	0	0	0	0	0	51	363	143	599	0.14	0.29
Jan-23 (S22)	9	64	14	143	0.33	0.05	6	43	7	79	0.41	0.03	0	0	0	0	0	0	15	107	50	178	0.26	0.09
Feb-23 (S23)	32	236	44	530	0.18	0.19	7	52	22	81	0.38	0.04	0	0	0	0	0	0	39	287	88	567	0.16	0.23
Mar-23 (S24)	1	7	1	21	<1.00	0.01	3	21	3	43	0.58	0.02	0	0	0	0	0	0	4	29	7	64	0.50	0.02
Apr-23 (S25)	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	2	14	2	36	0.71	0.01
May-23 (S26)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-23 (S27)	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	0	0	0	0	0	0	1	7	1	21	<1.00	0.01
Jul-23 (S28)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	1	7	1	21	<1.00	0.01

Site

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01
Aug-21 (S05)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Sep-21 (S06)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-21 (S08)	56	393	119	842	0.13	0.52	18	126	56	211	0.24	0.17	74	519	218	940	0.12	0.69
Jan-22 (S09)	9	60	9	181	0.33	0.08	1	7	1	20	<1.00	0.01	10	67	10	201	0.32	0.09
Mar-22 (S10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S11)	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01	2	14	2	35	0.71	0.02
Apr-22 (S12)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-22 (S16)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-22 (S18)	5	34	7	62	0.45	0.05	1	7	1	21	<1.00	0.01	6	41	7	83	0.41	0.05
Nov-22 (S19)	1	7	1	21	<1.00	0.01	2	14	2	34	0.71	0.02	3	21	7	41	0.58	0.03
Dec-22 (S20)	4	28	7	62	0.50	0.04	4	28	7	48	0.50	0.04	8	55	28	83	0.35	0.07
Dec-22 (S21)	24	165	24	372	0.20	0.22	12	83	28	158	0.29	0.11	36	248	69	448	0.17	0.33
Jan-23 (S22)	2	14	2	34	0.71	0.02	3	21	3	48	0.58	0.03	5	34	5	69	0.45	0.05
Feb-23 (S23)	7	50	7	135	0.38	0.07	3	21	3	43	0.58	0.03	10	71	10	171	0.32	0.09
Mar-23 (S24)	1	7	1	21	<1.00	0.01	2	14	2	35	0.71	0.02	3	21	3	48	0.58	0.03
Apr-23 (S25)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-23 (S27)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-23 (S28)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01

4 km Buffer only

Survey	Sitting						Flying						Perched						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0	1	8	1	23	<1.00	0.02	4	30	4	91	0.50	0.06	5	38	5	114	0.45	0.08
Jul-21 (S04)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-21 (S08)	72	553	131	1,060	0.12	1.14	5	38	8	77	0.45	0.08	0	0	0	0	0	0	77	592	169	1,114	0.11	1.22
Jan-22 (S09)	1	7	1	22	<1.00	0.01	2	15	2	45	0.71	0.03	0	0	0	0	0	0	3	22	3	67	0.58	0.05
Mar-22 (S10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0	2	15	2	46	0.71	0.03	0	0	0	0	0	0	2	15	2	46	0.71	0.03
May-22 (S13)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-22 (S16)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-22 (S18)	3	23	3	45	0.58	0.05	0	0	0	0	0	0	0	0	0	0	0	0	3	23	8	45	0.58	0.05
Nov-22 (S19)	1	8	1	23	<1.00	0.02	1	8	1	23	<1.00	0.02	0	0	0	0	0	0	2	15	2	38	0.71	0.03
Dec-22 (S20)	5	38	5	105	0.45	0.08	2	15	2	45	0.71	0.03	0	0	0	0	0	0	7	53	7	120	0.38	0.11
Dec-22 (S21)	12	90	12	203	0.29	0.19	3	23	3	60	0.58	0.05	0	0	0	0	0	0	15	113	15	264	0.26	0.23
Jan-23 (S22)	7	53	7	128	0.38	0.11	3	23	3	53	0.58	0.05	0	0	0	0	0	0	10	76	15	151	0.32	0.16
Feb-23 (S23)	25	195	25	498	0.20	0.40	4	31	4	62	0.50	0.06	0	0	0	0	0	0	29	226	31	537	0.19	0.46
Mar-23 (S24)	0	0	0	0	0	0	1	8	1	23	<1.00	0.02	0	0	0	0	0	0	1	8	1	23	<1.00	0.02
Apr-23 (S25)	1	8	1	23	<1.00	0.02	1	8	1	23	<1.00	0.02	0	0	0	0	0	0	2	15	2	38	0.71	0.03
May-23 (S26)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-23 (S27)	1	8	1	23	<1.00	0.02	0	0	0	0	0	0	0	0	0	0	0	0	1	8	1	23	<1.00	0.02

Survey	Sitting						Flying						Perched						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Jul-23 (S28)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

10.1.3 Herring Gull

Survey Area

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-21 (S04)	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01	2	14	2	29	0.71	0.01
Aug-21 (S05)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01
Sep-21 (S06)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-21 (S08)	126	915	203	1,889	0.09	0.74	36	262	131	400	0.17	0.21	162	1,177	429	2,266	0.08	0.95
Jan-22 (S09)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Aug-22 (S16)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-22 (S18)	11	78	11	214	0.30	0.06	4	29	7	50	0.50	0.02	15	107	29	235	0.26	0.09
Nov-22 (S19)	9	64	9	157	0.33	0.05	11	78	21	150	0.30	0.06	20	142	64	242	0.22	0.11
Dec-22 (S20)	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01	2	14	2	36	0.71	0.01
Dec-22 (S21)	69	492	69	1,176	0.12	0.40	84	599	178	1,112	0.11	0.48	153	1,090	249	2,223	0.08	0.88
Jan-23 (S22)	8	57	8	128	0.35	0.05	6	43	6	114	0.41	0.03	14	100	14	200	0.27	0.08
Feb-23 (S23)	18	133	18	324	0.24	0.11	1	7	1	22	<1.00	0.01	19	140	19	317	0.23	0.11
Mar-23 (S24)	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	1	7	1	21	<1.00	0.01
Apr-23 (S25)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-23 (S27)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-23 (S28)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Site

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-21 (S04)	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01	2	14	2	35	0.71	0.02
Aug-21 (S05)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Sep-21 (S06)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-21 (S08)	30	211	77	337	0.18	0.28	17	119	49	211	0.24	0.16	47	330	182	498	0.15	0.44
Jan-22 (S09)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-22 (S16)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-22 (S18)	3	21	7	41	0.58	0.03	3	21	7	41	0.58	0.03	6	41	21	55	0.41	0.05
Nov-22 (S19)	5	34	5	103	0.45	0.05	10	69	21	131	0.32	0.09	15	103	41	192	0.26	0.14
Dec-22 (S20)	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01	2	14	2	34	0.71	0.02
Dec-22 (S21)	64	441	64	1,116	0.13	0.59	83	572	172	1,061	0.11	0.76	147	1,012	207	1,970	0.08	1.34
Jan-23 (S22)	2	14	2	41	0.71	0.02	5	34	5	97	0.45	0.05	7	48	7	131	0.38	0.06
Feb-23 (S23)	2	14	2	43	0.71	0.02	1	7	1	21	<1.00	0.01	3	21	3	57	0.58	0.03
Mar-23 (S24)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-23 (S27)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-23 (S28)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4 km Buffer only

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-21 (S08)	96	738	96	1,782	0.10	1.52	19	146	46	254	0.23	0.30	115	883	177	1,936	0.09	1.82
Jan-22 (S09)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-22 (S16)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-22 (S18)	8	60	8	181	0.35	0.12	1	8	1	23	<1.00	0.02	9	68	9	203	0.33	0.14
Nov-22 (S19)	4	30	4	91	0.50	0.06	1	8	1	23	<1.00	0.02	5	38	5	98	0.45	0.08
Dec-22 (S20)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S21)	5	38	5	113	0.45	0.08	1	8	1	23	<1.00	0.02	6	45	6	136	0.41	0.09
Jan-23 (S22)	6	45	6	106	0.41	0.09	1	8	1	23	<1.00	0.02	7	53	7	121	0.38	0.11
Feb-23 (S23)	16	124	16	342	0.25	0.26	0	0	0	0	0	0	16	124	16	311	0.25	0.26
Mar-23 (S24)	1	8	1	23	<1.00	0.02	0	0	0	0	0	0	1	8	1	23	<1.00	0.02
Apr-23 (S25)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-23 (S27)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Jul-23 (S28)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

10.1.4 Common Tern

Survey Area

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0	1	7	1	22	<1.00	0.01	1	7	1	22	<1.00	0.01
Jul-21 (S04)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0	9	64	9	186	0.33	0.05	9	64	9	179	0.33	0.05
Sep-21 (S06)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01
May-22 (S13)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0	2	14	2	36	0.71	0.01	2	14	2	36	0.71	0.01

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Aug-22 (S16)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-23 (S27)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-23 (S28)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Site

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01
Jul-21 (S04)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0	9	62	9	187	0.33	0.08	9	62	9	173	0.33	0.08

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Sep-21 (S06)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01
May-22 (S13)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01
Aug-22 (S16)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-23 (S27)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-23 (S28)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4 km Buffer only

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0	1	8	1	23	<1.00	0.02	1	8	1	23	<1.00	0.02
Aug-22 (S16)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-23 (S27)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Jul-23 (S28)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

10.1.5 Arctic Tern

Survey Area

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	0	0	0	0	0	0	3	21	3	64	0.58	0.02	3	21	3	64	0.58	0.02
May-21 (S02)	0	0	0	0	0	0	17	121	36	228	0.24	0.10	17	121	36	235	0.24	0.10
Jun-21 (S03)	0	0	0	0	0	0	2	14	2	43	0.71	0.01	2	14	2	43	0.71	0.01
Jul-21 (S04)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01
Sep-21 (S06)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01
May-22 (S13)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01
Jun-22 (S14)	0	0	0	0	0	0	16	116	36	210	0.25	0.09	16	116	36	224	0.25	0.09
Jul-22 (S15)	0	0	0	0	0	0	12	85	28	149	0.29	0.07	12	85	28	149	0.29	0.07

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)
Aug-22 (S16)	5	35	5	106	0.45	0.03	38	269	99	475	0.16	0.22	43	305	99	553	0.15	0.25
Sep-22 (S17)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0	10	71	10	178	0.32	0.06	10	71	10	178	0.32	0.06
Jun-23 (S27)	0	0	0	0	0	0	3	21	3	42	0.58	0.02	3	21	3	42	0.58	0.02
Jul-23 (S28)	0	0	0	0	0	0	5	35	5	85	0.45	0.03	5	35	5	85	0.45	0.03
Aug-23 (S29)	0	0	0	0	0	0	10	72	14	143	0.32	0.06	10	72	14	143	0.32	0.06
Sep-23 (S30)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Site

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)
Apr-21 (S01)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0	11	76	28	138	0.30	0.10	11	76	28	131	0.30	0.10
Jun-21 (S03)	0	0	0	0	0	0	2	14	2	42	0.71	0.02	2	14	2	42	0.71	0.02
Jul-21 (S04)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Sep-21 (S06)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01
May-22 (S13)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0	10	70	21	126	0.32	0.09	10	70	21	126	0.32	0.09
Jul-22 (S15)	0	0	0	0	0	0	10	69	14	130	0.32	0.09	10	69	14	130	0.32	0.09
Aug-22 (S16)	0	0	0	0	0	0	29	199	48	404	0.19	0.26	29	199	55	411	0.19	0.26
Sep-22 (S17)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0	5	35	5	104	0.45	0.05	5	35	5	104	0.45	0.05
Jun-23 (S27)	0	0	0	0	0	0	1	7	1	20	<1.00	0.01	1	7	1	20	<1.00	0.01
Jul-23 (S28)	0	0	0	0	0	0	5	34	5	82	0.45	0.05	5	34	5	82	0.45	0.05
Aug-23 (S29)	0	0	0	0	0	0	5	35	5	83	0.45	0.05	5	35	5	83	0.45	0.05
Sep-23 (S30)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4 km Buffer only

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	0	0	0	0	0	0	3	22	3	67	0.58	0.05	3	22	3	67	0.58	0.05
May-21 (S02)	0	0	0	0	0	0	6	45	6	120	0.41	0.09	6	45	6	105	0.41	0.09
Jun-21 (S03)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0	1	7	1	22	<1.00	0.01	1	7	1	22	<1.00	0.01
Jun-22 (S14)	0	0	0	0	0	0	6	46	6	107	0.41	0.09	6	46	6	107	0.41	0.09
Jul-22 (S15)	0	0	0	0	0	0	2	15	2	38	0.71	0.03	2	15	2	38	0.71	0.03
Aug-22 (S16)	5	38	5	113	0.45	0.08	9	68	9	173	0.33	0.14	14	105	14	285	0.27	0.22
Sep-22 (S17)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0	5	38	5	113	0.45	0.08	5	38	5	113	0.45	0.08
Jun-23 (S27)	0	0	0	0	0	0	2	15	2	38	0.71	0.03	2	15	2	30	0.71	0.03

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Jul-23 (S28)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0	5	38	5	98	0.45	0.08	5	38	5	98	0.45	0.08
Sep-23 (S30)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

10.1.6 Guillemot

Survey Area

Survey	Sitting						Flying						Diving						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	1,433	10,182	6,572	13,564	0.03	8.21	126	895	526	1,293	0.09	0.72	0	0	0	0	0	0	1,559	11,077	7,347	14,914	0.03	8.94
May-21 (S02)	2,614	18,606	13,303	23,275	0.02	15.01	117	833	648	1,018	0.09	0.67	0	0	0	0	0	0	2,731	19,439	13,922	24,471	0.02	15.68
Jun-21 (S03)	1,035	7,462	5,479	9,820	0.03	6.02	73	526	296	786	0.12	0.42	0	0	0	0	0	0	1,108	7,988	5,861	10,360	0.03	6.44
Jul-21 (S04)	3,006	21,478	13,269	29,753	0.02	17.33	65	464	336	600	0.12	0.37	0	0	0	0	0	0	3,071	21,943	14,426	30,253	0.02	17.70
Aug-21 (S05)	806	5,768	3,793	7,993	0.04	4.65	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	807	5,775	3,850	7,929	0.04	4.66
Sep-21 (S06)	148	1,051	774	1,335	0.08	0.85	6	43	14	71	0.41	0.03	0	0	0	0	0	0	154	1,094	788	1,385	0.08	0.88
Oct-21 (S07)	654	4,674	2,001	7,976	0.04	3.77	4	29	4	57	0.50	0.02	0	0	0	0	0	0	658	4,703	1,830	7,976	0.04	3.79
Nov-21 (S08)	993	7,213	4,293	10,497	0.03	5.82	45	327	196	450	0.15	0.26	0	0	0	0	0	0	1,038	7,540	4,424	10,555	0.03	6.08
Jan-22 (S09)	945	6,591	4,338	9,108	0.03	5.32	8	56	8	105	0.35	0.05	0	0	0	0	0	0	953	6,647	4,073	9,262	0.03	5.36
Mar-22 (S10)	1,553	10,325	6,848	14,880	0.03	8.33	57	379	173	592	0.13	0.31	0	0	0	0	0	0	1,610	10,704	6,529	15,039	0.02	8.64
Mar-22 (S11)	4,496	32,680	23,541	42,604	0.01	26.36	218	1,585	705	2,610	0.07	1.28	0	0	0	0	0	0	4,714	34,272	24,028	45,010	0.01	27.65
Apr-22 (S12)	6,313	45,161	31,226	59,848	0.01	36.43	83	594	336	873	0.11	0.48	0	0	0	0	0	0	6,396	45,755	30,232	60,527	0.01	36.91
May-22 (S13)	865	6,158	3,688	8,820	0.03	4.97	37	263	149	399	0.16	0.21	0	0	0	0	0	0	902	6,421	3,887	9,226	0.03	5.18
Jun-22 (S14)	1,803	13,052	7,413	19,372	0.02	10.53	43	311	166	485	0.15	0.25	0	0	0	0	0	0	1,846	13,363	7,608	19,936	0.02	10.78
Jul-22 (S15)	4,624	32,877	12,592	54,158	0.01	26.52	22	156	64	256	0.21	0.13	0	0	0	0	0	0	4,646	33,034	13,275	54,961	0.01	26.65

Survey	Sitting						Flying						Diving						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Aug-22 (S16)	585	4,149	2,617	5,964	0.04	3.35	0	0	0	0	0	0	0	0	0	0	0	0	585	4,149	2,510	5,773	0.04	3.35
Sep-22 (S17)	185	1,306	876	1,758	0.07	1.05	6	42	7	78	0.41	0.03	0	0	0	0	0	0	191	1,349	911	1,857	0.07	1.09
Oct-22 (S18)	1,219	8,686	5,515	12,327	0.03	7.01	74	527	335	741	0.12	0.43	0	0	0	0	0	0	1,293	9,213	6,106	12,505	0.03	7.43
Nov-22 (S19)	1,778	12,658	9,476	15,855	0.02	10.21	102	726	399	1,125	0.10	0.59	0	0	0	0	0	0	1,880	13,385	10,081	16,752	0.02	10.80
Dec-22 (S20)	728	5,181	4,306	5,950	0.04	4.18	31	221	100	370	0.18	0.18	0	0	0	0	0	0	759	5,402	4,498	6,220	0.04	4.36
Dec-22 (S21)	605	4,311	1,903	7,767	0.04	3.48	20	143	64	235	0.22	0.12	0	0	0	0	0	0	625	4,454	2,024	7,953	0.04	3.59
Jan-23 (S22)	2,426	17,317	12,570	21,836	0.02	13.97	31	221	150	300	0.18	0.18	0	0	0	0	0	0	2,457	17,539	12,706	22,128	0.02	14.15
Feb-23 (S23)	4,849	35,700	24,215	47,715	0.01	28.80	80	589	280	1,009	0.11	0.48	0	0	0	0	0	0	4,929	36,289	24,907	48,510	0.01	29.28
Mar-23 (S24)	1,984	14,185	8,193	20,090	0.02	11.44	97	694	207	1,316	0.10	0.56	0	0	0	0	0	0	2,081	14,878	9,116	21,398	0.02	12.00
Apr-23 (S25)	1,965	14,082	7,410	21,851	0.02	11.36	105	752	466	1,039	0.10	0.61	0	0	0	0	0	0	2,070	14,835	7,912	22,152	0.02	11.97
May-23 (S26)	3,941	28,102	21,877	33,264	0.02	22.67	132	941	692	1,184	0.09	0.76	4	29	4	64	0.50	0.02	4,077	29,071	23,153	34,733	0.02	23.45
Jun-23 (S27)	3,666	25,931	20,541	30,847	0.02	20.92	160	1,132	721	1,592	0.08	0.91	2	14	2	42	0.71	0.01	3,828	27,077	22,090	31,604	0.02	21.84
Jul-23 (S28)	5,221	37,069	17,977	57,722	0.01	29.90	67	476	341	653	0.12	0.38	1	7	1	21	<1.00	0.01	5,289	37,551	19,454	59,327	0.01	30.29
Aug-23 (S29)	611	4,372	3,113	5,818	0.04	3.53	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	612	4,379	3,141	6,018	0.04	3.53
Sep-23 (S30)	862	6,163	4,219	8,130	0.03	4.97	5	36	5	86	0.45	0.03	0	0	0	0	0	0	867	6,199	4,326	8,308	0.03	5.00

Site

Survey	Sitting						Flying						Diving						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	1,082	7,442	4,244	10,606	0.03	9.88	93	640	316	1,004	0.10	0.85	0	0	0	0	0	0	1,175	8,082	4,870	11,810	0.03	10.73
May-21 (S02)	2,080	14,324	10,474	18,277	0.02	19.01	78	537	379	702	0.11	0.71	0	0	0	0	0	0	2,158	14,861	10,743	18,690	0.02	19.72
Jun-21 (S03)	703	4,897	3,093	7,091	0.04	6.50	58	404	223	613	0.13	0.54	0	0	0	0	0	0	761	5,301	3,455	7,244	0.04	7.03
Jul-21 (S04)	1,882	12,989	7,233	18,842	0.02	17.24	39	269	159	400	0.16	0.36	0	0	0	0	0	0	1,921	13,258	7,426	19,138	0.02	17.59
Aug-21 (S05)	514	3,557	1,965	5,253	0.04	4.72	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	515	3,564	1,993	5,246	0.04	4.73

Survey	Sitting						Flying						Diving						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Sep-21 (S06)	103	707	418	1,002	0.10	0.94	2	14	2	34	0.71	0.02	0	0	0	0	0	0	105	720	439	1,015	0.10	0.96
Oct-21 (S07)	531	3,662	1,035	6,442	0.04	4.86	3	21	3	48	0.58	0.03	0	0	0	0	0	0	534	3,683	1,055	6,414	0.04	4.89
Nov-21 (S08)	680	4,772	2,505	7,109	0.04	6.33	27	189	105	281	0.19	0.25	0	0	0	0	0	0	707	4,961	2,814	7,186	0.04	6.58
Jan-22 (S09)	710	4,766	2,732	6,598	0.04	6.32	8	54	13	101	0.35	0.07	0	0	0	0	0	0	718	4,819	2,739	6,894	0.04	6.40
Mar-22 (S10)	1,107	7,124	3,919	11,545	0.03	9.45	41	264	109	457	0.16	0.35	0	0	0	0	0	0	1,148	7,388	4,099	10,933	0.03	9.80
Mar-22 (S11)	3,762	26,394	17,222	35,335	0.02	35.03	194	1361	491	2309	0.07	1.81	0	0	0	0	0	0	3,956	27,763	18,247	37,925	0.02	36.84
Apr-22 (S12)	4,533	31,266	17,692	44,826	0.01	41.49	44	303	131	490	0.15	0.40	0	0	0	0	0	0	4,577	31,570	18,595	44,454	0.01	41.90
May-22 (S13)	643	4,434	2,303	6,834	0.04	5.88	22	152	48	297	0.21	0.20	0	0	0	0	0	0	665	4,586	2,455	6,959	0.04	6.09
Jun-22 (S14)	1,094	7,646	3,711	11,847	0.03	10.15	35	245	105	384	0.17	0.33	0	0	0	0	0	0	1,129	7,891	3,858	12,357	0.03	10.47
Jul-22 (S15)	2,869	19,691	7,406	32,924	0.02	26.13	14	96	14	199	0.27	0.13	0	0	0	0	0	0	2,883	19,787	7,378	33,411	0.02	26.26
Aug-22 (S16)	334	2,288	1,021	3,857	0.05	3.04	0	0	0	0	0	0	0	0	0	0	0	0	334	2,288	1,089	3,932	0.05	3.04
Sep-22 (S17)	103	701	408	993	0.10	0.93	4	27	4	54	0.50	0.04	0	0	0	0	0	0	107	728	435	1,034	0.10	0.97
Oct-22 (S18)	771	5,312	2,363	8,557	0.04	7.05	45	310	131	544	0.15	0.41	0	0	0	0	0	0	816	5,622	2,618	9,150	0.04	7.46
Nov-22 (S19)	1,199	8,237	6,018	10,470	0.03	10.93	85	584	309	934	0.11	0.78	0	0	0	0	0	0	1,284	8,821	6,053	11,610	0.03	11.71
Dec-22 (S20)	409	2,815	1,996	3,613	0.05	3.74	14	96	14	200	0.27	0.13	0	0	0	0	0	0	423	2,911	1,968	3,812	0.05	3.86
Dec-22 (S21)	321	2,211	943	3,774	0.06	2.93	12	83	28	152	0.29	0.11	0	0	0	0	0	0	333	2,293	1,005	3,767	0.05	3.04
Jan-23 (S22)	1,713	11,810	8,101	15,360	0.02	15.67	23	159	97	228	0.21	0.21	0	0	0	0	0	0	1,736	11,968	8,266	15,505	0.02	15.88
Feb-23 (S23)	3,386	24,093	13,861	33,713	0.02	31.97	28	199	93	313	0.19	0.26	0	0	0	0	0	0	3,414	24,292	14,893	34,126	0.02	32.24
Mar-23 (S24)	1,477	10,195	5,598	15,703	0.03	13.53	76	525	145	1,028	0.11	0.70	0	0	0	0	0	0	1,553	10,719	5,701	16,448	0.03	14.22
Apr-23 (S25)	1,265	8,790	5,392	12,521	0.03	11.66	64	445	250	639	0.13	0.59	0	0	0	0	0	0	1,329	9,235	5,823	13,036	0.03	12.26
May-23 (S26)	2,833	19,552	13,762	24,259	0.02	25.95	88	607	386	856	0.11	0.81	1	7	1	21	<1.00	0.01	2,922	20,166	14,866	24,983	0.02	26.76
Jun-23 (S27)	2,878	19,627	14,744	23,780	0.02	26.05	88	600	300	907	0.11	0.80	0	0	0	0	0	0	2,966	20,227	15,338	24,380	0.02	26.84
Jul-23 (S28)	3,904	26,763	12,949	45,861	0.02	35.52	38	260	158	363	0.16	0.35	1	7	1	21	<1.00	0.01	3,943	27,030	12,374	45,710	0.02	35.87
Aug-23 (S29)	385	2,665	1,717	3,745	0.05	3.54	0	0	0	0	0	0	0	0	0	0	0	0	385	2,665	1,814	3,870	0.05	3.54
Sep-23 (S30)	475	3,290	2,341	4,225	0.05	4.37	4	28	4	69	0.50	0.04	0	0	0	0	0	0	479	3,318	2,410	4,294	0.05	4.40

4 km Buffer only

Survey	Sitting						Flying						Diving						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	351	2,629	397	5,744	0.05	5.41	33	247	75	472	0.17	0.51	0	0	0	0	0	0	384	2,876	404	6,073	0.05	5.92
May-21 (S02)	534	4,010	2,095	6,810	0.04	8.25	39	293	143	473	0.16	0.60	0	0	0	0	0	0	573	4,302	2,358	6,885	0.04	8.85
Jun-21 (S03)	332	2,531	945	4,833	0.05	5.21	15	114	38	206	0.26	0.23	0	0	0	0	0	0	347	2,645	1,098	5,077	0.05	5.44
Jul-21 (S04)	1124	8,496	4,082	15,276	0.03	17.48	26	197	113	287	0.20	0.41	0	0	0	0	0	0	1,150	8,692	4,074	15,419	0.03	17.88
Aug-21 (S05)	292	2,206	1,058	3,467	0.06	4.54	0	0	0	0	0	0	0	0	0	0	0	0	292	2,206	1,050	3,573	0.06	4.54
Sep-21 (S06)	45	338	173	526	0.15	0.70	4	30	8	68	0.50	0.06	0	0	0	0	0	0	49	368	173	578	0.14	0.76
Oct-21 (S07)	123	931	485	1,484	0.09	1.92	1	8	1	23	<1.00	0.02	0	0	0	0	0	0	124	939	515	1,492	0.09	1.93
Nov-21 (S08)	313	2,405	1,383	3,542	0.06	4.95	18	138	46	269	0.24	0.28	0	0	0	0	0	0	331	2,543	1,352	3,718	0.05	5.23
Jan-22 (S09)	235	1,745	1,128	2,531	0.07	3.59	0	0	0	0	0	0	0	0	0	0	0	0	235	1,745	1,121	2,539	0.07	3.59
Mar-22 (S10)	446	3,126	764	7,149	0.05	6.43	16	112	16	273	0.25	0.23	0	0	0	0	0	0	462	3,238	813	7,331	0.05	6.66
Mar-22 (S11)	734	5,651	1,309	12,234	0.04	11.63	24	185	85	308	0.20	0.38	0	0	0	0	0	0	758	5,836	1,702	12,150	0.04	12.01
Apr-22 (S12)	1780	13,512	1,780	29,392	0.02	27.80	39	296	114	493	0.16	0.61	0	0	0	0	0	0	1,819	13,808	2,148	29,628	0.02	28.41
May-22 (S13)	222	1,664	652	2,952	0.07	3.42	15	112	37	202	0.26	0.23	0	0	0	0	0	0	237	1,776	659	3,140	0.06	3.65
Jun-22 (S14)	709	5,433	1,954	11,671	0.04	11.18	8	61	8	138	0.35	0.13	0	0	0	0	0	0	717	5,495	2,015	11,847	0.04	11.31
Jul-22 (S15)	1,755	13,215	1,755	36,052	0.02	27.19	8	60	8	128	0.35	0.12	0	0	0	0	0	0	1,763	13,275	1,763	35,826	0.02	27.31
Aug-22 (S16)	251	1,883	848	3,338	0.06	3.87	0	0	0	0	0	0	0	0	0	0	0	0	251	1,883	818	3,338	0.06	3.87
Sep-22 (S17)	82	615	345	1,028	0.11	1.27	2	15	2	45	0.71	0.03	0	0	0	0	0	0	84	630	353	1,103	0.11	1.30
Oct-22 (S18)	448	3,371	1,625	5,176	0.05	6.94	29	218	120	324	0.19	0.45	0	0	0	0	0	0	477	3,589	1,843	5,395	0.05	7.38
Nov-22 (S19)	579	4,368	3,123	6,329	0.04	8.99	17	128	23	264	0.24	0.26	0	0	0	0	0	0	596	4,496	3,138	6,556	0.04	9.25
Dec-22 (S20)	319	2,398	1,451	3,517	0.06	4.93	17	128	60	195	0.24	0.26	0	0	0	0	0	0	336	2,525	1,616	3,608	0.05	5.20
Dec-22 (S21)	284	2,139	520	4,519	0.06	4.40	8	60	23	98	0.35	0.12	0	0	0	0	0	0	292	2,199	512	4,715	0.06	4.52
Jan-23 (S22)	713	5,385	3,814	7,779	0.04	11.08	8	60	15	113	0.35	0.12	0	0	0	0	0	0	721	5,446	3,890	7,726	0.04	11.20
Feb-23 (S23)	1,463	11,383	4,528	19,460	0.03	23.42	52	405	132	864	0.14	0.83	0	0	0	0	0	0	1,515	11,788	4,645	20,129	0.03	24.25
Mar-23 (S24)	507	3,838	946	9,106	0.04	7.90	21	159	23	348	0.22	0.33	0	0	0	0	0	0	528	3,997	1,052	9,311	0.04	8.22
Apr-23 (S25)	700	5,273	700	12,030	0.04	10.85	41	309	41	633	0.16	0.64	0	0	0	0	0	0	741	5,582	741	13,468	0.04	11.48
May-23 (S26)	1,108	8,329	4,210	14,509	0.03	17.14	44	331	180	504	0.15	0.68	3	23	3	60	0.58	0.05	1,155	8,683	4,623	15,035	0.03	17.86
Jun-23 (S27)	788	5,915	2,830	10,186	0.04	12.17	72	540	128	1081	0.12	1.11	2	15	2	45	0.71	0.03	862	6,471	2,950	10,734	0.03	13.31

Survey	Sitting						Flying						Diving						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)
Jul-23 (S28)	1,317	9,898	1,413	25,742	0.03	20.36	29	218	45	458	0.19	0.45	0	0	0	0	0	0	1,346	10,116	1,436	26,020	0.03	20.81
Aug-23 (S29)	226	1,706	1,140	2,310	0.07	3.51	1	8	1	23	<1.00	0.02	0	0	0	0	0	0	227	1,714	1,110	2,340	0.07	3.53
Sep-23 (S30)	387	2,913	1,250	5,141	0.05	5.99	1	8	1	23	<1.00	0.02	0	0	0	0	0	0	388	2,921	1,159	4,991	0.05	6.01

10.1.7 Razorbill

Survey Area

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)
Apr-21 (S01)	47	334	192	497	0.15	0.27	1	7	1	21	<1.00	0.01	48	341	199	497	0.14	0.28
May-21 (S02)	93	662	356	989	0.10	0.53	0	0	0	0	0	0	93	662	342	989	0.10	0.53
Jun-21 (S03)	71	512	332	707	0.12	0.41	2	14	2	36	0.71	0.01	73	526	353	707	0.12	0.42
Jul-21 (S04)	77	550	264	857	0.11	0.44	0	0	0	0	0	0	77	550	293	865	0.11	0.44
Aug-21 (S05)	58	415	172	687	0.13	0.33	0	0	0	0	0	0	58	415	165	701	0.13	0.33
Sep-21 (S06)	36	256	99	433	0.17	0.21	4	28	4	85	0.50	0.02	40	284	92	490	0.16	0.23
Oct-21 (S07)	55	393	64	772	0.13	0.32	0	0	0	0	0	0	55	393	57	779	0.13	0.32
Nov-21 (S08)	592	4,300	2,121	6,639	0.04	3.47	41	298	138	472	0.16	0.24	633	4,598	2,324	7,024	0.04	3.71
Jan-22 (S09)	176	1,227	502	1,988	0.08	0.99	0	0	0	0	0	0	176	1,227	572	2,043	0.08	0.99
Mar-22 (S10)	390	2,593	1,769	3,464	0.05	2.09	20	133	66	206	0.22	0.11	410	2,726	1,702	3,663	0.05	2.20
Mar-22 (S11)	1,154	8,390	5,765	11,378	0.03	6.77	50	364	109	683	0.14	0.29	1,204	8,753	5,743	11,771	0.03	7.06
Apr-22 (S12)	81	579	236	980	0.11	0.47	2	14	2	43	0.71	0.01	83	594	243	980	0.11	0.48
May-22 (S13)	39	278	142	427	0.16	0.22	2	14	2	36	0.71	0.01	41	292	149	434	0.16	0.24
Jun-22 (S14)	737	5,335	2,809	7,905	0.04	4.30	5	36	5	101	0.45	0.03	742	5,371	3,084	8,281	0.04	4.33
Jul-22 (S15)	1123	7,985	4,451	12,997	0.03	6.44	3	21	3	43	0.58	0.02	1,126	8,006	4,145	12,940	0.03	6.46

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)
Aug-22 (S16)	98	695	496	943	0.10	0.56	0	0	0	0	0	0	98	695	489	936	0.10	0.56
Sep-22 (S17)	29	205	113	311	0.19	0.17	30	212	30	636	0.18	0.17	59	417	127	876	0.13	0.34
Oct-22 (S18)	1,323	9,427	3,833	16,267	0.03	7.61	83	591	271	998	0.11	0.48	1,406	10,018	4,304	16,808	0.03	8.08
Nov-22 (S19)	335	2,385	1,367	3,538	0.05	1.92	33	235	107	384	0.17	0.19	368	2,620	1,545	3,830	0.05	2.11
Dec-22 (S20)	571	4,064	1,423	8,419	0.04	3.28	28	199	78	356	0.19	0.16	599	4,263	1,502	8,540	0.04	3.44
Dec-22 (S21)	832	5,929	1,447	12,741	0.03	4.78	50	356	50	912	0.14	0.29	882	6,285	1,496	13,796	0.03	5.07
Jan-23 (S22)	130	928	528	1,463	0.09	0.75	0	0	0	0	0	0	130	928	514	1,399	0.09	0.75
Feb-23 (S23)	113	832	567	1,141	0.09	0.67	0	0	0	0	0	0	113	832	567	1,163	0.09	0.67
Mar-23 (S24)	1,074	7,679	4,447	11,382	0.03	6.19	74	529	193	922	0.12	0.43	1,148	8,208	4,497	11,997	0.03	6.62
Apr-23 (S25)	56	401	172	666	0.13	0.32	0	0	0	0	0	0	56	401	179	674	0.13	0.32
May-23 (S26)	447	3,187	1,640	4,913	0.05	2.57	23	164	43	342	0.21	0.13	470	3,351	1,604	5,312	0.05	2.70
Jun-23 (S27)	111	785	573	1,040	0.09	0.63	0	0	0	0	0	0	111	785	559	1,026	0.09	0.63
Jul-23 (S28)	866	6,149	3,976	8,499	0.03	4.96	24	170	57	327	0.20	0.14	890	6,319	4,075	8,548	0.03	5.10
Aug-23 (S29)	84	601	372	852	0.11	0.48	0	0	0	0	0	0	84	601	365	852	0.11	0.48
Sep-23 (S30)	76	543	286	844	0.11	0.44	30	215	43	472	0.18	0.17	106	758	365	1,266	0.10	0.61

Site

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)
Apr-21 (S01)	35	241	110	392	0.17	0.32	0	0	0	0	0	0	35	241	117	385	0.17	0.32
May-21 (S02)	63	434	234	634	0.13	0.58	0	0	0	0	0	0	63	434	248	627	0.13	0.58
Jun-21 (S03)	37	258	104	411	0.16	0.34	0	0	0	0	0	0	37	258	111	439	0.16	0.34
Jul-21 (S04)	60	414	207	676	0.13	0.55	0	0	0	0	0	0	60	414	207	676	0.13	0.55
Aug-21 (S05)	51	353	145	602	0.14	0.47	0	0	0	0	0	0	51	353	131	588	0.14	0.47

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Sep-21 (S06)	27	185	55	329	0.19	0.25	4	27	4	82	0.50	0.04	31	213	55	405	0.18	0.28
Oct-21 (S07)	37	255	48	538	0.16	0.34	0	0	0	0	0	0	37	255	48	538	0.16	0.34
Nov-21 (S08)	320	2246	891	3782	0.06	2.98	32	225	91	379	0.18	0.30	352	2,470	1,102	4,028	0.05	3.28
Jan-22 (S09)	118	792	342	1,329	0.09	1.05	0	0	0	0	0	0	118	792	349	1,309	0.09	1.05
Mar-22 (S10)	294	1,892	1,094	2,754	0.06	2.51	13	84	26	167	0.28	0.11	307	1,976	1,165	2,902	0.06	2.62
Mar-22 (S11)	948	6,653	4,063	9,355	0.03	8.83	34	239	91	386	0.17	0.32	982	6,892	4,281	9,572	0.03	9.15
Apr-22 (S12)	53	366	131	614	0.14	0.49	0	0	0	0	0	0	53	366	117	635	0.14	0.49
May-22 (S13)	20	138	48	262	0.22	0.18	2	14	2	28	0.71	0.02	22	152	55	276	0.21	0.20
Jun-22 (S14)	510	3,565	1,622	5,801	0.04	4.73	5	35	5	91	0.45	0.05	515	3,600	1,559	5,836	0.04	4.78
Jul-22 (S15)	879	6,033	2,430	10,137	0.03	8.01	2	14	2	34	0.71	0.02	881	6,047	2,361	9,986	0.03	8.02
Aug-22 (S16)	55	377	212	582	0.13	0.50	0	0	0	0	0	0	55	377	219	589	0.13	0.50
Sep-22 (S17)	12	82	27	136	0.29	0.11	30	204	30	612	0.18	0.27	42	286	42	742	0.15	0.38
Oct-22 (S18)	940	6,476	1,281	13,270	0.03	8.59	51	351	165	565	0.14	0.47	991	6,828	1,488	13,642	0.03	9.06
Nov-22 (S19)	182	1,250	666	1,814	0.07	1.66	22	151	41	261	0.21	0.20	204	1,402	838	1,999	0.07	1.86
Dec-22 (S20)	448	3,083	805	6,992	0.05	4.09	19	131	55	227	0.23	0.17	467	3,214	874	7,239	0.05	4.27
Dec-22 (S21)	435	2,996	435	6,715	0.05	3.98	7	48	7	117	0.38	0.06	442	3,044	442	6,749	0.05	4.04
Jan-23 (S22)	63	434	193	703	0.13	0.58	0	0	0	0	0	0	63	434	193	696	0.13	0.58
Feb-23 (S23)	73	519	306	712	0.12	0.69	0	0	0	0	0	0	73	519	313	726	0.12	0.69
Mar-23 (S24)	746	5,149	3,085	7,351	0.04	6.83	62	428	124	780	0.13	0.57	808	5,577	3,154	7,869	0.04	7.40
Apr-23 (S25)	25	174	56	327	0.20	0.23	0	0	0	0	0	0	25	174	49	313	0.20	0.23
May-23 (S26)	303	2,091	849	3,451	0.06	2.77	12	83	12	235	0.29	0.11	315	2,174	766	3,679	0.06	2.89
Jun-23 (S27)	79	539	348	730	0.11	0.72	0	0	0	0	0	0	79	539	321	750	0.11	0.72
Jul-23 (S28)	639	4,380	2,523	6,622	0.04	5.81	17	117	17	274	0.24	0.16	656	4,497	2,406	6,697	0.04	5.97
Aug-23 (S29)	63	436	235	651	0.13	0.58	0	0	0	0	0	0	63	436	228	671	0.13	0.58
Sep-23 (S30)	30	208	97	339	0.18	0.28	15	104	15	235	0.26	0.14	45	312	139	506	0.15	0.41

4 km Buffer only

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)
Apr-21 (S01)	12	90	15	202	0.29	0.19	1	7	1	22	<1.00	0.01	13	97	22	210	0.28	0.20
May-21 (S02)	30	225	105	353	0.18	0.46	0	0	0	0	0	0	30	225	105	360	0.18	0.46
Jun-21 (S03)	34	259	137	435	0.17	0.53	2	15	2	38	0.71	0.03	36	274	145	427	0.17	0.56
Jul-21 (S04)	17	128	38	234	0.24	0.26	0	0	0	0	0	0	17	128	38	227	0.24	0.26
Aug-21 (S05)	7	53	7	121	0.38	0.11	0	0	0	0	0	0	7	53	7	113	0.38	0.11
Sep-21 (S06)	9	68	23	128	0.33	0.14	0	0	0	0	0	0	9	68	15	128	0.33	0.14
Oct-21 (S07)	18	136	18	371	0.24	0.28	0	0	0	0	0	0	18	136	18	363	0.24	0.28
Nov-21 (S08)	272	2,090	684	3,772	0.06	4.30	9	69	15	138	0.33	0.14	281	2,159	676	4,003	0.06	4.44
Jan-22 (S09)	58	431	126	817	0.13	0.89	0	0	0	0	0	0	58	431	141	809	0.13	0.89
Mar-22 (S10)	96	673	224	1,402	0.10	1.38	7	49	21	84	0.38	0.10	103	722	266	1,479	0.10	1.49
Mar-22 (S11)	206	1,586	385	3,472	0.07	3.26	16	123	16	308	0.25	0.25	222	1,709	524	3,688	0.07	3.52
Apr-22 (S12)	28	213	30	471	0.19	0.44	2	15	2	46	0.71	0.03	30	228	46	486	0.18	0.47
May-22 (S13)	19	142	45	270	0.23	0.29	0	0	0	0	0	0	19	142	45	262	0.23	0.29
Jun-22 (S14)	227	1,740	736	3,464	0.07	3.58	0	0	0	0	0	0	227	1,740	736	3,441	0.07	3.58
Jul-22 (S15)	244	1,837	911	3,193	0.06	3.78	1	8	1	23	<1.00	0.02	245	1,845	926	3,253	0.06	3.80
Aug-22 (S16)	43	323	195	465	0.15	0.66	0	0	0	0	0	0	43	323	203	465	0.15	0.66
Sep-22 (S17)	17	128	30	255	0.24	0.26	0	0	0	0	0	0	17	128	30	240	0.24	0.26
Oct-22 (S18)	383	2,882	1,046	5,049	0.05	5.93	32	241	32	519	0.18	0.50	415	3,122	1,144	5,342	0.05	6.42
Nov-22 (S19)	153	1,154	385	2,271	0.08	2.37	11	83	15	181	0.30	0.17	164	1,237	445	2,369	0.08	2.55
Dec-22 (S20)	123	924	391	1,578	0.09	1.90	9	68	9	150	0.33	0.14	132	992	391	1,661	0.09	2.04
Dec-22 (S21)	397	2,990	397	6,696	0.05	6.15	43	324	43	904	0.15	0.67	440	3,314	459	6,771	0.05	6.82
Jan-23 (S22)	67	506	174	967	0.12	1.04	0	0	0	0	0	0	67	506	181	982	0.12	1.04
Feb-23 (S23)	40	311	47	568	0.16	0.64	0	0	0	0	0	0	40	311	70	584	0.16	0.64
Mar-23 (S24)	328	2,483	409	6,290	0.06	5.11	12	91	15	212	0.29	0.19	340	2,574	416	6,336	0.05	5.30
Apr-23 (S25)	31	234	31	527	0.18	0.48	0	0	0	0	0	0	31	234	31	542	0.18	0.48
May-23 (S26)	144	1,083	331	2,345	0.08	2.23	11	83	15	180	0.30	0.17	155	1,165	376	2,548	0.08	2.40
Jun-23 (S27)	32	240	135	368	0.18	0.49	0	0	0	0	0	0	32	240	128	368	0.18	0.49

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Jul-23 (S28)	227	1,706	519	3,510	0.07	3.51	7	53	7	113	0.38	0.11	234	1,759	571	3,668	0.07	3.62
Aug-23 (S29)	21	159	68	257	0.22	0.33	0	0	0	0	0	0	21	159	68	249	0.22	0.33
Sep-23 (S30)	46	346	135	685	0.15	0.71	15	113	15	339	0.26	0.23	61	459	128	1,001	0.13	0.94

10.1.8 Puffin

Survey Area

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	7	50	14	92	0.38	0.04	0	0	0	0	0	0	7	50	14	92	0.38	0.04
May-21 (S02)	6	43	7	85	0.41	0.03	0	0	0	0	0	0	6	43	7	78	0.41	0.03
Jun-21 (S03)	94	678	476	930	0.10	0.55	0	0	0	0	0	0	94	678	447	923	0.10	0.55
Jul-21 (S04)	6	43	7	79	0.41	0.03	0	0	0	0	0	0	6	43	7	79	0.41	0.03
Aug-21 (S05)	80	572	293	859	0.11	0.46	0	0	0	0	0	0	80	572	286	866	0.11	0.46
Sep-21 (S06)	8	57	14	99	0.35	0.05	0	0	0	0	0	0	8	57	14	107	0.35	0.05
Oct-21 (S07)	6	43	14	71	0.41	0.03	0	0	0	0	0	0	6	43	14	71	0.41	0.03
Nov-21 (S08)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S11)	12	87	44	131	0.29	0.07	4	29	4	87	0.50	0.02	16	116	51	196	0.25	0.09
Apr-22 (S12)	19	136	36	258	0.23	0.11	0	0	0	0	0	0	19	136	36	272	0.23	0.11
May-22 (S13)	20	142	20	342	0.22	0.11	0	0	0	0	0	0	20	142	20	342	0.22	0.11
Jun-22 (S14)	260	1,882	1,050	3,106	0.06	1.52	5	36	5	72	0.45	0.03	265	1,918	1,108	3,019	0.06	1.55

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)
Jul-22 (S15)	1,881	13,374	7,252	20,527	0.02	10.79	6	43	7	92	0.41	0.03	1,887	13,417	6,868	20,456	0.02	10.82
Aug-22 (S16)	520	3,688	2,475	4,886	0.04	2.98	1	7	1	21	<1.00	0.01	521	3,695	2,440	4,837	0.04	2.98
Sep-22 (S17)	56	395	212	579	0.13	0.32	0	0	0	0	0	0	56	395	212	565	0.13	0.32
Oct-22 (S18)	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	1	7	1	21	<1.00	0.01
Nov-22 (S19)	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	1	7	1	21	<1.00	0.01
Dec-22 (S20)	5	36	5	71	0.45	0.03	0	0	0	0	0	0	5	36	5	71	0.45	0.03
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	3	21	3	50	0.58	0.02	0	0	0	0	0	0	3	21	3	50	0.58	0.02
Feb-23 (S23)	4	29	4	66	0.50	0.02	0	0	0	0	0	0	4	29	4	59	0.50	0.02
Mar-23 (S24)	10	71	36	114	0.32	0.06	0	0	0	0	0	0	10	71	36	122	0.32	0.06
Apr-23 (S25)	7	50	7	100	0.38	0.04	0	0	0	0	0	0	7	50	14	100	0.38	0.04
May-23 (S26)	63	449	257	706	0.13	0.36	0	0	0	0	0	0	63	449	214	677	0.13	0.36
Jun-23 (S27)	185	1,309	920	1,733	0.07	1.06	3	21	3	42	0.58	0.02	188	1,330	948	1,754	0.07	1.07
Jul-23 (S28)	309	2,194	1,534	2,776	0.06	1.77	4	28	4	64	0.50	0.02	313	2,222	1,576	2,797	0.06	1.79
Aug-23 (S29)	152	1,088	565	1,739	0.08	0.88	0	0	0	0	0	0	152	1,088	587	1,674	0.08	0.88
Sep-23 (S30)	57	408	200	651	0.13	0.33	0	0	0	0	0	0	57	408	200	651	0.13	0.33

Site

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)
Apr-21 (S01)	3	21	3	48	0.58	0.03	0	0	0	0	0	0	3	21	3	55	0.58	0.03
May-21 (S02)	6	41	7	76	0.41	0.05	0	0	0	0	0	0	6	41	14	76	0.41	0.05
Jun-21 (S03)	59	411	216	606	0.13	0.55	0	0	0	0	0	0	59	411	223	613	0.13	0.55
Jul-21 (S04)	4	28	7	55	0.50	0.04	0	0	0	0	0	0	4	28	4	55	0.50	0.04

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Aug-21 (S05)	49	339	131	554	0.14	0.45	0	0	0	0	0	0	49	339	138	554	0.14	0.45
Sep-21 (S06)	3	21	3	41	0.58	0.03	0	0	0	0	0	0	3	21	7	41	0.58	0.03
Oct-21 (S07)	4	28	7	55	0.50	0.04	0	0	0	0	0	0	4	28	7	62	0.50	0.04
Nov-21 (S08)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S11)	9	63	35	98	0.33	0.08	4	28	4	84	0.50	0.04	13	91	35	154	0.28	0.12
Apr-22 (S12)	7	48	7	110	0.38	0.06	0	0	0	0	0	0	7	48	7	110	0.38	0.06
May-22 (S13)	13	90	14	207	0.28	0.12	0	0	0	0	0	0	13	90	13	200	0.28	0.12
Jun-22 (S14)	164	1,146	524	1,845	0.08	1.52	2	14	2	35	0.71	0.02	166	1,160	545	1,859	0.08	1.54
Jul-22 (S15)	1,418	9,732	3,905	16,211	0.03	12.92	5	34	7	75	0.45	0.05	1,423	9,767	4,310	16,150	0.03	12.96
Aug-22 (S16)	323	2,213	1,158	3,316	0.06	2.94	1	7	1	21	<1.00	0.01	324	2,220	1,171	3,302	0.06	2.95
Sep-22 (S17)	38	259	143	374	0.16	0.34	0	0	0	0	0	0	38	259	129	388	0.16	0.34
Oct-22 (S18)	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	1	7	1	21	<1.00	0.01
Nov-22 (S19)	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	1	7	1	21	<1.00	0.01
Dec-22 (S20)	4	28	4	69	0.50	0.04	0	0	0	0	0	0	4	28	4	55	0.50	0.04
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-23 (S23)	4	28	4	64	0.50	0.04	0	0	0	0	0	0	4	28	4	57	0.50	0.04
Mar-23 (S24)	7	48	14	90	0.38	0.06	0	0	0	0	0	0	7	48	14	90	0.38	0.06
Apr-23 (S25)	6	42	6	90	0.41	0.06	0	0	0	0	0	0	6	42	7	90	0.41	0.06
May-23 (S26)	40	276	83	497	0.16	0.37	0	0	0	0	0	0	40	276	97	469	0.16	0.37
Jun-23 (S27)	117	798	559	1,037	0.09	1.06	3	20	7	41	0.58	0.03	120	818	559	1,064	0.09	1.09
Jul-23 (S28)	226	1,549	919	2,132	0.07	2.06	3	21	3	55	0.58	0.03	229	1,570	939	2,125	0.07	2.08
Aug-23 (S29)	105	727	367	1,135	0.10	0.96	0	0	0	0	0	0	105	727	360	1,121	0.10	0.96
Sep-23 (S30)	38	263	152	388	0.16	0.35	0	0	0	0	0	0	38	263	152	388	0.16	0.35

4 km Buffer only

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	4	30	4	75	0.50	0.06	0	0	0	0	0	0	4	30	4	75	0.50	0.06
May-21 (S02)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-21 (S03)	35	267	122	435	0.17	0.55	0	0	0	0	0	0	35	267	114	427	0.17	0.55
Jul-21 (S04)	2	15	2	45	0.71	0.03	0	0	0	0	0	0	2	15	2	45	0.71	0.03
Aug-21 (S05)	31	234	91	423	0.18	0.48	0	0	0	0	0	0	31	234	91	408	0.18	0.48
Sep-21 (S06)	5	38	8	75	0.45	0.08	0	0	0	0	0	0	5	38	8	68	0.45	0.08
Oct-21 (S07)	2	15	2	38	0.71	0.03	0	0	0	0	0	0	2	15	2	38	0.71	0.03
Nov-21 (S08)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S11)	3	23	3	54	0.58	0.05	0	0	0	0	0	0	3	23	3	62	0.58	0.05
Apr-22 (S12)	12	91	12	213	0.29	0.19	0	0	0	0	0	0	12	91	12	213	0.29	0.19
May-22 (S13)	7	52	7	127	0.38	0.11	0	0	0	0	0	0	7	52	7	135	0.38	0.11
Jun-22 (S14)	96	736	284	1,280	0.10	1.51	3	23	3	61	0.58	0.05	99	759	299	1,326	0.10	1.56
Jul-22 (S15)	463	3,486	1,009	7,522	0.05	7.17	1	8	1	23	<1.00	0.02	464	3,494	1,054	7,665	0.05	7.19
Aug-22 (S16)	197	1,478	803	2,265	0.07	3.04	0	0	0	0	0	0	197	1,478	788	2,295	0.07	3.04
Sep-22 (S17)	18	135	23	308	0.24	0.28	0	0	0	0	0	0	18	135	30	308	0.24	0.28
Oct-22 (S18)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S20)	1	8	1	23	<1.00	0.02	0	0	0	0	0	0	1	8	1	23	<1.00	0.02
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	3	23	3	60	0.58	0.05	0	0	0	0	0	0	3	23	3	53	0.58	0.05
Feb-23 (S23)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-23 (S24)	3	23	3	61	0.58	0.05	0	0	0	0	0	0	3	23	3	61	0.58	0.05
Apr-23 (S25)	1	8	1	23	<1.00	0.02	0	0	0	0	0	0	1	8	1	23	<1.00	0.02
May-23 (S26)	23	173	68	301	0.21	0.36	0	0	0	0	0	0	23	173	75	308	0.21	0.36
Jun-23 (S27)	68	510	263	803	0.12	1.05	0	0	0	0	0	0	68	510	270	811	0.12	1.05

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Jul-23 (S28)	83	624	233	1,037	0.11	1.28	1	8	1	23	<1.00	0.02	84	631	248	1,075	0.11	1.30
Aug-23 (S29)	47	355	121	612	0.15	0.73	0	0	0	0	0	0	47	355	136	612	0.15	0.73
Sep-23 (S30)	19	143	19	399	0.23	0.29	0	0	0	0	0	0	19	143	19	399	0.23	0.29

10.1.9 Great Northern Diver

Survey Area

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	3	21	3	43	0.58	0.02	0	0	0	0	0	0	3	21	3	43	0.58	0.02
May-21 (S02)	2	14	2	36	0.71	0.01	0	0	0	0	0	0	2	14	2	36	0.71	0.01
Jun-21 (S03)	2	14	2	43	0.71	0.01	0	0	0	0	0	0	2	14	2	43	0.71	0.01
Jul-21 (S04)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-22 (S09)	2	14	2	35	0.71	0.01	0	0	0	0	0	0	2	14	2	35	0.71	0.01
Mar-22 (S10)	3	20	3	47	0.58	0.02	0	0	0	0	0	0	3	20	3	47	0.58	0.02
Mar-22 (S11)	3	22	3	58	0.58	0.02	0	0	0	0	0	0	3	22	3	58	0.58	0.02
Apr-22 (S12)	2	14	2	43	0.71	0.01	0	0	0	0	0	0	2	14	2	43	0.71	0.01
May-22 (S13)	4	28	4	78	0.50	0.02	1	7	1	21	<1.00	0.01	5	36	5	85	0.45	0.03
Jun-22 (S14)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-22 (S15)	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	1	7	1	21	<1.00	0.01

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)
Aug-22 (S16)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-22 (S18)	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	1	7	1	21	<1.00	0.01
Nov-22 (S19)	3	21	3	64	0.58	0.02	0	0	0	0	0	0	3	21	3	64	0.58	0.02
Dec-22 (S20)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	1	7	1	21	<1.00	0.01
Feb-23 (S23)	5	37	5	74	0.45	0.03	0	0	0	0	0	0	5	37	5	74	0.45	0.03
Mar-23 (S24)	4	29	4	86	0.50	0.02	0	0	0	0	0	0	4	29	4	86	0.50	0.02
Apr-23 (S25)	5	36	7	72	0.45	0.03	0	0	0	0	0	0	5	36	7	72	0.45	0.03
May-23 (S26)	2	14	2	43	0.71	0.01	1	7	1	21	<1.00	0.01	3	21	3	57	0.58	0.02
Jun-23 (S27)	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	1	7	1	21	<1.00	0.01
Jul-23 (S28)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Site

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)
Apr-21 (S01)	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	1	7	1	21	<1.00	0.01
May-21 (S02)	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	1	7	1	21	<1.00	0.01
Jun-21 (S03)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Sep-21 (S06)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S10)	1	6	1	19	<1.00	0.01	0	0	0	0	0	0	1	6	1	19	<1.00	0.01
Mar-22 (S11)	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	1	7	1	21	<1.00	0.01
Apr-22 (S12)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-22 (S13)	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	1	7	1	21	<1.00	0.01
Jun-22 (S14)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-22 (S16)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-22 (S18)	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	1	7	1	21	<1.00	0.01
Nov-22 (S19)	3	21	3	62	0.58	0.03	0	0	0	0	0	0	3	21	3	62	0.58	0.03
Dec-22 (S20)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-23 (S24)	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	1	7	1	21	<1.00	0.01
Apr-23 (S25)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-23 (S26)	2	14	2	41	0.71	0.02	1	7	1	21	<1.00	0.01	3	21	3	48	0.58	0.03
Jun-23 (S27)	1	7	1	20	<1.00	0.01	0	0	0	0	0	0	1	7	1	20	<1.00	0.01
Jul-23 (S28)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4 km Buffer only

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	2	15	2	37	0.71	0.03	0	0	0	0	0	0	2	15	2	37	0.71	0.03
May-21 (S02)	1	8	1	23	<1.00	0.02	0	0	0	0	0	0	1	8	1	23	<1.00	0.02
Jun-21 (S03)	2	15	2	46	0.71	0.03	0	0	0	0	0	0	2	15	2	46	0.71	0.03
Jul-21 (S04)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-22 (S09)	2	15	2	37	0.71	0.03	0	0	0	0	0	0	2	15	2	37	0.71	0.03
Mar-22 (S10)	2	14	2	35	0.71	0.03	0	0	0	0	0	0	2	14	2	35	0.71	0.03
Mar-22 (S11)	2	15	2	38	0.71	0.03	0	0	0	0	0	0	2	15	2	38	0.71	0.03
Apr-22 (S12)	2	15	2	46	0.71	0.03	0	0	0	0	0	0	2	15	2	46	0.71	0.03
May-22 (S13)	3	22	3	52	0.58	0.05	1	7	1	22	<1.00	0.01	4	30	4	60	0.50	0.06
Jun-22 (S14)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-22 (S15)	1	8	1	23	<1.00	0.02	0	0	0	0	0	0	1	8	1	23	<1.00	0.02
Aug-22 (S16)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	1	8	1	23	<1.00	0.02	0	0	0	0	0	0	1	8	1	23	<1.00	0.02
Feb-23 (S23)	5	39	8	86	0.45	0.08	0	0	0	0	0	0	5	39	5	86	0.45	0.08
Mar-23 (S24)	3	23	3	68	0.58	0.05	0	0	0	0	0	0	3	23	3	68	0.58	0.05
Apr-23 (S25)	5	38	8	75	0.45	0.08	0	0	0	0	0	0	5	38	8	68	0.45	0.08
May-23 (S26)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-23 (S27)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Jul-23 (S28)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

10.1.10 European Storm Petrel/Storm Petrel Species

Survey Area

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0	8	58	8	137	0.35	0.05	8	58	8	144	0.35	0.05
Jul-21 (S04)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0	6	43	6	107	0.41	0.03	6	43	6	107	0.41	0.03
Sep-21 (S06)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0	2	14	2	43	0.71	0.01	2	14	2	43	0.71	0.01
Jul-22 (S15)	0	0	0	0	0	0	17	121	50	199	0.24	0.10	17	121	43	199	0.24	0.10

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Aug-22 (S16)	0	0	0	0	0	0	5	35	5	92	0.45	0.03	5	35	5	92	0.45	0.03
Sep-22 (S17)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-23 (S27)	0	0	0	0	0	0	11	78	14	156	0.30	0.06	11	78	21	149	0.30	0.06
Jul-23 (S28)	0	0	0	0	0	0	42	298	156	447	0.15	0.24	42	298	163	447	0.15	0.24
Aug-23 (S29)	0	0	0	0	0	0	25	179	79	293	0.20	0.14	25	179	72	293	0.20	0.14
Sep-23 (S30)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Site

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0	2	14	2	42	0.71	0.02	2	14	2	42	0.71	0.02
Jul-21 (S04)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0	3	21	3	62	0.58	0.03	3	21	3	62	0.58	0.03

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Sep-21 (S06)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0	2	14	2	42	0.71	0.02	2	14	2	42	0.71	0.02
Jul-22 (S15)	0	0	0	0	0	0	13	89	34	158	0.28	0.12	13	89	34	158	0.28	0.12
Aug-22 (S16)	0	0	0	0	0	0	5	34	5	89	0.45	0.05	5	34	5	96	0.45	0.05
Sep-22 (S17)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-23 (S27)	0	0	0	0	0	0	5	34	7	68	0.45	0.05	5	34	5	68	0.45	0.05
Jul-23 (S28)	0	0	0	0	0	0	33	226	110	363	0.17	0.30	33	226	103	370	0.17	0.30
Aug-23 (S29)	0	0	0	0	0	0	6	42	6	90	0.41	0.06	6	42	6	90	0.41	0.06
Sep-23 (S30)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4 km Buffer only

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0	6	46	6	130	0.41	0.09	6	46	6	130	0.41	0.09
Jul-21 (S04)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0	3	23	3	68	0.58	0.05	3	23	3	68	0.58	0.05
Sep-21 (S06)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0	4	30	4	90	0.50	0.06	4	30	4	90	0.50	0.06
Aug-22 (S16)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-23 (S27)	0	0	0	0	0	0	6	45	6	113	0.41	0.09	6	45	8	113	0.41	0.09

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Jul-23 (S28)	0	0	0	0	0	0	9	68	9	143	0.33	0.14	9	68	9	143	0.33	0.14
Aug-23 (S29)	0	0	0	0	0	0	19	143	53	264	0.23	0.29	19	143	45	264	0.23	0.29
Sep-23 (S30)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

10.1.11 Fulmar

Survey Area

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	0	0	0	0	0	0	3	21	3	43	0.58	0.02	3	21	3	43	0.58	0.02
May-21 (S02)	7	50	14	93	0.38	0.04	8	57	28	85	0.35	0.05	15	107	57	164	0.26	0.09
Jun-21 (S03)	1	7	1	22	<1.00	0.01	1	7	1	22	<1.00	0.01	2	14	2	36	0.71	0.01
Jul-21 (S04)	5	36	5	79	0.45	0.03	9	64	29	100	0.33	0.05	14	100	43	171	0.27	0.08
Aug-21 (S05)	8	57	8	107	0.35	0.05	15	107	43	186	0.26	0.09	23	165	72	272	0.21	0.13
Sep-21 (S06)	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01	2	14	2	36	0.71	0.01
Oct-21 (S07)	2	14	2	36	0.71	0.01	5	36	5	86	0.45	0.03	7	50	7	114	0.38	0.04
Nov-21 (S08)	3	22	3	44	0.58	0.02	17	123	29	240	0.24	0.10	20	145	36	276	0.22	0.12
Jan-22 (S09)	7	49	7	112	0.38	0.04	54	377	174	649	0.14	0.30	61	425	223	690	0.13	0.34
Mar-22 (S10)	6	40	13	66	0.41	0.03	4	27	4	66	0.50	0.02	10	66	20	106	0.32	0.05
Mar-22 (S11)	5	36	7	65	0.45	0.03	6	44	15	73	0.41	0.04	11	80	44	124	0.30	0.06
Apr-22 (S12)	3	21	3	43	0.58	0.02	4	29	4	57	0.50	0.02	7	50	7	100	0.38	0.04
May-22 (S13)	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01	2	14	2	36	0.71	0.01
Jun-22 (S14)	2	14	2	43	0.71	0.01	15	109	58	166	0.26	0.09	17	123	65	181	0.24	0.10
Jul-22 (S15)	36	256	57	562	0.17	0.21	7	50	7	114	0.38	0.04	43	306	71	647	0.15	0.25

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)
Aug-22 (S16)	4	28	4	64	0.50	0.02	7	50	21	78	0.38	0.04	11	78	28	135	0.30	0.06
Sep-22 (S17)	2	14	2	35	0.71	0.01	17	120	21	297	0.24	0.10	19	134	28	297	0.23	0.11
Oct-22 (S18)	17	121	17	349	0.24	0.10	18	128	36	264	0.24	0.10	35	249	43	520	0.17	0.20
Nov-22 (S19)	2	14	2	36	0.71	0.01	4	28	4	57	0.50	0.02	6	43	7	78	0.41	0.03
Dec-22 (S20)	0	0	0	0	0	0	13	93	21	199	0.28	0.08	13	93	21	192	0.28	0.08
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	4	29	7	64	0.50	0.02	8	57	14	121	0.35	0.05	12	86	21	178	0.29	0.07
Feb-23 (S23)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-23 (S24)	4	29	4	79	0.50	0.02	23	164	64	272	0.21	0.13	27	193	93	293	0.19	0.16
Apr-23 (S25)	1	7	1	21	<1.00	0.01	8	57	14	100	0.35	0.05	9	64	29	100	0.33	0.05
May-23 (S26)	9	64	14	135	0.33	0.05	6	43	14	86	0.41	0.03	15	107	36	200	0.26	0.09
Jun-23 (S27)	6	42	7	92	0.41	0.03	4	28	4	64	0.50	0.02	10	71	28	120	0.32	0.06
Jul-23 (S28)	7	50	14	85	0.38	0.04	15	106	43	192	0.26	0.09	22	156	71	256	0.21	0.13
Aug-23 (S29)	8	57	8	136	0.35	0.05	5	36	7	72	0.45	0.03	13	93	43	157	0.28	0.08
Sep-23 (S30)	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	1	7	1	21	<1.00	0.01

Site

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)
Apr-21 (S01)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01
May-21 (S02)	3	21	3	48	0.58	0.03	6	41	14	69	0.41	0.05	9	62	21	103	0.33	0.08
Jun-21 (S03)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01
Jul-21 (S04)	3	21	3	41	0.58	0.03	5	35	7	62	0.45	0.05	8	55	21	97	0.35	0.07
Aug-21 (S05)	4	28	4	69	0.50	0.04	9	62	21	111	0.33	0.08	13	90	35	166	0.28	0.12

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Sep-21 (S06)	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	1	7	1	21	<1.00	0.01
Oct-21 (S07)	2	14	2	34	0.71	0.02	1	7	1	21	<1.00	0.01	3	21	7	41	0.58	0.03
Nov-21 (S08)	3	21	7	42	0.58	0.03	11	77	14	168	0.30	0.10	14	98	21	196	0.27	0.13
Jan-22 (S09)	2	13	2	27	0.71	0.02	39	262	60	550	0.16	0.35	41	275	74	557	0.16	0.36
Mar-22 (S10)	3	19	3	39	0.58	0.03	2	13	2	39	0.71	0.02	5	32	5	71	0.45	0.04
Mar-22 (S11)	2	14	2	42	0.71	0.02	1	7	1	21	<1.00	0.01	3	21	3	49	0.58	0.03
Apr-22 (S12)	1	7	1	21	<1.00	0.01	3	21	3	55	0.58	0.03	4	28	4	69	0.50	0.04
May-22 (S13)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-22 (S14)	2	14	2	42	0.71	0.02	9	63	28	119	0.33	0.08	11	77	35	140	0.30	0.10
Jul-22 (S15)	36	247	55	528	0.17	0.33	7	48	7	103	0.38	0.06	43	295	82	625	0.15	0.39
Aug-22 (S16)	3	21	3	48	0.58	0.03	5	34	7	62	0.45	0.05	8	55	14	103	0.35	0.07
Sep-22 (S17)	2	14	2	34	0.71	0.02	5	34	7	68	0.45	0.05	7	48	20	82	0.38	0.06
Oct-22 (S18)	12	83	12	248	0.29	0.11	8	55	14	96	0.35	0.07	20	138	20	338	0.22	0.18
Nov-22 (S19)	2	14	2	34	0.71	0.02	0	0	0	0	0	0	2	14	2	34	0.71	0.02
Dec-22 (S20)	0	0	0	0	0	0	7	48	7	103	0.38	0.06	7	48	7	103	0.38	0.06
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	1	7	1	21	<1.00	0.01	7	48	7	110	0.38	0.06	8	55	14	117	0.35	0.07
Feb-23 (S23)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-23 (S24)	1	7	1	21	<1.00	0.01	17	117	41	193	0.24	0.16	18	124	48	207	0.24	0.16
Apr-23 (S25)	1	7	1	21	<1.00	0.01	3	21	3	49	0.58	0.03	4	28	7	56	0.50	0.04
May-23 (S26)	7	48	7	97	0.38	0.06	4	28	4	62	0.50	0.04	11	76	21	159	0.30	0.10
Jun-23 (S27)	5	34	5	75	0.45	0.05	4	27	4	55	0.50	0.04	9	61	27	102	0.33	0.08
Jul-23 (S28)	5	34	7	62	0.45	0.05	6	41	14	69	0.41	0.05	11	75	34	117	0.30	0.10
Aug-23 (S29)	3	21	7	42	0.58	0.03	4	28	4	55	0.50	0.04	7	48	21	76	0.38	0.06
Sep-23 (S30)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4 km Buffer only

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	0	0	0	0	0	0	2	15	2	37	0.71	0.03	2	15	2	37	0.71	0.03
May-21 (S02)	4	30	4	75	0.50	0.06	2	15	2	38	0.71	0.03	6	45	15	83	0.41	0.09
Jun-21 (S03)	1	8	1	23	<1.00	0.02	0	0	0	0	0	0	1	8	1	23	<1.00	0.02
Jul-21 (S04)	2	15	2	45	0.71	0.03	4	30	8	53	0.50	0.06	6	45	15	83	0.41	0.09
Aug-21 (S05)	4	30	4	76	0.50	0.06	6	45	6	128	0.41	0.09	10	76	10	204	0.32	0.16
Sep-21 (S06)	0	0	0	0	0	0	1	8	1	23	<1.00	0.02	1	8	1	23	<1.00	0.02
Oct-21 (S07)	0	0	0	0	0	0	4	30	4	83	0.50	0.06	4	30	4	76	0.50	0.06
Nov-21 (S08)	0	0	0	0	0	0	6	46	6	123	0.41	0.09	6	46	6	131	0.41	0.09
Jan-22 (S09)	5	37	5	104	0.45	0.08	15	111	45	208	0.26	0.23	20	148	59	260	0.22	0.30
Mar-22 (S10)	3	21	3	49	0.58	0.04	2	14	2	42	0.71	0.03	5	35	7	77	0.45	0.07
Mar-22 (S11)	3	23	8	46	0.58	0.05	5	38	8	69	0.45	0.08	8	62	31	92	0.35	0.13
Apr-22 (S12)	2	15	2	38	0.71	0.03	1	8	1	23	<1.00	0.02	3	23	3	61	0.58	0.05
May-22 (S13)	1	7	1	22	<1.00	0.01	1	7	1	22	<1.00	0.01	2	15	2	37	0.71	0.03
Jun-22 (S14)	0	0	0	0	0	0	6	46	8	100	0.41	0.09	6	46	8	100	0.41	0.09
Jul-22 (S15)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-22 (S16)	1	8	1	23	<1.00	0.02	2	15	2	38	0.71	0.03	3	23	3	60	0.58	0.05
Sep-22 (S17)	0	0	0	0	0	0	12	90	12	255	0.29	0.19	12	90	12	270	0.29	0.19
Oct-22 (S18)	5	38	5	113	0.45	0.08	10	75	10	196	0.32	0.15	15	113	15	278	0.26	0.23
Nov-22 (S19)	0	0	0	0	0	0	4	30	4	75	0.50	0.06	4	30	4	75	0.50	0.06
Dec-22 (S20)	0	0	0	0	0	0	6	45	6	98	0.41	0.09	6	45	6	98	0.41	0.09
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	3	23	3	53	0.58	0.05	1	8	1	23	<1.00	0.02	4	30	4	68	0.50	0.06
Feb-23 (S23)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-23 (S24)	3	23	3	68	0.58	0.05	6	45	15	76	0.41	0.09	9	68	15	136	0.33	0.14
Apr-23 (S25)	0	0	0	0	0	0	5	38	5	83	0.45	0.08	5	38	5	75	0.45	0.08
May-23 (S26)	2	15	2	38	0.71	0.03	2	15	2	45	0.71	0.03	4	30	4	60	0.50	0.06
Jun-23 (S27)	1	8	1	23	<1.00	0.02	0	0	0	0	0	0	1	8	1	23	<1.00	0.02

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Jul-23 (S28)	2	15	2	38	0.71	0.03	9	68	15	150	0.33	0.14	11	83	23	158	0.30	0.17
Aug-23 (S29)	5	38	5	113	0.45	0.08	1	8	1	23	<1.00	0.02	6	45	6	128	0.41	0.09
Sep-23 (S30)	1	8	1	23	<1.00	0.02	0	0	0	0	0	0	1	8	1	23	<1.00	0.02

10.1.12 Manx Shearwater

Survey Area

Survey	Sitting						Flying						Diving						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	108	767	108	1,791	0.10	0.62	186	1,322	405	2,565	0.07	1.07	0	0	0	0	0	0	294	2,089	441	4,107	0.06	1.69
May-21 (S02)	151	1,075	285	2,185	0.08	0.87	364	2,591	854	5,232	0.05	2.09	0	0	0	0	0	0	515	3,666	1,260	7,239	0.04	2.96
Jun-21 (S03)	26	187	115	267	0.20	0.15	94	678	267	1,305	0.10	0.55	0	0	0	0	0	0	120	865	397	1,572	0.09	0.70
Jul-21 (S04)	1,249	8,924	2,501	18,577	0.03	7.20	607	4,337	2,294	7,281	0.04	3.50	0	0	0	0	0	0	1,856	13,261	6,831	22,264	0.02	10.70
Aug-21 (S05)	38	272	100	487	0.16	0.22	133	952	501	1,453	0.09	0.77	0	0	0	0	0	0	171	1,224	730	1,717	0.08	0.99
Sep-21 (S06)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S10)	1	7	1	20	<1.00	0.01	2	13	2	40	0.71	0.01	0	0	0	0	0	0	3	20	3	47	0.58	0.02
Mar-22 (S11)	74	538	276	807	0.12	0.43	44	320	153	531	0.15	0.26	0	0	0	0	0	0	118	858	480	1,287	0.09	0.69
Apr-22 (S12)	2,359	16,876	7,547	26,741	0.02	13.61	570	4,078	1,867	6,574	0.04	3.29	0	0	0	0	0	0	2,929	20,953	9,536	31,777	0.02	16.90
May-22 (S13)	1,016	7,233	1,016	17,975	0.03	5.84	356	2,534	1,039	4,186	0.05	2.04	0	0	0	0	0	0	1,372	9,767	1,623	20,737	0.03	7.88
Jun-22 (S14)	105	760	427	1,137	0.10	0.61	337	2,440	1,498	3,714	0.05	1.97	0	0	0	0	0	0	442	3,200	2,114	4,647	0.05	2.58
Jul-22 (S15)	495	3,520	967	6,627	0.04	2.84	234	1,664	306	3,754	0.07	1.34	0	0	0	0	0	0	729	5,183	1,408	10,103	0.04	4.18

Survey	Sitting						Flying						Diving						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)
Aug-22 (S16)	105	745	113	1,837	0.10	0.60	44	312	99	624	0.15	0.25	0	0	0	0	0	0	149	1,057	376	2,092	0.08	0.85
Sep-22 (S17)	12	85	14	177	0.29	0.07	6	42	6	120	0.41	0.03	0	0	0	0	0	0	18	127	28	261	0.24	0.10
Oct-22 (S18)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	1	7	1	21	<1.00	0.01
Nov-22 (S19)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	1	7	1	21	<1.00	0.01
Dec-22 (S20)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-23 (S24)	29	207	71	379	0.19	0.17	47	336	107	679	0.15	0.27	0	0	0	0	0	0	76	543	243	929	0.11	0.44
Apr-23 (S25)	669	4,794	2,100	9,388	0.04	3.87	236	1,691	1,161	2,308	0.07	1.36	0	0	0	0	0	0	905	6,486	3,332	11,294	0.03	5.23
May-23 (S26)	292	2,082	606	4,171	0.06	1.68	106	756	349	1,390	0.10	0.61	0	0	0	0	0	0	398	2,838	1,112	5,819	0.05	2.29
Jun-23 (S27)	1,309	9,259	4,973	13,899	0.03	7.47	257	1,818	1,054	2,709	0.06	1.47	1	7	1	21	<1.00	0.01	1,567	11,084	6,783	15,385	0.03	8.94
Jul-23 (S28)	989	7,022	989	15,606	0.03	5.66	195	1,384	724	2,265	0.07	1.12	0	0	0	0	0	0	1,184	8,406	1,505	18,737	0.03	6.78
Aug-23 (S29)	273	1,954	273	5,725	0.06	1.58	66	472	222	852	0.12	0.38	0	0	0	0	0	0	339	2,426	339	6,562	0.05	1.96
Sep-23 (S30)	160	1,144	465	2,145	0.08	0.92	65	465	164	980	0.12	0.38	0	0	0	0	0	0	225	1,609	622	3,125	0.07	1.30

Site

Survey	Sitting						Flying						Diving						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)
Apr-21 (S01)	8	55	8	124	0.35	0.07	71	488	138	901	0.12	0.65	0	0	0	0	0	0	79	543	165	1,045	0.11	0.72
May-21 (S02)	124	854	165	1,914	0.09	1.13	288	1,983	696	4,132	0.06	2.63	0	0	0	0	0	0	412	2,837	881	6,143	0.05	3.76
Jun-21 (S03)	21	146	77	223	0.22	0.19	71	495	153	1,045	0.12	0.66	0	0	0	0	0	0	92	641	258	1,226	0.10	0.85
Jul-21 (S04)	371	2,561	959	4,362	0.05	3.40	311	2,146	1015	3,244	0.06	2.85	0	0	0	0	0	0	682	4,707	2,809	6,660	0.04	6.25
Aug-21 (S05)	26	180	35	332	0.20	0.24	79	547	249	893	0.11	0.73	0	0	0	0	0	0	105	727	318	1,149	0.10	0.96

Survey	Sitting						Flying						Diving						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Sep-21 (S06)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S10)	1	6	1	19	<1.00	0.01	0	0	0	0	0	0	0	0	0	0	0	0	1	6	1	19	<1.00	0.01
Mar-22 (S11)	54	379	175	632	0.14	0.50	31	218	70	407	0.18	0.29	0	0	0	0	0	0	85	597	267	947	0.11	0.79
Apr-22 (S12)	2,315	15,968	6904	23,527	0.02	21.19	537	3,704	1,855	5,932	0.04	4.92	0	0	0	0	0	0	2,852	19,671	10,001	29,845	0.02	26.10
May-22 (S13)	505	3,483	505	10,393	0.04	4.62	219	1,510	503	2,641	0.07	2.00	0	0	0	0	0	0	724	4,993	724	13,034	0.04	6.63
Jun-22 (S14)	40	280	98	482	0.16	0.37	168	1,174	755	1,545	0.08	1.56	0	0	0	0	0	0	208	1,454	923	2,041	0.07	1.93
Jul-22 (S15)	448	3,075	611	5,889	0.05	4.08	207	1,421	207	3,363	0.07	1.89	0	0	0	0	0	0	655	4,496	1,084	8,902	0.04	5.97
Aug-22 (S16)	13	89	14	199	0.28	0.12	22	151	55	274	0.21	0.20	0	0	0	0	0	0	35	240	116	363	0.17	0.32
Sep-22 (S17)	3	20	3	54	0.58	0.03	0	0	0	0	0	0	0	0	0	0	0	0	3	20	3	48	0.58	0.03
Oct-22 (S18)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	1	7	1	21	<1.00	0.01
Dec-22 (S20)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-23 (S24)	25	173	69	331	0.20	0.23	15	104	35	200	0.26	0.14	0	0	0	0	0	0	40	276	117	469	0.16	0.37
Apr-23 (S25)	374	2,599	1,355	4,517	0.05	3.45	152	1,056	737	1,424	0.08	1.40	0	0	0	0	0	0	526	3,655	2,224	5,580	0.04	4.85
May-23 (S26)	212	1,463	345	3,271	0.07	1.94	74	511	145	1,125	0.12	0.68	0	0	0	0	0	0	286	1,974	566	4,313	0.06	2.62
Jun-23 (S27)	911	6,213	2,298	10,352	0.03	8.25	180	1,228	430	2,148	0.07	1.63	1	7	1	20	<1.00	0.01	1,092	7,447	2,960	12,507	0.03	9.88
Jul-23 (S28)	964	6,608	964	14,615	0.03	8.77	154	1,056	459	1,899	0.08	1.40	0	0	0	0	0	0	1,118	7,664	1,118	16,596	0.03	10.17
Aug-23 (S29)	6	42	21	55	0.41	0.06	21	145	62	235	0.22	0.19	0	0	0	0	0	0	27	187	90	284	0.19	0.25
Sep-23 (S30)	92	637	139	1,406	0.10	0.85	43	298	83	623	0.15	0.40	0	0	0	0	0	0	135	935	229	2,043	0.09	1.24

4 km Buffer only

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	100	749	100	1,827	0.10	1.54	115	861	115	2,097	0.09	1.77	215	1,610	215	3,662	0.07	3.31
May-21 (S02)	27	203	27	518	0.19	0.42	76	571	173	1,171	0.11	1.17	103	773	285	1,412	0.10	1.59
Jun-21 (S03)	5	38	8	76	0.45	0.08	23	175	23	366	0.21	0.36	28	213	46	427	0.19	0.44
Jul-21 (S04)	878	6,636	878	16,274	0.03	13.65	296	2,237	756	4,558	0.06	4.60	1,174	8,874	1,580	18,964	0.03	18.26
Aug-21 (S05)	12	91	30	151	0.29	0.19	54	408	113	771	0.14	0.84	66	499	166	906	0.12	1.03
Sep-21 (S06)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0	2	14	2	42	0.71	0.03	2	14	2	42	0.71	0.03
Mar-22 (S11)	20	154	23	377	0.22	0.32	13	100	38	200	0.28	0.21	33	254	69	562	0.17	0.52
Apr-22 (S12)	44	334	44	805	0.15	0.69	33	251	68	455	0.17	0.52	77	585	114	1,116	0.11	1.20
May-22 (S13)	511	3,829	511	11,435	0.04	7.88	137	1,027	157	2,608	0.09	2.11	648	4,856	648	13,309	0.04	9.99
Jun-22 (S14)	65	498	146	958	0.12	1.02	169	1,295	314	2,881	0.08	2.66	234	1,793	452	3,586	0.07	3.69
Jul-22 (S15)	47	354	47	1,054	0.15	0.73	27	203	27	542	0.19	0.42	74	557	74	1,589	0.12	1.15
Aug-22 (S16)	92	690	92	1,860	0.10	1.42	22	165	38	383	0.21	0.34	114	855	158	2,040	0.09	1.76
Sep-22 (S17)	9	68	9	180	0.33	0.14	6	45	6	128	0.41	0.09	15	113	15	255	0.26	0.23
Oct-22 (S18)	0	0	0	0	0	0	1	8	1	23	<1.00	0.02	1	8	1	23	<1.00	0.02
Nov-22 (S19)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-23 (S24)	4	30	4	76	0.50	0.06	32	242	32	613	0.18	0.50	36	273	45	636	0.17	0.56
Apr-23 (S25)	295	2,222	295	5,009	0.06	4.57	84	633	105	1,220	0.11	1.30	379	2,855	542	6,267	0.05	5.87
May-23 (S26)	80	601	165	1,180	0.11	1.24	32	241	75	481	0.18	0.50	112	842	263	1,564	0.09	1.73
Jun-23 (S27)	398	2,988	398	6,568	0.05	6.15	77	578	150	1,216	0.11	1.19	475	3,566	796	6,741	0.05	7.34

Survey	Sitting						Flying						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)
Jul-23 (S28)	25	188	45	391	0.20	0.39	41	308	143	534	0.16	0.63	66	496	241	827	0.12	1.02
Aug-23 (S29)	267	2,016	267	6,010	0.06	4.15	45	340	83	763	0.15	0.70	312	2,356	312	6,742	0.06	4.85
Sep-23 (S30)	68	512	135	1,001	0.12	1.05	22	166	38	339	0.21	0.34	90	677	248	1,250	0.11	1.39

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Survey Area

Survey	Sitting						Flying						Diving						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)
Apr-21 (S01)	15	107	28	192	0.26	0.09	31	220	99	362	0.18	0.18	0	0	0	0	0	0	46	327	171	526	0.15	0.26
May-21 (S02)	24	171	71	285	0.20	0.14	34	242	149	327	0.17	0.20	0	0	0	0	0	0	58	413	249	584	0.13	0.33
Jun-21 (S03)	11	79	11	202	0.30	0.06	35	252	115	397	0.17	0.20	0	0	0	0	0	0	46	332	144	562	0.15	0.27
Jul-21 (S04)	75	536	350	750	0.12	0.43	25	179	86	279	0.20	0.14	0	0	0	0	0	0	100	715	479	965	0.10	0.58
Aug-21 (S05)	28	200	129	279	0.19	0.16	29	208	107	343	0.19	0.17	0	0	0	0	0	0	57	408	258	587	0.13	0.33
Sep-21 (S06)	10	71	10	199	0.32	0.06	24	170	71	284	0.20	0.14	0	0	0	0	0	0	34	241	78	469	0.17	0.19
Oct-21 (S07)	2	14	2	36	0.71	0.01	15	107	29	222	0.26	0.09	0	0	0	0	0	0	17	121	29	243	0.24	0.10
Nov-21 (S08)	25	182	51	370	0.20	0.15	11	80	44	116	0.30	0.06	0	0	0	0	0	0	36	262	109	436	0.17	0.21
Jan-22 (S09)	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	2	14	2	35	0.71	0.01
Mar-22 (S10)	1	7	1	20	<1.00	0.01	5	33	7	66	0.45	0.03	0	0	0	0	0	0	6	40	13	73	0.41	0.03
Mar-22 (S11)	5	36	5	73	0.45	0.03	18	131	65	211	0.24	0.11	0	0	0	0	0	0	23	167	95	240	0.21	0.13
Apr-22 (S12)	115	823	336	1,531	0.09	0.66	22	157	72	272	0.21	0.13	1	7	1	21	<1.00	0.01	138	987	479	1,717	0.09	0.80
May-22 (S13)	66	470	256	705	0.12	0.38	83	591	327	890	0.11	0.48	3	21	3	64	0.58	0.02	152	1,082	626	1,588	0.08	0.87
Jun-22 (S14)	4	29	7	51	0.50	0.02	31	224	123	311	0.18	0.18	0	0	0	0	0	0	35	253	159	355	0.17	0.20
Jul-22 (S15)	4	28	7	50	0.50	0.02	7	50	14	85	0.38	0.04	0	0	0	0	0	0	11	78	36	114	0.30	0.06

Survey	Sitting						Flying						Diving						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)
Aug-22 (S16)	31	220	35	496	0.18	0.18	22	156	85	234	0.21	0.13	0	0	0	0	0	0	53	376	163	667	0.14	0.30
Sep-22 (S17)	16	113	49	184	0.25	0.09	24	169	78	268	0.20	0.14	0	0	0	0	0	0	40	282	162	424	0.16	0.23
Oct-22 (S18)	22	157	22	371	0.21	0.13	10	71	10	150	0.32	0.06	0	0	0	0	0	0	32	228	32	506	0.18	0.18
Nov-22 (S19)	2	14	2	36	0.71	0.01	3	21	3	43	0.58	0.02	0	0	0	0	0	0	5	36	7	71	0.45	0.03
Dec-22 (S20)	2	14	2	43	0.71	0.01	2	14	2	36	0.71	0.01	0	0	0	0	0	0	4	28	4	64	0.50	0.02
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	2	14	2	36	0.71	0.01	2	14	2	36	0.71	0.01	0	0	0	0	0	0	4	29	7	50	0.50	0.02
Feb-23 (S23)	82	604	280	987	0.11	0.49	10	74	29	133	0.32	0.06	0	0	0	0	0	0	92	677	361	1,053	0.10	0.55
Mar-23 (S24)	18	129	21	286	0.24	0.10	13	93	21	172	0.28	0.08	0	0	0	0	0	0	31	222	57	429	0.18	0.18
Apr-23 (S25)	13	93	36	158	0.28	0.08	11	79	21	143	0.30	0.06	1	7	1	21	<1.00	0.01	25	179	86	301	0.20	0.14
May-23 (S26)	2	14	2	43	0.71	0.01	13	93	50	143	0.28	0.08	0	0	0	0	0	0	15	114	57	178	0.25	0.09
Jun-23 (S27)	48	340	226	446	0.14	0.27	40	283	156	417	0.16	0.23	3	21	3	64	0.58	0.02	91	644	446	821	0.10	0.52
Jul-23 (S28)	5	35	5	78	0.45	0.03	12	85	14	206	0.29	0.07	0	0	0	0	0	0	17	121	28	277	0.24	0.10
Aug-23 (S29)	10	72	10	143	0.32	0.06	31	222	86	379	0.18	0.18	0	0	0	0	0	0	41	301	143	472	0.15	0.24
Sep-23 (S30)	50	358	157	615	0.14	0.29	44	315	215	415	0.15	0.25	0	0	0	0	0	0	94	672	400	980	0.10	0.54

Site

Survey	Sitting						Flying						Diving						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)
Apr-21 (S01)	6	41	6	96	0.41	0.05	16	110	55	172	0.25	0.15	0	0	0	0	0	0	22	151	62	241	0.21	0.20
May-21 (S02)	18	124	28	213	0.24	0.16	24	165	83	255	0.20	0.22	0	0	0	0	0	0	42	289	158	441	0.15	0.38
Jun-21 (S03)	4	28	4	84	0.50	0.04	25	174	77	306	0.20	0.23	0	0	0	0	0	0	29	202	70	341	0.19	0.27
Jul-21 (S04)	57	393	228	580	0.13	0.52	14	97	28	173	0.27	0.13	0	0	0	0	0	0	71	490	311	676	0.12	0.65

Survey	Sitting						Flying						Diving						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Aug-21 (S05)	24	166	111	228	0.20	0.22	21	145	48	256	0.22	0.19	0	0	0	0	0	0	45	311	180	443	0.15	0.41
Sep-21 (S06)	2	14	2	34	0.71	0.02	20	137	55	233	0.22	0.18	0	0	0	0	0	0	22	151	62	254	0.21	0.20
Oct-21 (S07)	2	14	2	34	0.71	0.02	13	90	14	186	0.28	0.12	0	0	0	0	0	0	15	103	28	221	0.26	0.14
Nov-21 (S08)	6	42	7	91	0.41	0.06	5	35	14	56	0.45	0.05	0	0	0	0	0	0	11	77	28	133	0.30	0.10
Jan-22 (S09)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0	3	19	3	45	0.58	0.03	0	0	0	0	0	0	3	19	3	51	0.58	0.03
Mar-22 (S11)	3	21	3	49	0.58	0.03	12	84	28	154	0.29	0.11	0	0	0	0	0	0	15	105	49	168	0.26	0.14
Apr-22 (S12)	96	662	200	1421	0.10	0.88	12	83	34	138	0.29	0.11	1	7	1	21	<1.00	0.01	109	752	269	1,448	0.10	1.00
May-22 (S13)	50	345	159	559	0.14	0.46	63	434	241	669	0.13	0.58	0	0	0	0	0	0	113	779	407	1,221	0.09	1.03
Jun-22 (S14)	3	21	3	42	0.58	0.03	21	147	77	231	0.22	0.20	0	0	0	0	0	0	24	168	84	252	0.20	0.22
Jul-22 (S15)	3	21	3	41	0.58	0.03	4	27	4	69	0.50	0.04	0	0	0	0	0	0	7	48	14	82	0.38	0.06
Aug-22 (S16)	29	199	29	459	0.19	0.26	13	89	41	137	0.28	0.12	0	0	0	0	0	0	42	288	103	555	0.15	0.38
Sep-22 (S17)	15	102	48	163	0.26	0.14	17	116	54	197	0.24	0.15	0	0	0	0	0	0	32	218	109	347	0.18	0.29
Oct-22 (S18)	21	145	21	303	0.22	0.19	10	69	10	145	0.32	0.09	0	0	0	0	0	0	31	214	31	448	0.18	0.28
Nov-22 (S19)	2	14	2	27	0.71	0.02	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	3	21	3	55	0.58	0.03
Dec-22 (S20)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	1	7	1	21	<1.00	0.01
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	2	14	2	34	0.71	0.02
Feb-23 (S23)	27	192	43	356	0.19	0.25	8	57	14	114	0.35	0.08	0	0	0	0	0	0	35	249	93	441	0.17	0.33
Mar-23 (S24)	12	83	12	214	0.29	0.11	7	48	7	104	0.38	0.06	0	0	0	0	0	0	19	131	19	331	0.23	0.17
Apr-23 (S25)	6	42	6	90	0.41	0.06	4	28	4	63	0.50	0.04	0	0	0	0	0	0	10	69	14	139	0.32	0.09
May-23 (S26)	0	0	0	0	0	0	11	76	35	117	0.30	0.10	0	0	0	0	0	0	11	83	41	124	0.29	0.11
Jun-23 (S27)	36	246	136	348	0.17	0.33	19	130	82	177	0.23	0.17	3	20	3	61	0.58	0.03	58	396	266	532	0.13	0.53
Jul-23 (S28)	5	34	7	82	0.45	0.05	11	75	11	185	0.30	0.10	0	0	0	0	0	0	16	110	21	260	0.25	0.15
Aug-23 (S29)	8	55	8	138	0.35	0.07	26	180	62	312	0.20	0.24	0	0	0	0	0	0	34	242	111	402	0.17	0.32
Sep-23 (S30)	33	229	90	402	0.17	0.30	30	208	145	270	0.18	0.28	0	0	0	0	0	0	63	436	270	616	0.13	0.58

4 km Buffer only

Survey	Sitting						Flying						Diving						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	9	67	22	120	0.33	0.14	15	112	15	232	0.26	0.23	0	0	0	0	0	0	24	180	60	315	0.20	0.37
May-21 (S02)	6	45	15	83	0.41	0.09	10	75	15	135	0.32	0.15	0	0	0	0	0	0	16	120	45	225	0.25	0.25
Jun-21 (S03)	7	53	7	160	0.38	0.11	10	76	10	191	0.32	0.16	0	0	0	0	0	0	17	130	17	343	0.24	0.27
Jul-21 (S04)	18	136	45	257	0.24	0.28	11	83	15	189	0.30	0.17	0	0	0	0	0	0	29	219	68	423	0.19	0.45
Aug-21 (S05)	4	30	4	60	0.50	0.06	8	60	30	98	0.35	0.12	0	0	0	0	0	0	12	91	45	144	0.29	0.19
Sep-21 (S06)	8	60	8	180	0.35	0.12	4	30	4	75	0.50	0.06	0	0	0	0	0	0	12	90	12	210	0.29	0.19
Oct-21 (S07)	0	0	0	0	0	0	2	15	2	38	0.71	0.03	0	0	0	0	0	0	2	15	2	38	0.71	0.03
Nov-21 (S08)	19	146	19	361	0.23	0.30	6	46	8	85	0.41	0.09	0	0	0	0	0	0	25	192	46	376	0.20	0.40
Jan-22 (S09)	1	7	1	22	<1.00	0.01	1	7	1	22	<1.00	0.01	0	0	0	0	0	0	2	15	2	37	0.71	0.03
Mar-22 (S10)	1	7	1	21	<1.00	0.01	2	14	2	35	0.71	0.03	0	0	0	0	0	0	3	21	3	42	0.58	0.04
Mar-22 (S11)	2	15	2	46	0.71	0.03	6	46	8	100	0.41	0.09	0	0	0	0	0	0	8	62	8	123	0.35	0.13
Apr-22 (S12)	19	144	19	364	0.23	0.30	10	76	10	205	0.32	0.16	0	0	0	0	0	0	29	220	29	478	0.19	0.45
May-22 (S13)	16	120	16	285	0.25	0.25	20	150	22	375	0.22	0.31	3	22	3	67	0.58	0.05	39	292	45	689	0.16	0.60
Jun-22 (S14)	1	8	1	23	<1.00	0.02	10	77	10	169	0.32	0.16	0	0	0	0	0	0	11	84	15	176	0.30	0.17
Jul-22 (S15)	1	8	1	23	<1.00	0.02	3	23	3	45	0.58	0.05	0	0	0	0	0	0	4	30	4	68	0.50	0.06
Aug-22 (S16)	2	15	2	38	0.71	0.03	9	68	30	113	0.33	0.14	0	0	0	0	0	0	11	83	45	128	0.30	0.17
Sep-22 (S17)	1	8	1	23	<1.00	0.02	7	53	7	150	0.38	0.11	0	0	0	0	0	0	8	60	8	158	0.35	0.12
Oct-22 (S18)	1	8	1	23	<1.00	0.02	0	0	0	0	0	0	0	0	0	0	0	0	1	8	1	23	<1.00	0.02
Nov-22 (S19)	0	0	0	0	0	0	2	15	2	38	0.71	0.03	0	0	0	0	0	0	2	15	2	38	0.71	0.03
Dec-22 (S20)	2	15	2	45	0.71	0.03	1	8	1	23	<1.00	0.02	0	0	0	0	0	0	3	23	3	53	0.58	0.05
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	1	8	1	23	<1.00	0.02	1	8	1	23	<1.00	0.02	0	0	0	0	0	0	2	15	2	38	0.71	0.03
Feb-23 (S23)	55	428	55	864	0.13	0.88	2	16	2	39	0.71	0.03	0	0	0	0	0	0	57	444	57	895	0.13	0.91
Mar-23 (S24)	6	45	6	106	0.41	0.09	6	45	6	114	0.41	0.09	0	0	0	0	0	0	12	91	12	204	0.29	0.19
Apr-23 (S25)	7	53	15	105	0.38	0.11	7	53	7	121	0.38	0.11	1	8	1	23	<1.00	0.02	15	113	30	234	0.26	0.23

Survey	Sitting						Flying						Diving						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
May-23 (S26)	2	15	2	45	0.71	0.03	2	15	2	38	0.71	0.03	0	0	0	0	0	0	4	30	4	75	0.50	0.06
Jun-23 (S27)	12	90	38	165	0.29	0.19	21	158	21	360	0.22	0.33	0	0	0	0	0	0	33	248	53	510	0.17	0.51
Jul-23 (S28)	0	0	0	0	0	0	1	8	1	23	<1.00	0.02	0	0	0	0	0	0	1	8	1	23	<1.00	0.02
Aug-23 (S29)	2	15	2	45	0.71	0.03	5	38	15	60	0.45	0.08	0	0	0	0	0	0	7	53	23	83	0.38	0.11
Sep-23 (S30)	17	128	38	226	0.24	0.26	14	105	38	196	0.27	0.22	0	0	0	0	0	0	31	233	90	399	0.18	0.48

10.2 Marine Megafauna

10.2.1 Grey Seal

Survey Area

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	3	21	3	43	0.58	0.02	2	14	2	36	0.71	0.01	5	36	14	57	0.45	0.03
May-21 (S02)	0	0	0	0	0	0	8	57	28	85	0.35	0.05	8	57	28	85	0.35	0.05
Jun-21 (S03)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-21 (S04)	8	57	14	114	0.35	0.05	8	57	21	107	0.35	0.05	16	114	50	193	0.25	0.09
Aug-21 (S05)	3	21	3	43	0.58	0.02	2	14	2	43	0.71	0.01	5	36	5	79	0.45	0.03
Sep-21 (S06)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01
Oct-21 (S07)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0	2	15	2	36	0.71	0.01	2	15	2	36	0.71	0.01
Jan-22 (S09)	1	7	1	21	<1.00	0.01	2	14	2	35	0.71	0.01	3	21	3	42	0.58	0.02
Mar-22 (S10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S11)	6	44	15	73	0.41	0.04	1	7	1	22	<1.00	0.01	7	51	22	80	0.38	0.04
Apr-22 (S12)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01
May-22 (S13)	3	21	3	43	0.58	0.02	3	21	3	43	0.58	0.02	6	43	21	64	0.41	0.03
Jun-22 (S14)	0	0	0	0	0	0	5	36	5	87	0.45	0.03	5	36	5	94	0.45	0.03
Jul-22 (S15)	6	43	7	85	0.41	0.03	12	85	50	128	0.29	0.07	18	128	71	192	0.24	0.10
Aug-22 (S16)	0	0	0	0	0	0	4	28	4	71	0.50	0.02	4	28	4	71	0.50	0.02
Sep-22 (S17)	3	21	3	49	0.58	0.02	2	14	2	35	0.71	0.01	5	35	7	64	0.45	0.03
Oct-22 (S18)	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	1	7	1	21	<1.00	0.01
Nov-22 (S19)	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	1	7	1	21	<1.00	0.01
Dec-22 (S20)	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	1	7	1	21	<1.00	0.01

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)
Dec-22 (S21)	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	1	7	1	21	<1.00	0.01
Jan-23 (S22)	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01	2	14	2	36	0.71	0.01
Feb-23 (S23)	3	22	3	44	0.58	0.02	2	15	2	37	0.71	0.01	5	37	7	74	0.45	0.03
Mar-23 (S24)	0	0	0	0	0	0	3	21	3	57	0.58	0.02	3	21	3	50	0.58	0.02
Apr-23 (S25)	2	14	2	43	0.71	0.01	3	21	3	43	0.58	0.02	5	36	7	64	0.45	0.03
May-23 (S26)	2	14	2	36	0.71	0.01	4	29	4	71	0.50	0.02	6	43	14	78	0.41	0.03
Jun-23 (S27)	6	42	7	85	0.41	0.03	8	57	21	99	0.35	0.05	14	99	42	163	0.27	0.08
Jul-23 (S28)	3	21	3	43	0.58	0.02	8	57	21	99	0.35	0.05	11	78	50	114	0.30	0.06
Aug-23 (S29)	14	100	50	165	0.27	0.08	6	43	7	100	0.41	0.03	20	143	64	250	0.22	0.12
Sep-23 (S30)	3	21	3	50	0.58	0.02	6	43	21	64	0.41	0.03	9	64	21	107	0.33	0.05

Site

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)
Apr-21 (S01)	2	14	2	34	0.71	0.02	1	7	1	21	<1.00	0.01	3	21	7	41	0.58	0.03
May-21 (S02)	0	0	0	0	0	0	3	21	7	41	0.58	0.03	3	21	3	41	0.58	0.03
Jun-21 (S03)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-21 (S04)	7	48	7	104	0.38	0.06	3	21	3	55	0.58	0.03	10	69	28	124	0.32	0.09
Aug-21 (S05)	2	14	2	35	0.71	0.02	2	14	2	42	0.71	0.02	4	28	4	76	0.50	0.04
Sep-21 (S06)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01
Oct-21 (S07)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0	2	14	2	35	0.71	0.02	2	14	2	35	0.71	0.02
Jan-22 (S09)	0	0	0	0	0	0	1	7	1	20	<1.00	0.01	1	7	1	20	<1.00	0.01

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Mar-22 (S10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S11)	5	35	14	56	0.45	0.05	0	0	0	0	0	0	5	35	14	56	0.45	0.05
Apr-22 (S12)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-22 (S13)	2	14	2	34	0.71	0.02	1	7	1	21	<1.00	0.01	3	21	3	41	0.58	0.03
Jun-22 (S14)	0	0	0	0	0	0	3	21	3	63	0.58	0.03	3	21	3	63	0.58	0.03
Jul-22 (S15)	2	14	2	34	0.71	0.02	8	55	21	89	0.35	0.07	10	69	27	110	0.32	0.09
Aug-22 (S16)	0	0	0	0	0	0	4	27	4	69	0.50	0.04	4	27	4	69	0.50	0.04
Sep-22 (S17)	2	14	2	34	0.71	0.02	1	7	1	20	<1.00	0.01	3	20	3	41	0.58	0.03
Oct-22 (S18)	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	1	7	1	21	<1.00	0.01
Nov-22 (S19)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0	2	14	2	36	0.71	0.02	2	14	2	36	0.71	0.02
Mar-23 (S24)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01
Apr-23 (S25)	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01	2	14	2	35	0.71	0.02
May-23 (S26)	0	0	0	0	0	0	2	14	2	41	0.71	0.02	2	14	2	41	0.71	0.02
Jun-23 (S27)	4	27	4	68	0.50	0.04	4	27	7	55	0.50	0.04	8	55	14	109	0.35	0.07
Jul-23 (S28)	2	14	2	34	0.71	0.02	4	27	4	62	0.50	0.04	6	41	14	69	0.41	0.05
Aug-23 (S29)	10	69	35	111	0.32	0.09	4	28	4	76	0.50	0.04	14	97	42	187	0.27	0.13
Sep-23 (S30)	1	7	1	21	<1.00	0.01	4	28	7	48	0.50	0.04	5	35	7	62	0.45	0.05

4 km Buffer only

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	1	7	1	22	<1.00	0.01	1	7	1	22	<1.00	0.01	2	15	2	37	0.71	0.03
May-21 (S02)	0	0	0	0	0	0	5	38	15	60	0.45	0.08	5	38	15	60	0.45	0.08
Jun-21 (S03)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-21 (S04)	1	8	1	23	<1.00	0.02	5	38	5	91	0.45	0.08	6	45	6	113	0.41	0.09
Aug-21 (S05)	1	8	1	23	<1.00	0.02	0	0	0	0	0	0	1	8	1	23	<1.00	0.02
Sep-21 (S06)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-22 (S09)	1	7	1	22	<1.00	0.01	1	7	1	22	<1.00	0.01	2	15	2	37	0.71	0.03
Mar-22 (S10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S11)	1	8	1	23	<1.00	0.02	1	8	1	23	<1.00	0.02	2	15	2	38	0.71	0.03
Apr-22 (S12)	0	0	0	0	0	0	1	8	1	23	<1.00	0.02	1	8	1	23	<1.00	0.02
May-22 (S13)	1	7	1	22	<1.00	0.01	2	15	2	37	0.71	0.03	3	22	3	45	0.58	0.05
Jun-22 (S14)	0	0	0	0	0	0	2	15	2	46	0.71	0.03	2	15	2	46	0.71	0.03
Jul-22 (S15)	4	30	4	83	0.50	0.06	4	30	8	53	0.50	0.06	8	60	15	128	0.35	0.12
Aug-22 (S16)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-22 (S17)	1	8	1	23	<1.00	0.02	1	8	1	23	<1.00	0.02	2	15	2	38	0.71	0.03
Oct-22 (S18)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-22 (S19)	1	8	1	23	<1.00	0.02	0	0	0	0	0	0	1	8	1	23	<1.00	0.02
Dec-22 (S20)	1	8	1	23	<1.00	0.02	0	0	0	0	0	0	1	8	1	23	<1.00	0.02
Dec-22 (S21)	1	8	1	23	<1.00	0.02	0	0	0	0	0	0	1	8	1	23	<1.00	0.02
Jan-23 (S22)	1	8	1	23	<1.00	0.02	1	8	1	23	<1.00	0.02	2	15	2	38	0.71	0.03
Feb-23 (S23)	3	23	8	47	0.58	0.05	0	0	0	0	0	0	3	23	3	47	0.58	0.05
Mar-23 (S24)	0	0	0	0	0	0	2	15	2	45	0.71	0.03	2	15	2	45	0.71	0.03
Apr-23 (S25)	1	8	1	23	<1.00	0.02	2	15	2	38	0.71	0.03	3	23	3	45	0.58	0.05
May-23 (S26)	2	15	2	38	0.71	0.03	2	15	2	45	0.71	0.03	4	30	4	68	0.50	0.06

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)
Jun-23 (S27)	2	15	2	38	0.71	0.03	4	30	4	60	0.50	0.06	6	45	8	90	0.41	0.09
Jul-23 (S28)	1	8	1	23	<1.00	0.02	4	30	4	68	0.50	0.06	5	38	8	75	0.45	0.08
Aug-23 (S29)	4	30	8	68	0.50	0.06	2	15	2	38	0.71	0.03	6	45	6	106	0.41	0.09
Sep-23 (S30)	2	15	2	45	0.71	0.03	2	15	2	38	0.71	0.03	4	30	4	75	0.50	0.06

10.2.2 Common Dolphin

Survey Area

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)
Apr-21 (S01)	0	0	0	0	0	0	20	142	20	369	0.22	0.11	20	142	20	327	0.22	0.11
May-21 (S02)	2	14	2	36	0.71	0.01	21	149	21	335	0.22	0.12	23	164	23	342	0.21	0.13
Jun-21 (S03)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0	4	29	4	64	0.50	0.02	4	29	4	64	0.50	0.02
Aug-21 (S05)	2	14	2	36	0.71	0.01	21	150	21	379	0.22	0.12	23	165	23	451	0.21	0.13
Sep-21 (S06)	2	14	2	43	0.71	0.01	4	28	4	71	0.50	0.02	6	43	6	99	0.41	0.03
Oct-21 (S07)	1	7	1	21	<1.00	0.01	11	79	11	207	0.30	0.06	12	86	12	229	0.29	0.07
Nov-21 (S08)	1	7	1	22	<1.00	0.01	3	22	3	65	0.58	0.02	4	29	4	87	0.50	0.02
Jan-22 (S09)	10	70	10	139	0.32	0.06	84	586	160	1,200	0.11	0.47	94	656	167	1,283	0.10	0.53
Mar-22 (S10)	2	13	2	40	0.71	0.01	4	27	4	80	0.50	0.02	6	40	6	120	0.41	0.03
Mar-22 (S11)	0	0	0	0	0	0	14	102	14	305	0.27	0.08	14	102	14	305	0.27	0.08
Apr-22 (S12)	0	0	0	0	0	0	2	14	2	43	0.71	0.01	2	14	2	43	0.71	0.01
May-22 (S13)	1	7	1	21	<1.00	0.01	7	50	7	149	0.38	0.04	8	57	8	171	0.35	0.05

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Jun-22 (S14)	6	43	6	109	0.41	0.03	21	152	21	413	0.22	0.12	27	195	27	514	0.19	0.16
Jul-22 (S15)	4	28	4	78	0.50	0.02	16	114	16	277	0.25	0.09	20	142	20	356	0.22	0.11
Aug-22 (S16)	1	7	1	21	<1.00	0.01	10	71	10	142	0.32	0.06	11	78	14	149	0.30	0.06
Sep-22 (S17)	0	0	0	0	0	0	6	42	6	127	0.41	0.03	6	42	6	127	0.41	0.03
Oct-22 (S18)	0	0	0	0	0	0	8	57	8	135	0.35	0.05	8	57	8	143	0.35	0.05
Nov-22 (S19)	5	36	5	100	0.45	0.03	73	520	150	982	0.12	0.42	78	555	150	1,111	0.11	0.45
Dec-22 (S20)	2	14	2	43	0.71	0.01	10	71	14	157	0.32	0.06	12	85	12	199	0.29	0.07
Dec-22 (S21)	3	21	3	50	0.58	0.02	2	14	2	43	0.71	0.01	5	36	5	78	0.45	0.03
Jan-23 (S22)	1	7	1	21	<1.00	0.01	63	450	100	949	0.13	0.36	64	457	107	978	0.13	0.37
Feb-23 (S23)	23	169	23	449	0.21	0.14	242	1,782	810	2,908	0.06	1.44	265	1,951	847	3,446	0.06	1.57
Mar-23 (S24)	5	36	5	71	0.45	0.03	55	393	86	744	0.13	0.32	60	429	64	794	0.13	0.35
Apr-23 (S25)	0	0	0	0	0	0	4	29	4	86	0.50	0.02	4	29	4	86	0.50	0.02
May-23 (S26)	5	36	7	71	0.45	0.03	54	385	107	770	0.14	0.31	59	421	107	813	0.13	0.34
Jun-23 (S27)	18	127	21	269	0.24	0.10	160	1,132	509	1,804	0.08	0.91	178	1,259	538	2,023	0.07	1.02
Jul-23 (S28)	20	142	78	213	0.22	0.11	120	852	334	1,463	0.09	0.69	140	994	476	1,654	0.08	0.80
Aug-23 (S29)	1	7	1	21	<1.00	0.01	44	315	57	666	0.15	0.25	45	322	57	680	0.15	0.26
Sep-23 (S30)	5	36	5	86	0.45	0.03	106	758	258	1,323	0.45	0.62	111	794	293	1,387	0.09	0.64

Site

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	0	0	0	0	0	0	20	138	20	358	0.22	0.18	20	138	20	323	0.22	0.18
May-21 (S02)	1	7	1	21	<1.00	0.01	10	69	10	186	0.32	0.09	11	76	11	200	0.30	0.10

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Jun-21 (S03)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0	2	14	2	35	0.71	0.02	2	14	2	35	0.71	0.02
Aug-21 (S05)	2	14	2	35	0.71	0.02	21	145	21	367	0.22	0.19	23	159	23	436	0.21	0.21
Sep-21 (S06)	2	14	2	41	0.71	0.02	4	27	4	69	0.50	0.04	6	41	6	110	0.41	0.05
Oct-21 (S07)	1	7	1	21	<1.00	0.01	11	76	11	193	0.30	0.10	12	83	12	193	0.29	0.11
Nov-21 (S08)	1	7	1	21	<1.00	0.01	3	21	3	63	0.58	0.03	4	28	4	84	0.50	0.04
Jan-22 (S09)	5	34	5	81	0.45	0.05	38	255	38	564	0.16	0.34	43	289	43	604	0.15	0.38
Mar-22 (S10)	2	13	2	39	0.71	0.02	4	26	4	77	0.50	0.03	6	39	6	116	0.41	0.05
Mar-22 (S11)	0	0	0	0	0	0	14	98	14	295	0.27	0.13	14	98	14	295	0.27	0.13
Apr-22 (S12)	0	0	0	0	0	0	2	14	2	41	0.71	0.02	2	14	2	41	0.71	0.02
May-22 (S13)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-22 (S14)	2	14	2	28	0.71	0.02	0	0	0	0	0	0	2	14	2	35	0.71	0.02
Jul-22 (S15)	1	7	1	21	<1.00	0.01	5	34	5	82	0.45	0.05	6	41	6	96	0.41	0.05
Aug-22 (S16)	0	0	0	0	0	0	2	14	2	41	0.71	0.02	2	14	2	41	0.71	0.02
Sep-22 (S17)	0	0	0	0	0	0	6	41	6	122	0.41	0.05	6	41	6	122	0.41	0.05
Oct-22 (S18)	0	0	0	0	0	0	3	21	3	62	0.58	0.03	3	21	3	62	0.58	0.03
Nov-22 (S19)	4	27	4	82	0.50	0.04	51	350	51	811	0.14	0.46	55	378	55	921	0.13	0.50
Dec-22 (S20)	0	0	0	0	0	0	6	41	6	96	0.41	0.05	6	41	6	96	0.41	0.05
Dec-22 (S21)	3	21	3	48	0.58	0.03	0	0	0	0	0	0	3	21	3	48	0.58	0.03
Jan-23 (S22)	1	7	1	21	<1.00	0.01	48	331	69	765	0.14	0.44	49	338	62	786	0.14	0.45
Feb-23 (S23)	5	36	7	71	0.45	0.05	125	889	377	1,501	0.09	1.18	130	925	420	1,551	0.09	1.23
Mar-23 (S24)	4	28	4	69	0.50	0.04	29	200	29	497	0.19	0.27	33	228	33	525	0.17	0.30
Apr-23 (S25)	0	0	0	0	0	0	4	28	4	83	0.50	0.04	4	28	4	83	0.50	0.04
May-23 (S26)	4	28	4	55	0.50	0.04	32	221	32	469	0.18	0.29	36	248	36	525	0.17	0.33
Jun-23 (S27)	13	89	14	170	0.28	0.12	121	825	348	1,289	0.09	1.09	134	914	409	1,439	0.09	1.21
Jul-23 (S28)	12	82	27	144	0.29	0.11	91	624	192	1,179	0.10	0.83	103	706	178	1,330	0.10	0.94
Aug-23 (S29)	0	0	0	0	0	0	18	125	18	277	0.24	0.17	18	125	18	277	0.24	0.17
Sep-23 (S30)	5	35	5	83	0.45	0.05	49	339	49	859	0.53	0.45	54	374	54	900	0.14	0.50

4 km Buffer only

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-21 (S02)	1	8	1	23	<1.00	0.02	11	83	11	248	0.30	0.17	12	90	12	270	0.29	0.19
Jun-21 (S03)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0	2	15	2	45	0.71	0.03	2	15	2	45	0.71	0.03
Aug-21 (S05)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-22 (S09)	5	37	5	111	0.45	0.08	46	341	46	928	0.15	0.70	51	379	51	1,002	0.14	0.78
Mar-22 (S10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-22 (S13)	1	7	1	22	<1.00	0.01	7	52	7	157	0.38	0.11	8	60	8	180	0.35	0.12
Jun-22 (S14)	4	31	4	92	0.50	0.06	21	161	21	437	0.22	0.33	25	192	25	483	0.20	0.40
Jul-22 (S15)	3	23	3	68	0.58	0.05	11	83	11	248	0.30	0.17	14	105	14	316	0.27	0.22
Aug-22 (S16)	1	8	1	23	<1.00	0.02	8	60	8	150	0.35	0.12	9	68	9	150	0.33	0.14
Sep-22 (S17)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0	5	38	5	113	0.45	0.08	5	38	5	113	0.45	0.08
Nov-22 (S19)	1	8	1	23	<1.00	0.02	22	166	22	400	0.21	0.34	23	174	23	415	0.21	0.36
Dec-22 (S20)	2	15	2	45	0.71	0.03	4	30	4	90	0.50	0.06	6	45	6	135	0.41	0.09
Dec-22 (S21)	0	0	0	0	0	0	2	15	2	45	0.71	0.03	2	15	2	45	0.71	0.03
Jan-23 (S22)	0	0	0	0	0	0	15	113	15	340	0.26	0.23	15	113	15	340	0.26	0.23
Feb-23 (S23)	18	140	18	420	0.24	0.29	117	910	117	2186	0.09	1.87	135	1050	135	2,529	0.09	2.16
Mar-23 (S24)	1	8	1	23	<1.00	0.02	26	197	26	545	0.20	0.41	27	204	27	568	0.19	0.42

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-23 (S25)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-23 (S26)	1	8	1	23	<1.00	0.02	22	165	22	451	0.21	0.34	23	173	23	459	0.21	0.36
Jun-23 (S27)	5	38	5	83	0.45	0.08	39	293	39	570	0.16	0.60	44	330	53	653	0.15	0.68
Jul-23 (S28)	8	60	8	143	0.35	0.12	29	218	29	549	0.19	0.45	37	278	37	699	0.16	0.57
Aug-23 (S29)	1	8	1	23	<1.00	0.02	26	197	26	522	0.20	0.41	27	204	27	506	0.19	0.42
Sep-23 (S30)	0	0	0	0	0	0	57	430	57	956	1.13	0.89	57	429	75	948	0.13	0.88

10.2.3 Bottlenose Dolphin

Survey Area

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0	3	21	3	64	0.58	0.02	3	21	3	64	0.58	0.02
Nov-21 (S08)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-22 (S12)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-22 (S16)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-23 (S27)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-23 (S28)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Site

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)
Apr-21 (S01)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0	3	21	3	62	0.58	0.03	3	21	3	62	0.58	0.03
Nov-21 (S08)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-22 (S16)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Jun-23 (S27)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-23 (S28)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4 km Buffer only

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)
Aug-22 (S16)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-23 (S27)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-23 (S28)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

10.2.4 Risso's Dolphin

Survey Area

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)
Apr-21 (S01)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Jun-21 (S03)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-22 (S16)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0	2	14	2	43	0.71	0.01	2	14	2	43	0.71	0.01
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-23 (S27)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-23 (S28)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Site

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-22 (S16)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)
May-23 (S26)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-23 (S27)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-23 (S28)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4 km Buffer only

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)
Apr-21 (S01)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Jul-22 (S15)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-22 (S16)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0	2	15	2	45	0.71	0.03	2	15	2	45	0.71	0.03
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-23 (S27)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-23 (S28)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

10.2.5 Harbour Porpoise

Survey Area

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	3	21	3	57	0.58	0.02	3	21	3	50	0.58	0.02	6	43	6	107	0.41	0.03
May-21 (S02)	0	0	0	0	0	0	5	36	5	78	0.45	0.03	5	36	7	85	0.45	0.03
Jun-21 (S03)	2	14	2	43	0.71	0.01	6	43	6	115	0.41	0.03	8	58	8	144	0.35	0.05
Jul-21 (S04)	4	29	7	50	0.50	0.02	19	136	29	250	0.23	0.11	23	164	64	293	0.21	0.13
Aug-21 (S05)	3	21	3	50	0.58	0.02	7	50	14	86	0.38	0.04	10	72	21	122	0.32	0.06
Sep-21 (S06)	0	0	0	0	0	0	2	14	2	36	0.71	0.01	2	14	2	36	0.71	0.01
Oct-21 (S07)	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01	2	14	2	36	0.71	0.01
Nov-21 (S08)	1	7	1	22	<1.00	0.01	4	29	4	65	0.50	0.02	5	36	5	73	0.45	0.03
Jan-22 (S09)	4	28	4	63	0.50	0.02	2	14	2	35	0.71	0.01	6	42	14	70	0.41	0.03
Mar-22 (S10)	2	13	2	33	0.71	0.01	3	20	3	47	0.58	0.02	5	33	5	80	0.45	0.03
Mar-22 (S11)	15	109	58	167	0.26	0.09	27	196	80	313	0.19	0.16	42	305	160	458	0.15	0.25
Apr-22 (S12)	2	14	2	36	0.71	0.01	6	43	14	72	0.41	0.03	8	57	21	93	0.35	0.05
May-22 (S13)	3	21	3	43	0.58	0.02	9	64	9	135	0.33	0.05	12	85	21	164	0.29	0.07
Jun-22 (S14)	3	22	3	43	0.58	0.02	3	22	3	58	0.58	0.02	6	43	7	80	0.41	0.03
Jul-22 (S15)	4	28	7	50	0.50	0.02	16	114	50	192	0.25	0.09	20	142	64	235	0.22	0.11
Aug-22 (S16)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0	1	7	1	28	<1.00	0.01	1	7	1	21	<1.00	0.01
Oct-22 (S18)	2	14	2	36	0.71	0.01	2	14	2	43	0.71	0.01	4	29	7	57	0.50	0.02
Nov-22 (S19)	3	21	3	50	0.58	0.02	9	64	9	150	0.33	0.05	12	85	12	206	0.29	0.07
Dec-22 (S20)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S21)	1	7	1	21	<1.00	0.01	0	0	0	0	0	0	1	7	1	21	<1.00	0.01
Jan-23 (S22)	1	7	1	21	<1.00	0.01	4	29	4	71	0.50	0.02	5	36	5	86	0.45	0.03
Feb-23 (S23)	2	15	2	37	0.71	0.01	19	140	74	214	0.23	0.11	21	155	81	236	0.22	0.13
Mar-23 (S24)	2	14	2	43	0.71	0.01	0	0	0	0	0	0	2	14	2	43	0.71	0.01

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-23 (S25)	4	29	7	50	0.50	0.02	9	64	9	172	0.33	0.05	13	93	36	186	0.28	0.08
May-23 (S26)	1	7	1	21	<1.00	0.01	7	50	7	100	0.38	0.04	8	57	21	107	0.35	0.05
Jun-23 (S27)	2	14	2	28	0.71	0.01	8	57	28	92	0.35	0.05	10	71	35	106	0.32	0.06
Jul-23 (S28)	2	14	2	35	0.71	0.01	3	21	3	57	0.58	0.02	5	35	7	64	0.45	0.03
Aug-23 (S29)	2	14	2	36	0.71	0.01	10	72	21	136	0.32	0.06	12	86	29	157	0.29	0.07
Sep-23 (S30)	0	0	0	0	0	0	11	79	14	186	0.30	0.06	11	79	14	179	0.30	0.06

Site

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	1	7	1	21	<1.00	0.01	2	14	2	41	0.71	0.02	3	21	3	62	0.58	0.03
May-21 (S02)	0	0	0	0	0	0	2	14	2	34	0.71	0.02	2	14	2	34	0.71	0.02
Jun-21 (S03)	2	14	2	42	0.71	0.02	6	42	6	98	0.41	0.06	8	56	8	139	0.35	0.07
Jul-21 (S04)	4	28	7	48	0.50	0.04	10	69	10	152	0.32	0.09	14	97	28	186	0.27	0.13
Aug-21 (S05)	3	21	3	48	0.58	0.03	3	21	3	42	0.58	0.03	6	42	6	90	0.41	0.06
Sep-21 (S06)	0	0	0	0	0	0	2	14	2	34	0.71	0.02	2	14	2	34	0.71	0.02
Oct-21 (S07)	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01	2	14	2	34	0.71	0.02
Nov-21 (S08)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01
Jan-22 (S09)	2	13	2	40	0.71	0.02	2	13	2	34	0.71	0.02	4	27	7	54	0.50	0.04
Mar-22 (S10)	2	13	2	32	0.71	0.02	3	19	3	45	0.58	0.03	5	32	6	71	0.45	0.04
Mar-22 (S11)	12	84	42	126	0.29	0.11	22	154	56	260	0.21	0.20	34	239	133	365	0.17	0.32
Apr-22 (S12)	2	14	2	34	0.71	0.02	3	21	3	41	0.58	0.03	5	34	7	62	0.45	0.05
May-22 (S13)	0	0	0	0	0	0	7	48	7	124	0.38	0.06	7	48	7	117	0.38	0.06

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Jun-22 (S14)	2	14	2	35	0.71	0.02	3	21	3	49	0.58	0.03	5	35	5	70	0.45	0.05
Jul-22 (S15)	2	14	2	34	0.71	0.02	9	62	27	103	0.33	0.08	11	75	34	117	0.30	0.10
Aug-22 (S16)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-22 (S18)	2	14	2	34	0.71	0.02	1	7	1	21	<1.00	0.01	3	21	7	41	0.58	0.03
Nov-22 (S19)	1	7	1	21	<1.00	0.01	3	21	3	55	0.58	0.03	4	27	4	69	0.50	0.04
Dec-22 (S20)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	1	7	1	21	<1.00	0.01	4	28	4	69	0.50	0.04	5	34	5	76	0.45	0.05
Feb-23 (S23)	1	7	1	21	<1.00	0.01	15	107	43	178	0.26	0.14	16	114	50	185	0.25	0.15
Mar-23 (S24)	2	14	2	41	0.71	0.02	0	0	0	0	0	0	2	14	2	41	0.71	0.02
Apr-23 (S25)	2	14	2	35	0.71	0.02	7	49	7	132	0.38	0.07	9	63	14	146	0.33	0.08
May-23 (S26)	1	7	1	21	<1.00	0.01	3	21	3	62	0.58	0.03	4	28	4	69	0.50	0.04
Jun-23 (S27)	0	0	0	0	0	0	5	34	5	68	0.45	0.05	5	34	7	68	0.45	0.05
Jul-23 (S28)	1	7	1	21	<1.00	0.01	3	21	3	48	0.58	0.03	4	27	4	62	0.50	0.04
Aug-23 (S29)	2	14	2	35	0.71	0.02	5	35	5	76	0.45	0.05	7	48	14	97	0.38	0.06
Sep-23 (S30)	0	0	0	0	0	0	9	62	9	166	0.33	0.08	9	62	9	159	0.33	0.08

4 km Buffer only

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)
Apr-21 (S01)	2	15	2	45	0.71	0.03	1	7	1	22	<1.00	0.01	3	22	3	67	0.58	0.05
May-21 (S02)	0	0	0	0	0	0	3	23	3	60	0.58	0.05	3	23	3	53	0.58	0.05
Jun-21 (S03)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0	9	68	9	174	0.33	0.14	9	68	9	181	0.33	0.14
Aug-21 (S05)	0	0	0	0	0	0	4	30	4	76	0.50	0.06	4	30	4	76	0.50	0.06
Sep-21 (S06)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-21 (S08)	1	8	1	23	<1.00	0.02	3	23	3	61	0.58	0.05	4	31	4	77	0.50	0.06
Jan-22 (S09)	2	15	2	37	0.71	0.03	0	0	0	0	0	0	2	15	2	37	0.71	0.03
Mar-22 (S10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S11)	3	23	3	69	0.58	0.05	5	38	5	108	0.45	0.08	8	62	8	154	0.35	0.13
Apr-22 (S12)	0	0	0	0	0	0	3	23	3	46	0.58	0.05	3	23	8	46	0.58	0.05
May-22 (S13)	3	22	7	45	0.58	0.05	2	15	2	45	0.71	0.03	5	37	5	82	0.45	0.08
Jun-22 (S14)	1	8	1	23	<1.00	0.02	0	0	0	0	0	0	1	8	1	23	<1.00	0.02
Jul-22 (S15)	2	15	2	38	0.71	0.03	7	53	7	120	0.38	0.11	9	68	9	136	0.33	0.14
Aug-22 (S16)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0	1	8	1	23	<1.00	0.02	1	8	1	23	<1.00	0.02
Oct-22 (S18)	0	0	0	0	0	0	1	8	1	23	<1.00	0.02	1	8	1	23	<1.00	0.02
Nov-22 (S19)	2	15	2	38	0.71	0.03	6	45	6	113	0.41	0.09	8	60	8	151	0.35	0.12
Dec-22 (S20)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S21)	1	8	1	23	<1.00	0.02	0	0	0	0	0	0	1	8	1	23	<1.00	0.02
Jan-23 (S22)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-23 (S23)	1	8	1	23	<1.00	0.02	4	31	8	54	0.50	0.06	5	39	16	62	0.45	0.08
Mar-23 (S24)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-23 (S25)	2	15	2	38	0.71	0.03	2	15	2	45	0.71	0.03	4	30	8	68	0.50	0.06
May-23 (S26)	0	0	0	0	0	0	4	30	4	68	0.50	0.06	4	30	4	60	0.50	0.06

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Jun-23 (S27)	2	15	2	38	0.71	0.03	3	23	3	45	0.58	0.05	5	38	8	75	0.45	0.08
Jul-23 (S28)	1	8	1	23	<1.00	0.02	0	0	0	0	0	0	1	8	1	23	<1.00	0.02
Aug-23 (S29)	0	0	0	0	0	0	5	38	5	98	0.45	0.08	5	38	5	98	0.45	0.08
Sep-23 (S30)	0	0	0	0	0	0	2	15	2	38	0.71	0.03	2	15	2	38	0.71	0.03

10.2.6 Minke Whale

Survey Area

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01
Jun-21 (S03)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0	4	29	4	64	0.50	0.02	4	29	4	57	0.50	0.02
Aug-21 (S05)	1	7	1	21	<1.00	0.01	5	36	7	72	0.45	0.03	6	43	14	79	0.41	0.03
Sep-21 (S06)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0	2	15	2	36	0.71	0.01	2	15	2	36	0.71	0.01
Apr-22 (S12)	1	7	1	21	<1.00	0.01	3	21	7	43	0.58	0.02	4	29	7	50	0.50	0.02
May-22 (S13)	0	0	0	0	0	0	2	14	2	43	0.71	0.01	2	14	2	43	0.71	0.01

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Jun-22 (S14)	0	0	0	0	0	0	2	14	2	43	0.71	0.01	2	14	2	43	0.71	0.01
Jul-22 (S15)	0	0	0	0	0	0	4	28	7	50	0.50	0.02	4	28	7	50	0.50	0.02
Aug-22 (S16)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01
Sep-22 (S17)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01
Dec-22 (S20)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-23 (S25)	2	14	2	36	0.71	0.01	0	0	0	0	0	0	2	14	2	36	0.71	0.01
May-23 (S26)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-23 (S27)	1	7	1	21	<1.00	0.01	4	28	4	64	0.50	0.02	5	35	7	71	0.45	0.03
Jul-23 (S28)	1	7	1	21	<1.00	0.01	7	50	21	78	0.38	0.04	8	57	28	92	0.35	0.05
Aug-23 (S29)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01
Sep-23 (S30)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01

Site

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Jun-21 (S03)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01
Aug-21 (S05)	1	7	1	21	<1.00	0.01	5	35	7	62	0.45	0.05	6	42	14	69	0.41	0.06
Sep-21 (S06)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0	2	14	2	35	0.71	0.02	2	14	2	35	0.71	0.02
Apr-22 (S12)	0	0	0	0	0	0	3	21	3	41	0.58	0.03	3	21	3	41	0.58	0.03
May-22 (S13)	0	0	0	0	0	0	2	14	2	41	0.71	0.02	2	14	2	41	0.71	0.02
Jun-22 (S14)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0	4	27	7	48	0.50	0.04	4	27	7	48	0.50	0.04
Aug-22 (S16)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01
Sep-22 (S17)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01
Dec-22 (S20)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Apr-23 (S25)	2	14	2	35	0.71	0.02	0	0	0	0	0	0	2	14	2	35	0.71	0.02
May-23 (S26)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-23 (S27)	1	7	1	20	<1.00	0.01	4	27	4	55	0.50	0.04	5	34	14	61	0.45	0.05
Jul-23 (S28)	0	0	0	0	0	0	5	34	7	69	0.45	0.05	5	34	7	62	0.45	0.05
Aug-23 (S29)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01

4 km Buffer only

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)
Apr-21 (S01)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0	3	23	3	53	0.58	0.05	3	23	3	53	0.58	0.05
Aug-21 (S05)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-22 (S12)	1	8	1	23	<1.00	0.02	0	0	0	0	0	0	1	8	1	23	<1.00	0.02
May-22 (S13)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0	2	15	2	46	0.71	0.03	2	15	2	46	0.71	0.03
Jul-22 (S15)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-22 (S16)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-23 (S26)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Jun-23 (S27)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-23 (S28)	1	8	1	23	<1.00	0.02	2	15	2	38	0.71	0.03	3	23	3	60	0.58	0.05
Aug-23 (S29)	0	0	0	0	0	0	1	8	1	23	<1.00	0.02	1	8	1	23	<1.00	0.02
Sep-23 (S30)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

10.2.7 Basking Shark

Survey Area

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	0	0	0	0	0	0	2	14	2	43	0.71	0.01	2	14	2	43	0.71	0.01
May-21 (S02)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0	1	7	1	22	<1.00	0.01	1	7	1	22	<1.00	0.01
Jan-22 (S09)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01
May-22 (S13)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Jun-22 (S14)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-22 (S16)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0	4	29	4	57	0.50	0.02	4	29	4	64	0.50	0.02
May-23 (S26)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-23 (S27)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-23 (S28)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Site

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Apr-21 (S01)	0	0	0	0	0	0	2	14	2	41	0.71	0.02	2	14	2	41	0.71	0.02
May-21 (S02)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-22 (S09)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0	1	7	1	21	<1.00	0.01	1	7	1	21	<1.00	0.01
May-22 (S13)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-22 (S16)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0	2	14	2	35	0.71	0.02	2	14	2	35	0.71	0.02
May-23 (S26)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)
Jun-23 (S27)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-23 (S28)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4 km Buffer only

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km²)
Apr-21 (S01)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-21 (S02)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-21 (S03)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-21 (S04)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-21 (S05)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-21 (S06)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-21 (S07)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-21 (S08)	0	0	0	0	0	0	1	8	1	23	<1.00	0.02	1	8	1	23	<1.00	0.02
Jan-22 (S09)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-22 (S11)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-22 (S12)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-22 (S13)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-22 (S14)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-22 (S15)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Survey	Surfacing						Submerged						Total					
	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)	Count	Abundance Est.	LCL	UCL	Precision (CV)	Density (km^2)
Aug-22 (S16)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-22 (S17)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct-22 (S18)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-22 (S19)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S20)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-22 (S21)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-23 (S22)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-23 (S23)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-23 (S24)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-23 (S25)	0	0	0	0	0	0	2	15	2	45	0.71	0.03	2	15	2	45	0.71	0.03
May-23 (S26)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-23 (S27)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-23 (S28)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-23 (S29)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep-23 (S30)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

11.Appendix III Distribution Maps

11.1 Birds

11.1.1 Gulls

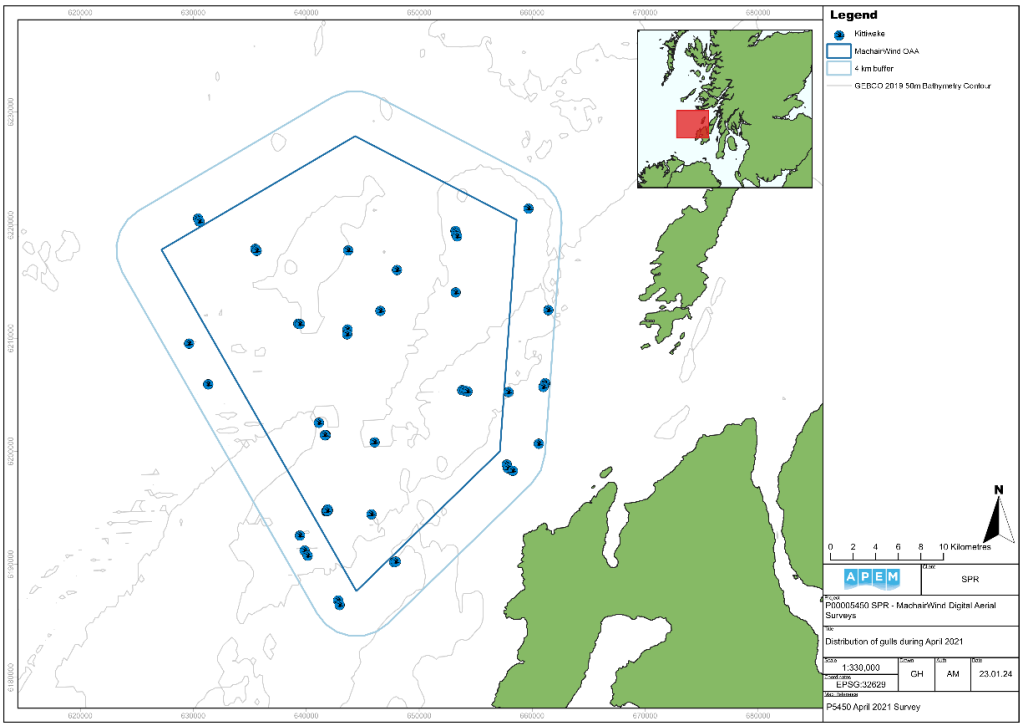


Figure 16 Spatial distribution of gulls recorded in the April 2021 survey

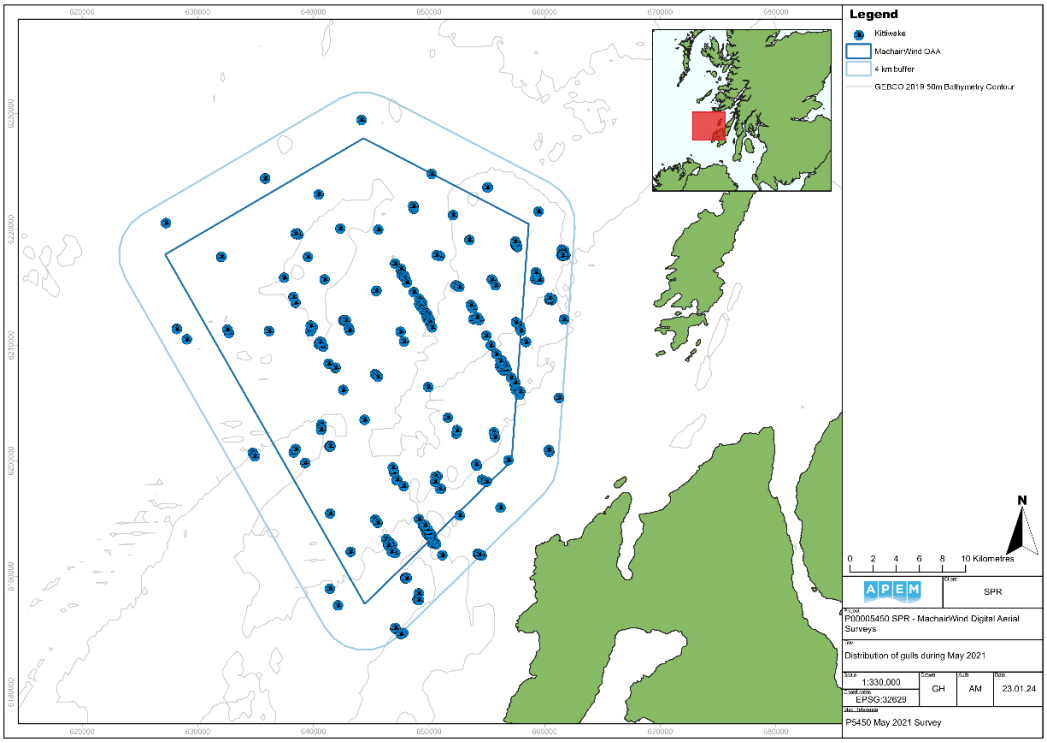


Figure 17 Spatial distribution of gulls recorded in the May 2021 survey

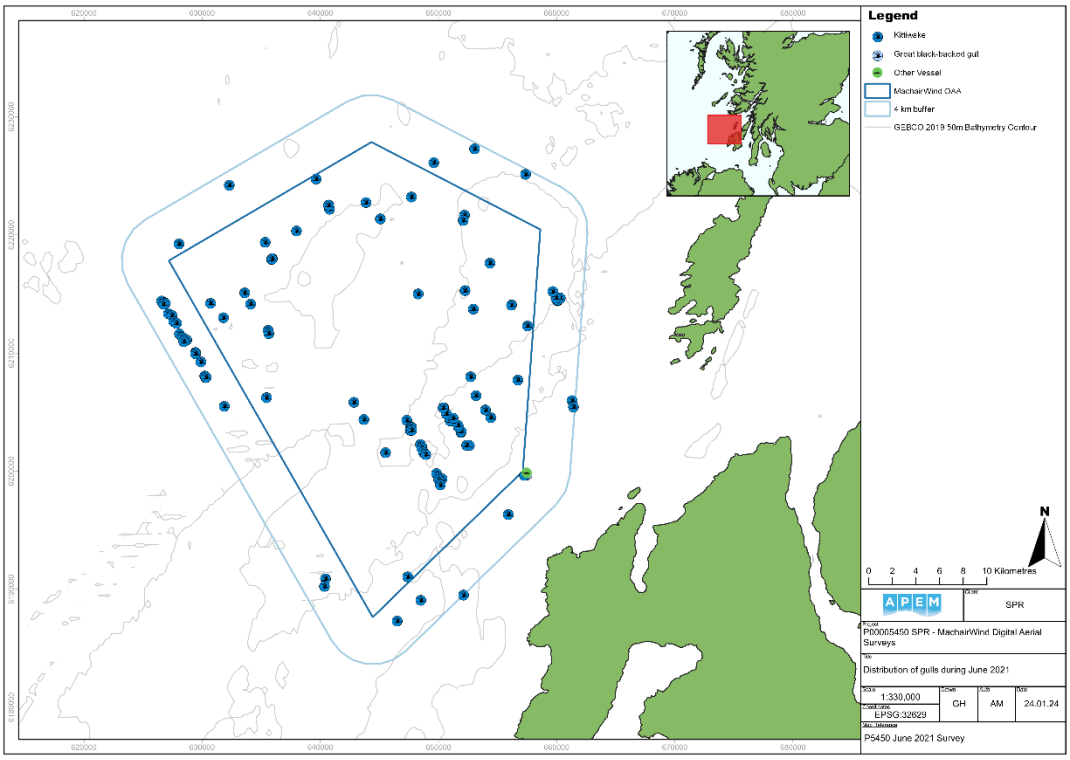


Figure 18 Spatial distribution of gulls recorded in the June 2021 survey

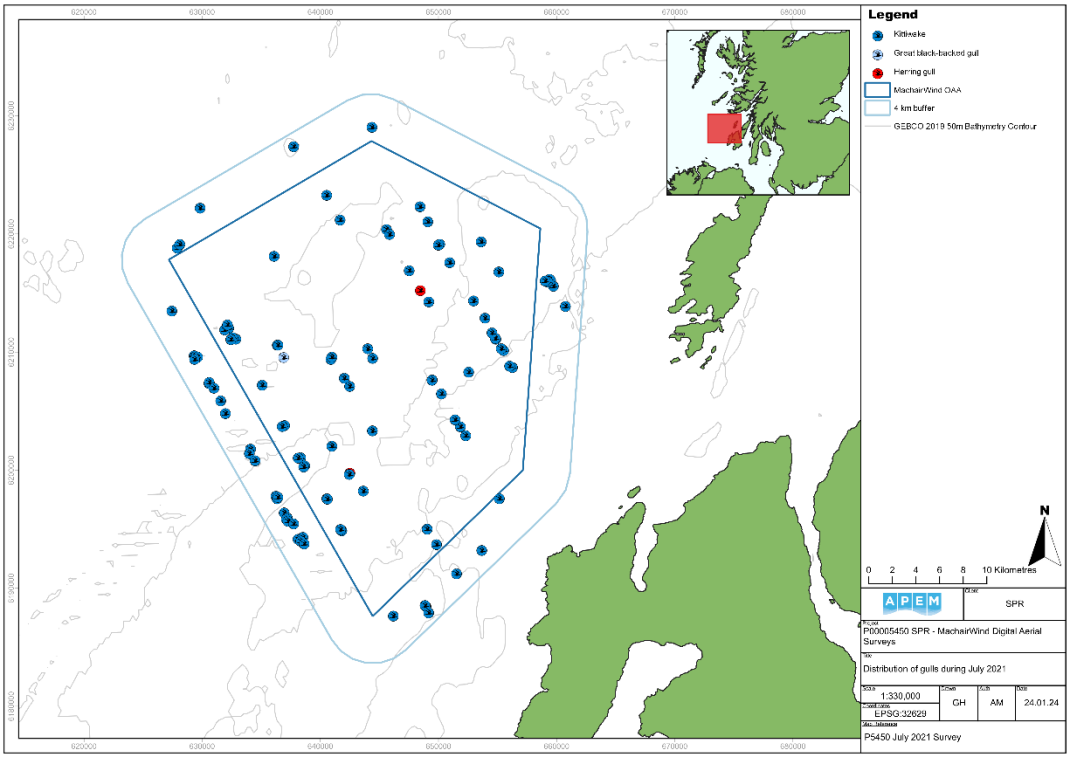


Figure 19 Spatial distribution of gulls recorded in the July 2021 survey

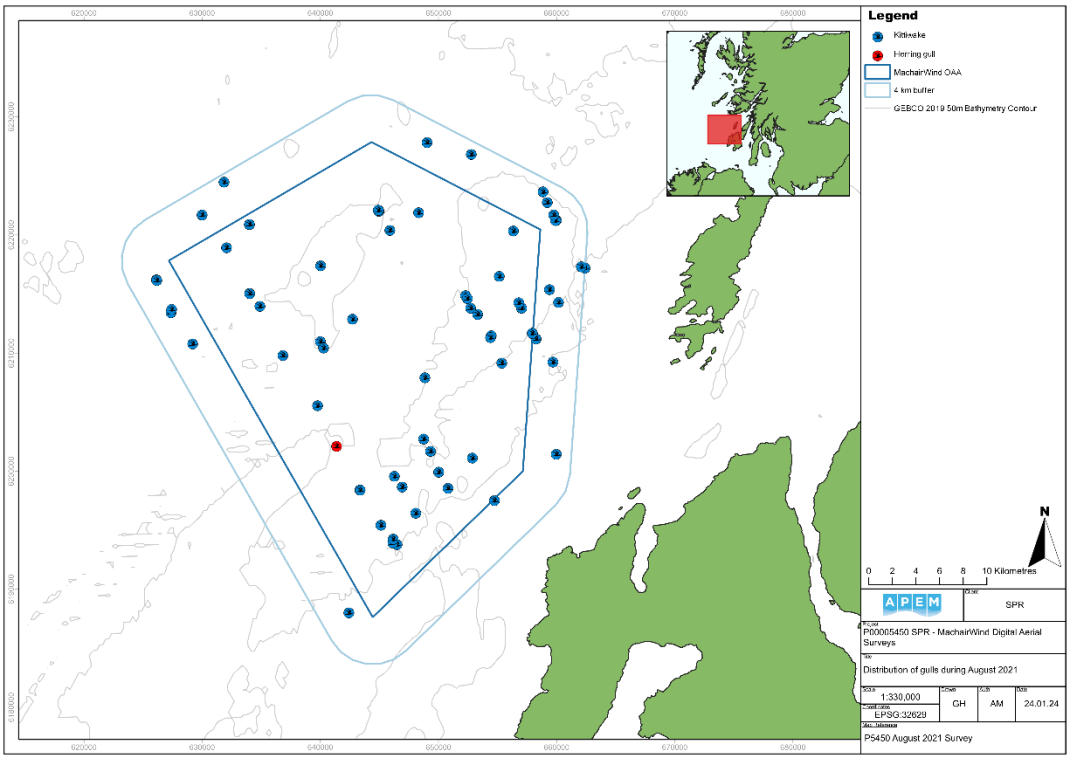


Figure 20 Spatial distribution of gulls recorded in the August 2021 survey

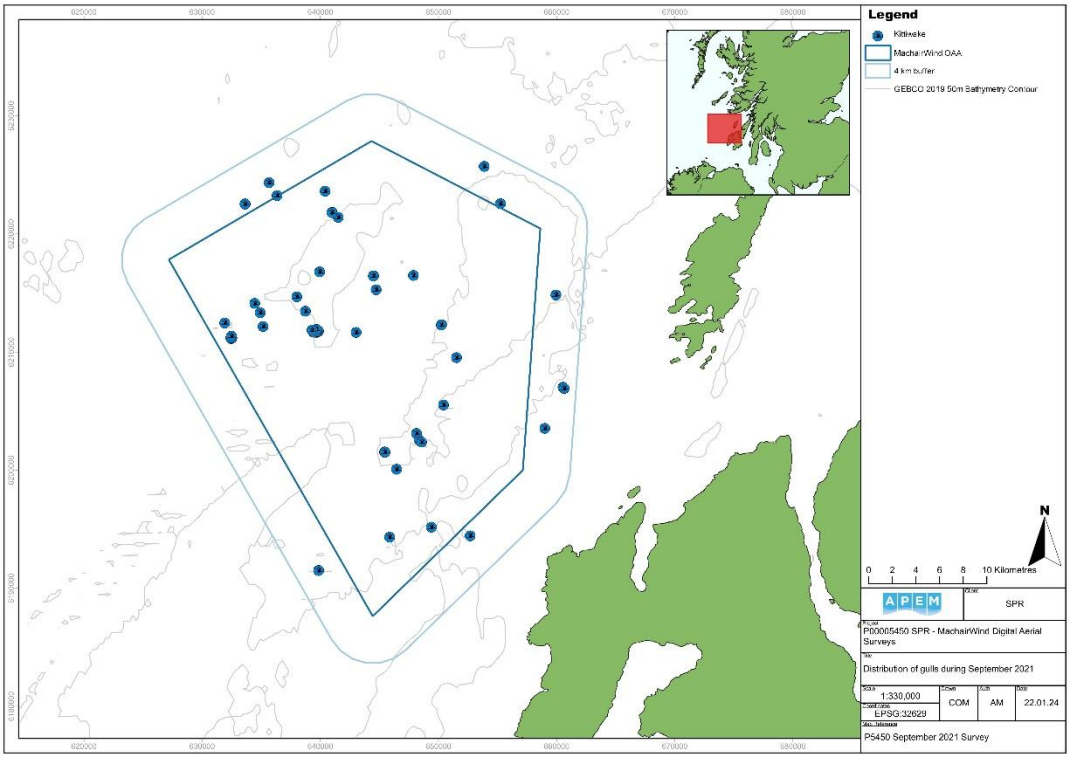


Figure 21 Spatial distribution of gulls recorded in the September 2021 survey

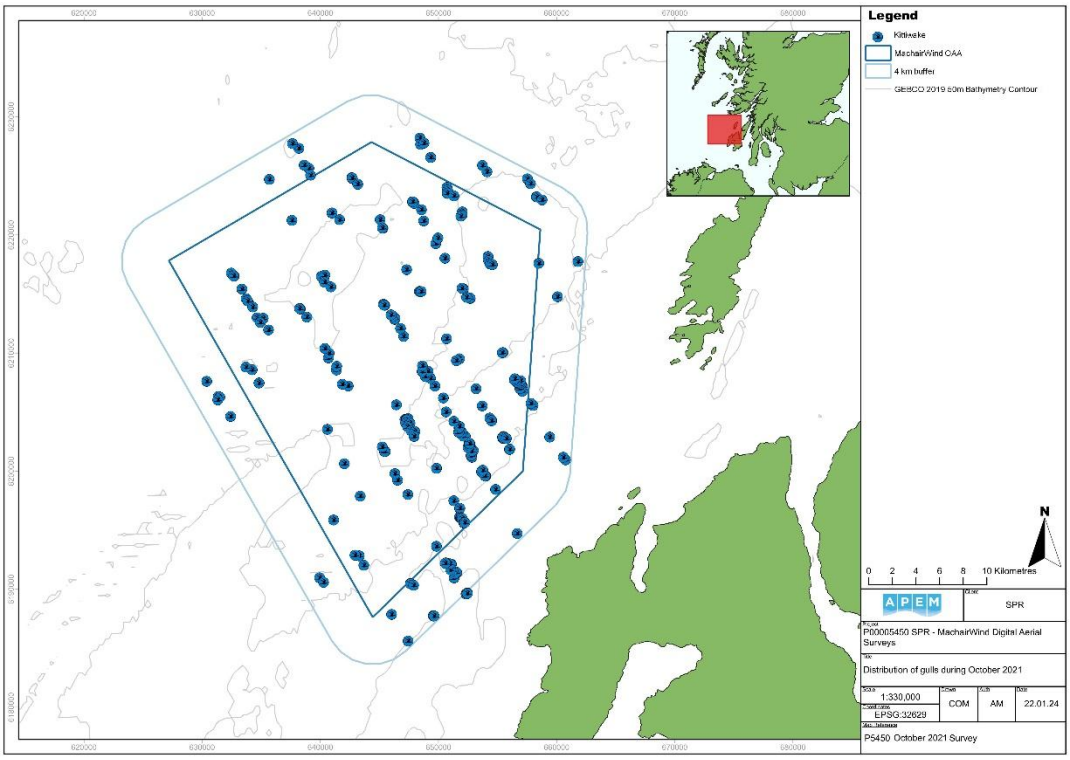


Figure 22 Spatial distribution of gulls recorded in the October 2021 survey

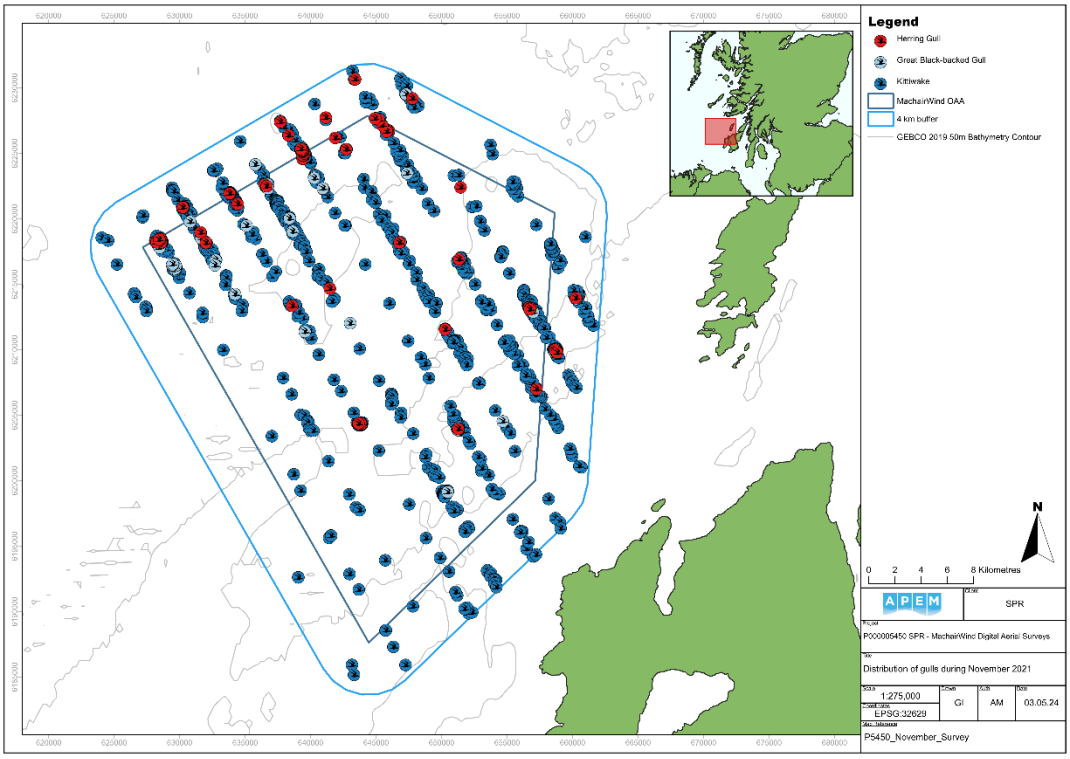


Figure 23 Spatial distribution of gulls recorded in the November 2021 survey

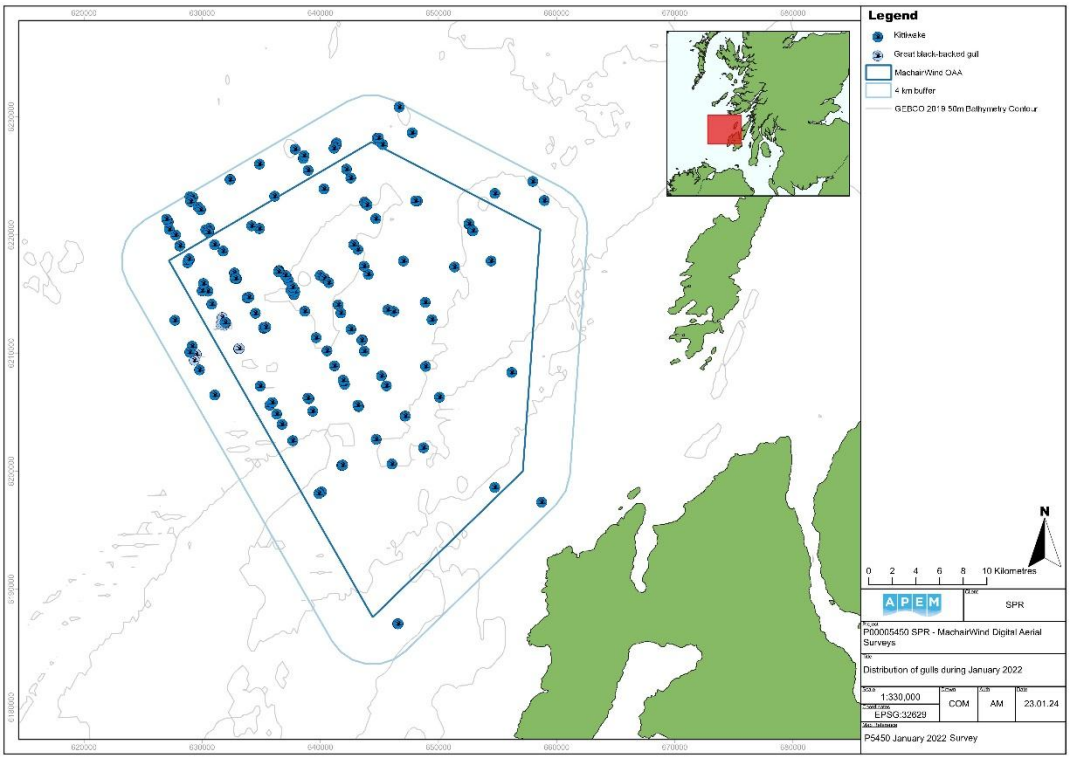


Figure 24 Spatial distribution of gulls recorded in the January 2022 survey

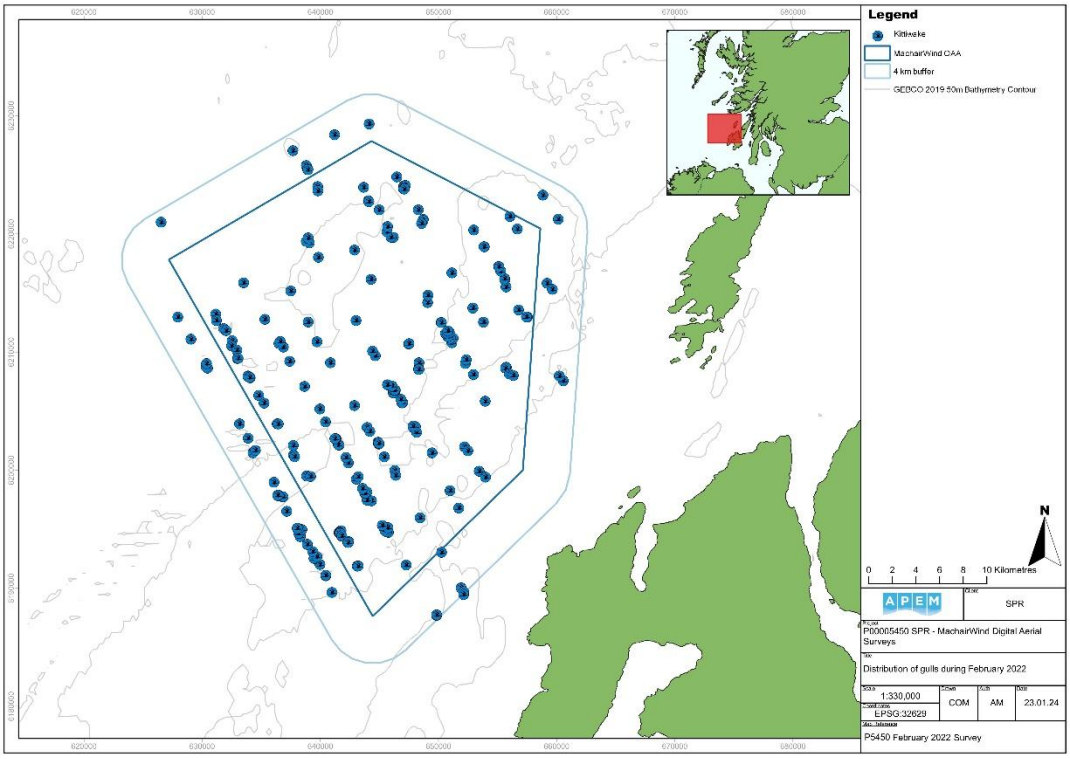


Figure 25 Spatial distribution of gulls recorded in the first March 2022 survey (Survey 10)

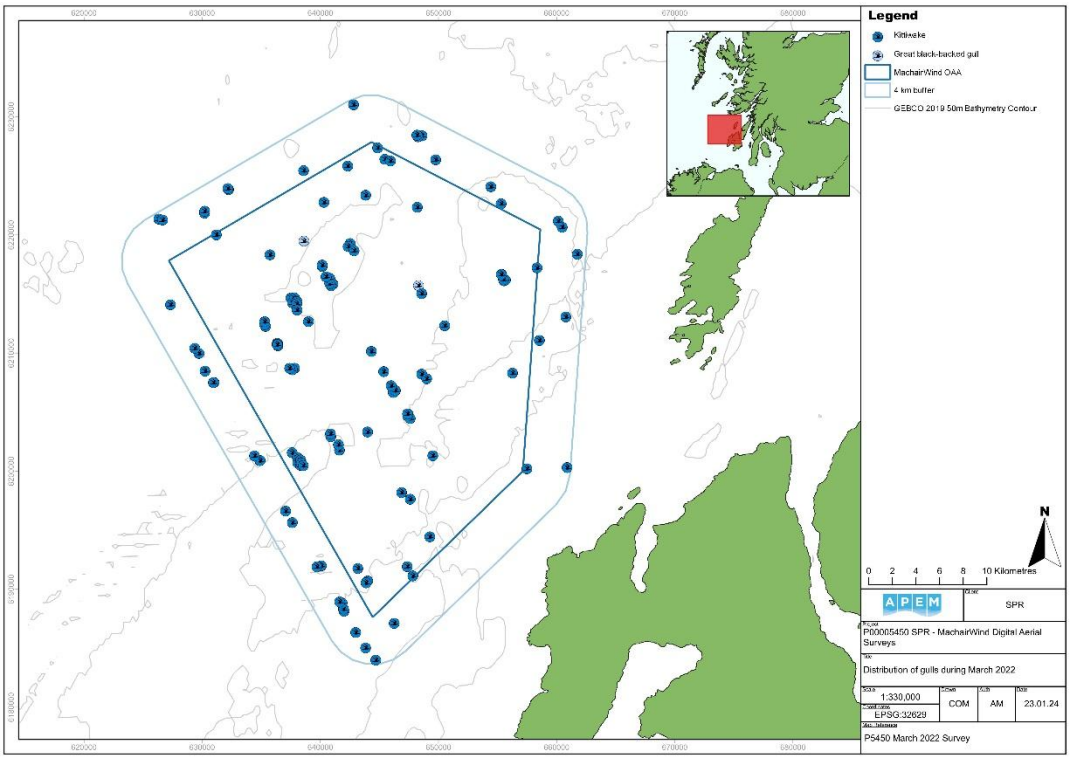


Figure 26 Spatial distribution of gulls recorded in the second March 2022 survey (Survey 11)

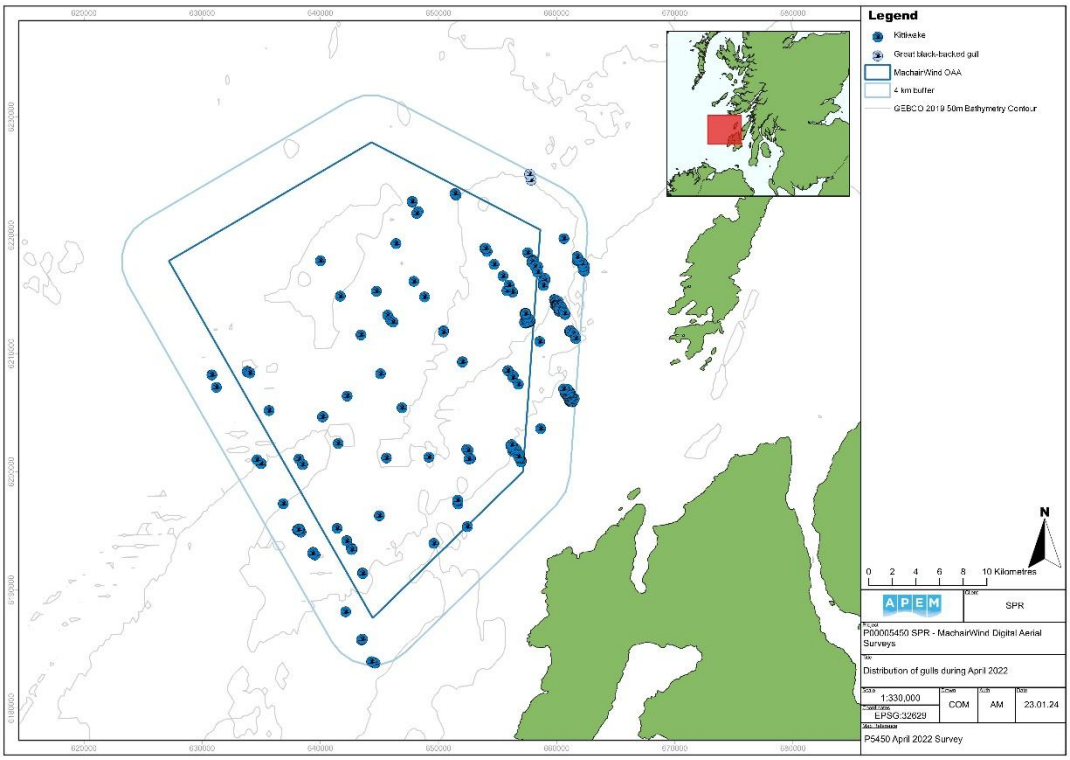


Figure 27 Spatial distribution of gulls recorded in the April 2022 survey

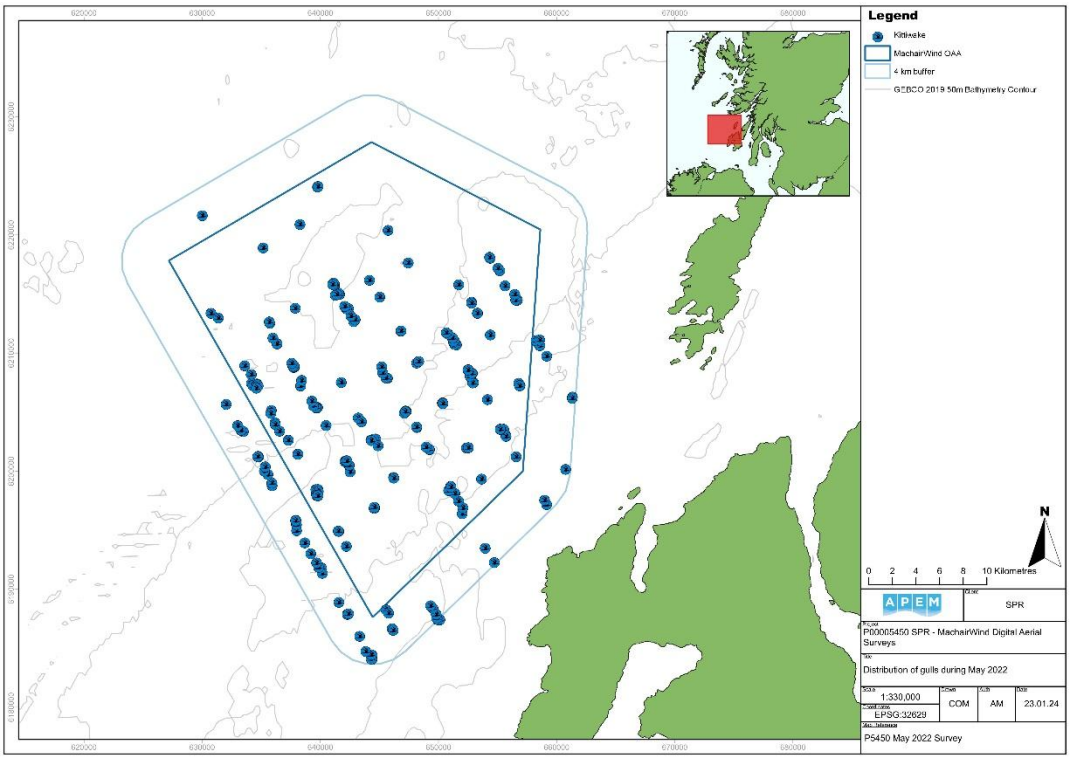


Figure 28 Spatial distribution of gulls recorded in the May 2022 survey

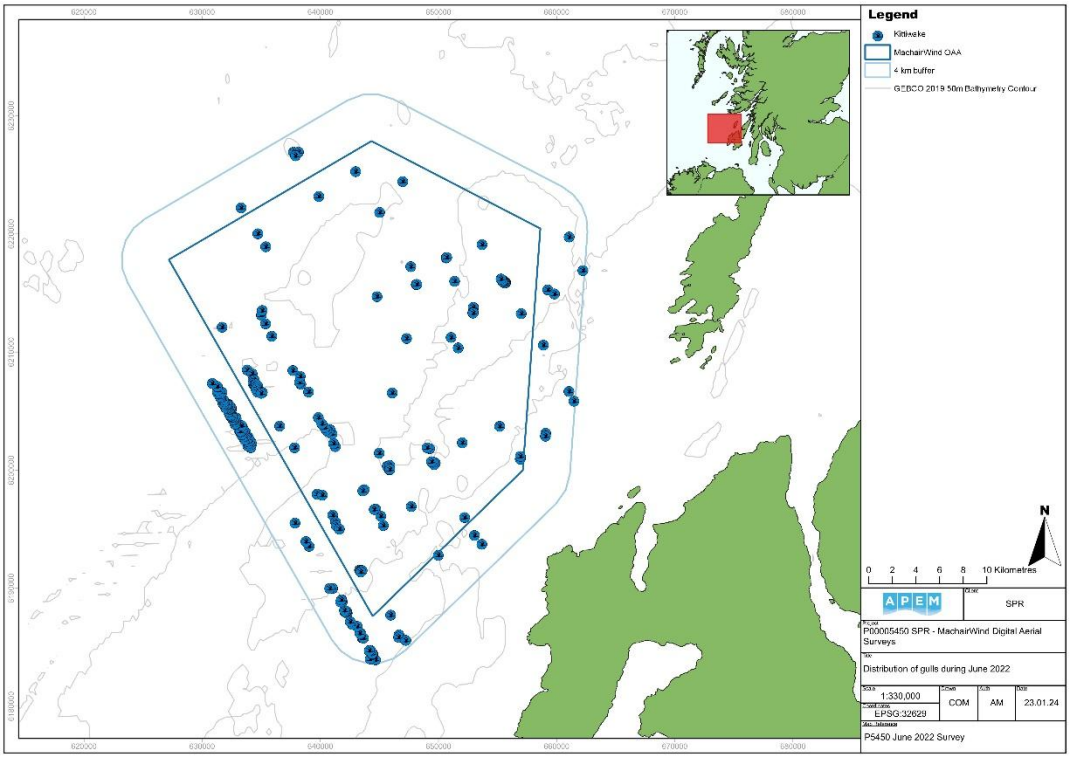


Figure 29 Spatial distribution of gulls recorded in the June 2022 survey

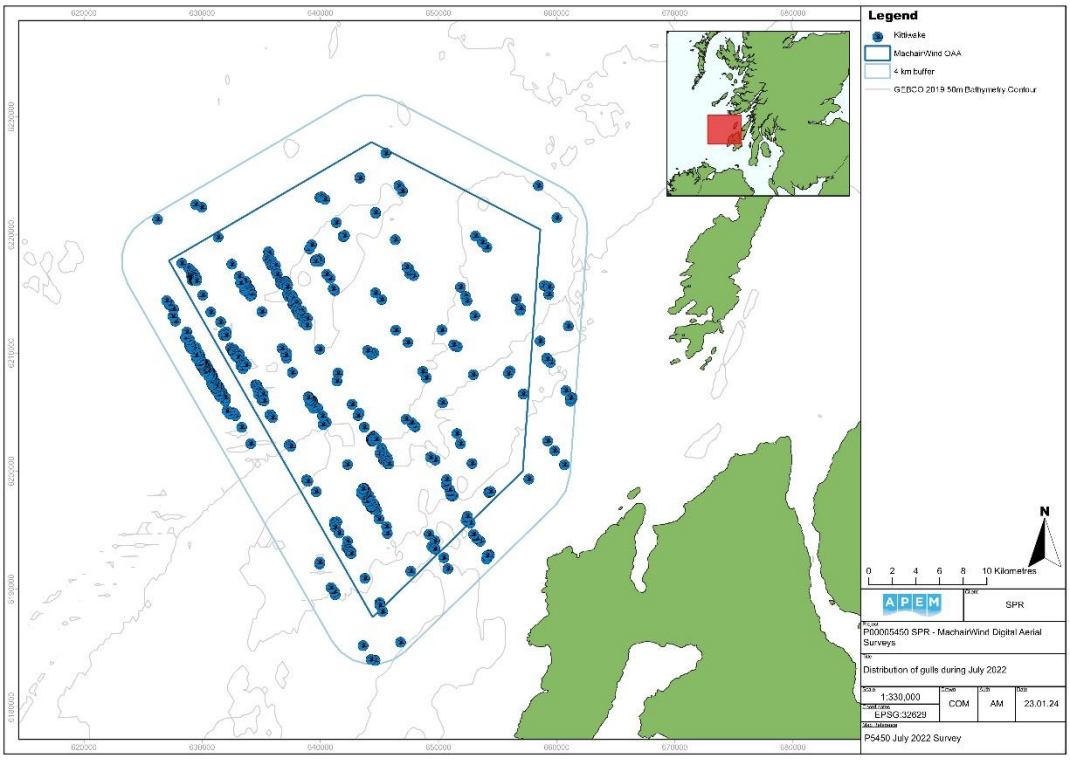


Figure 30 Spatial distribution of gulls recorded in the July 2022 survey

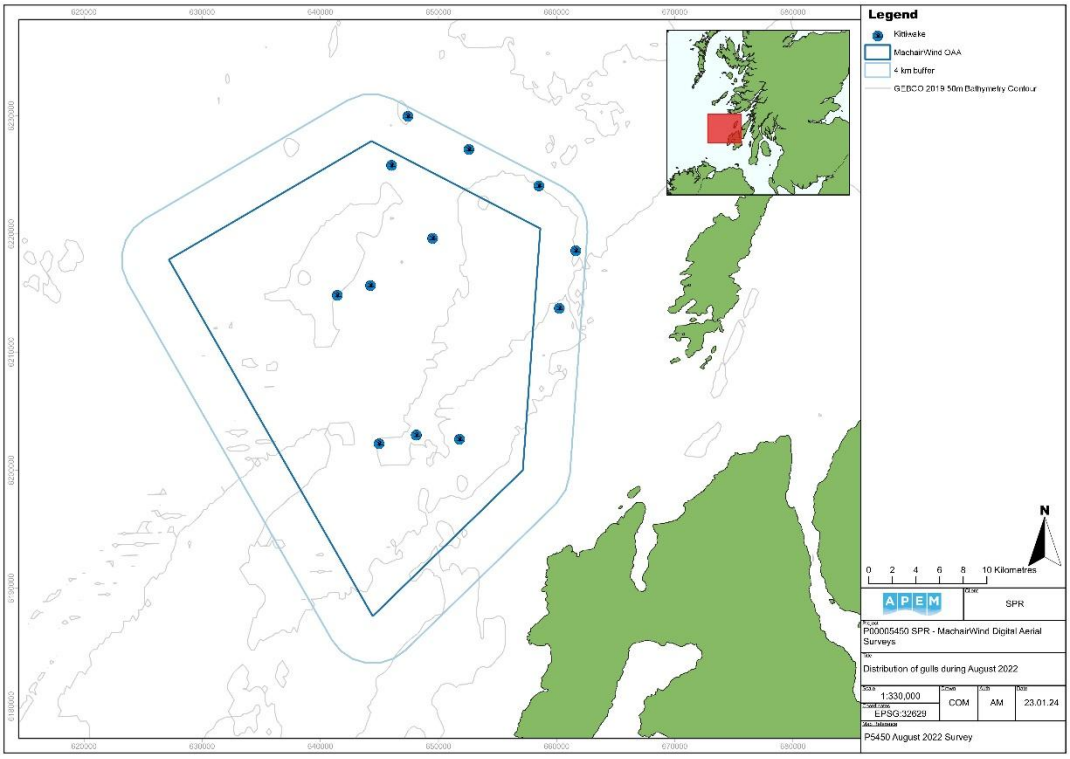


Figure 31 Spatial distribution of gulls recorded in the August 2022 survey

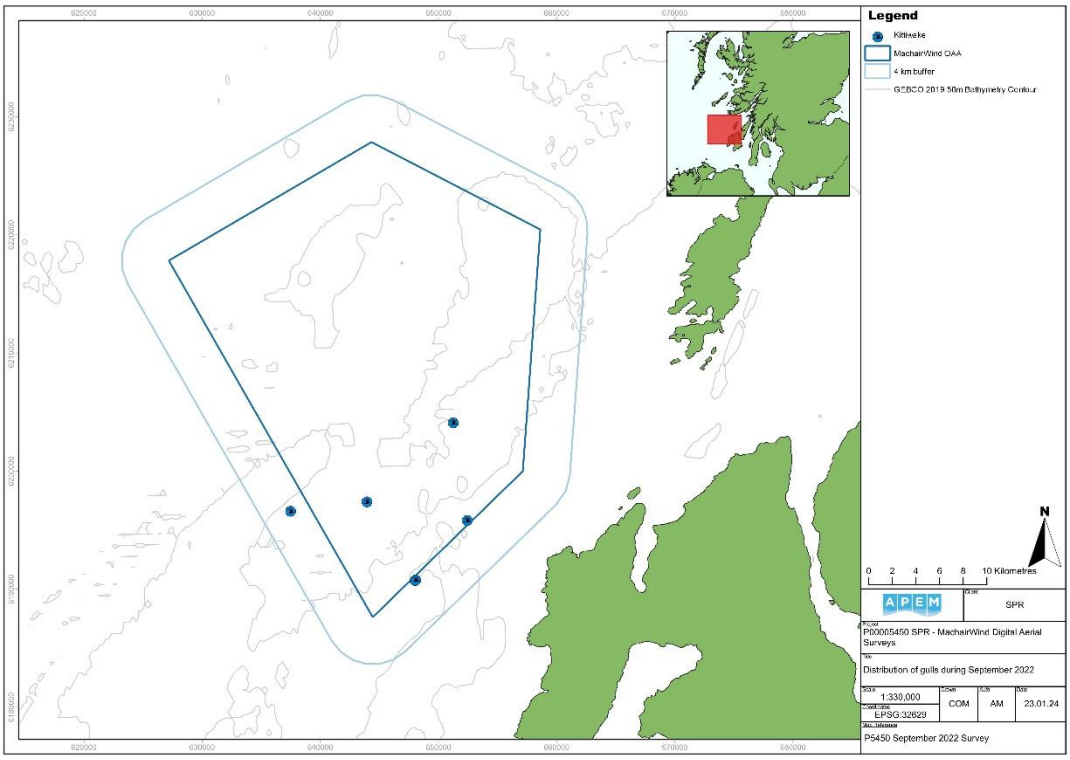


Figure 32 Spatial distribution of gulls recorded in the September 2022 survey

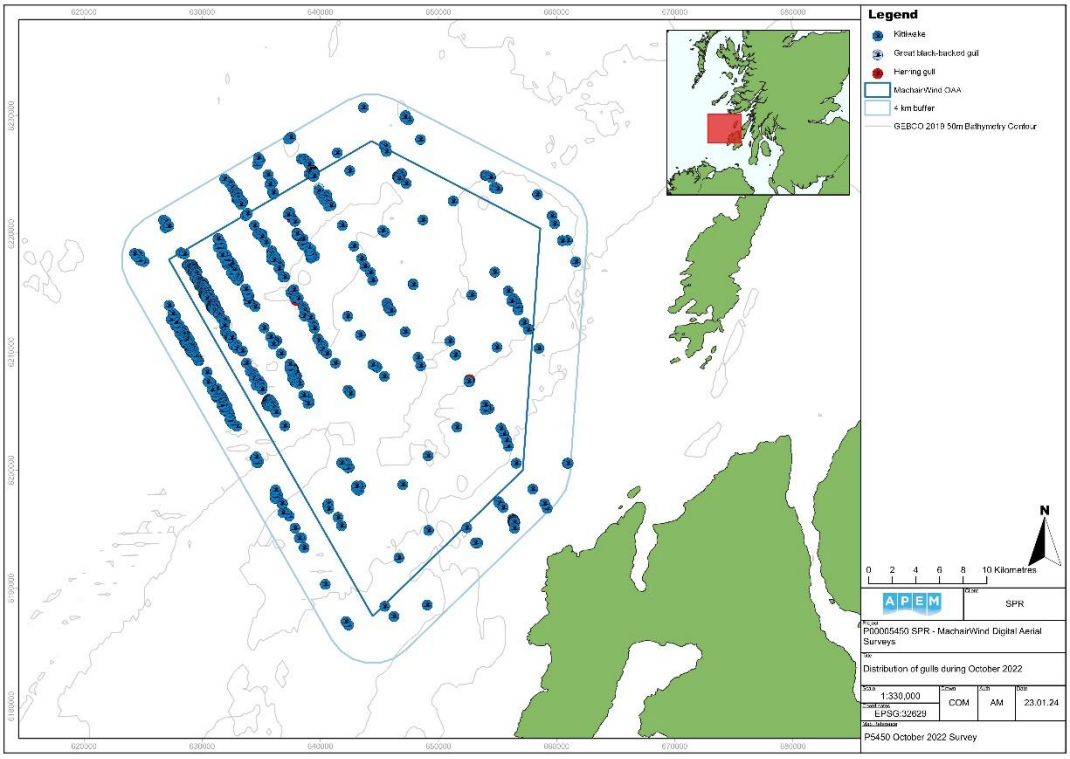


Figure 33 Spatial distribution of gulls recorded in the October 2022 survey

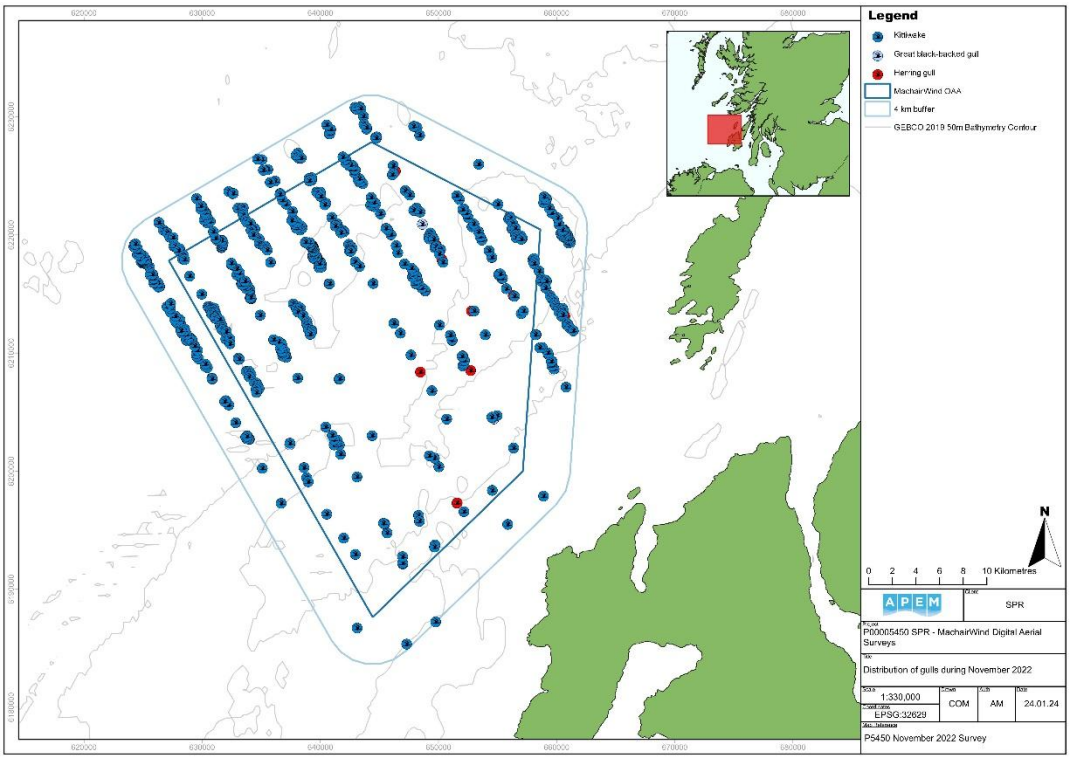


Figure 34 Spatial distribution of gulls recorded in the November 2022 survey

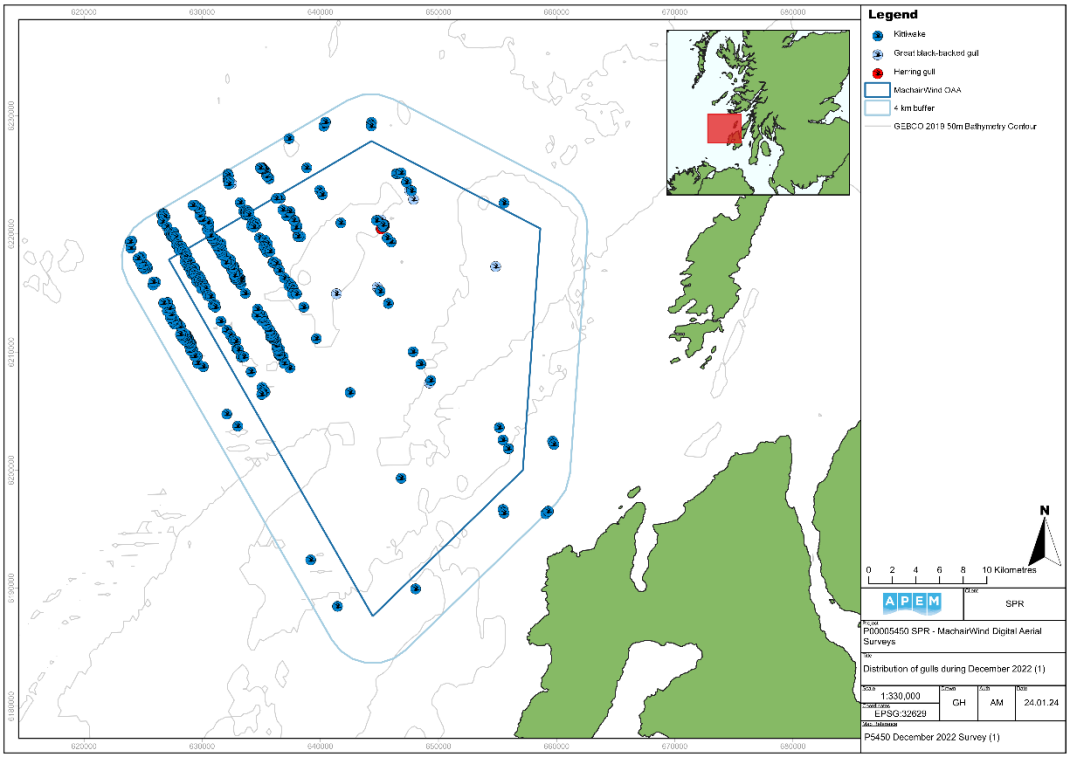


Figure 35 Spatial distribution of gulls recorded in the first December 2022 survey (Survey 20)

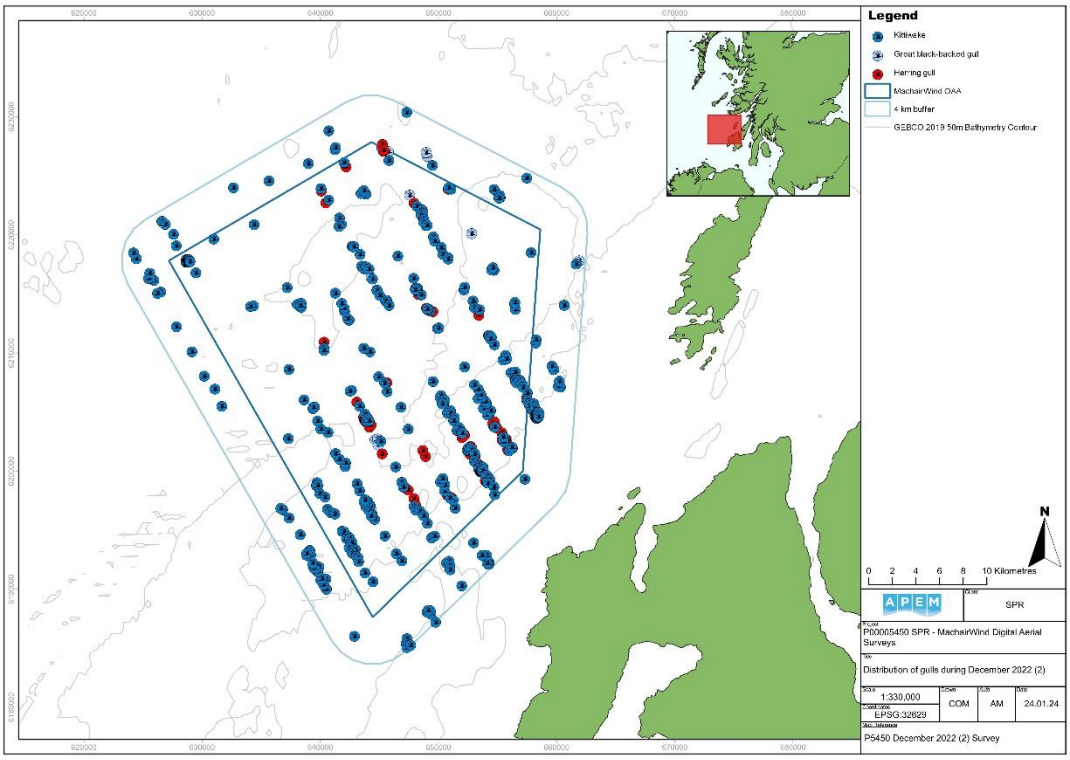


Figure 36 Spatial distribution of gulls recorded in the second December 2022 survey (Survey 21)

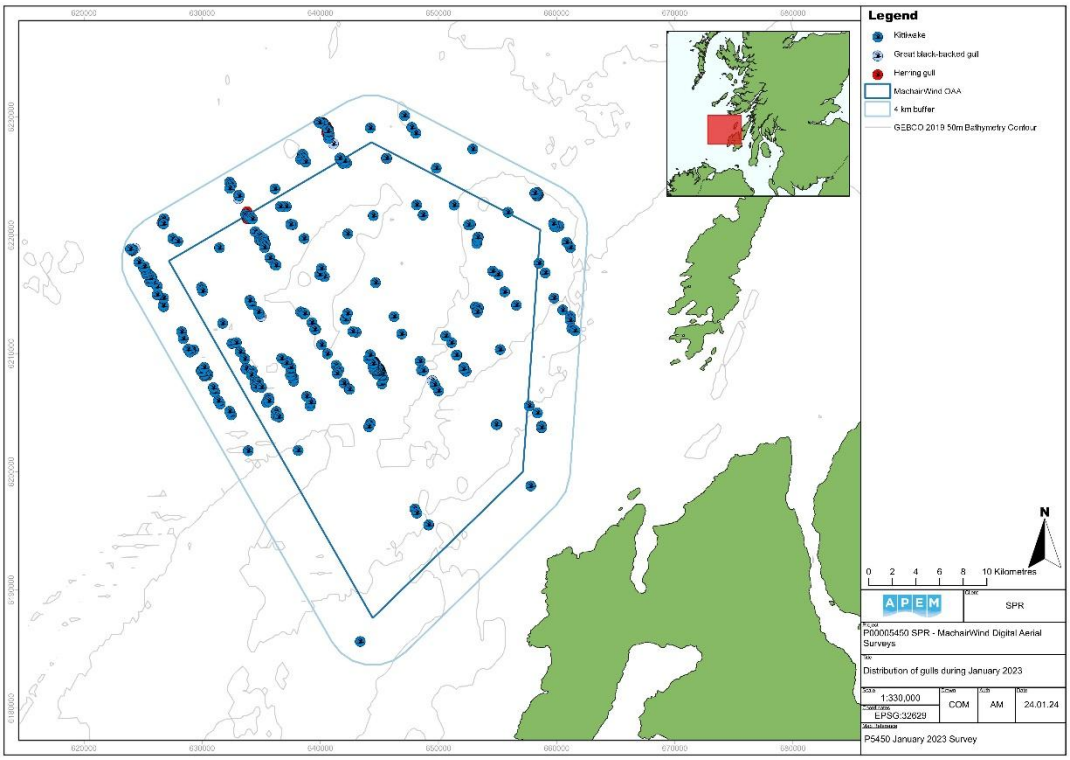


Figure 37 Spatial distribution of gulls recorded in the January 2023 survey

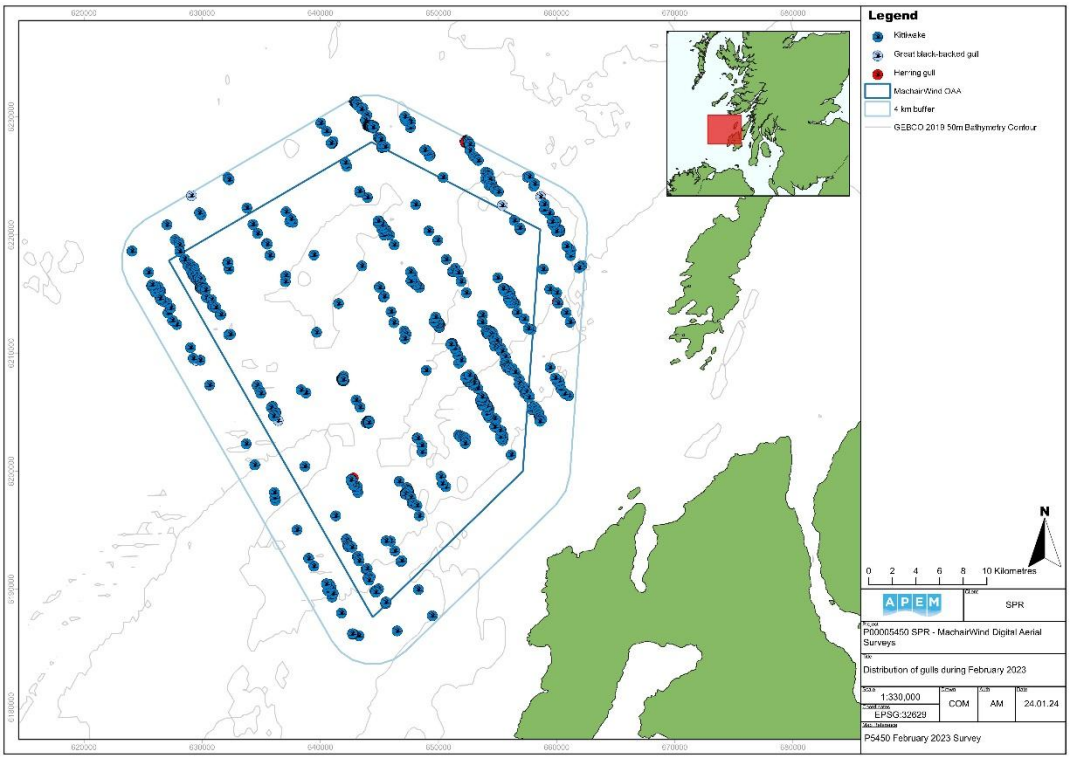


Figure 38 Spatial distribution of gulls recorded in the February 2023 survey

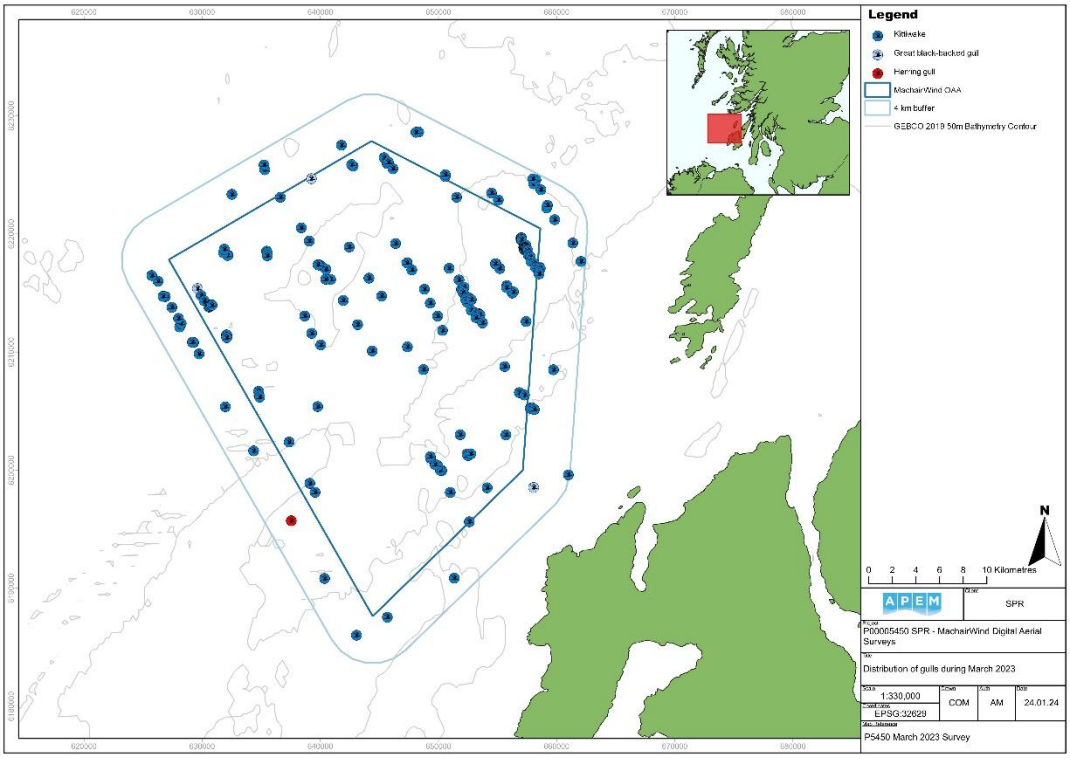


Figure 39 Spatial distribution of gulls recorded in the March 2023 survey

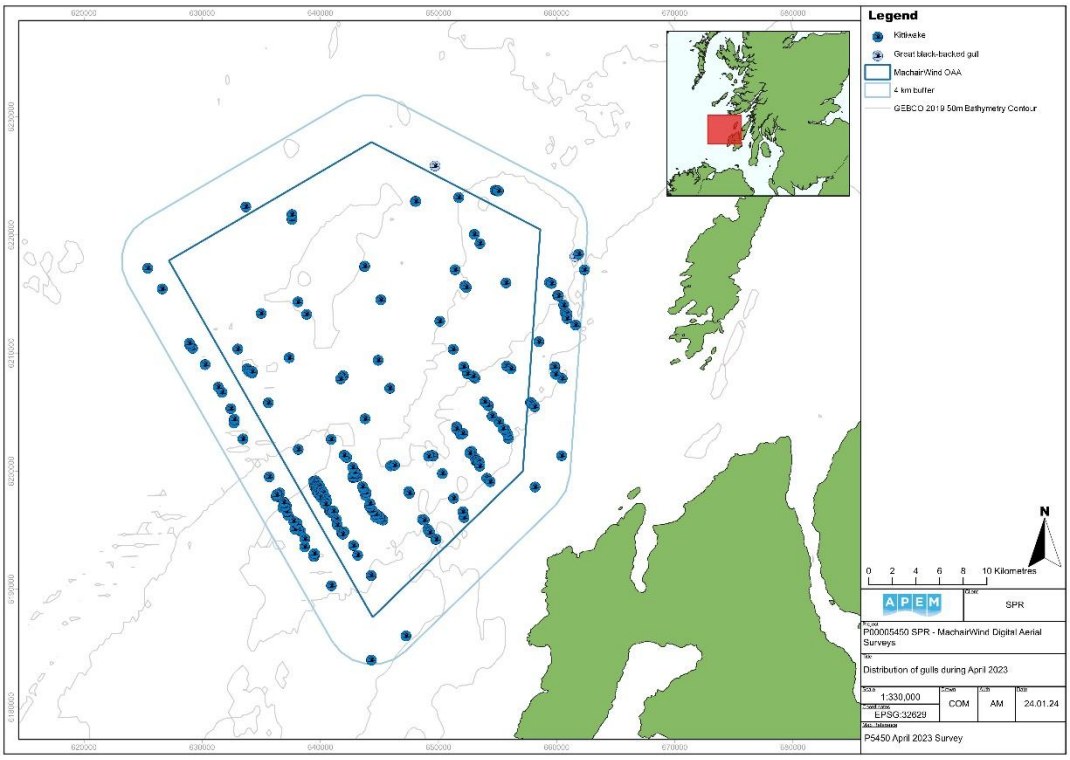


Figure 40 Spatial distribution of gulls recorded in the April 2023 survey

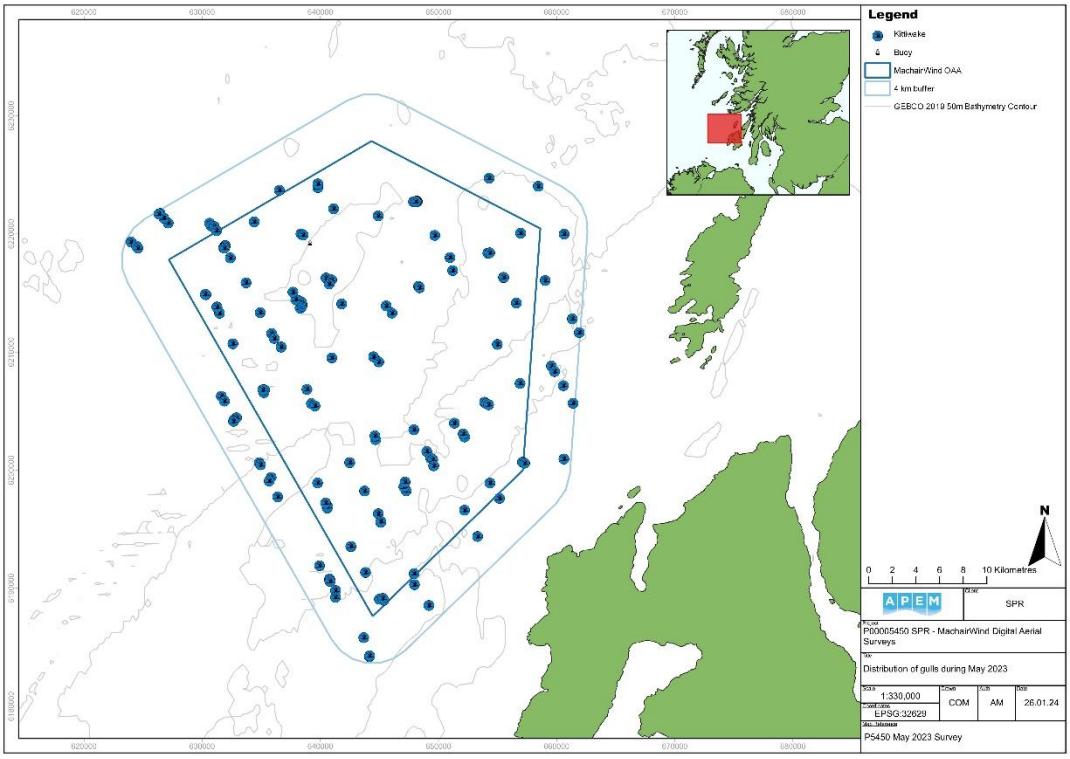


Figure 41 Spatial distribution of gulls recorded in the May 2023 survey

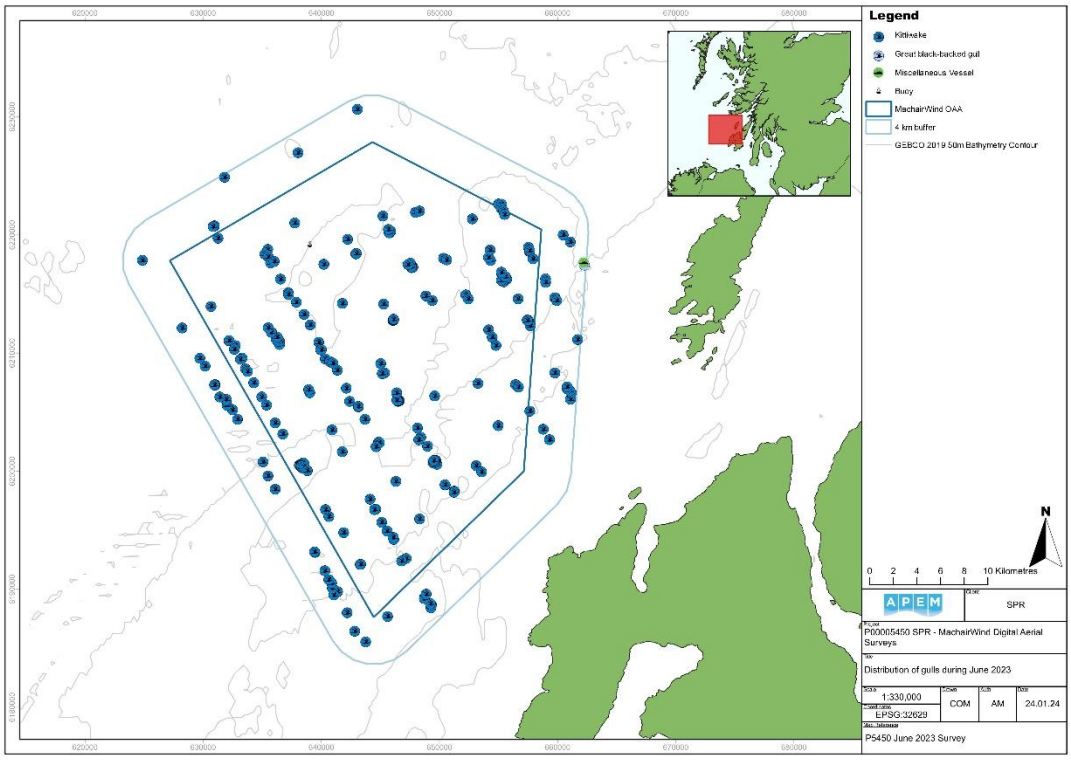


Figure 42 Spatial distribution of gulls recorded in the June 2023 survey

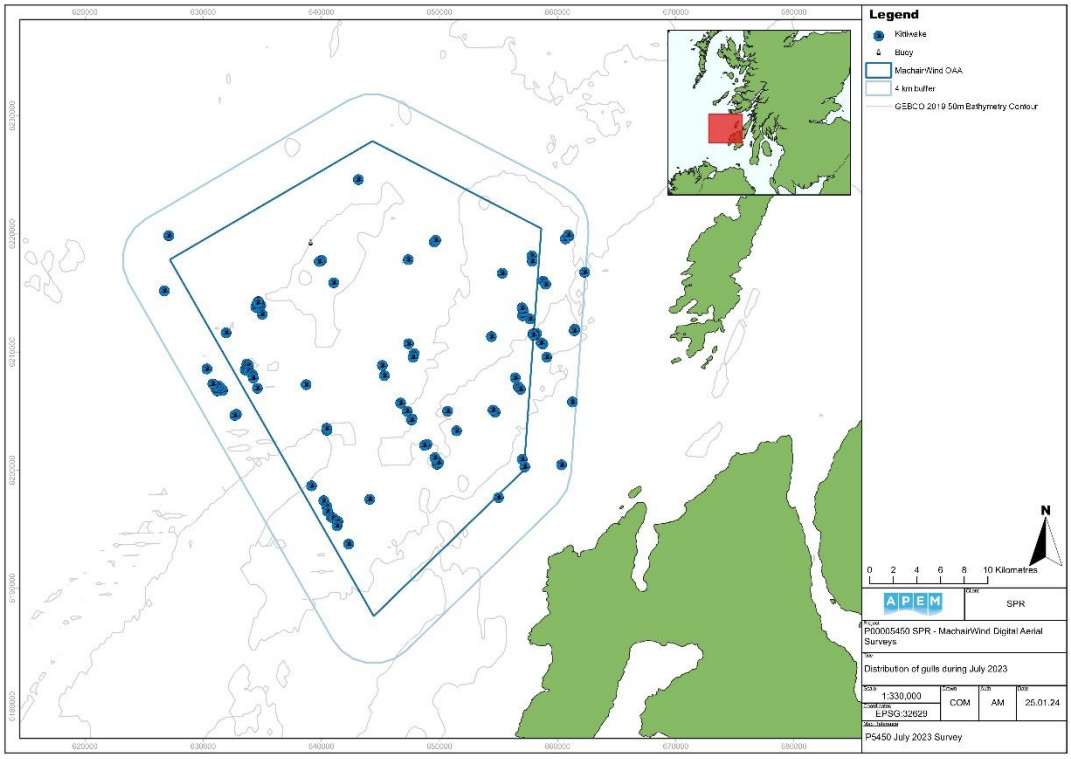


Figure 43 Spatial distribution of gulls recorded in the July 2023 survey

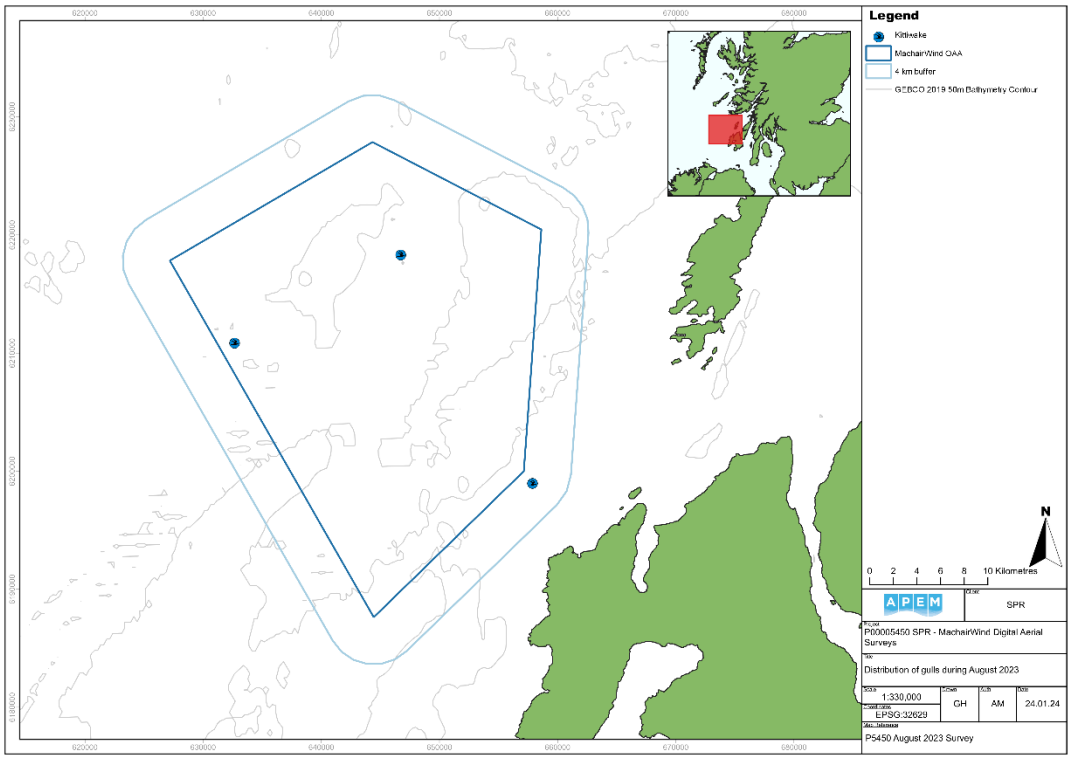


Figure 44 Spatial distribution of gulls recorded in the August 2023 survey

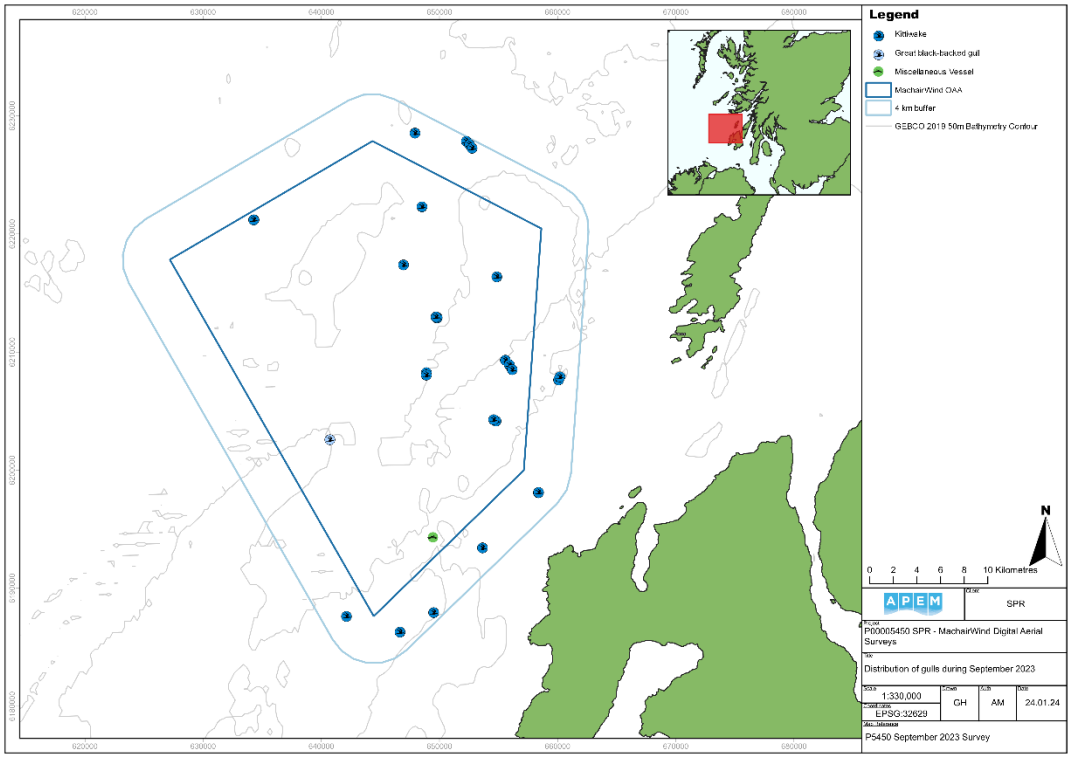


Figure 45 Spatial distribution of gulls recorded in the September 2023 survey

11.1.2 Terns

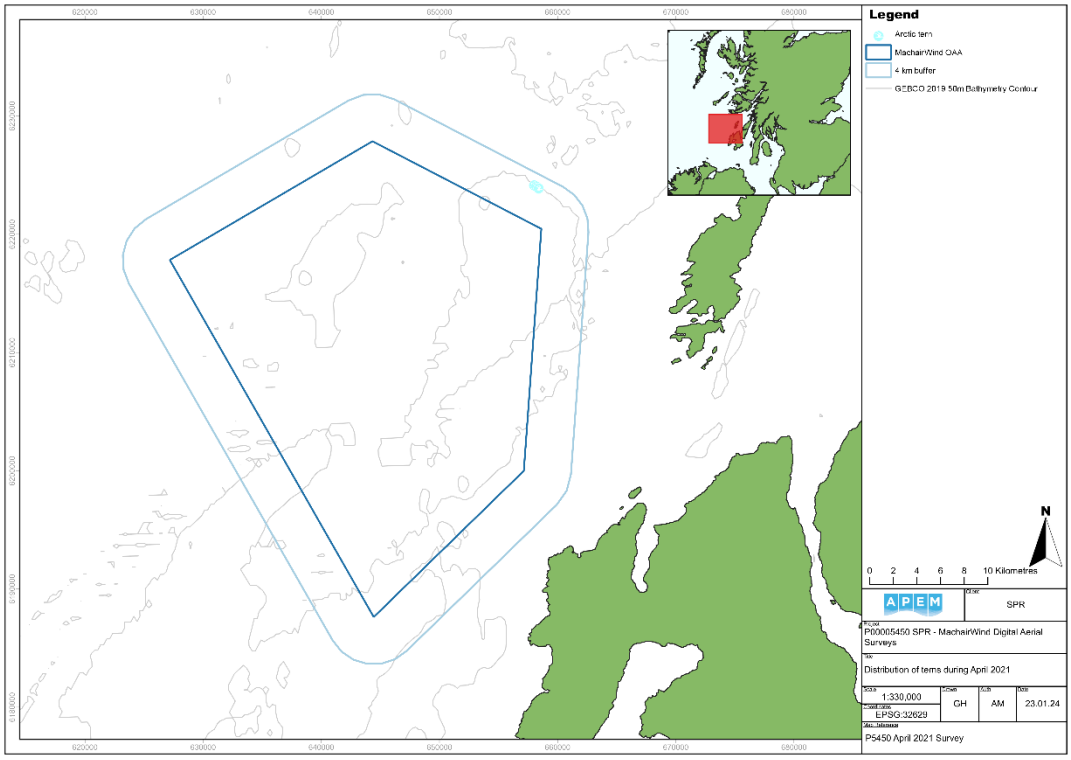


Figure 46 Spatial distribution of terns recorded in the April 2021 survey

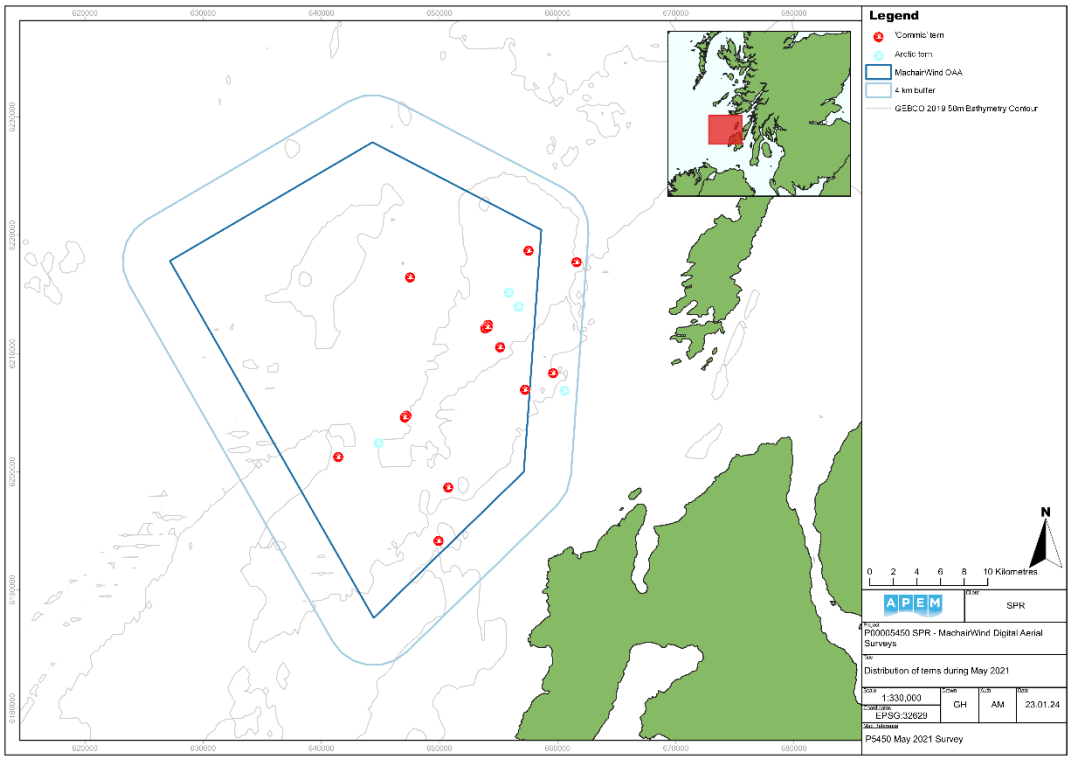


Figure 47 Spatial distribution of terns recorded in the May 2021 survey

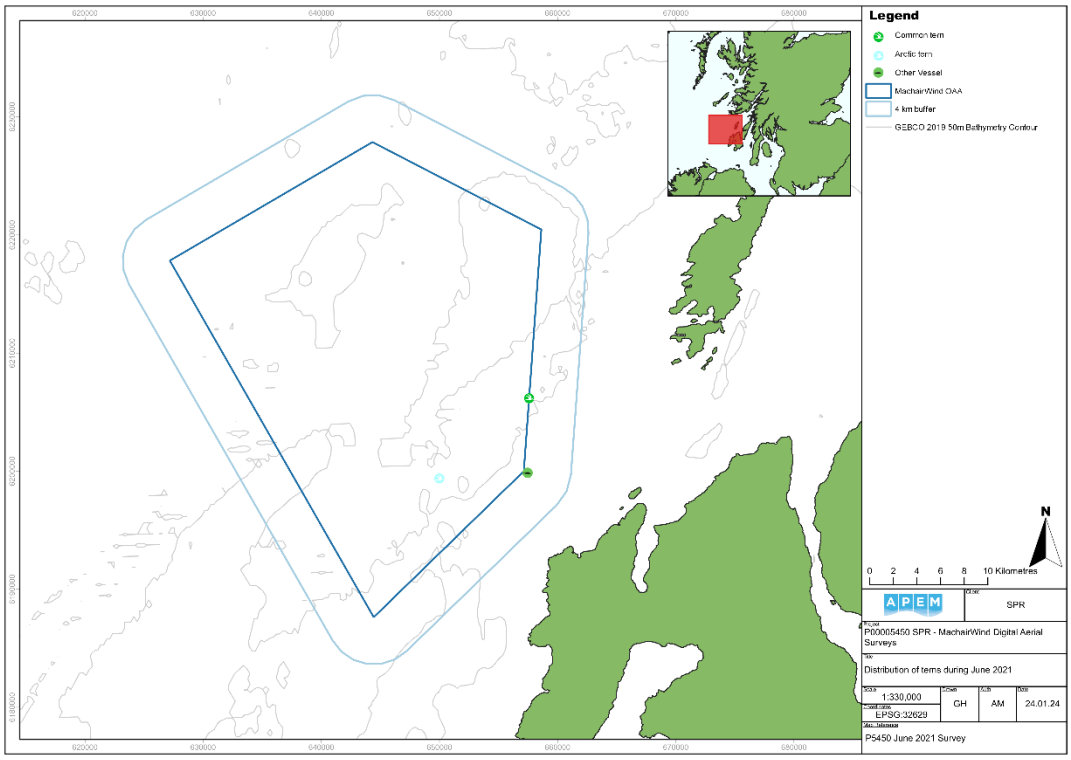


Figure 48 Spatial distribution of terns recorded in the June 2021 survey

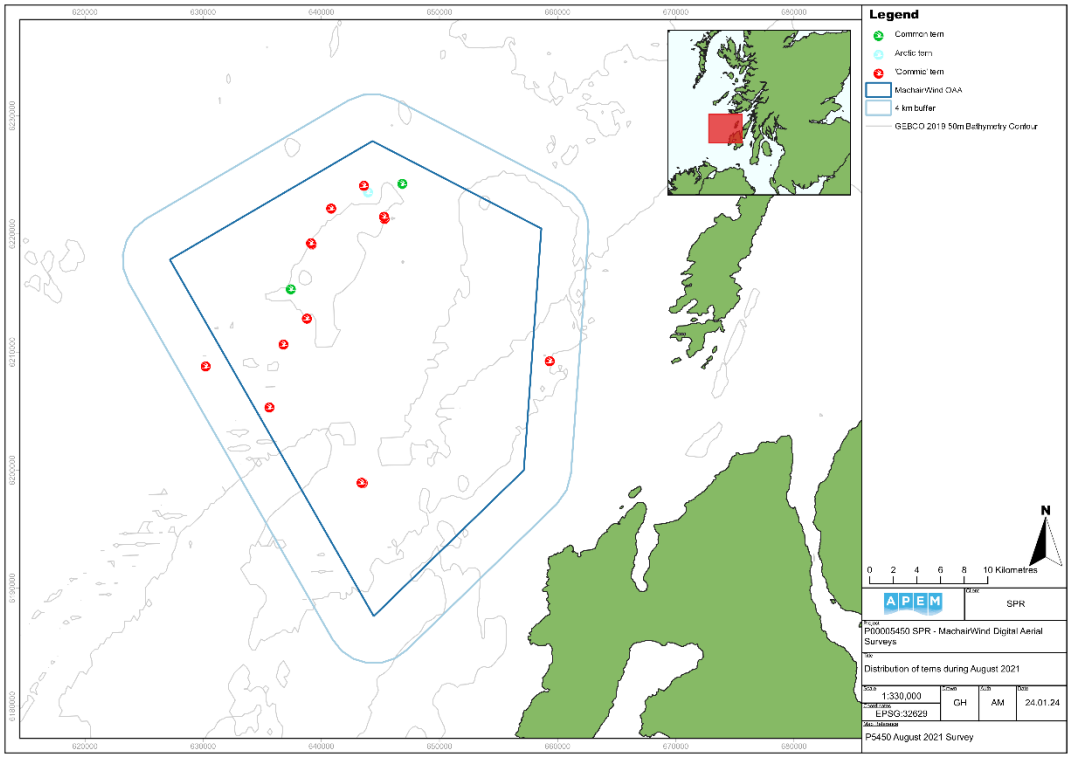


Figure 49 Spatial distribution of terns recorded in the August 2021 survey

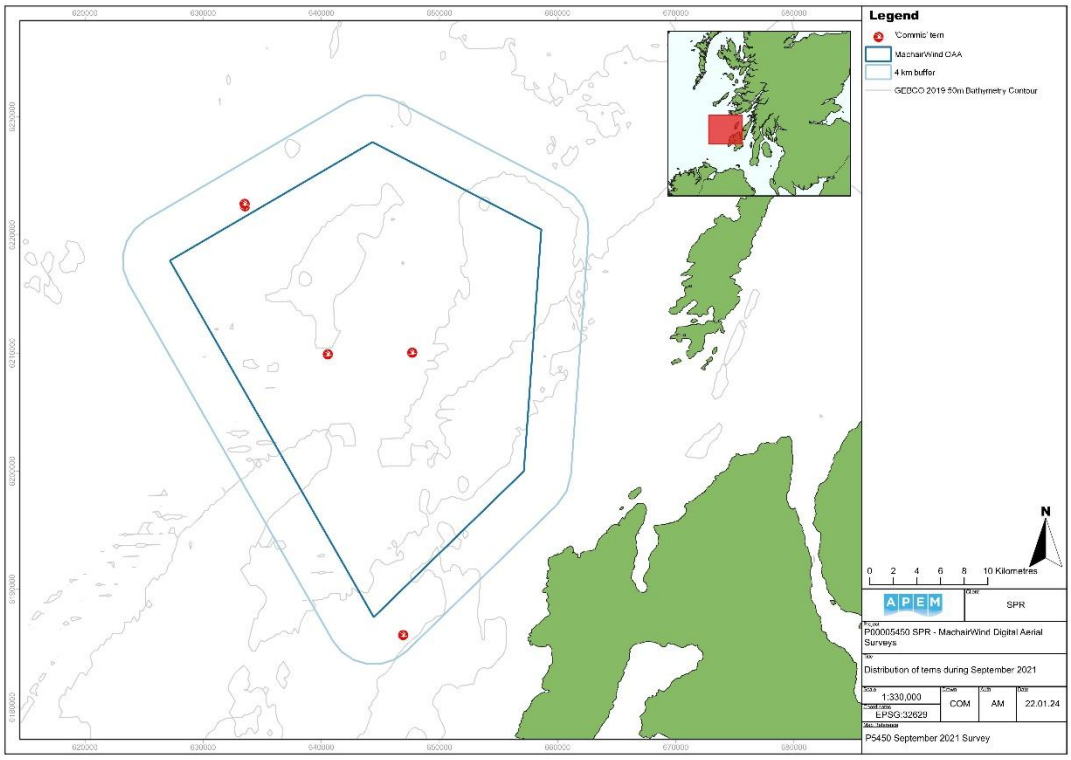


Figure 50 Spatial distribution of terns recorded in the September 2021 survey

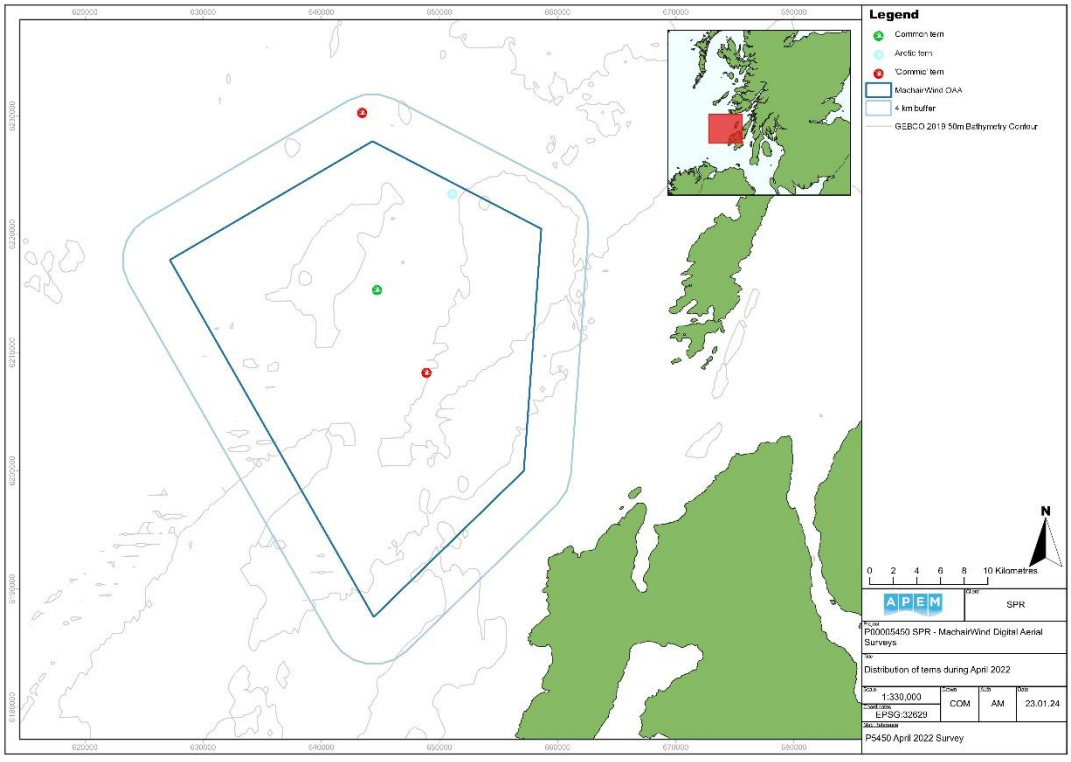


Figure 51 Spatial distribution of terns recorded in the April 2022 survey

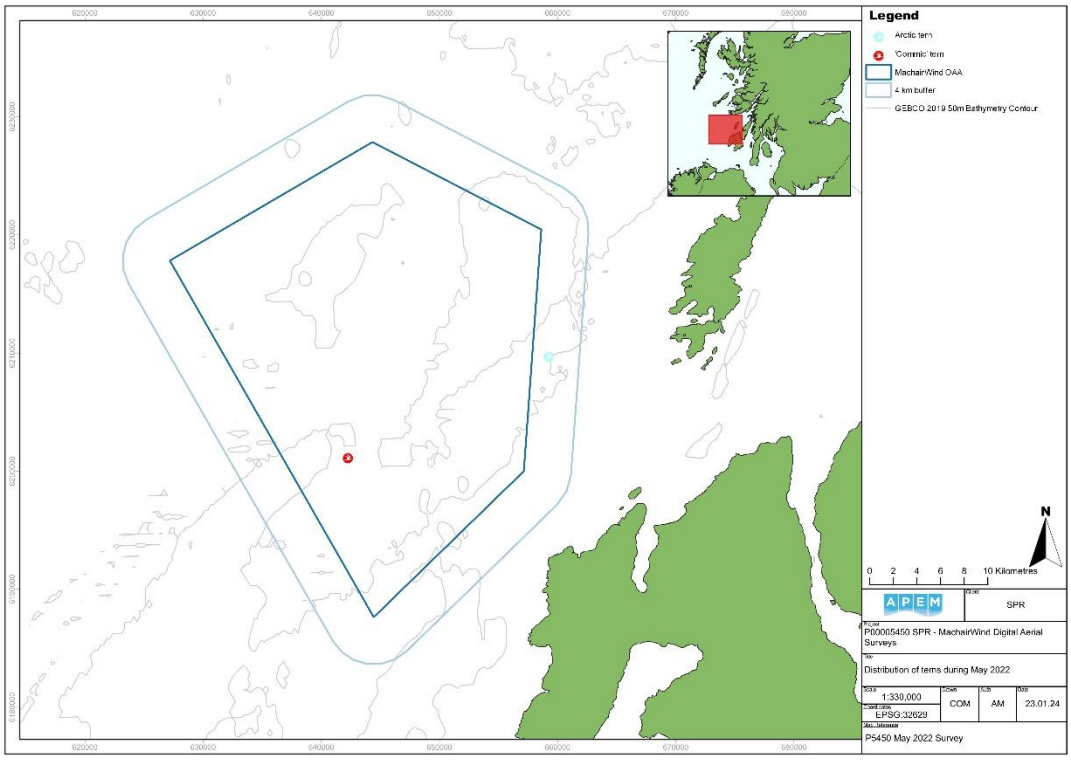


Figure 52 Spatial distribution of terns recorded in the May 2022 survey

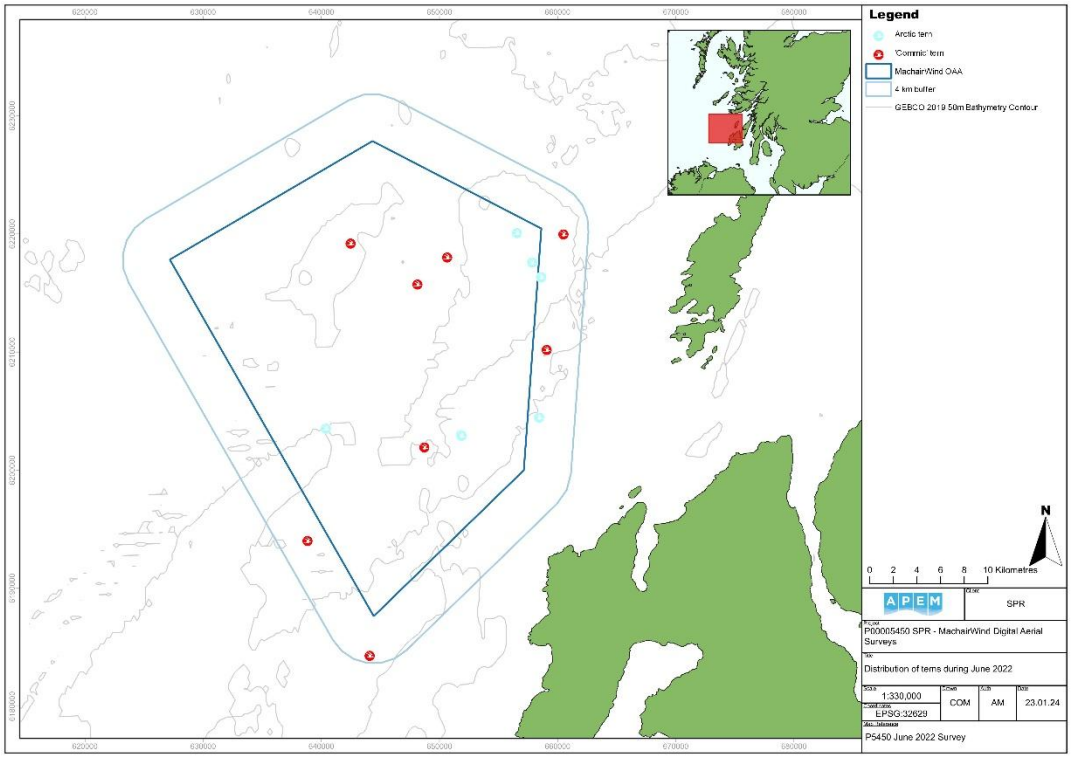


Figure 53 Spatial distribution of terns recorded in the June 2022 survey

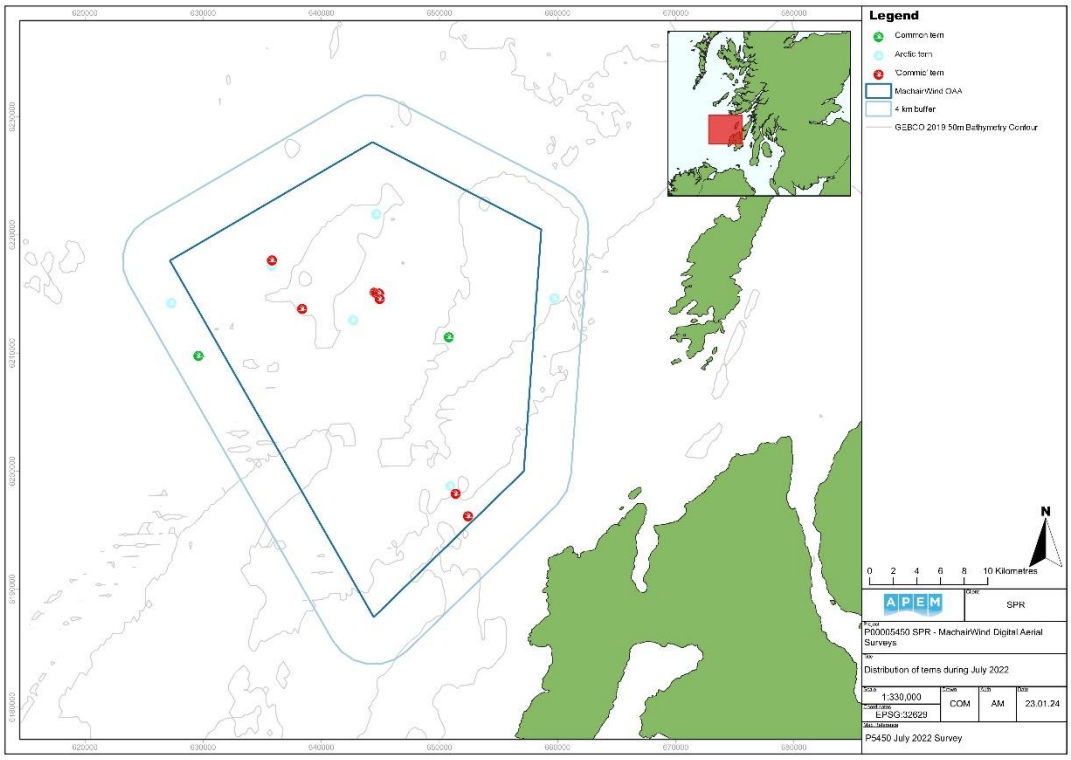


Figure 54 Spatial distribution of terns recorded in the July 2022 survey

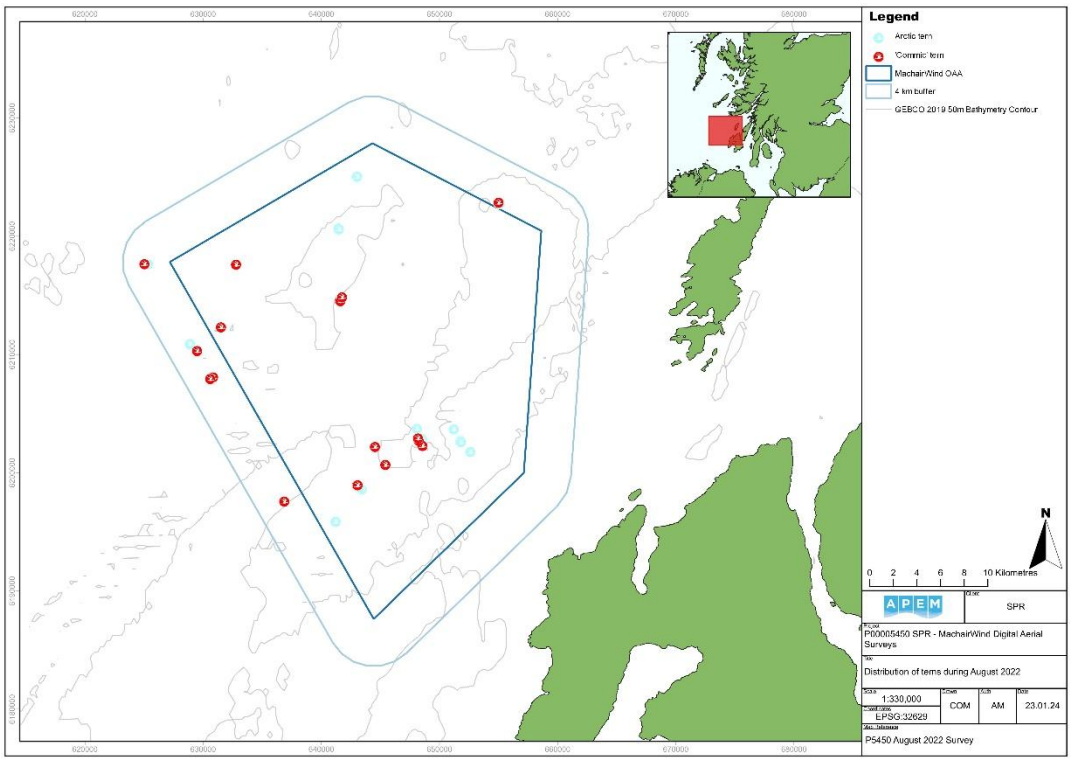


Figure 55 Spatial distribution of terns recorded in the August 2022 survey

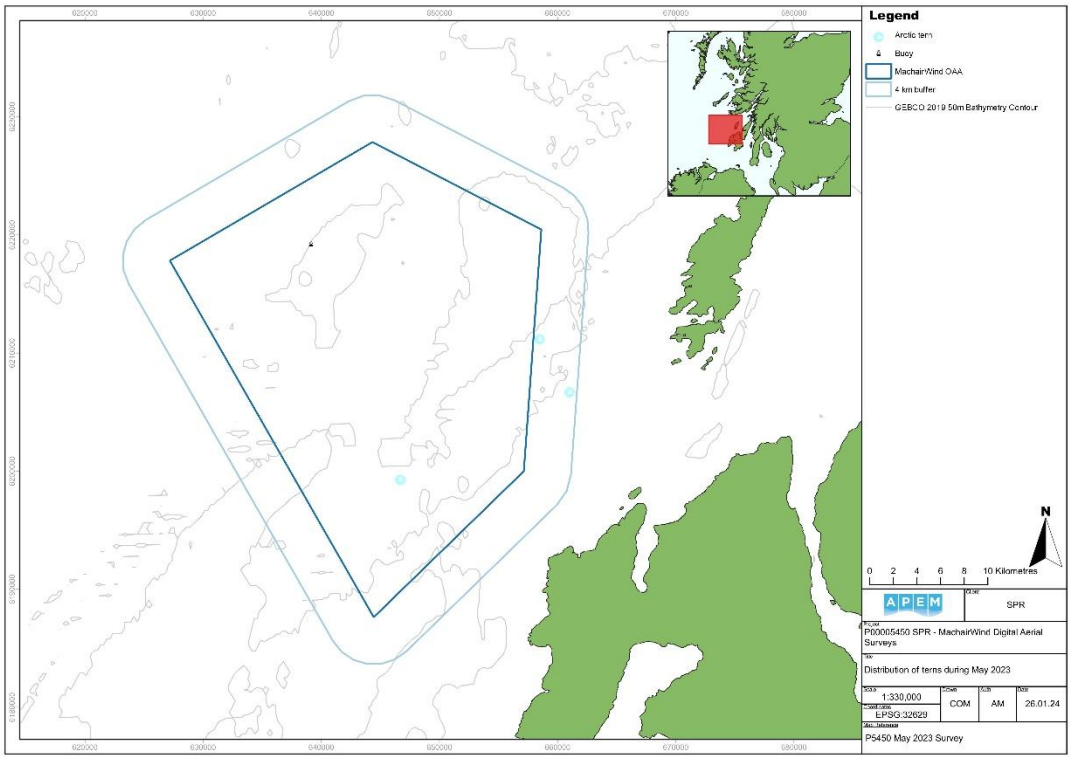


Figure 56 Spatial distribution of terns recorded in the May 2023 survey

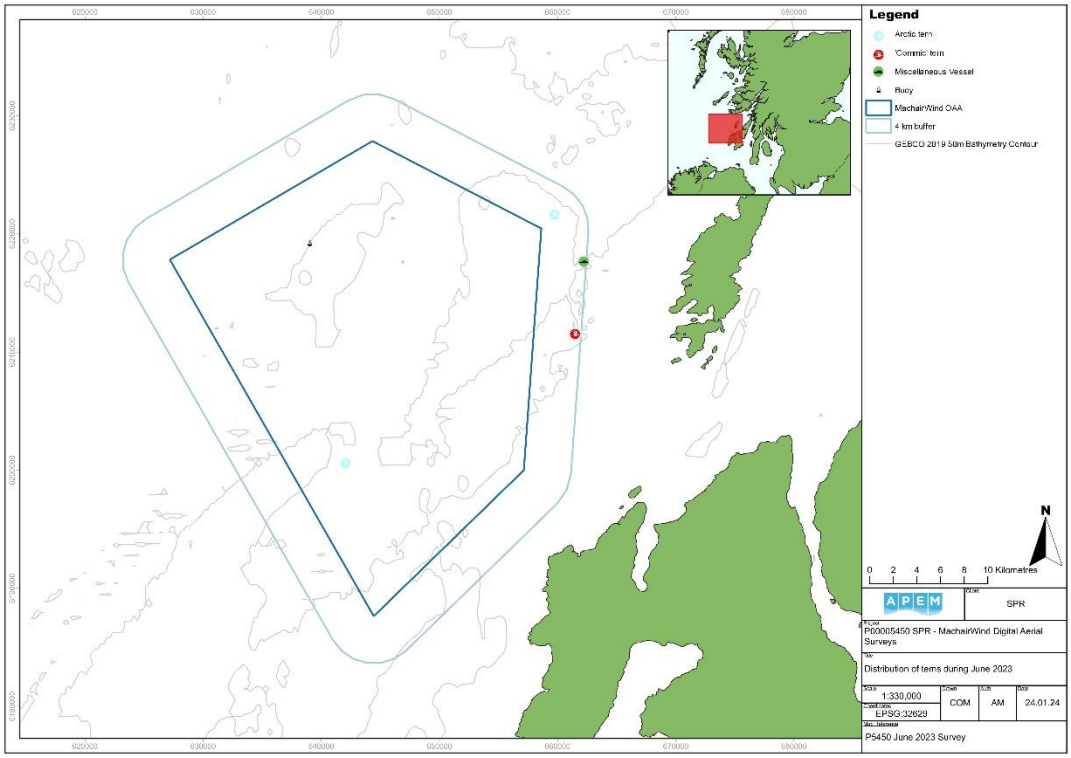


Figure 57 Spatial distribution of terns recorded in the June 2023 survey

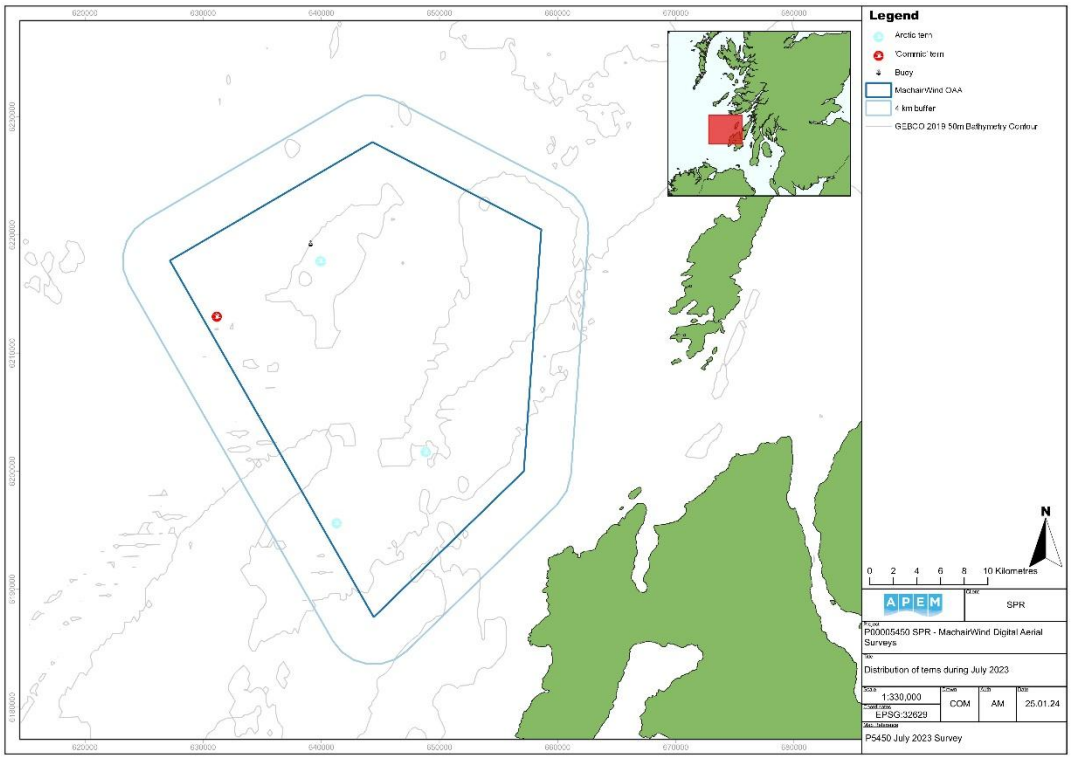


Figure 58 Spatial distribution of terns recorded in the July 2023 survey

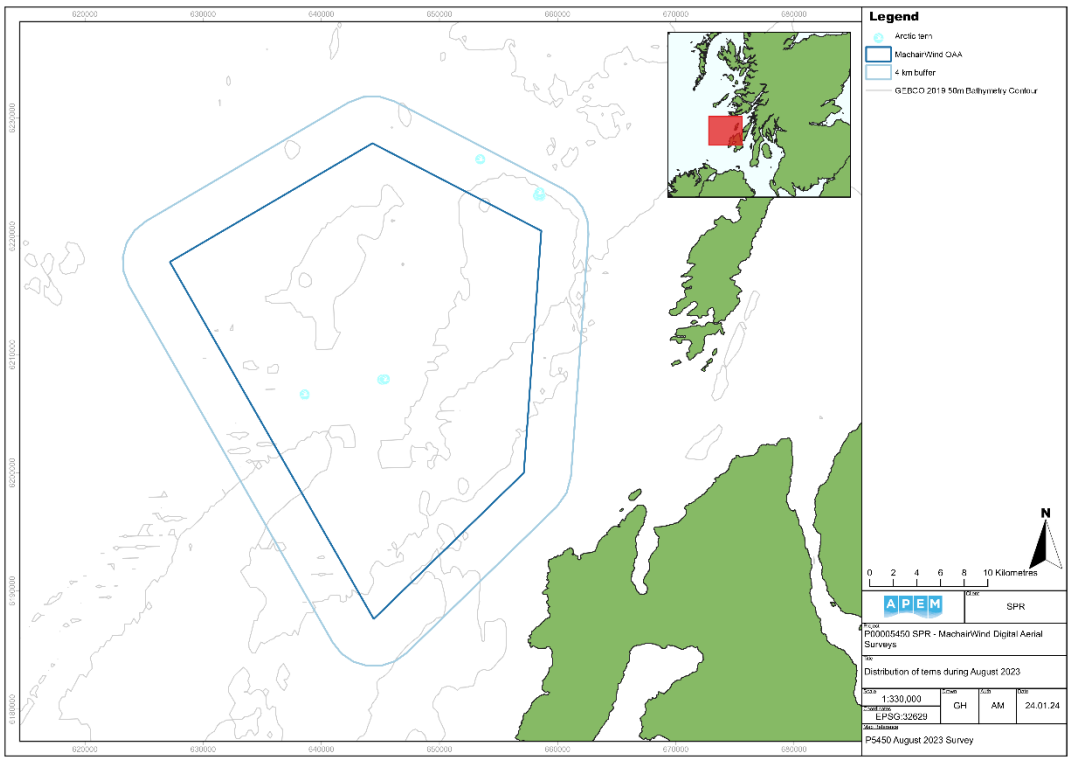


Figure 59 Spatial distribution of terns recorded in the August 2023 survey

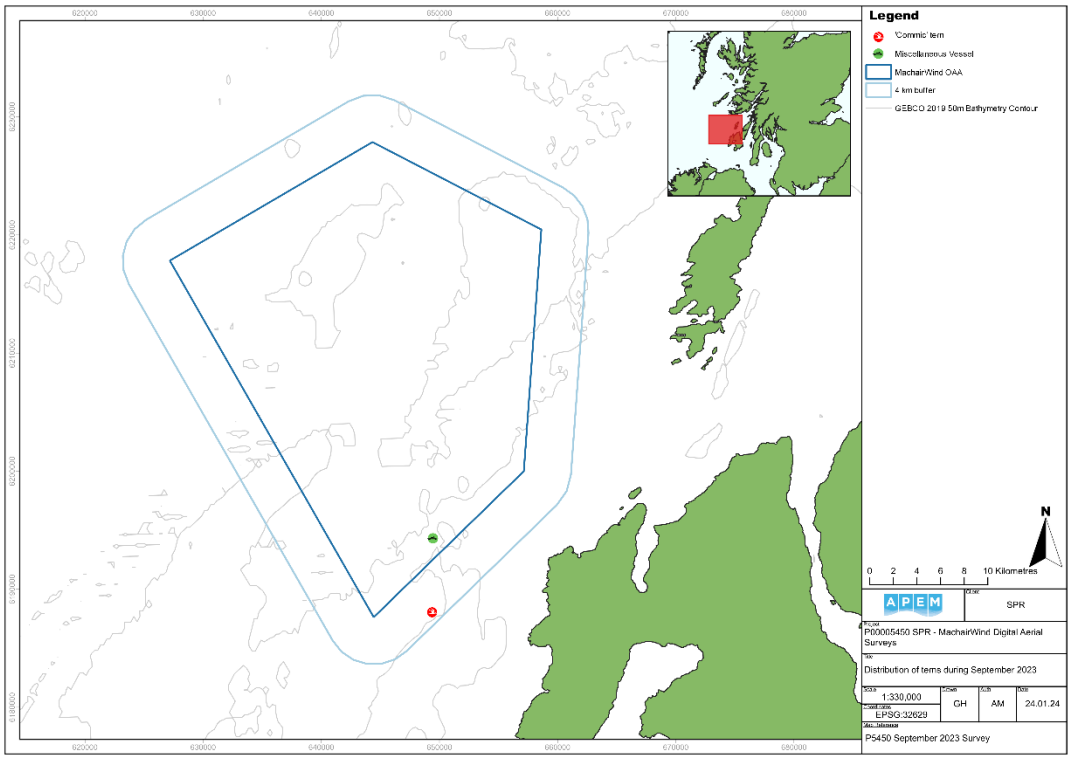


Figure 60 Spatial distribution of terns recorded in the September 2023 survey

11.1.3 Auks

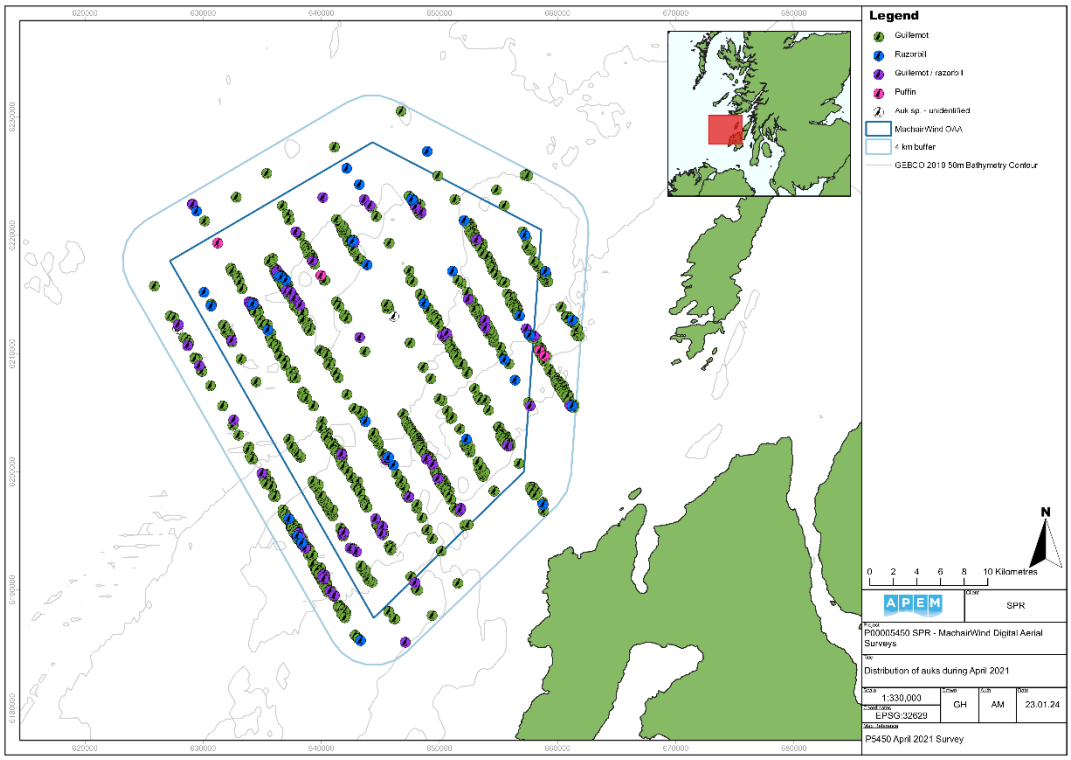


Figure 61 Spatial distribution of auks recorded in the April 2021 survey

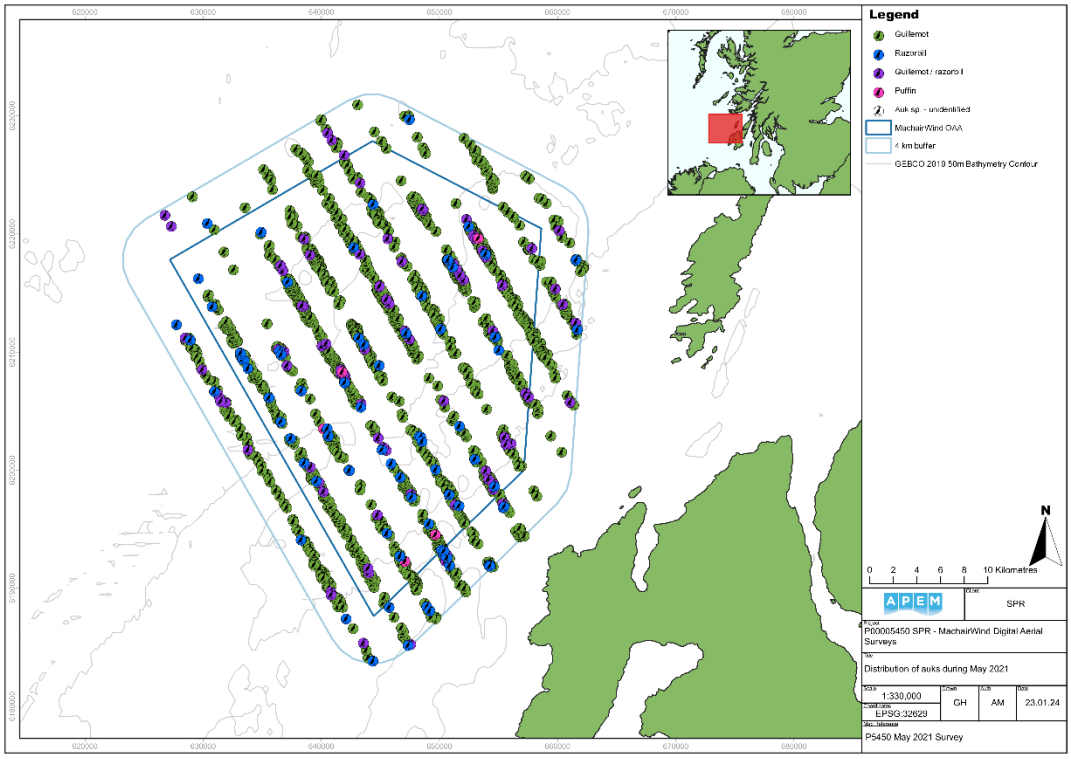


Figure 62 Spatial distribution of auks recorded in the May 2021 survey

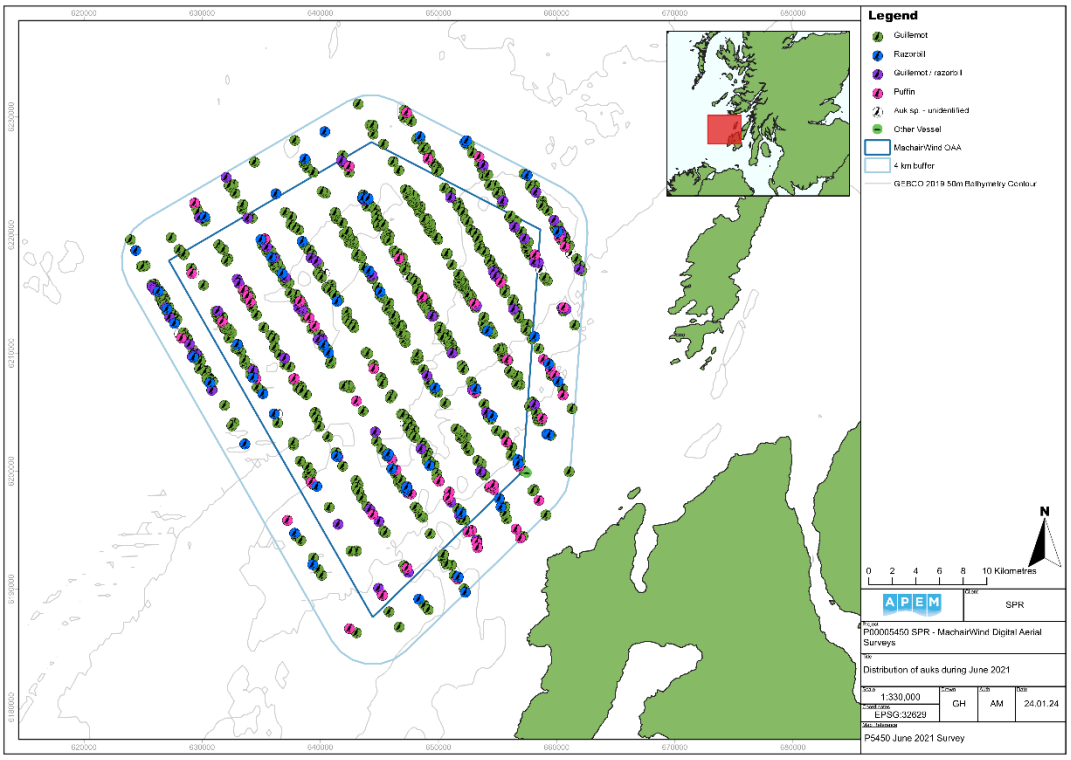


Figure 63 Spatial distribution of auks recorded in the June 2021 survey

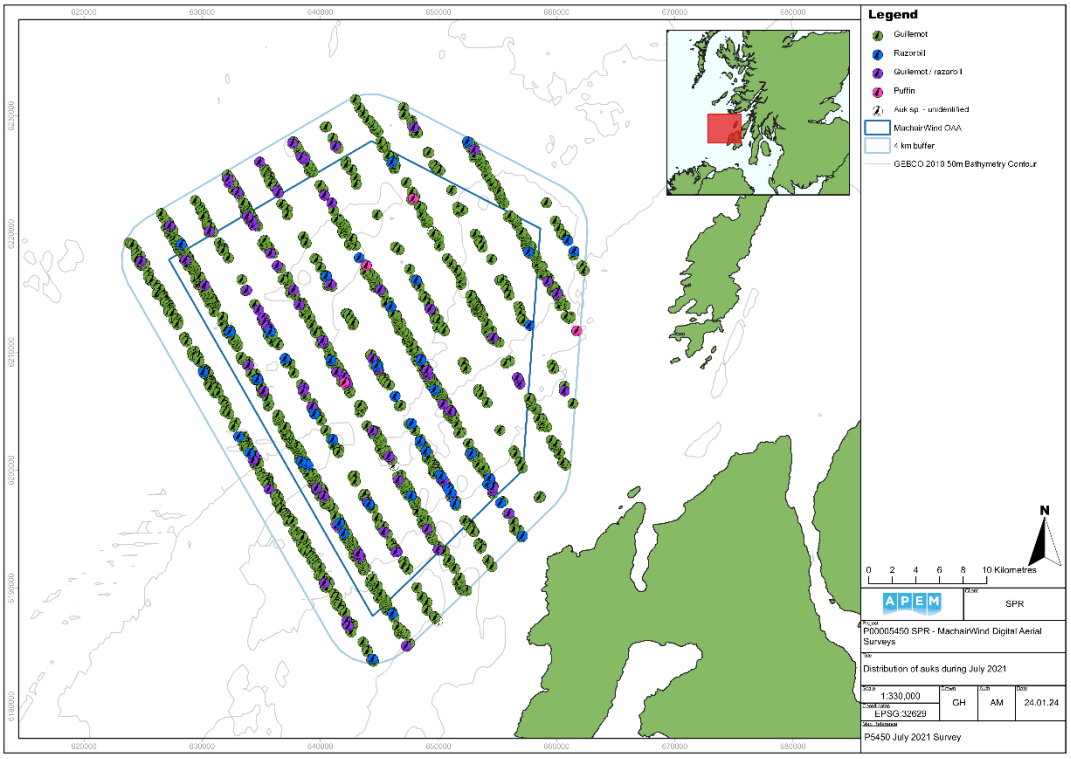


Figure 64 Spatial distribution of auks recorded in the July 2021 survey

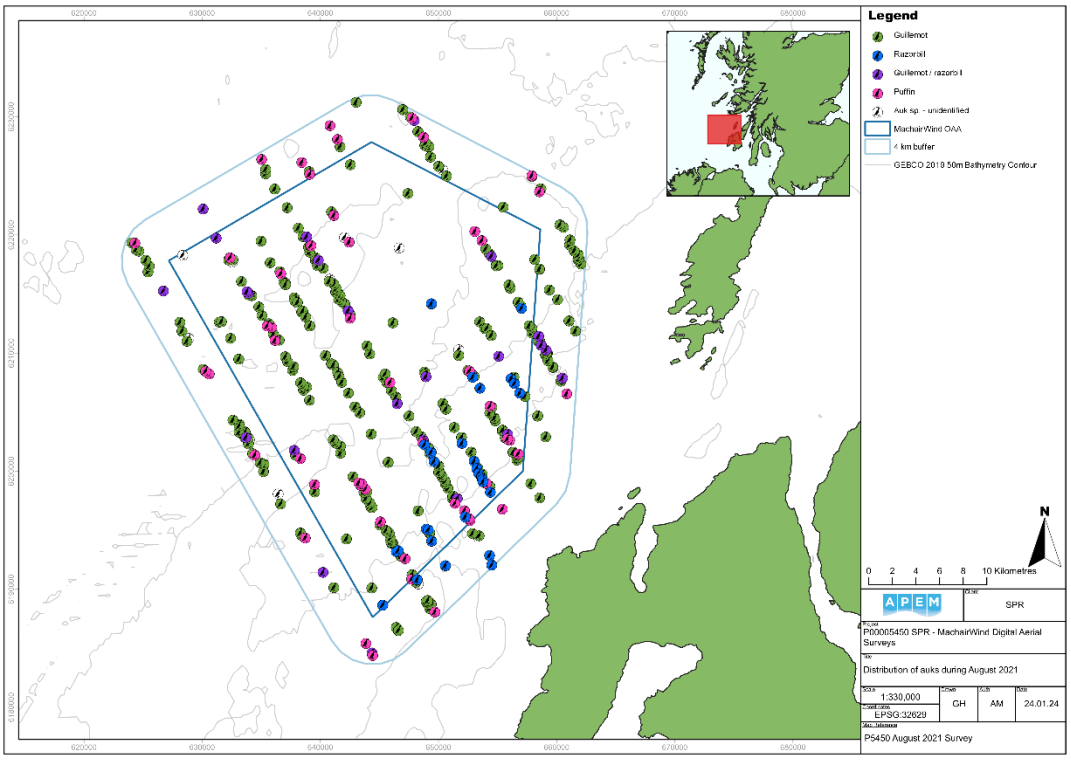


Figure 65 Spatial distribution of auks recorded in the August 2021 survey

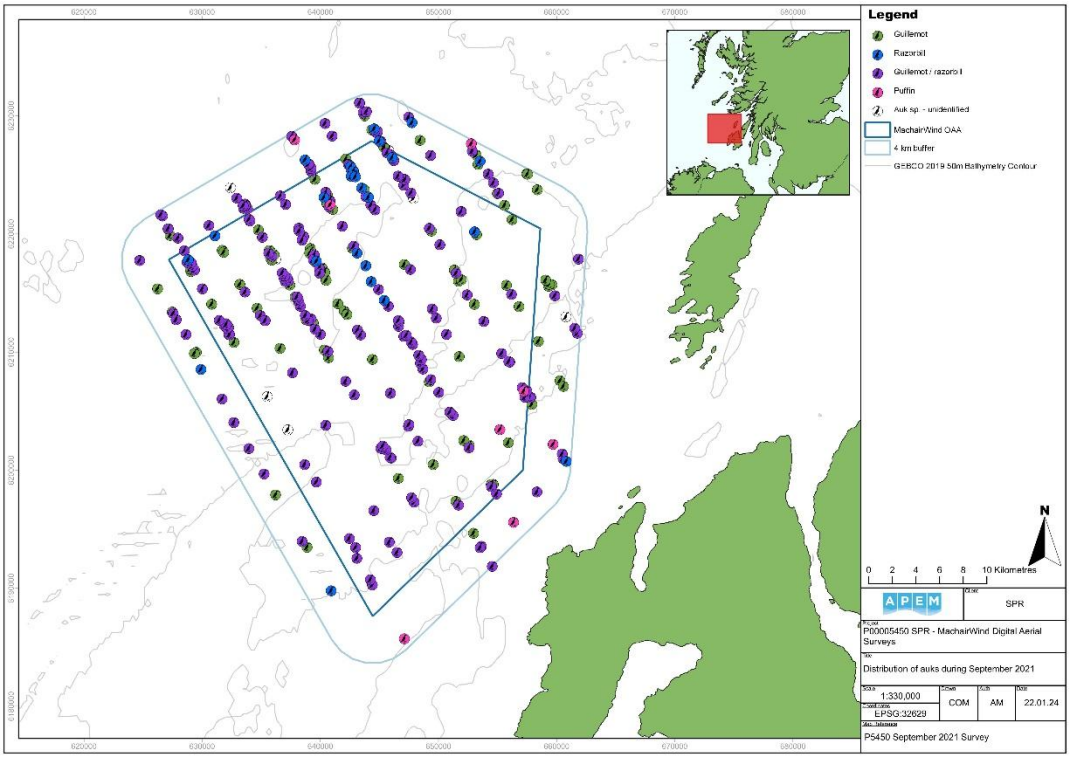


Figure 66 Spatial distribution of auks recorded in the September 2021 survey

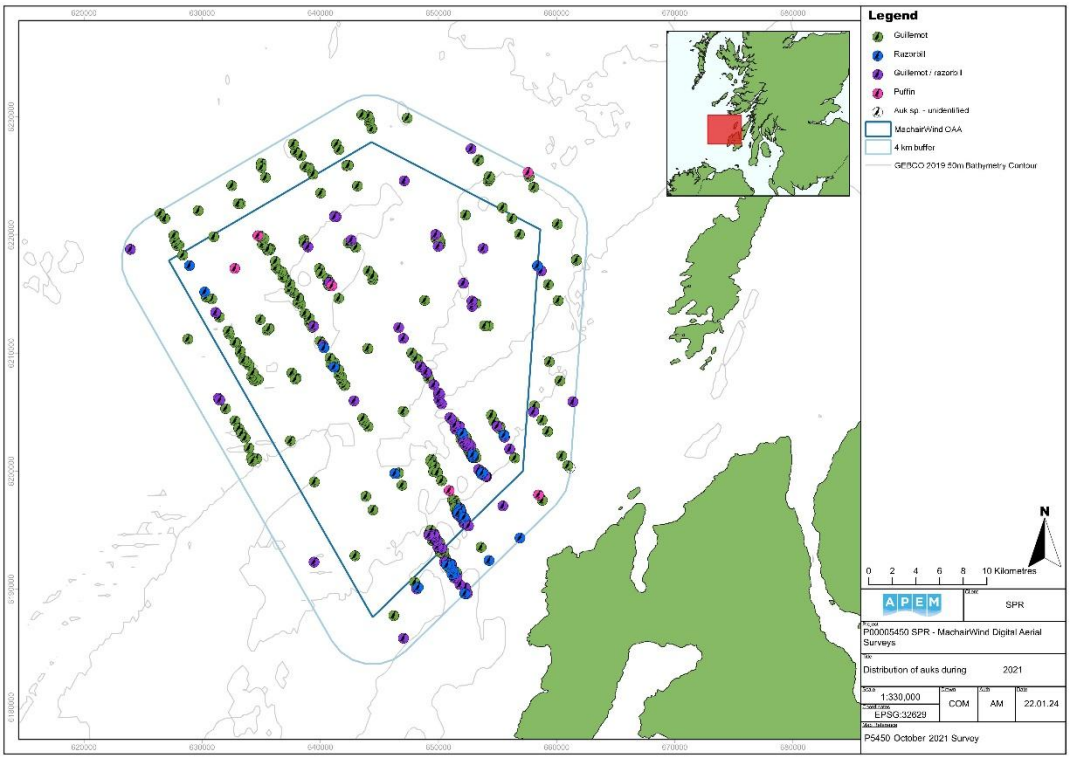


Figure 67 Spatial distribution of auks recorded in the October 2021 survey

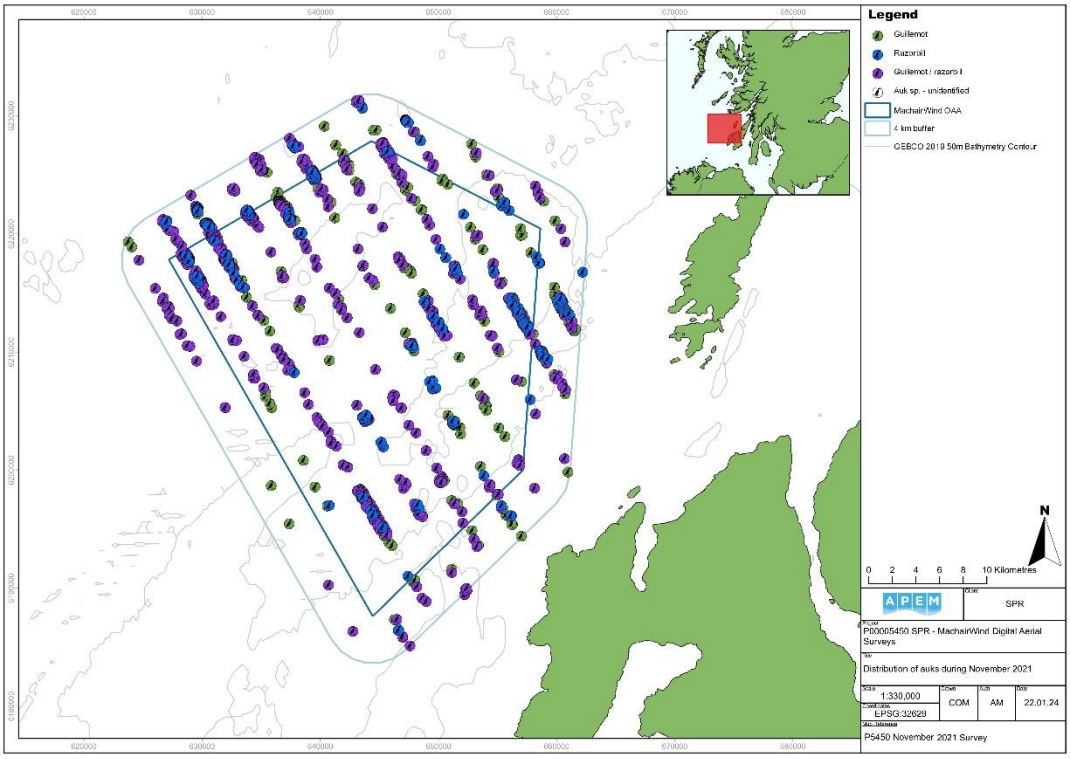


Figure 68 Spatial distribution of auks recorded in the November 2021 survey

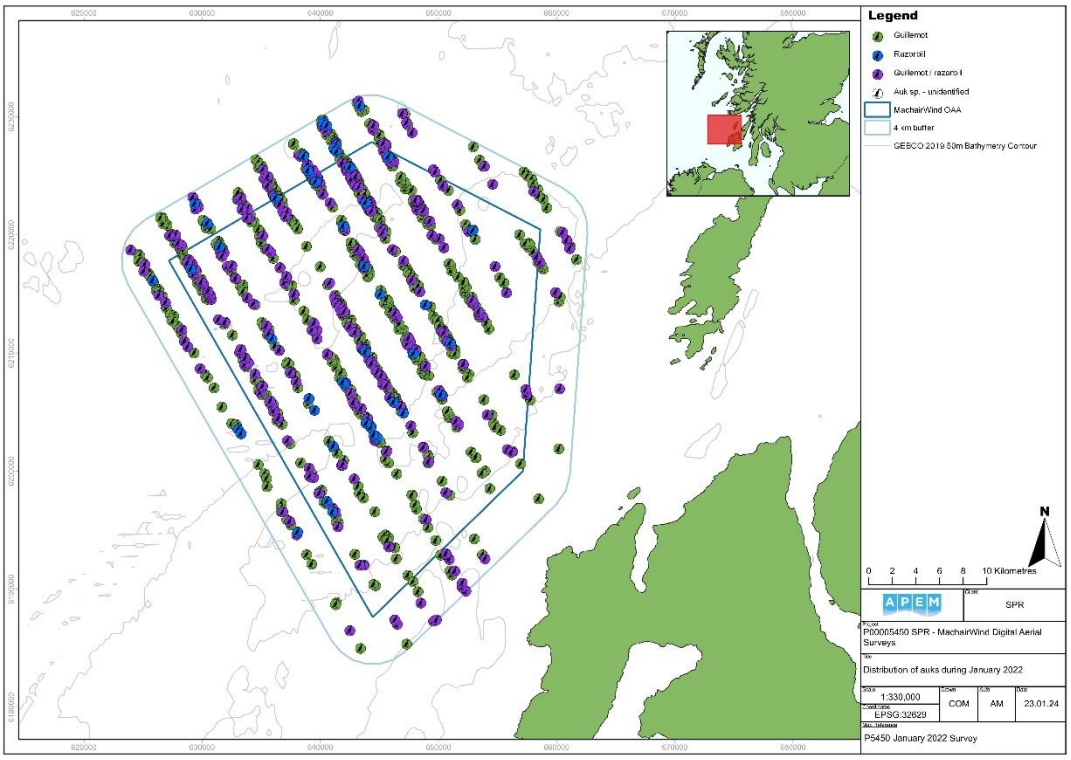


Figure 69 Spatial distribution of auks recorded in the January 2022 survey

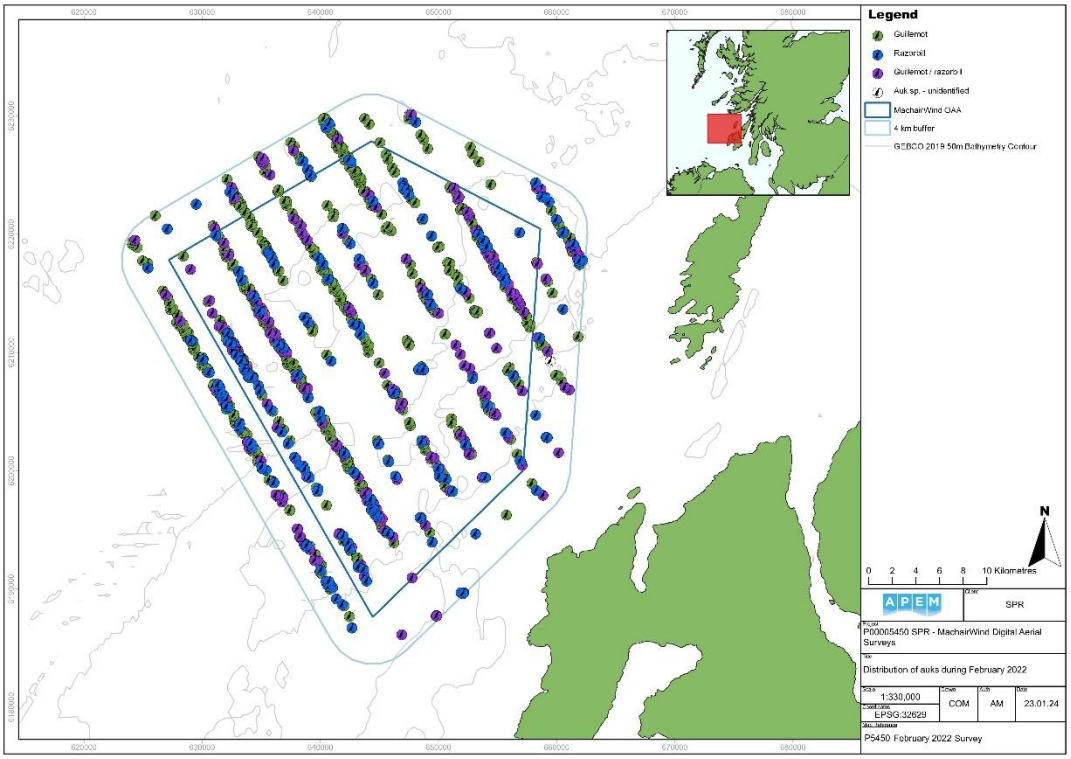


Figure 70 Spatial distribution of auks recorded in the first March 2022 survey (Survey 10)

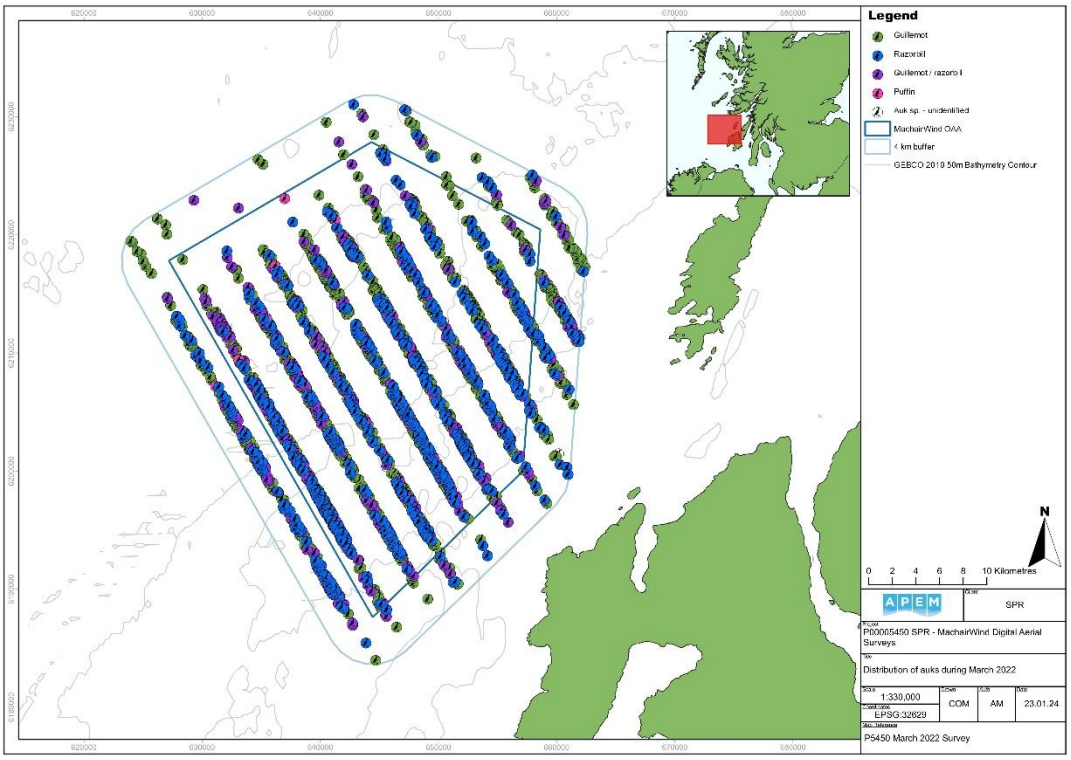


Figure 71 Spatial distribution of auks recorded in the second March 2022 survey (Survey 11)

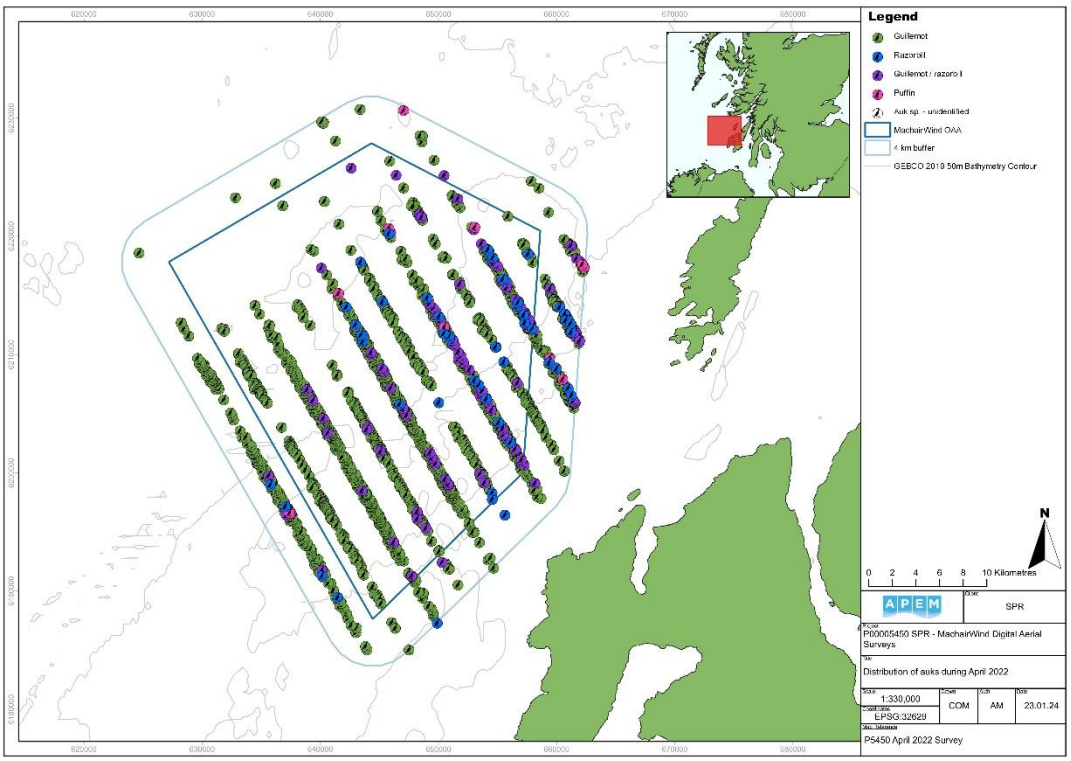


Figure 72 Spatial distribution of auks recorded in the April 2022 survey

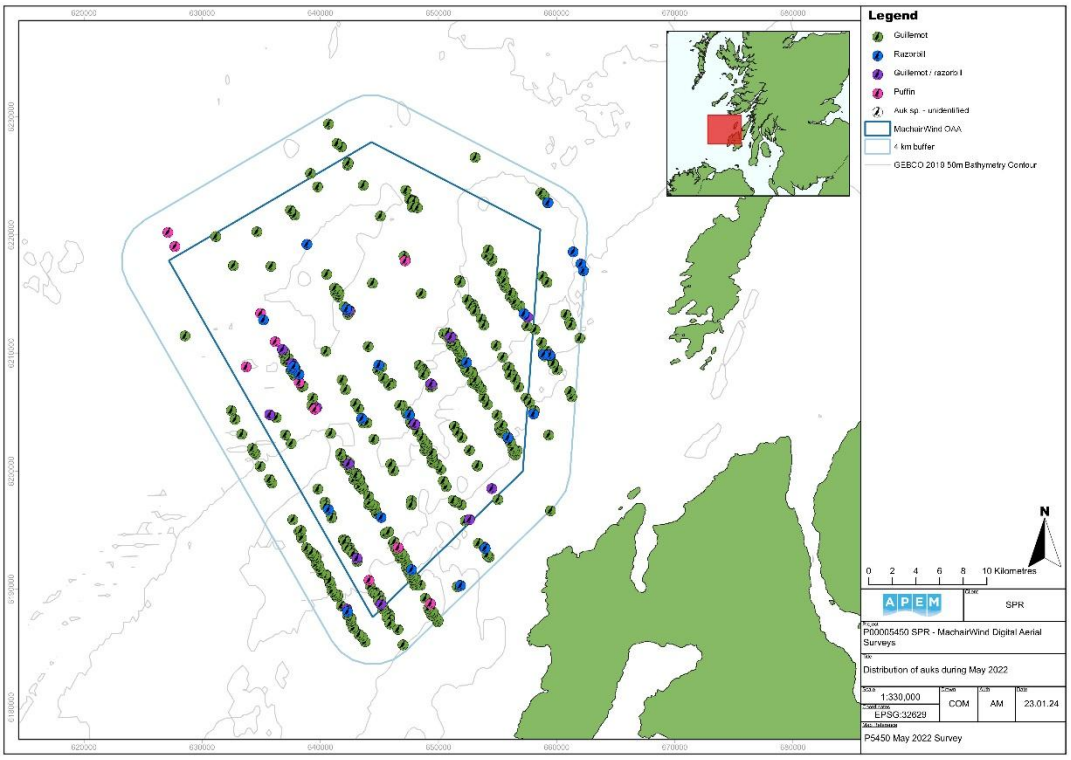


Figure 73 Spatial distribution of auks recorded in the May 2022 survey

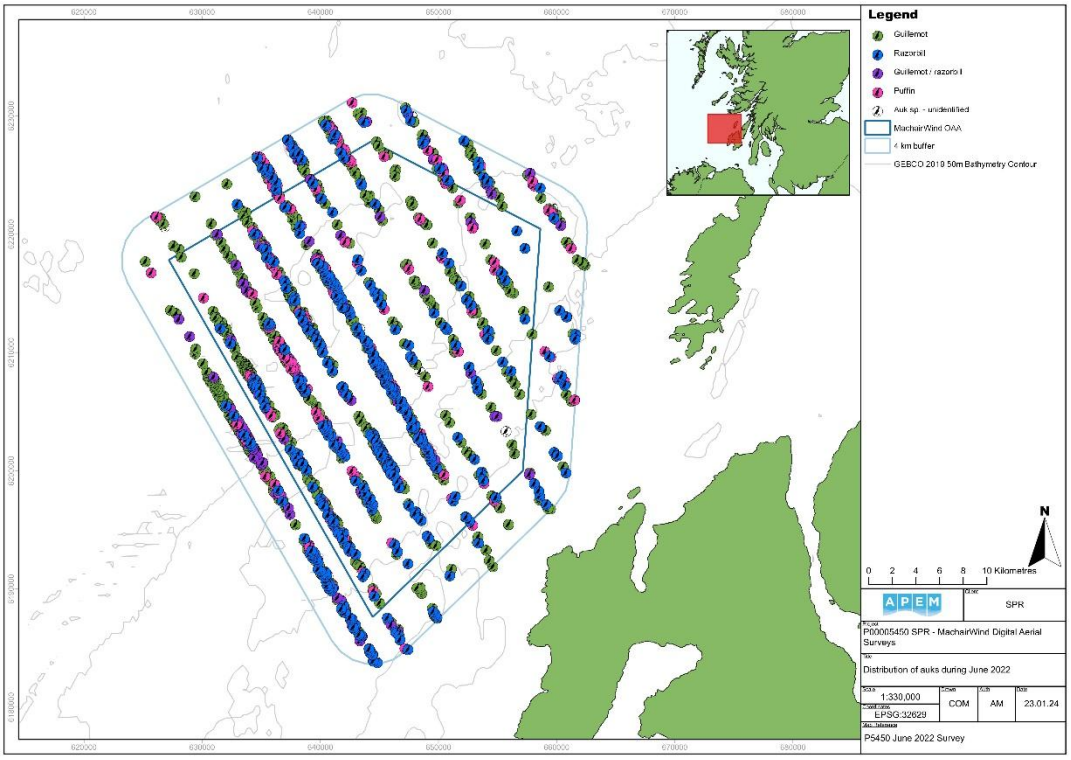


Figure 74 Spatial distribution of auks recorded in the June 2022 survey

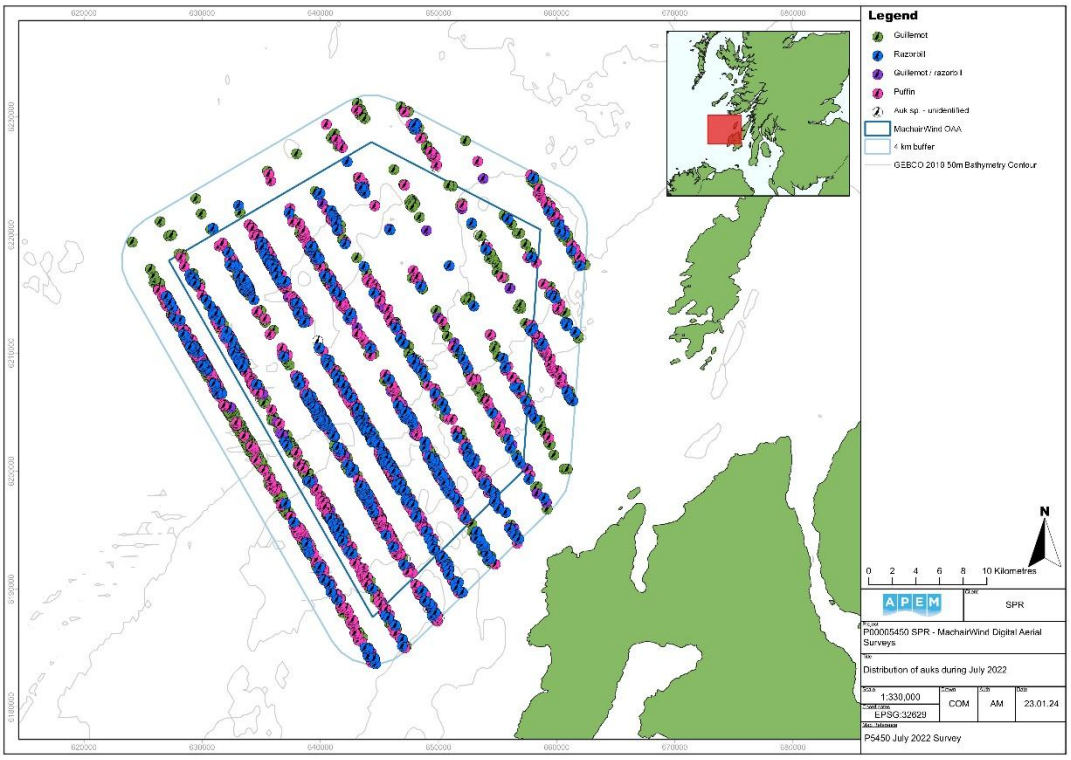


Figure 75 Spatial distribution of auks recorded in the July 2022 survey

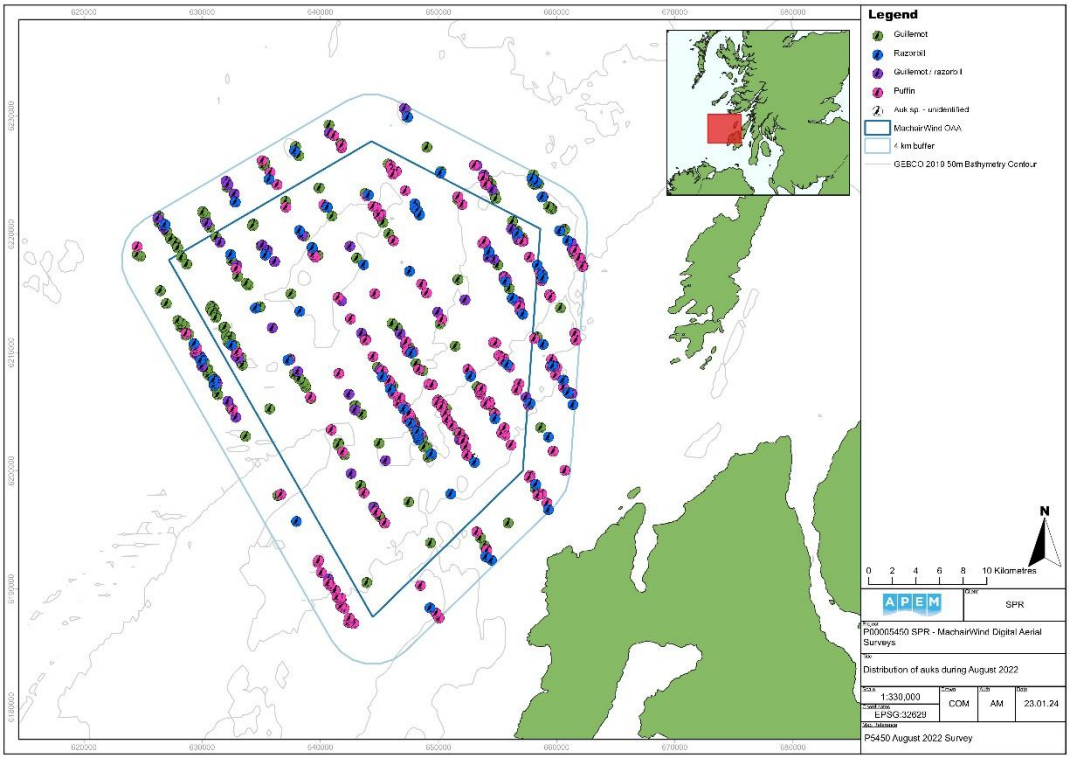


Figure 76 Spatial distribution of auks recorded in the August 2022 survey

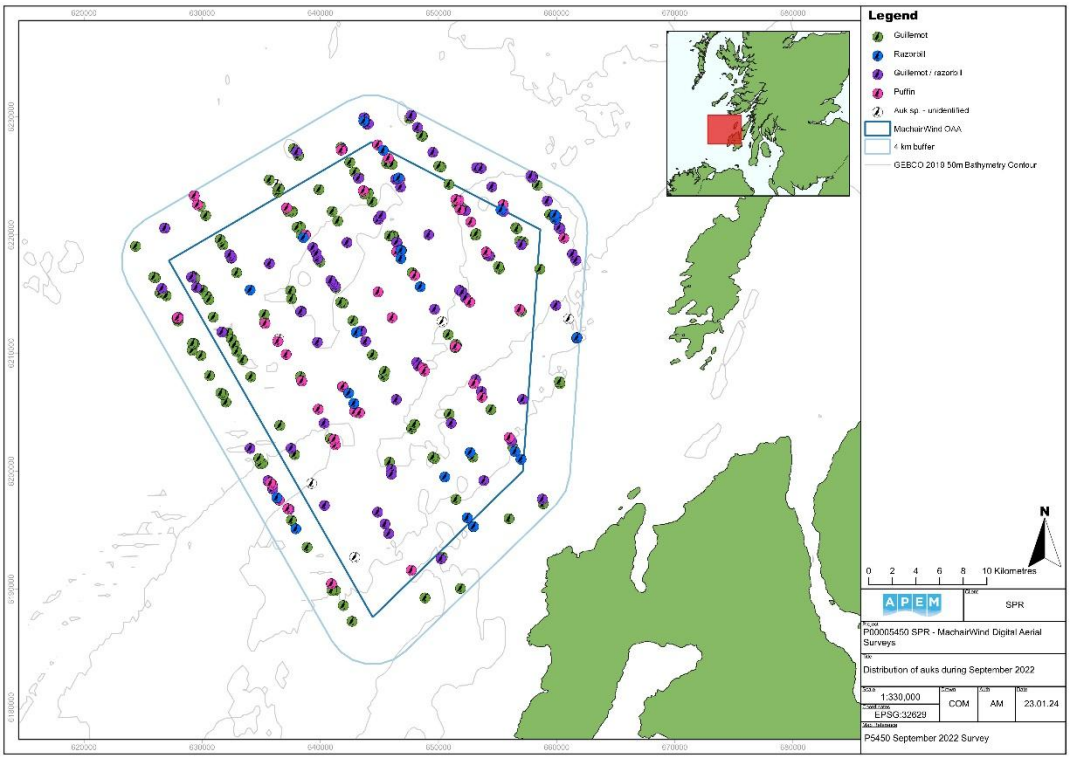


Figure 77 Spatial distribution of auks recorded in the September 2022 survey

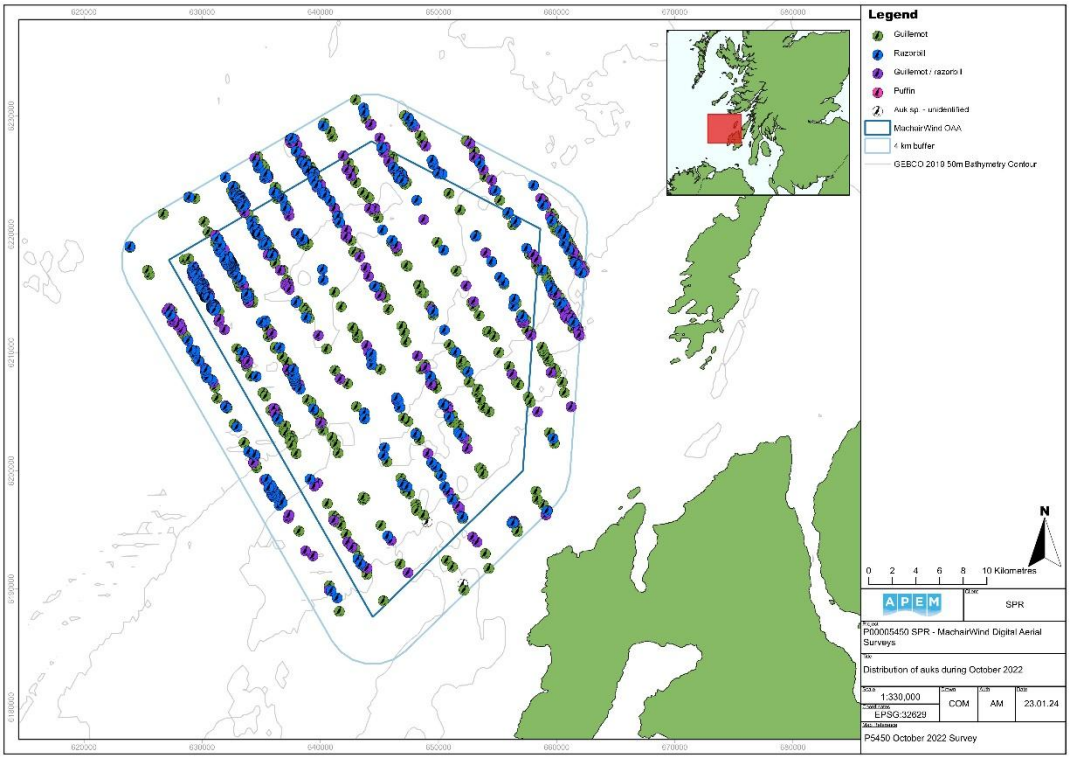


Figure 78 Spatial distribution of auks recorded in the October 2022 survey

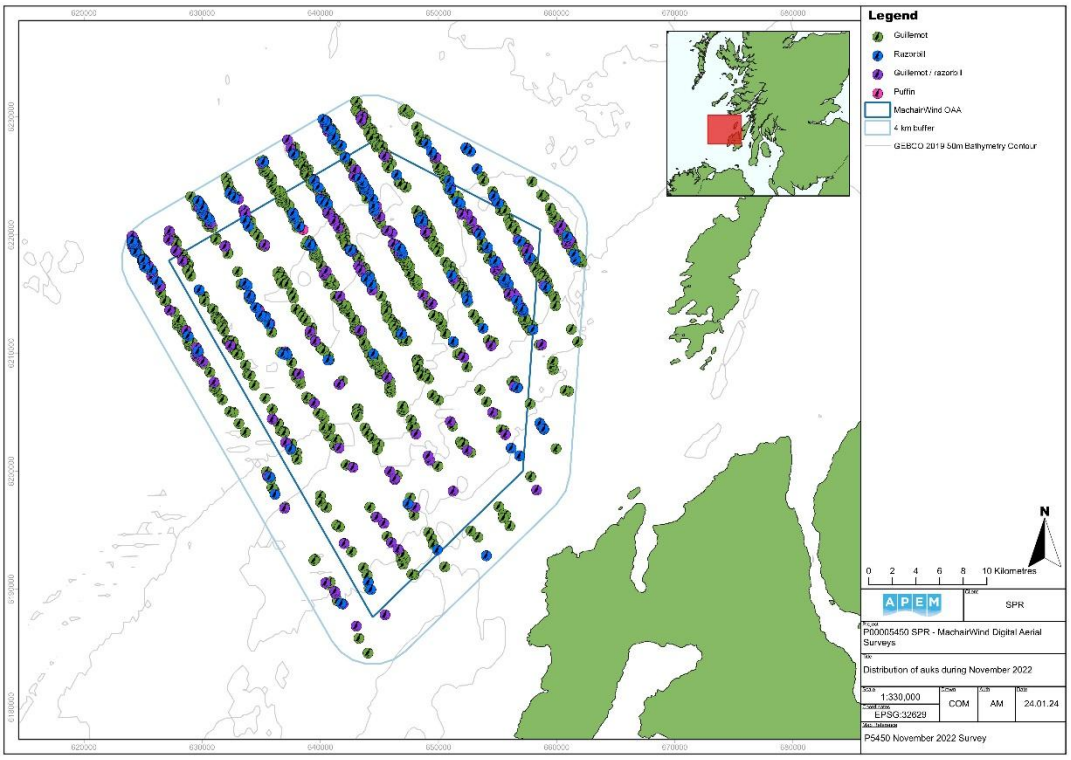


Figure 79 Spatial distribution of auks recorded in the November 2022 survey

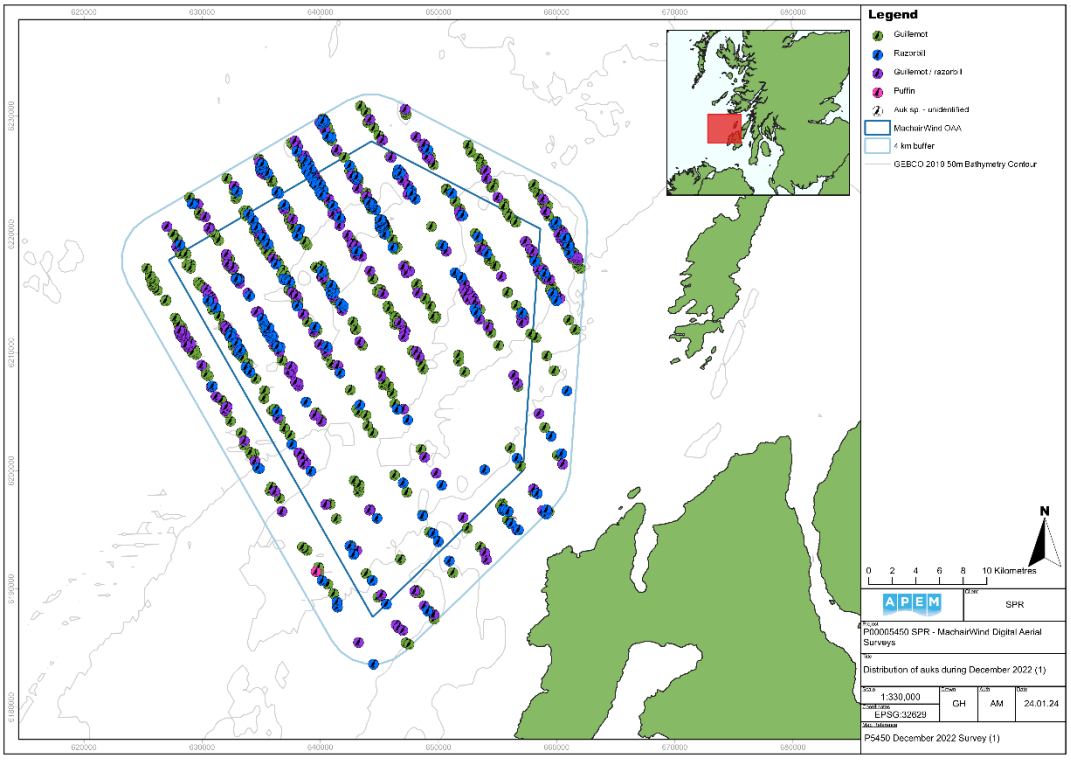


Figure 80 Spatial distribution of auks recorded in the first December 2022 survey (Survey 20)

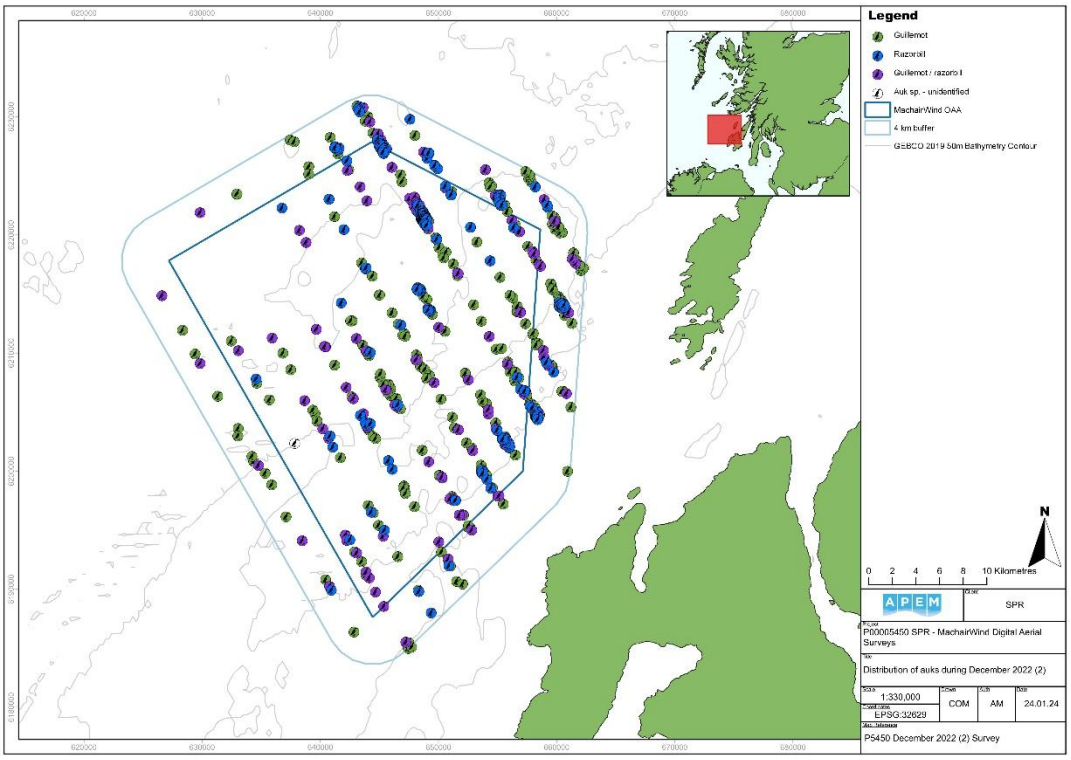


Figure 81 **Spatial distribution of auks recorded in the second December 2022 survey (Survey 21)**

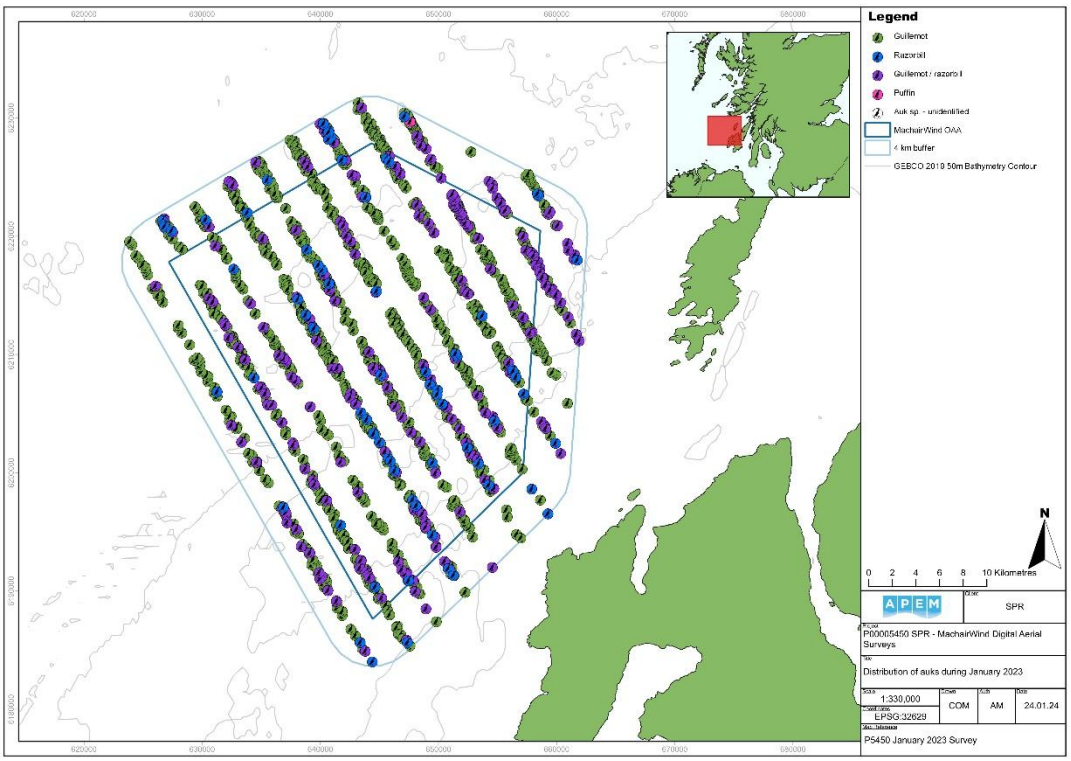


Figure 82 **Spatial distribution of auks recorded in the January 2023 survey**

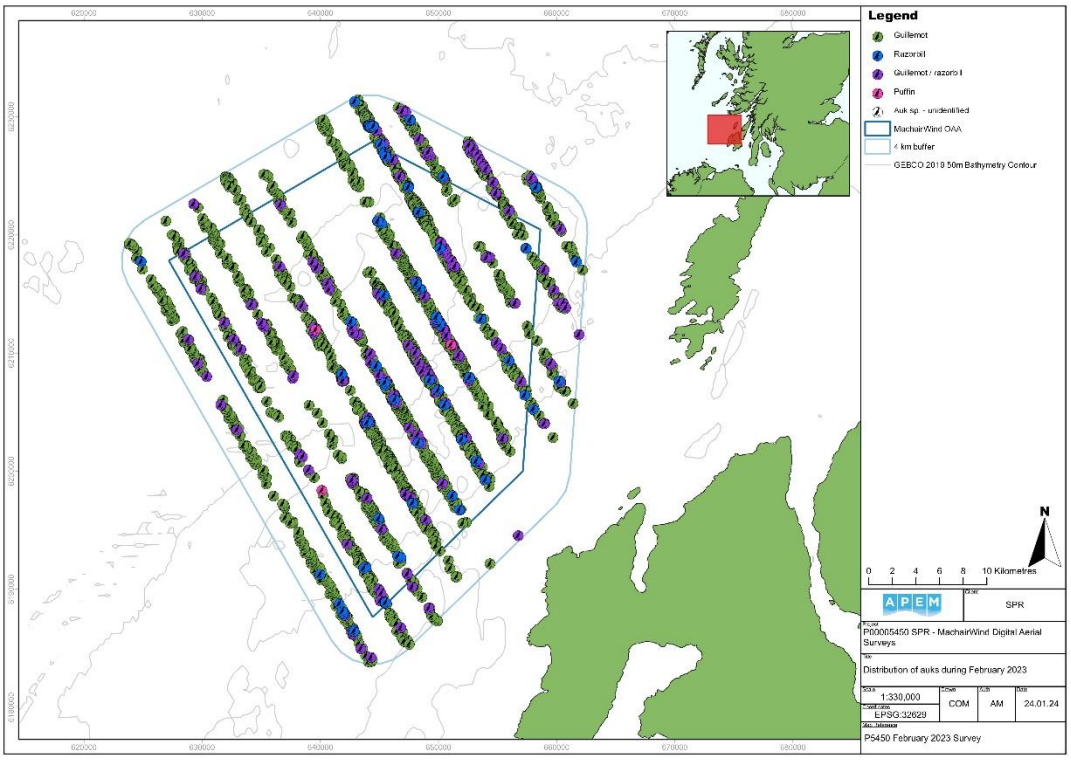


Figure 83 Spatial distribution of auks recorded in the February 2023 survey

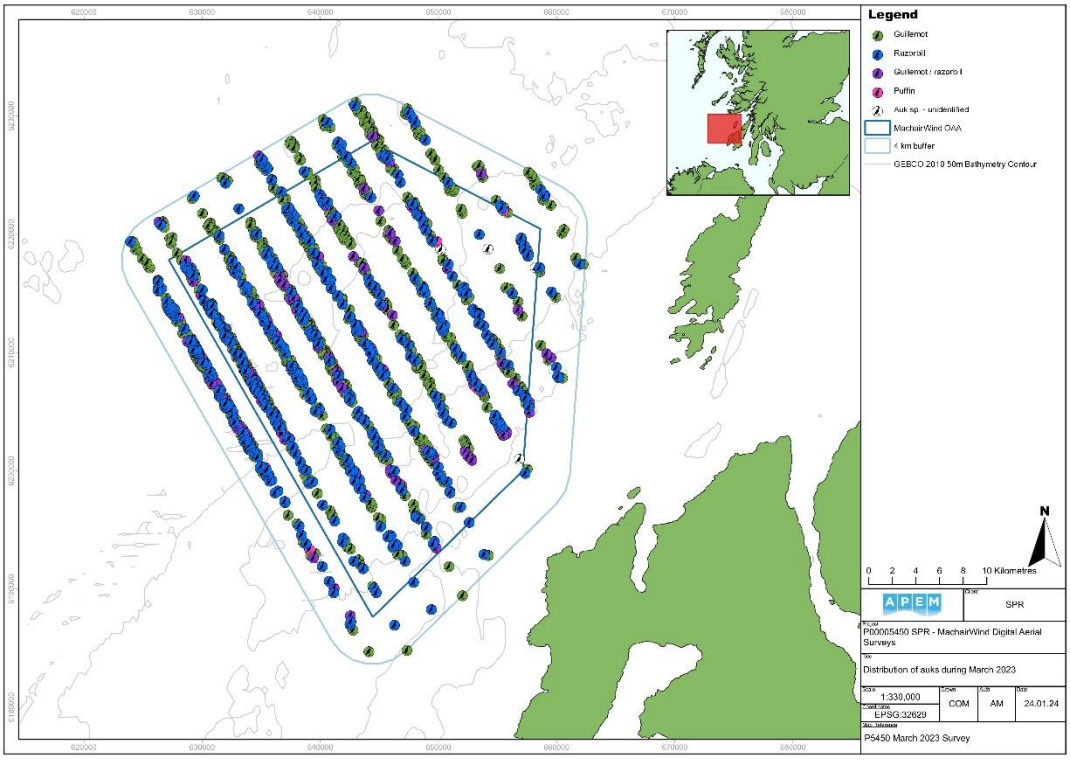


Figure 84 Spatial distribution of auks recorded in the March 2023 survey

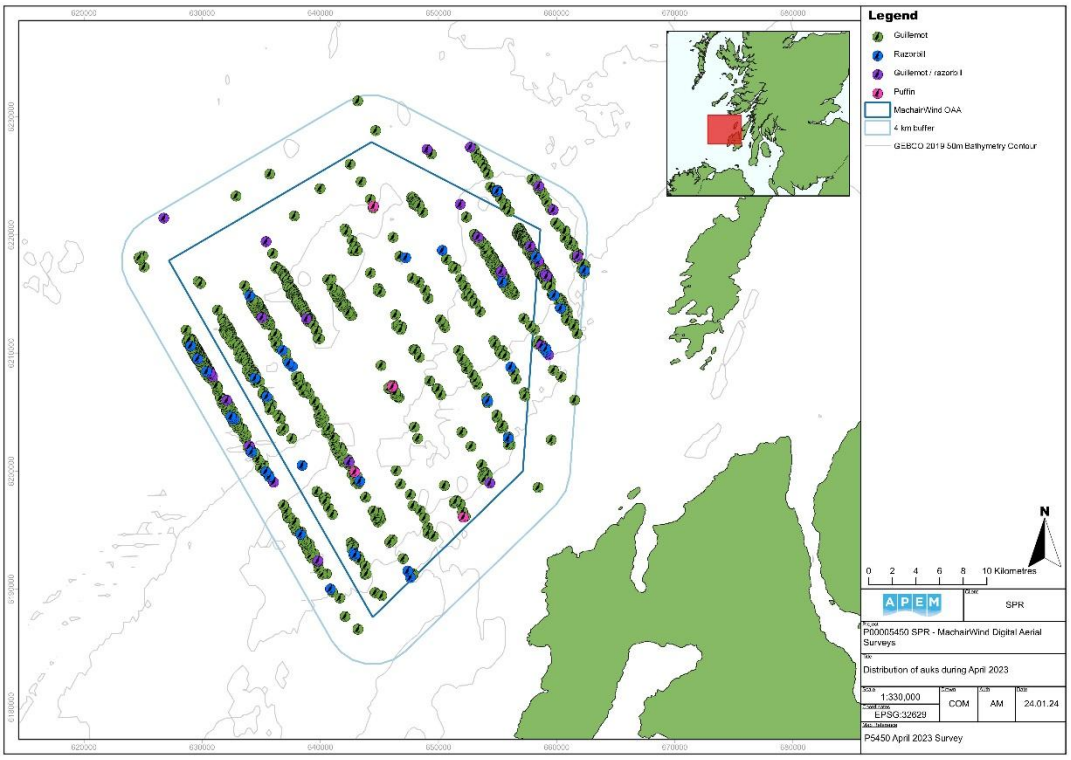


Figure 85 Spatial distribution of auks recorded in the April 2023 survey

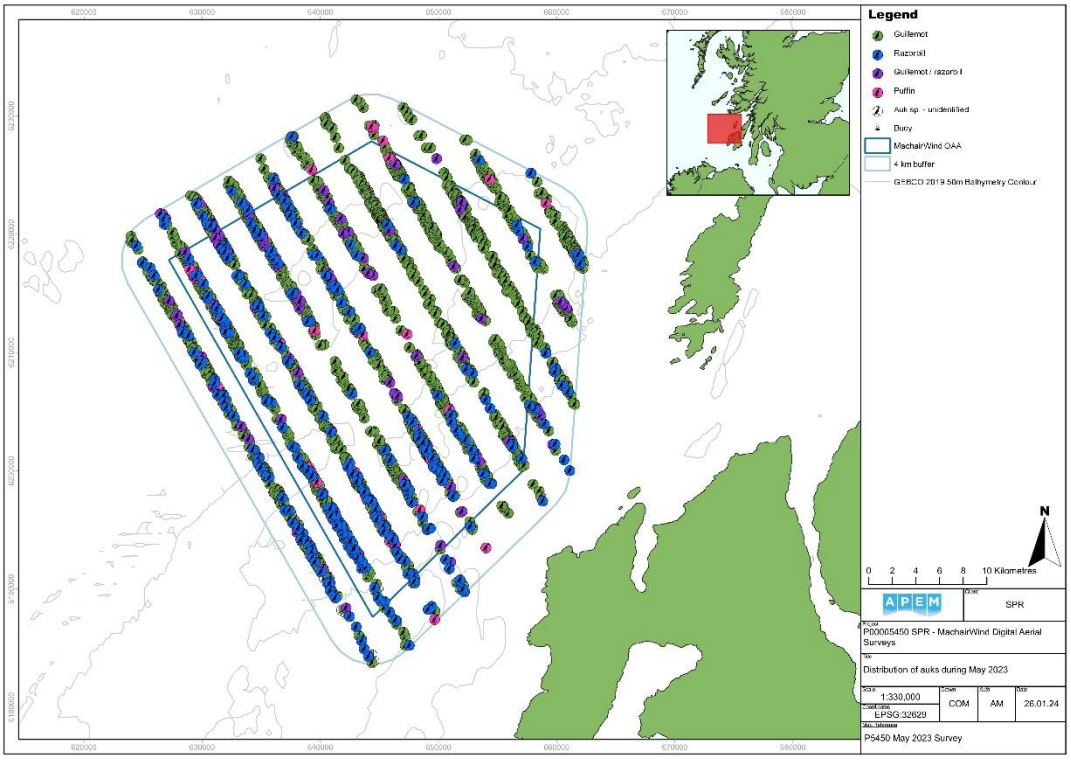


Figure 86 Spatial distribution of auks recorded in the May 2023 survey

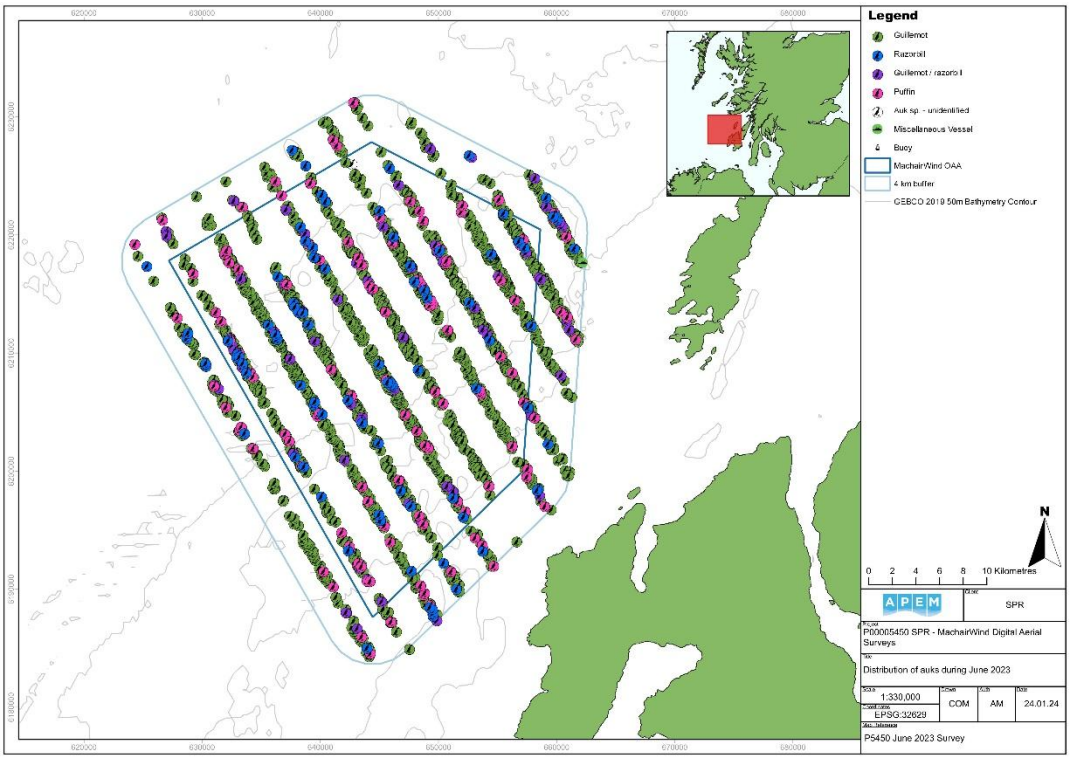


Figure 87 Spatial distribution of auks recorded in the June 2023 survey

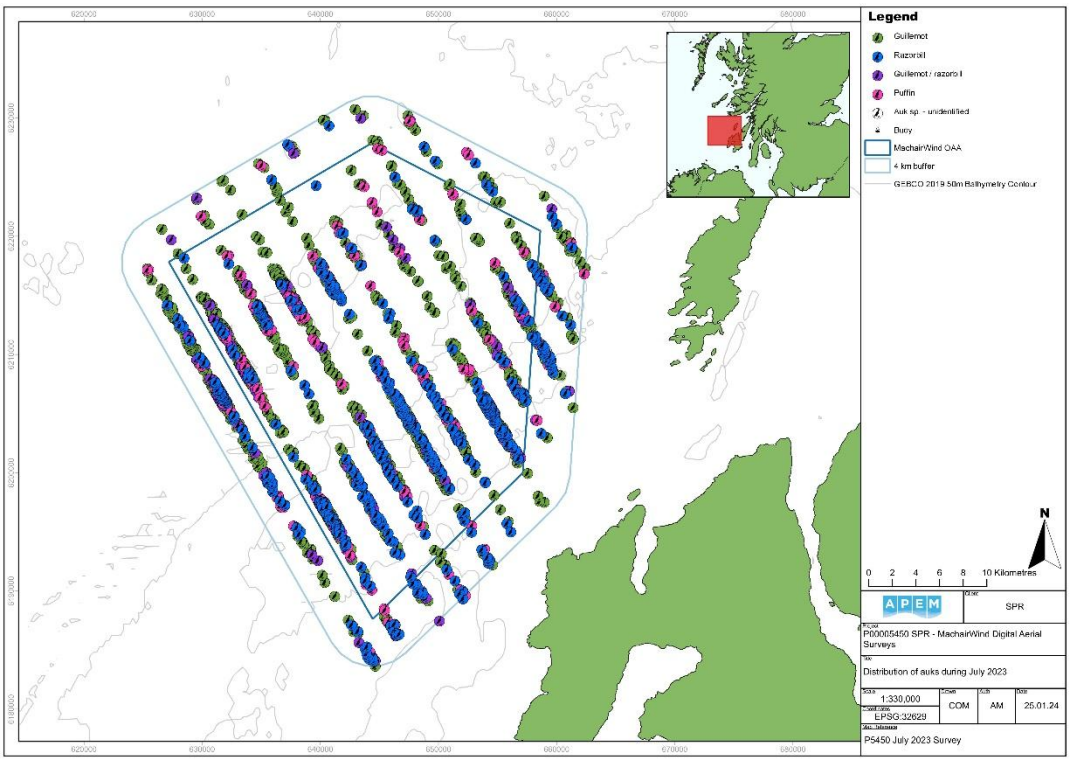


Figure 88 Spatial distribution of auks recorded in the July 2023 survey

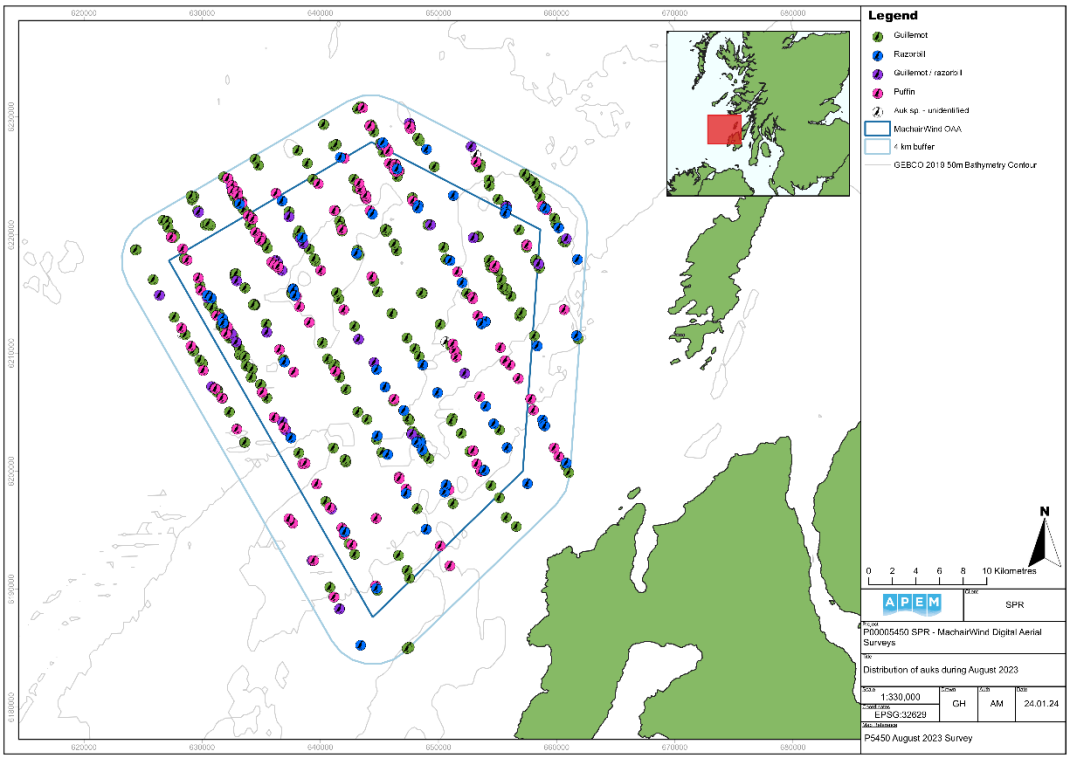


Figure 89 Spatial distribution of auks recorded in the August 2023 survey

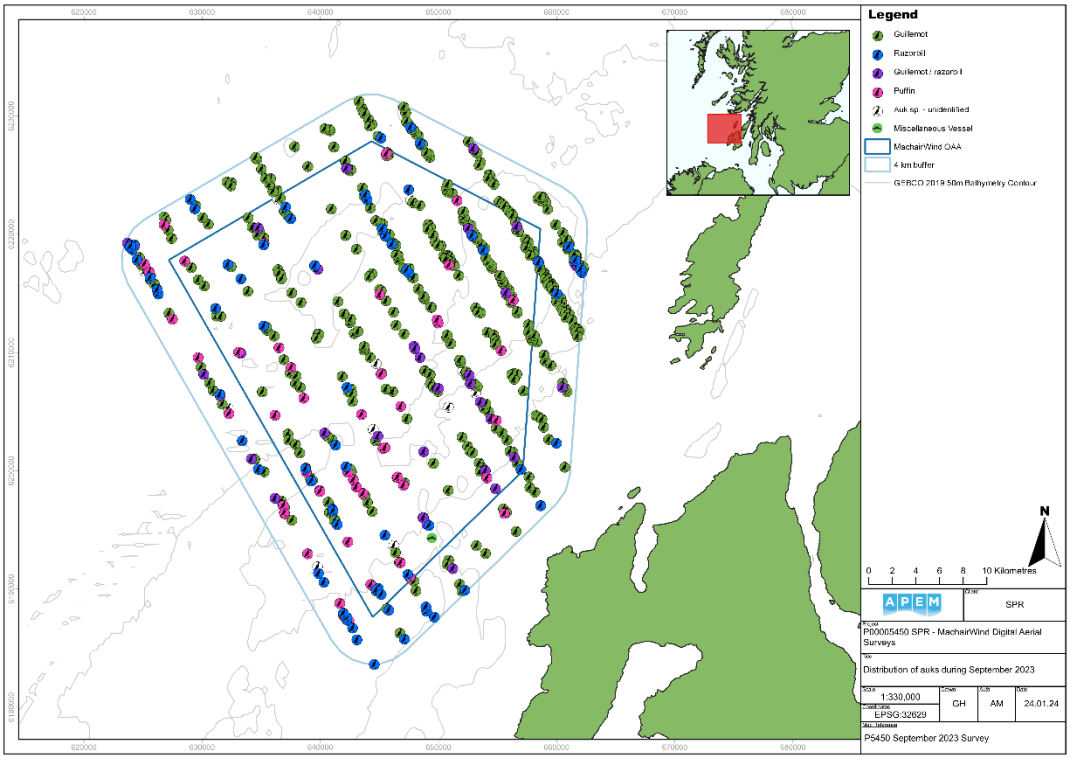


Figure 90 Spatial distribution of auks recorded in the September 2023 survey

11.1.4 Great Northern Diver

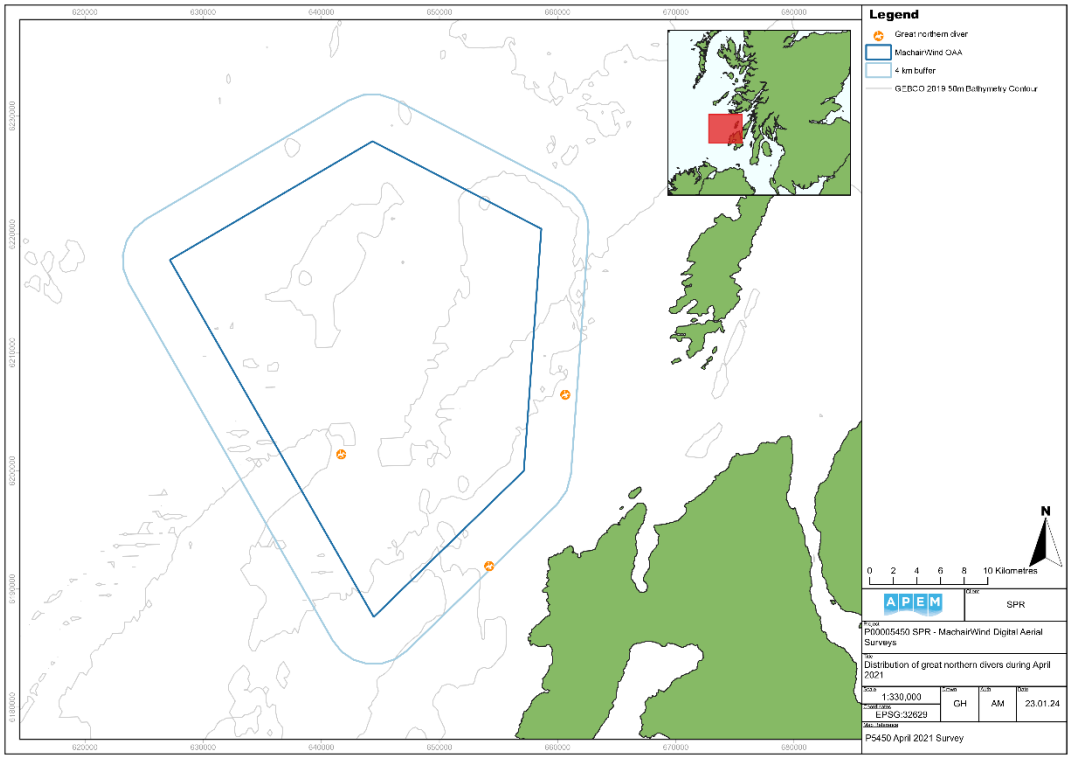


Figure 91 Spatial distribution of great northern divers recorded in the April 2021 survey

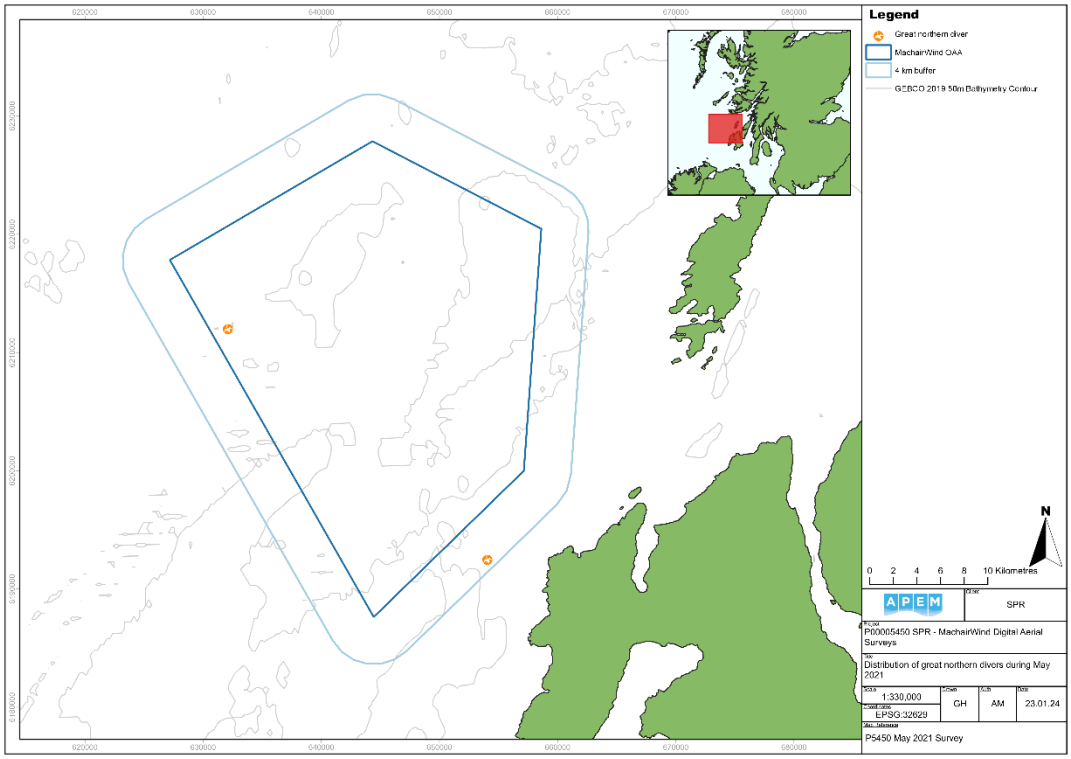


Figure 92 Spatial distribution of great northern divers recorded in the May 2021 survey

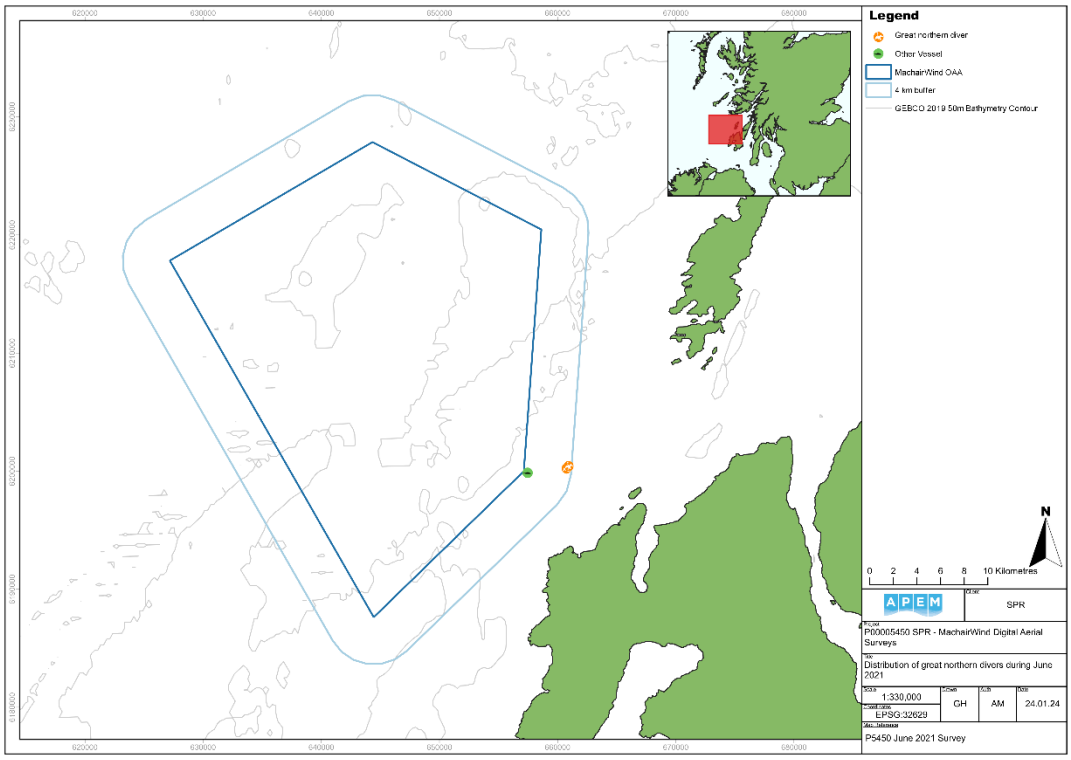


Figure 93 Spatial distribution of great northern divers recorded in the June 2021 survey

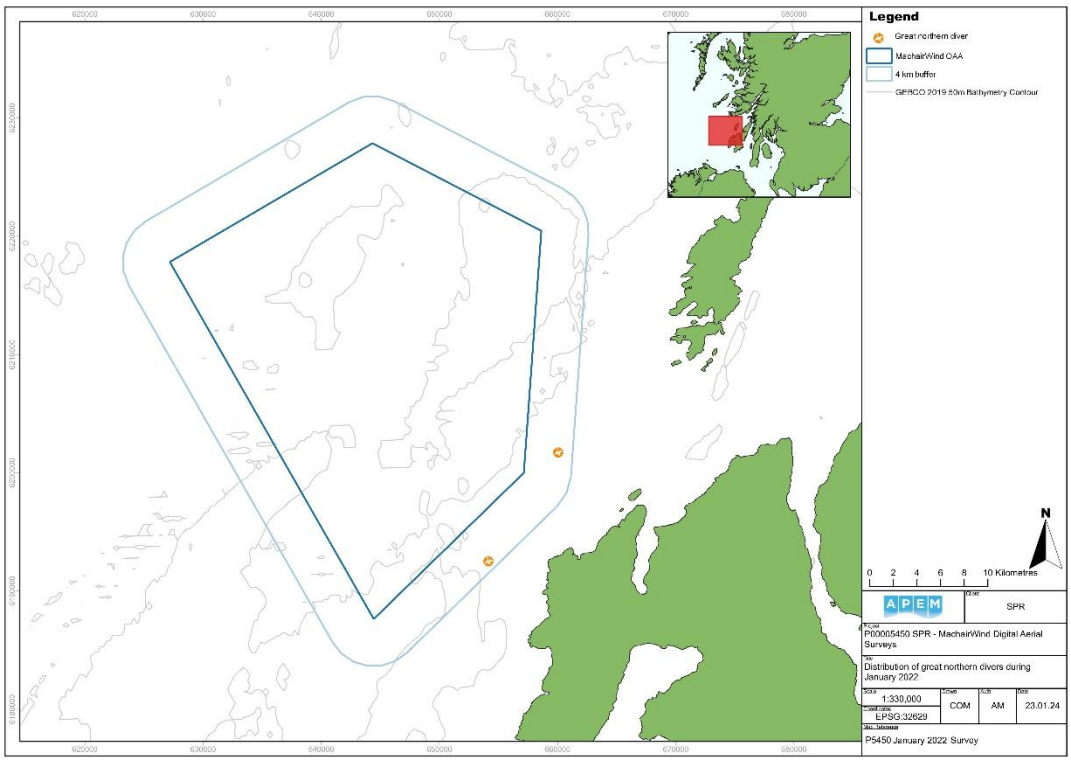


Figure 94 Spatial distribution of great northern divers recorded in the January 2022 survey

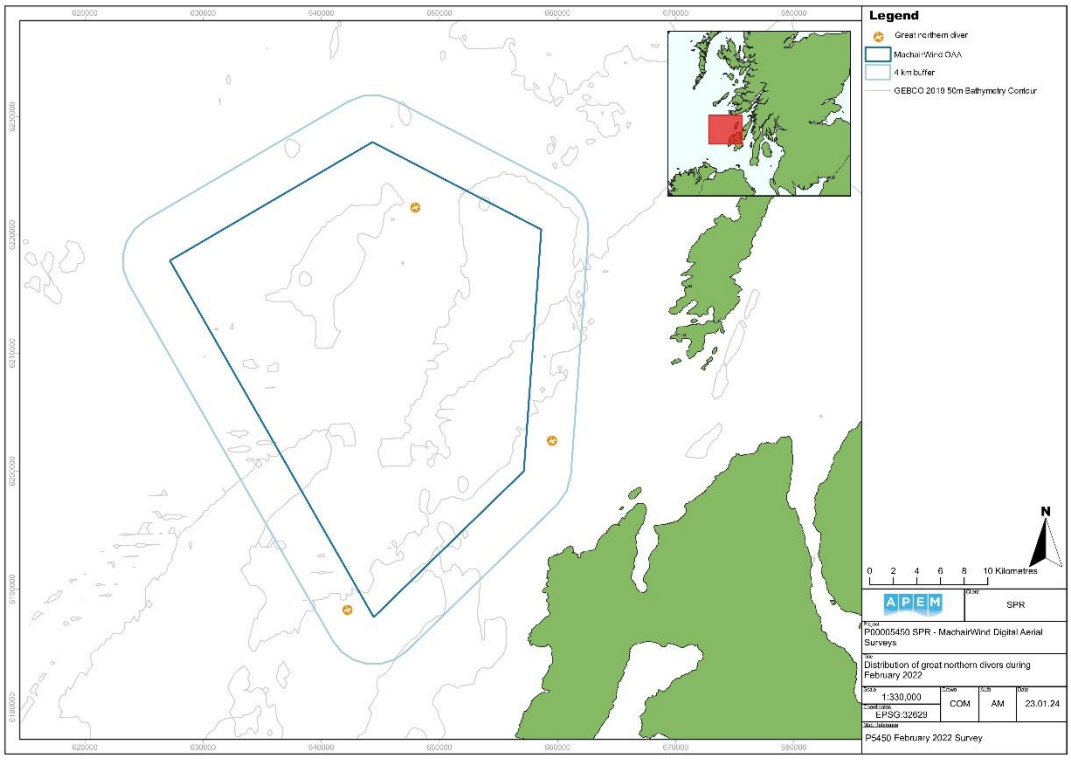


Figure 95 **Spatial distribution of great northern divers recorded in the first March 2022 survey (Survey 10)**

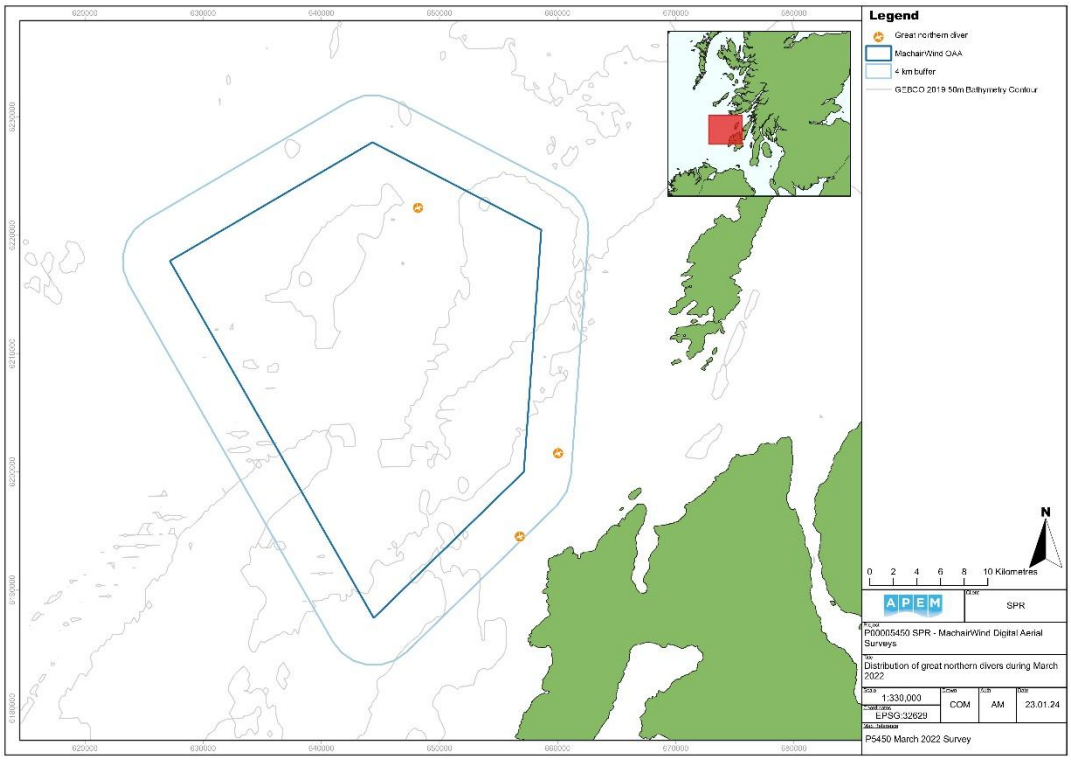


Figure 96 **Spatial distribution of great northern divers recorded in the second March 2022 survey (Survey 11)**

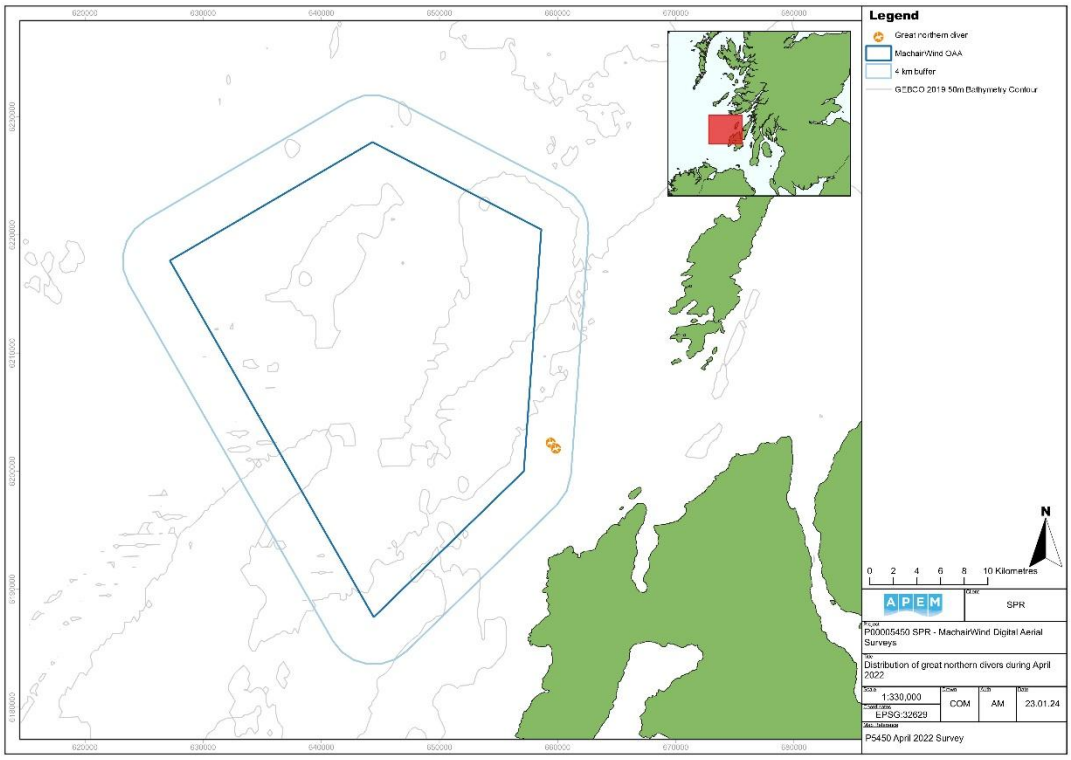


Figure 97 Spatial distribution of great northern divers recorded in the April 2022 survey

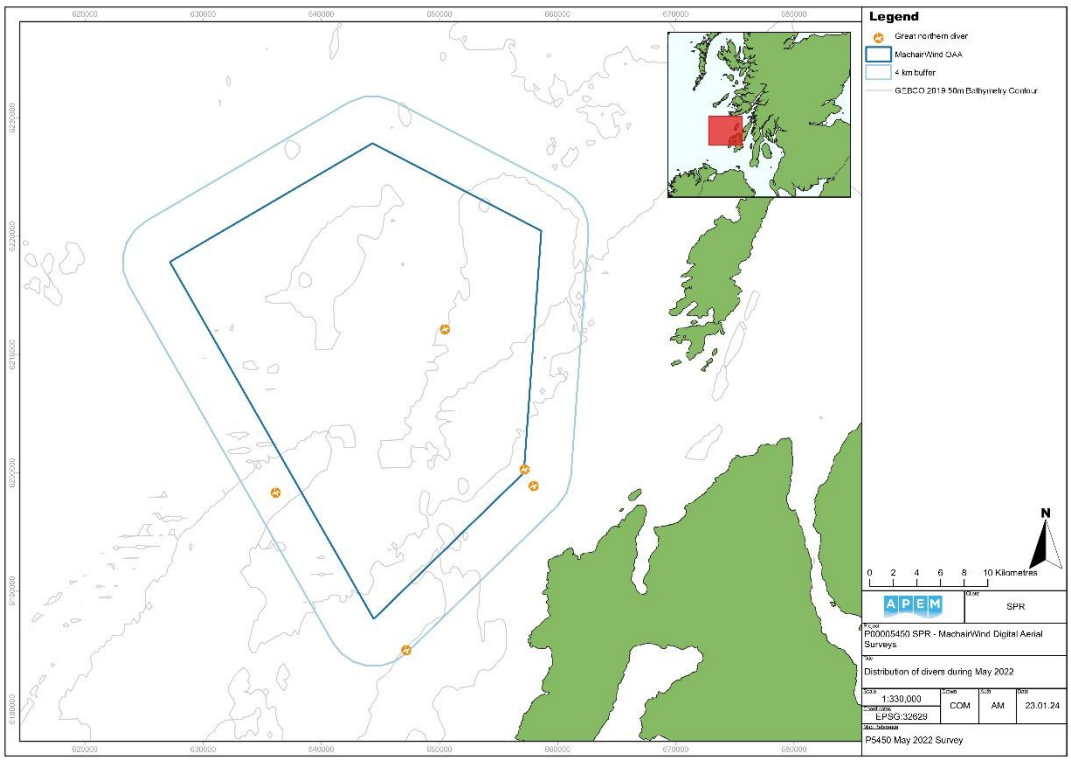


Figure 98 Spatial distribution of great northern divers recorded in the May 2022 survey

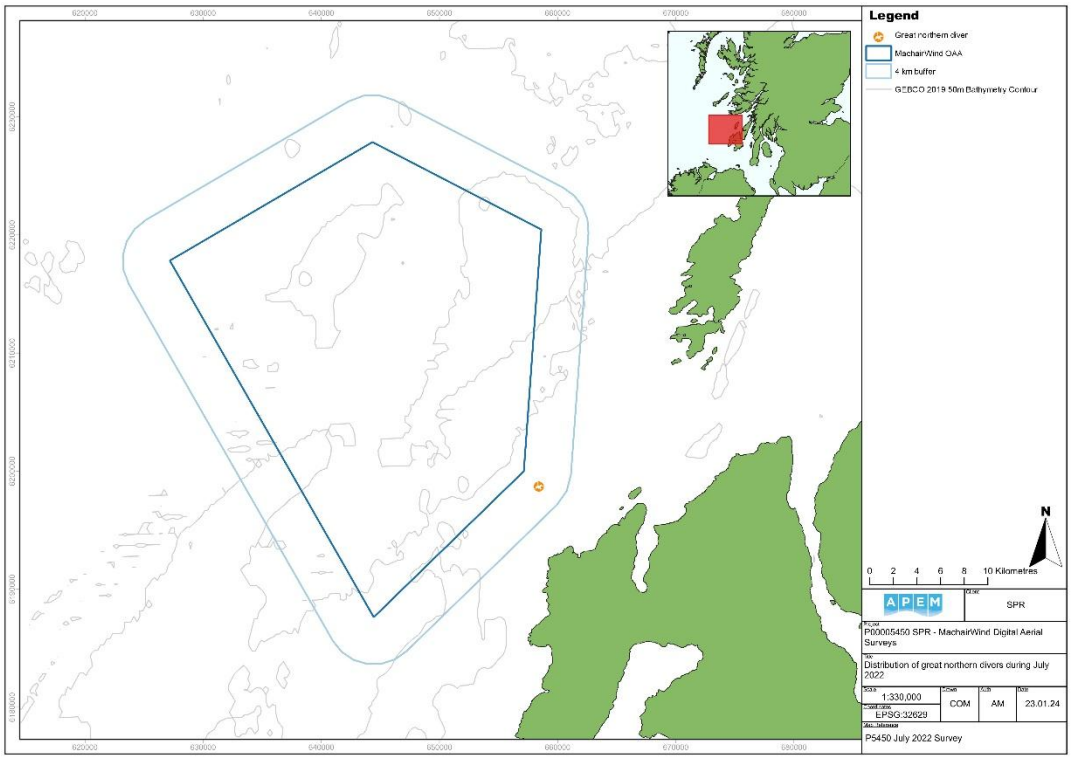


Figure 99 Spatial distribution of great northern divers recorded in the July 2022 survey

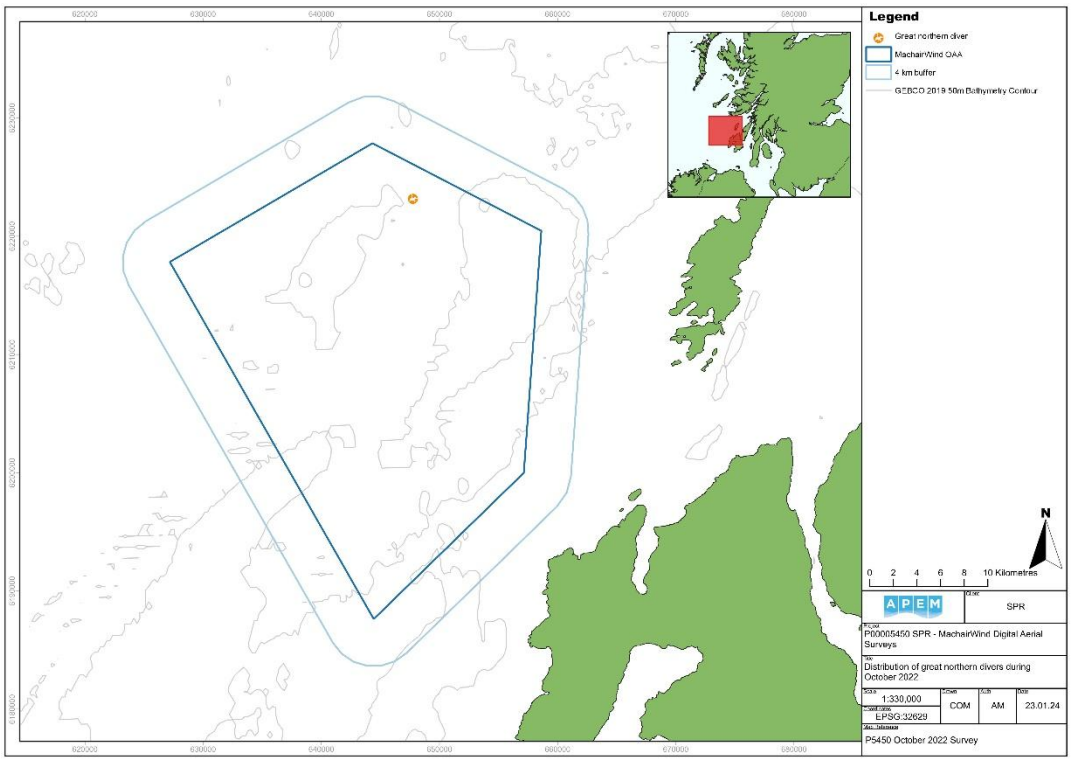


Figure 100 Spatial distribution of great northern divers recorded in the October 2022 survey

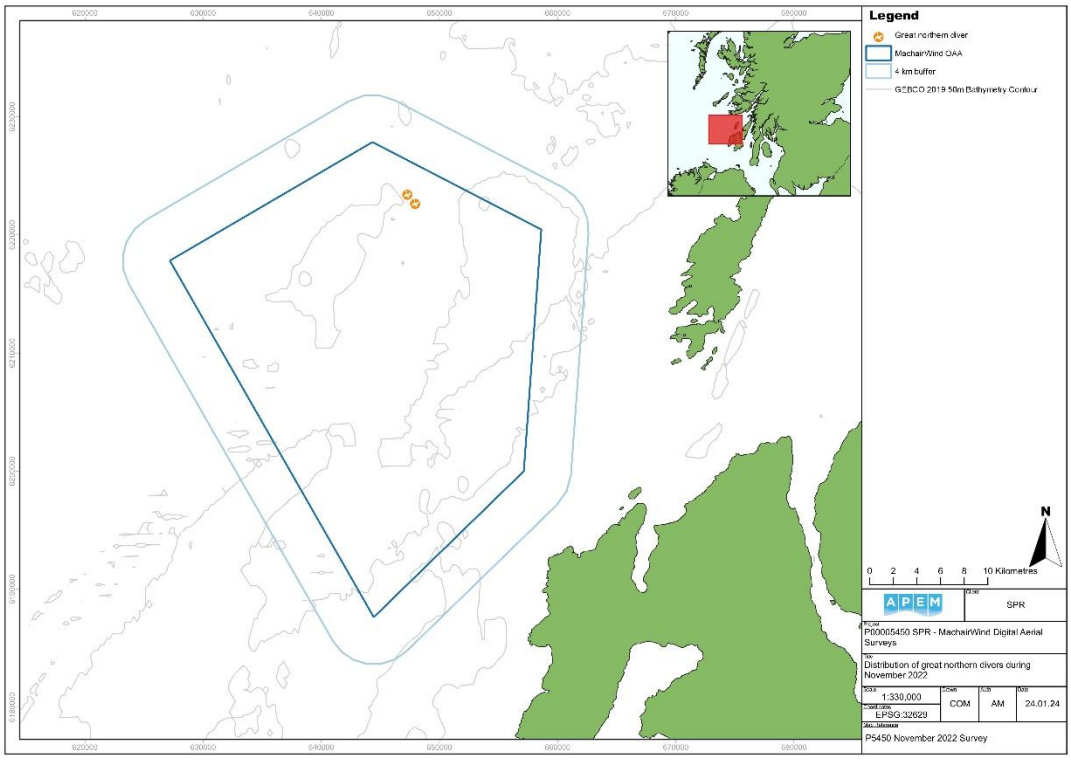


Figure 101 Spatial distribution of great northern divers recorded in the November 2022 survey

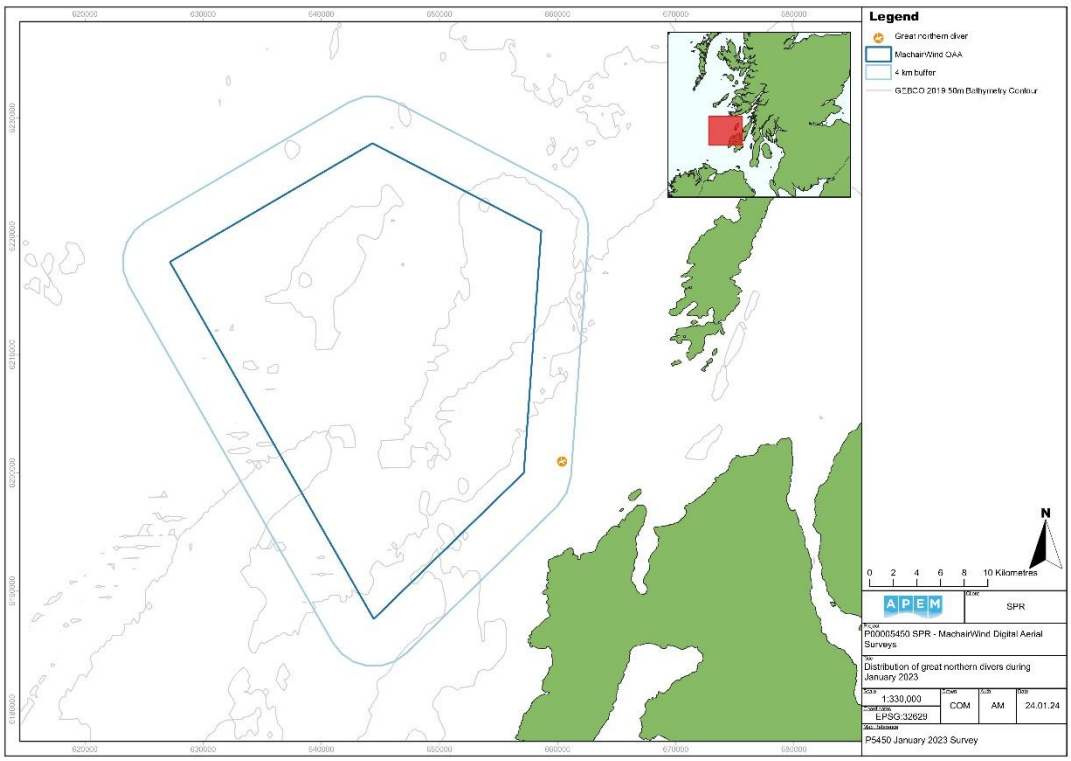


Figure 102 Spatial distribution of great northern divers recorded in the January 2023 survey

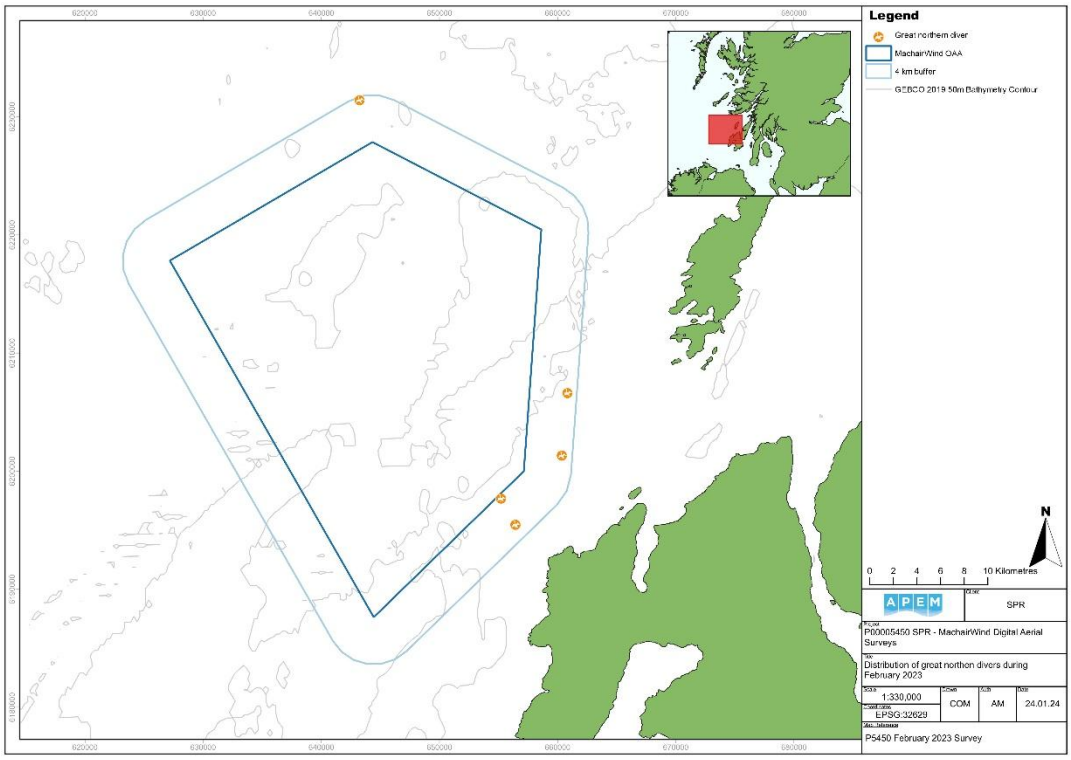


Figure 103 Spatial distribution of great northern divers recorded in the February 2023 survey

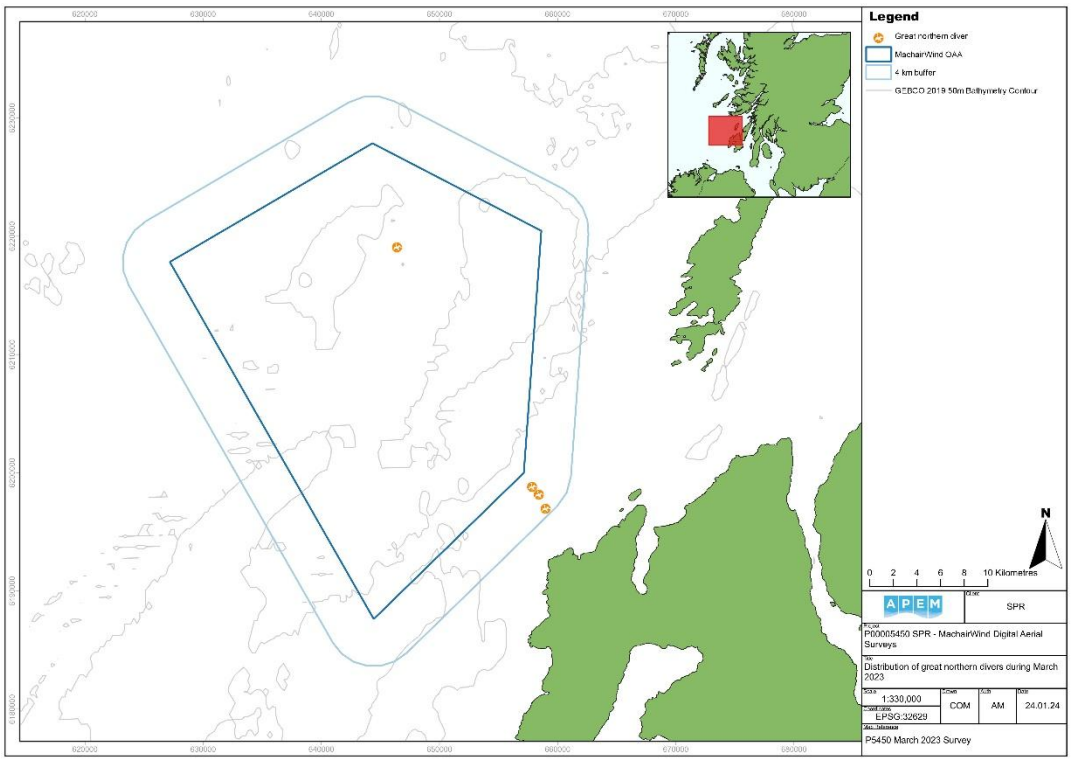


Figure 104 Spatial distribution of great northern divers recorded in the March 2023 survey

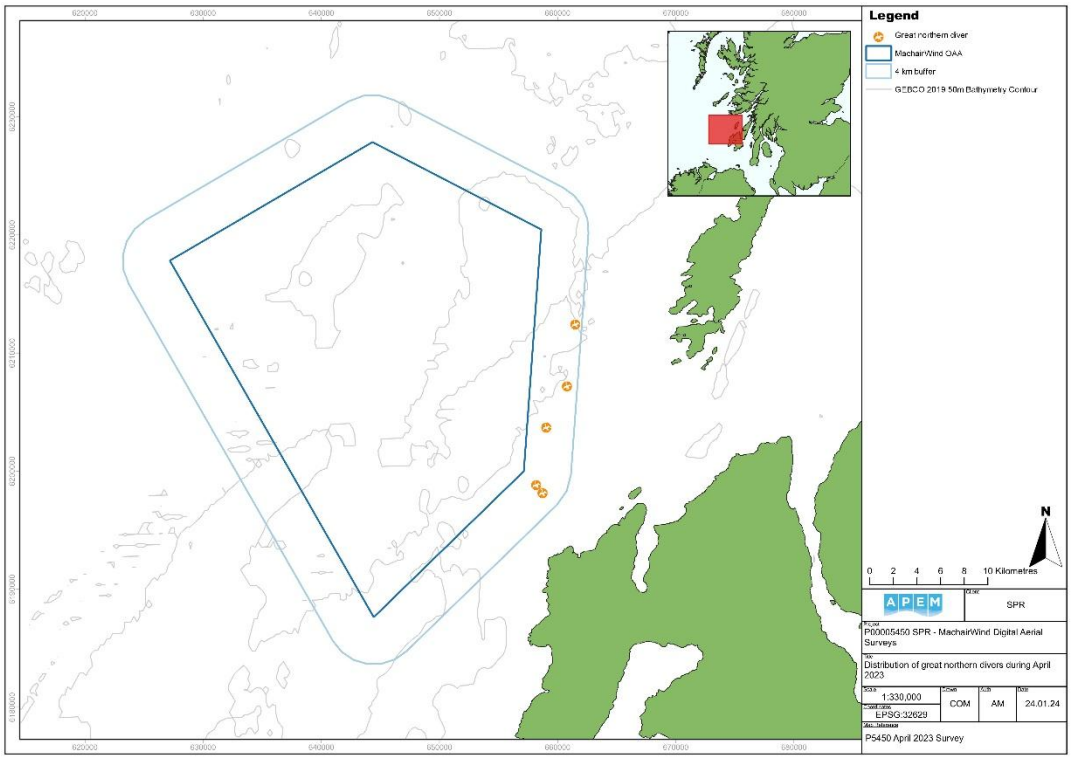


Figure 105 Spatial distribution of great northern divers recorded in the April 2023 survey

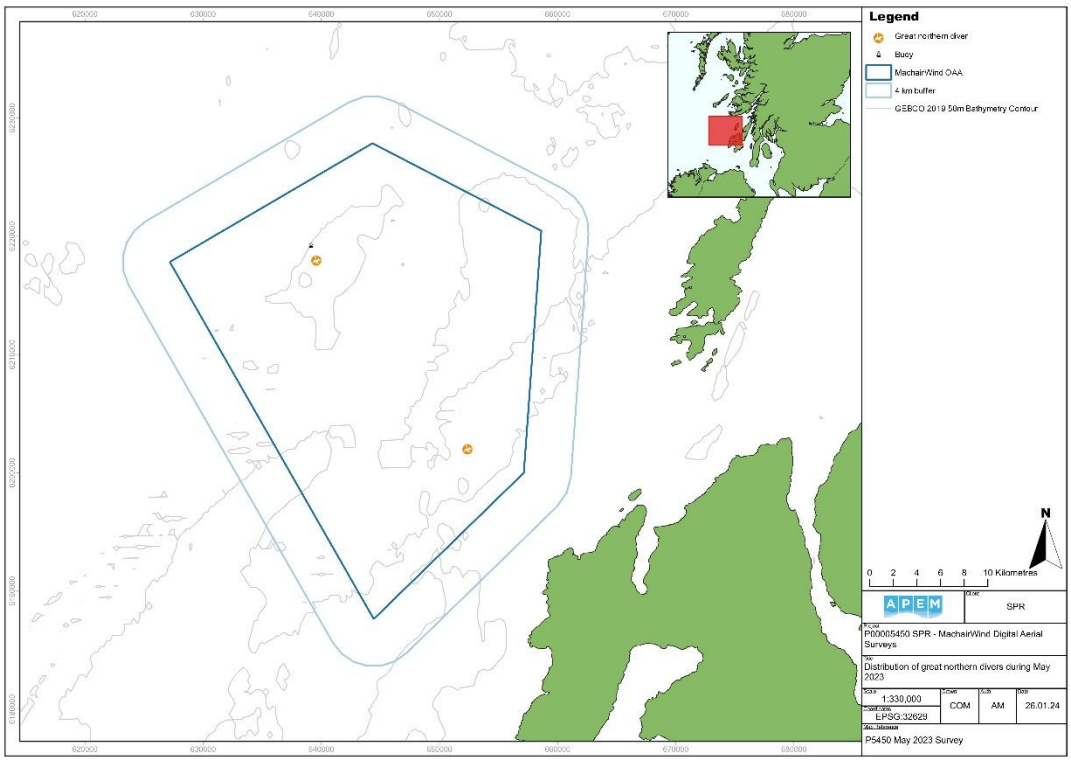


Figure 106 Spatial distribution of great northern divers recorded in the May 2023 survey

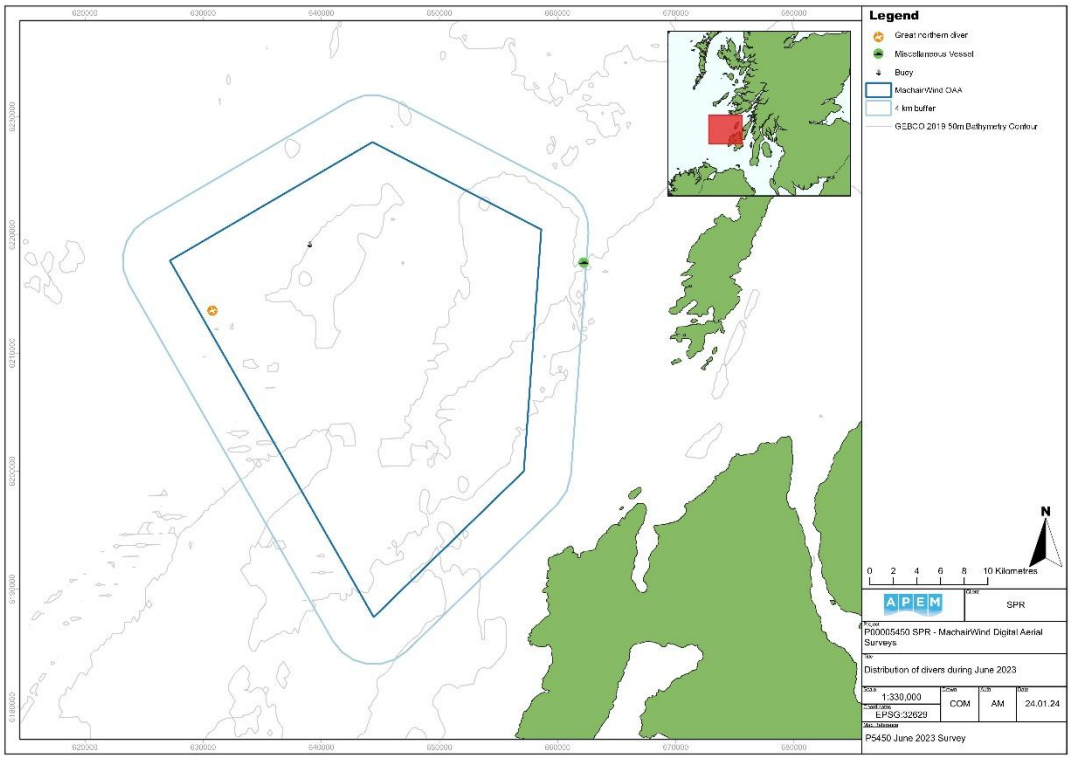


Figure 107 Spatial distribution of great northern divers recorded in the June 2023 survey

11.1.5 Petrel species

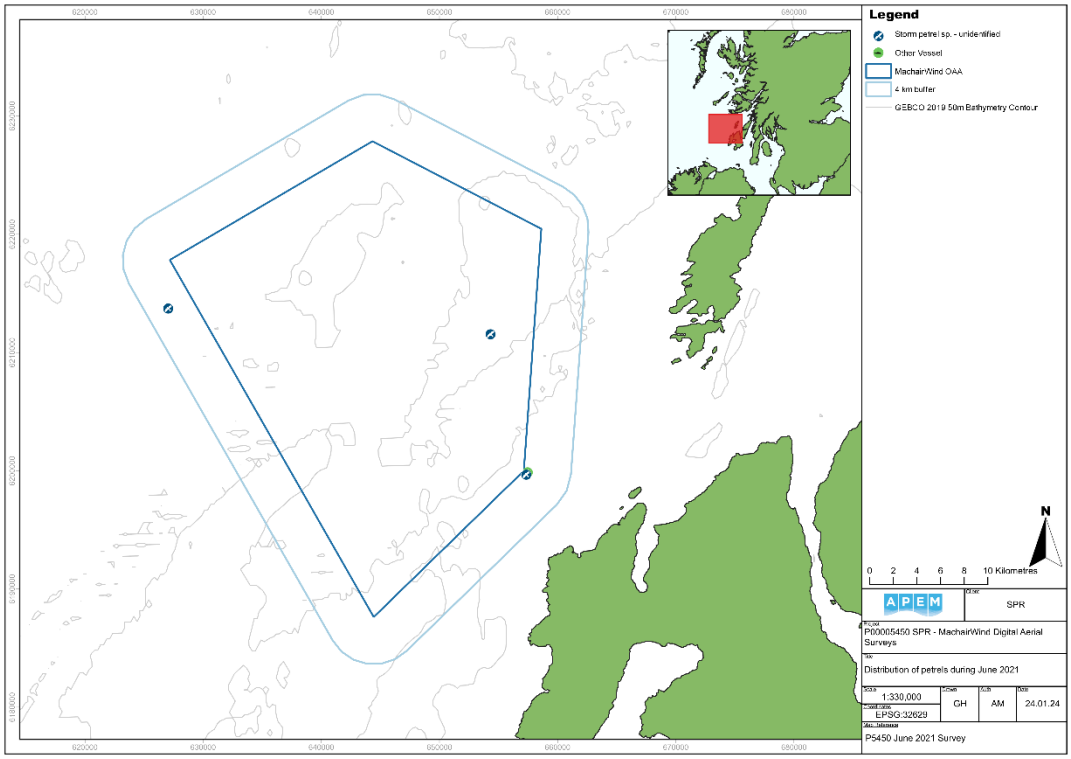


Figure 108 Spatial distribution of petrels recorded in the June 2021 survey

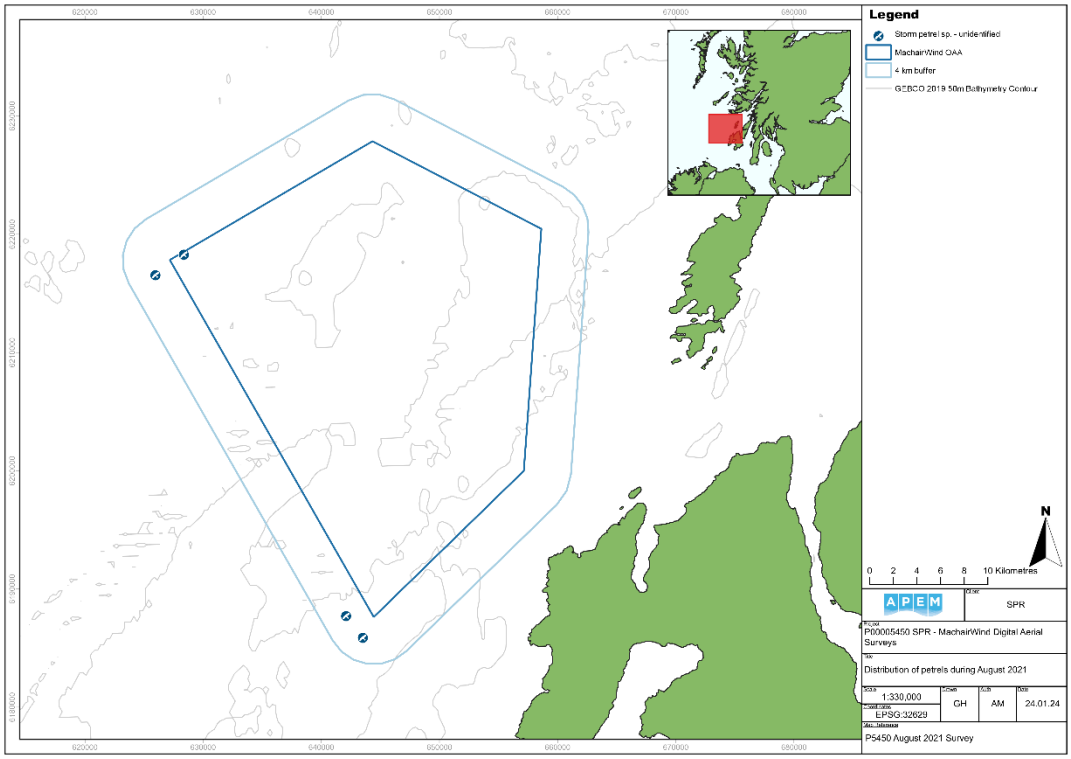


Figure 109 Spatial distribution of petrels recorded in the August 2021 survey

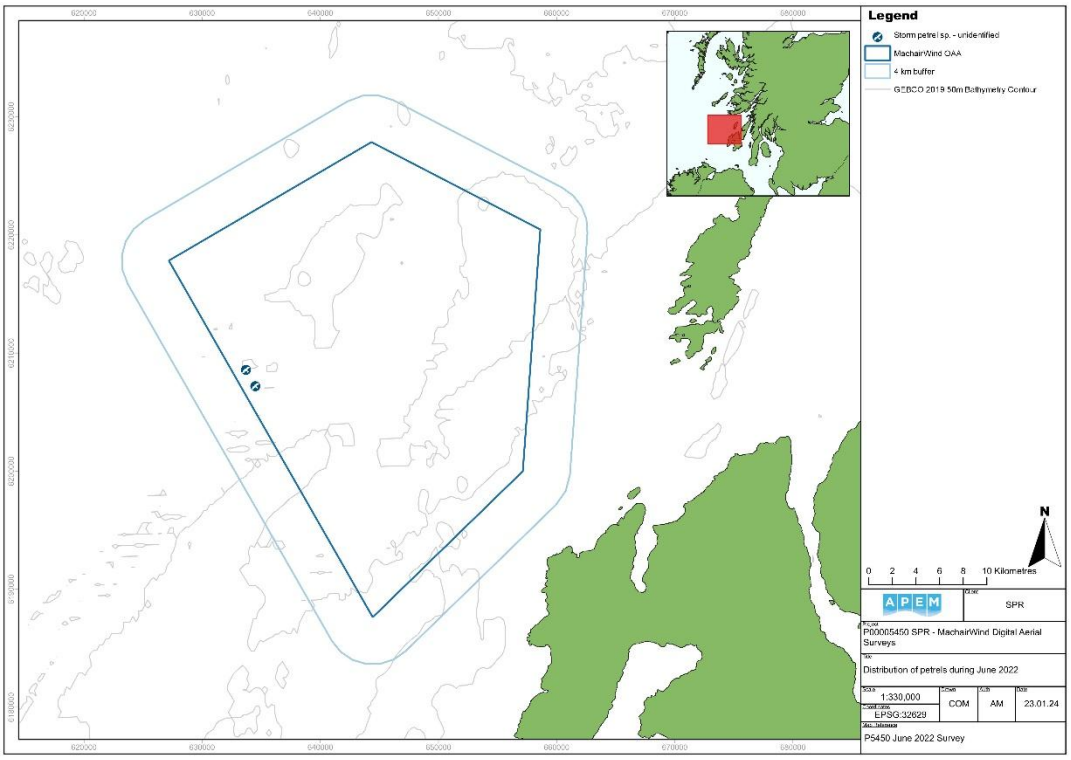


Figure 110 Spatial distribution of petrels recorded in the June 2022 survey

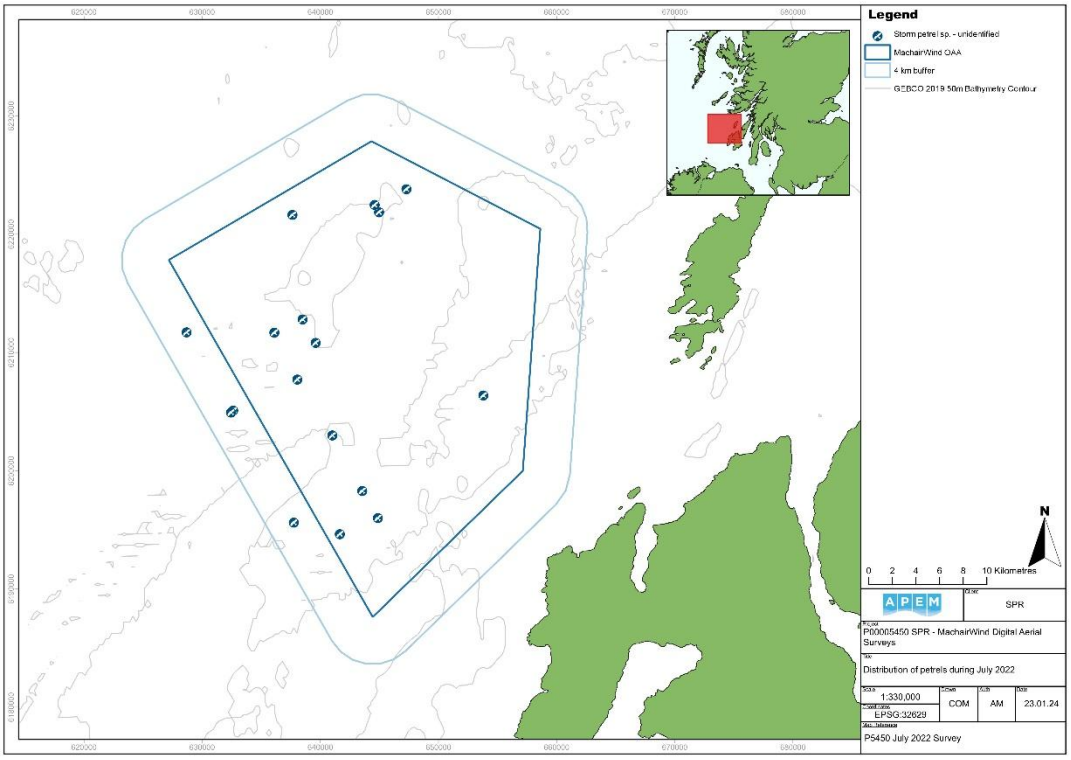


Figure 111 Spatial distribution of petrels recorded in the July 2022 survey

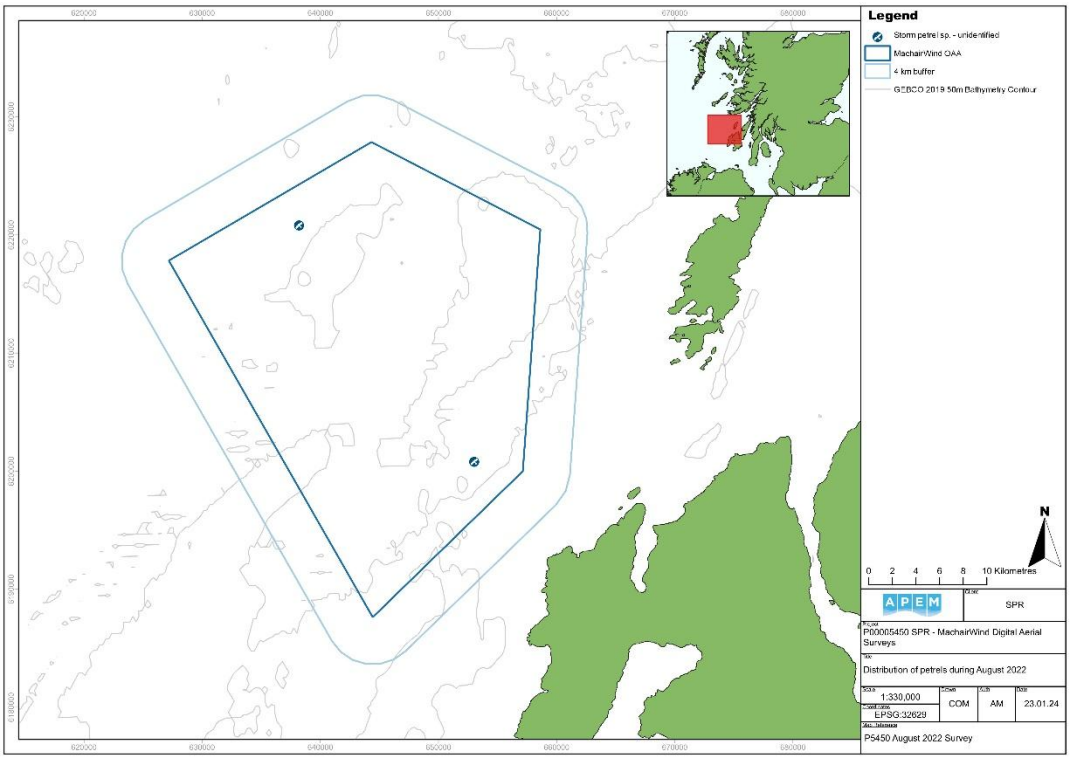


Figure 112 Spatial distribution of petrels recorded in the August 2022 survey

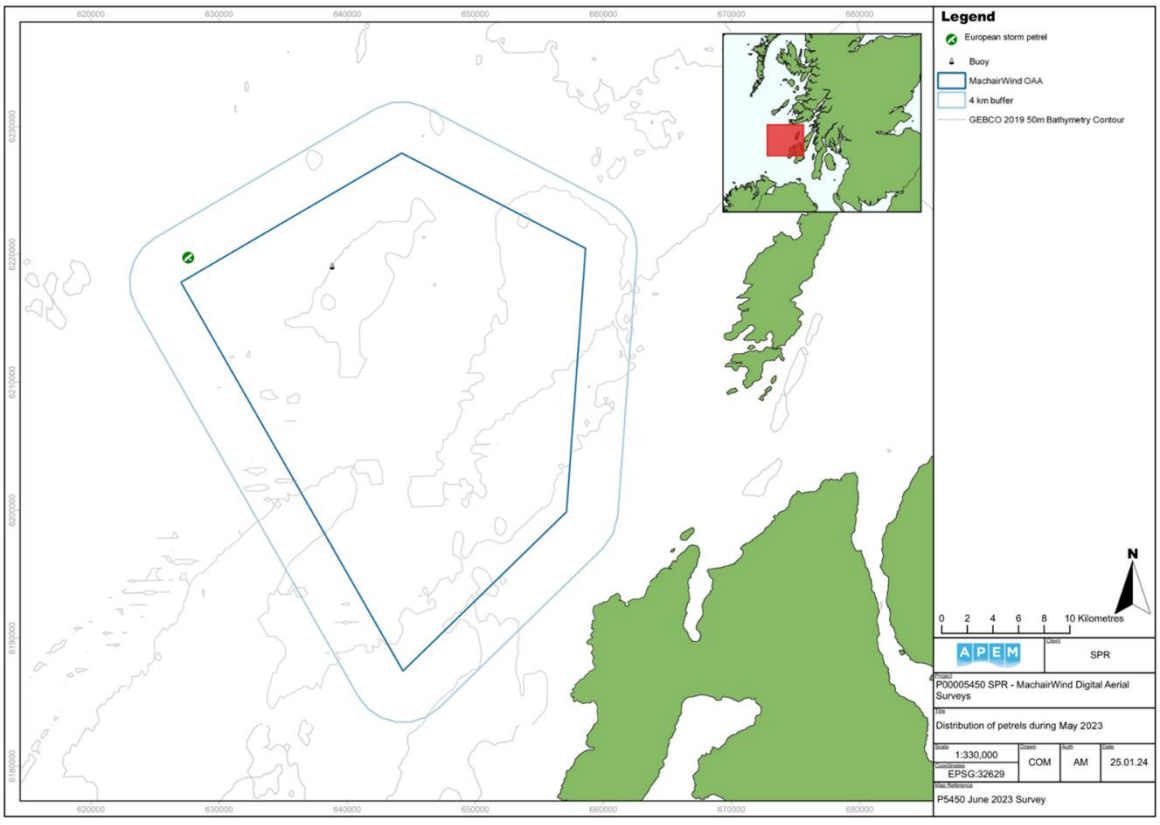


Figure 113 Spatial distribution of petrels recorded in the May 2023 survey

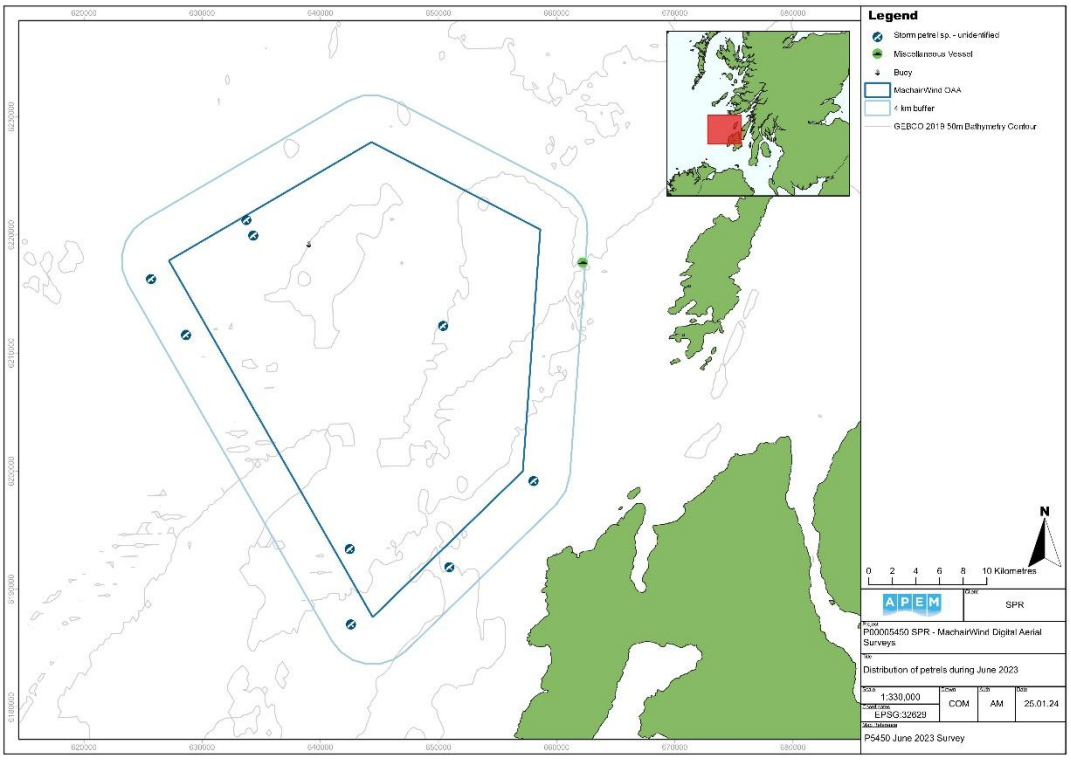


Figure 114 Spatial distribution of petrels recorded in the June 2023 survey

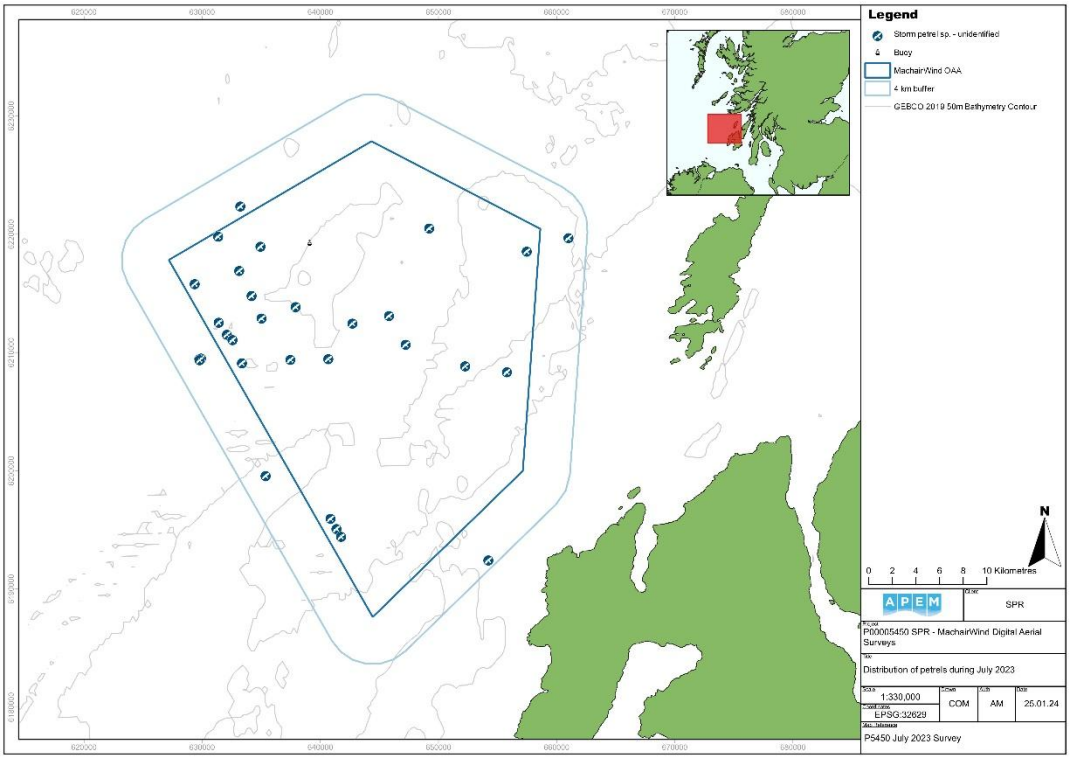


Figure 115 Spatial distribution of petrels recorded in the July 2023 survey

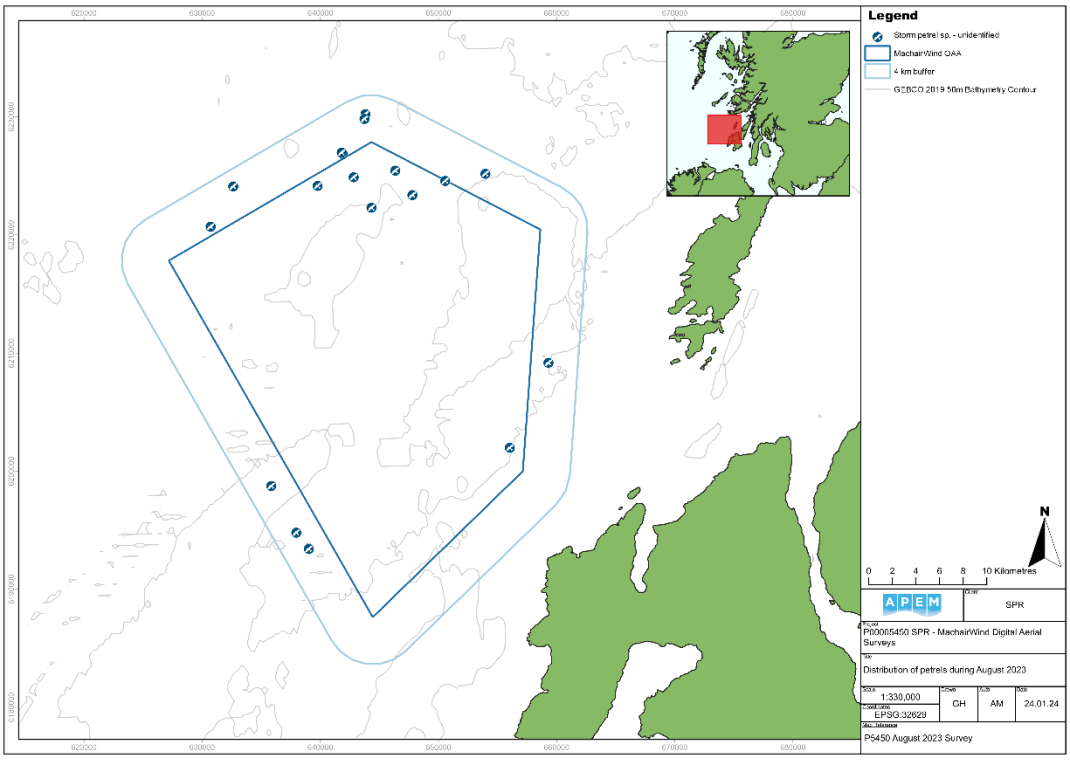


Figure 116 Spatial distribution of petrels recorded in the August 2023 survey

11.1.6 Fulmar

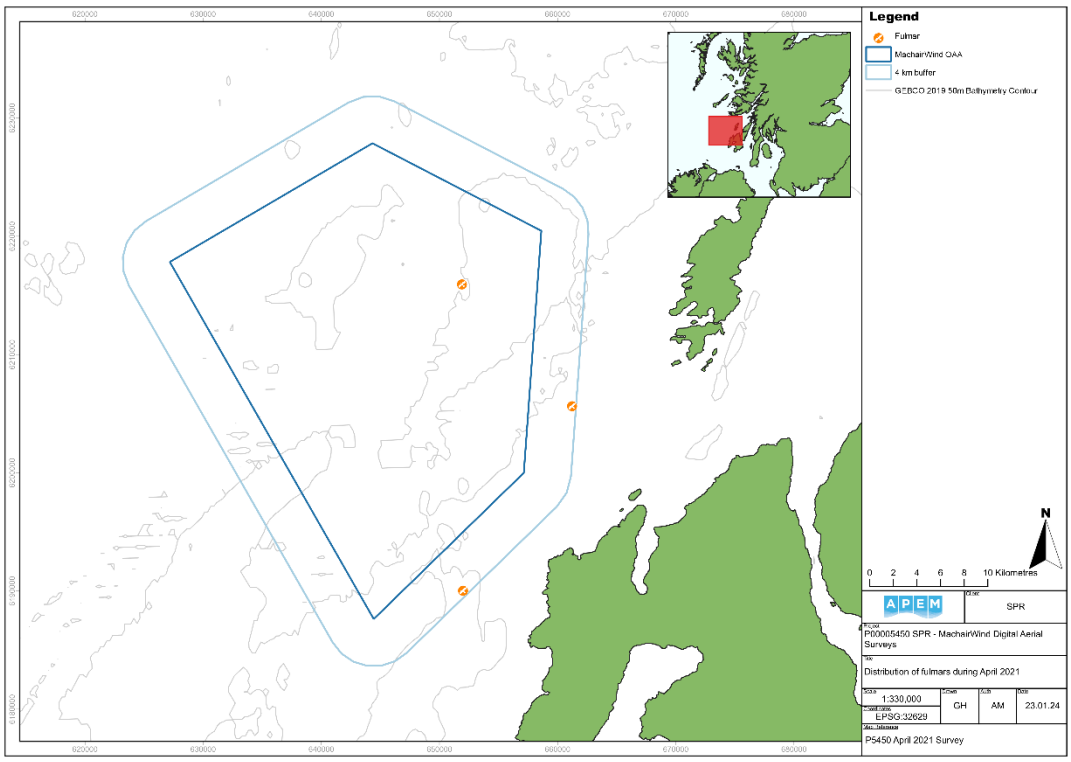


Figure 117 Spatial distribution of fulmars recorded in the April 2021 survey

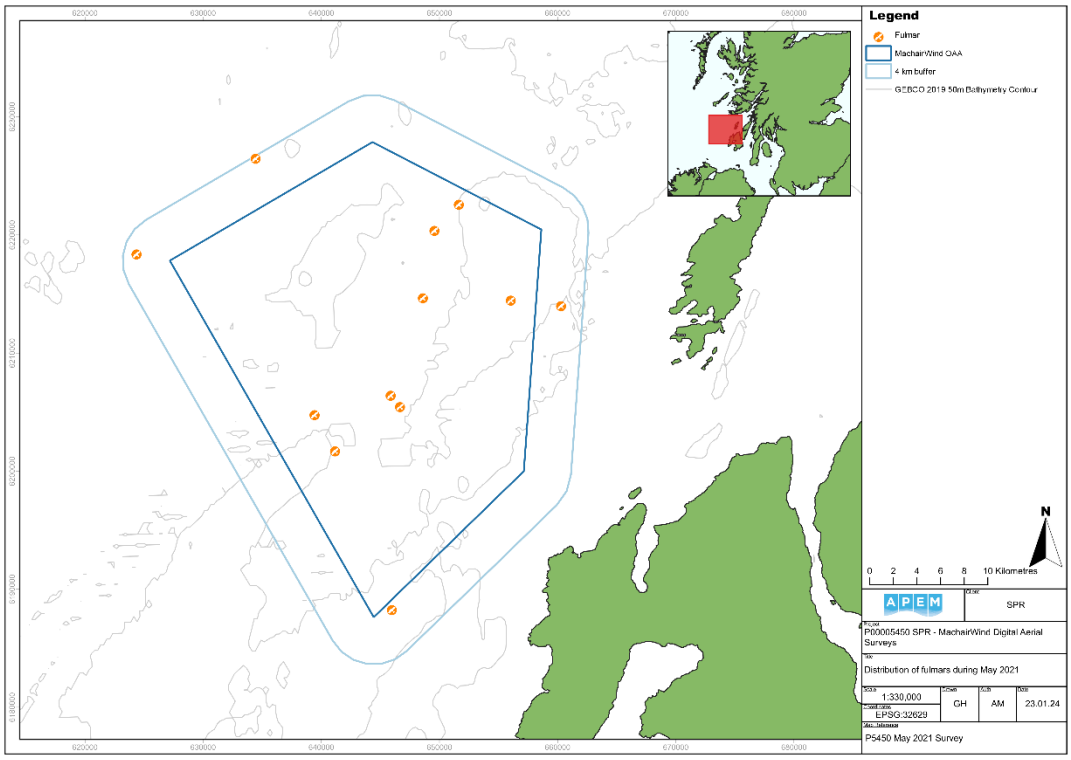


Figure 118 Spatial distribution of fulmars recorded in the May 2021 survey

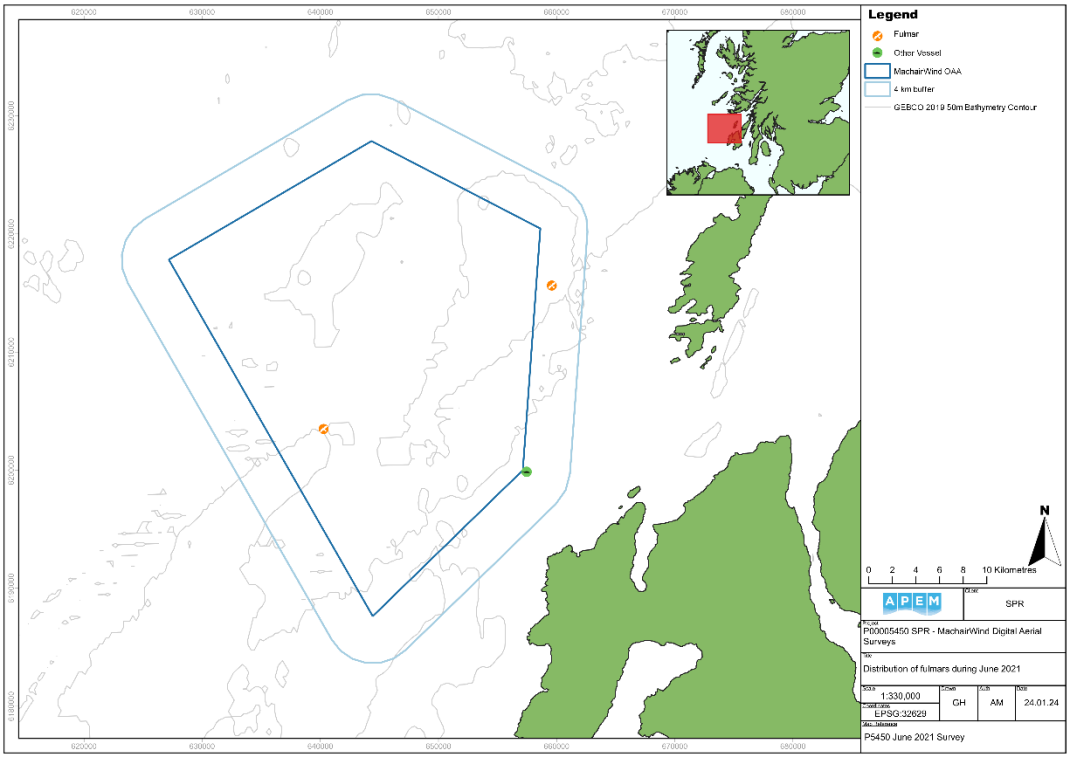


Figure 119 Spatial distribution of fulmars recorded in the June 2021 survey

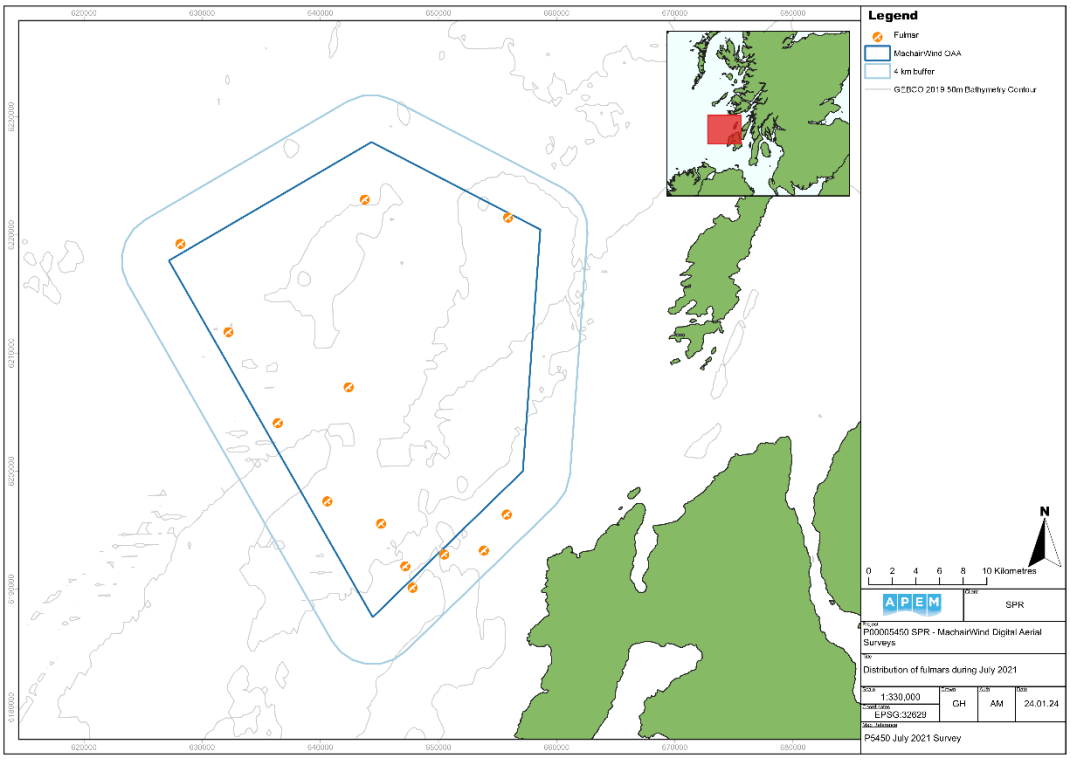


Figure 120 Spatial distribution of fulmars recorded in the July 2021 survey

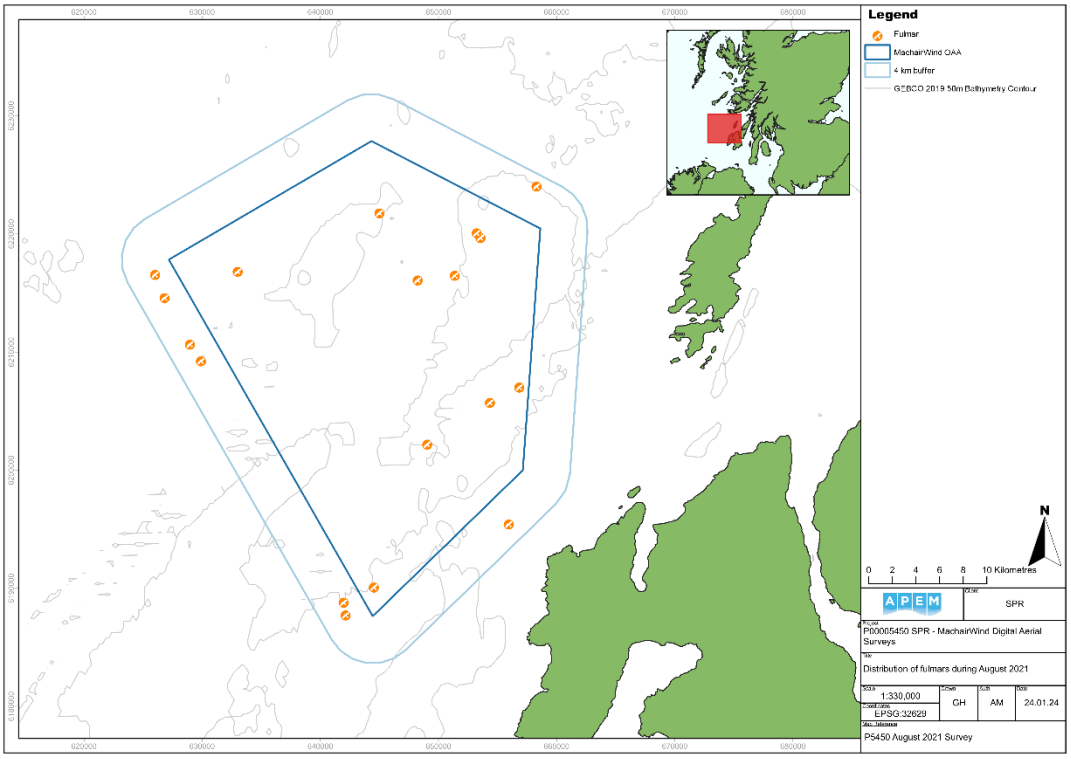


Figure 121 Spatial distribution of fulmars recorded in the August 2021 survey

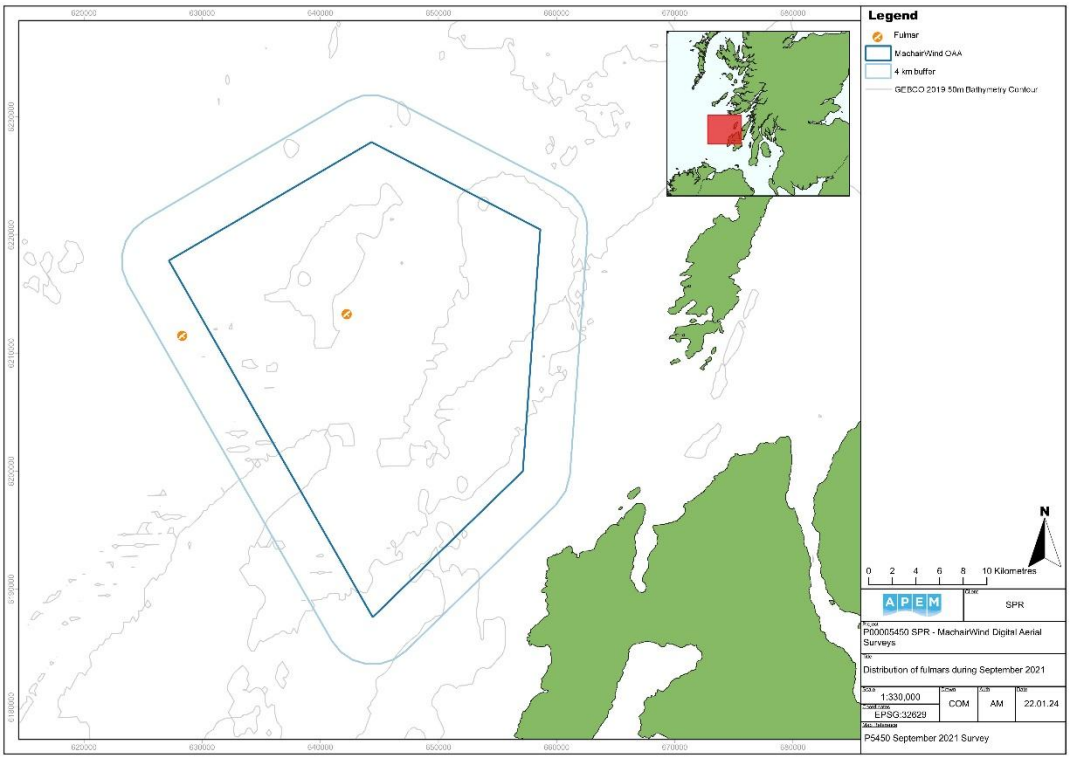


Figure 122 Spatial distribution of fulmars recorded in the September 2021 survey

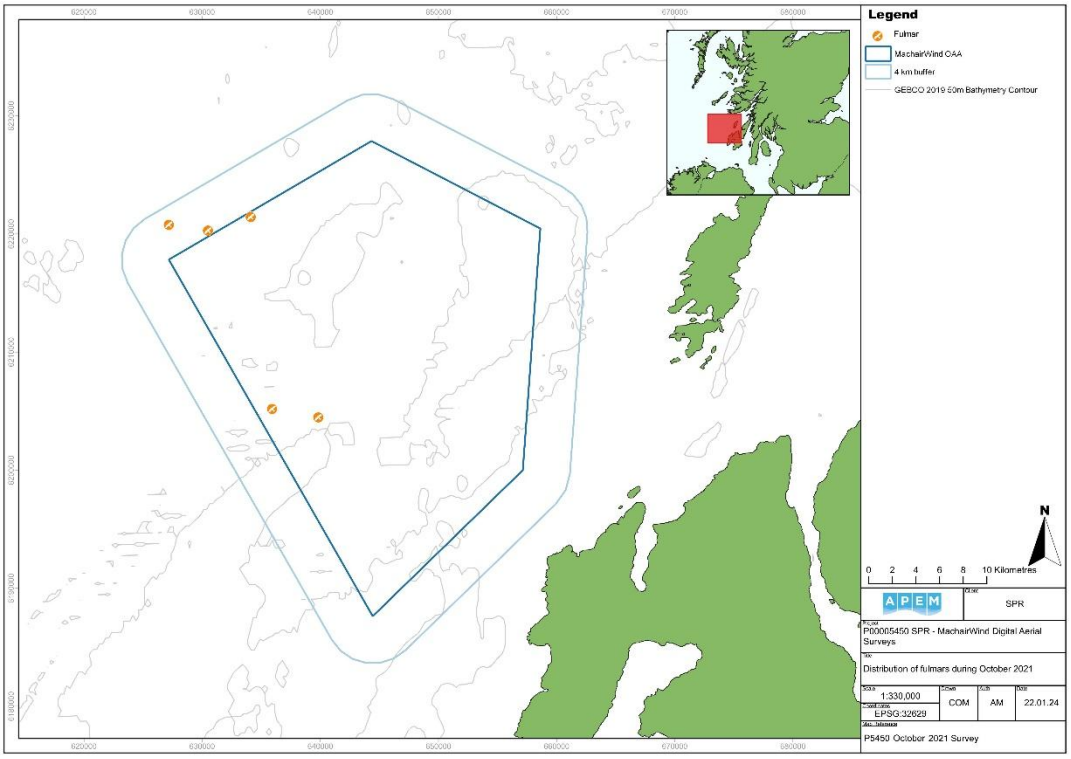


Figure 123 Spatial distribution of fulmars recorded in the October 2021 survey

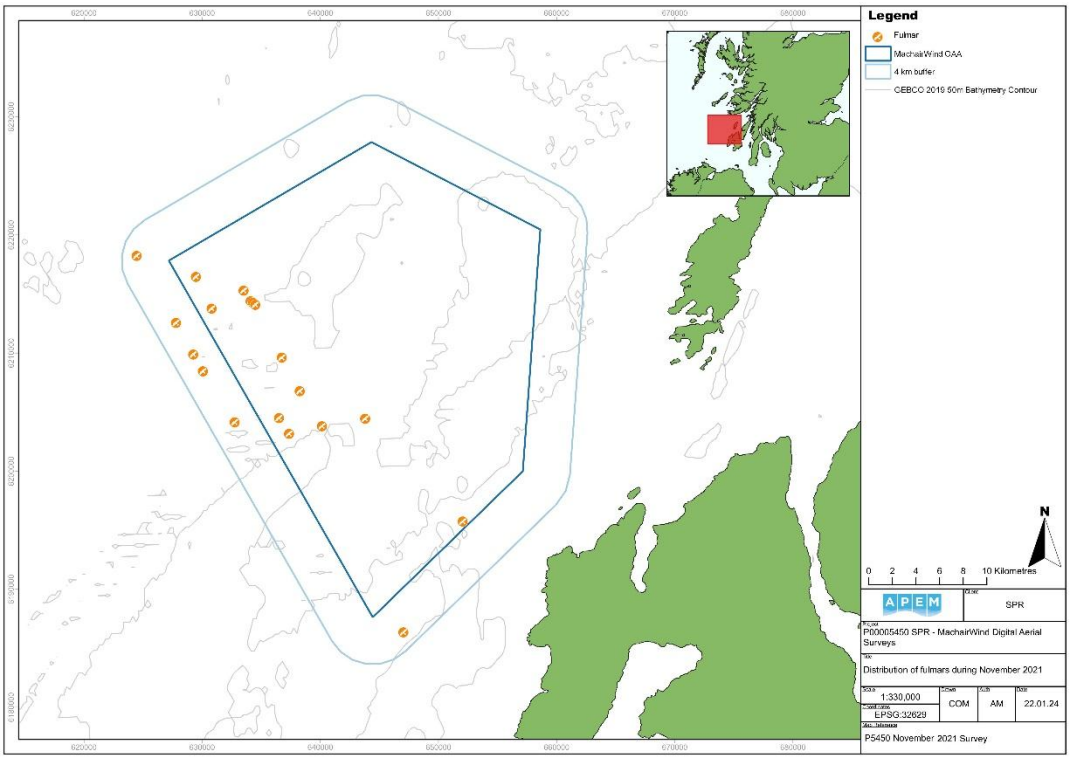


Figure 124 Spatial distribution of fulmars recorded in the November 2021 survey

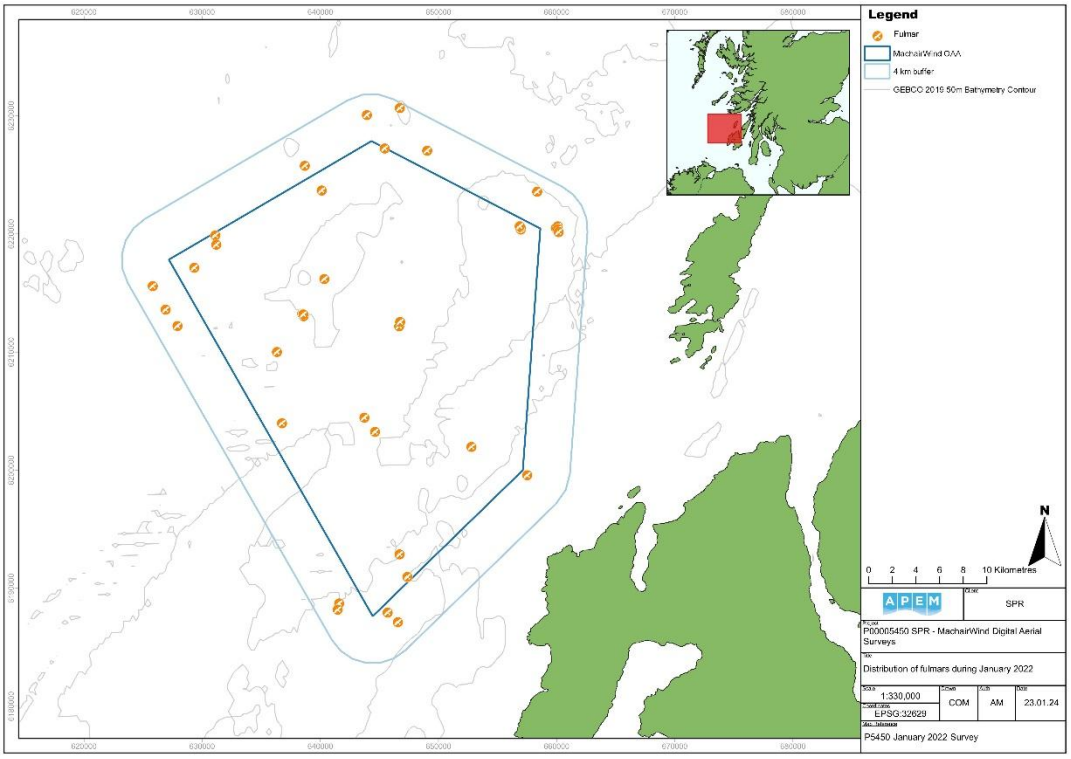


Figure 125 Spatial distribution of fulmars recorded in the January 2022 survey

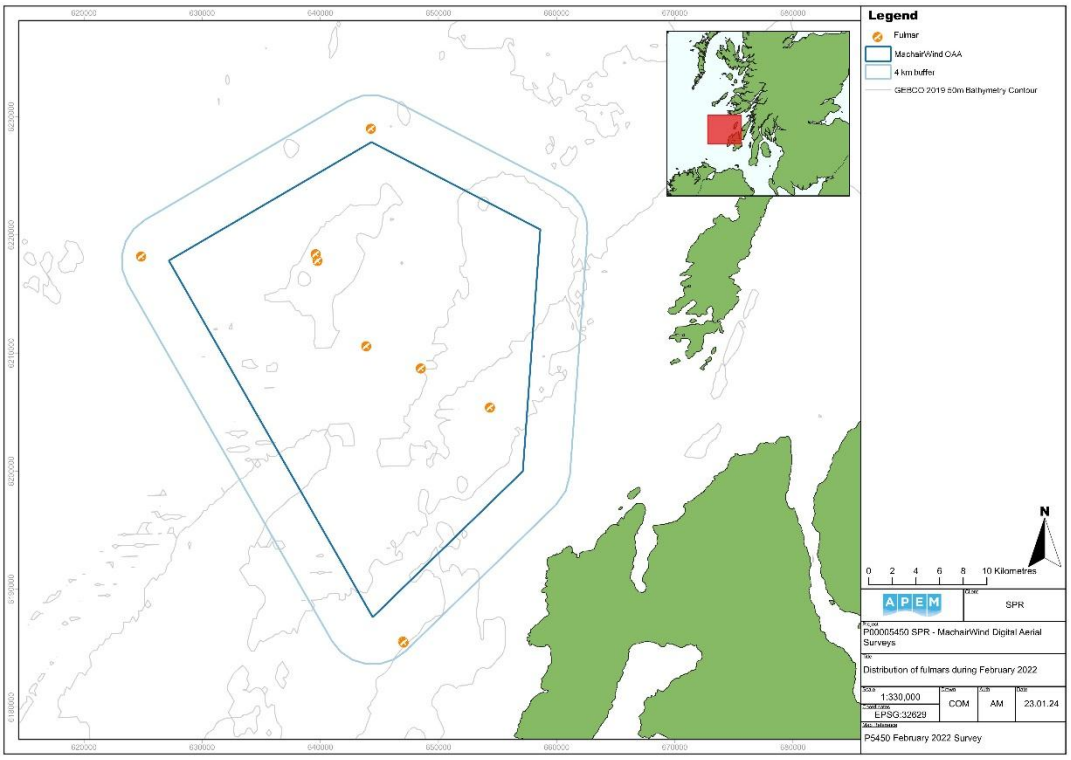


Figure 126 Spatial distribution of fulmars recorded in the first March 2022 survey (Survey 10)

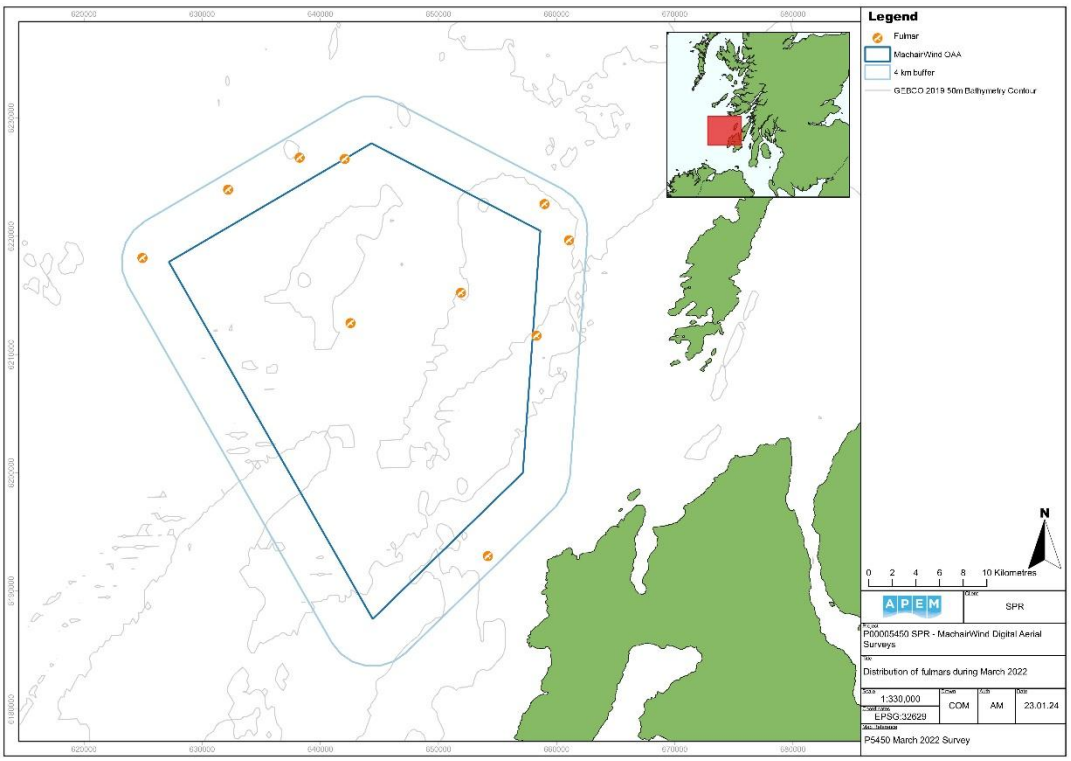


Figure 127 Spatial distribution of fulmars recorded in the second March 2022 survey (Survey 11)

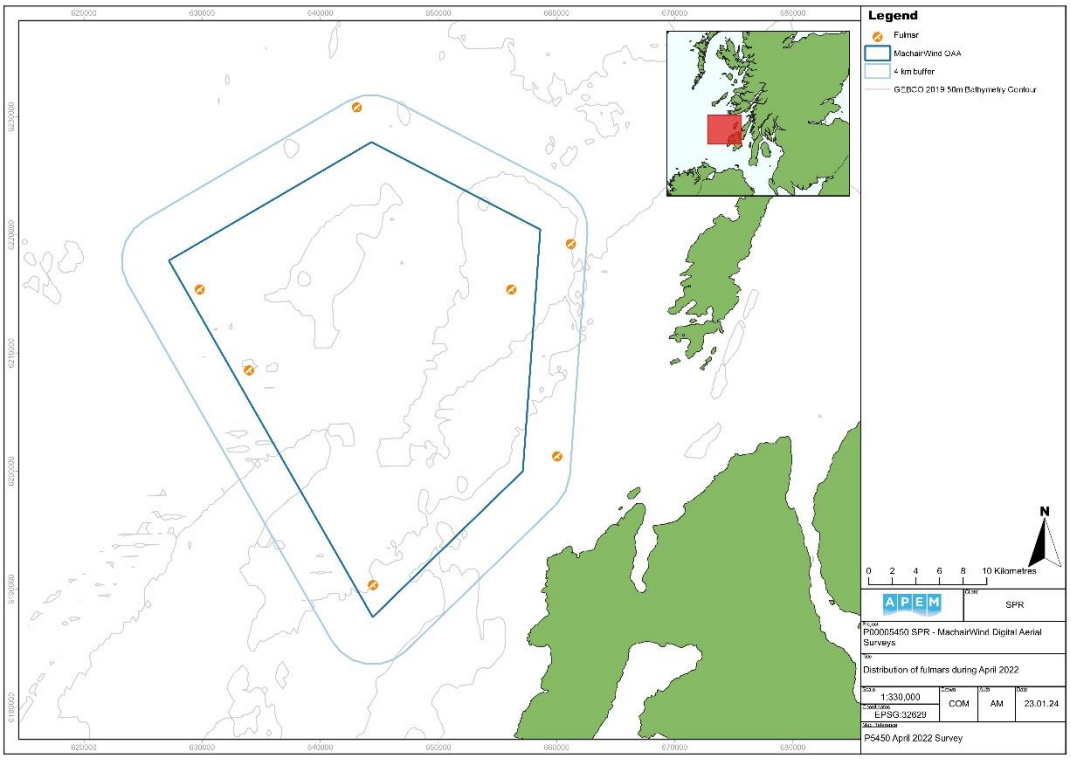


Figure 128 Spatial distribution of fulmars recorded in the April 2022 survey

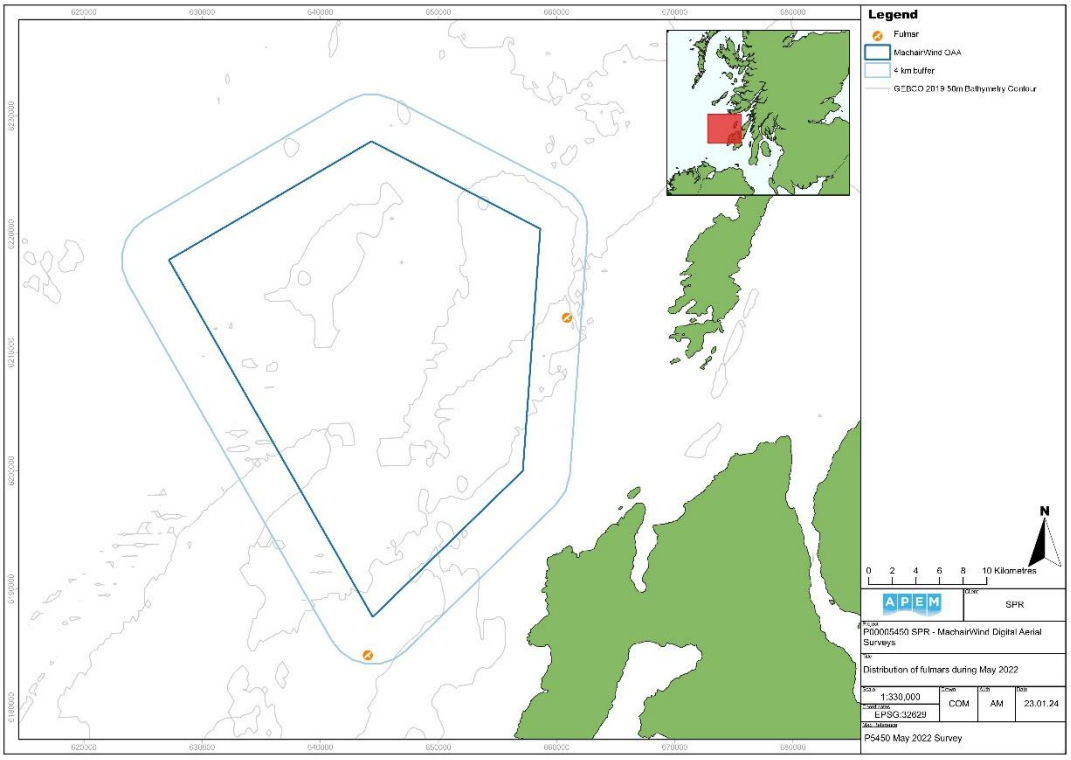


Figure 129 Spatial distribution of fulmars recorded in the May 2022 survey

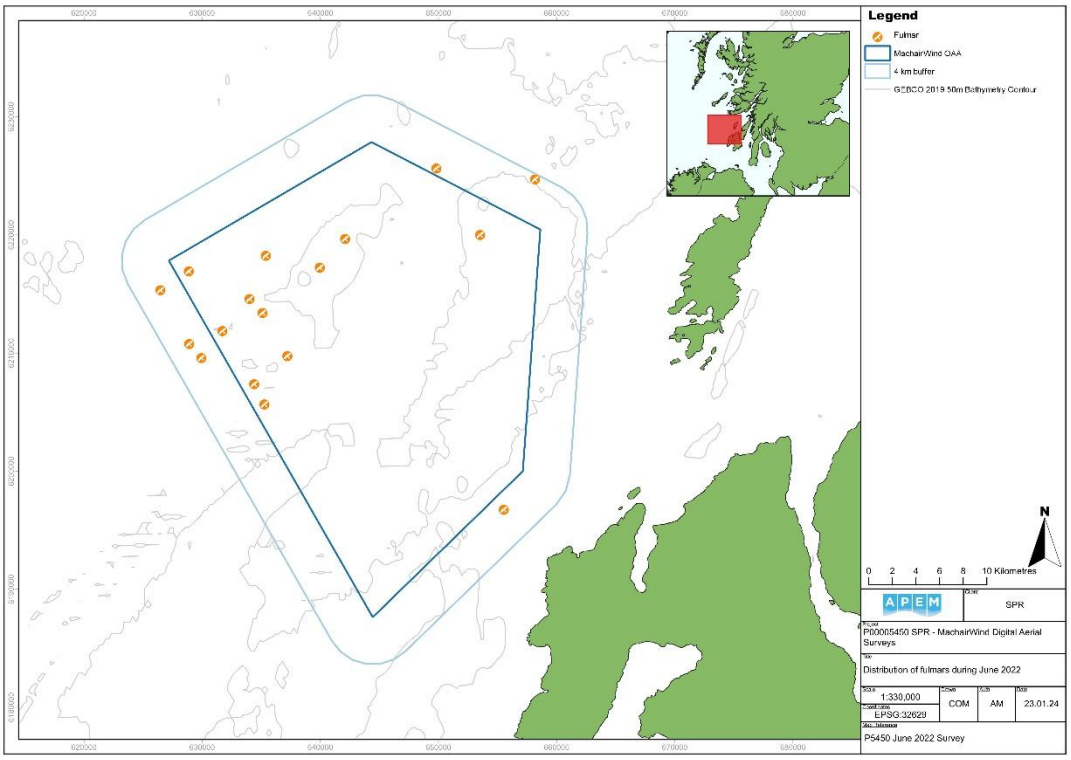


Figure 130 Spatial distribution of fulmars recorded in the June 2022 survey

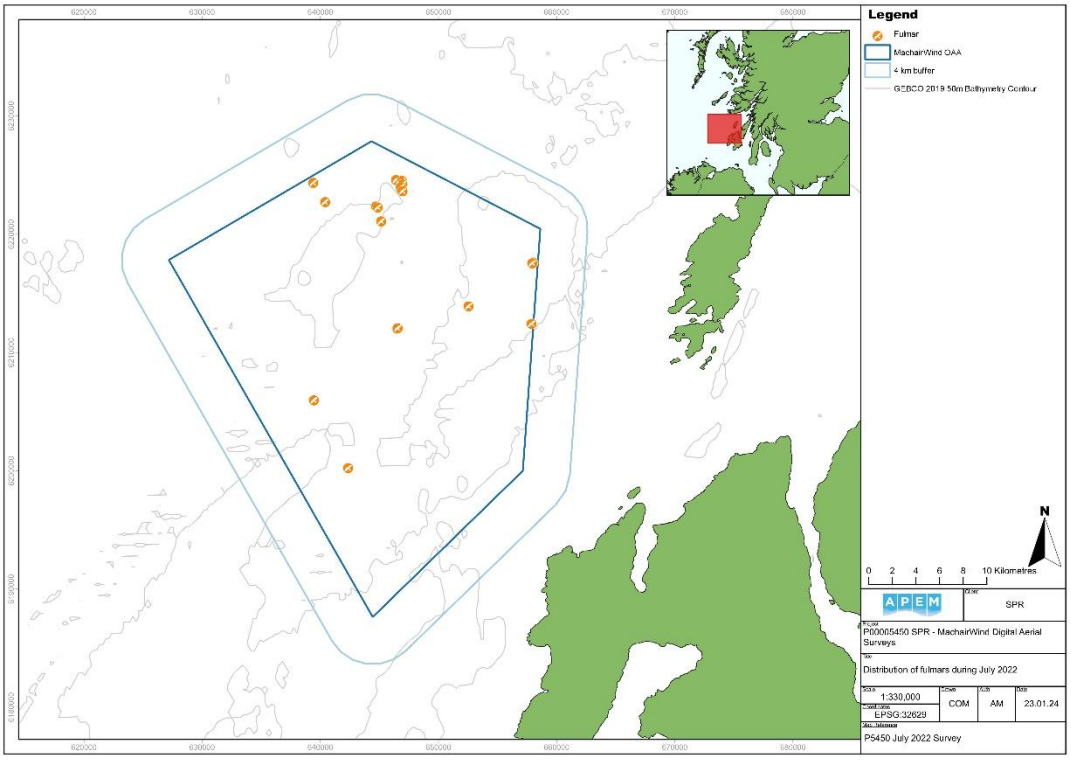


Figure 131 Spatial distribution of fulmars recorded in the July 2022 survey

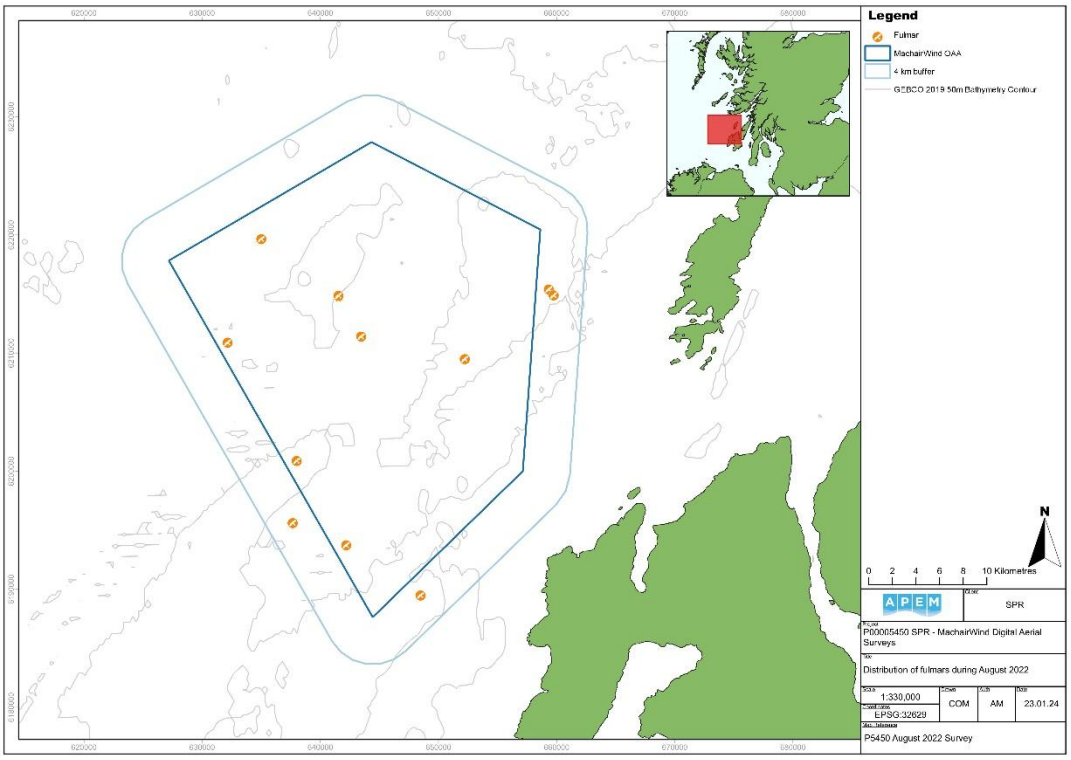


Figure 132 Spatial distribution of fulmars recorded in the August 2022 survey

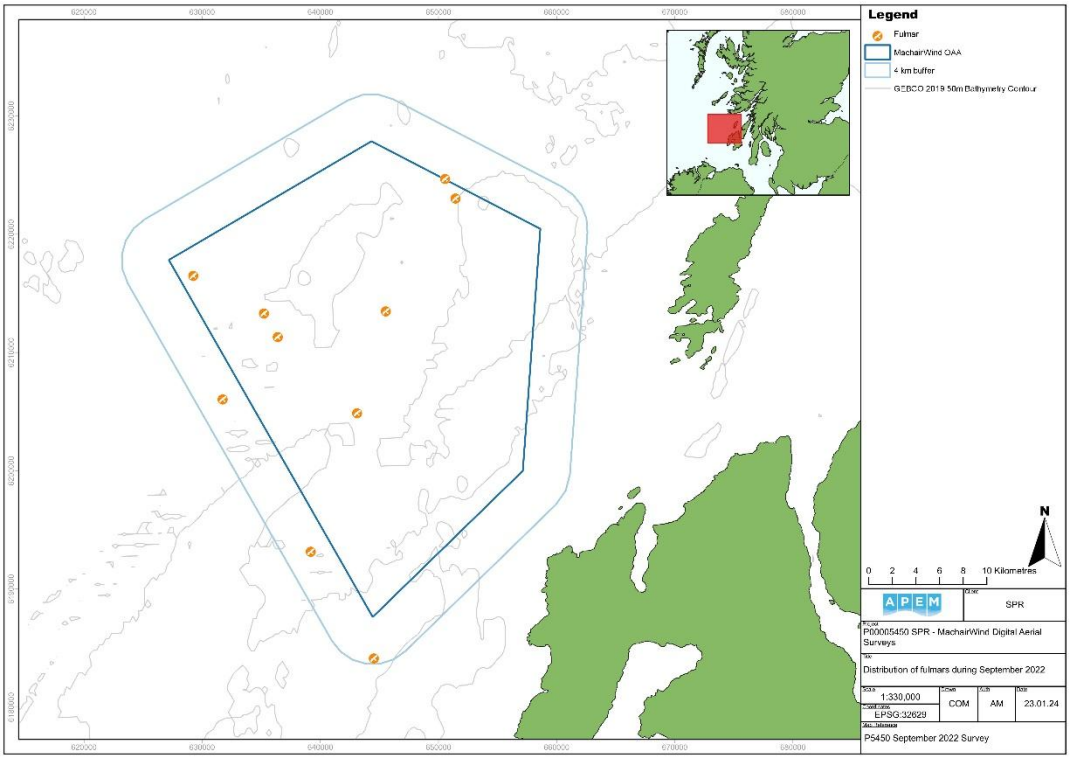


Figure 133 Spatial distribution of fulmars recorded in the September 2022 survey

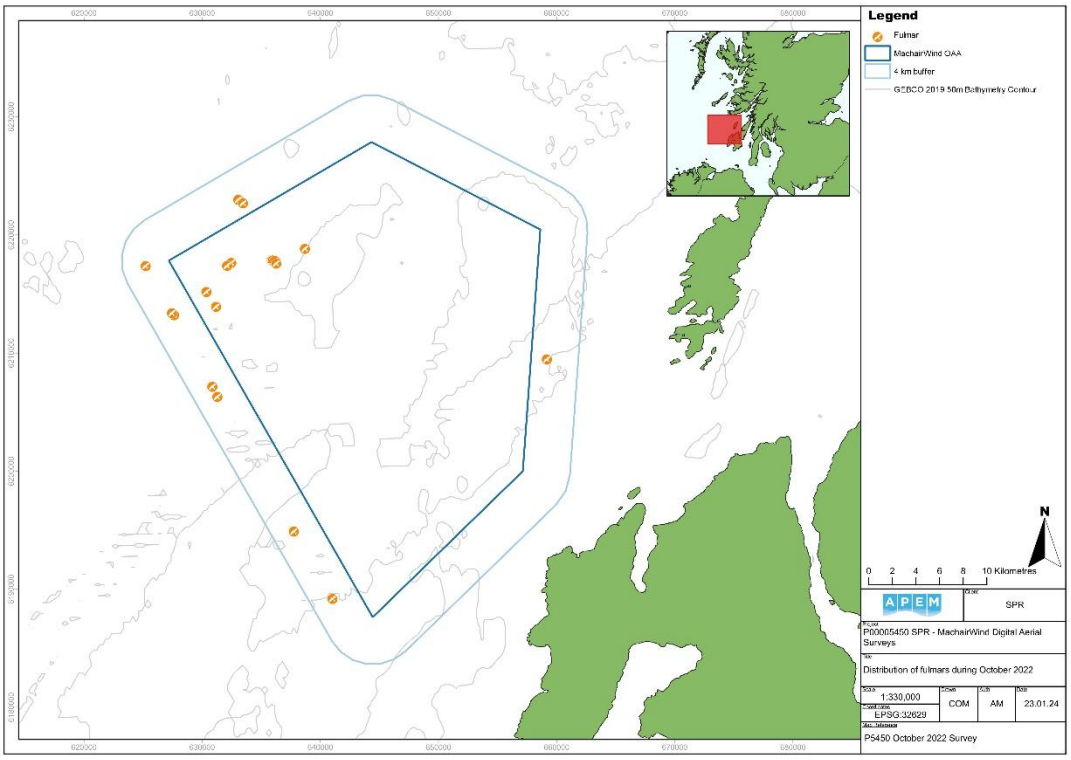


Figure 134 Spatial distribution of fulmars recorded in the October 2022 survey

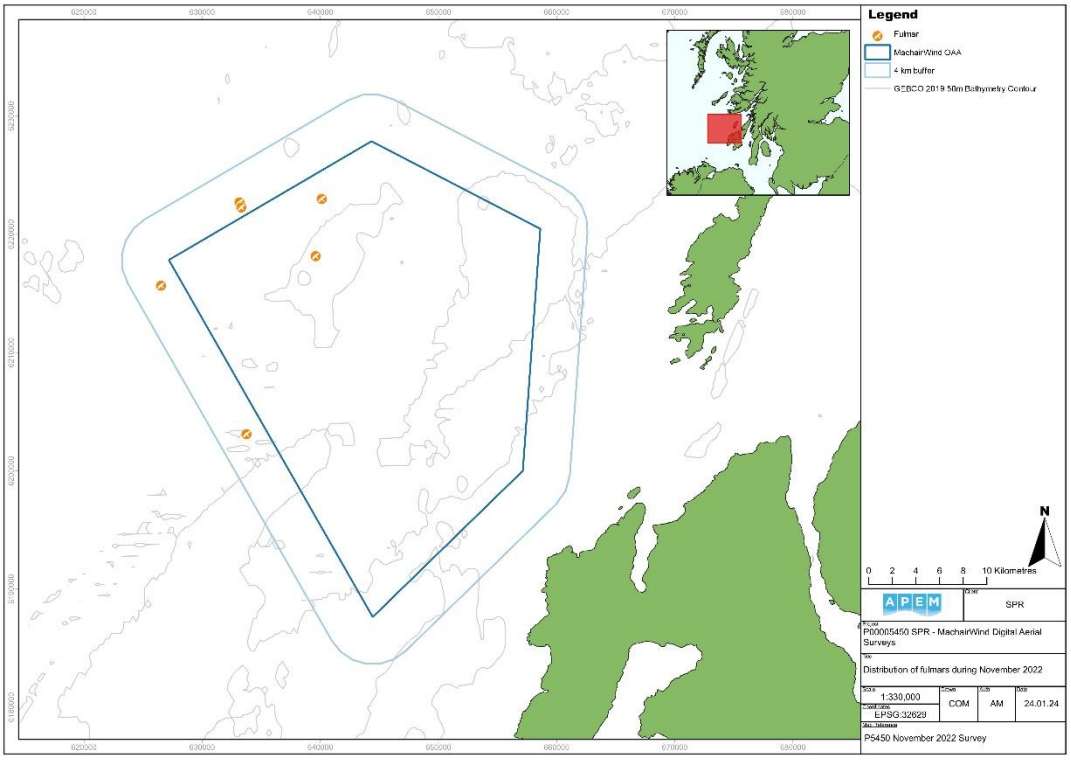


Figure 135 Spatial distribution of fulmars recorded in the November 2022 survey

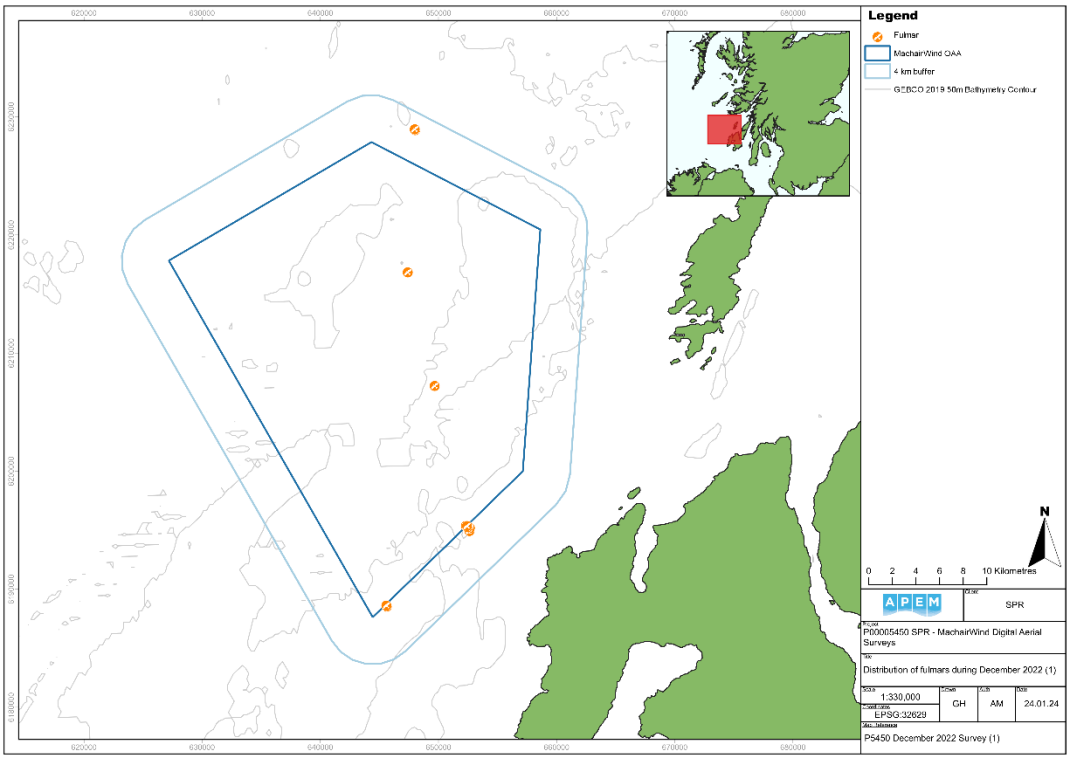


Figure 136 Spatial distribution of fulmars recorded in the first December 2022 survey (Survey 20)

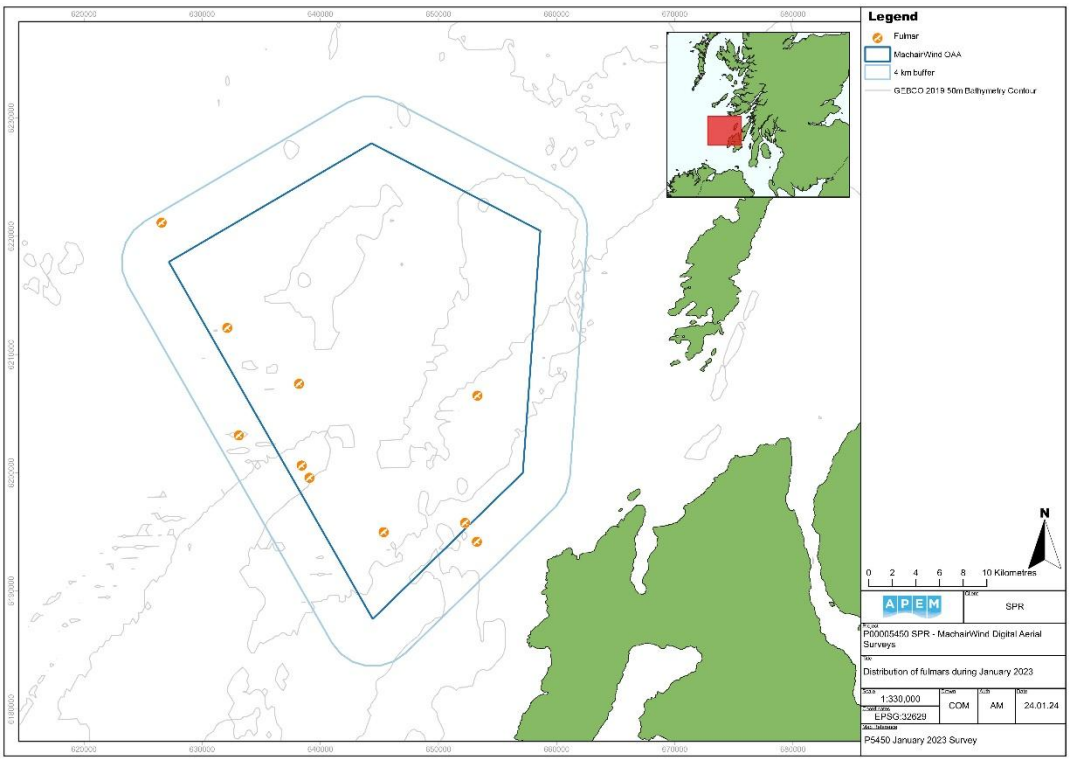


Figure 137 Spatial distribution of fulmars recorded in the January 2023 survey

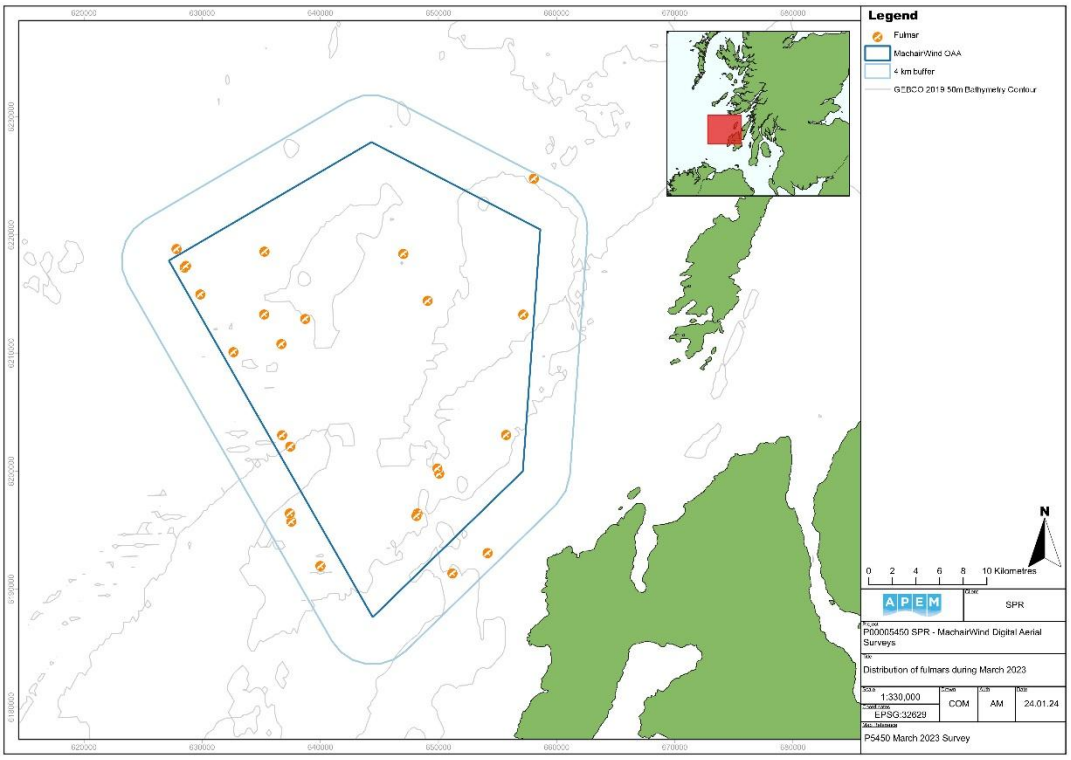


Figure 138 Spatial distribution of fulmars recorded in the March 2023 survey

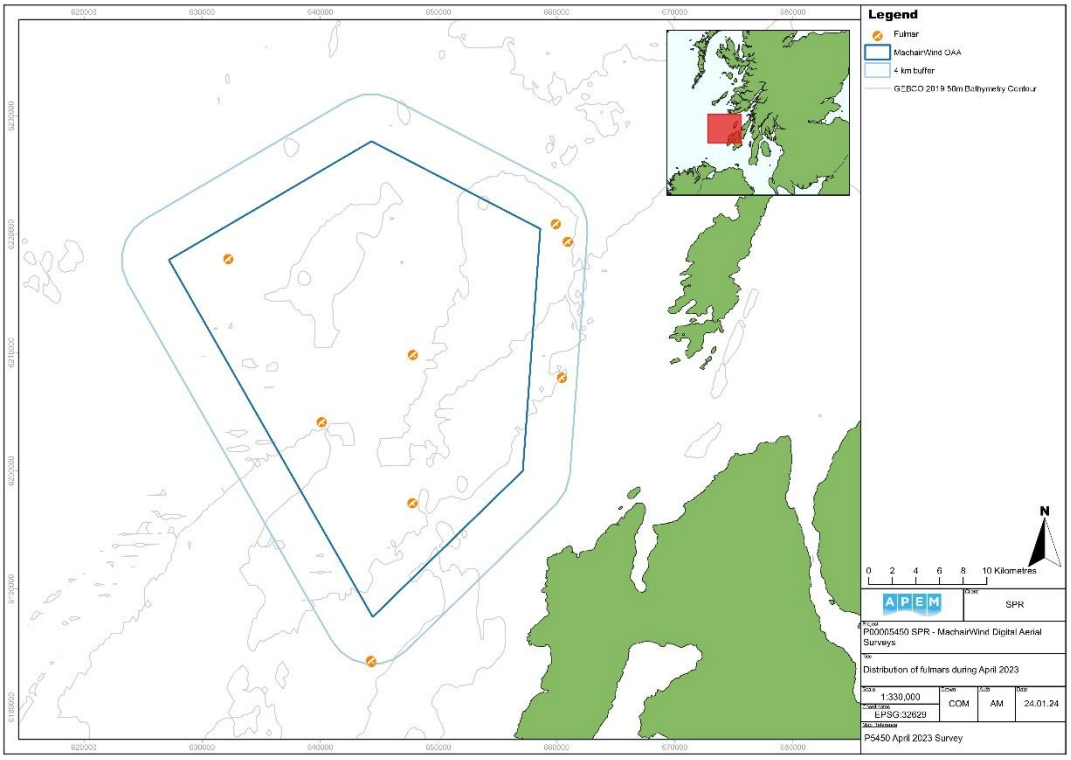


Figure 139 Spatial distribution of fulmars recorded in the April 2023 survey

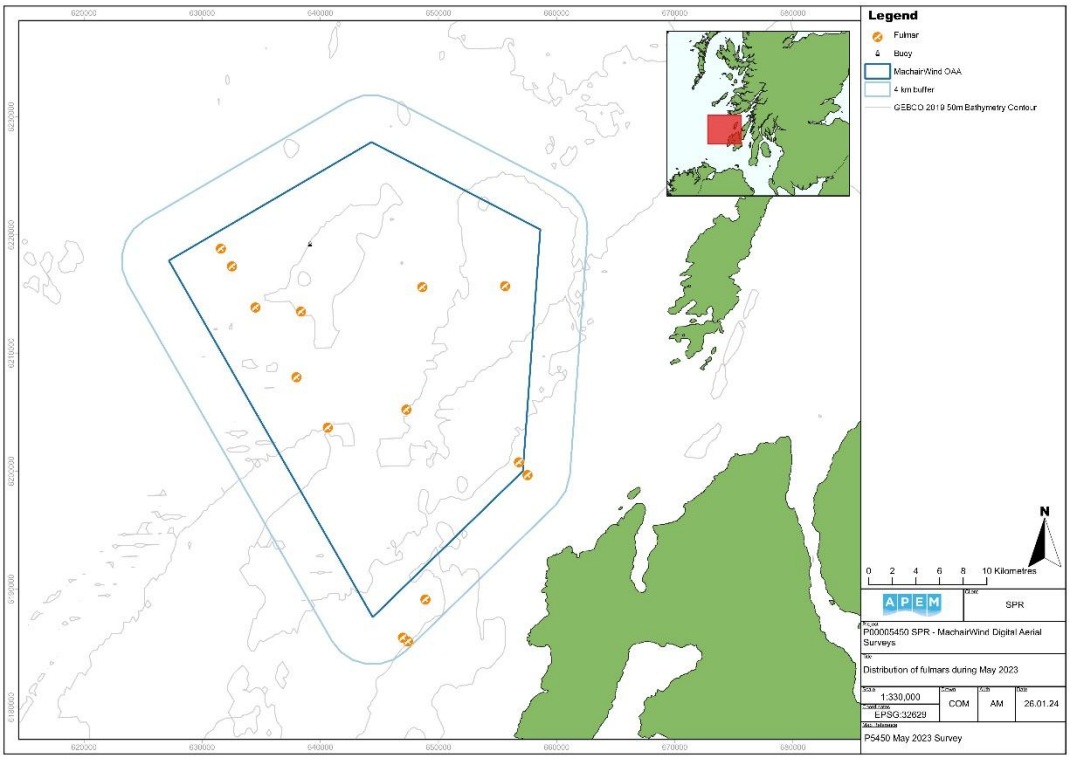


Figure 140 Spatial distribution of fulmars recorded in the May 2023 survey

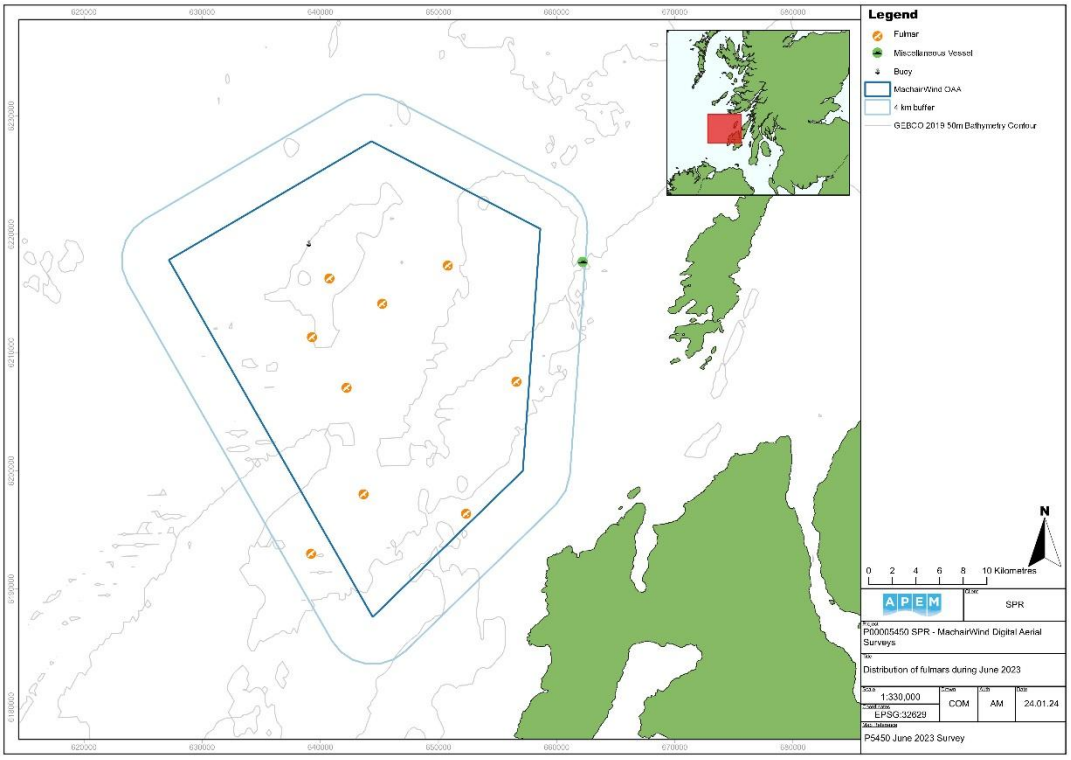


Figure 141 Spatial distribution of fulmars recorded in the June 2023 survey

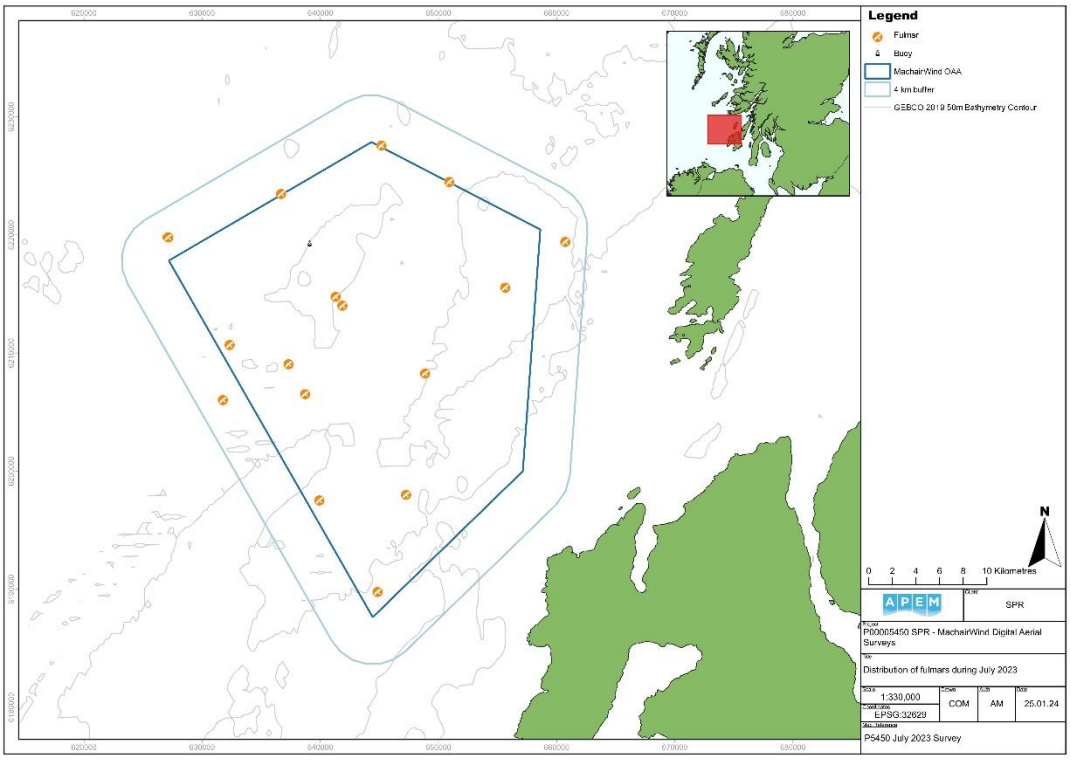


Figure 142 Spatial distribution of fulmars recorded in the July 2023 survey

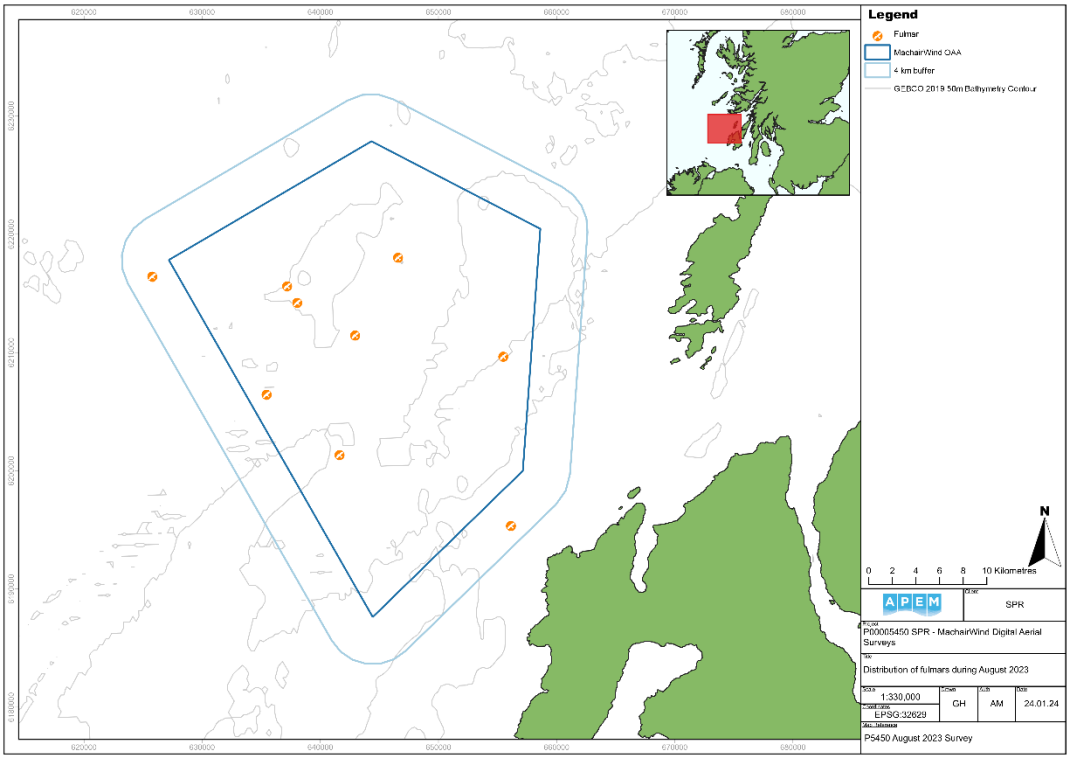


Figure 143 Spatial distribution of fulmars recorded in the August 2023 survey

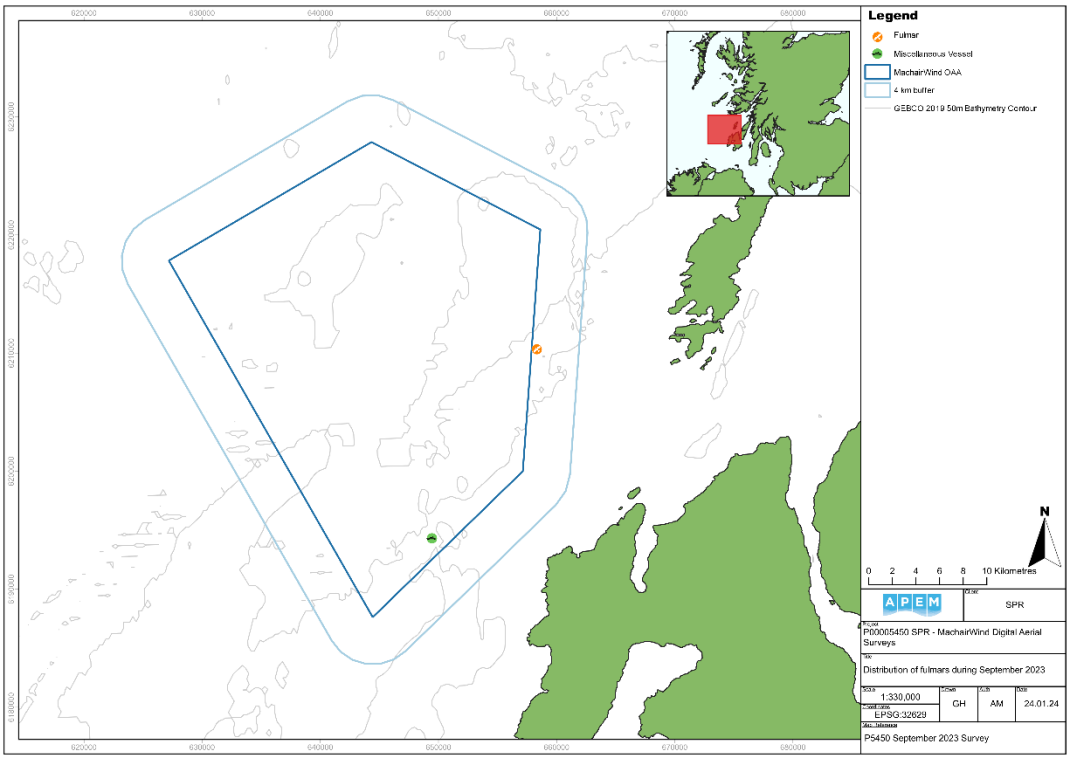


Figure 144 Spatial distribution of fulmars recorded in the September 2023 survey

11.1.7 Manx Shearwater

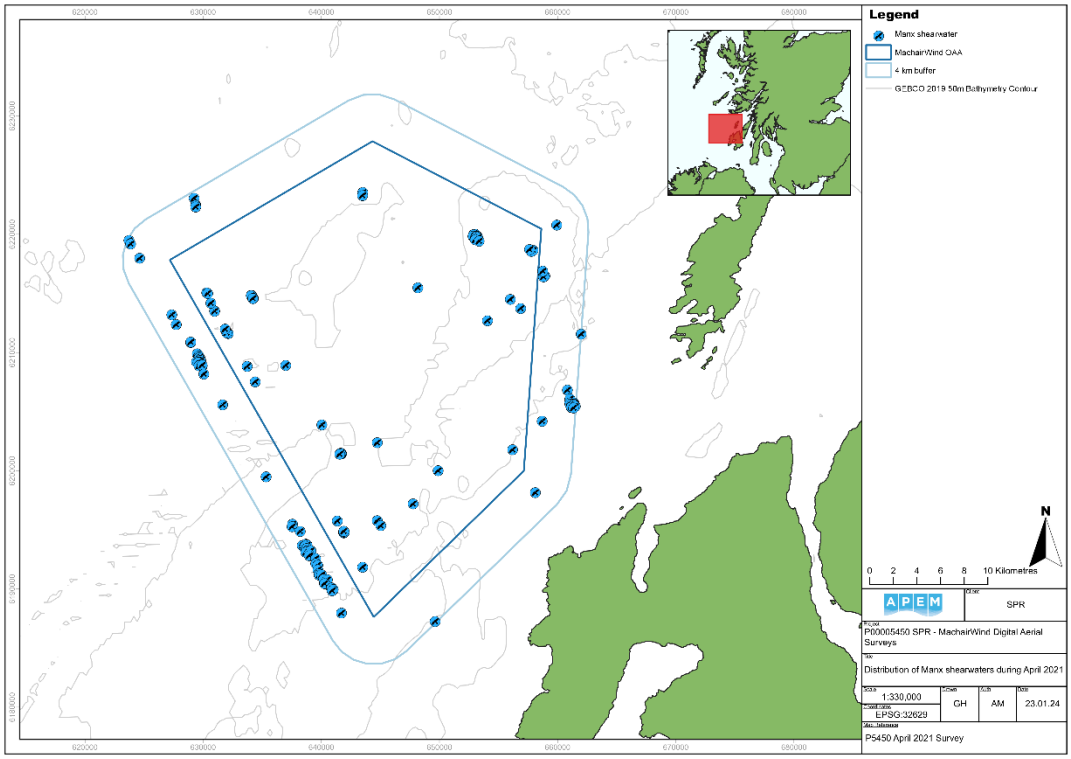


Figure 145 Spatial distribution of Manx shearwaters recorded in the April 2021 survey

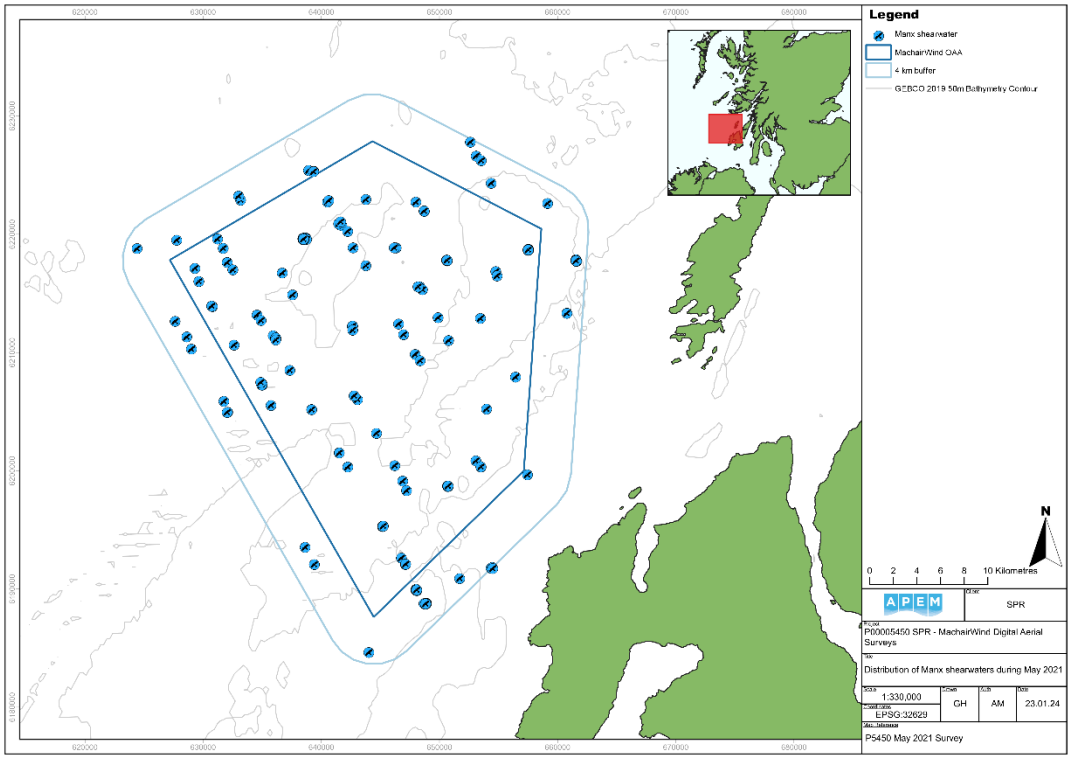


Figure 146 Spatial distribution of Manx shearwaters recorded in the May 2021 survey

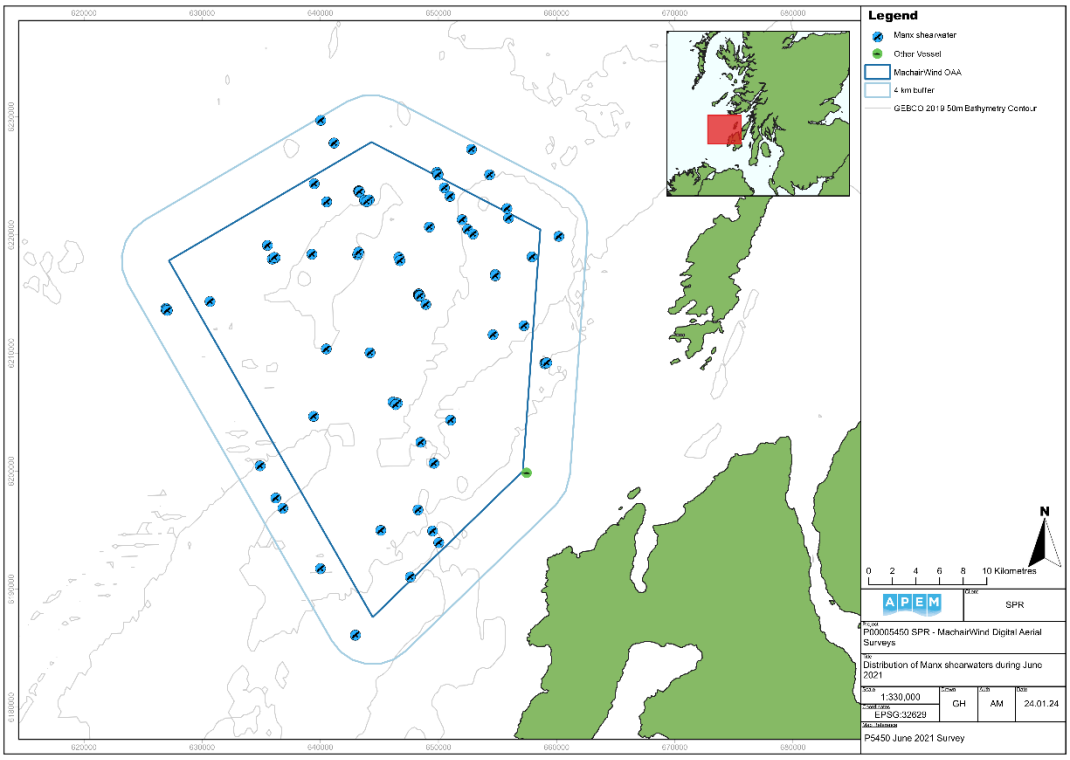


Figure 147 Spatial distribution of Manx shearwaters recorded in the June 2021 survey

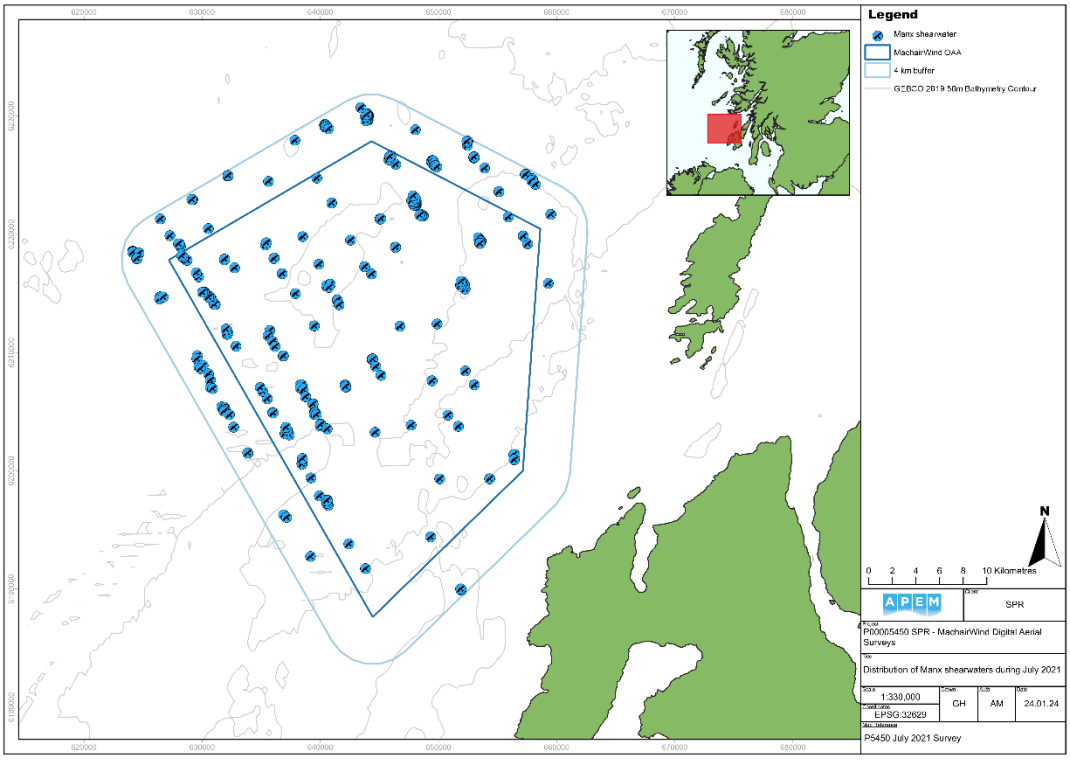


Figure 148 Spatial distribution of Manx shearwaters recorded in the July 2021 survey

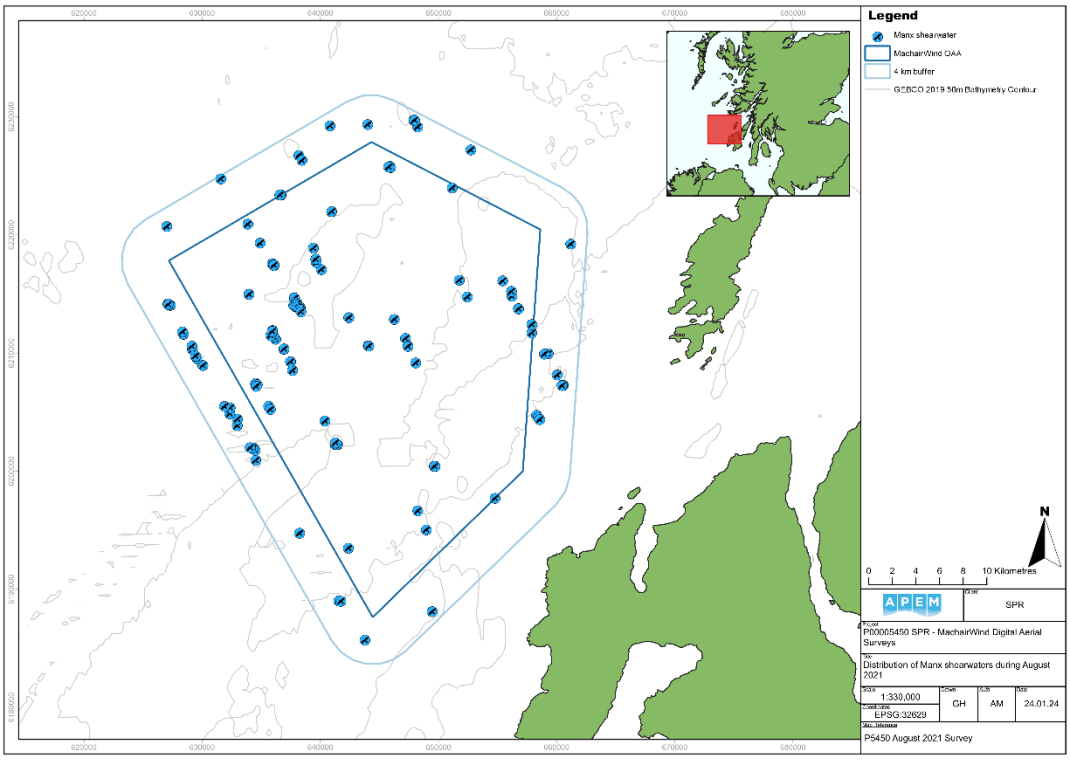


Figure 149 Spatial distribution of Manx shearwaters recorded in the August 2021 survey

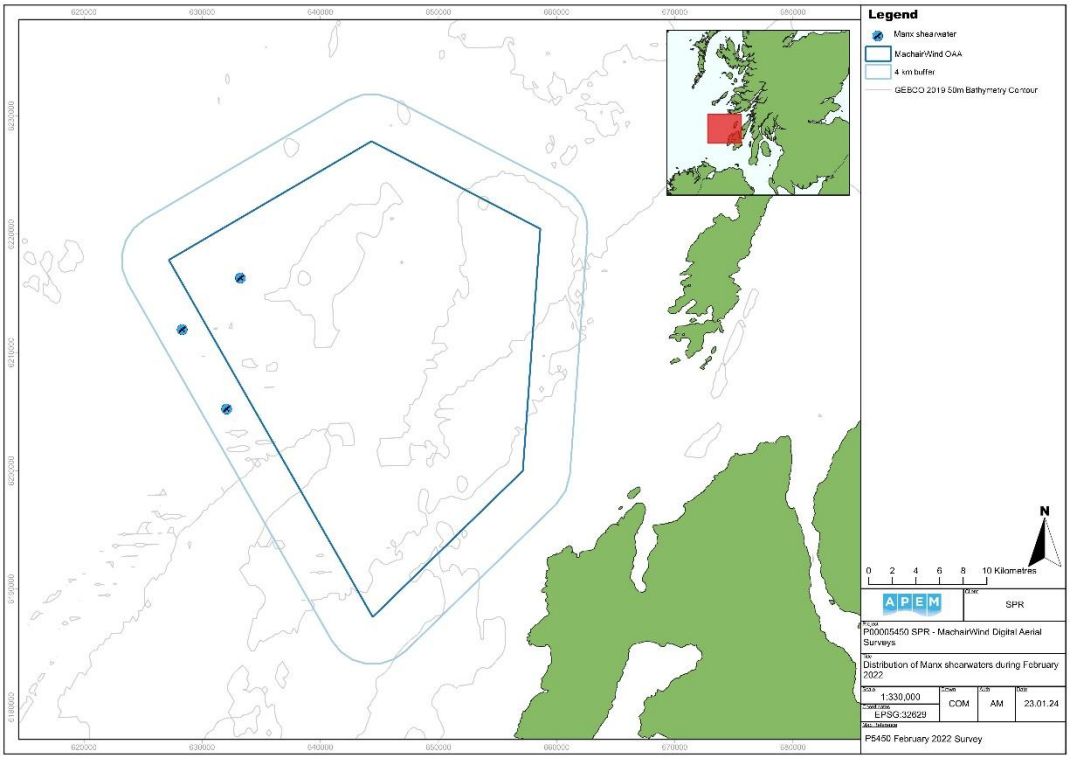


Figure 150 Spatial distribution of Manx shearwaters recorded in the first March 2022 survey (Survey 10)

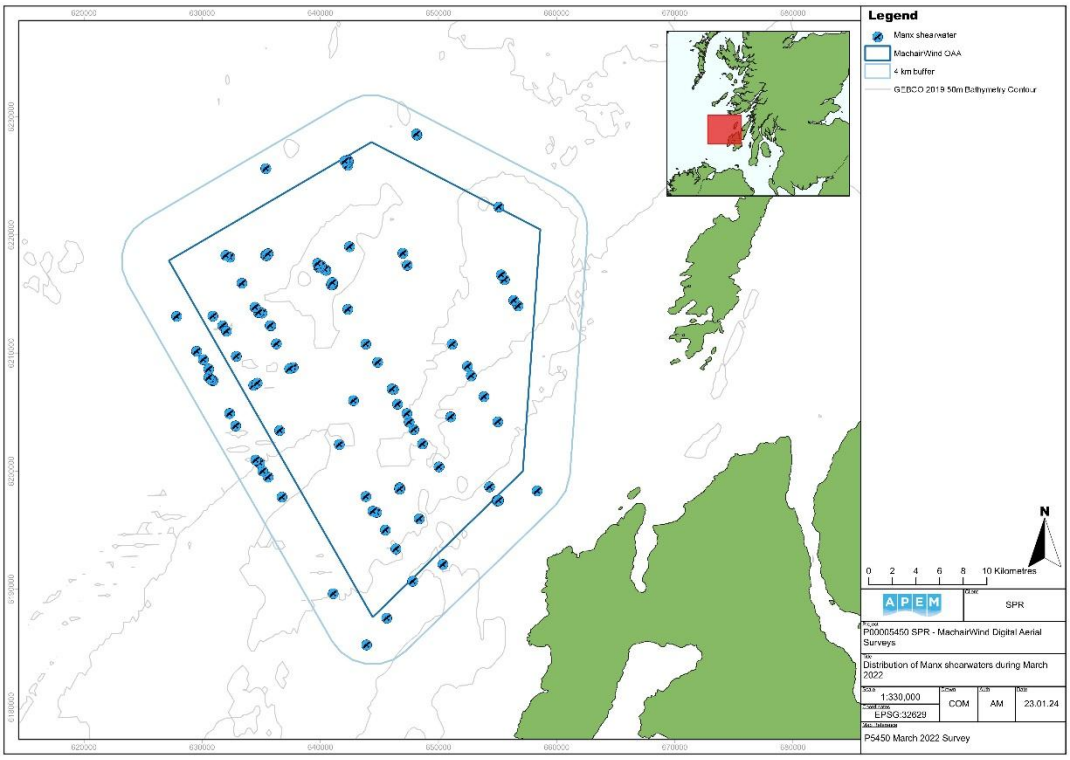


Figure 151 Spatial distribution of Manx shearwaters recorded in the second March 2022 survey (Survey 11)

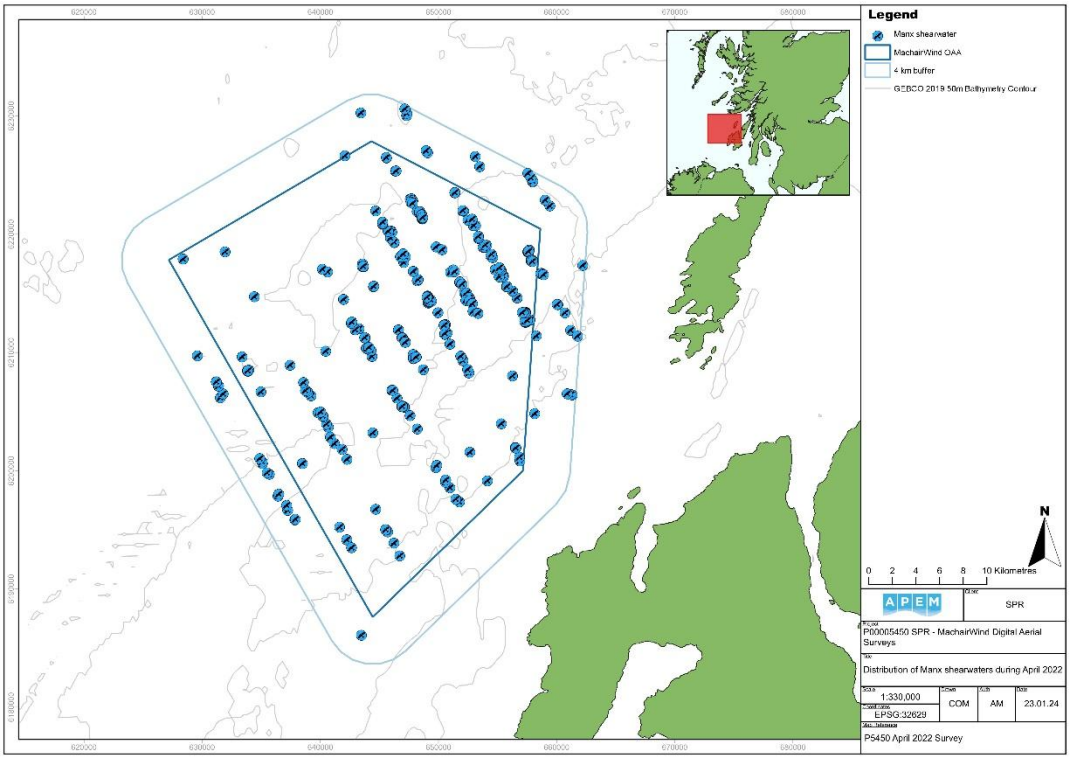


Figure 152 Spatial distribution of Manx shearwaters recorded in the April 2022 survey

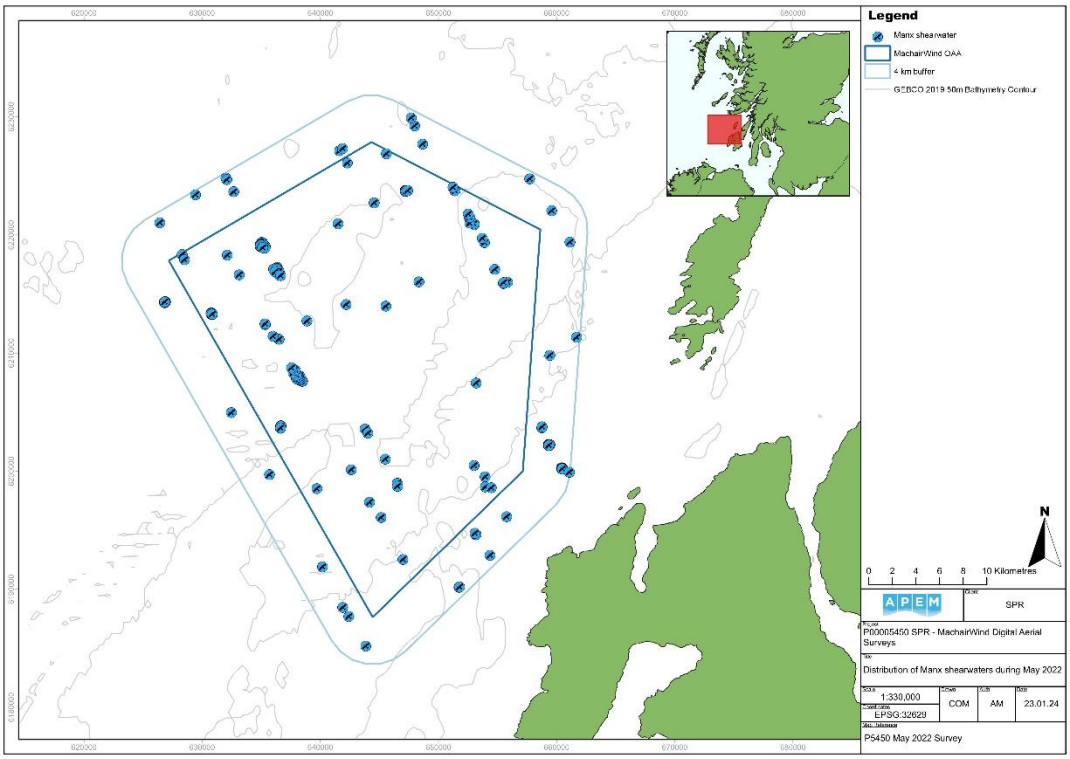


Figure 153 Spatial distribution of Manx shearwaters recorded in the May 2022 survey

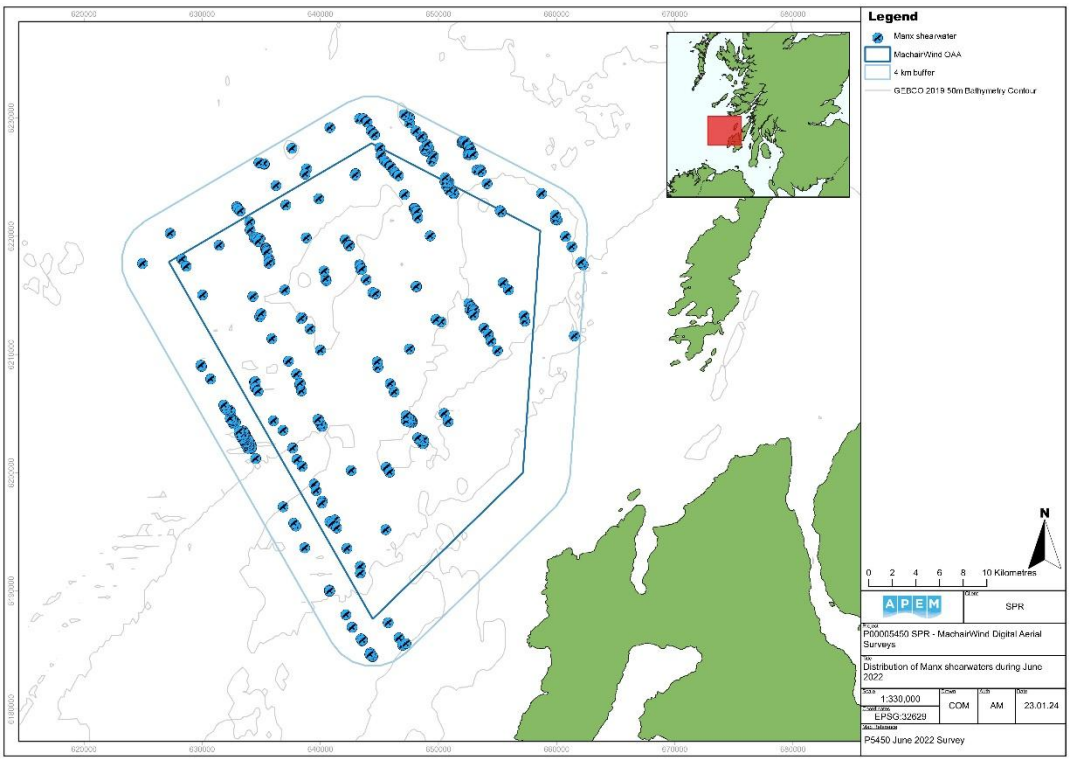


Figure 154 Spatial distribution of Manx shearwaters recorded in the June 2022 survey

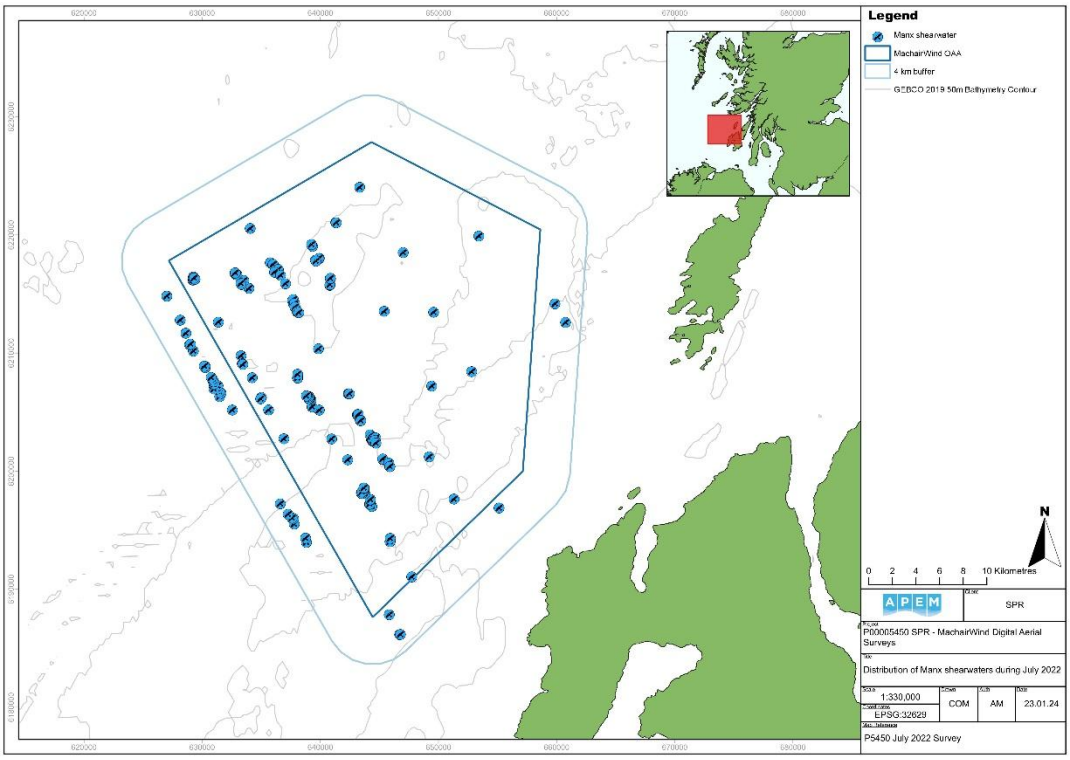


Figure 155 Spatial distribution of Manx shearwaters recorded in the July 2022 survey

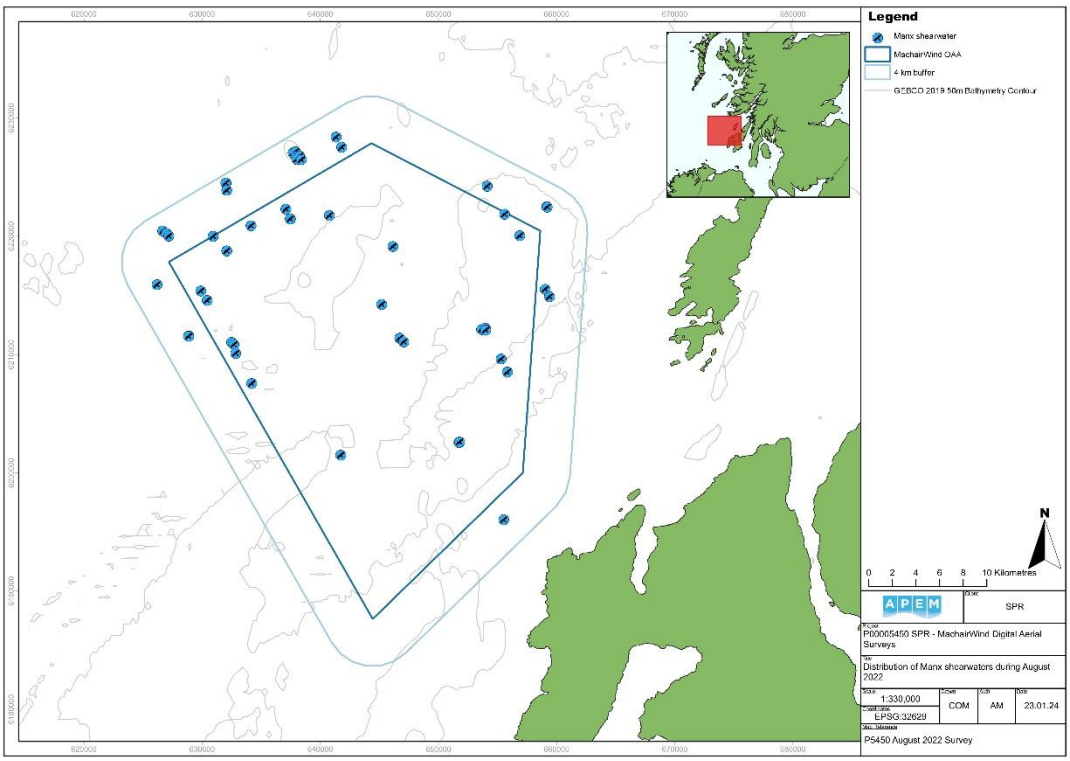


Figure 156 Spatial distribution of Manx shearwaters recorded in the August 2022 survey

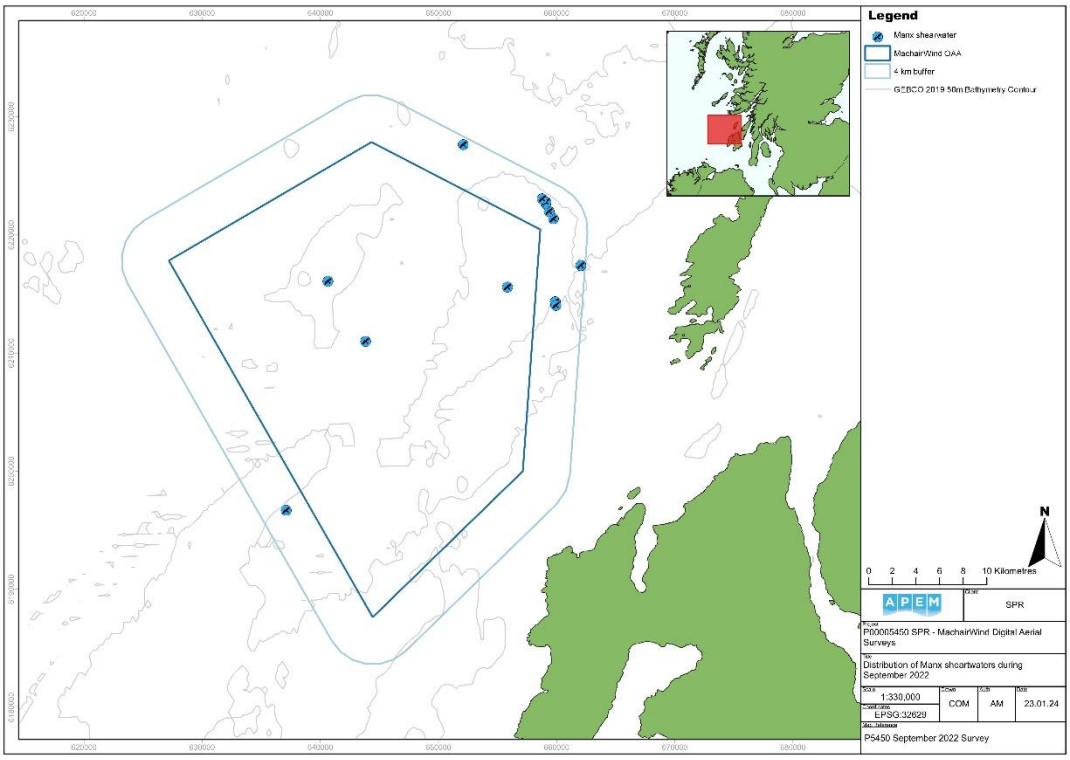


Figure 157 Spatial distribution of Manx shearwaters recorded in the September 2022 survey

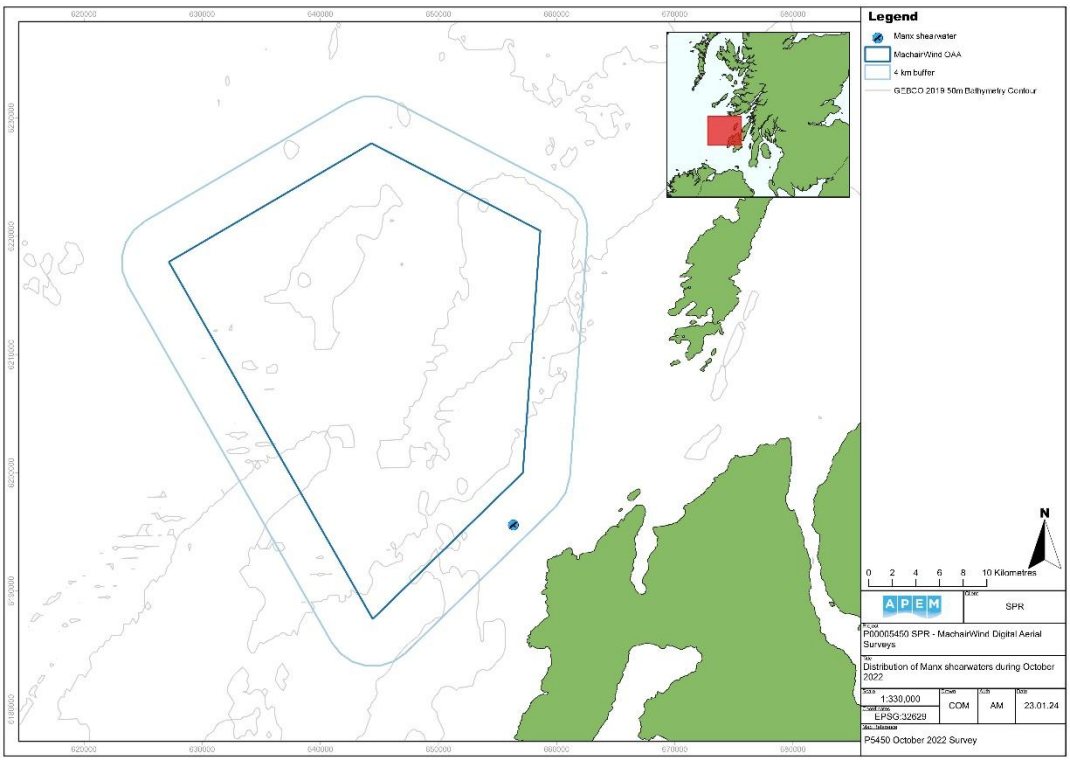


Figure 158 Spatial distribution of Manx shearwaters recorded in the October 2022 survey

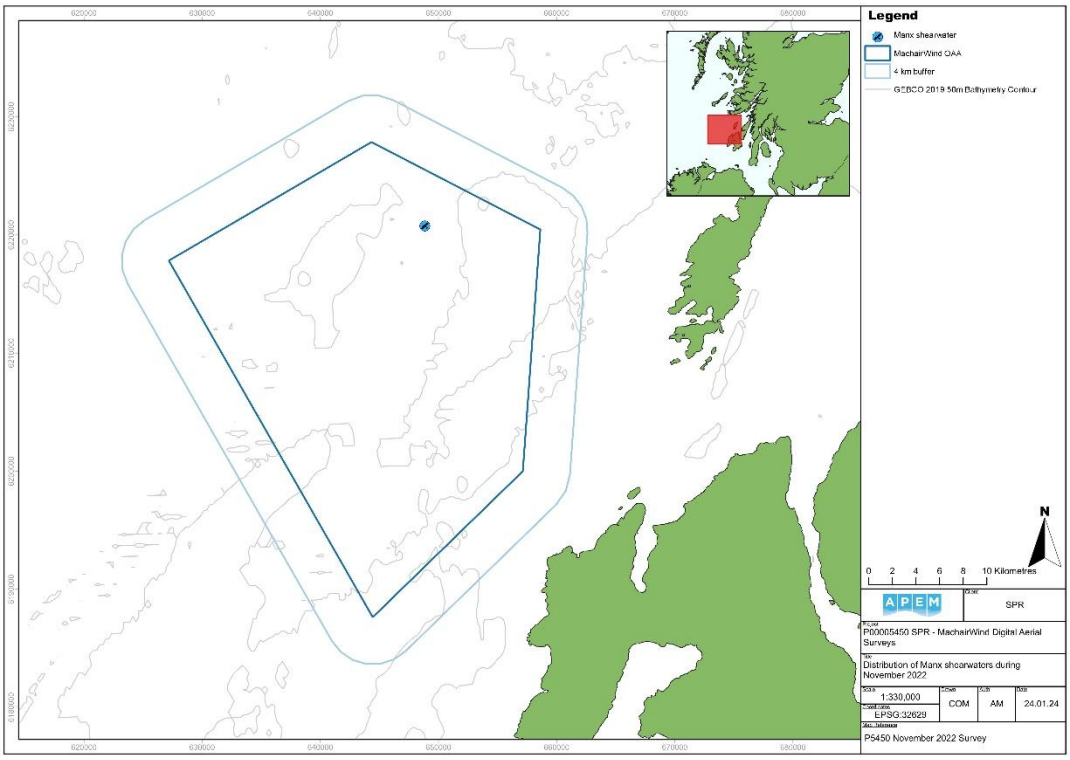


Figure 159 Spatial distribution of Manx shearwaters recorded in the November 2022 survey

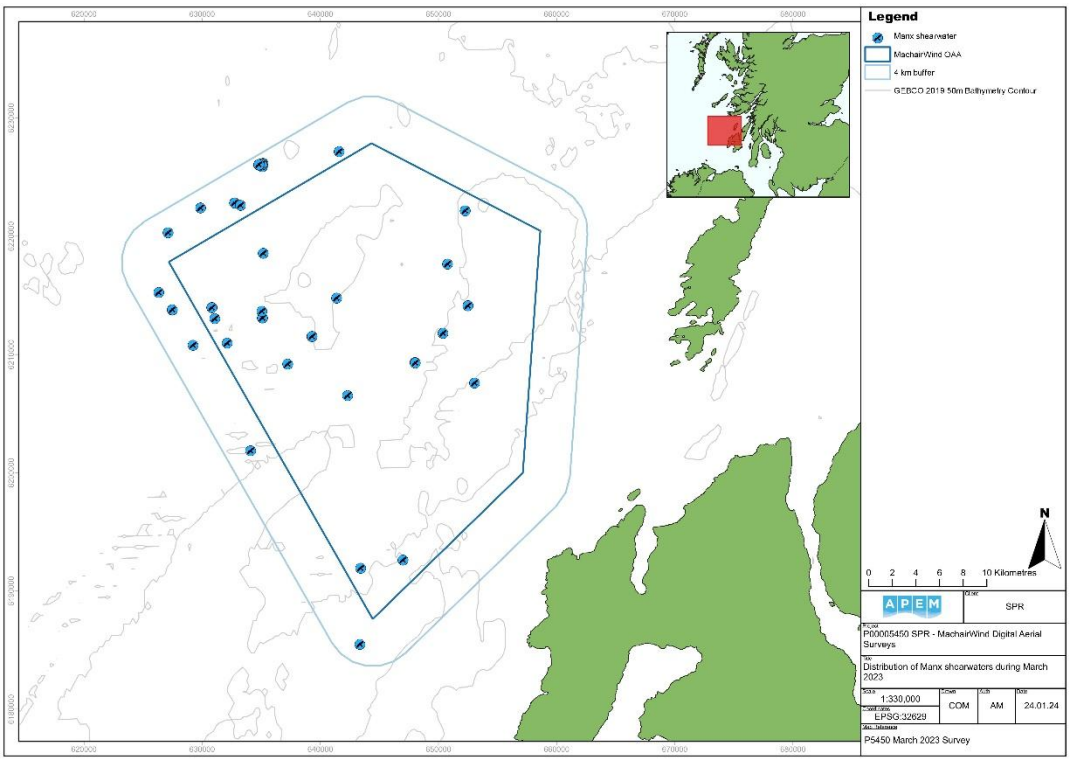


Figure 160 Spatial distribution of Manx shearwaters recorded in the March 2023 survey

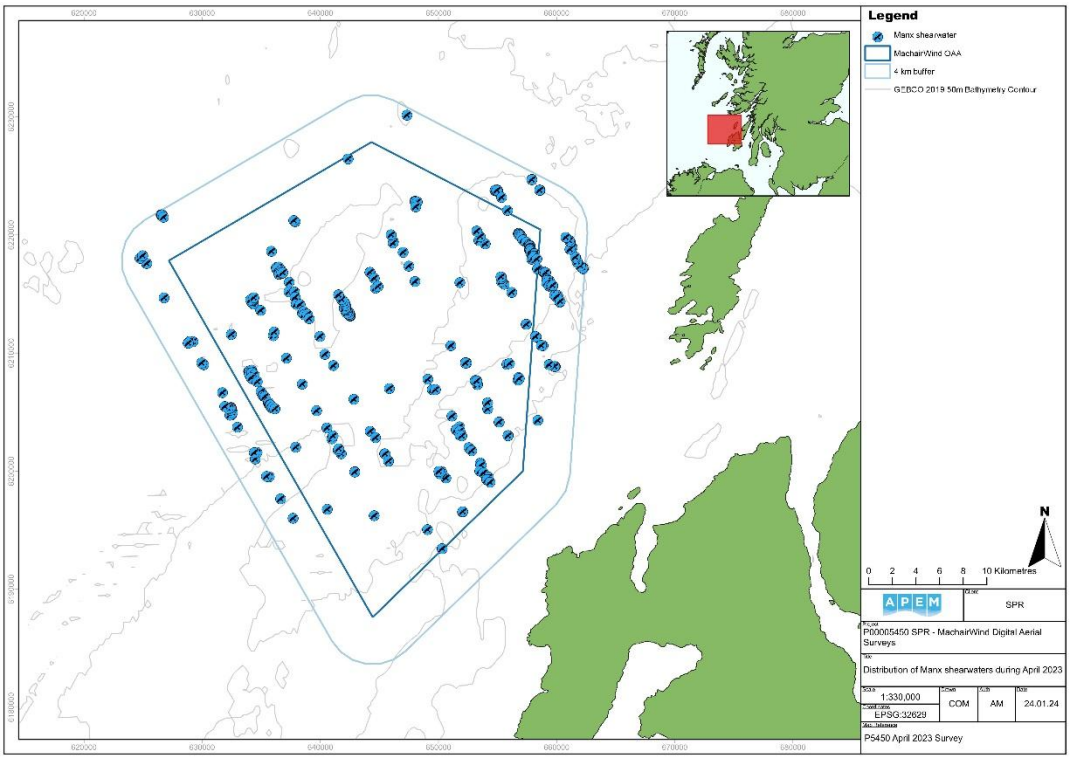


Figure 161 Spatial distribution of Manx shearwaters recorded in the April 2023 survey

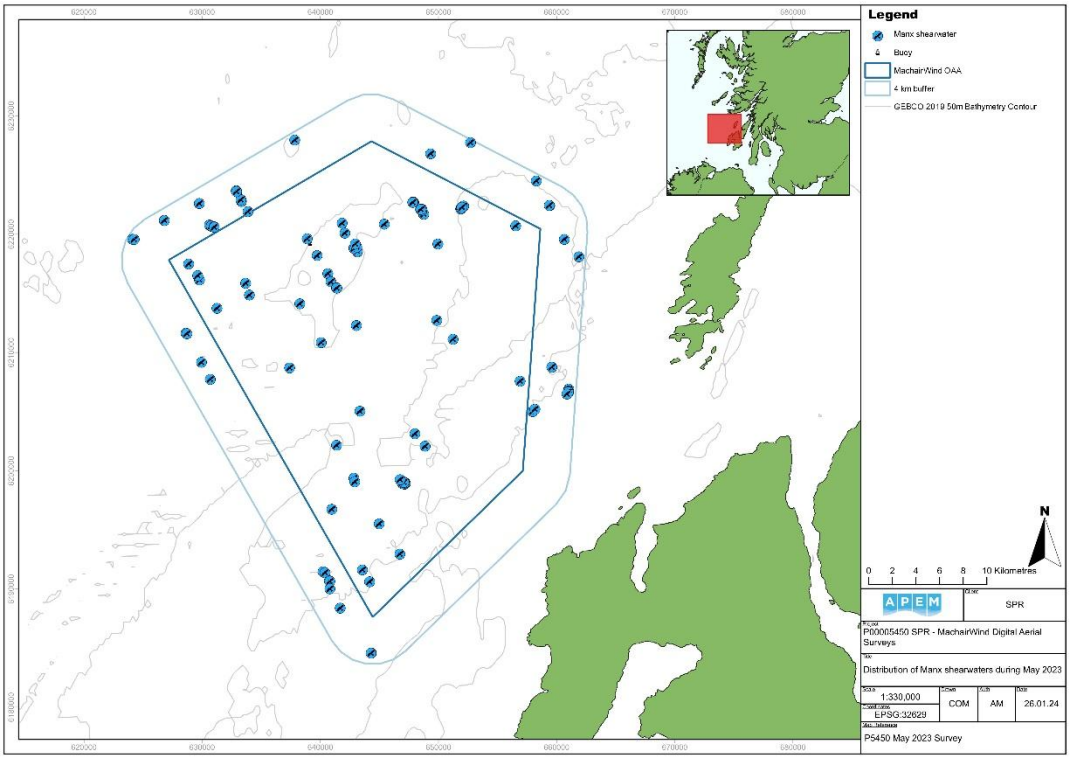


Figure 162 Spatial distribution of Manx shearwaters recorded in the May 2023 survey

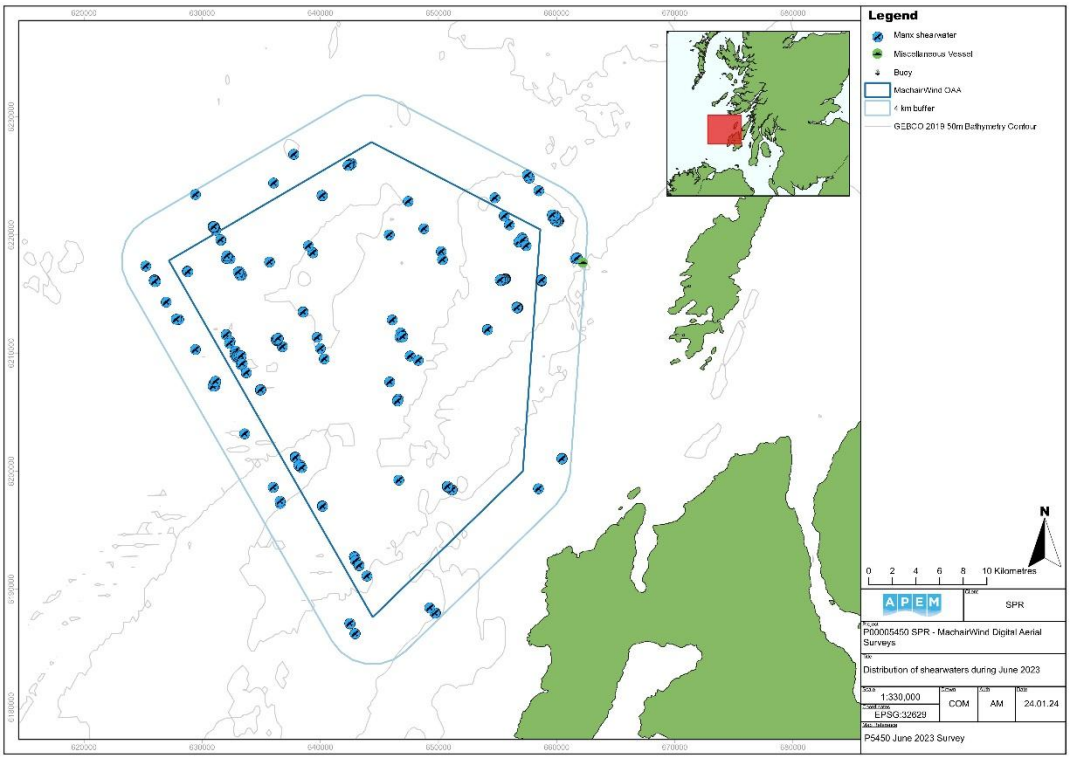


Figure 163 Spatial distribution of Manx shearwaters recorded in the June 2023 survey

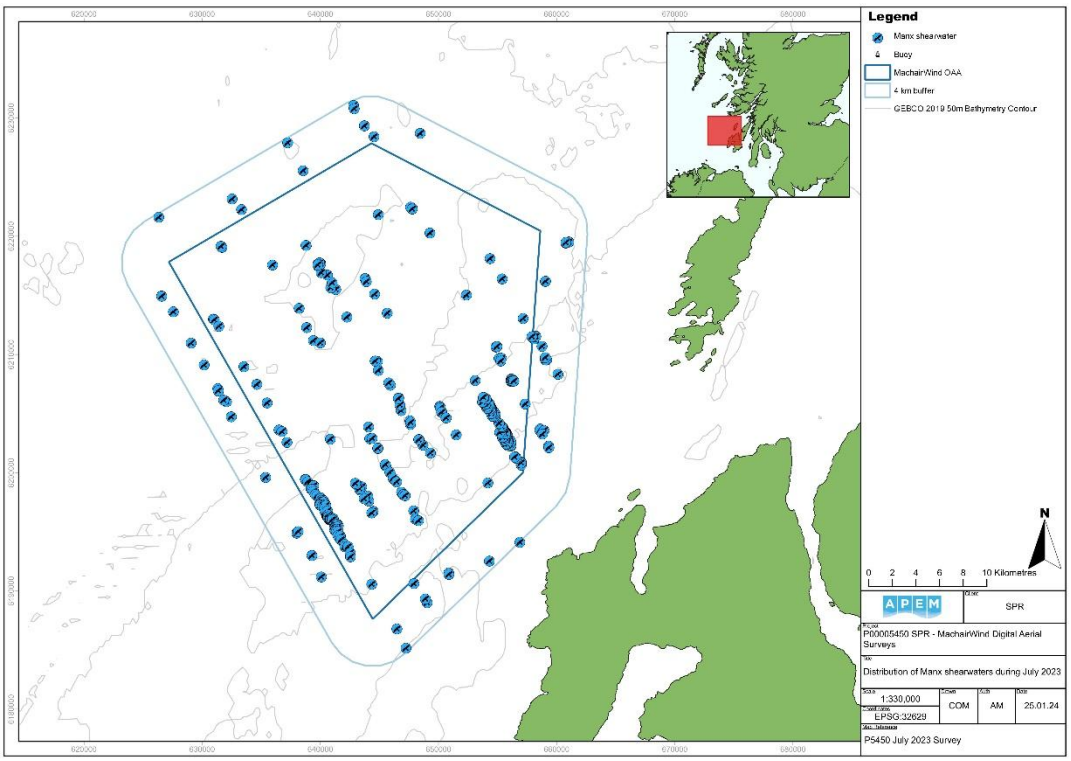


Figure 164 Spatial distribution of Manx shearwaters recorded in the July 2023 survey

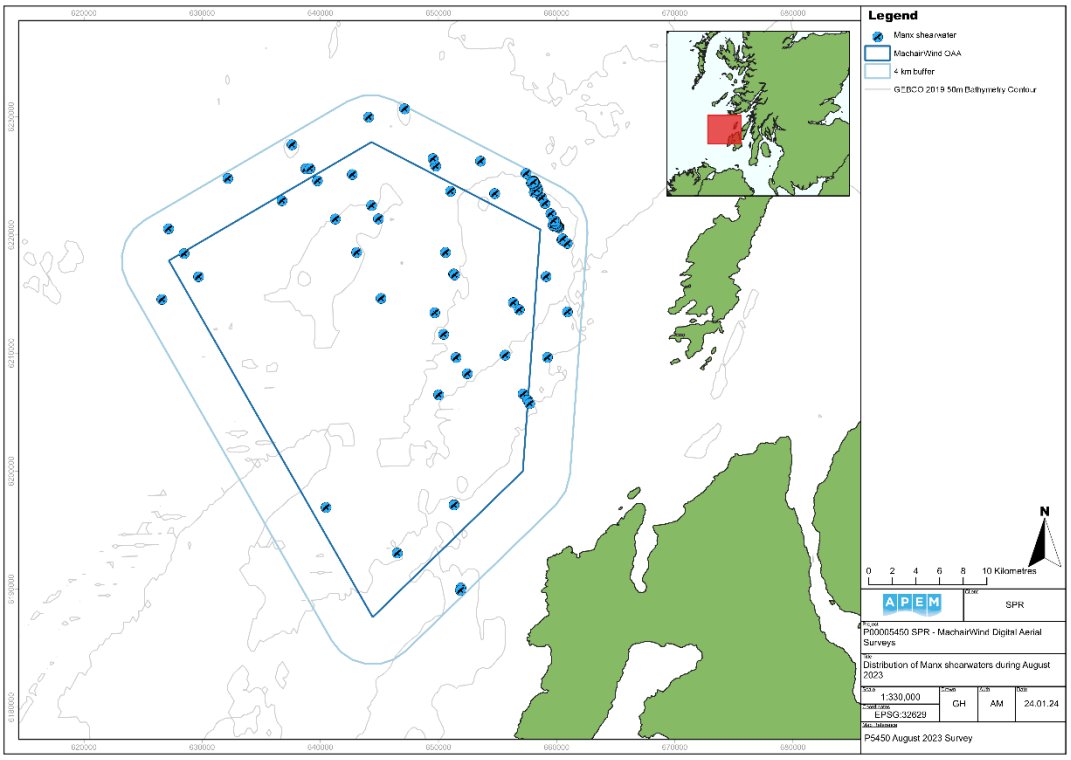


Figure 165 Spatial distribution of Manx shearwaters recorded in the August 2023 survey

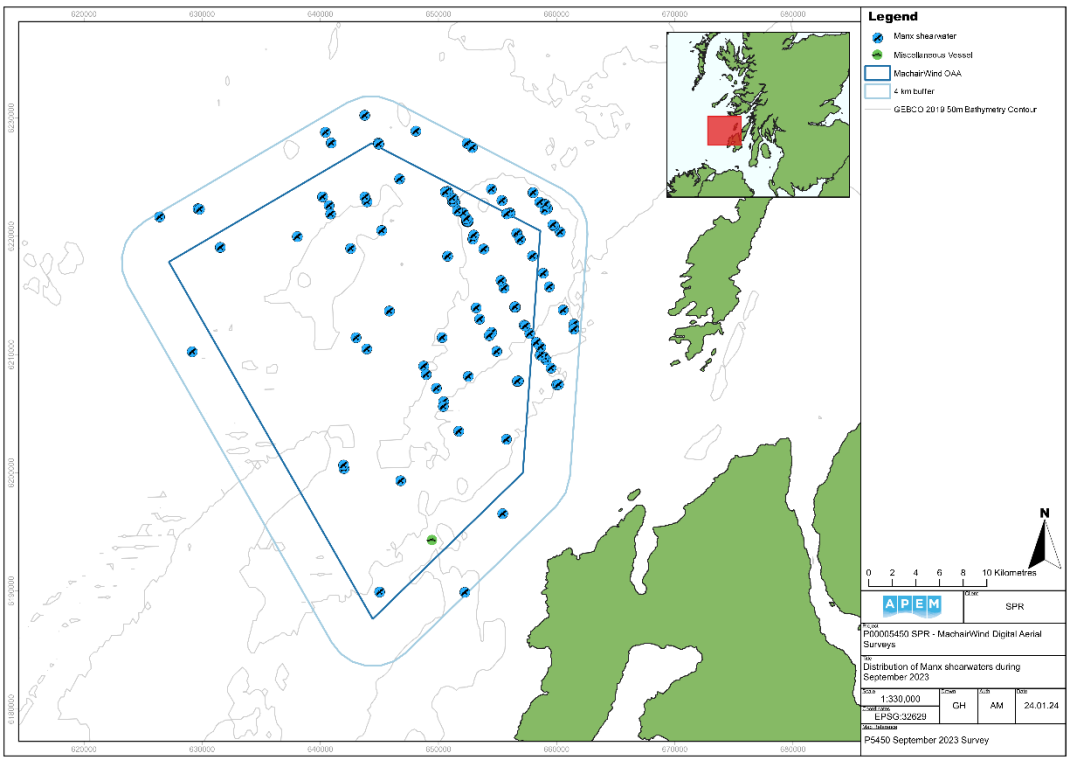


Figure 166 Spatial distribution of Manx shearwaters recorded in the September 2023 survey

11.1.8 Gannets

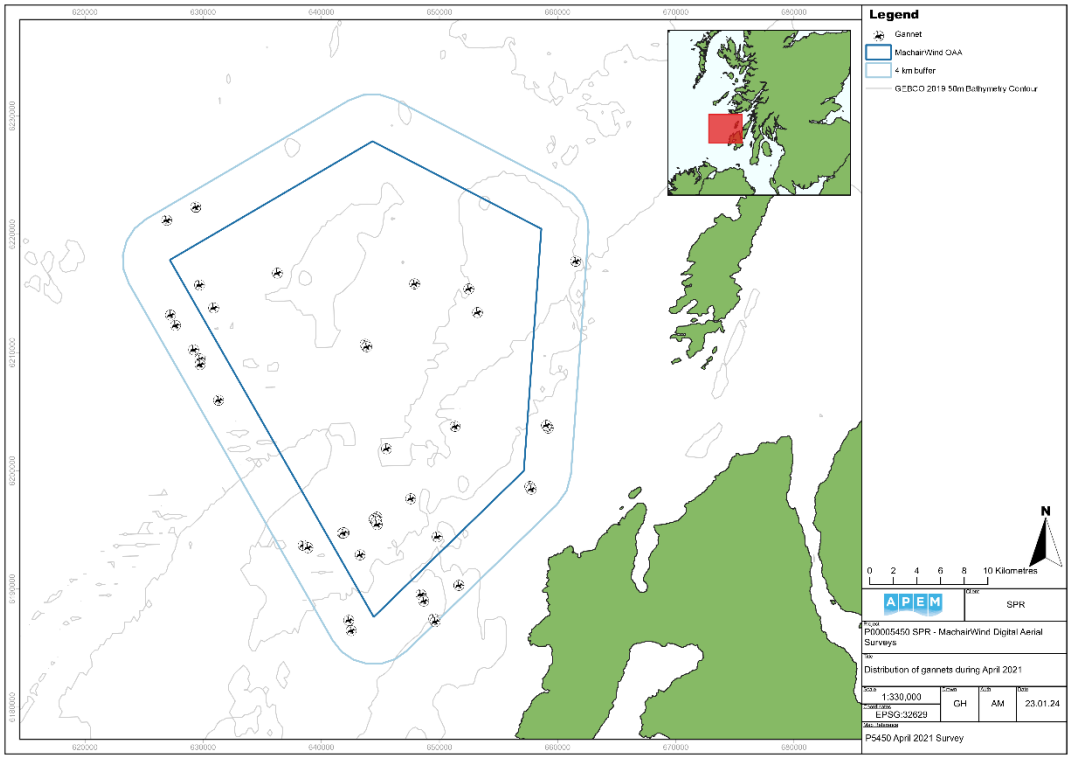


Figure 167 Spatial distribution of gannets recorded in the April 2021 survey

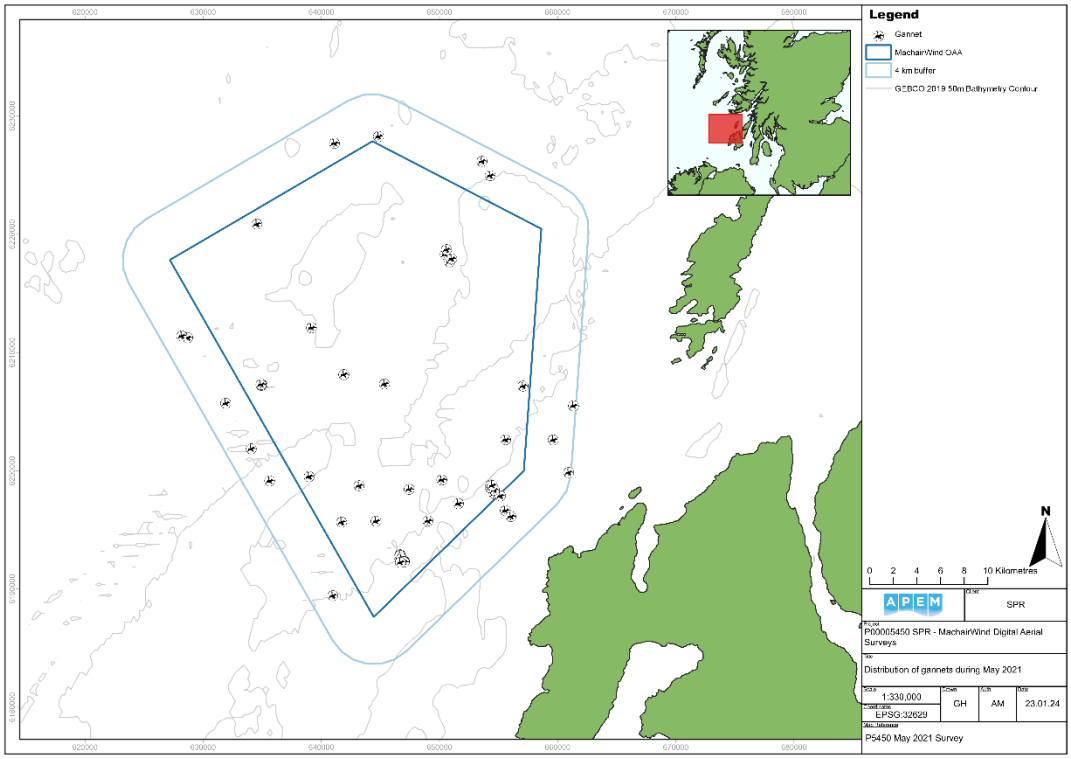


Figure 168 Spatial distribution of gannets recorded in the May 2021 survey

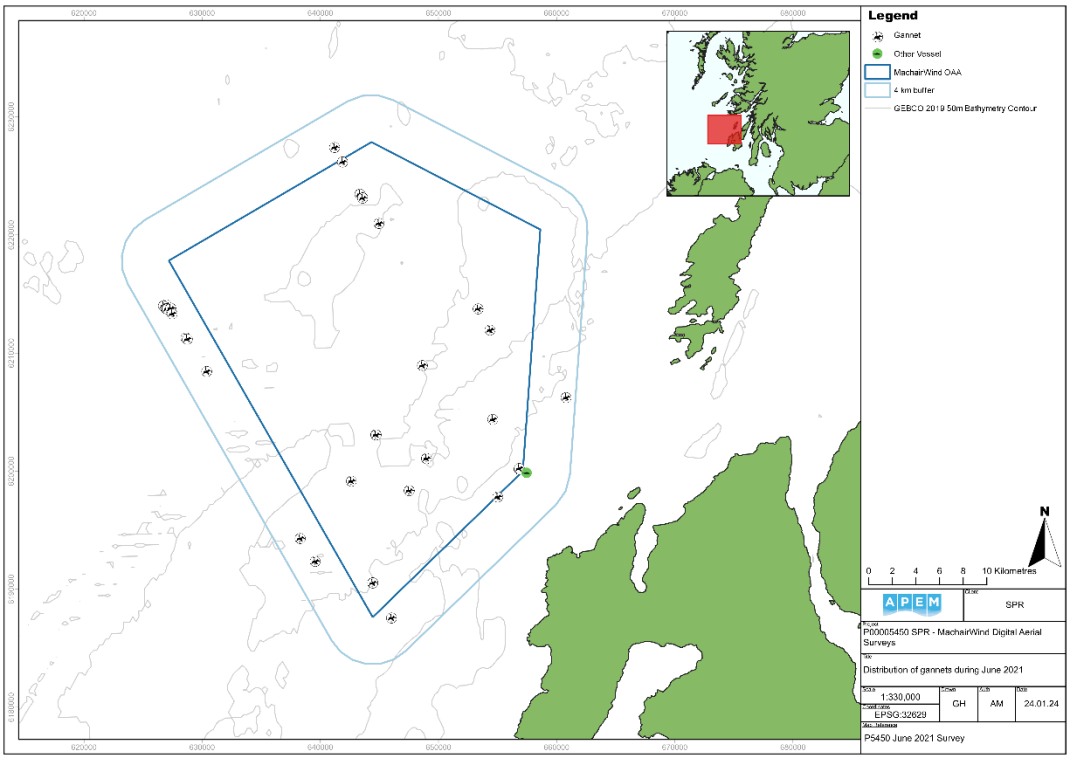


Figure 169 Spatial distribution of gannets recorded in the June 2021 survey

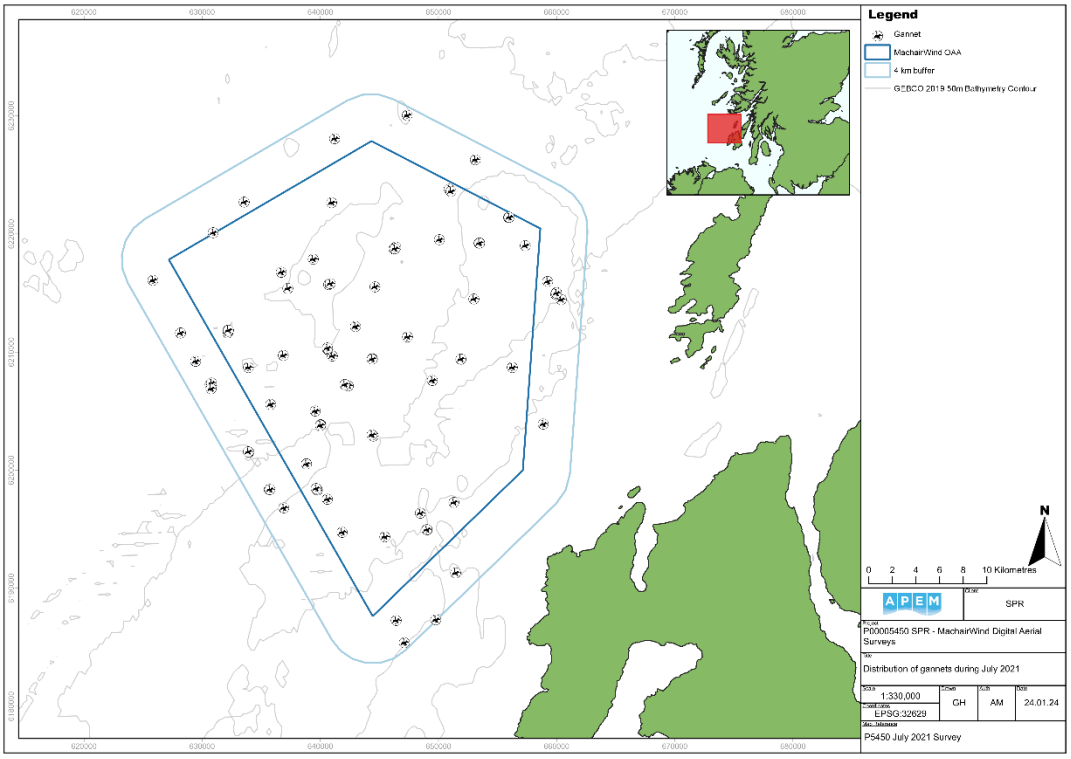


Figure 170 Spatial distribution of gannets recorded in the July 2021 survey

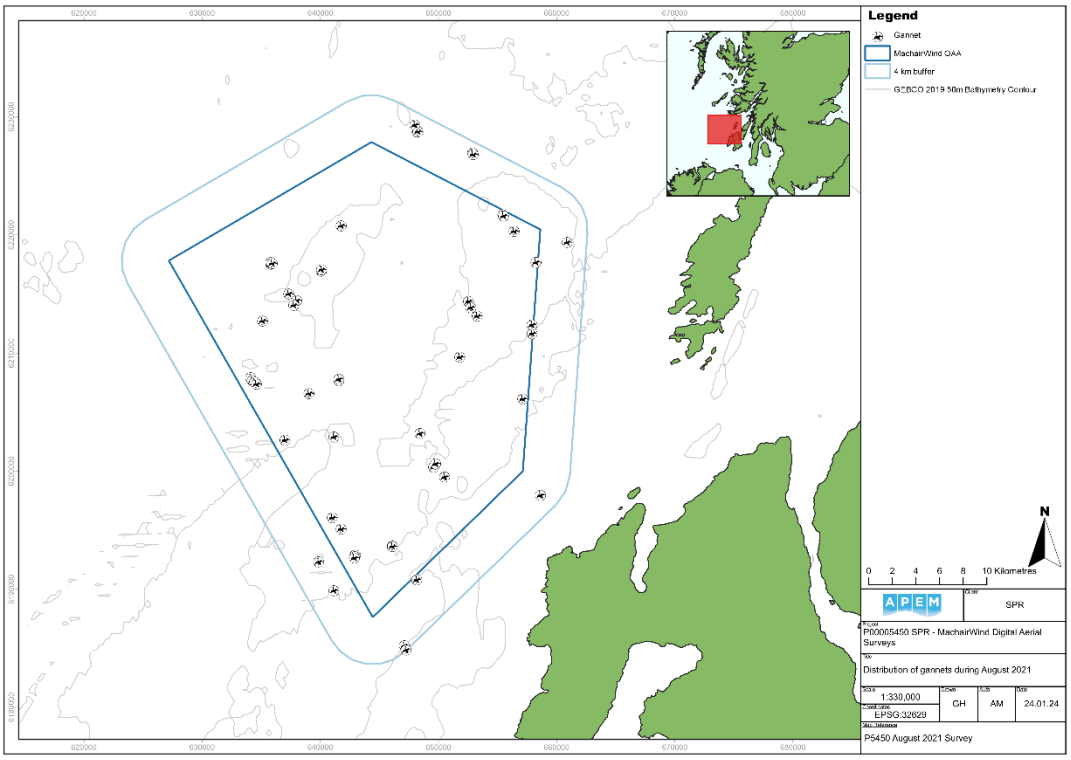


Figure 171 Spatial distribution of gannets recorded in the August 2021 survey

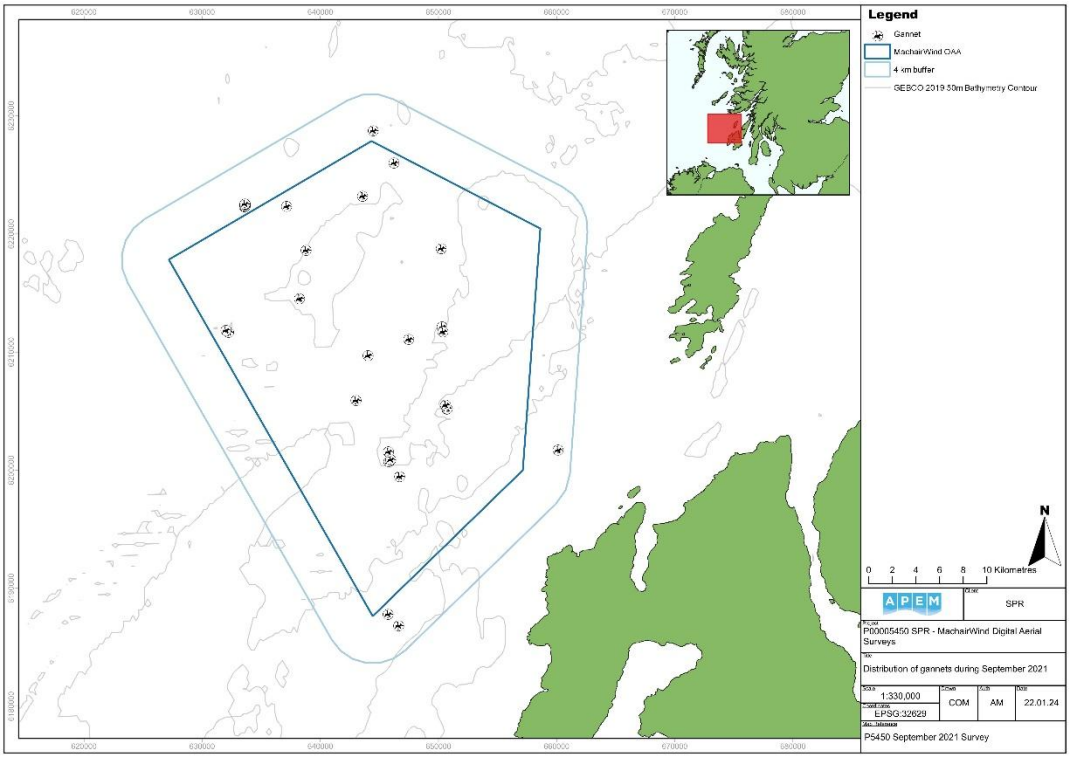


Figure 172 Spatial distribution of gannets recorded in the September 2021 survey

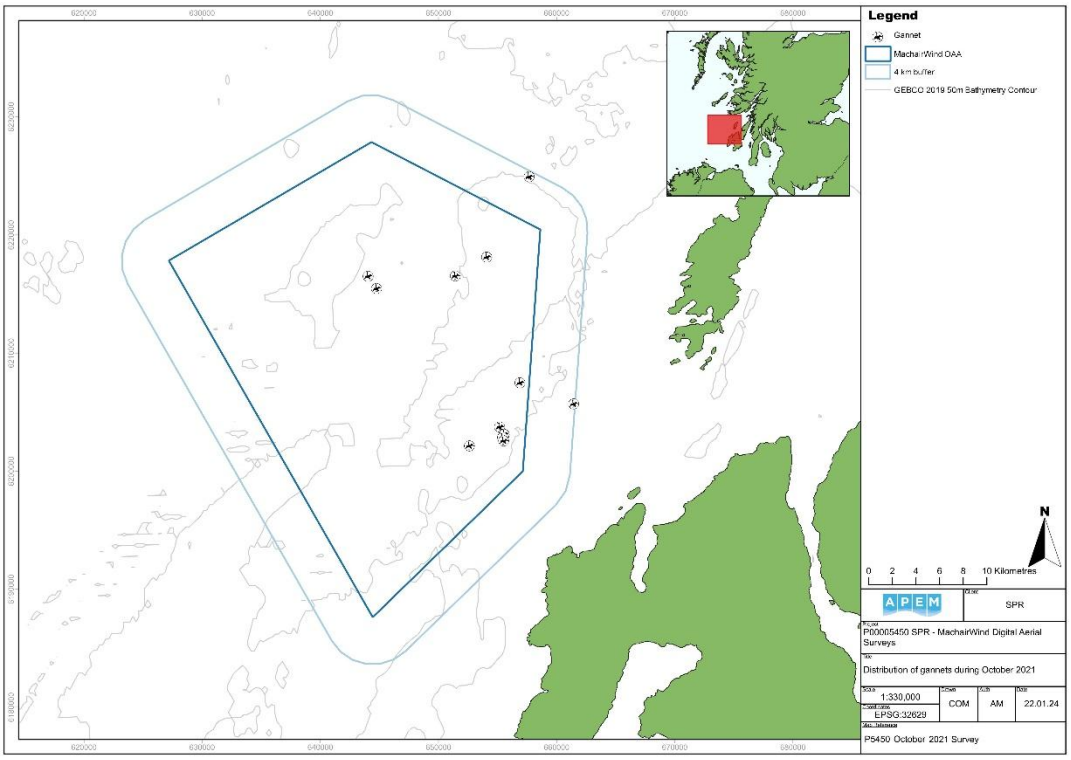


Figure 173 Spatial distribution of gannets recorded in the October 2021 survey

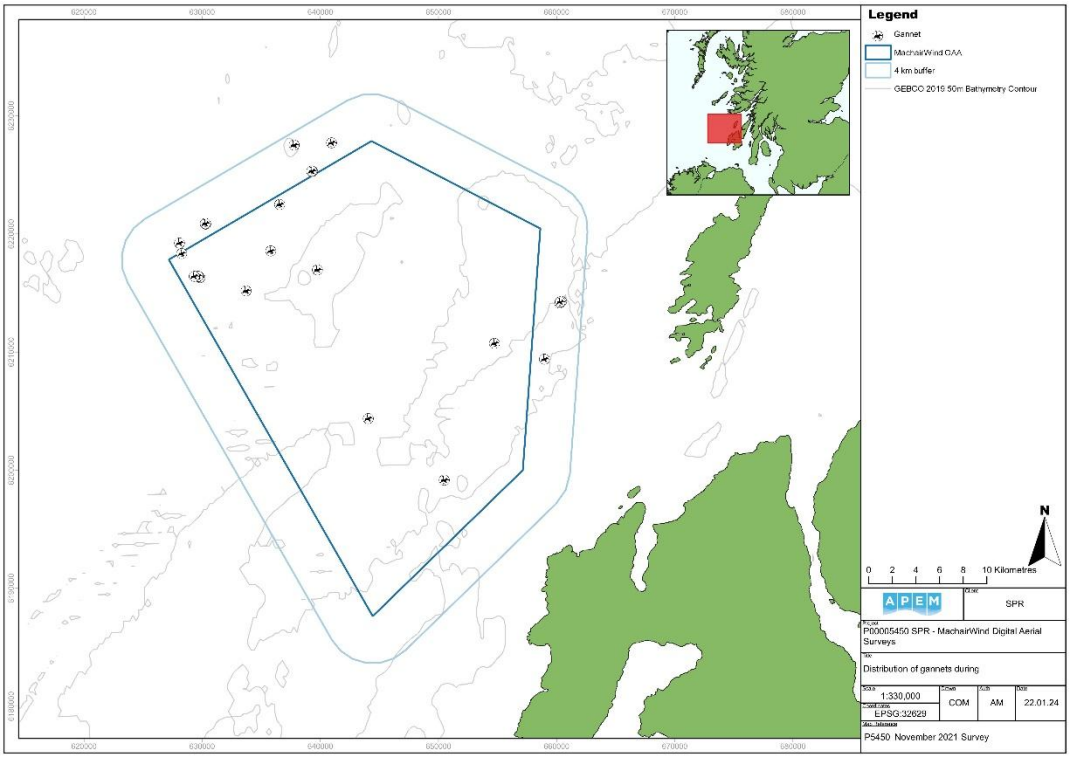


Figure 174 Spatial distribution of gannets recorded in the November 2021 survey

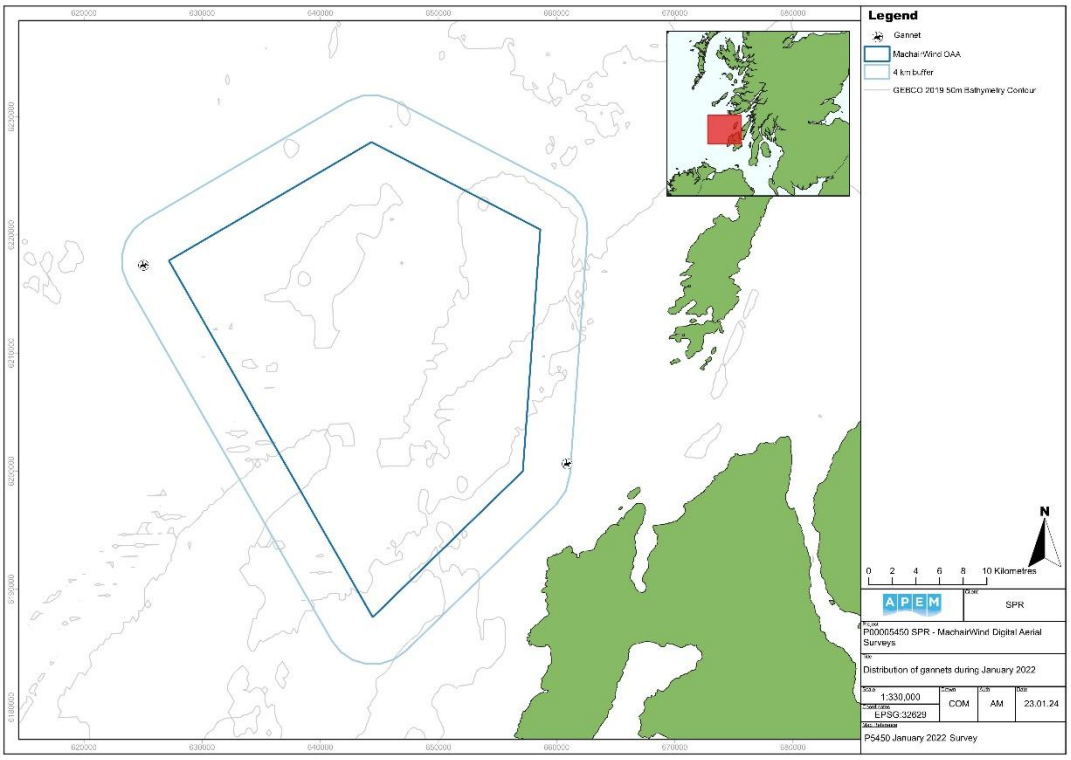


Figure 175 Spatial distribution of gannets recorded in the January 2022 survey

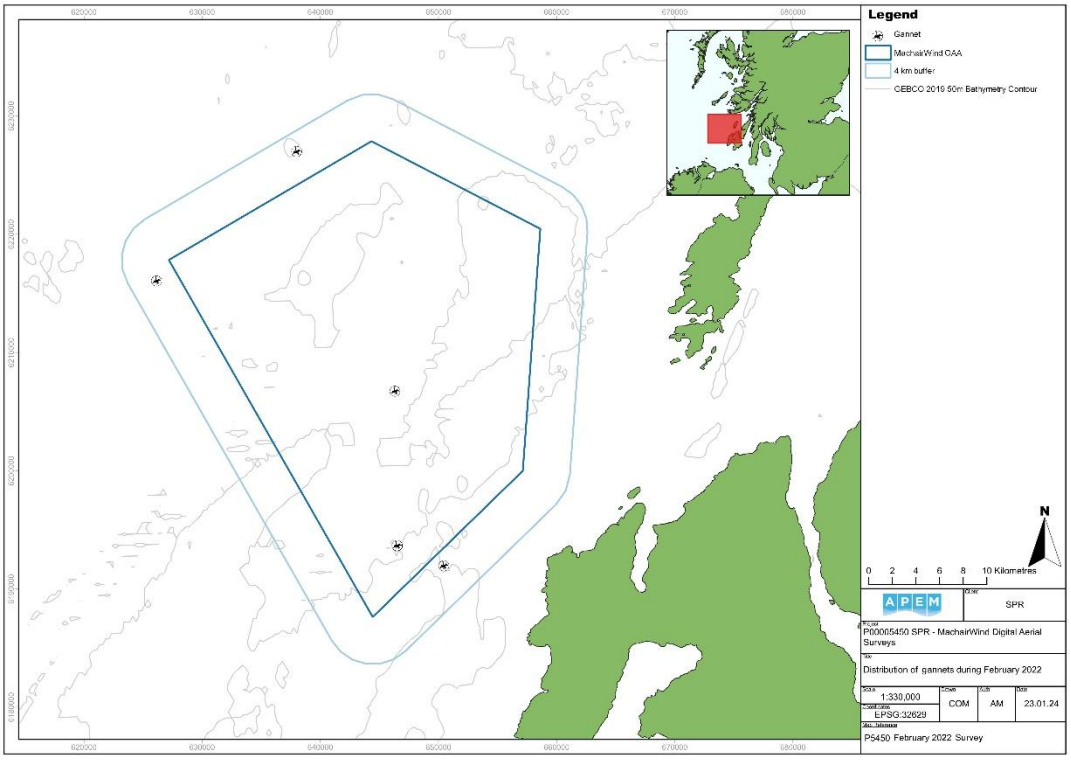


Figure 176 Spatial distribution of gannets recorded in the first March 2022 survey (Survey 10)

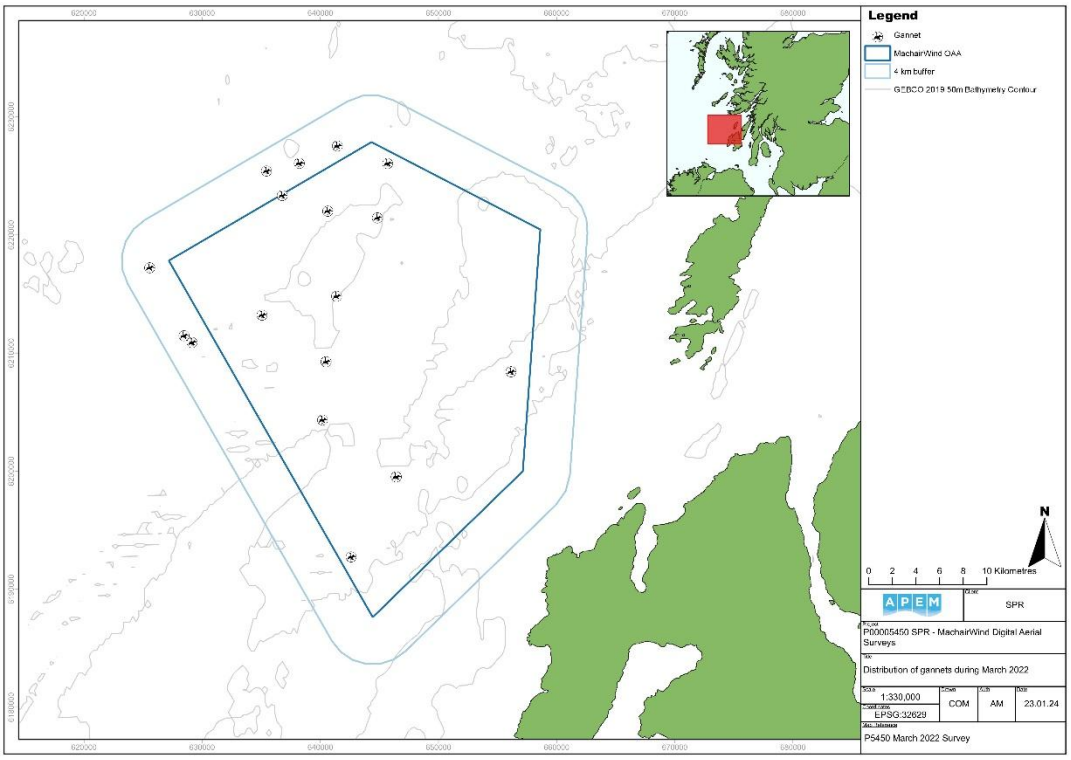


Figure 177 Spatial distribution of gannets recorded in the second March 2022 survey (Survey 11)

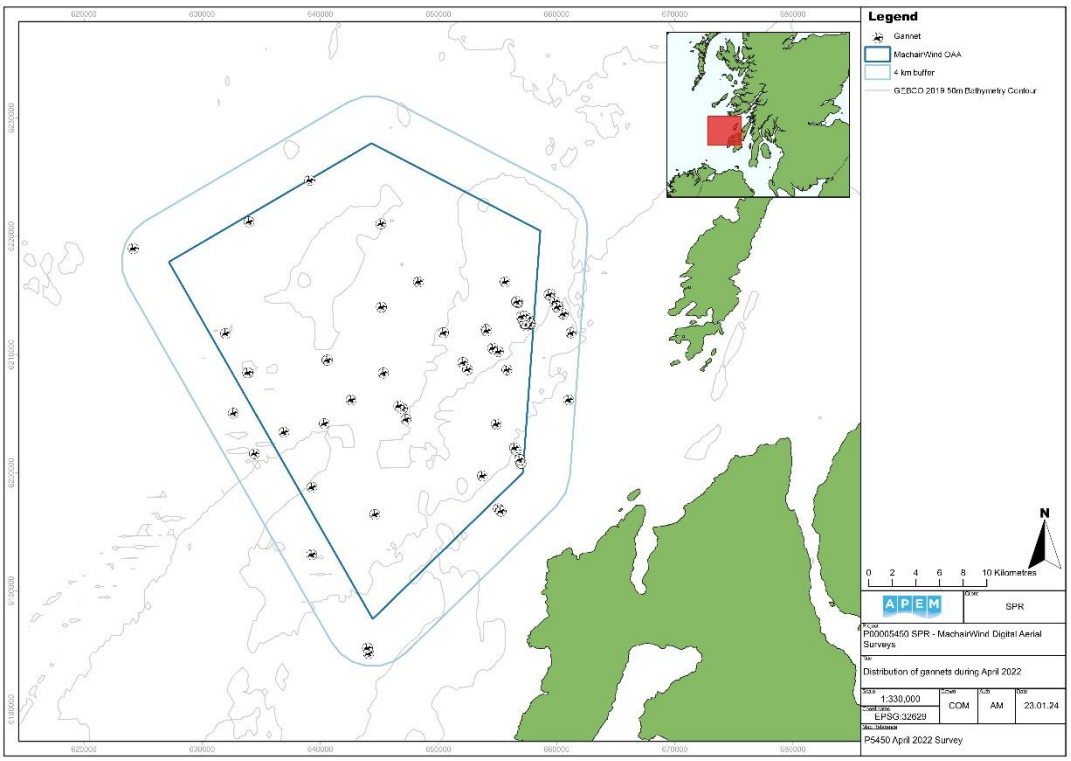


Figure 178 Spatial distribution of gannets recorded in the April 2022 survey

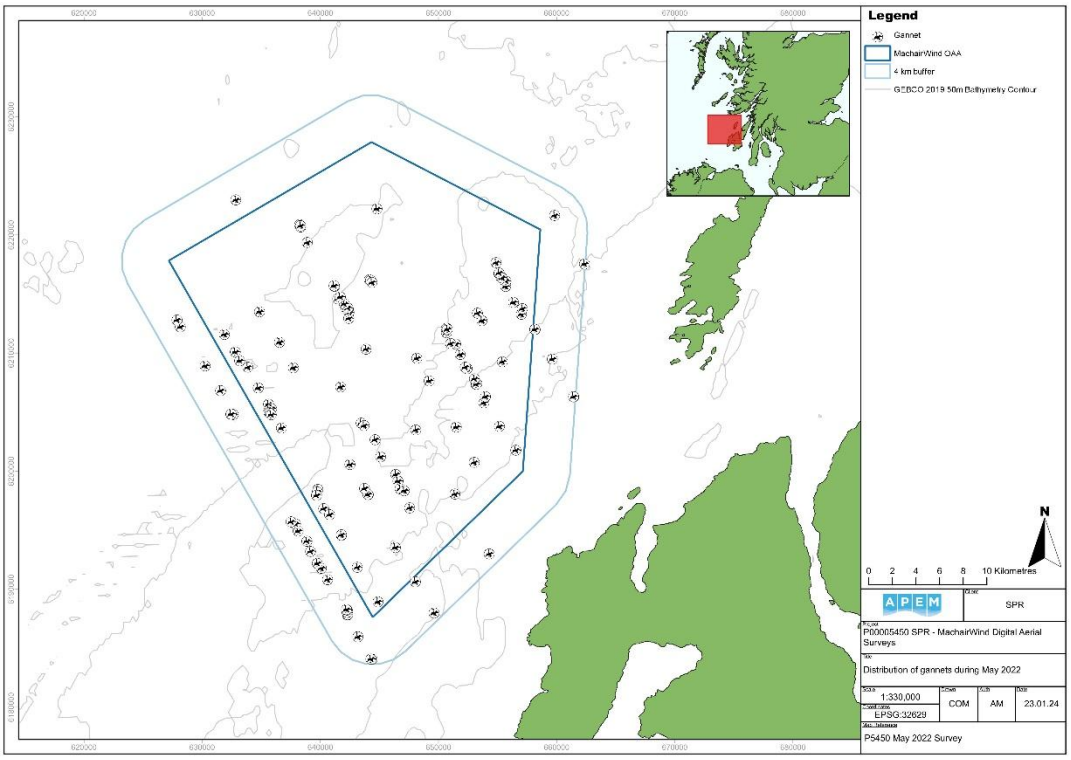


Figure 179 Spatial distribution of gannets recorded in the May 2022 survey

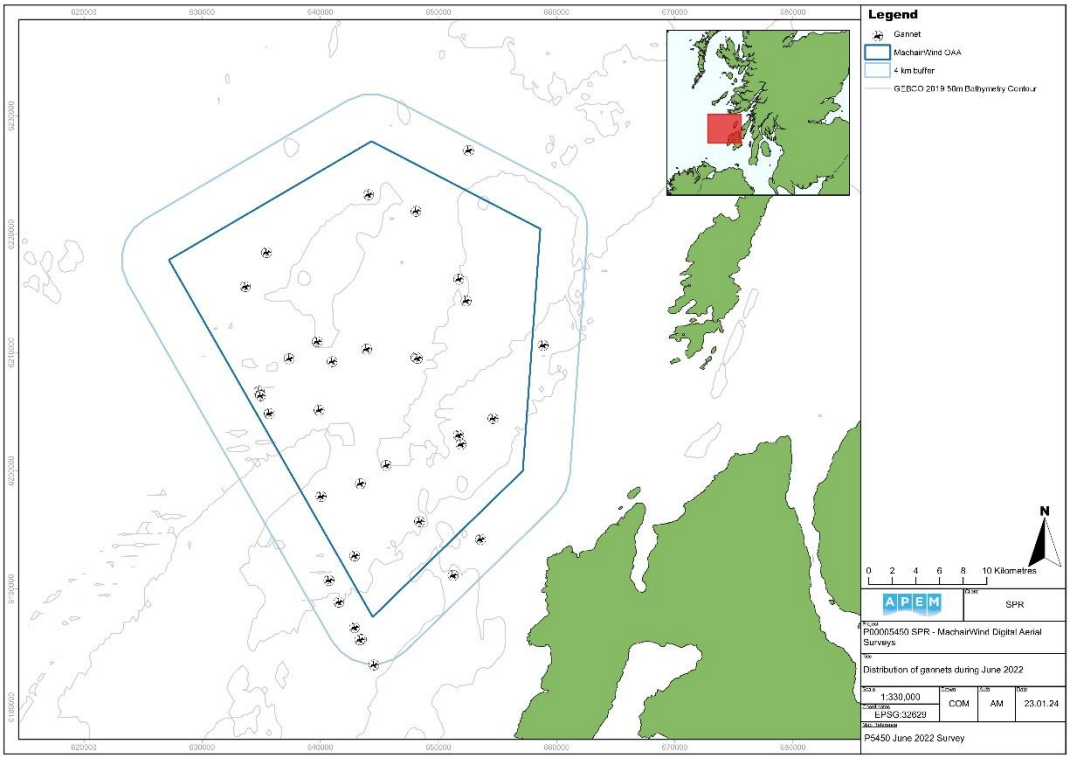


Figure 180 Spatial distribution of gannets recorded in the June 2022 survey

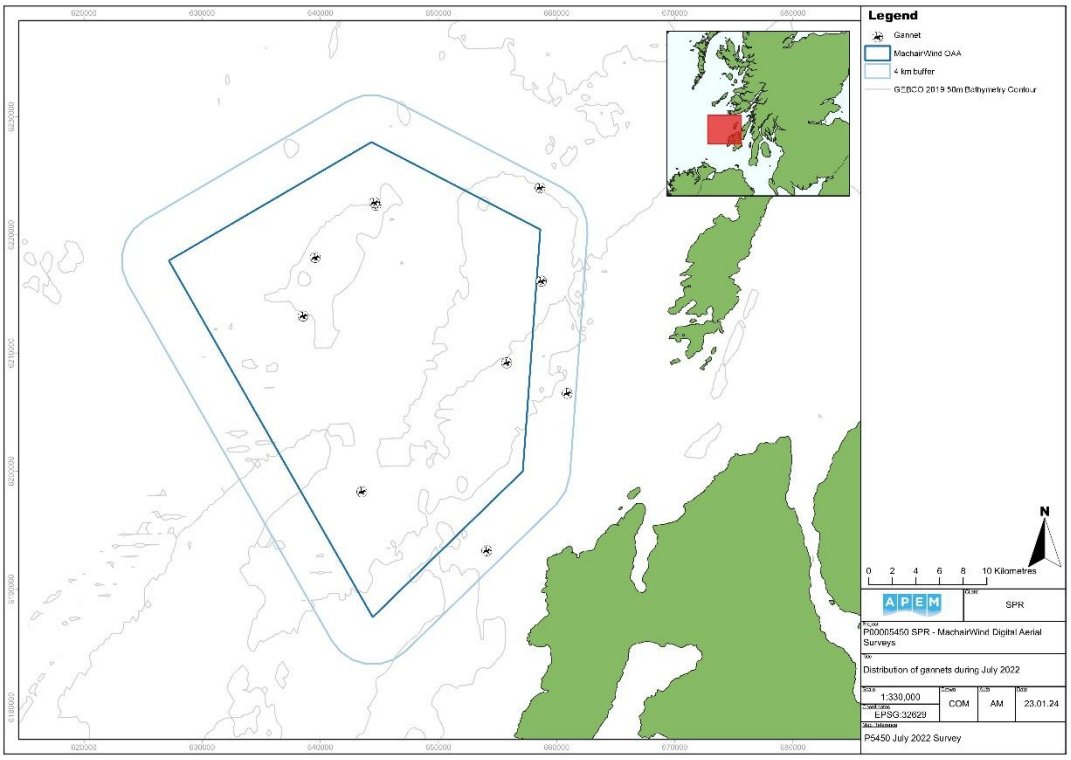


Figure 181 Spatial distribution of gannets recorded in the July 2022 survey

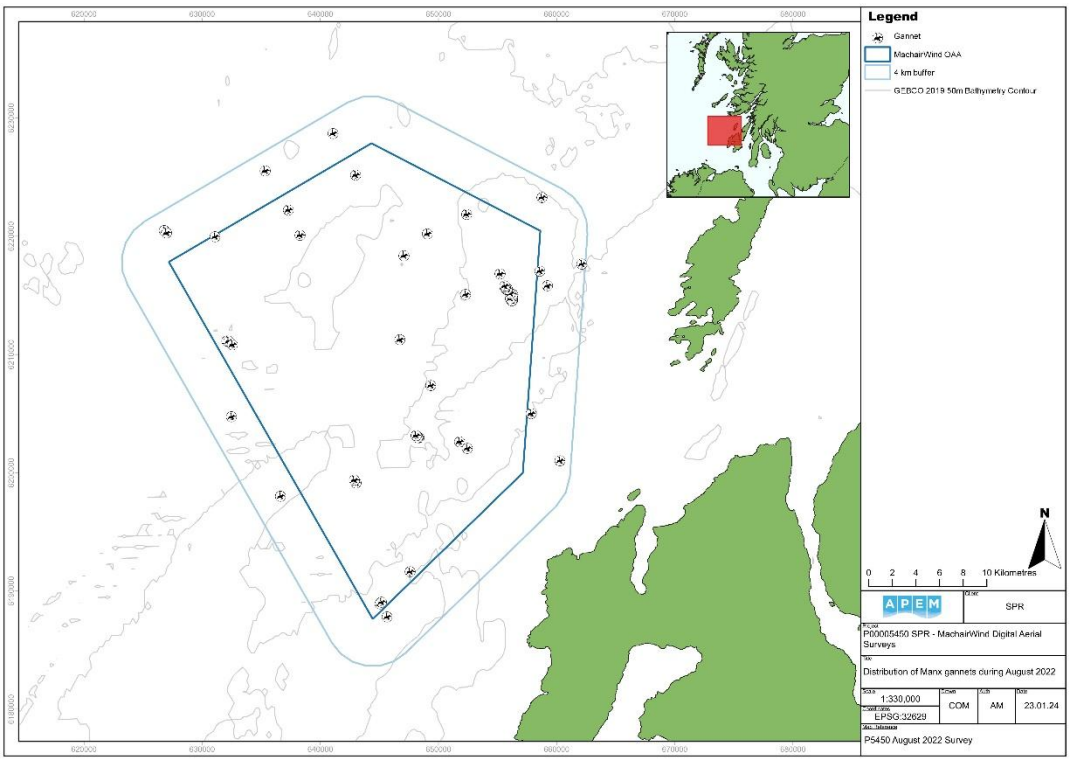


Figure 182 Spatial distribution of gannets recorded in the August 2022 survey

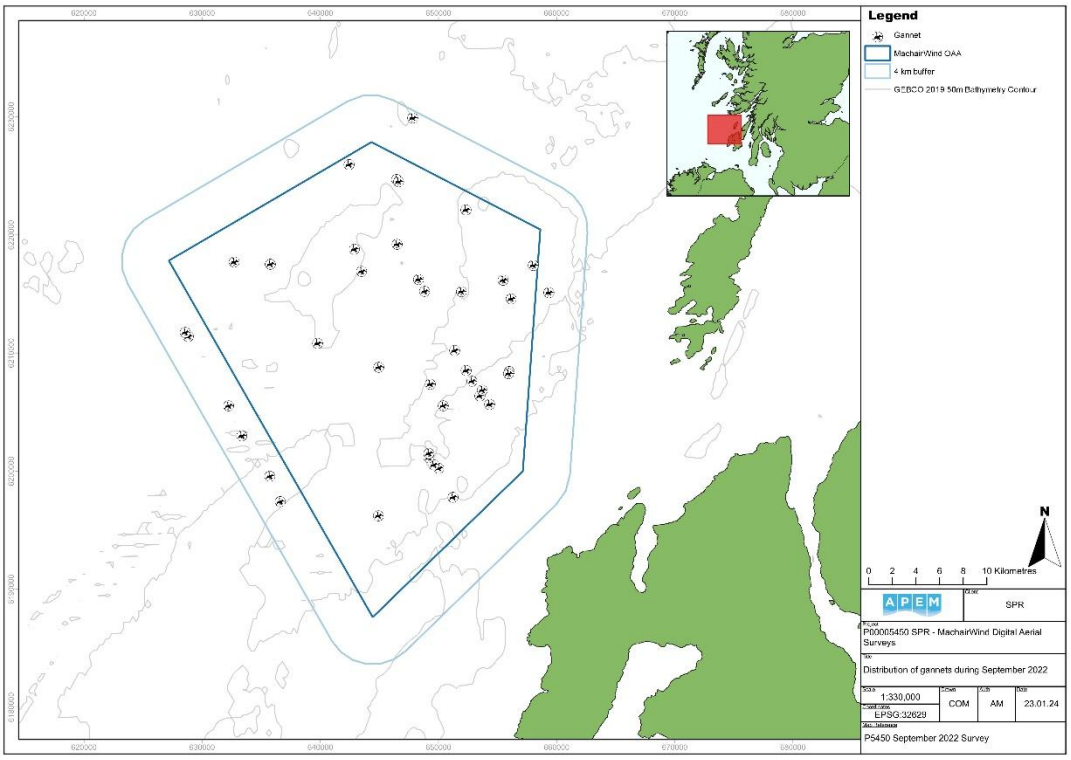


Figure 183 Spatial distribution of gannets recorded in the September 2022 survey

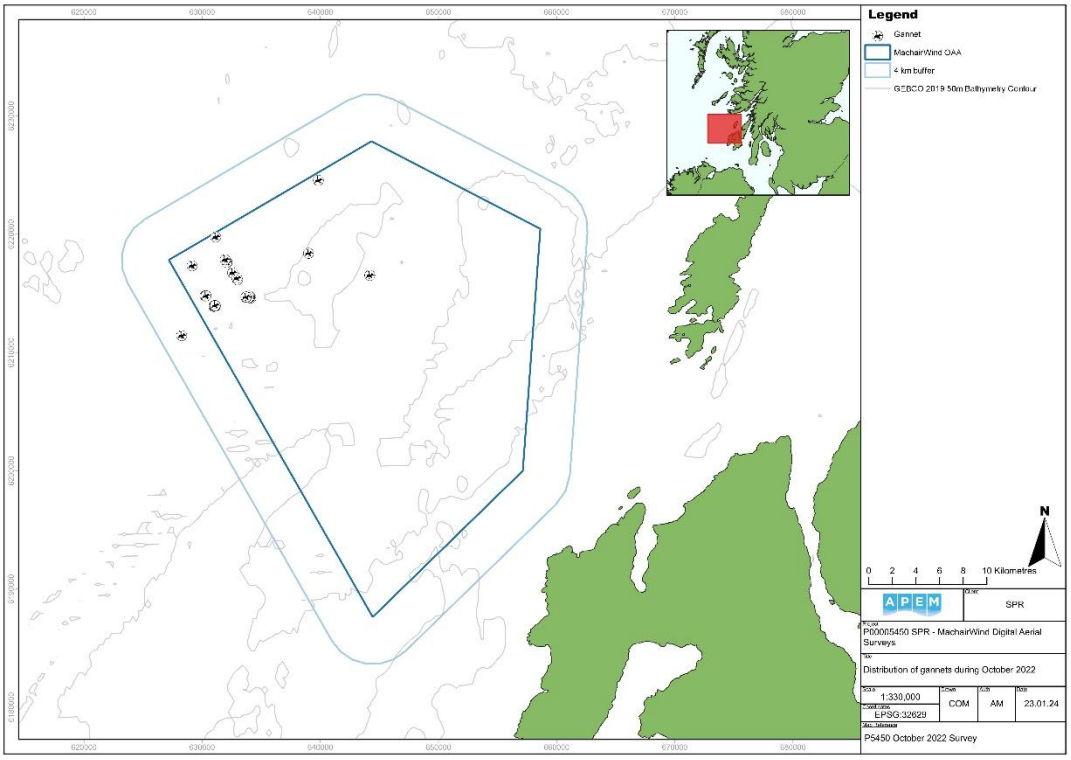


Figure 184 Spatial distribution of gannets recorded in the October 2022 survey

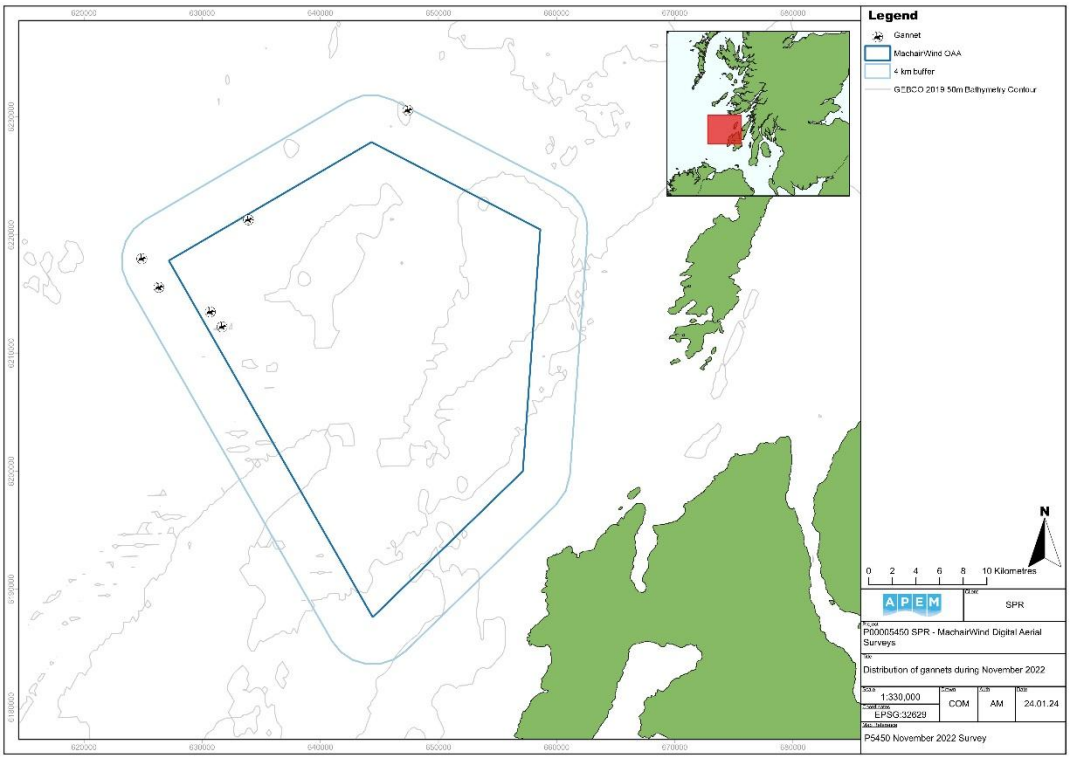


Figure 185 Spatial distribution of gannets recorded in the November 2022 survey

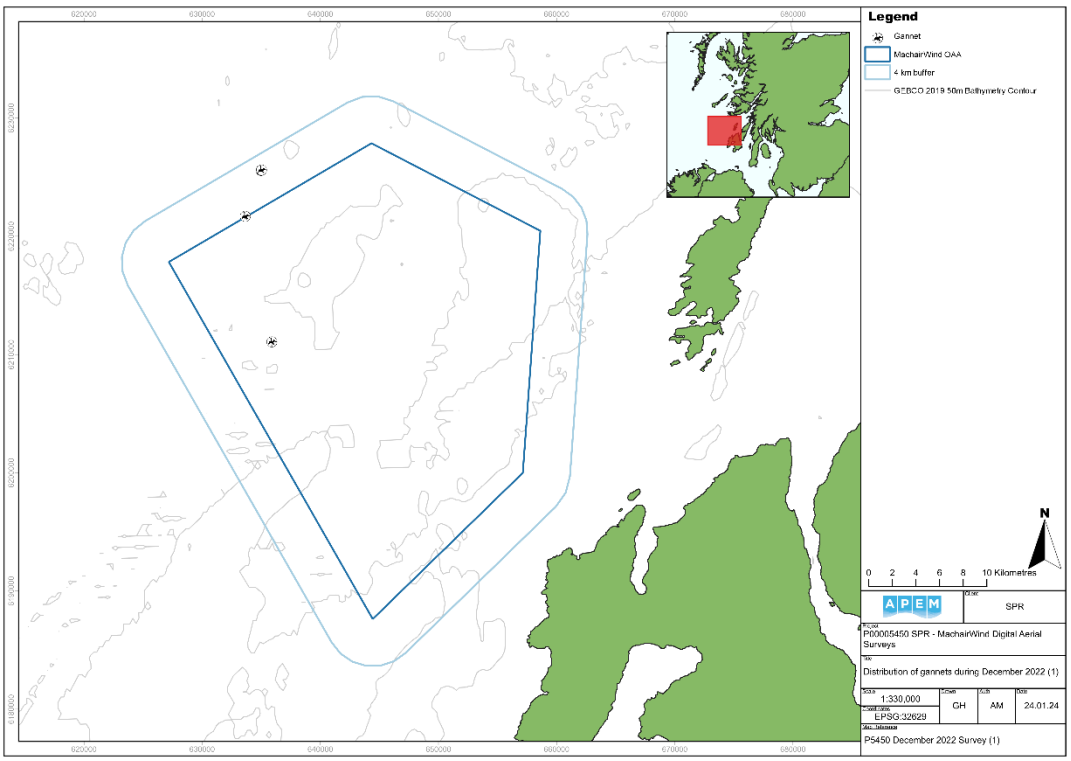


Figure 186 Spatial distribution of gannets recorded in the first December 2022 survey (Survey 20)

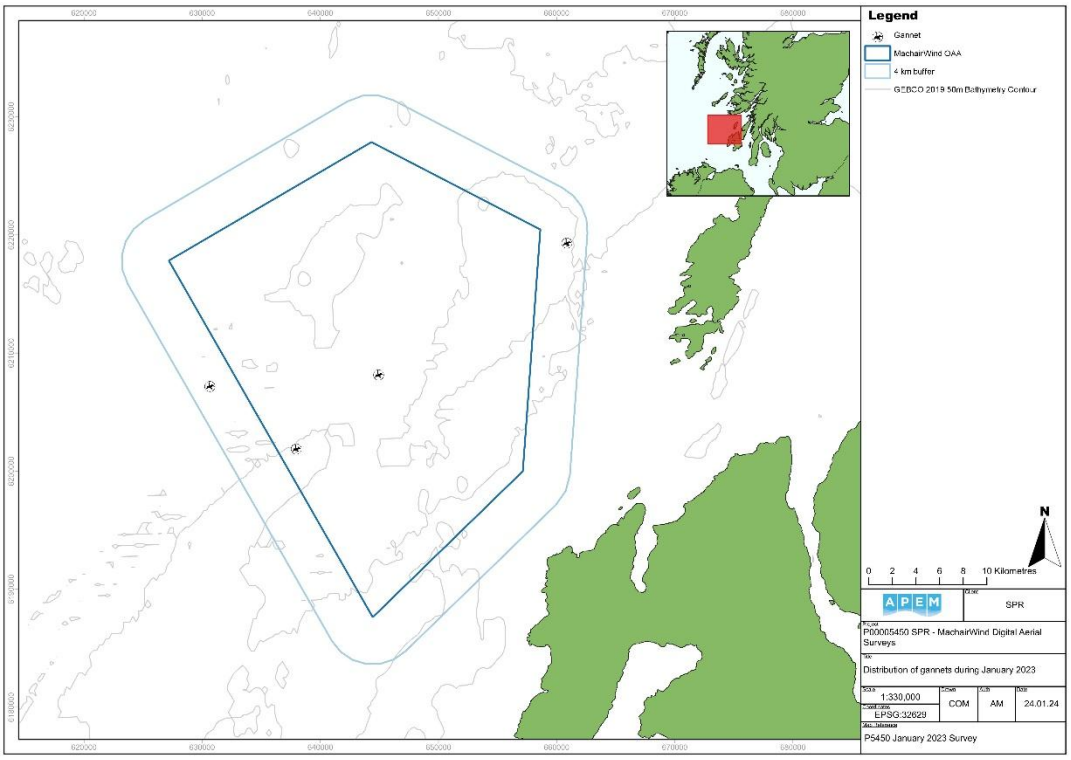


Figure 187 Spatial distribution of gannets recorded in the January 2023 survey

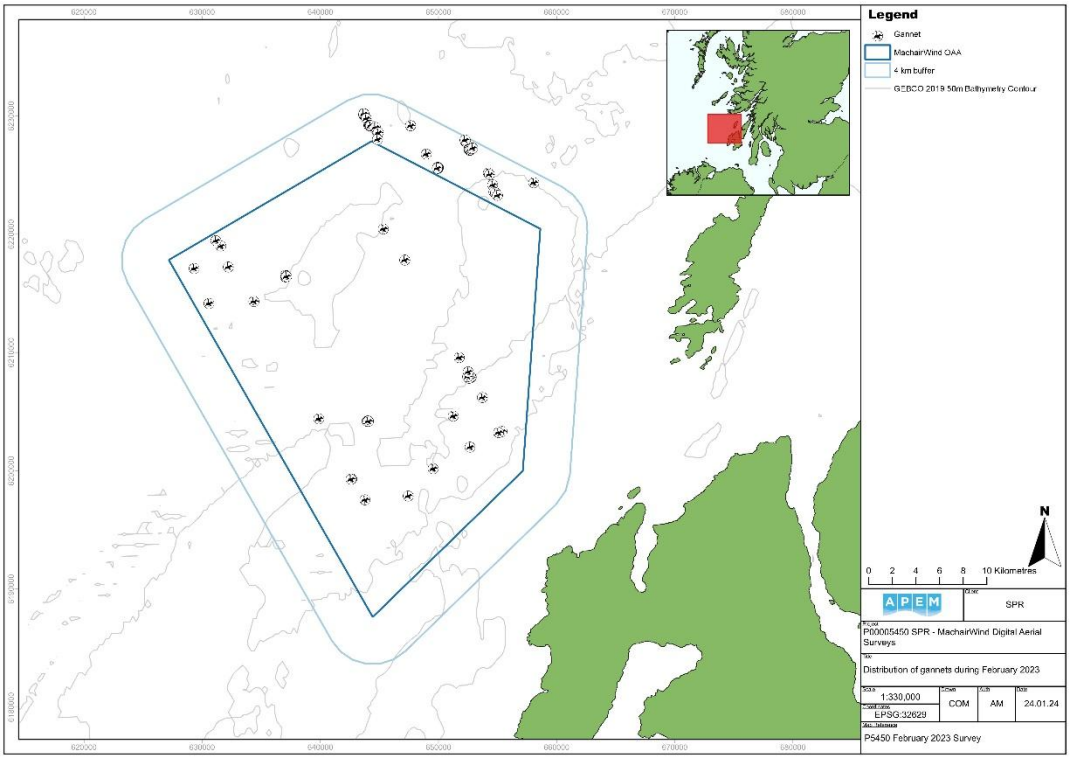


Figure 188 Spatial distribution of gannets recorded in the February 2023 survey

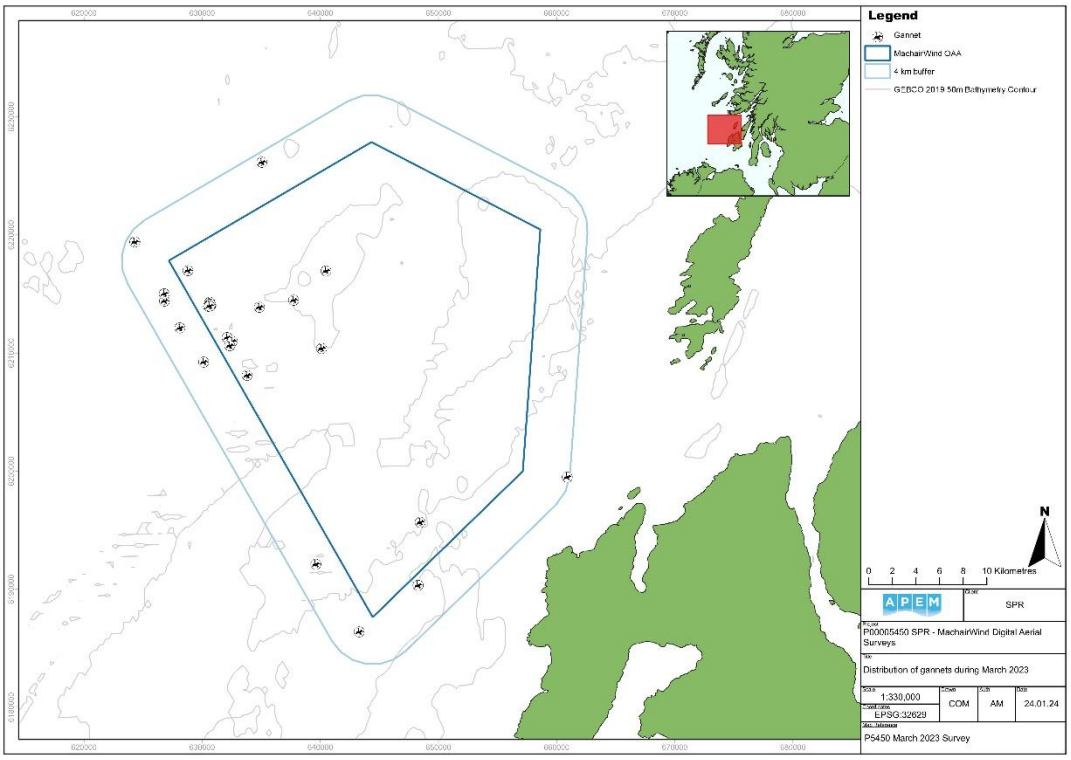


Figure 189 Spatial distribution of gannets recorded in the March 2023 survey

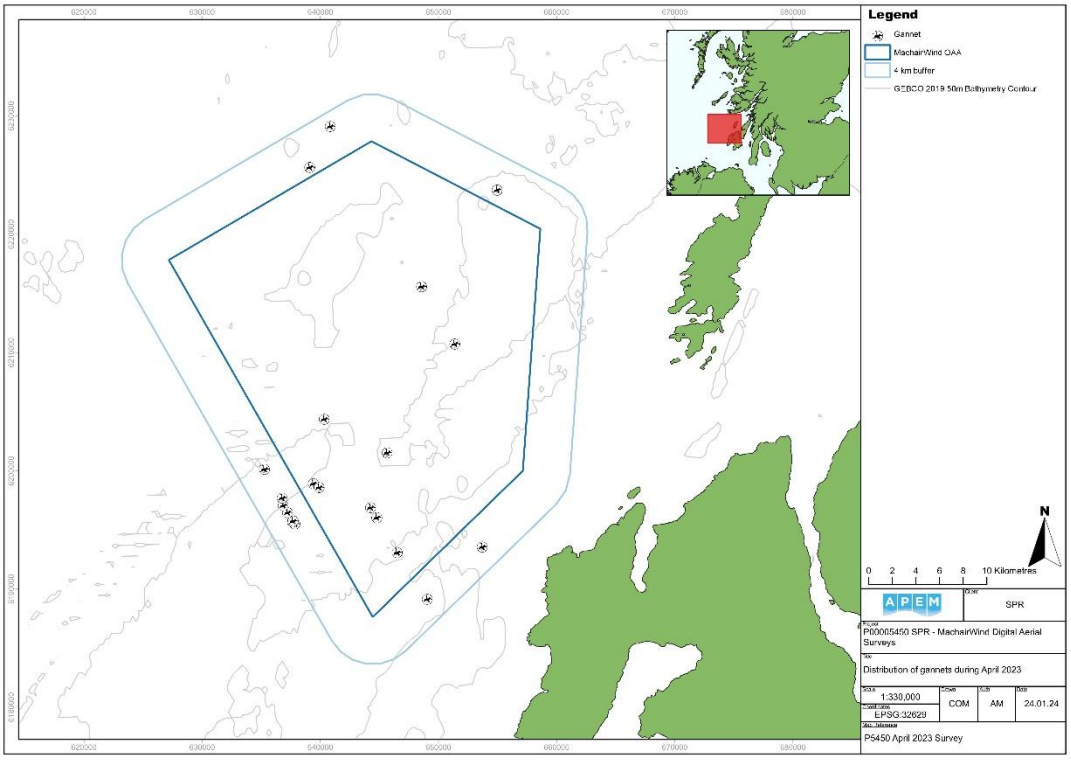


Figure 190 Spatial distribution of gannets recorded in the April 2023 survey

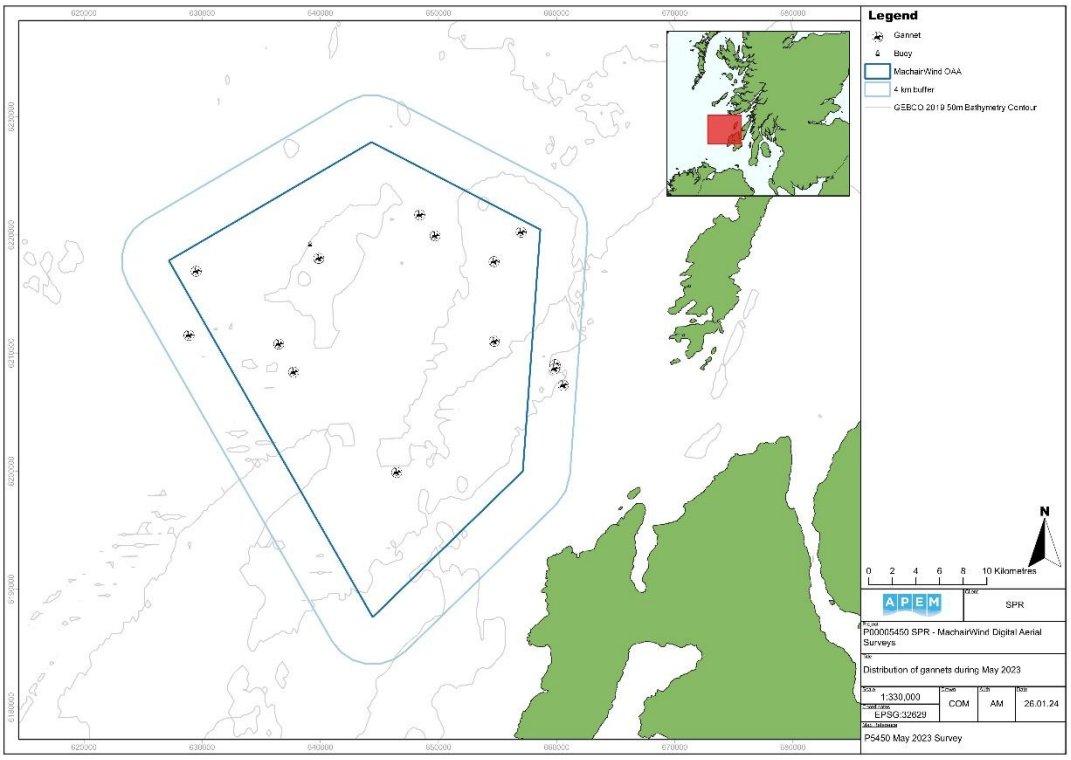


Figure 191 Spatial distribution of gannets recorded in the May 2023 survey

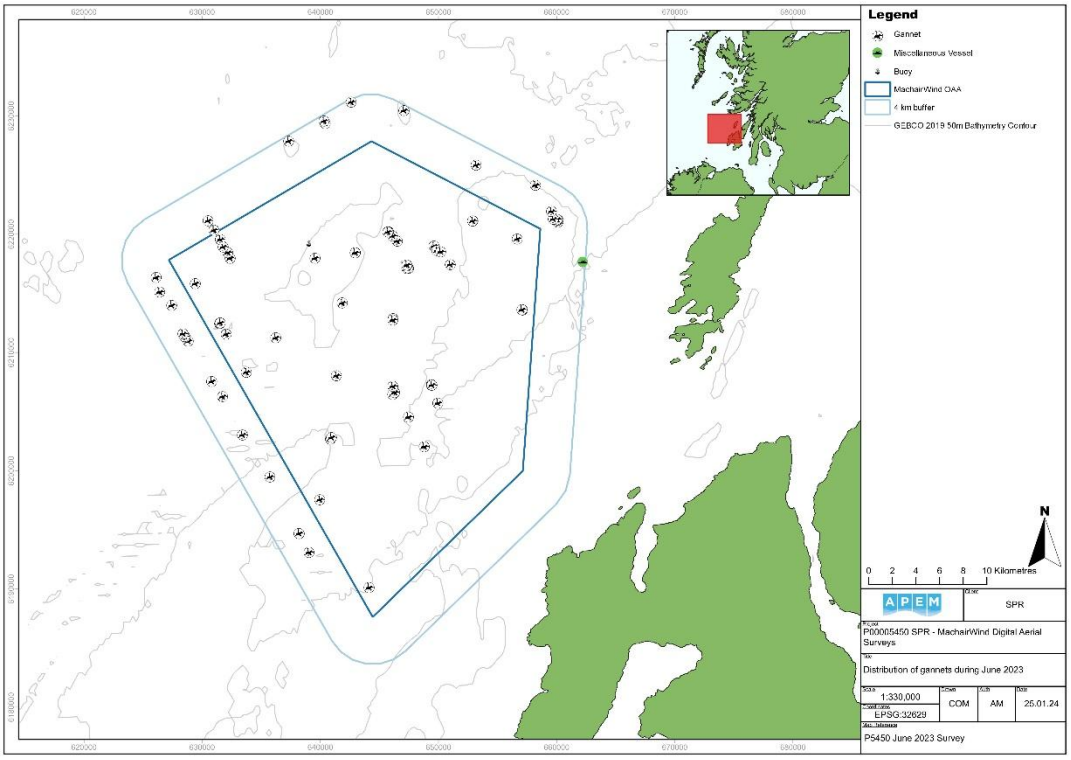


Figure 192 Spatial distribution of gannets recorded in the June 2023 survey

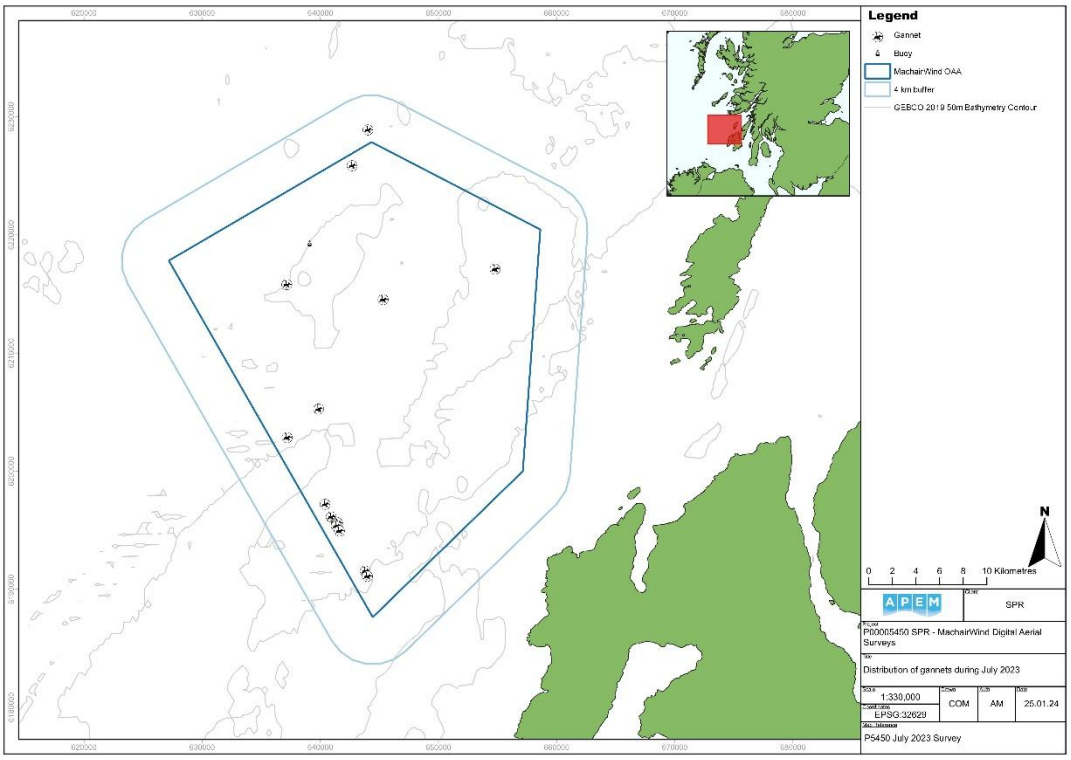


Figure 193 Spatial distribution of gannets recorded in the July 2023 survey

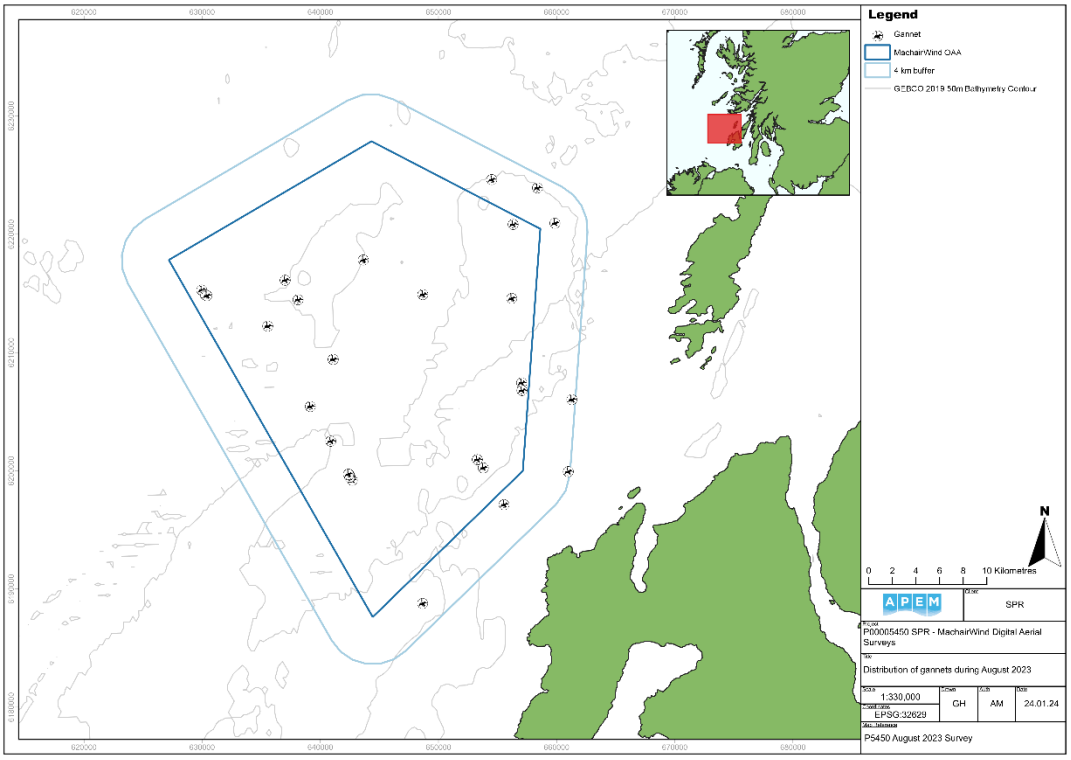


Figure 194 Spatial distribution of gannets recorded in the August 2023 survey

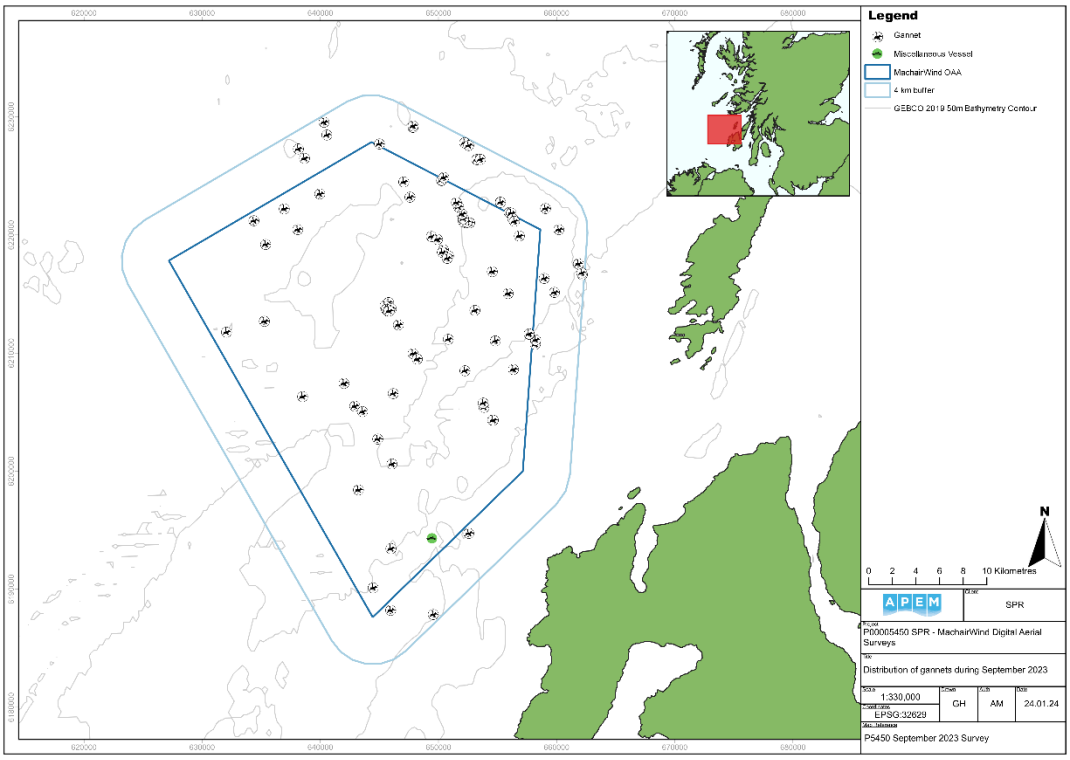


Figure 195 Spatial distribution of gannets recorded in the September 2023 survey

11.2 Marine Megafauna

11.2.1 Grey Seals

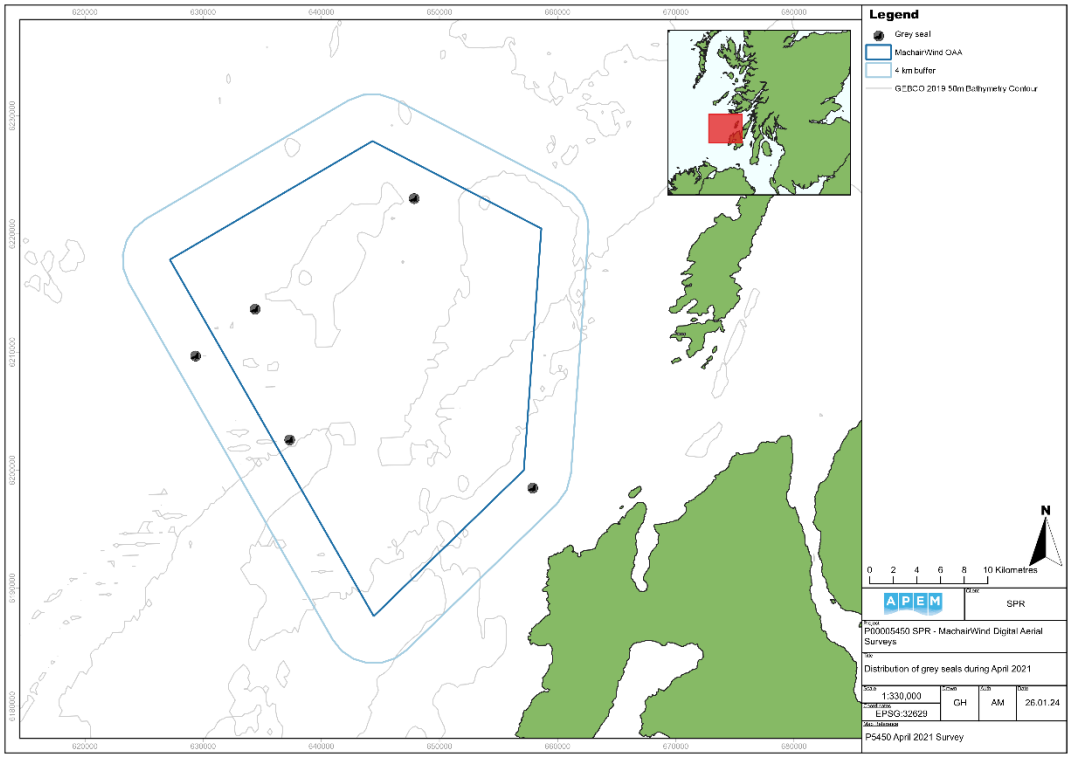


Figure 196 Spatial distribution of grey seals recorded in the April 2021 survey

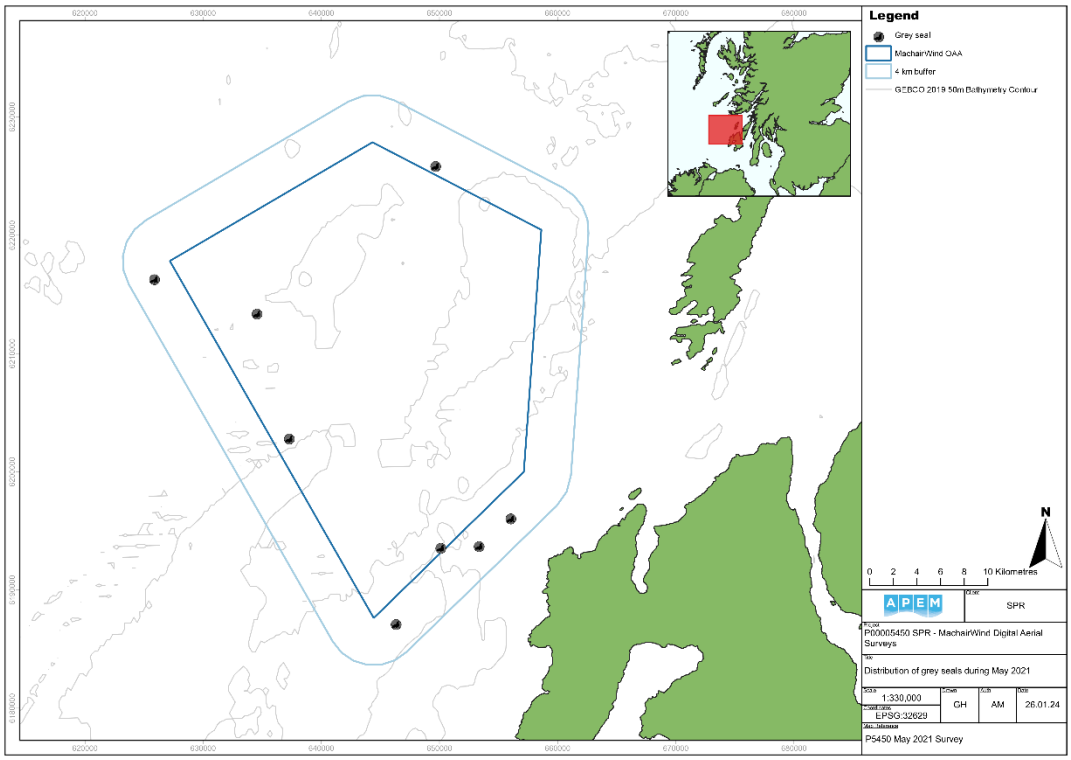


Figure 197 Spatial distribution of grey seals recorded in the May 2021 survey

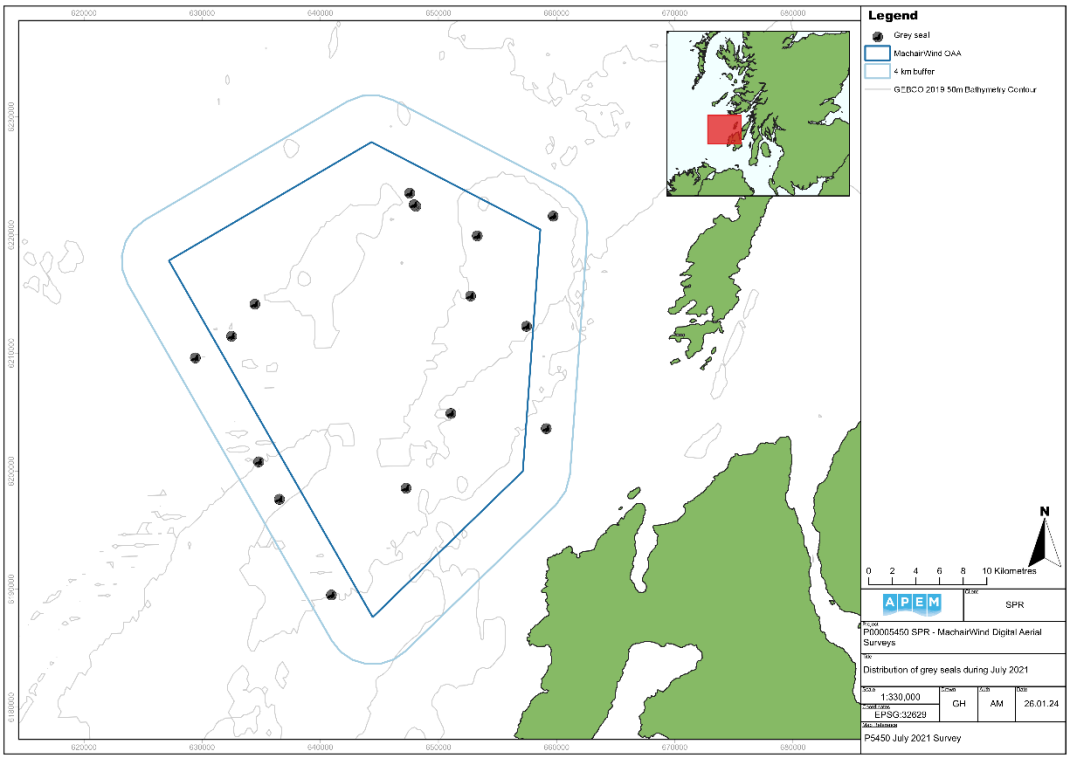


Figure 198 Spatial distribution of grey seals recorded in the July 2021 survey

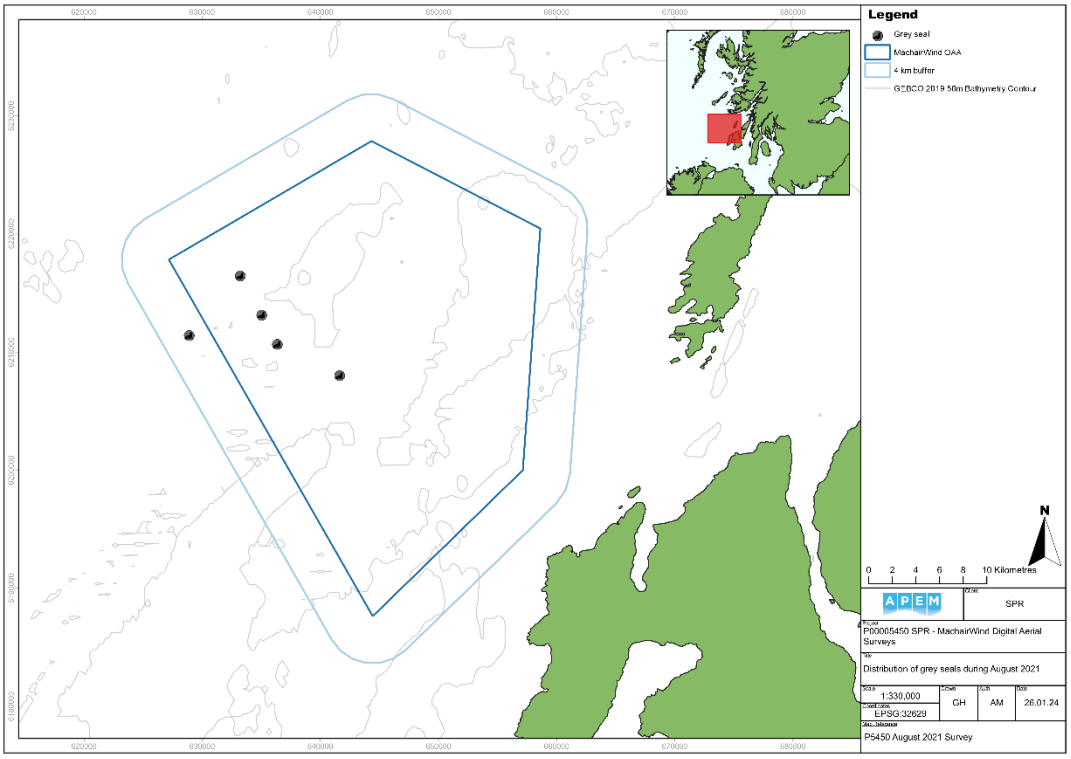


Figure 199 Spatial distribution of grey seals recorded in the August 2021 survey

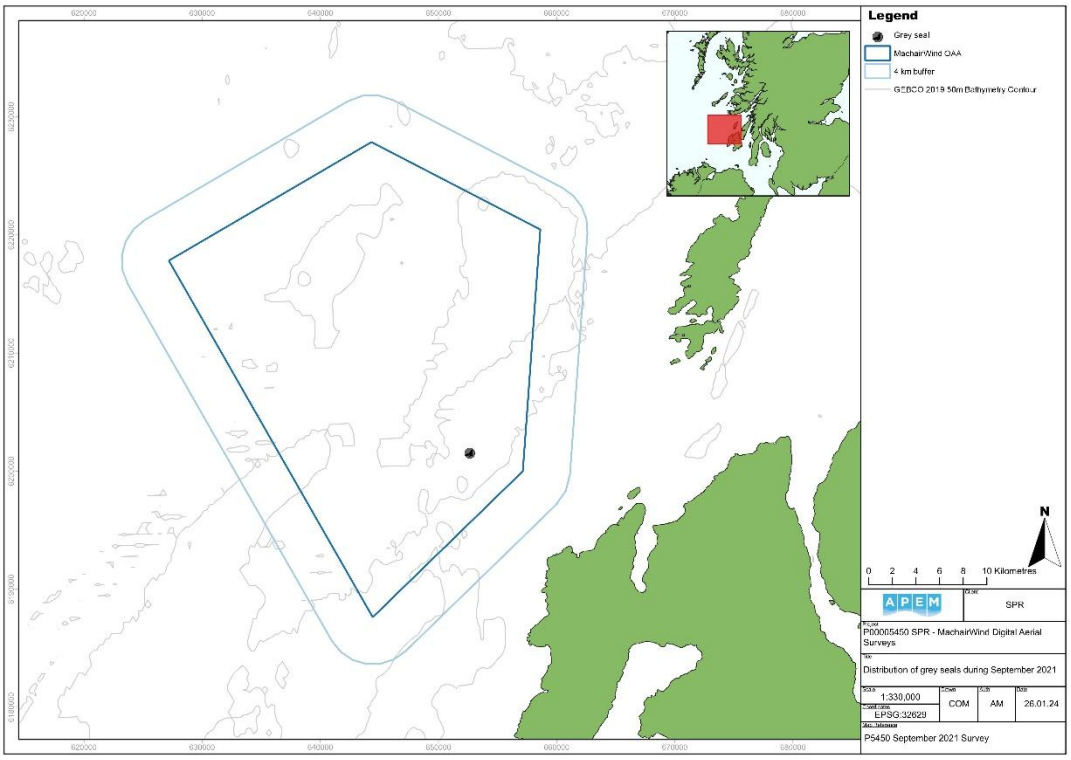


Figure 200 Spatial distribution of grey seals recorded in the September 2021 survey

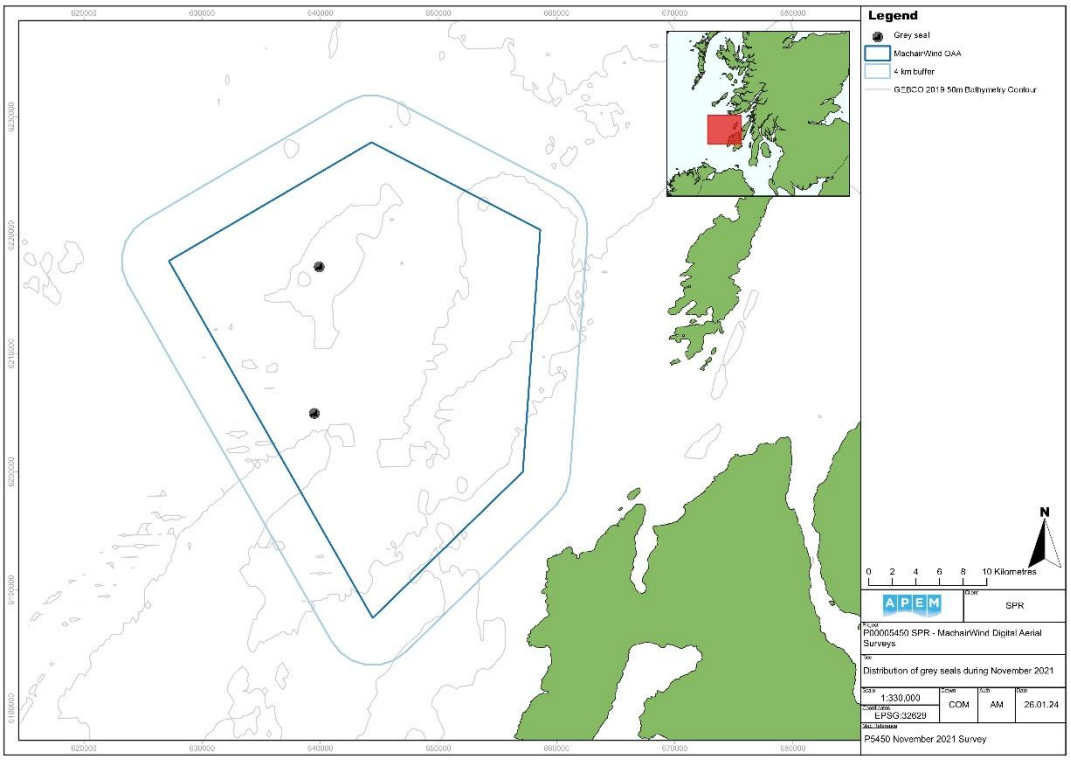


Figure 201 Spatial distribution of grey seals recorded in the November 2021 survey

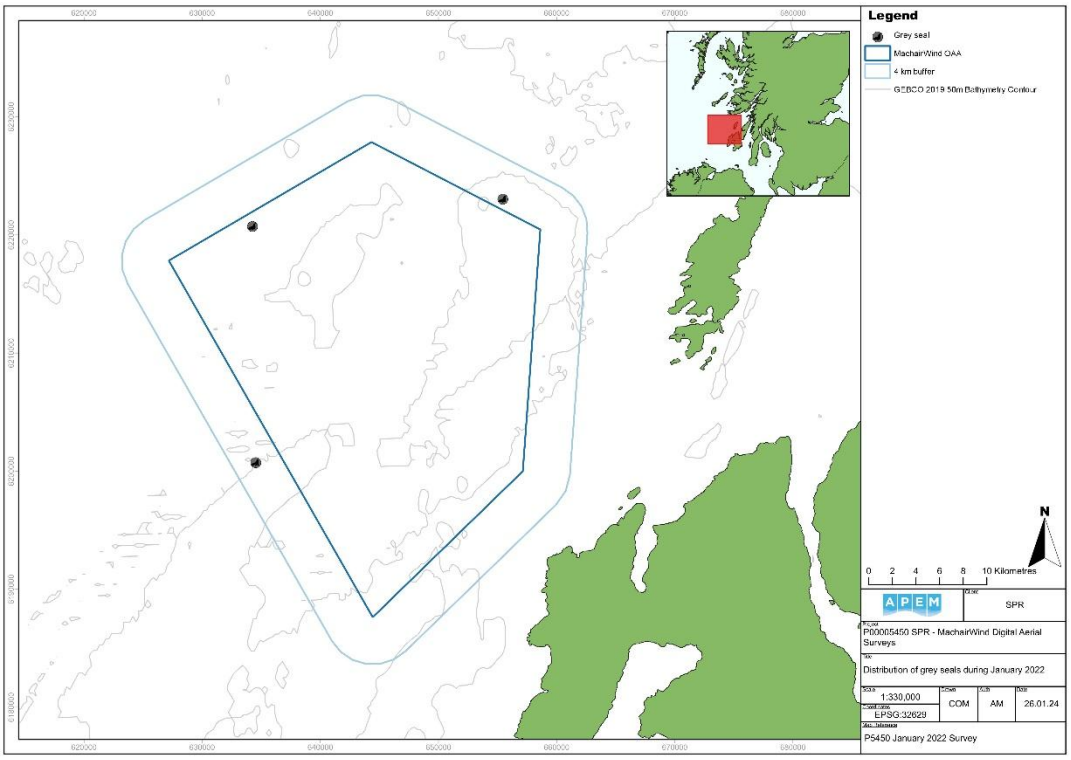


Figure 202 Spatial distribution of grey seals recorded in the January 2022 survey

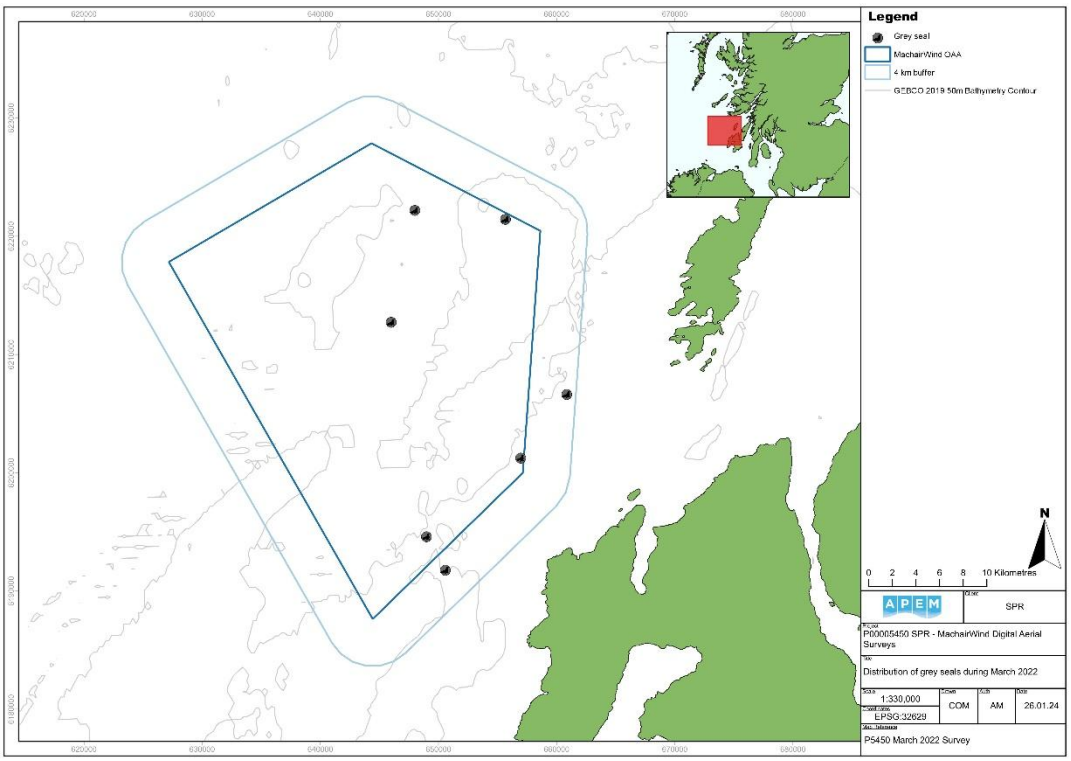


Figure 203 Spatial distribution of grey seals recorded in the March 2022 survey

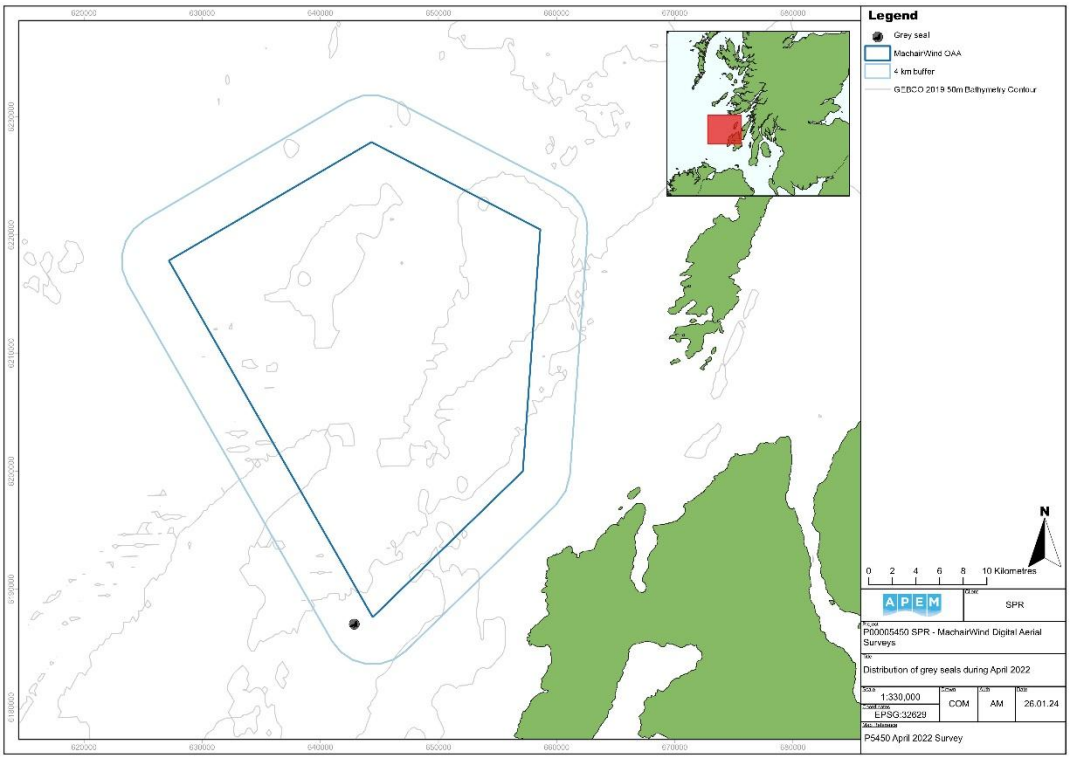


Figure 204 Spatial distribution of grey seals recorded in the April 2022 survey

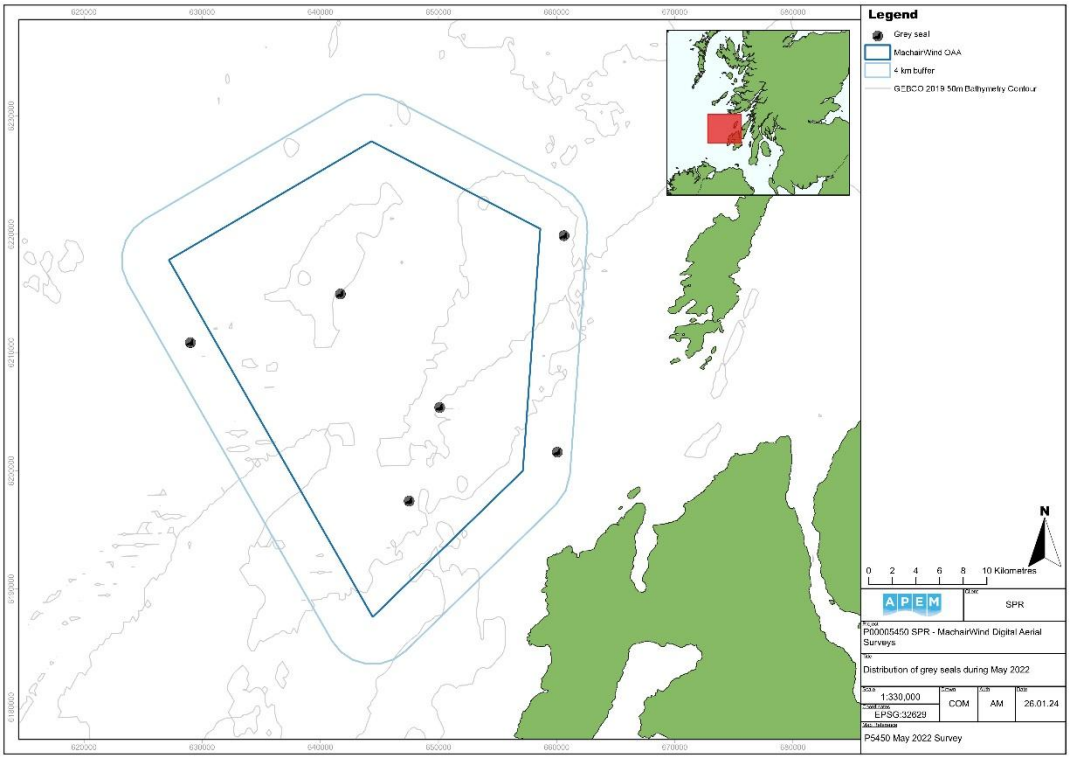


Figure 205 Spatial distribution of grey seals recorded in the May 2022 survey

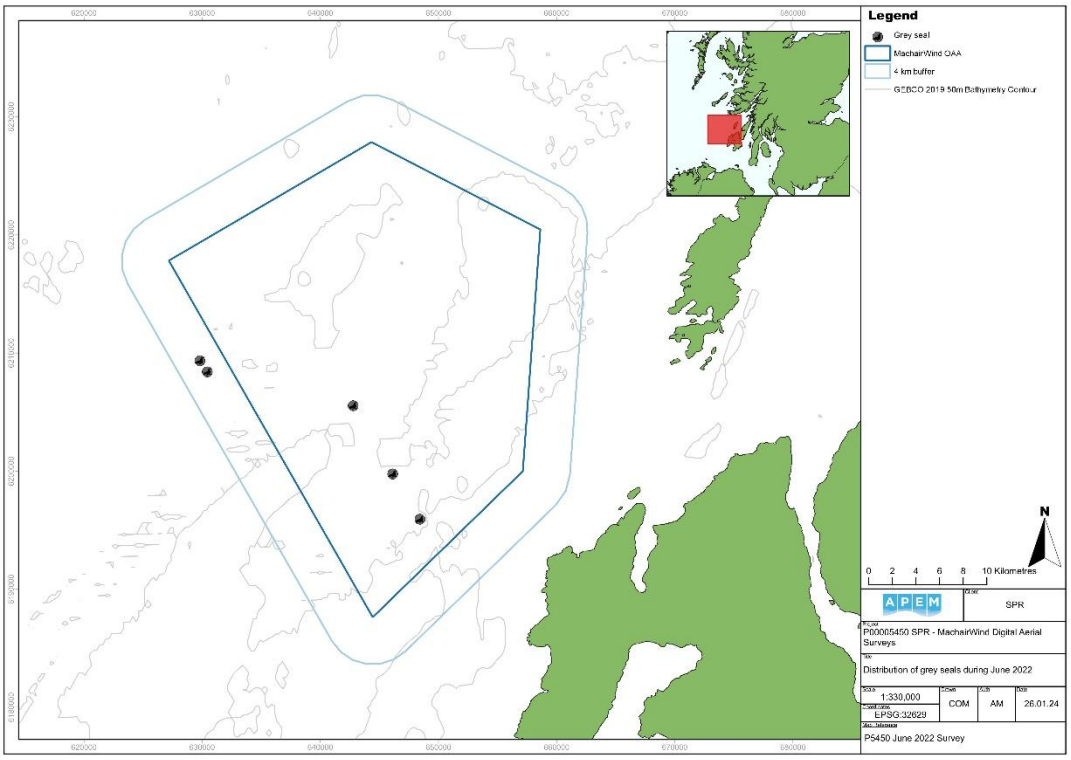


Figure 206 Spatial distribution of grey seals recorded in the June 2022 survey

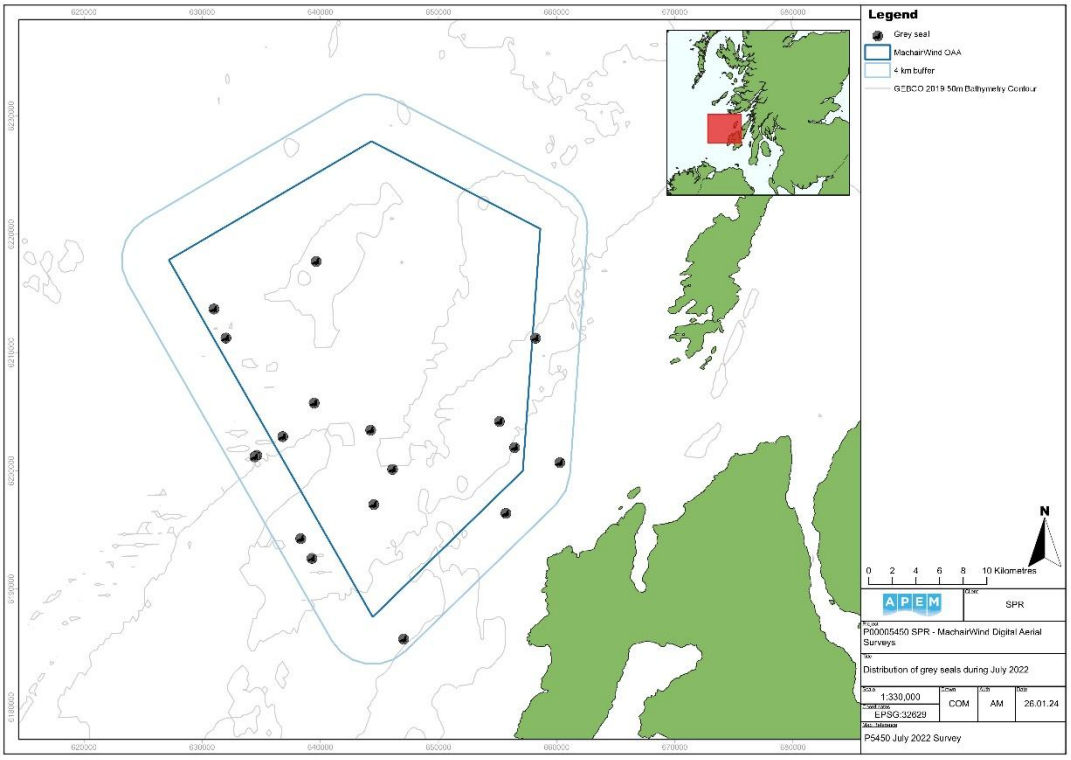


Figure 207 Spatial distribution of grey seals recorded in the July 2022 survey

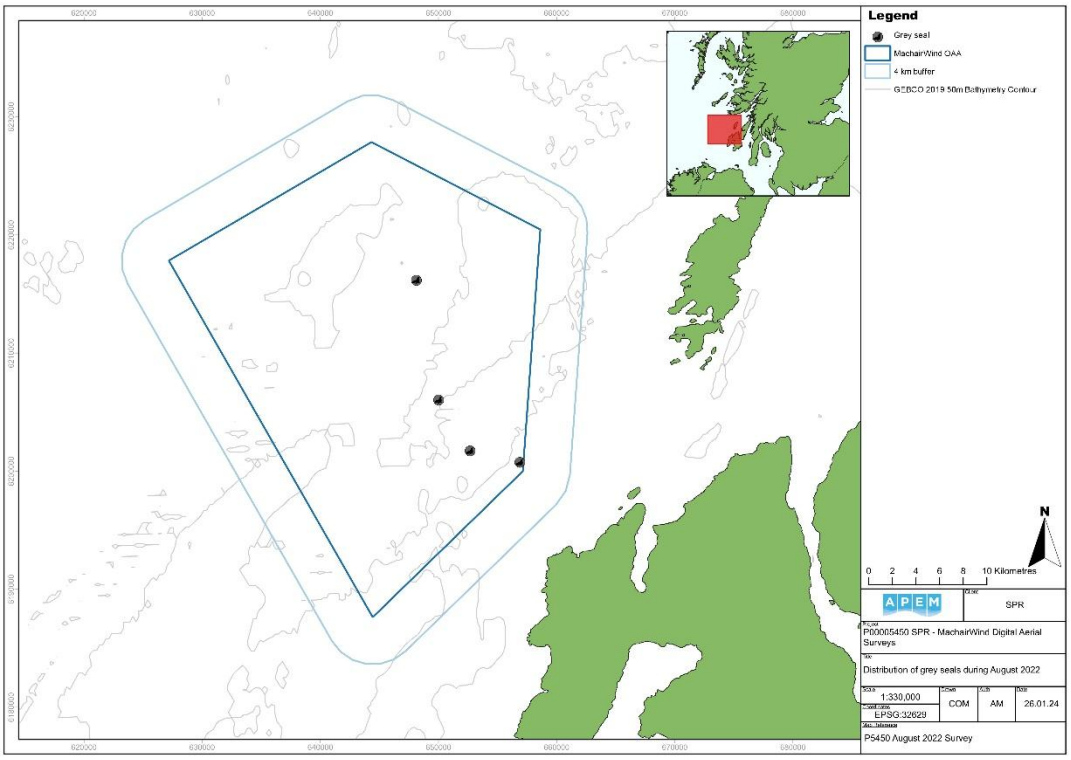


Figure 208 Spatial distribution of grey seals recorded in the August 2022 survey

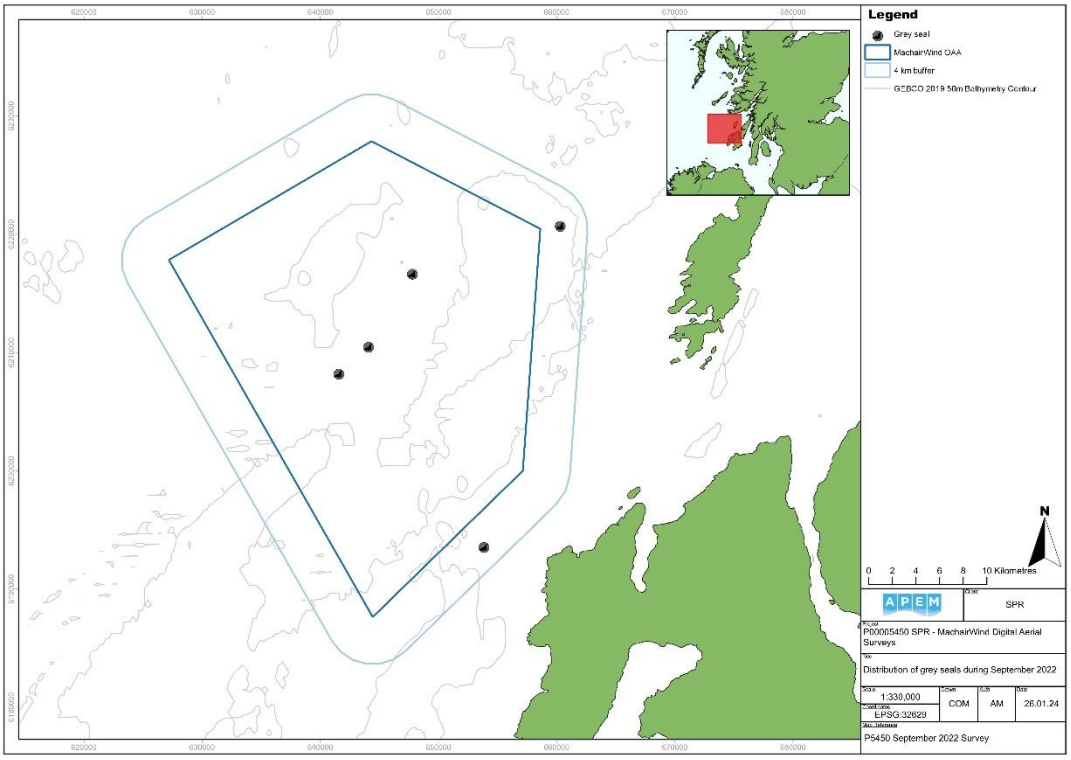


Figure 209 Spatial distribution of grey seals recorded in the September 2022 survey

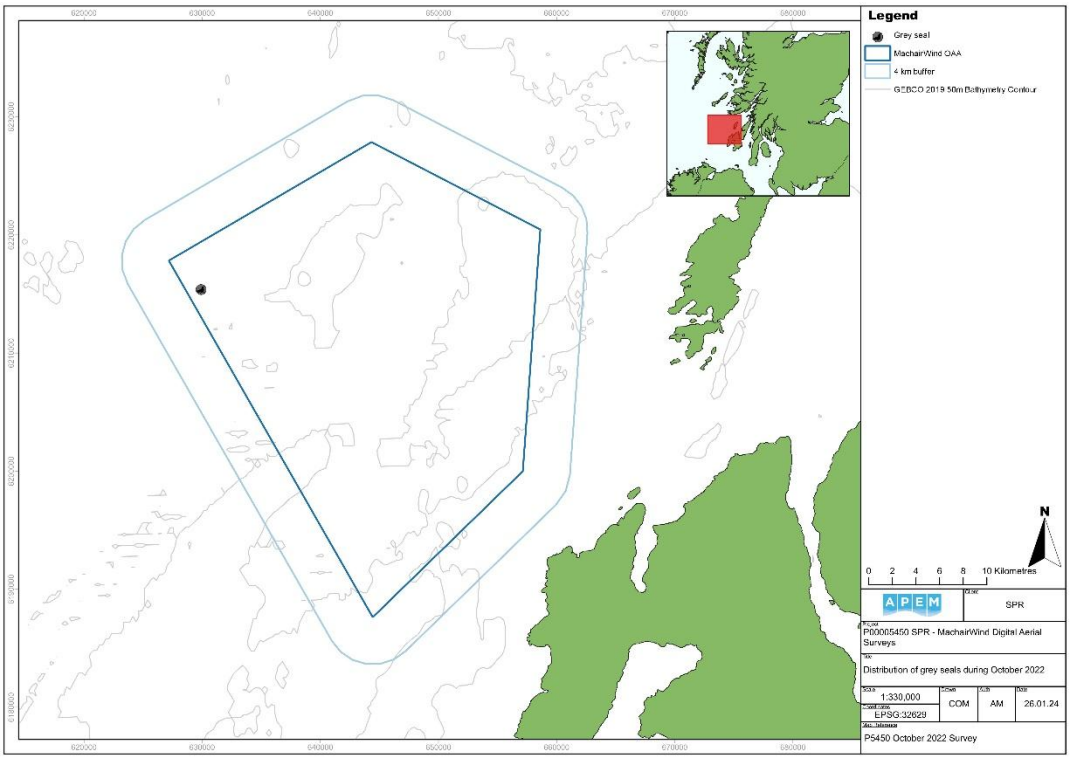


Figure 210 Spatial distribution of grey seals recorded in the October 2022 survey

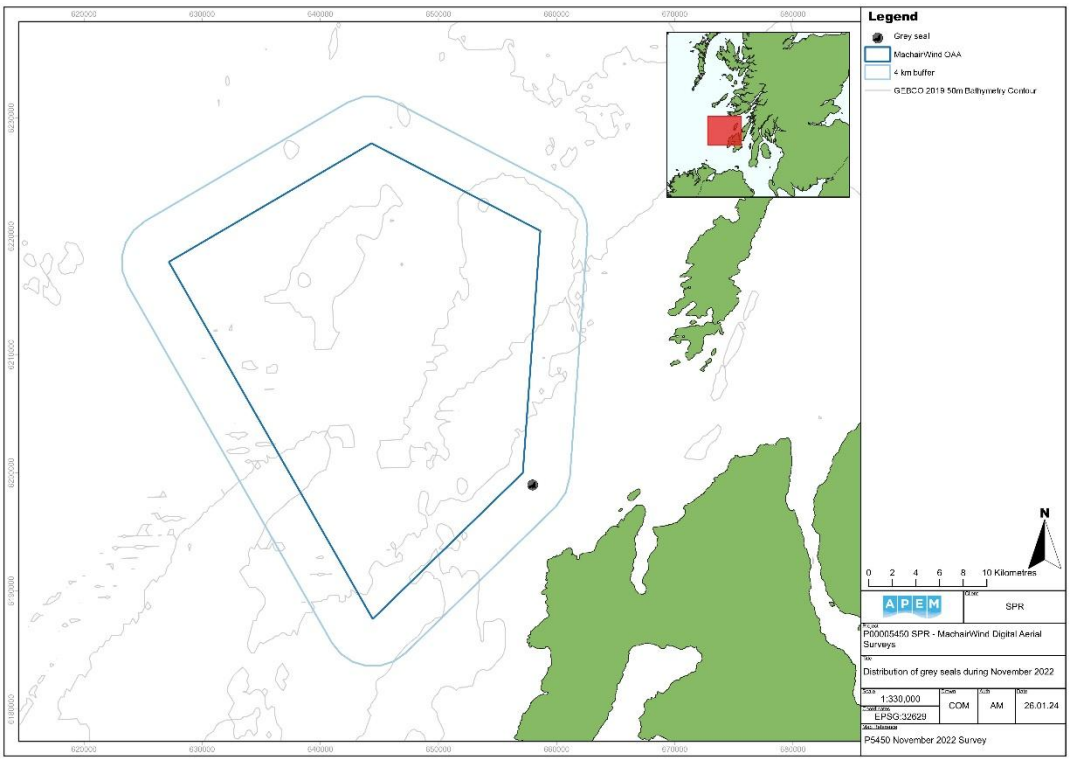


Figure 211 Spatial distribution of grey seals recorded in the November 2022 survey

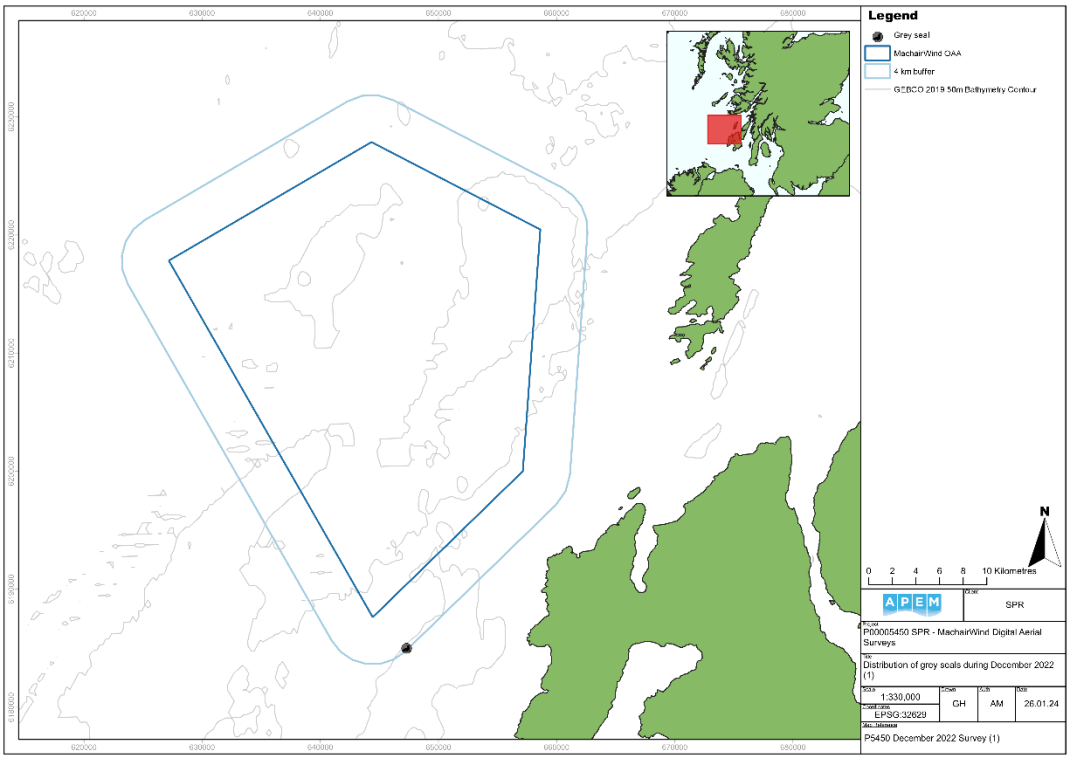


Figure 212 Spatial distribution of grey seals recorded in the first December 2022 survey (Survey 20)

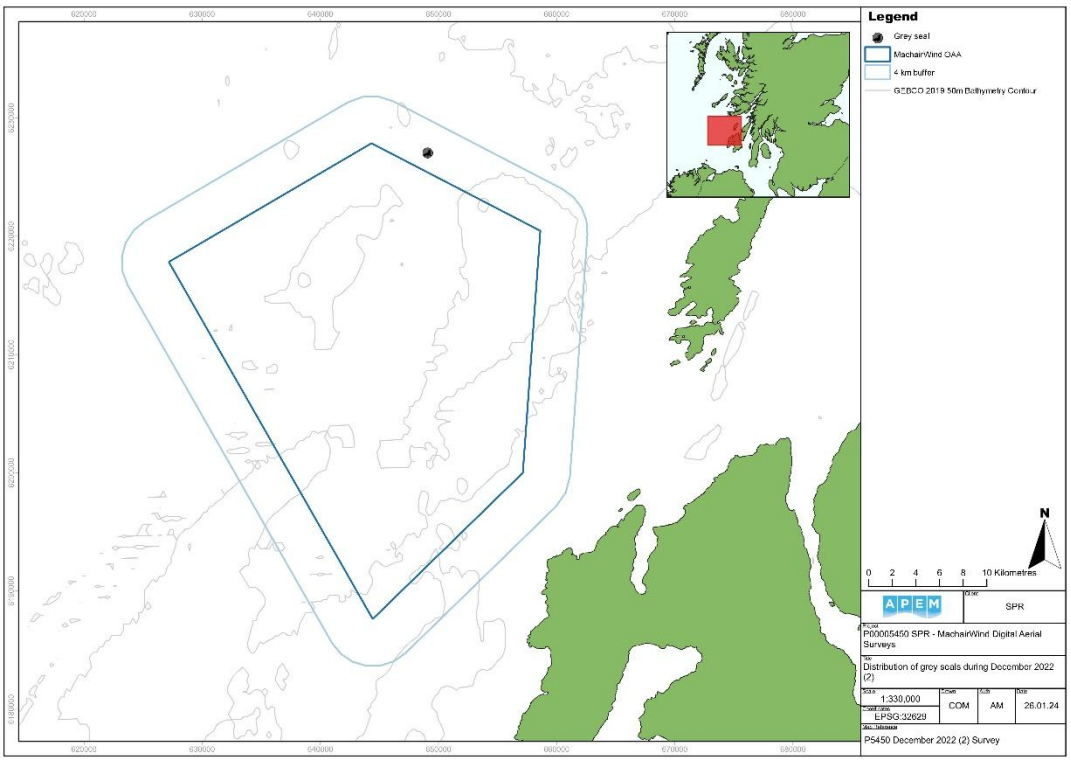


Figure 213 Spatial distribution of grey seals recorded in the second December 2022 survey (Survey 21)

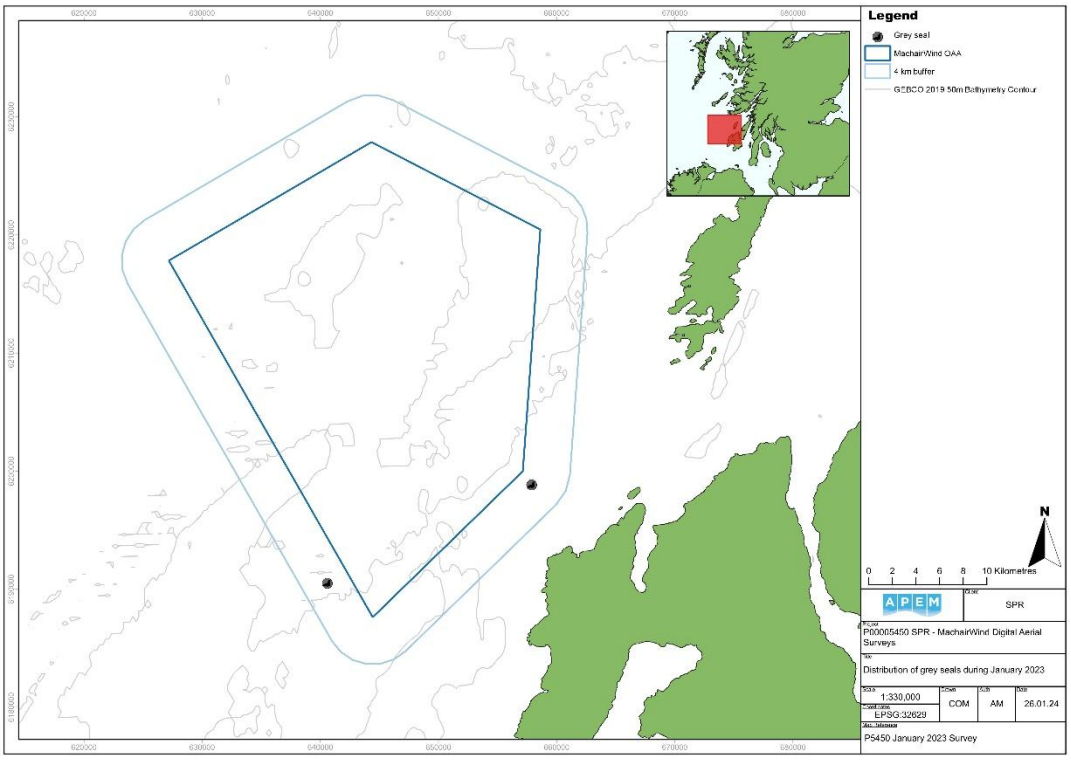


Figure 214 Spatial distribution of grey seals recorded in the January 2023 survey

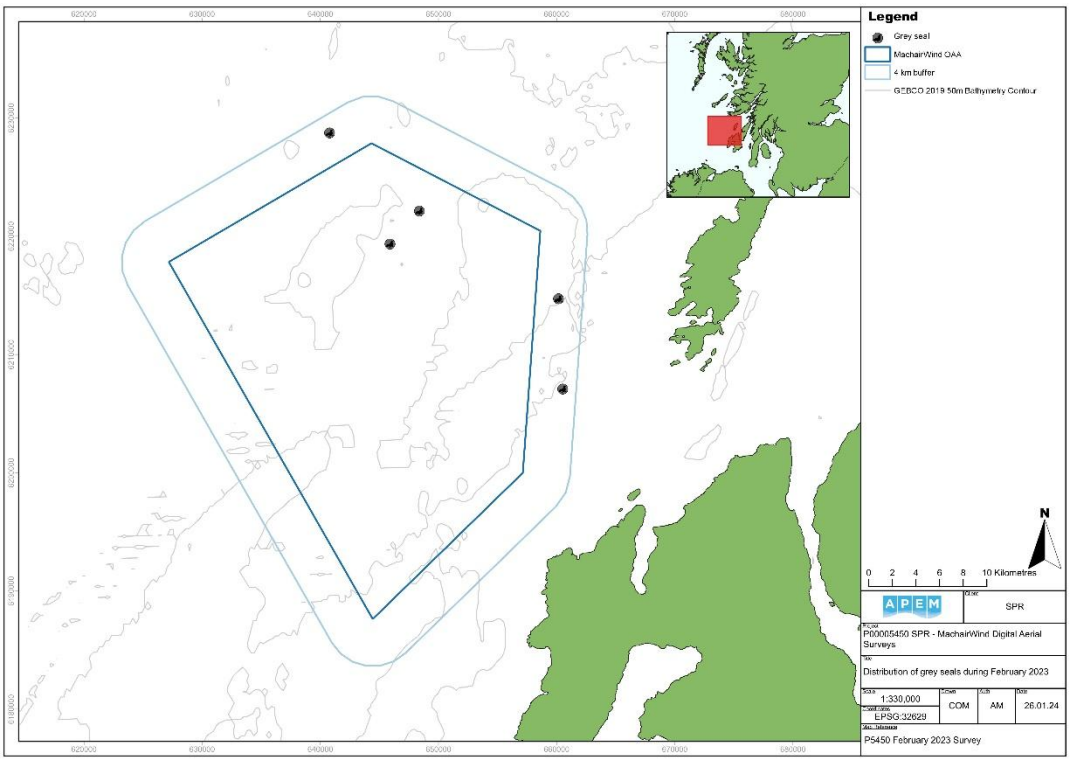


Figure 215 Spatial distribution of grey seals recorded in the February 2023 survey

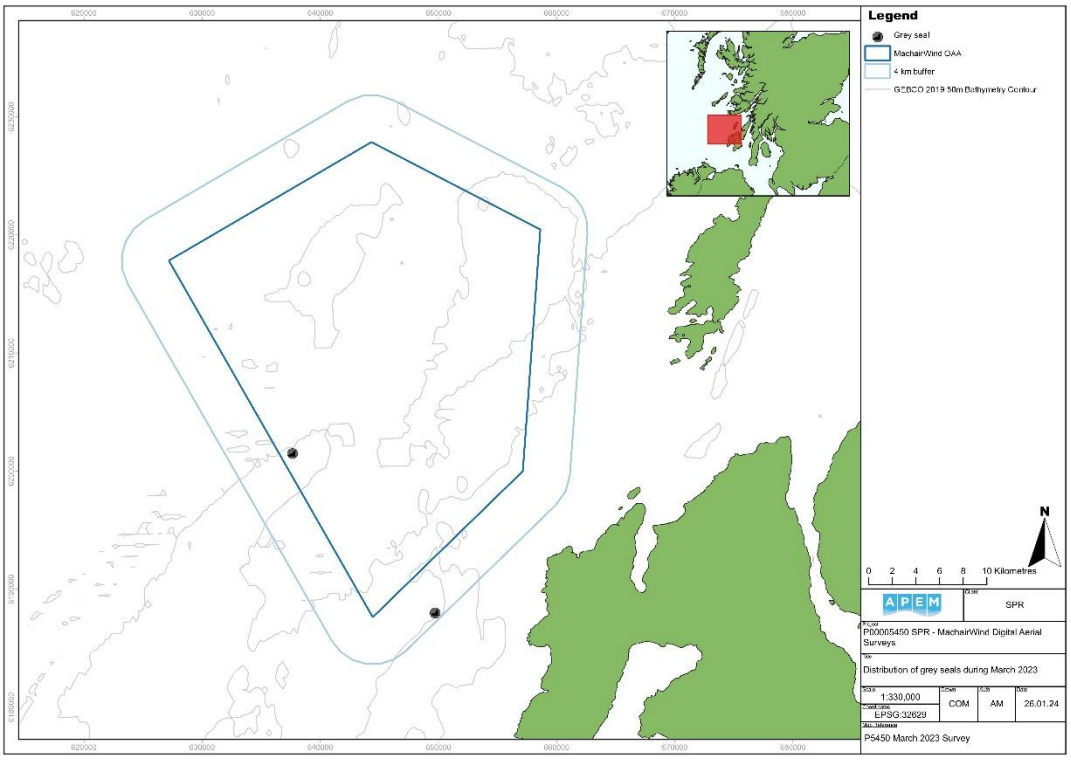


Figure 216 Spatial distribution of grey seals recorded in the March 2023 survey

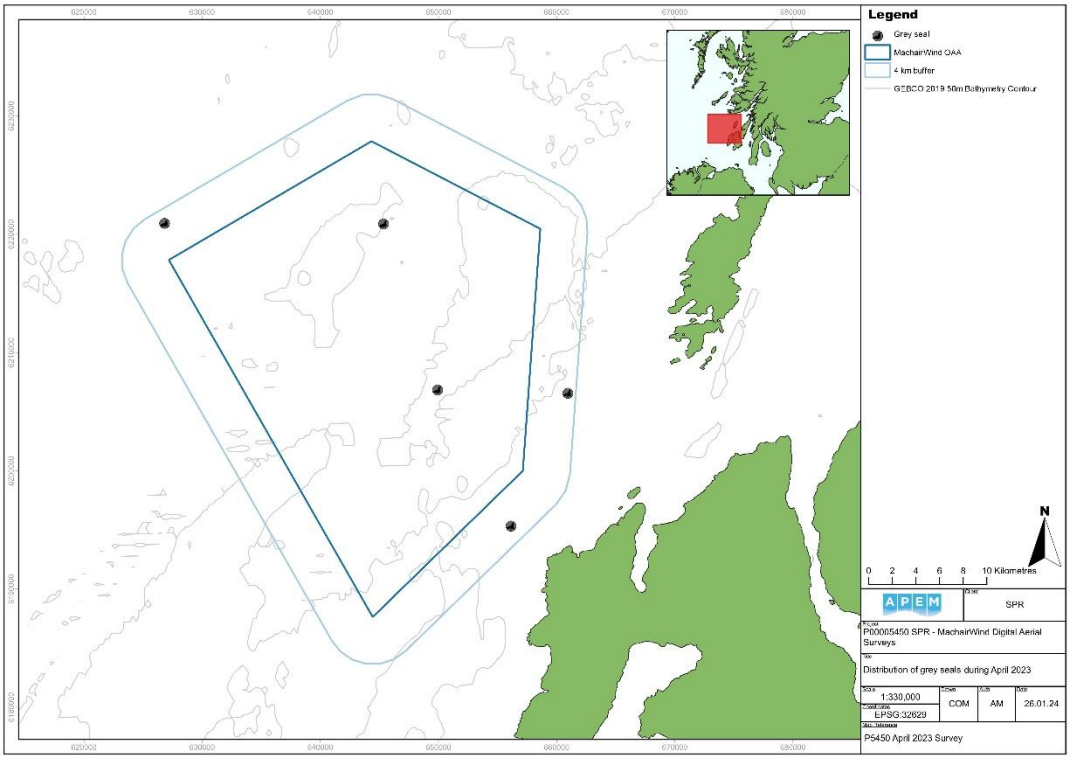


Figure 217 Spatial distribution of grey seals recorded in the April 2023 survey

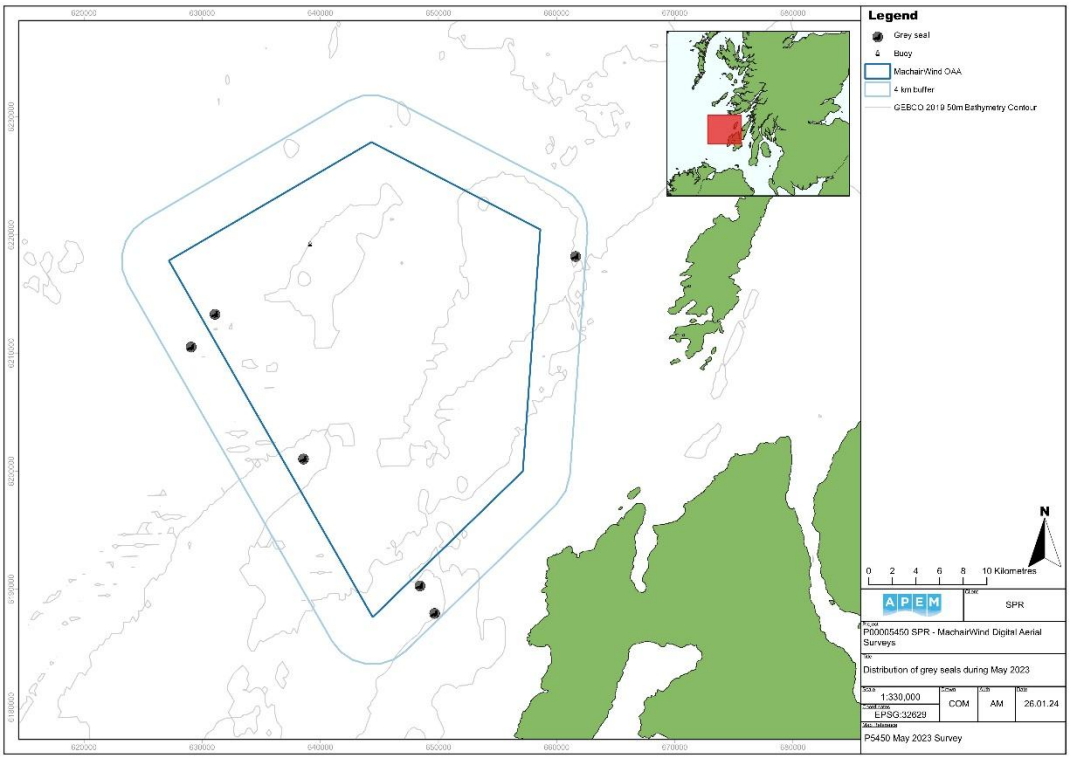


Figure 218 Spatial distribution of grey seals recorded in the May 2023 survey

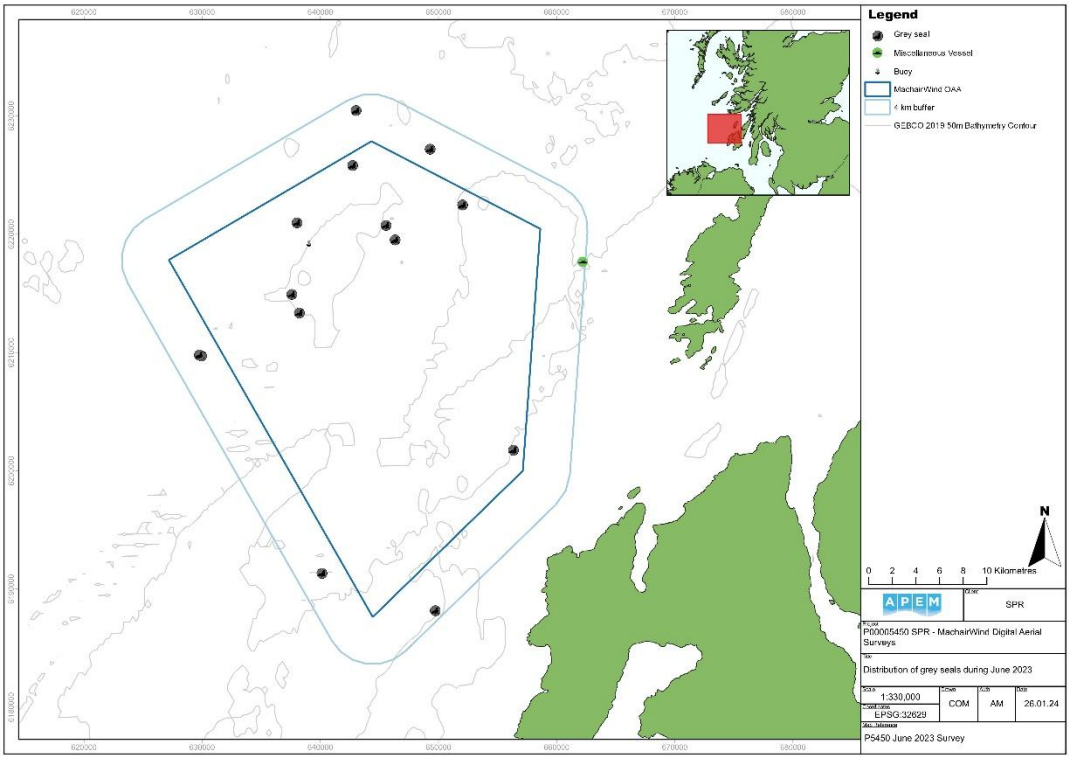


Figure 219 Spatial distribution of grey seals recorded in the June 2023 survey

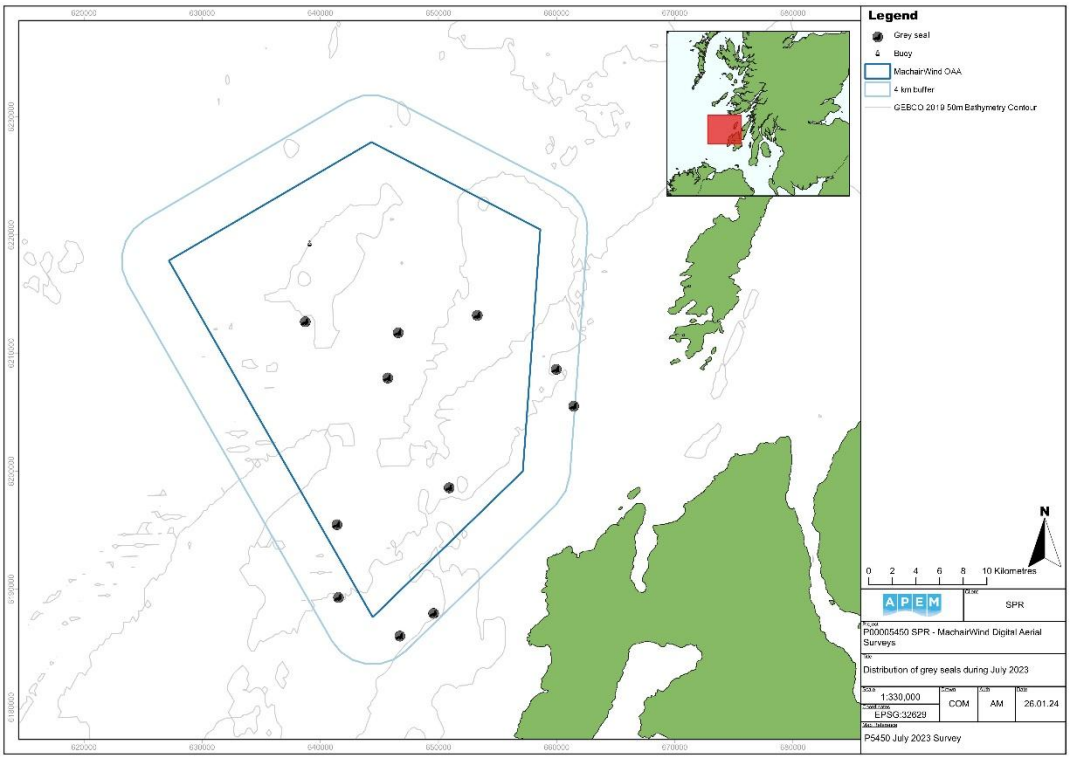


Figure 220 Spatial distribution of grey seals recorded in the July 2023 survey

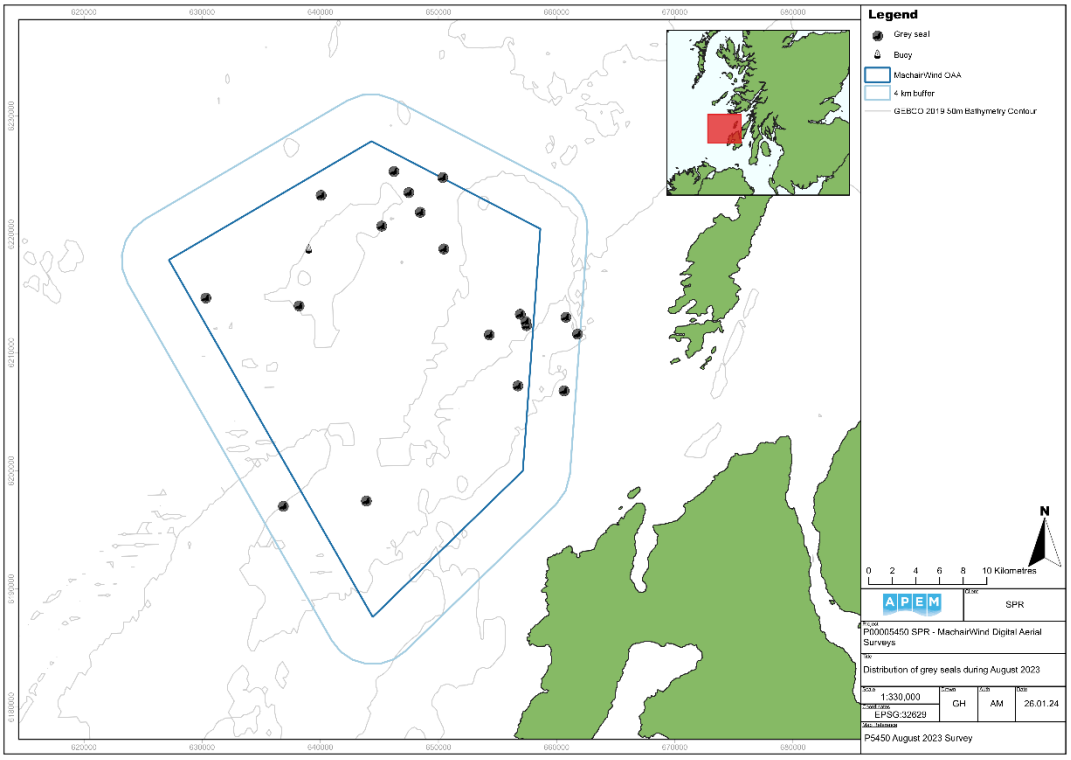


Figure 221 Spatial distribution of grey seals recorded in the August 2023 survey

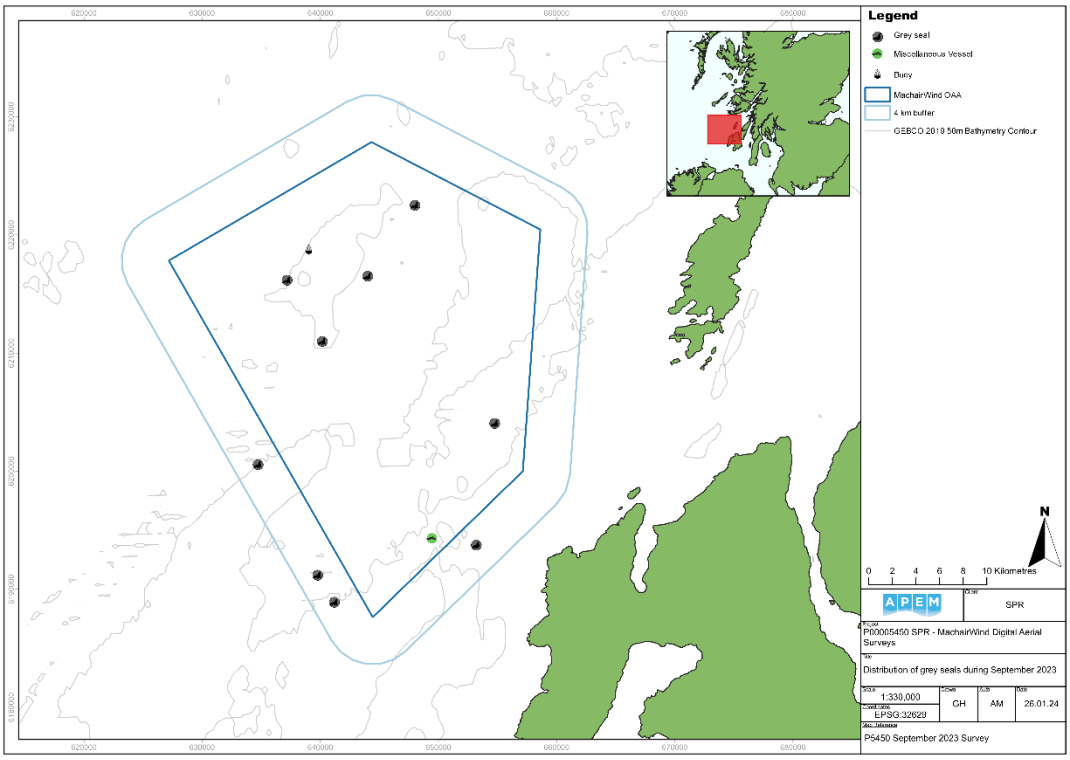


Figure 222 Spatial distribution of grey seals recorded in the September 2023 survey

11.2.2 Dolphins

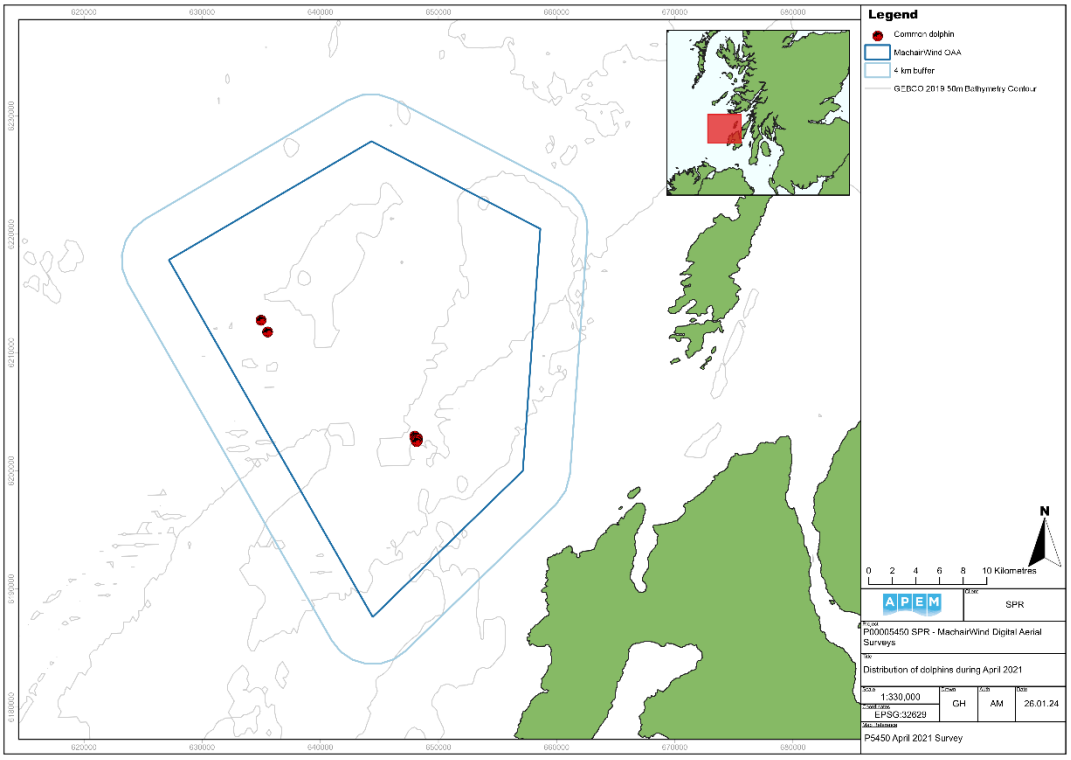


Figure 223 Spatial distribution of dolphins recorded in the April 2021 survey

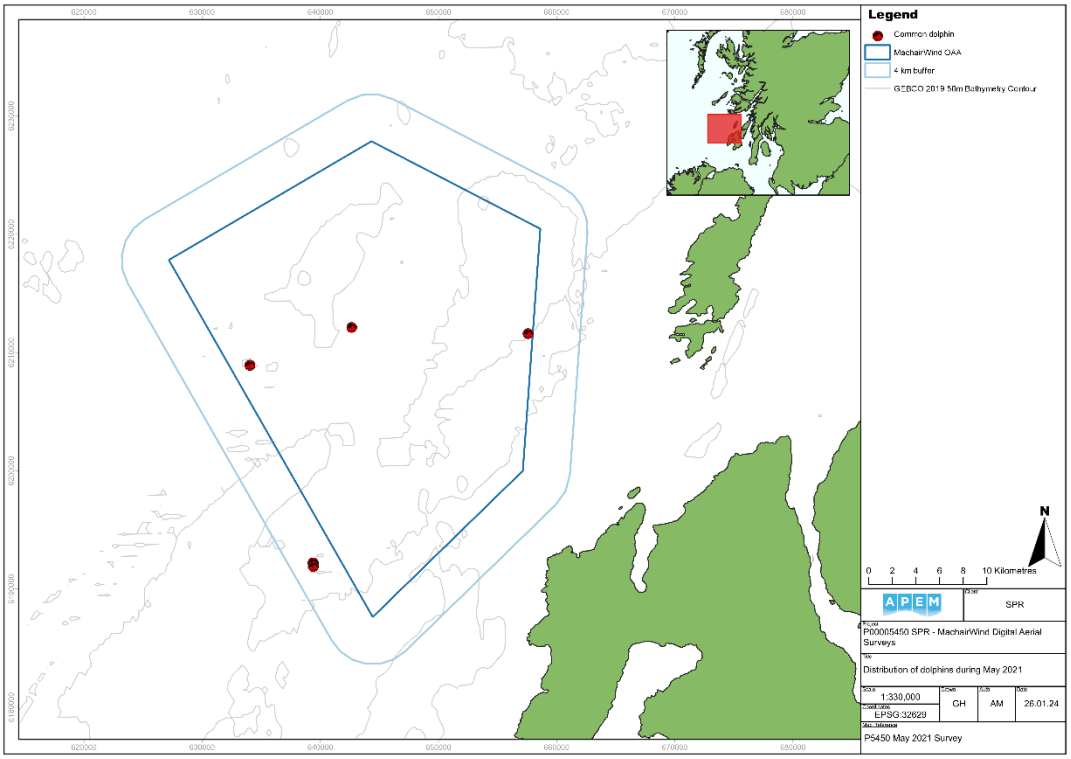


Figure 224 Spatial distribution of dolphins recorded in the May 2021 survey

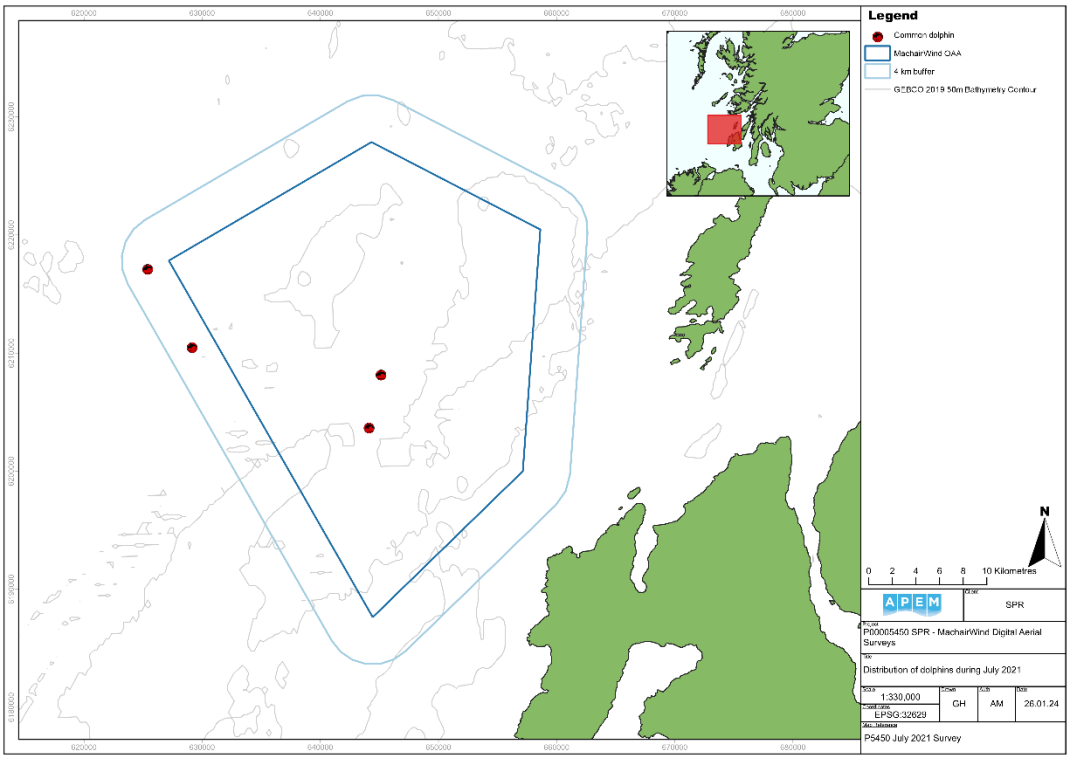


Figure 225 Spatial distribution of dolphins recorded in the July 2021 survey

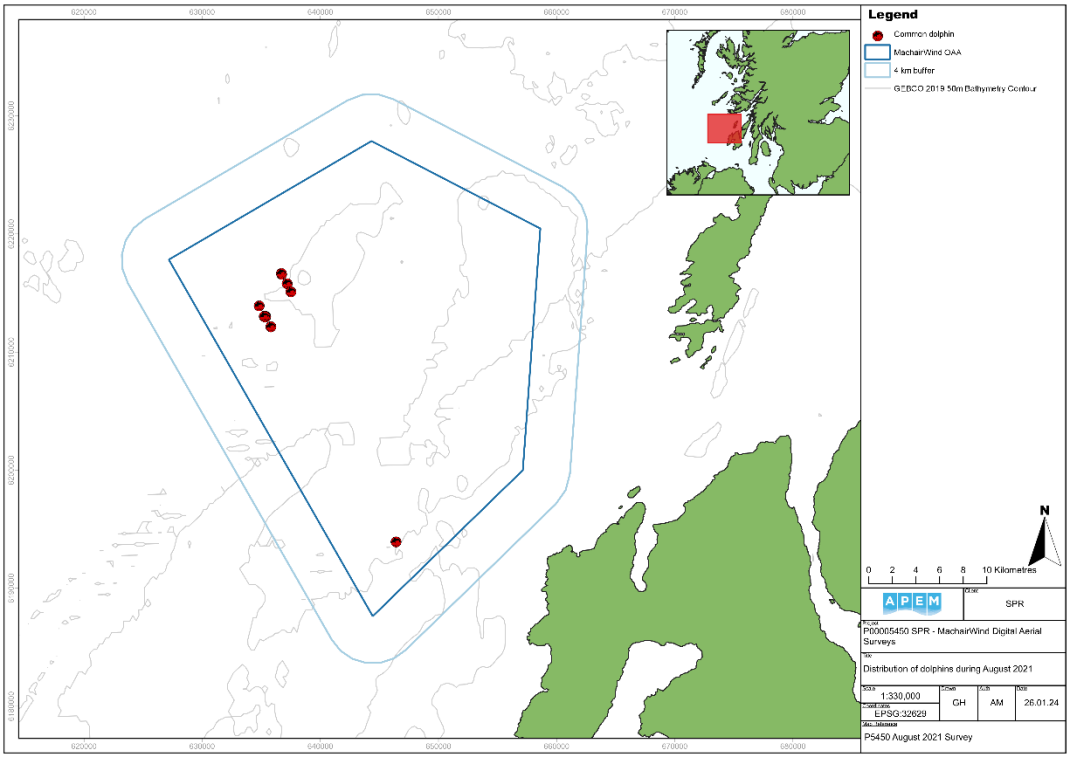


Figure 226 Spatial distribution of dolphins recorded in the August 2021 survey

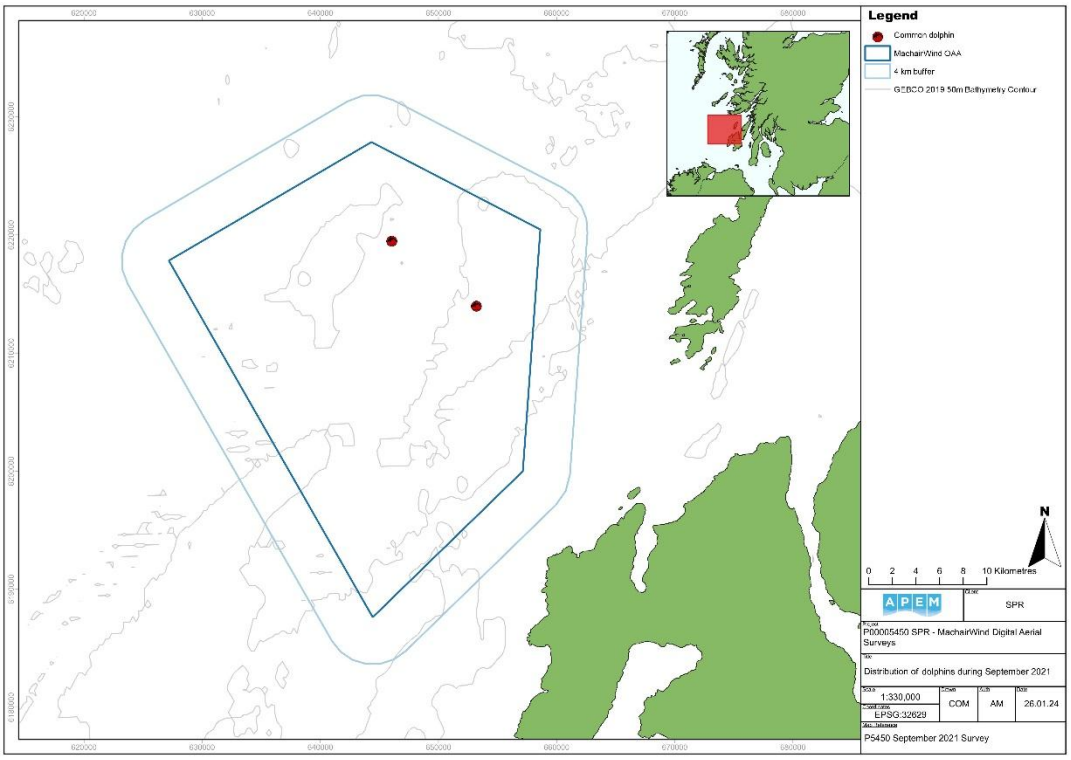


Figure 227 Spatial distribution of dolphins recorded in the September 2021 survey

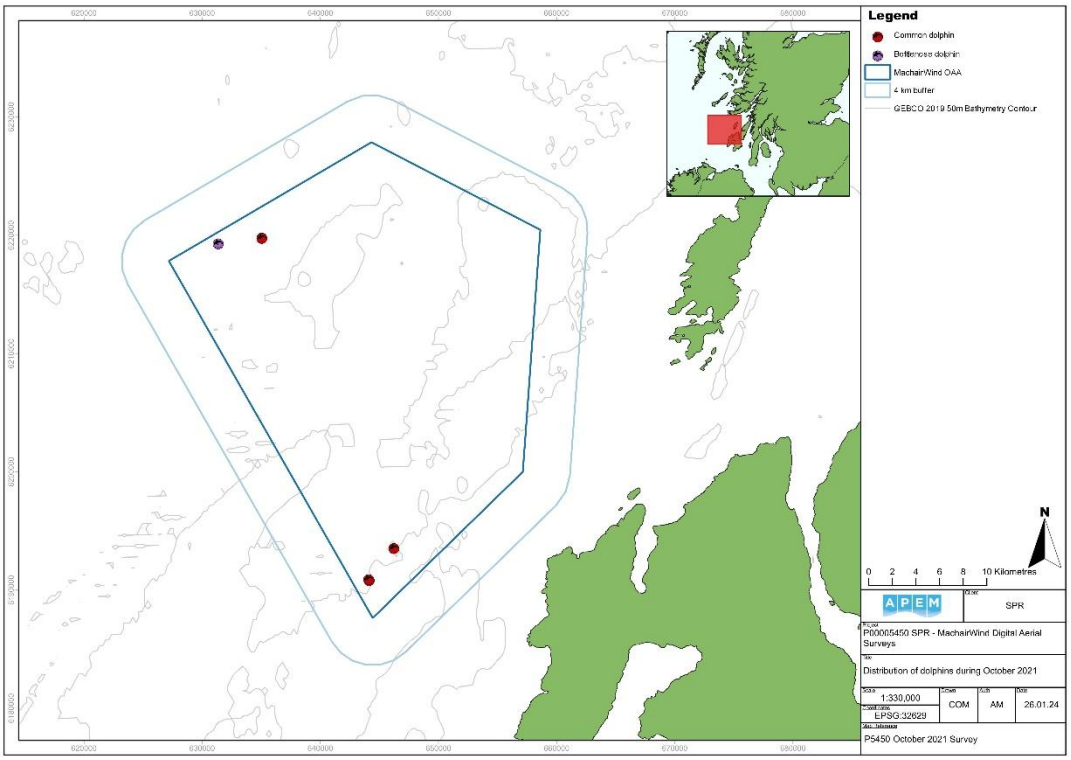


Figure 228 Spatial distribution of dolphins recorded in the October 2021 survey

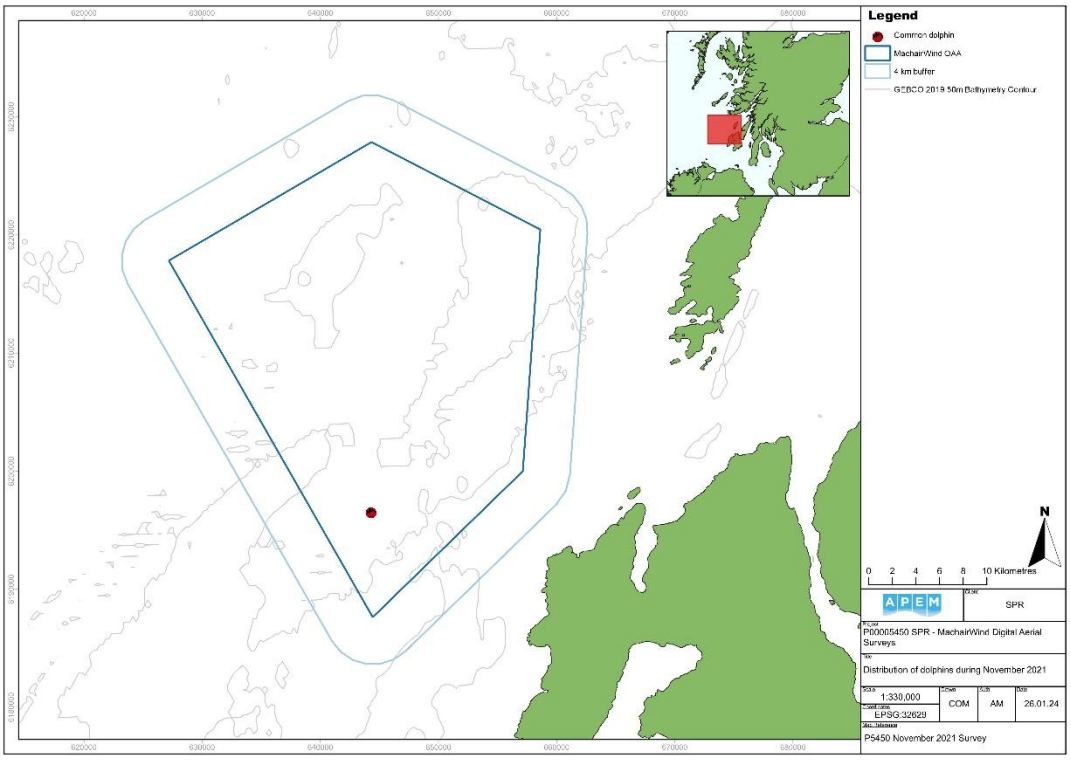


Figure 229 Spatial distribution of dolphins recorded in the November 2021 survey

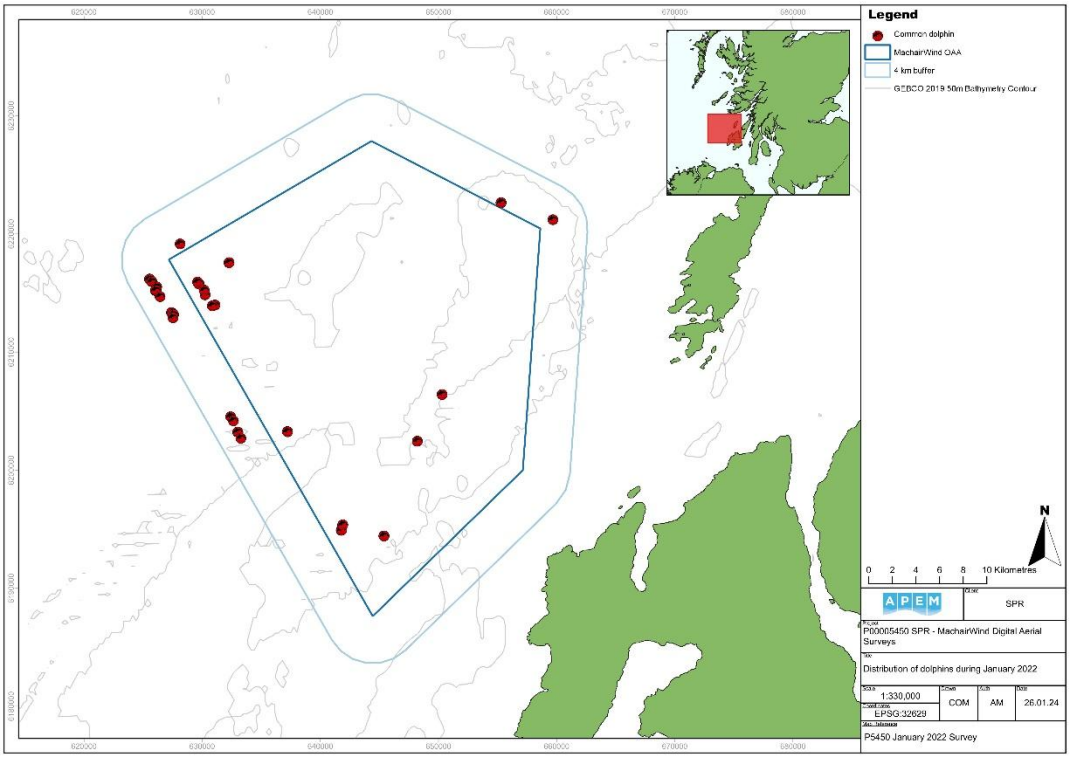


Figure 230 Spatial distribution of dolphins recorded in the January 2022 survey

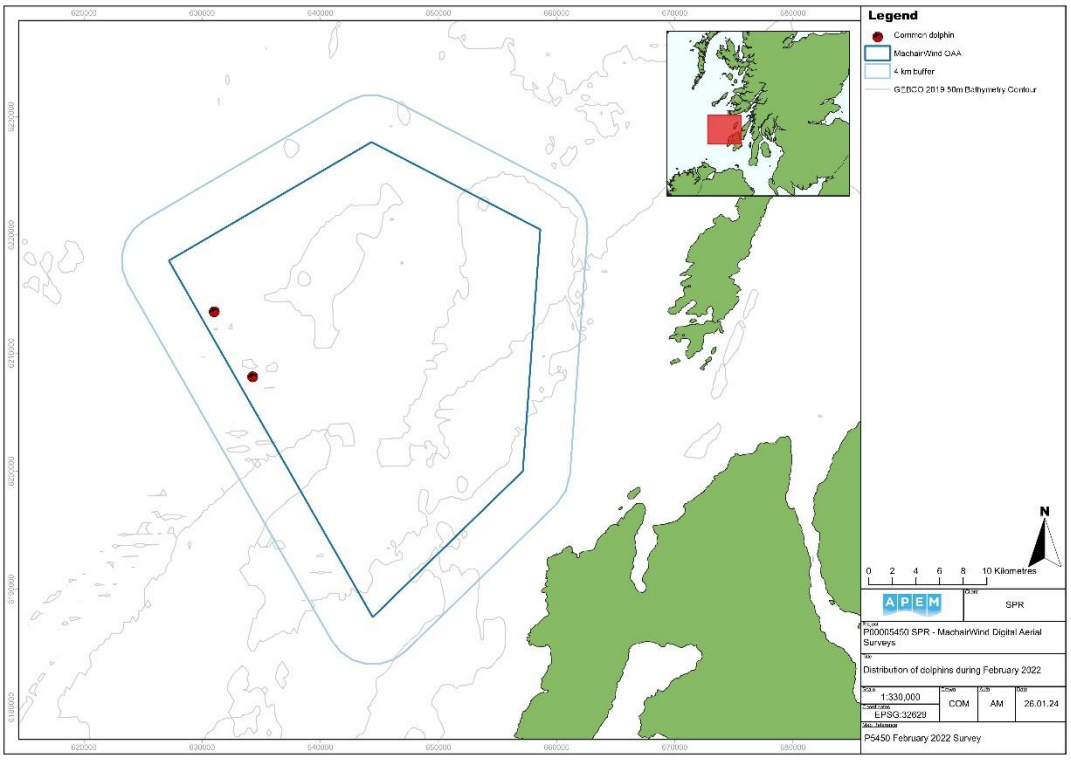


Figure 231 Spatial distribution of dolphins recorded in the first March 2022 survey (Survey 10)

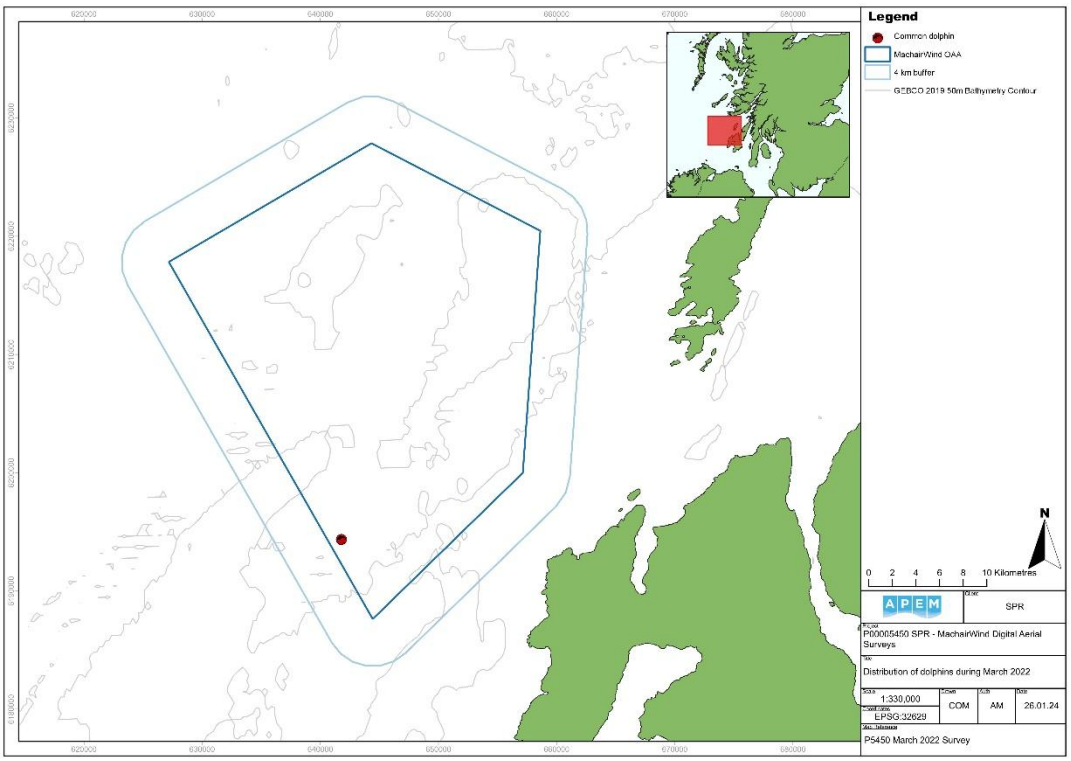


Figure 232 Spatial distribution of dolphins recorded in the second March 2022 survey (Survey 11)

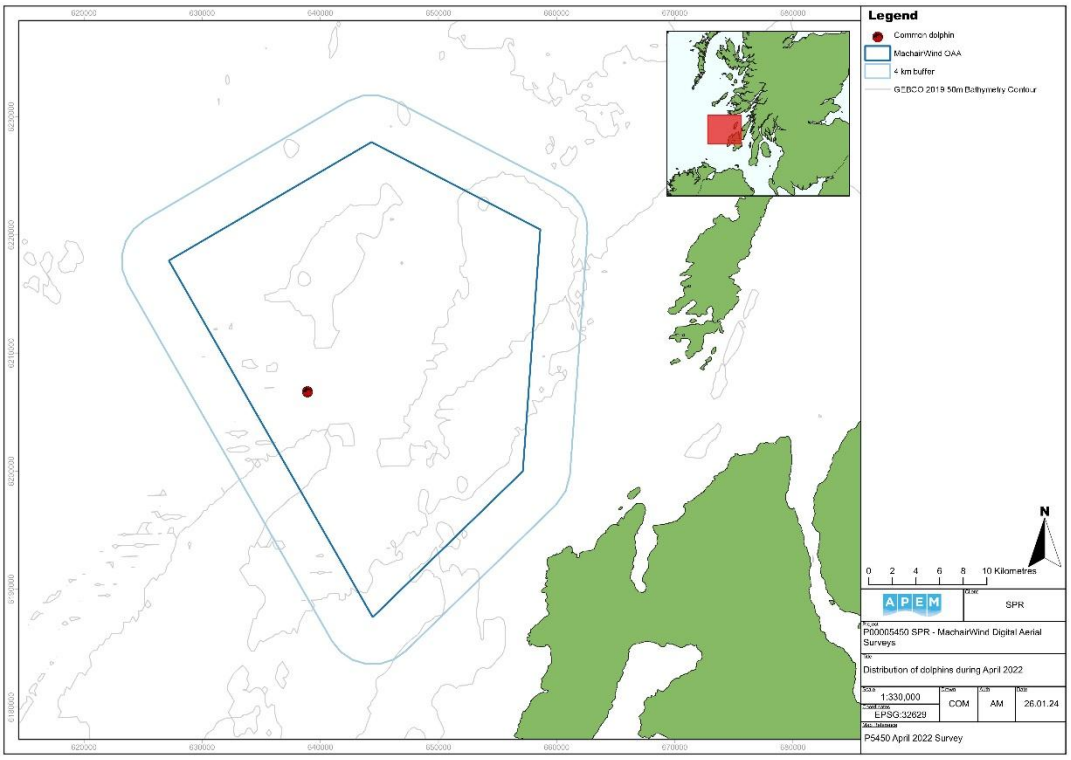


Figure 233 Spatial distribution of dolphins recorded in the April 2022 survey

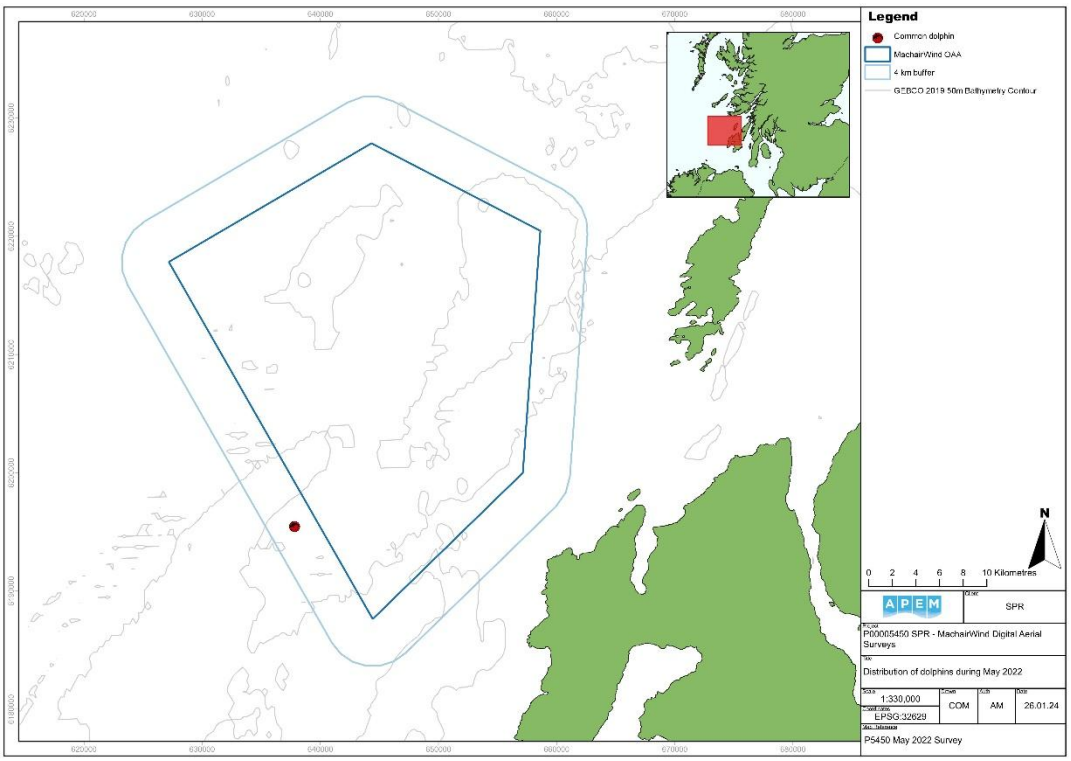


Figure 234 Spatial distribution of dolphins recorded in the May 2022 survey

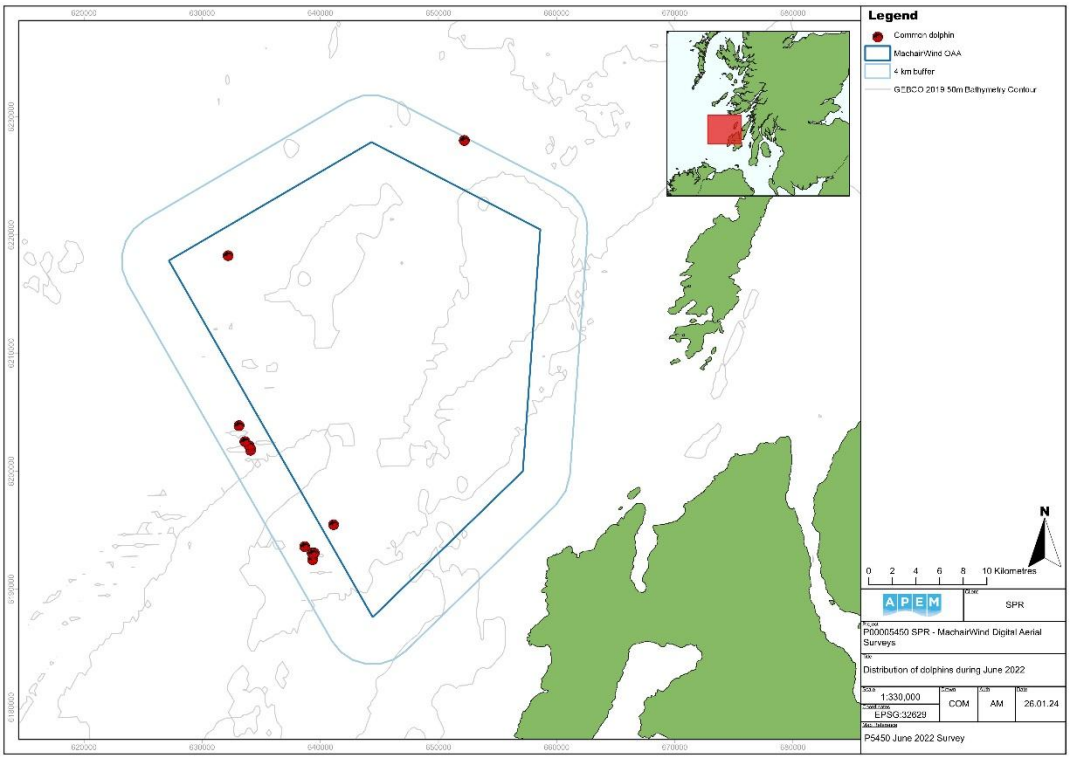


Figure 235 Spatial distribution of dolphins recorded in the June 2022 survey

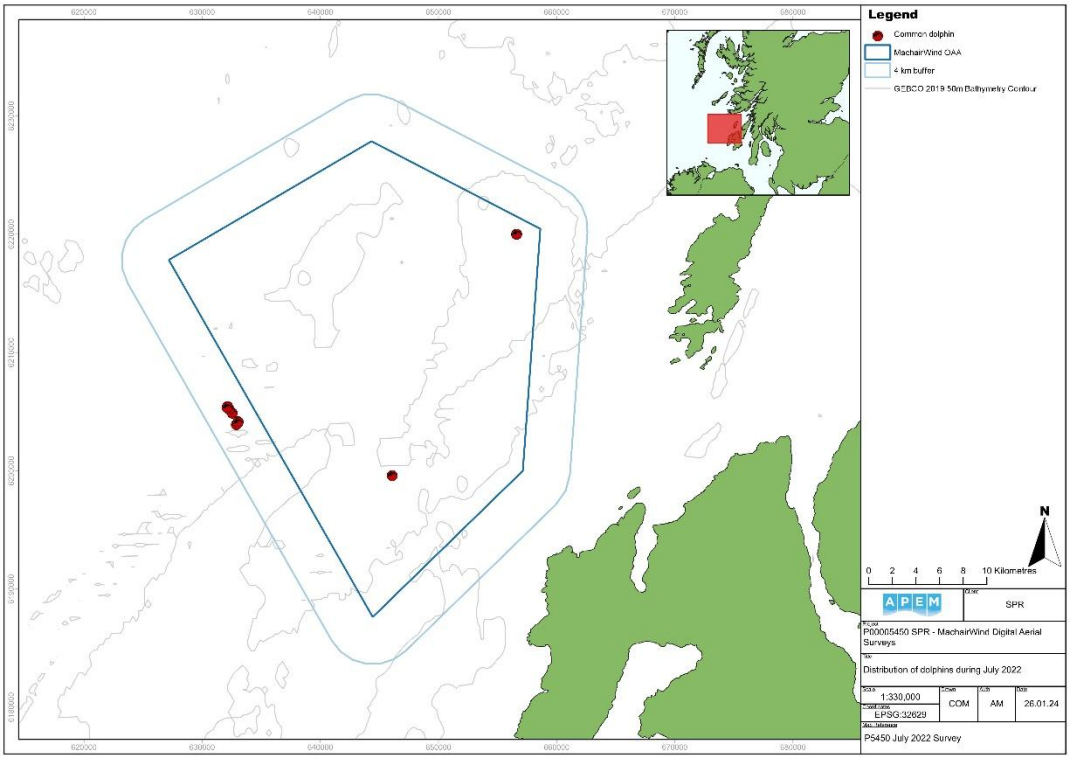


Figure 236 Spatial distribution of dolphins recorded in the July 2022 survey

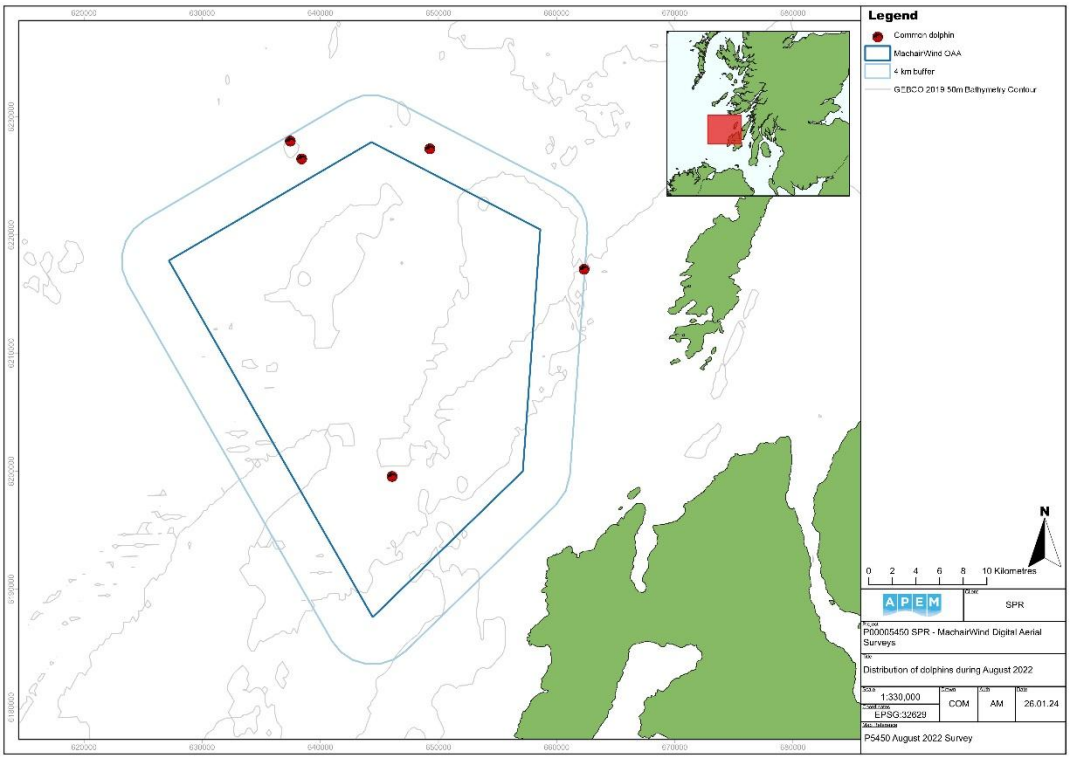


Figure 237 Spatial distribution of dolphins recorded in the August 2022 survey

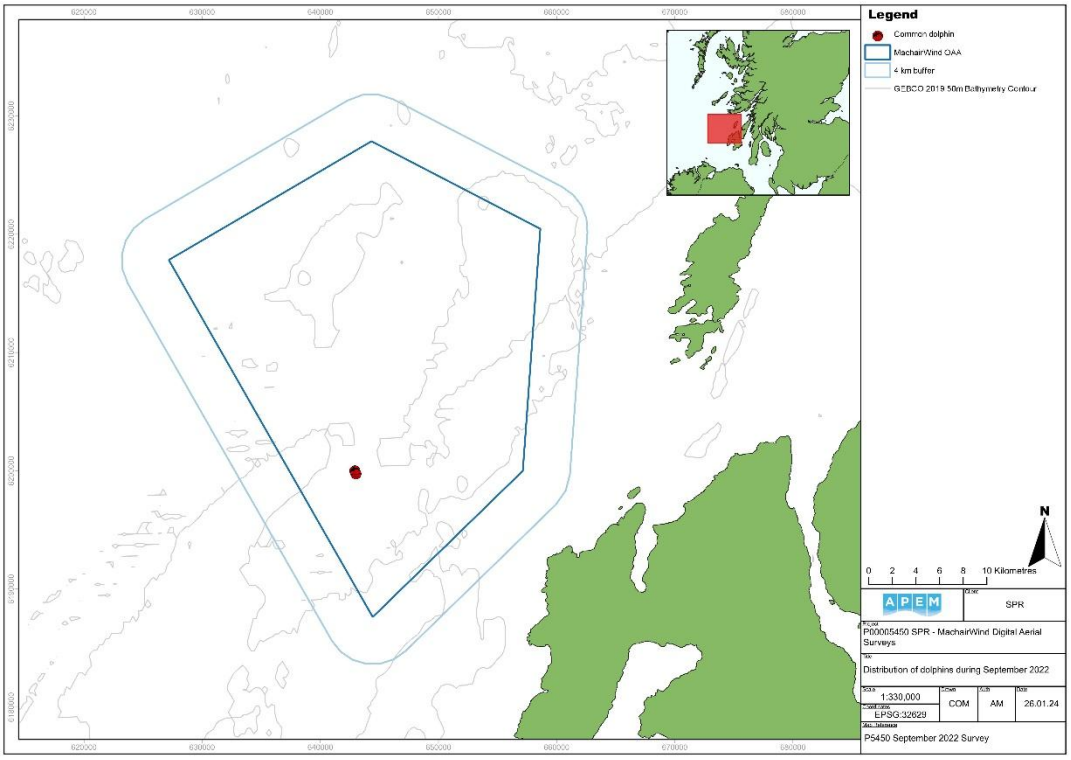


Figure 238 Spatial distribution of dolphins recorded in the September 2022 survey

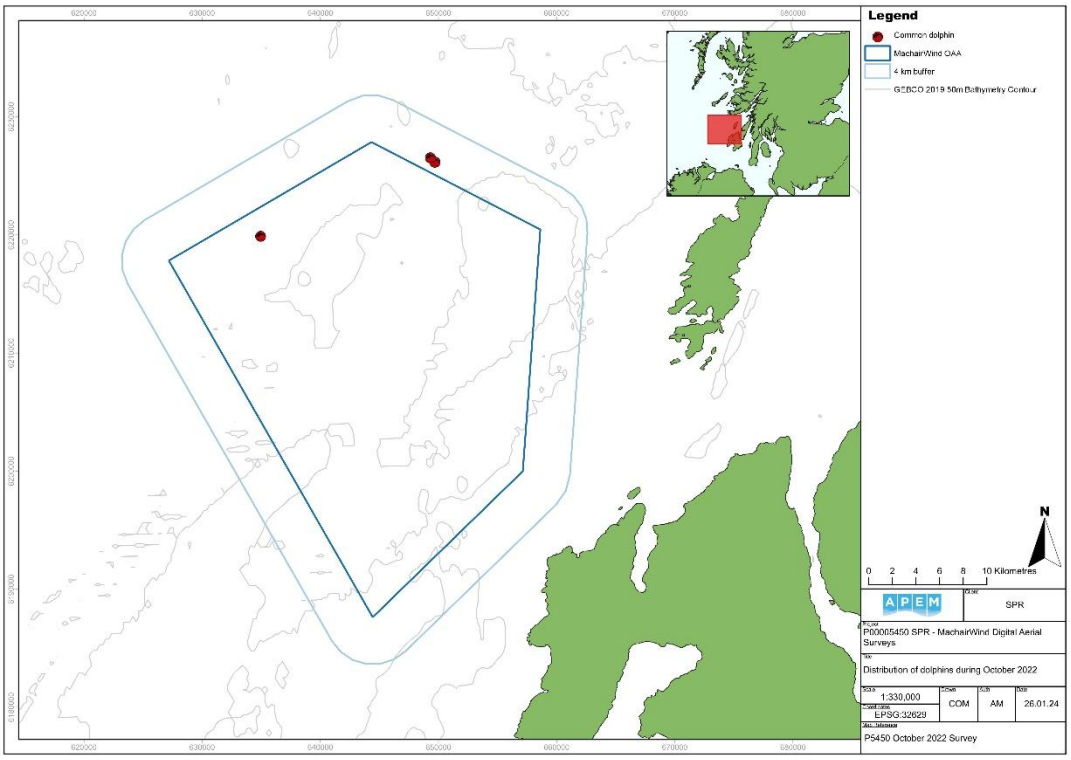


Figure 239 Spatial distribution of dolphins recorded in the October 2022 survey

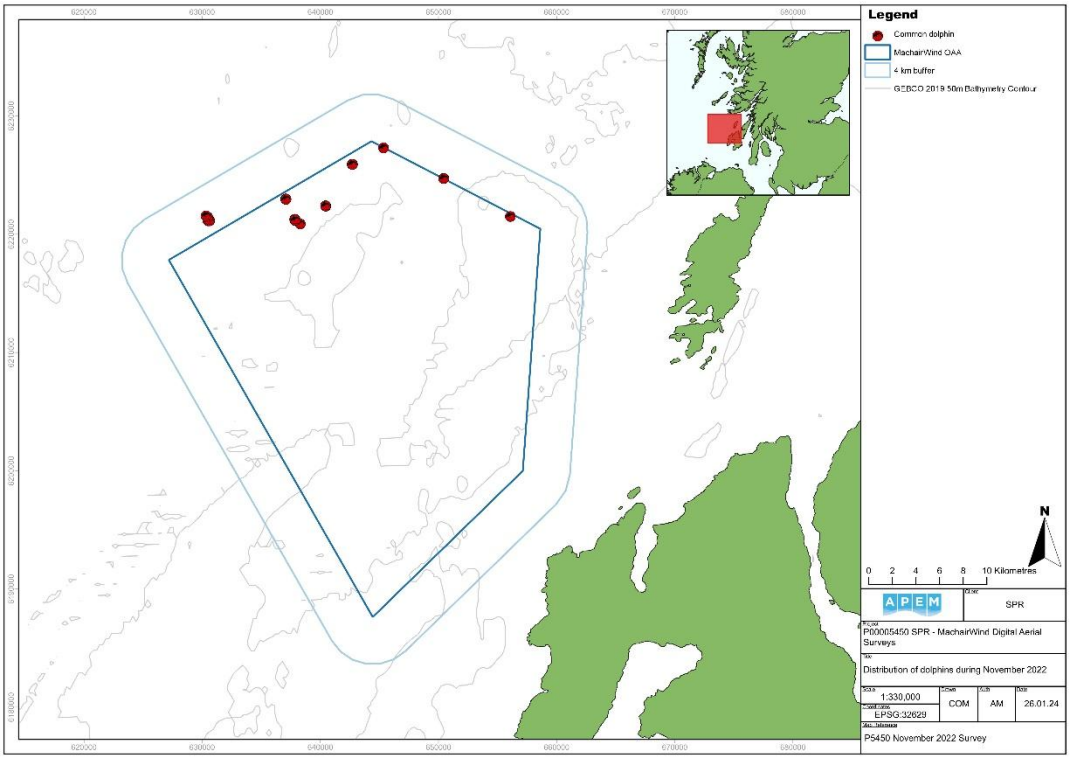


Figure 240 Spatial distribution of dolphins recorded in the November 2022 survey

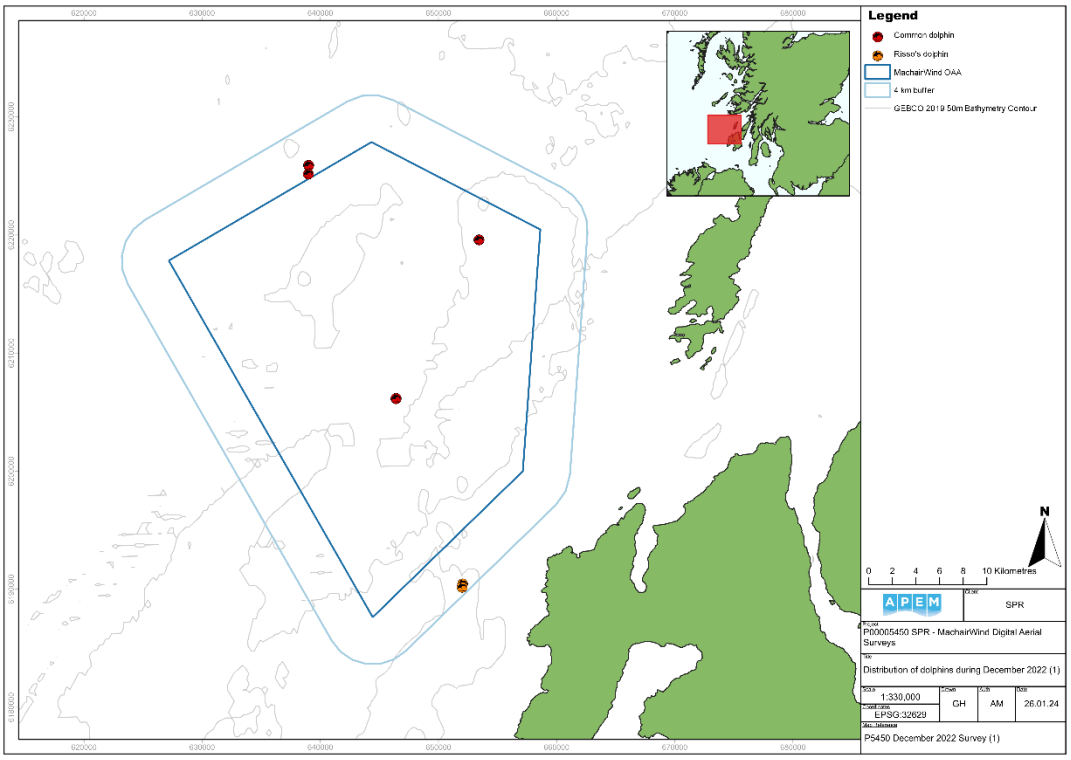


Figure 241 Spatial distribution of dolphins recorded in the first December 2022 survey (Survey 20)

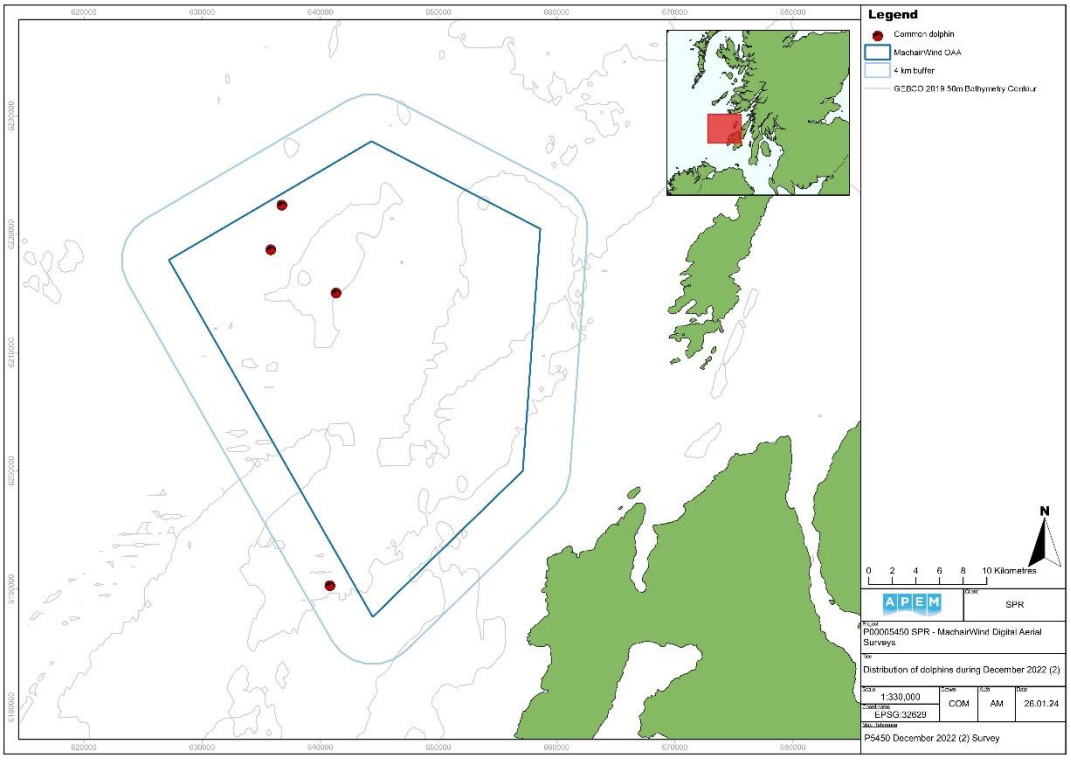


Figure 242 Spatial distribution of dolphins recorded in the second December 2022 survey (Survey 21)

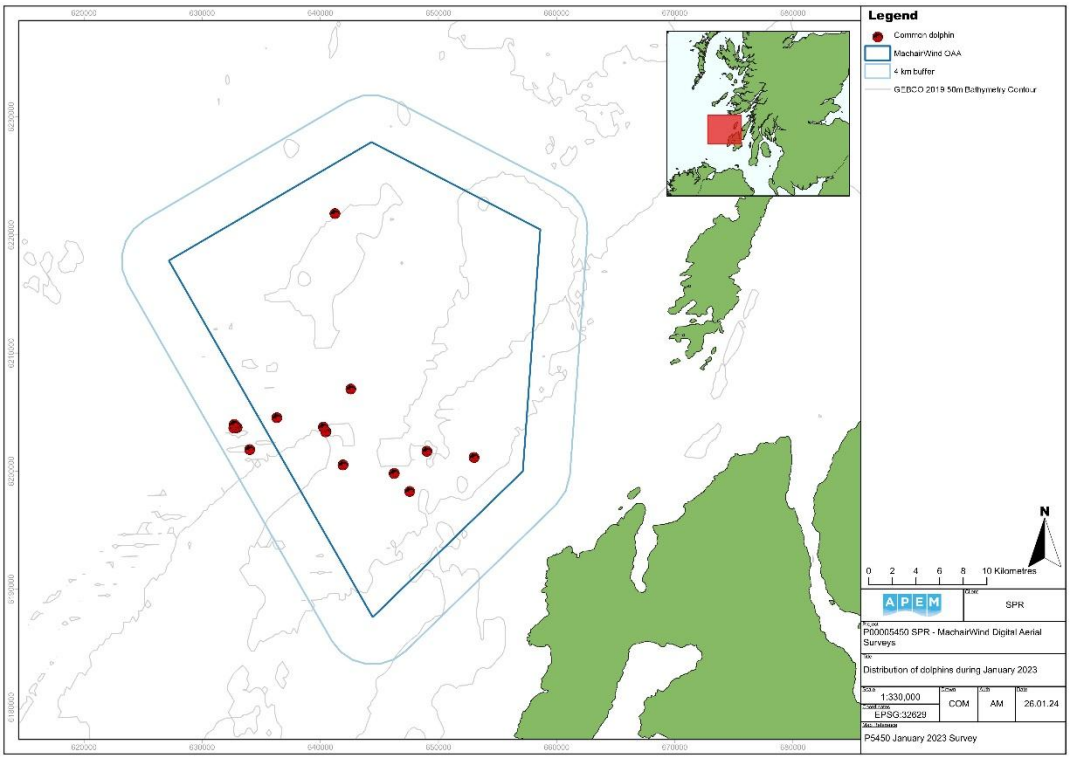


Figure 243 Spatial distribution of dolphins recorded in the January 2023 survey

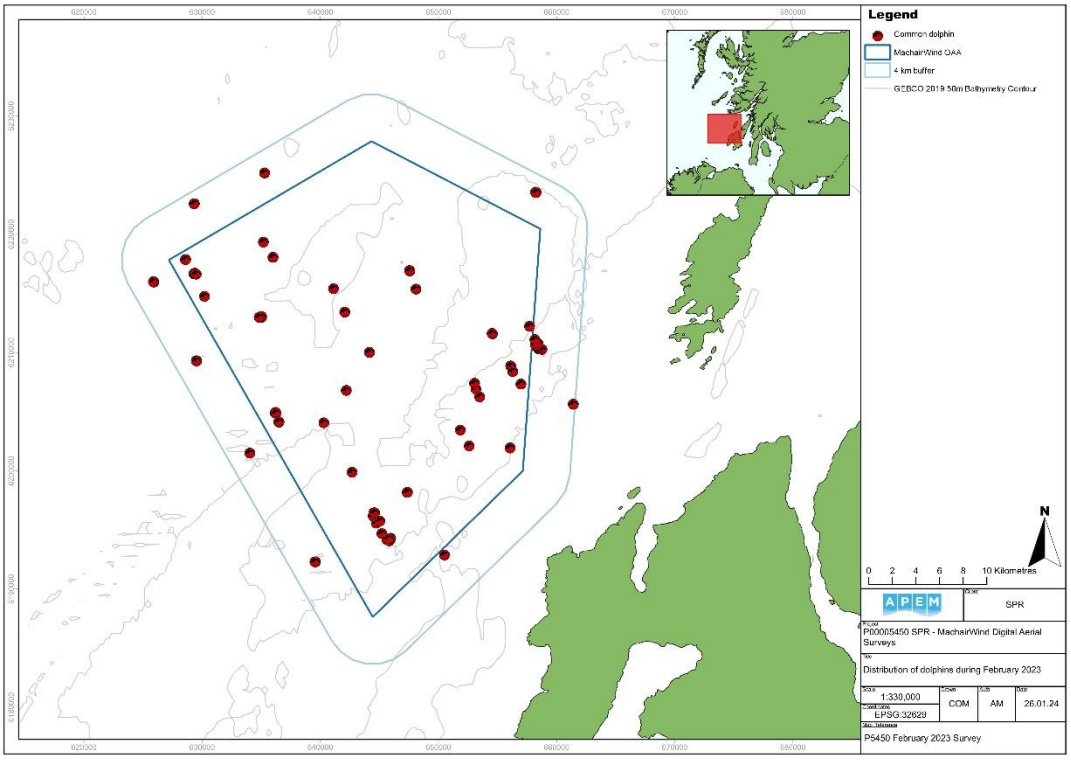


Figure 244 Spatial distribution of dolphins recorded in the February 2023 survey

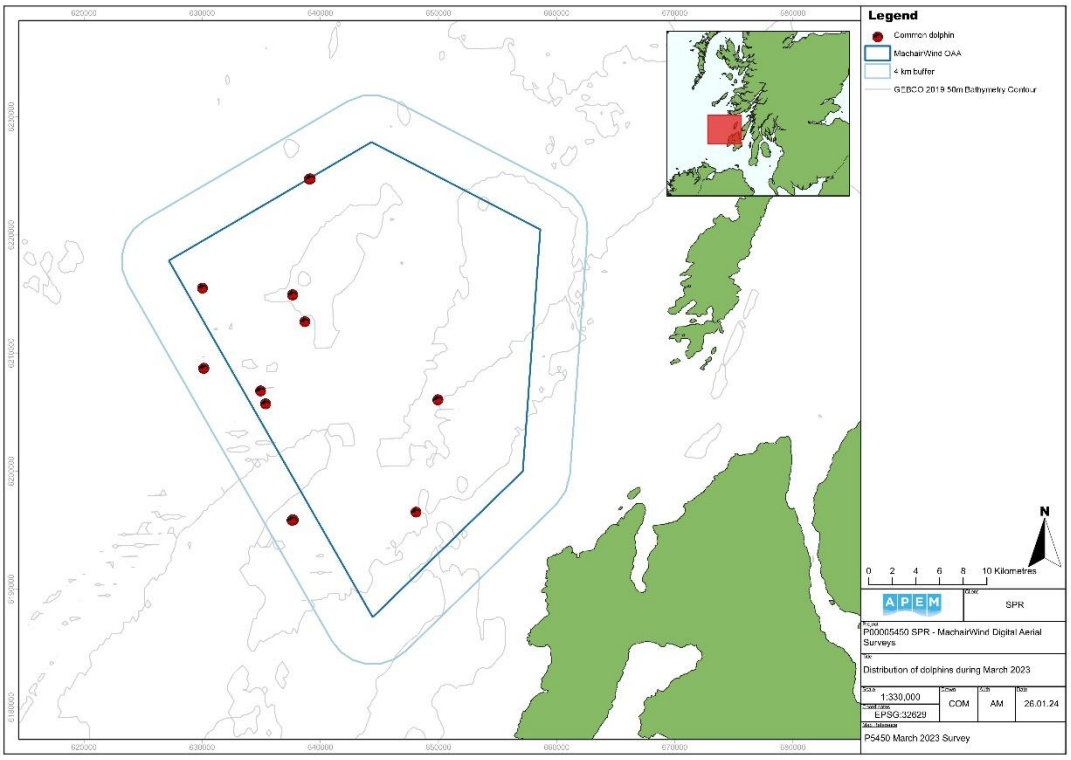


Figure 245 Spatial distribution of dolphins recorded in the March 2023 survey

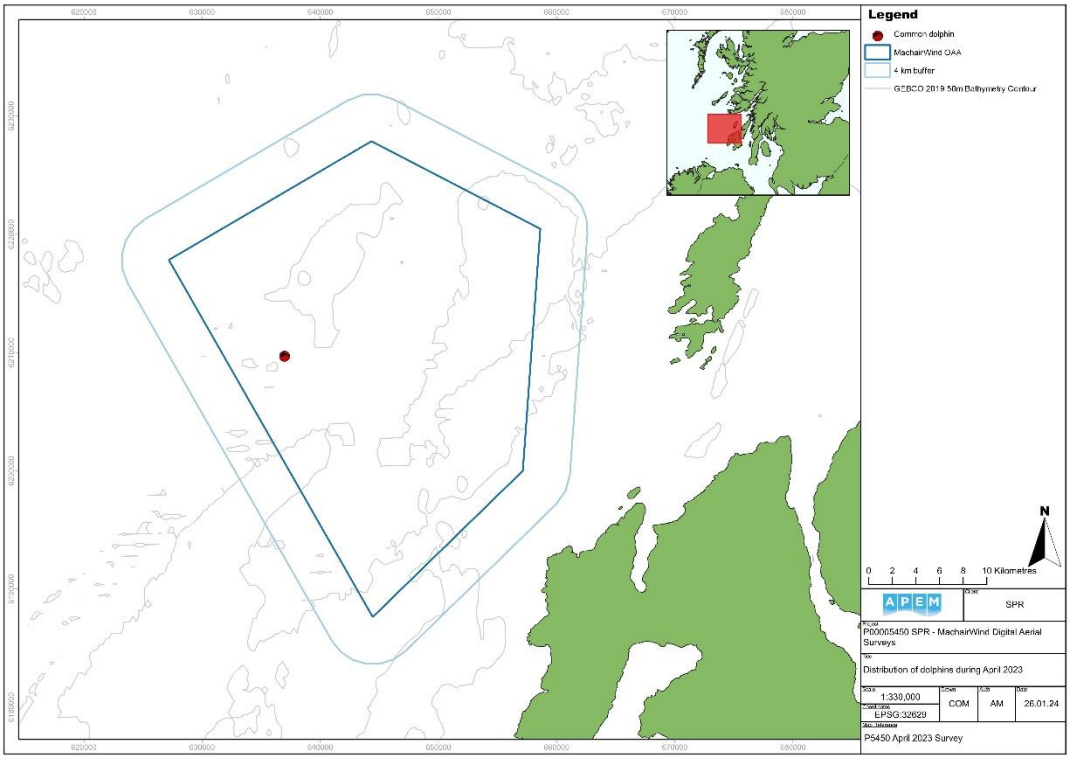


Figure 246 Spatial distribution of dolphins recorded in the April 2023 survey

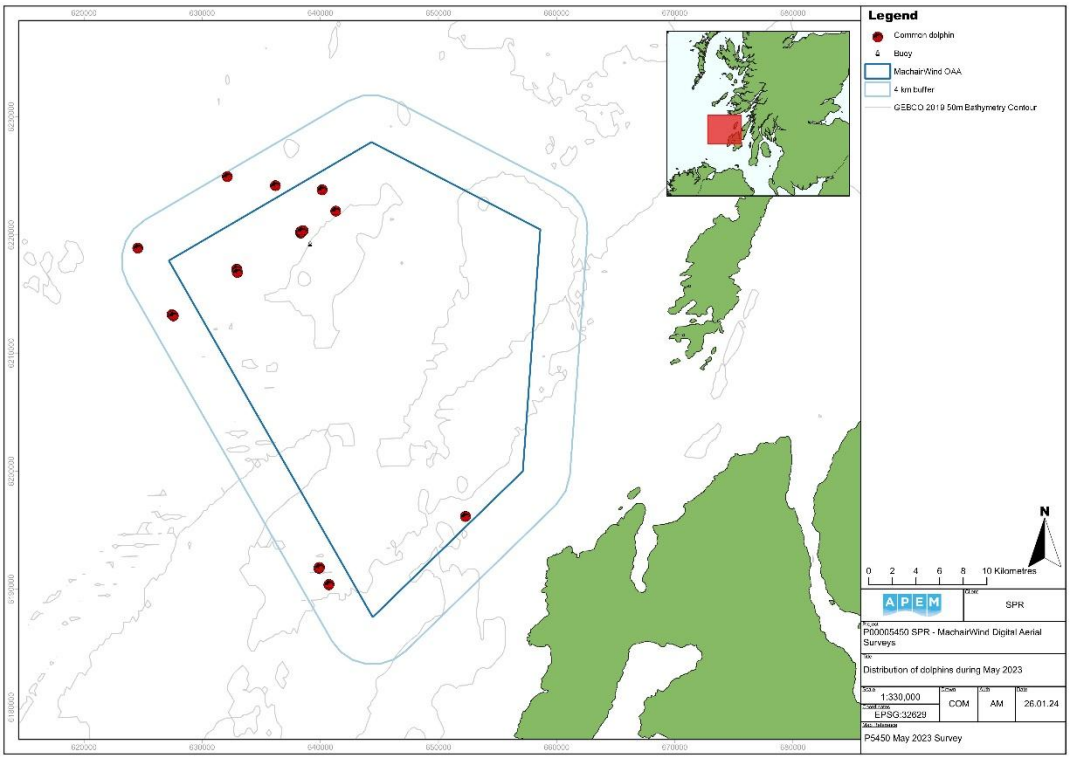


Figure 247 Spatial distribution of dolphins recorded in the May 2023 survey

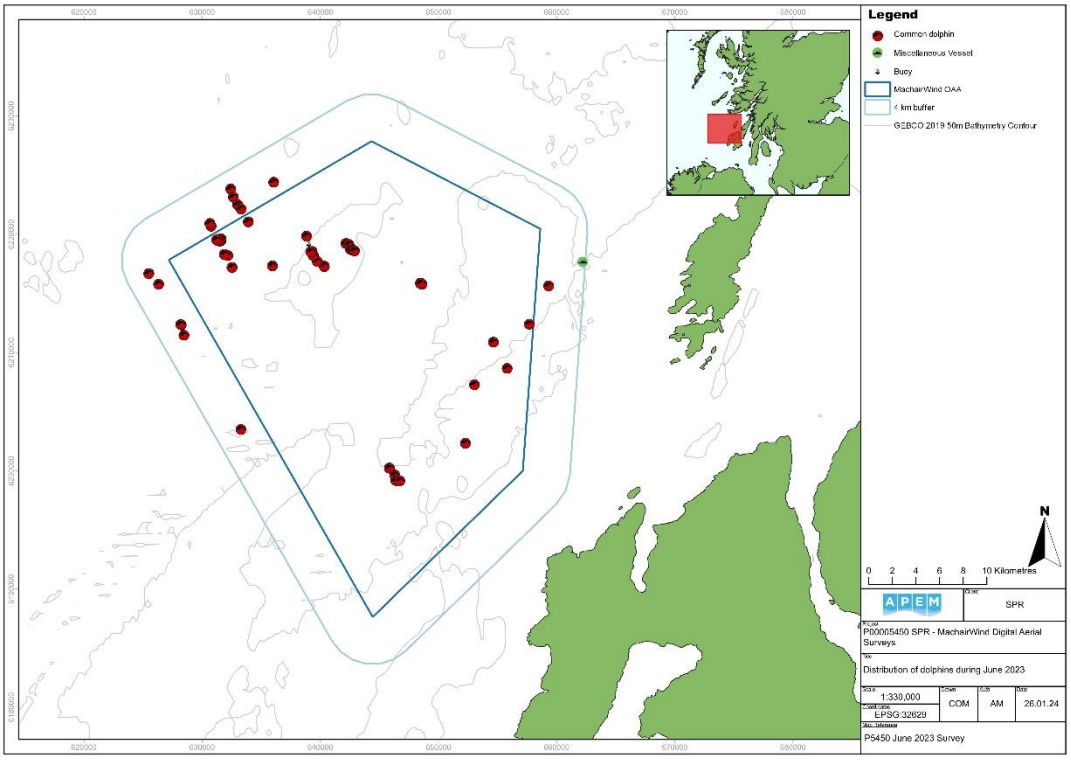


Figure 248 Spatial distribution of dolphins recorded in the June 2023 survey

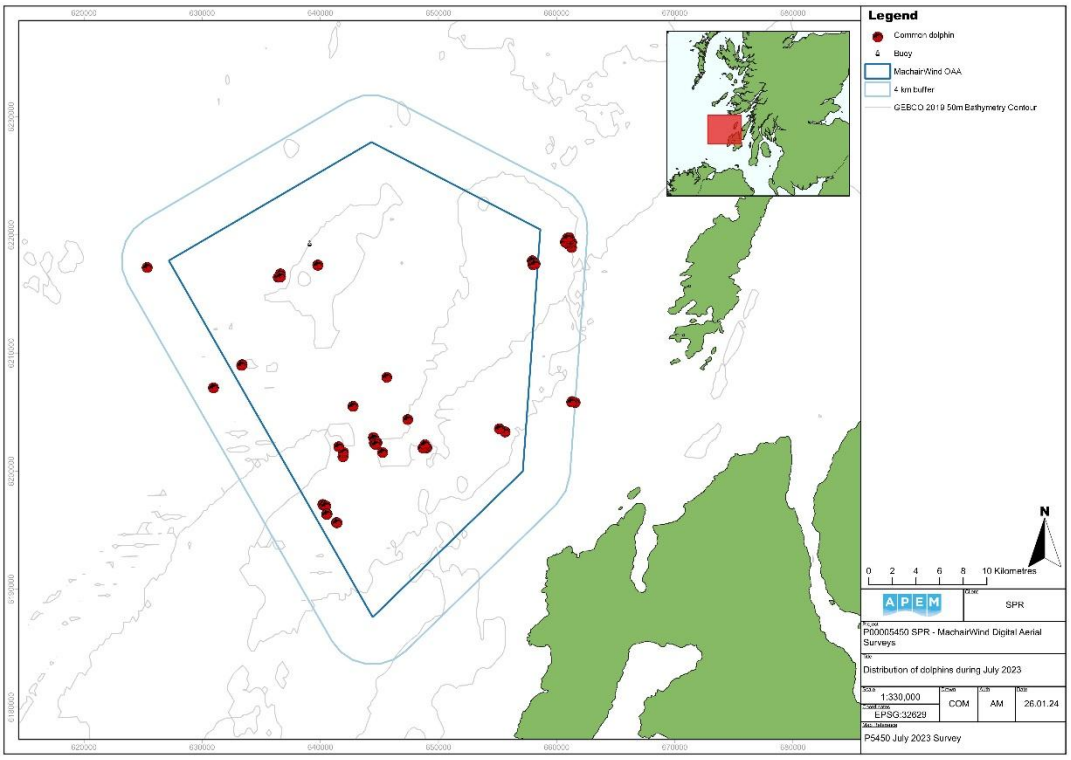


Figure 249 Spatial distribution of dolphins recorded in the July 2023 survey

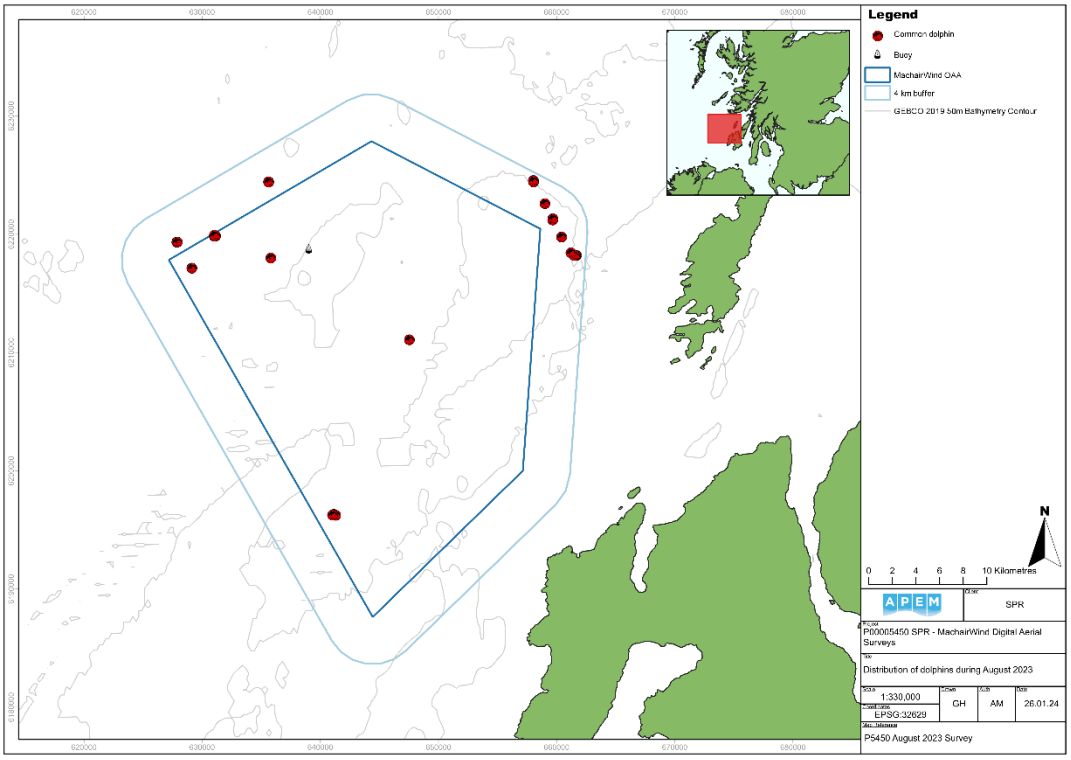


Figure 250 Spatial distribution of dolphins recorded in the August 2023 survey

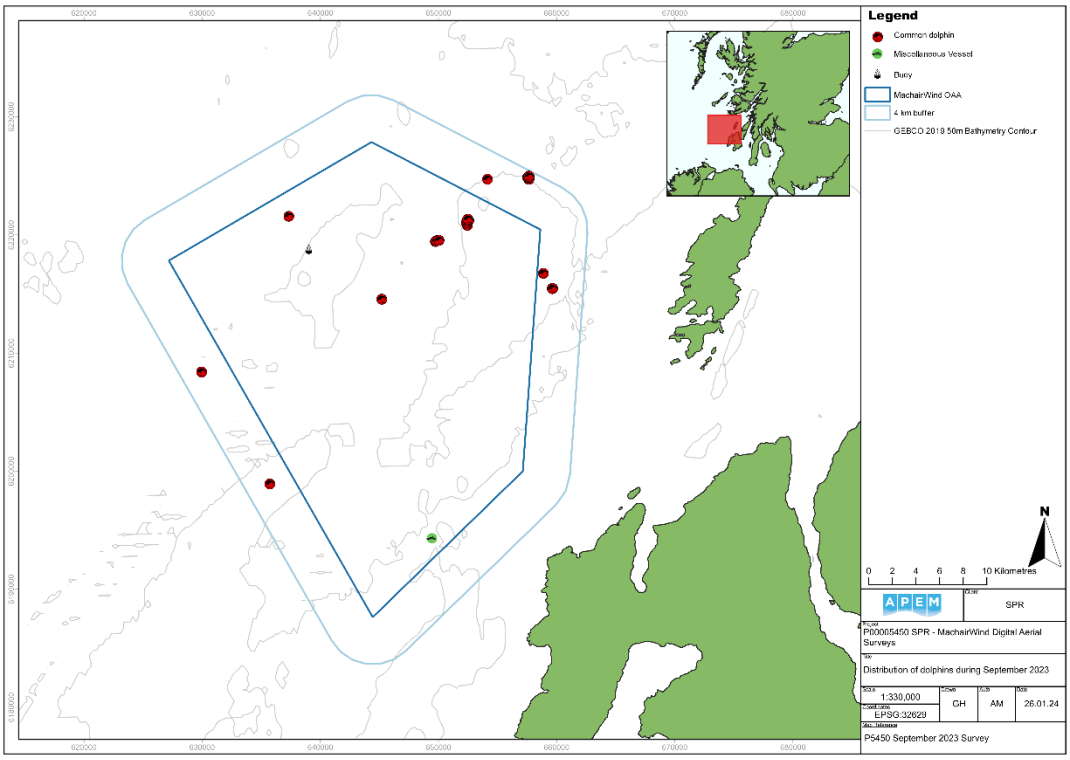


Figure 251 Spatial distribution of dolphins recorded in the September 2023 survey

11.2.3 Harbour porpoises

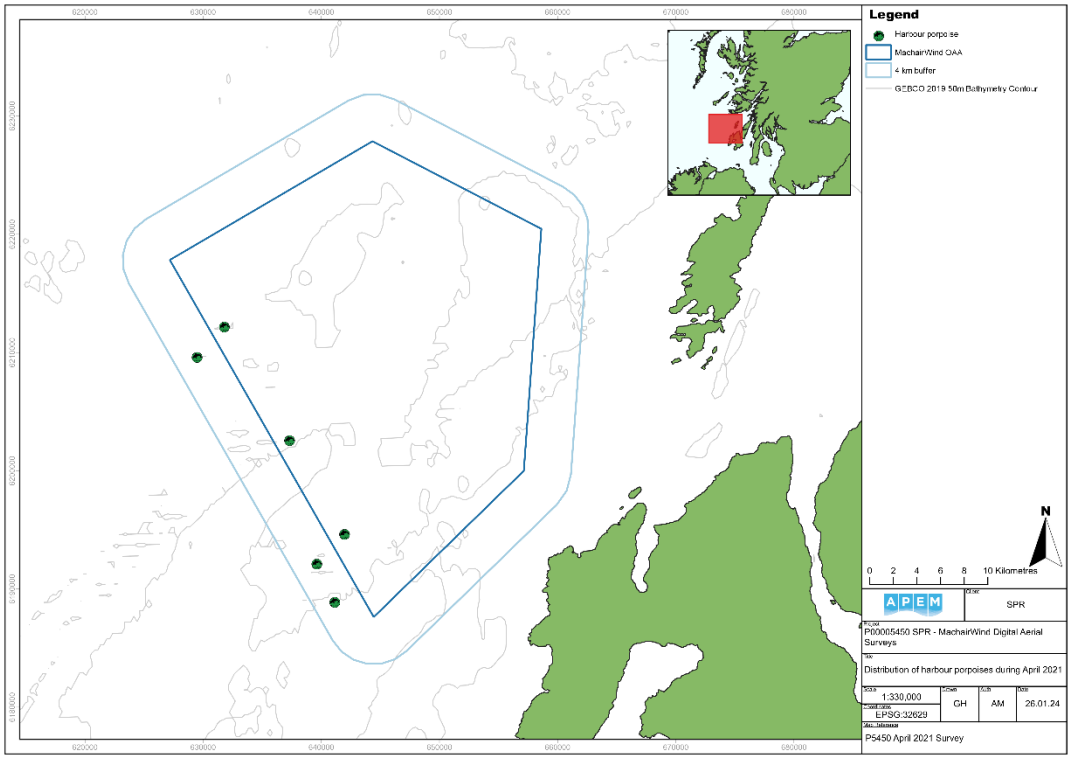


Figure 252 Spatial distribution of harbour porpoises recorded in the April 2021 survey

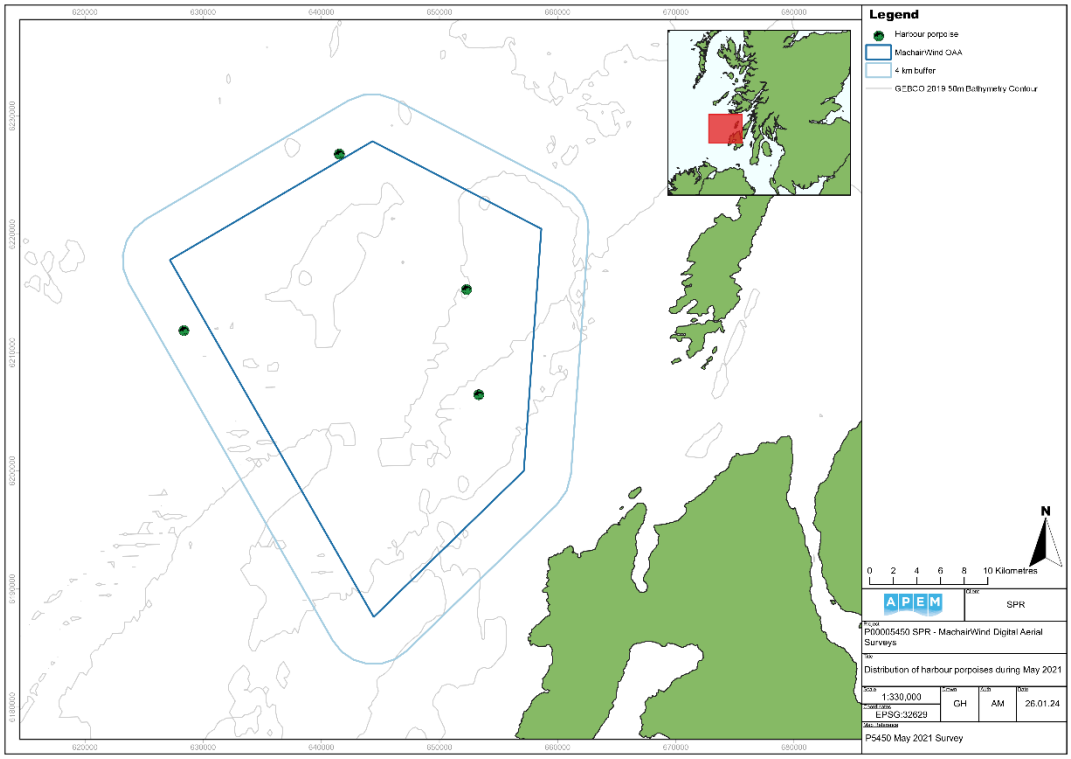


Figure 253 Spatial distribution of harbour porpoises recorded in the May 2021 survey

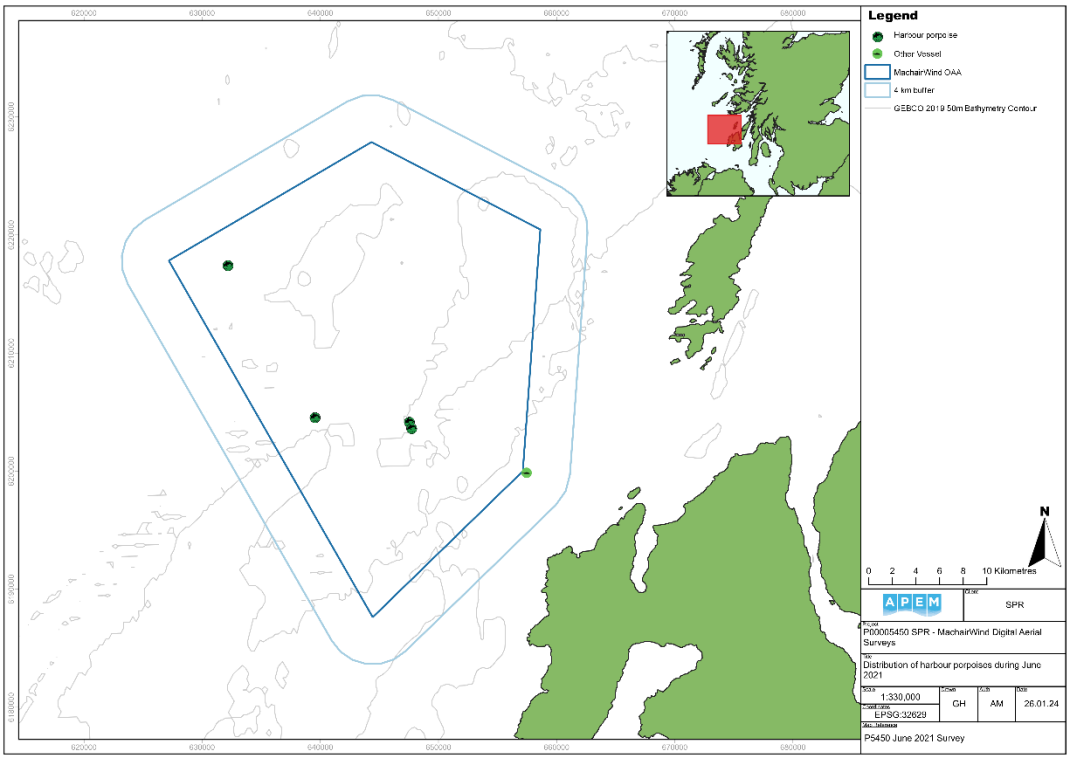


Figure 254 Spatial distribution of harbour porpoises recorded in the June 2021 survey

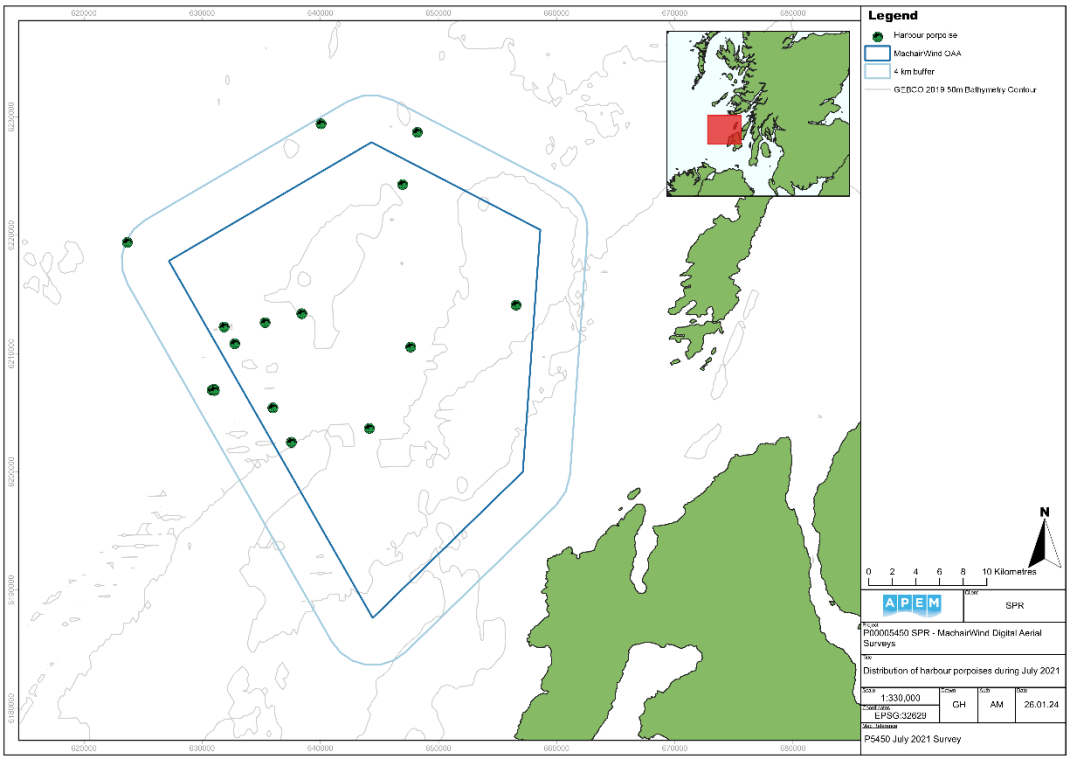


Figure 255 Spatial distribution of harbour porpoises recorded in the July 2021 survey

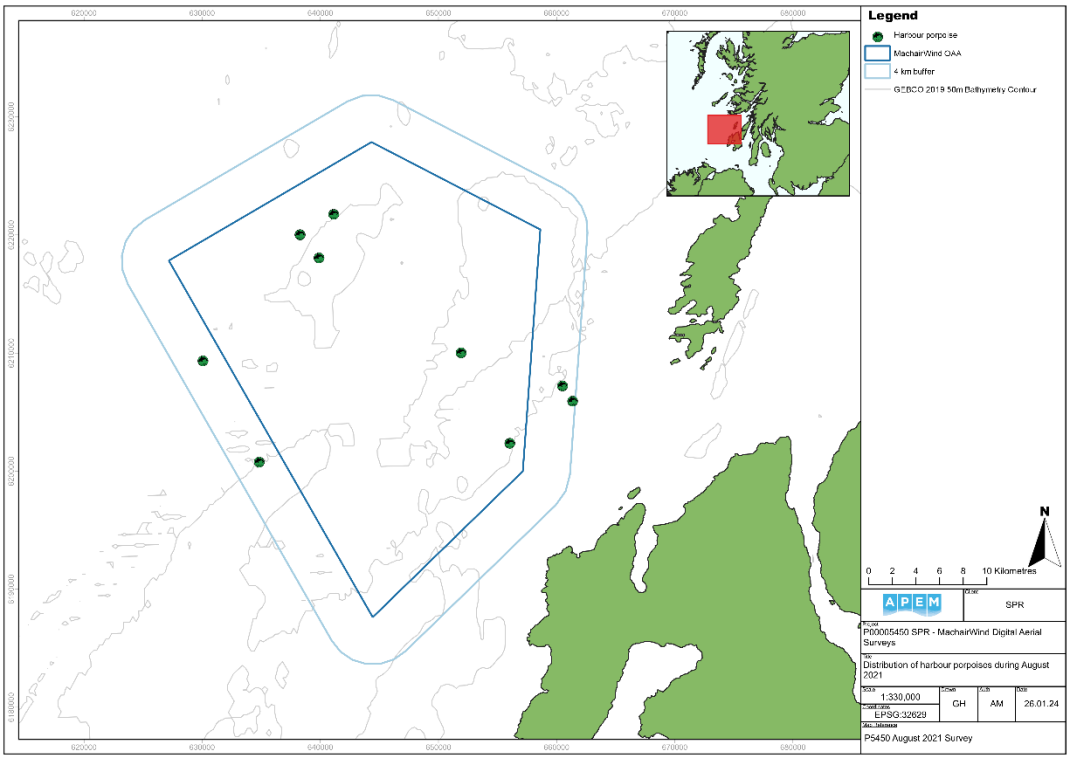


Figure 256 Spatial distribution of harbour porpoises recorded in the August 2021 survey

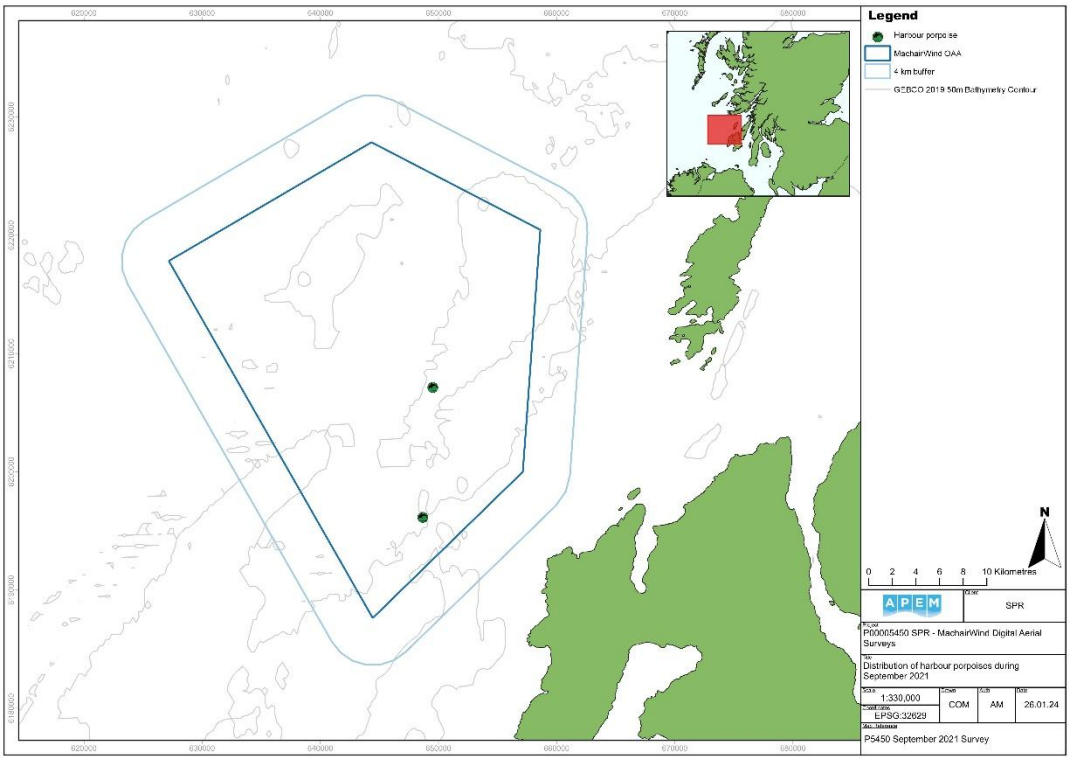


Figure 257 Spatial distribution of harbour porpoises recorded in the September 2021 survey

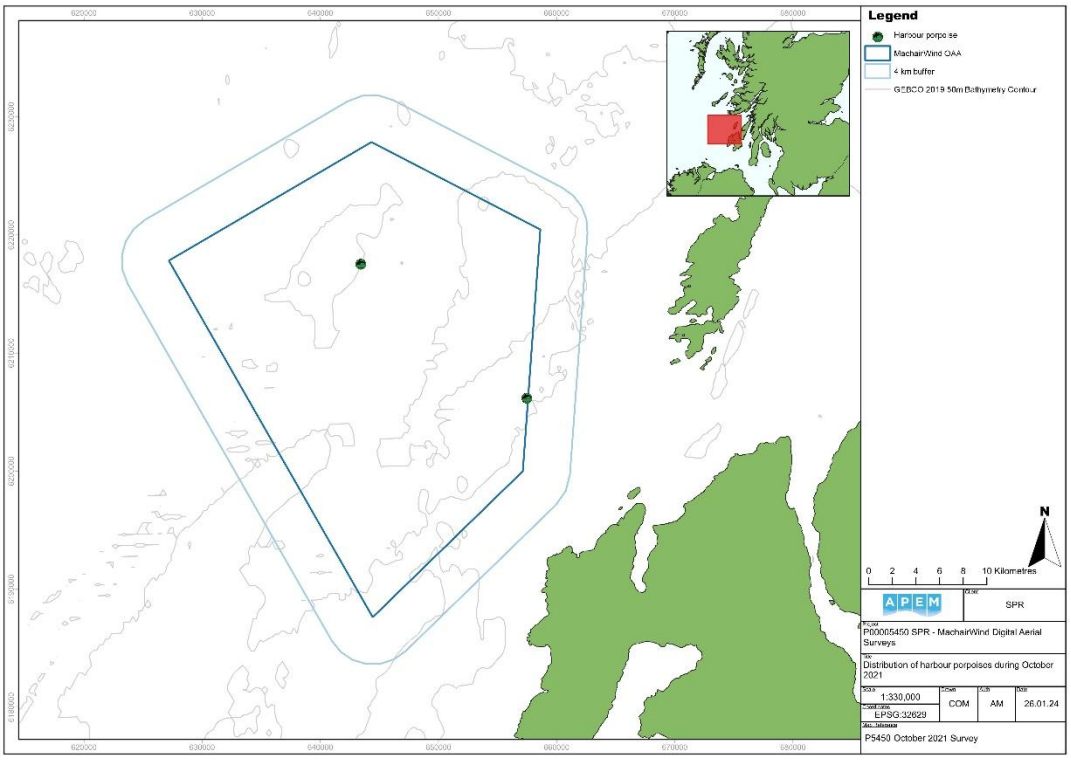


Figure 258 Spatial distribution of harbour porpoises recorded in the October 2021 survey

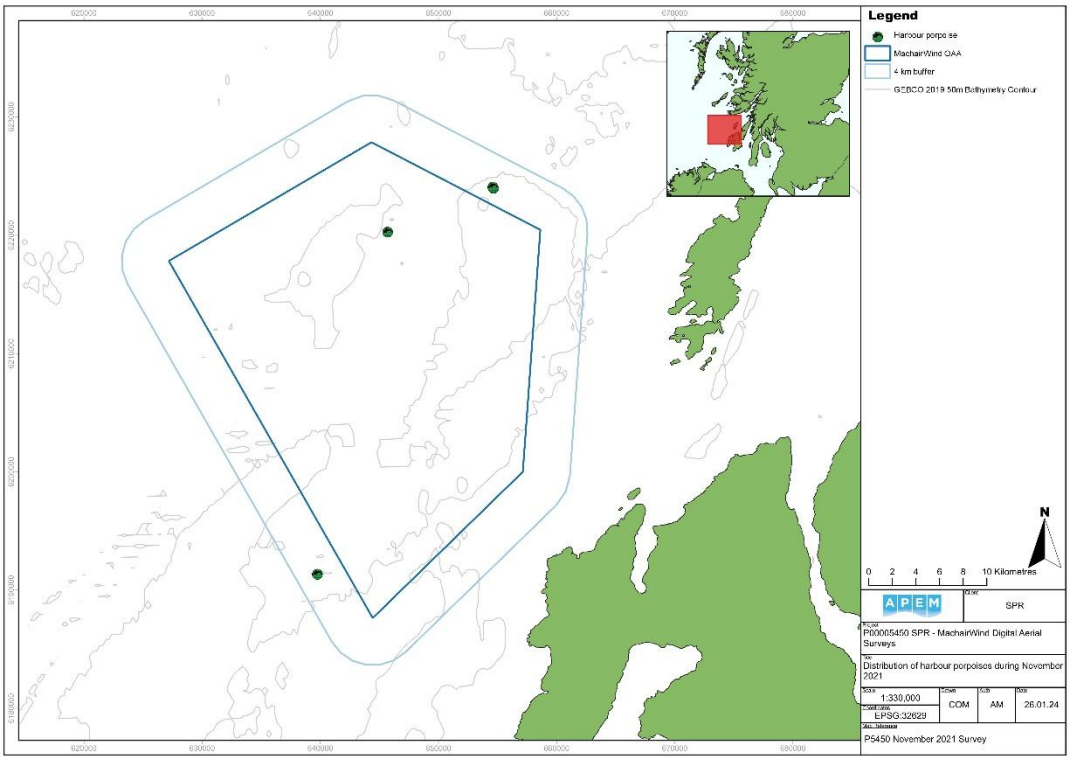


Figure 259 Spatial distribution of harbour porpoises recorded in the November 2021 survey

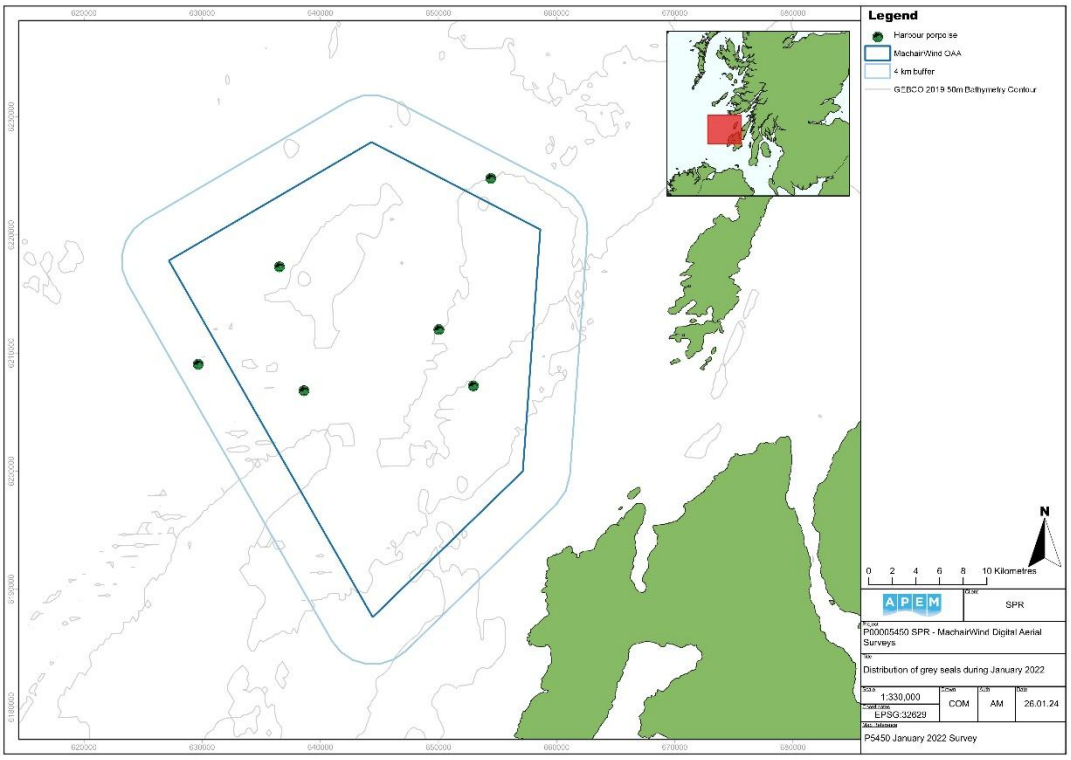


Figure 260 Spatial distribution of harbour porpoises recorded in the January 2022 survey

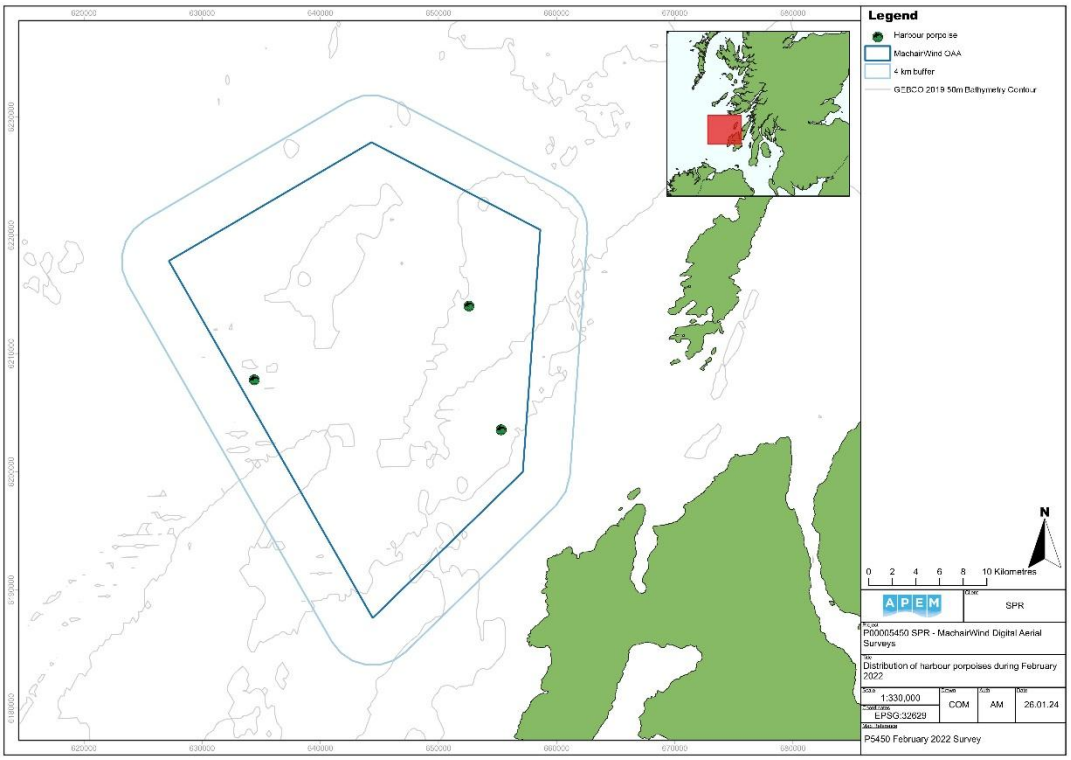


Figure 261 Spatial distribution of harbour porpoises recorded in the first March 2022 survey (Survey 10)

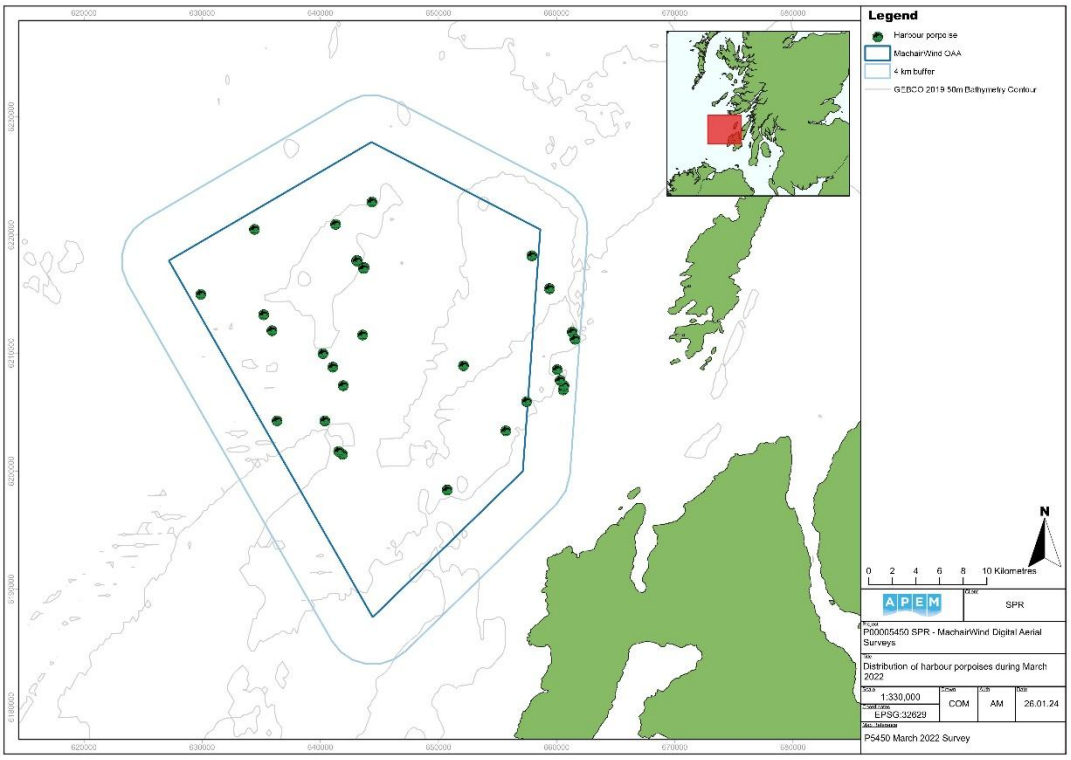


Figure 262 Spatial distribution of harbour porpoises recorded in the second March 2022 survey (Survey 11)

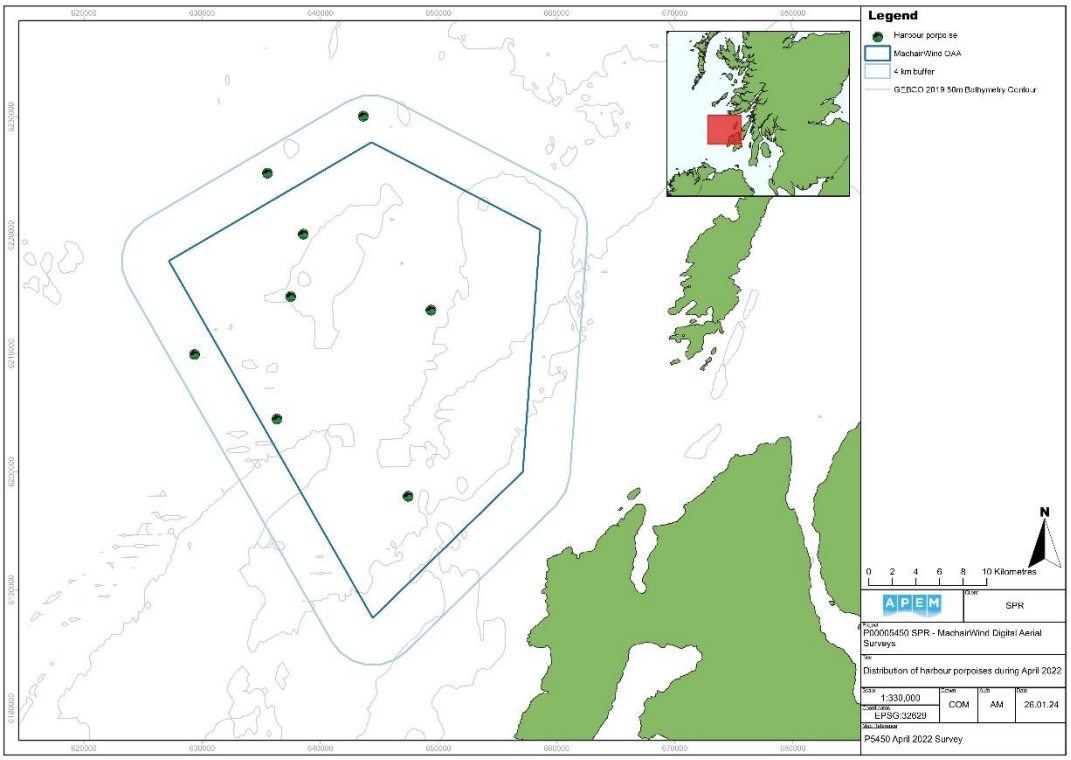


Figure 263 Spatial distribution of harbour porpoises recorded in the April 2022 survey

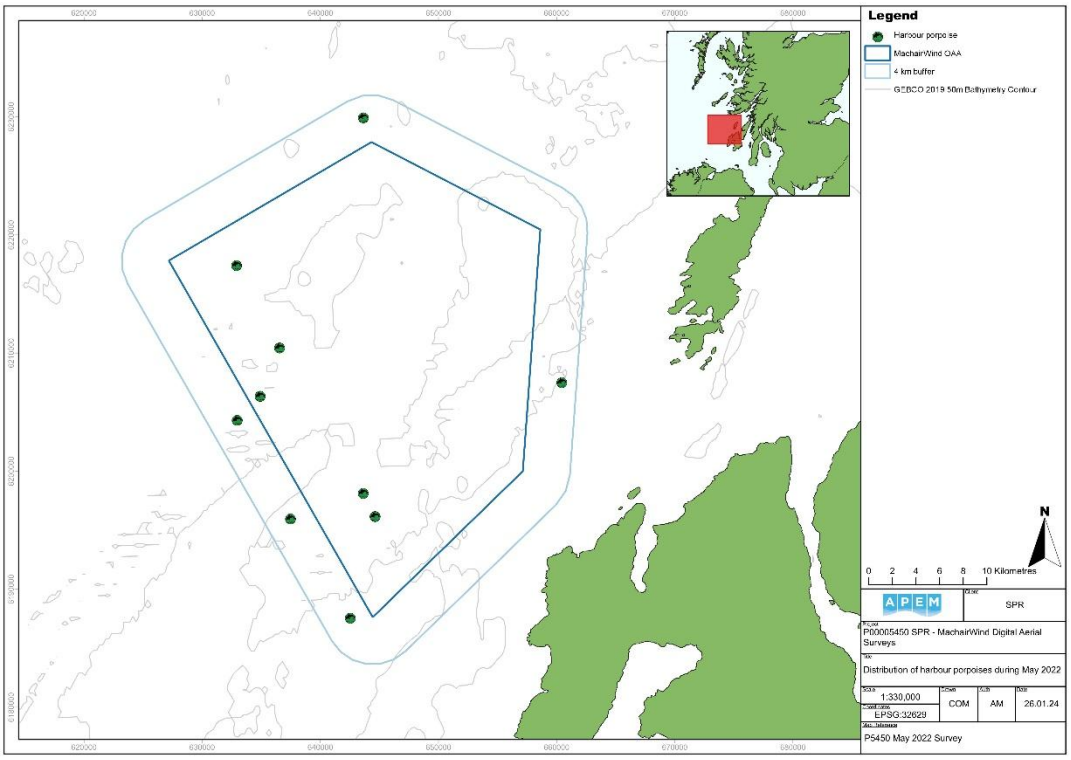


Figure 264 Spatial distribution of harbour porpoises recorded in the May 2022 survey

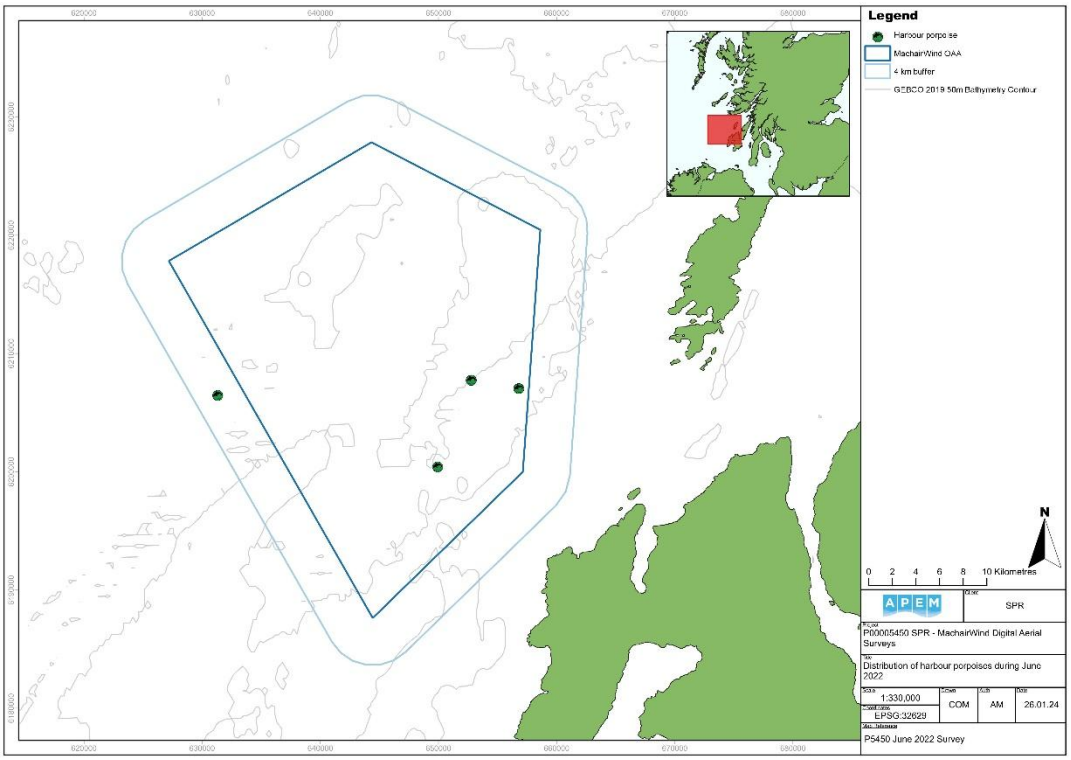


Figure 265 Spatial distribution of harbour porpoises recorded in the June 2022 survey

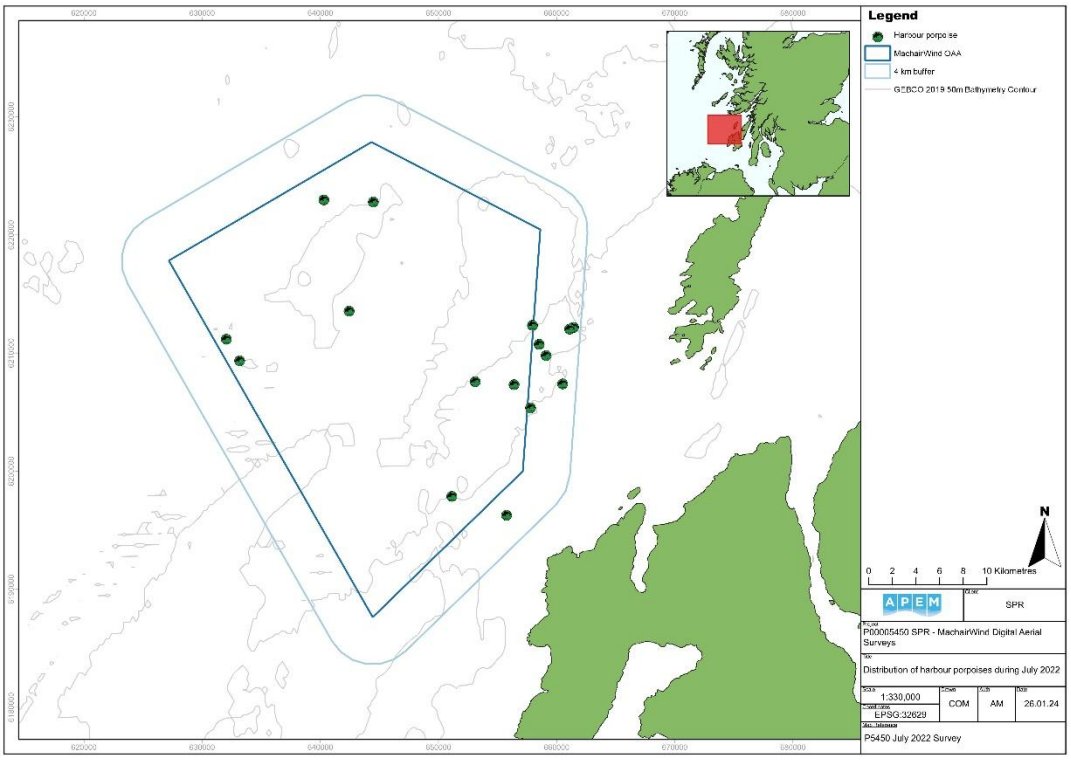


Figure 266 Spatial distribution of harbour porpoises recorded in the July 2022 survey

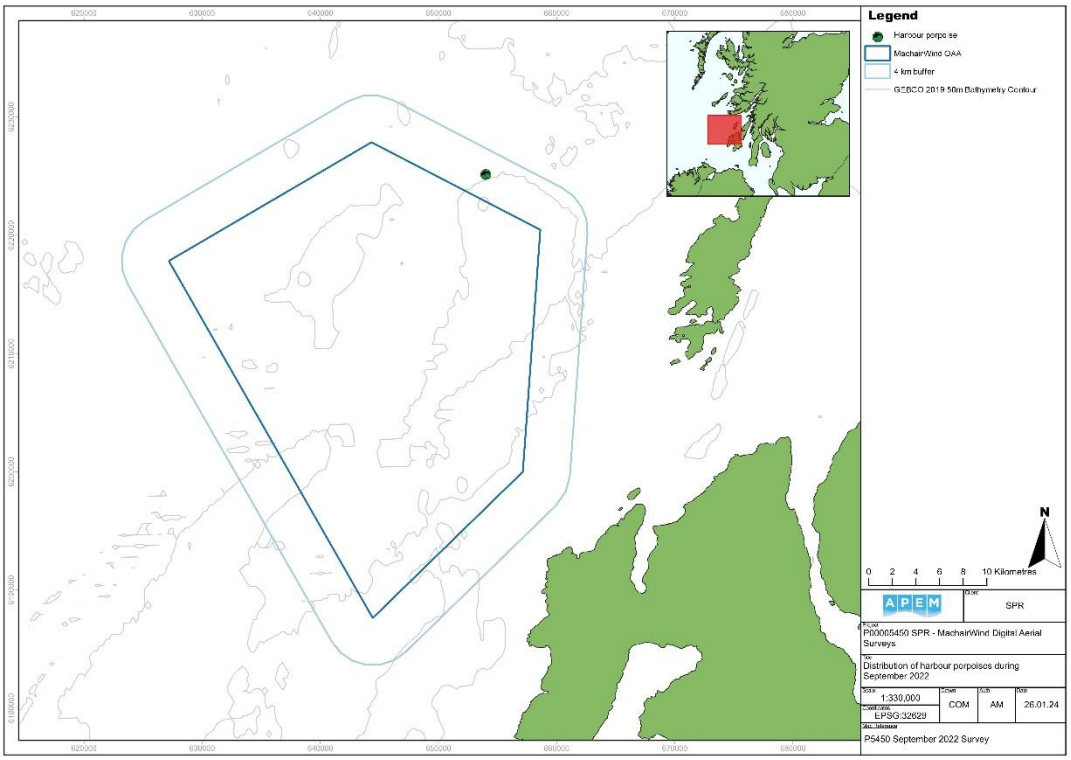


Figure 267 Spatial distribution of harbour porpoises recorded in the September 2022 survey

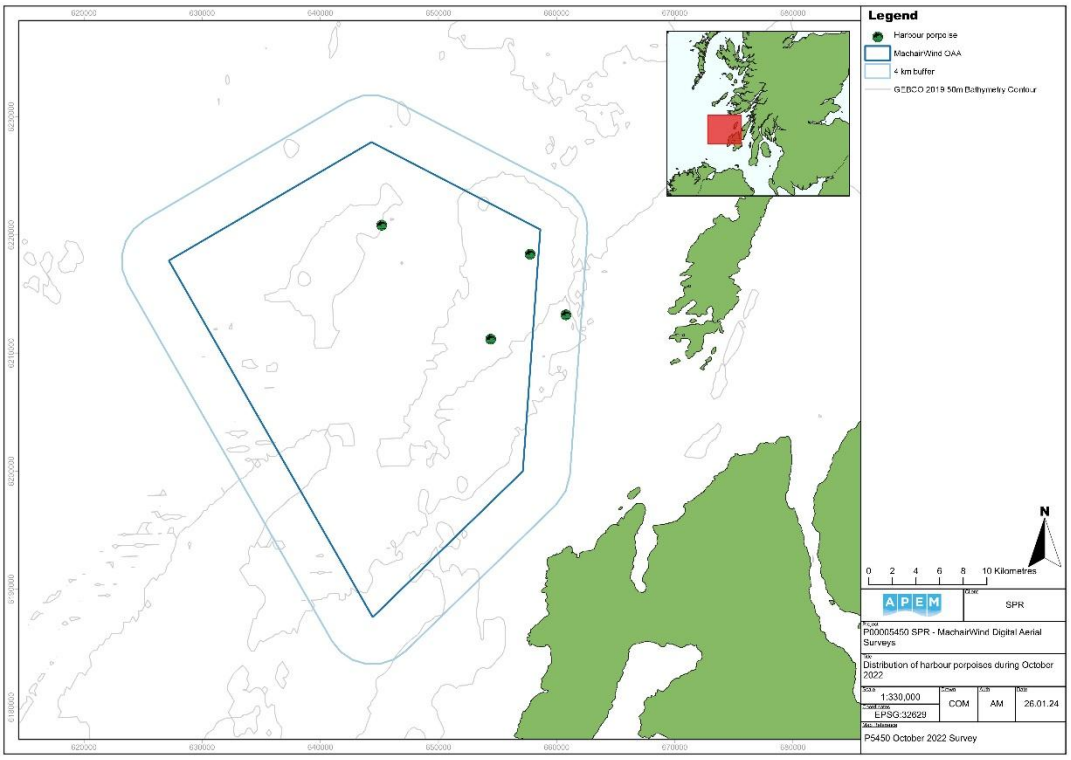


Figure 268 Spatial distribution of harbour porpoises recorded in the October 2022 survey

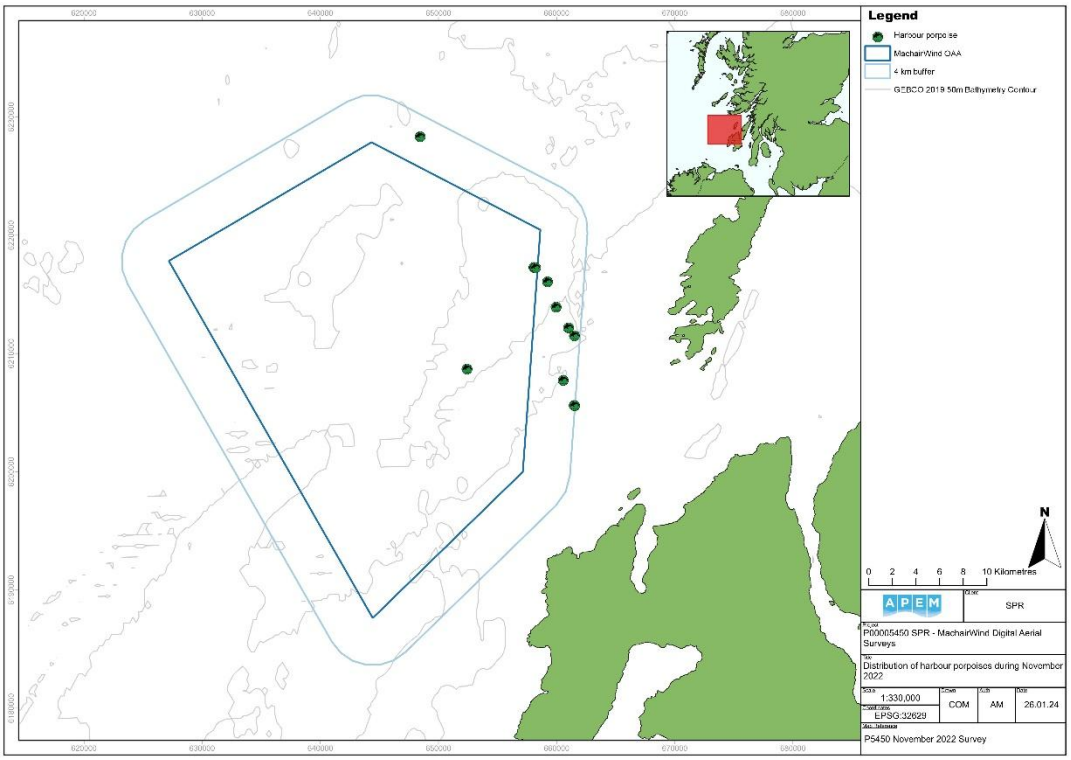


Figure 269 Spatial distribution of harbour porpoises recorded in the November 2022 survey

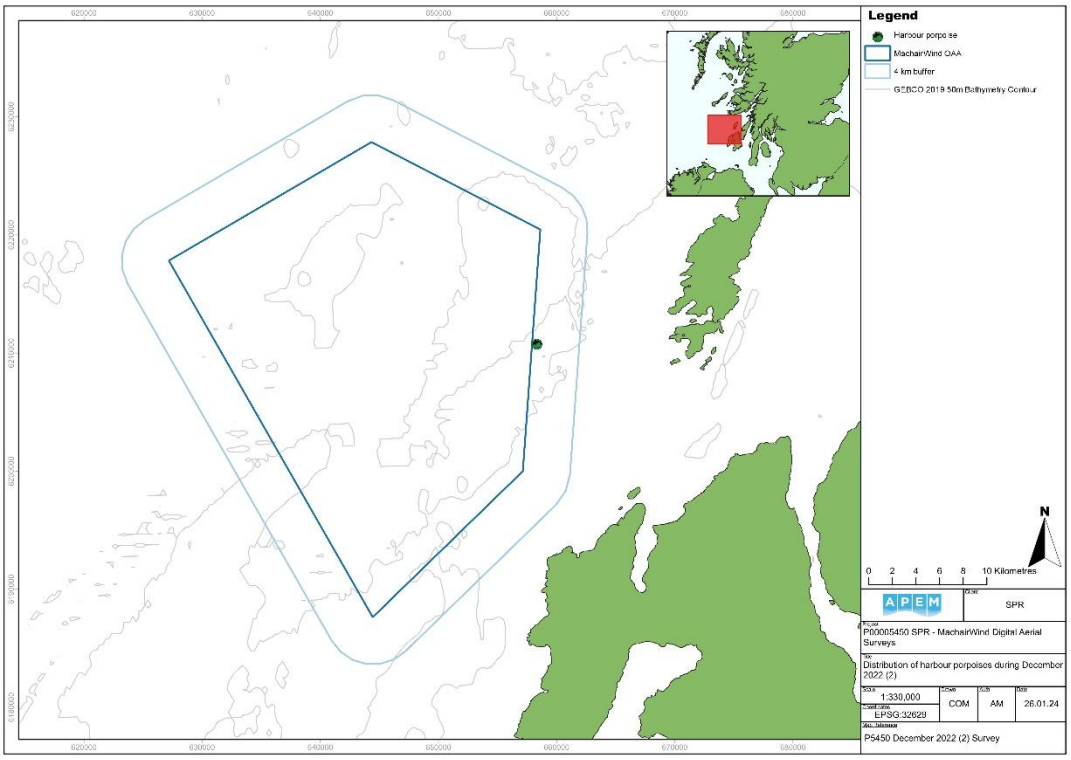


Figure 270 Spatial distribution of harbour porpoises recorded in the second December 2022 survey (Survey 21)

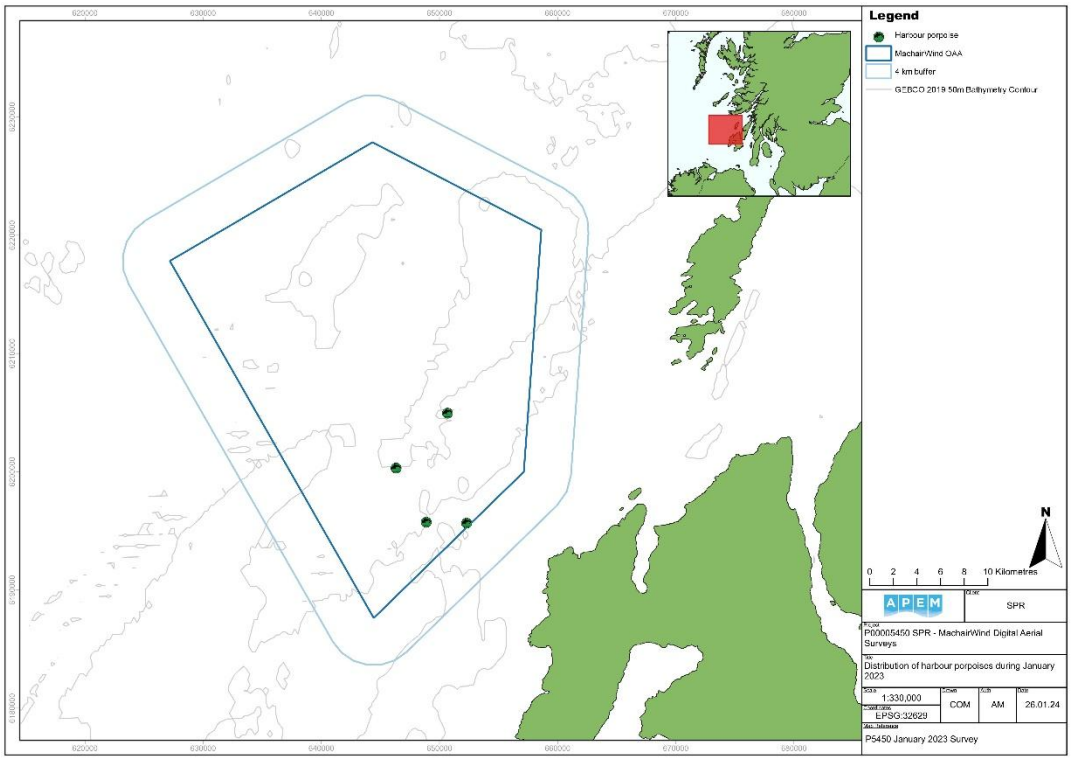


Figure 271 Spatial distribution of harbour porpoises recorded in the January 2023 survey

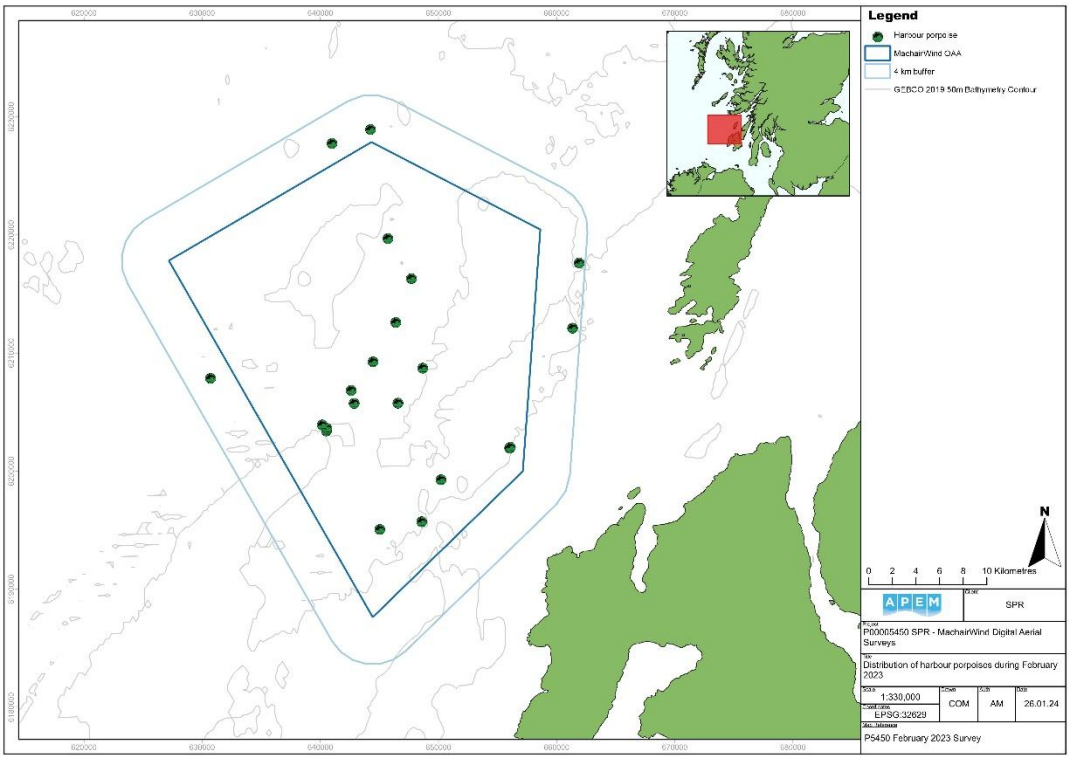


Figure 272 Spatial distribution of harbour porpoises recorded in the February 2023 survey

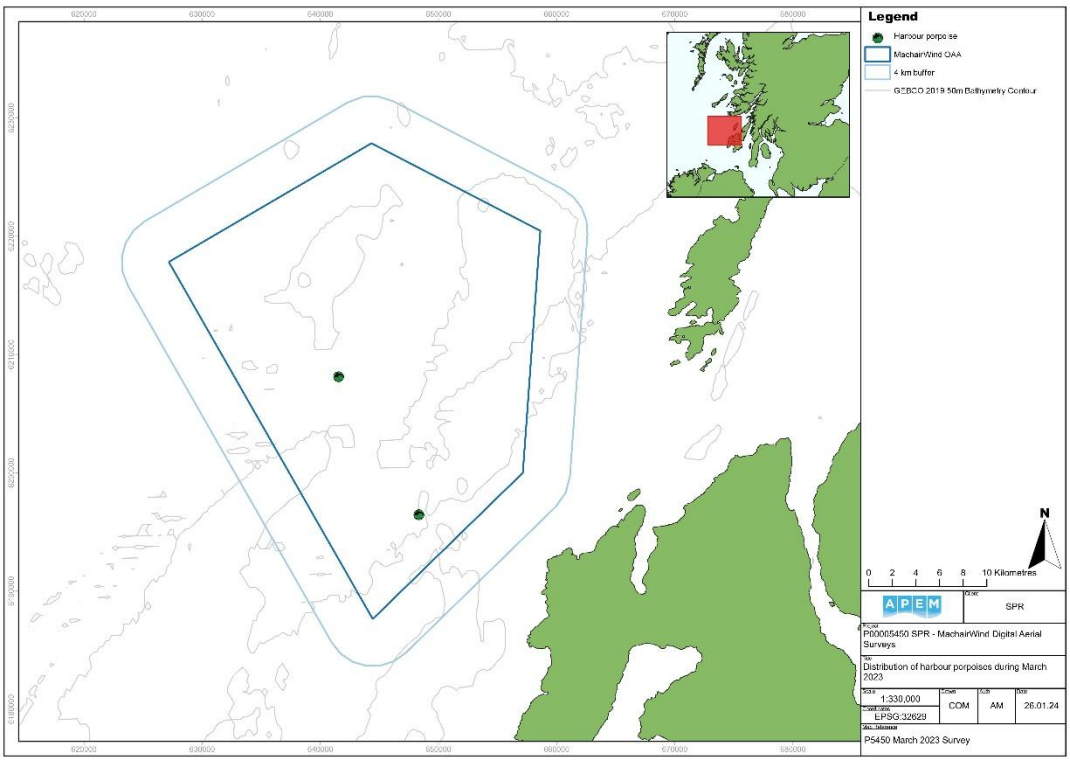


Figure 273 Spatial distribution of harbour porpoises recorded in the March 2023 survey

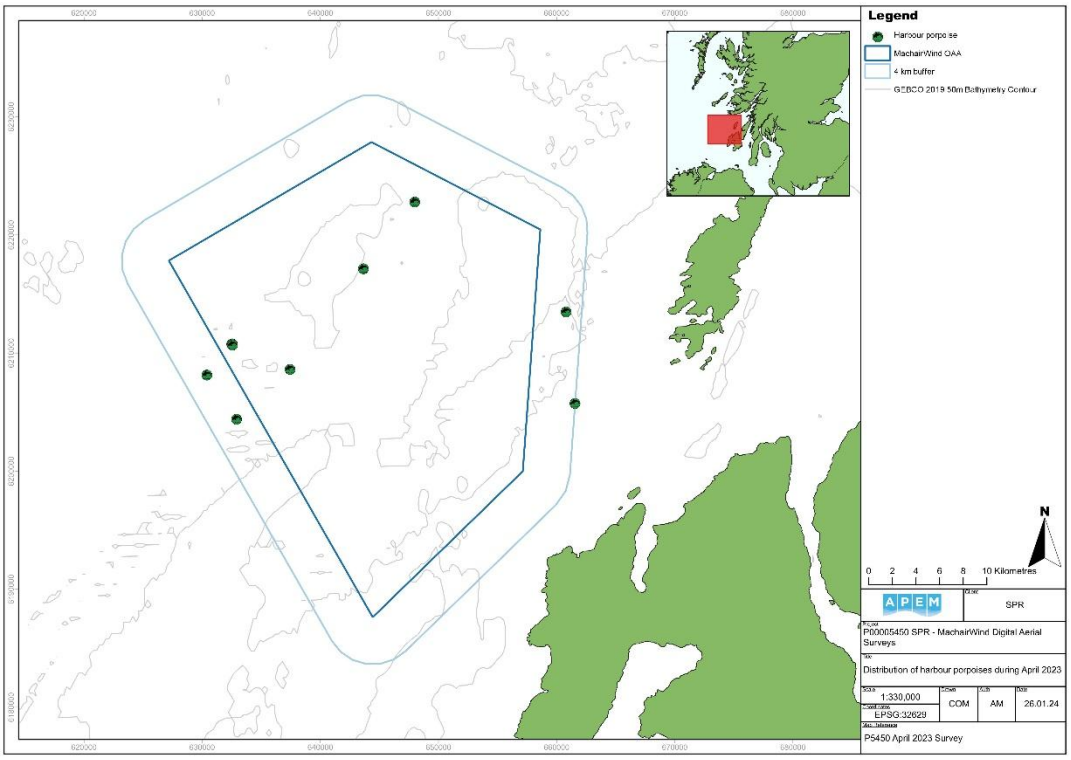


Figure 274 Spatial distribution of harbour porpoises recorded in the April 2023 survey

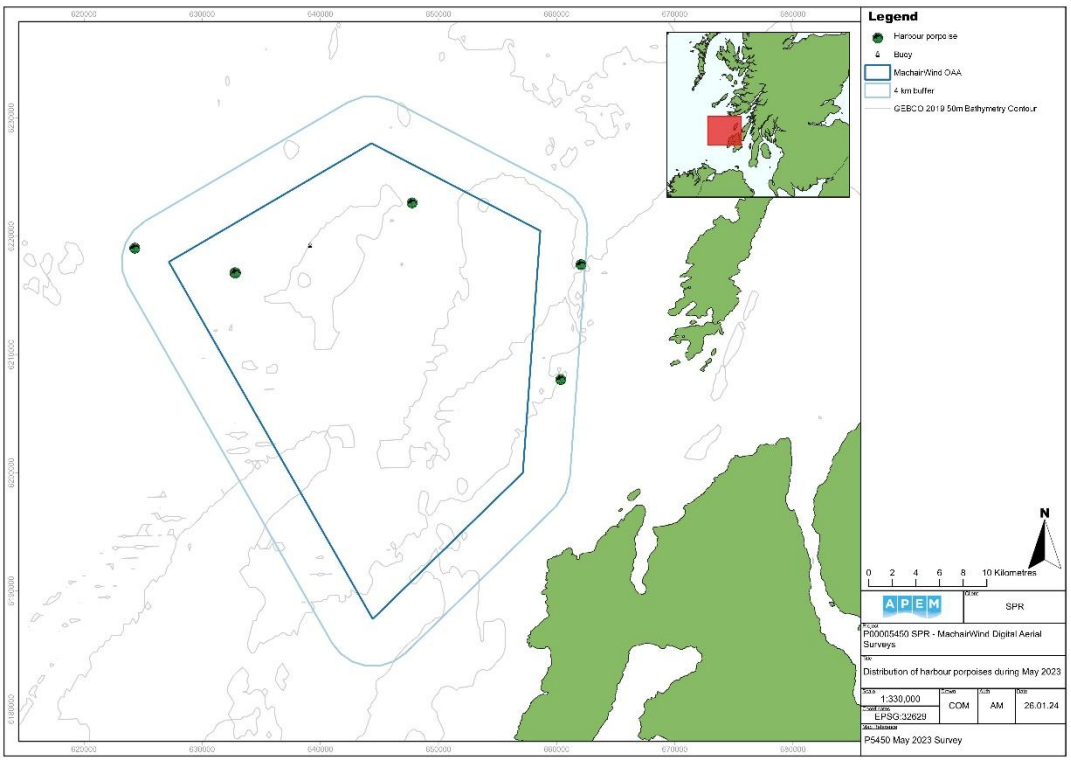


Figure 275 Spatial distribution of harbour porpoises recorded in the May 2023 survey

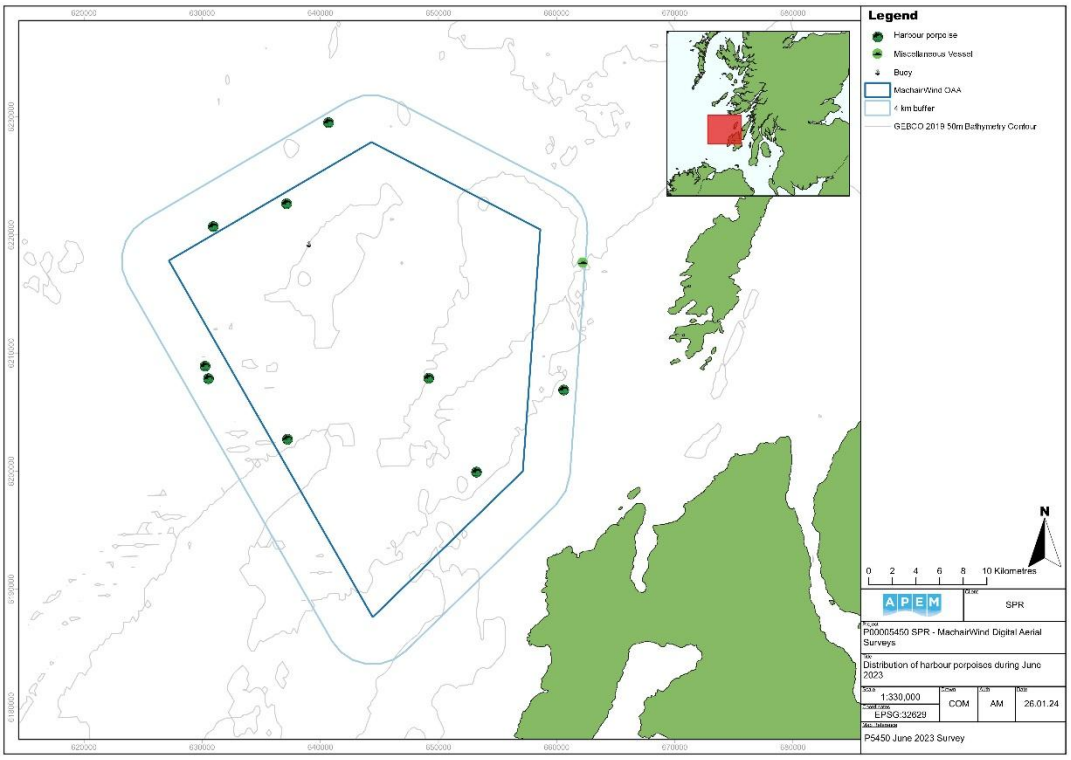


Figure 276 Spatial distribution of harbour porpoises recorded in the June 2023 survey

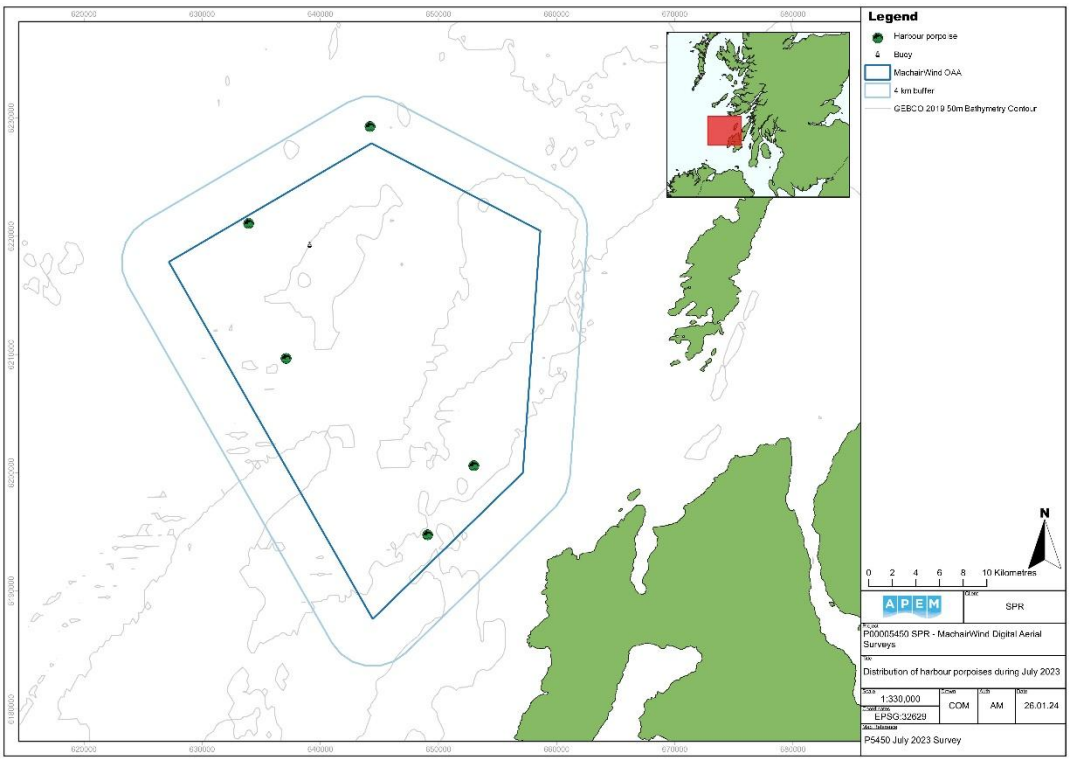


Figure 277 Spatial distribution of harbour porpoises recorded in the July 2023 survey

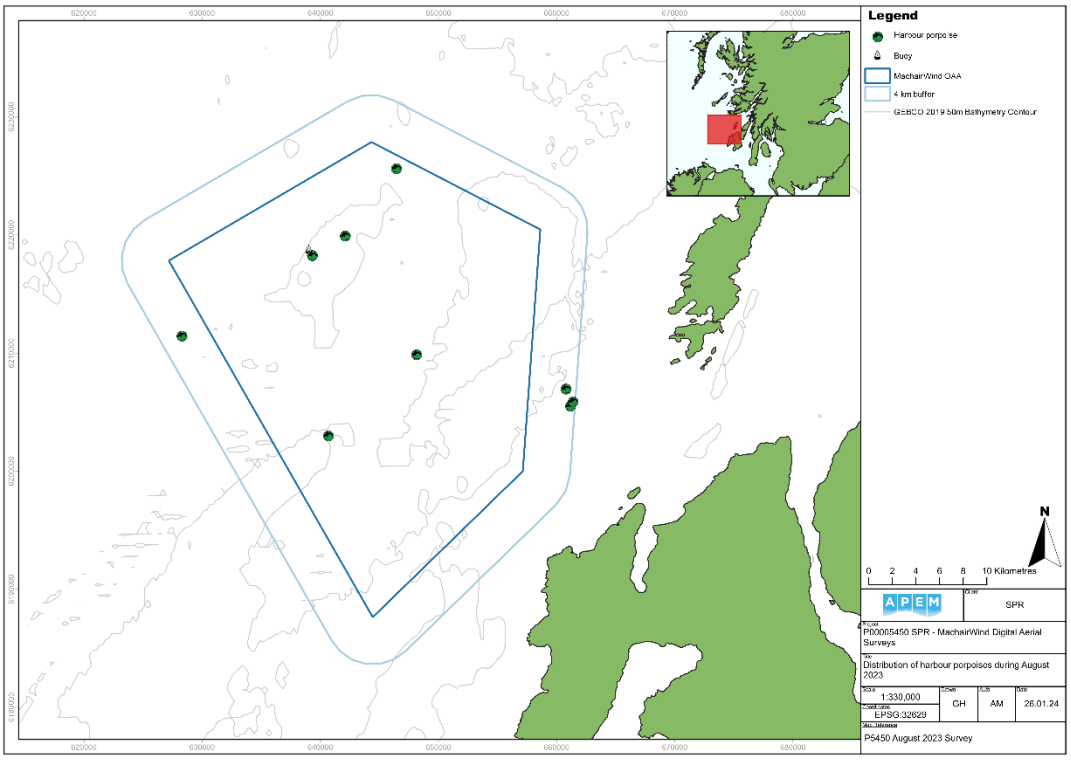


Figure 278 Spatial distribution of harbour porpoises recorded in the August 2023 survey

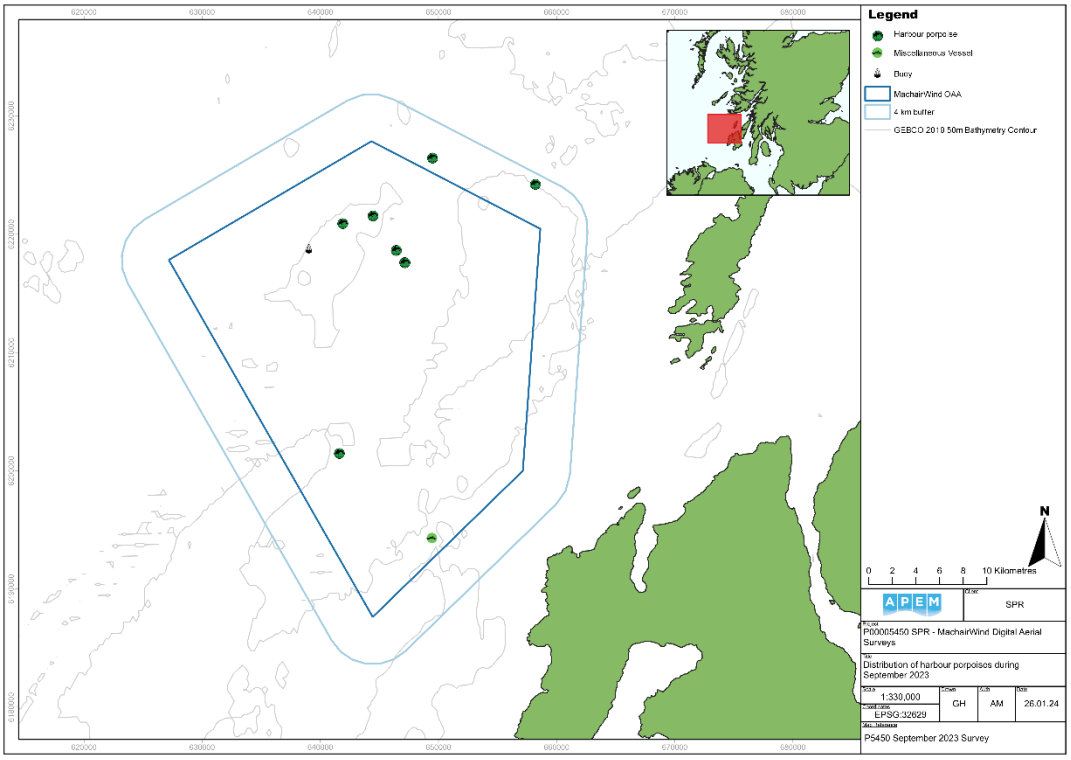


Figure 279 Spatial distribution of harbour porpoises recorded in the September 2023 survey

11.2.4 Common minke whales

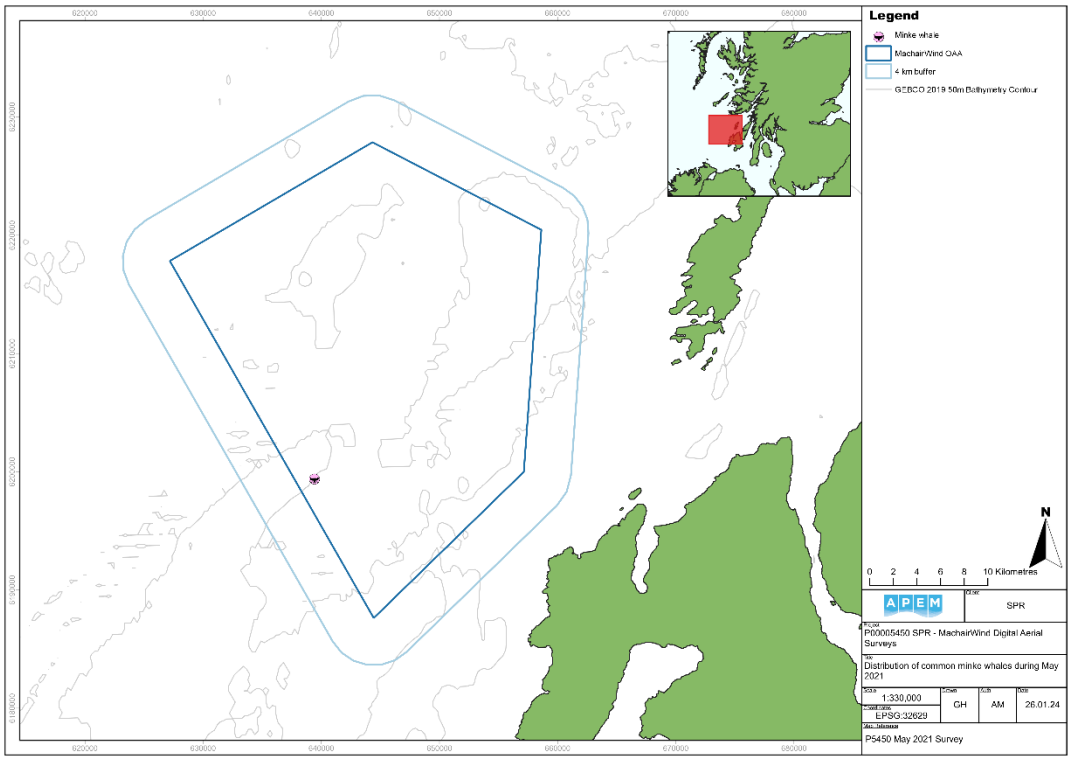


Figure 280 Spatial distribution of common minke whales recorded in the May 2021 survey

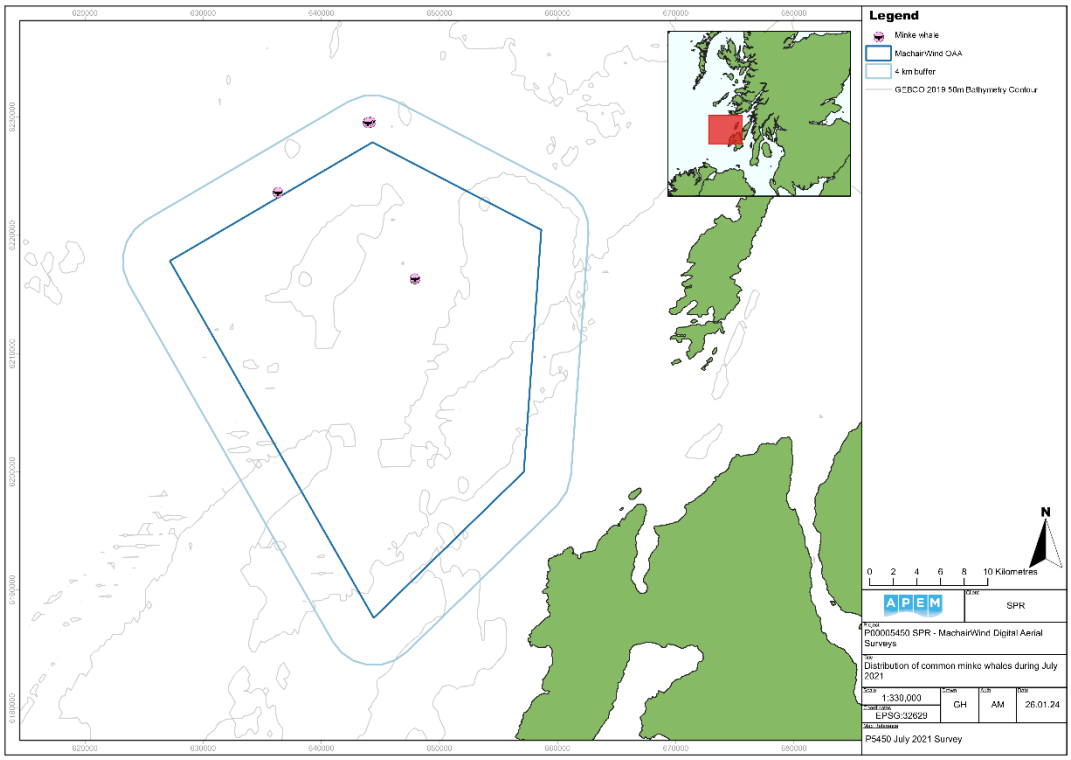


Figure 281 Spatial distribution of common minke whales recorded in the July 2021 survey

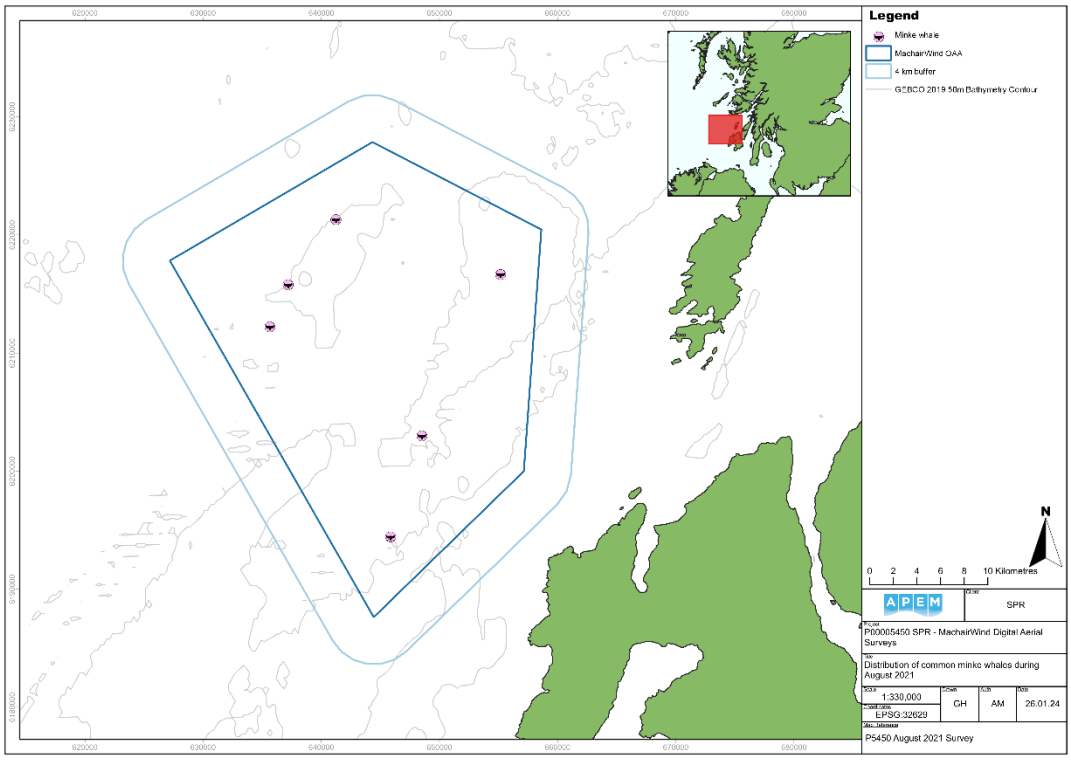


Figure 282 Spatial distribution of common minke whales recorded in the August 2021 survey

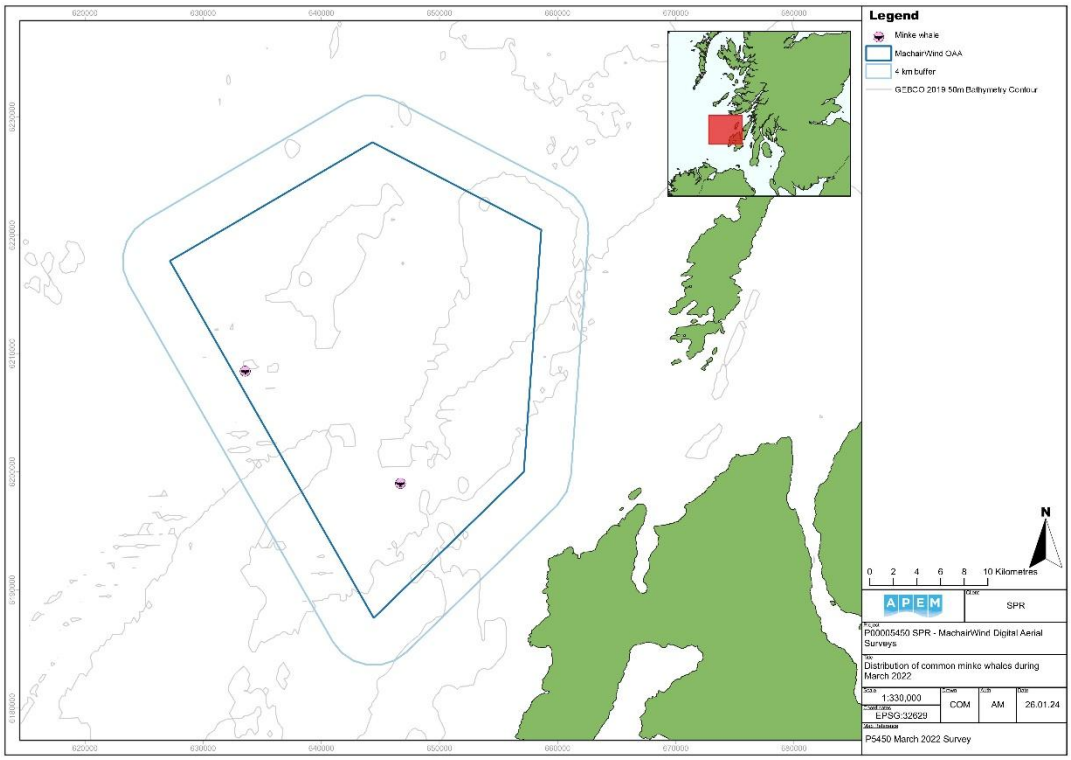


Figure 283 Spatial distribution of common minke whales recorded in the March 2022 survey

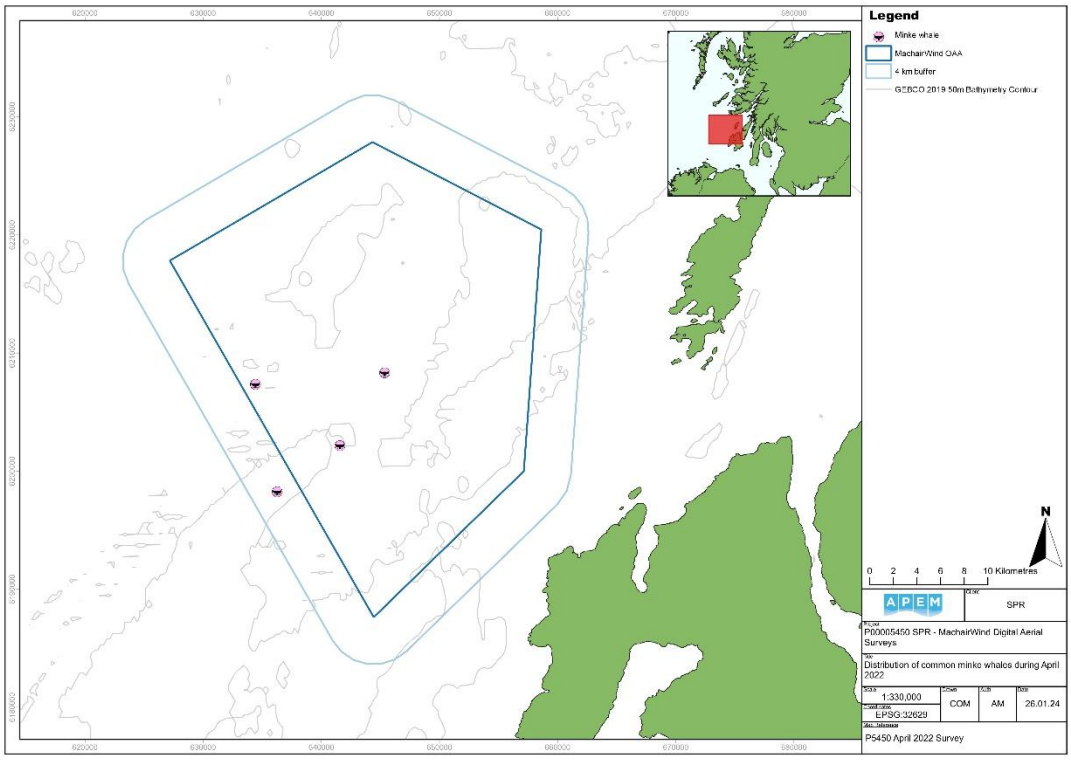


Figure 284 Spatial distribution of common minke whales recorded in the April 2022 survey

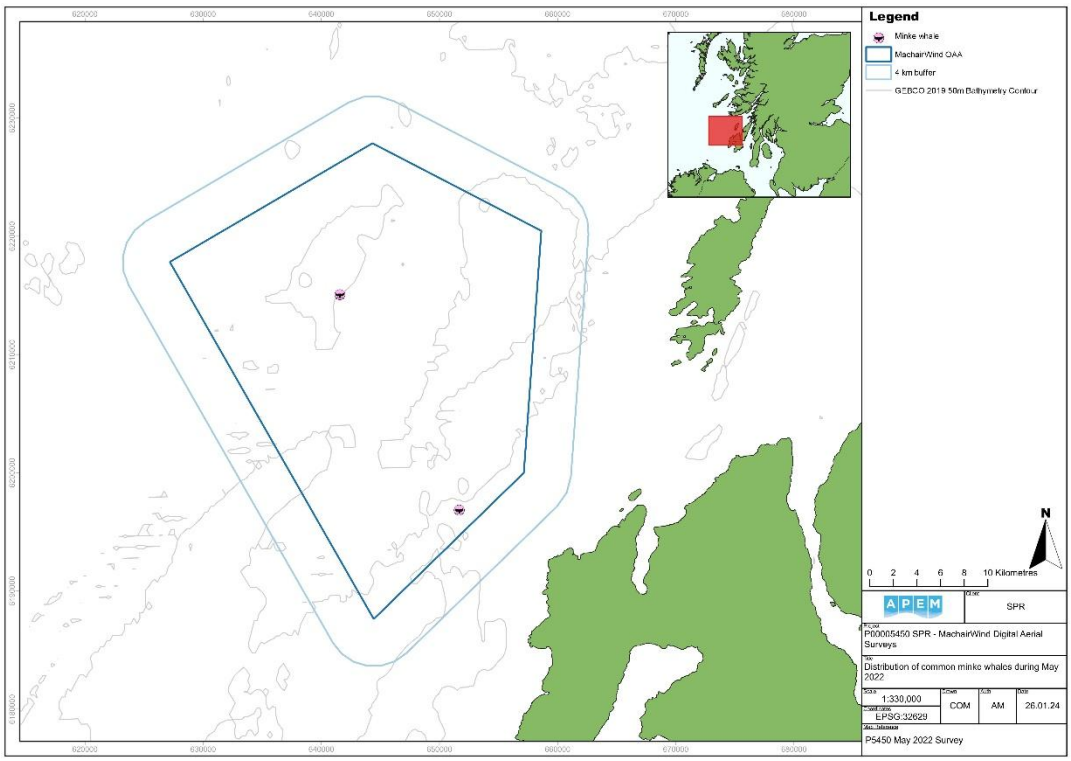


Figure 285 Spatial distribution of common minke whales recorded in the May 2022 survey

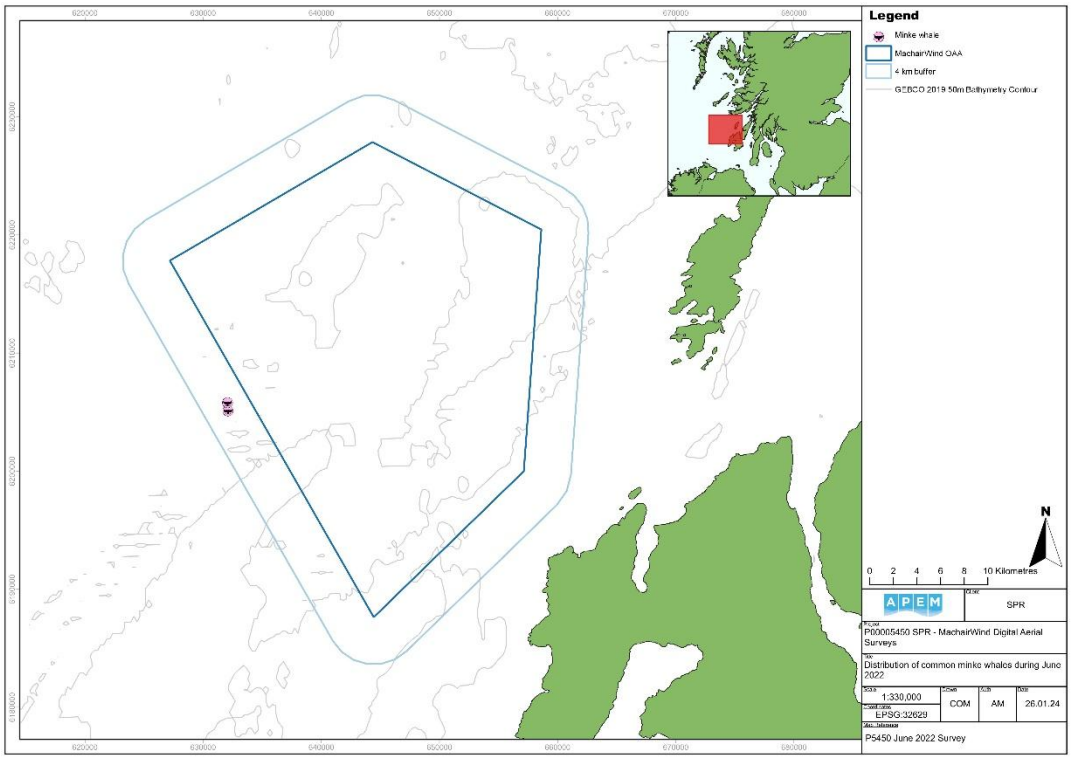


Figure 286 Spatial distribution of common minke whales recorded in the June 2022 survey

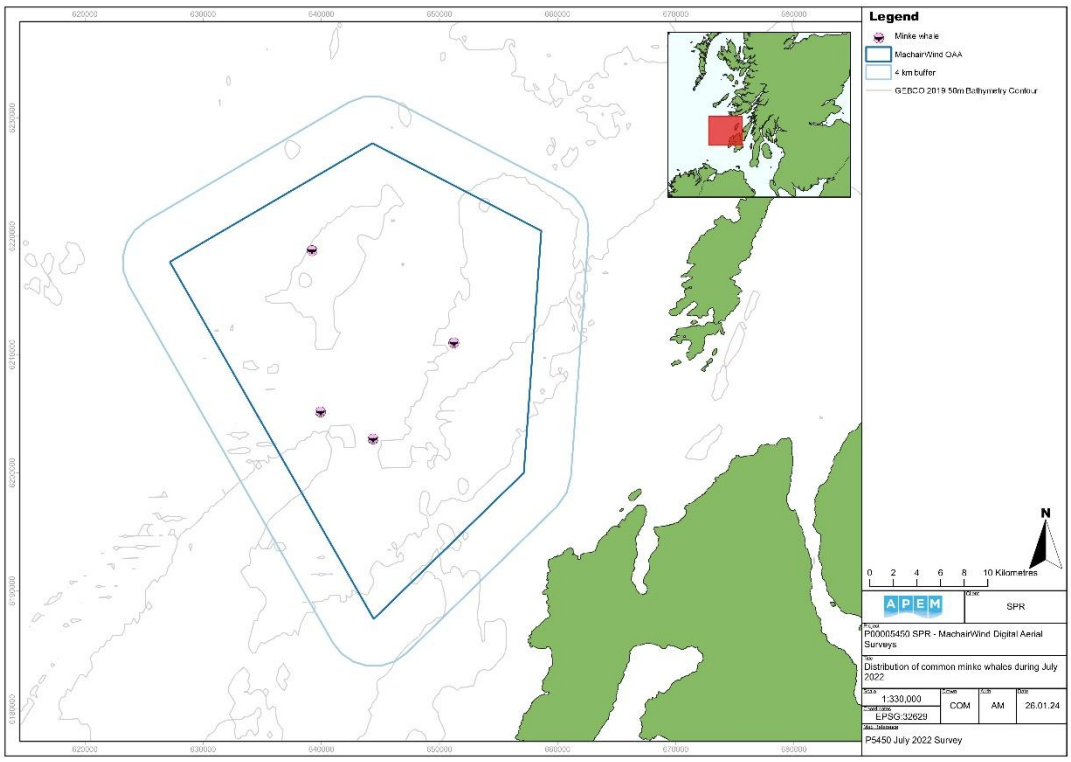


Figure 287 Spatial distribution of common minke whales recorded in the July 2022 survey

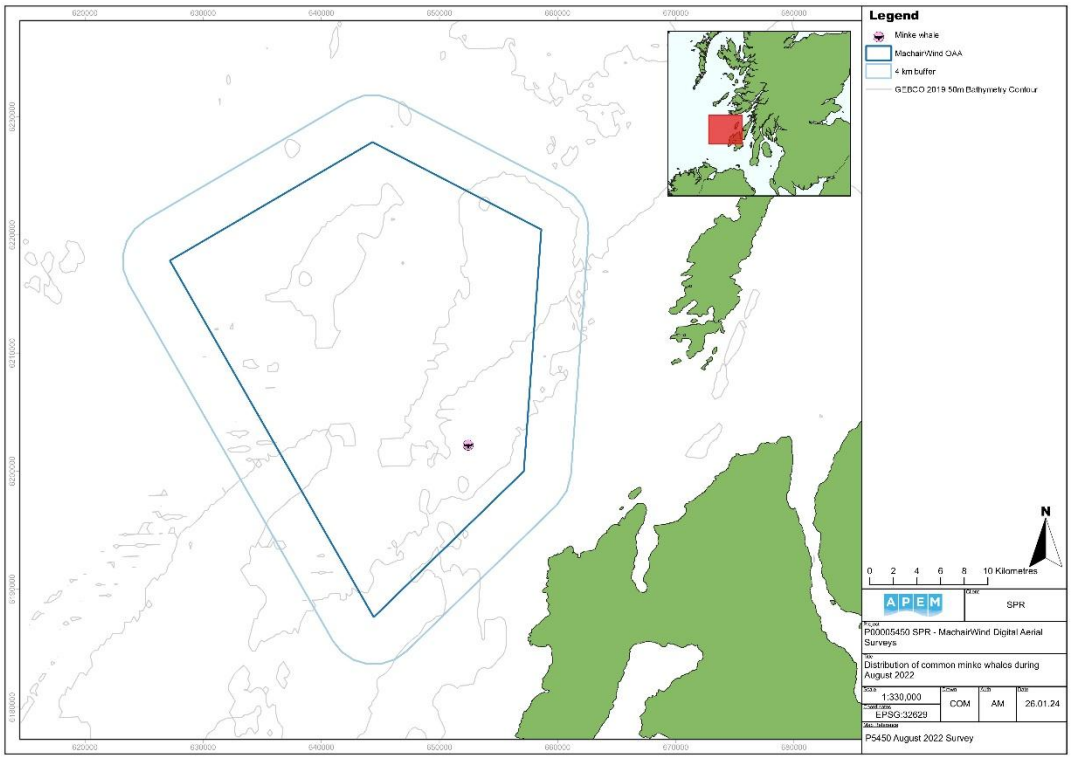


Figure 288 Spatial distribution of common minke whales recorded in the August 2022 survey

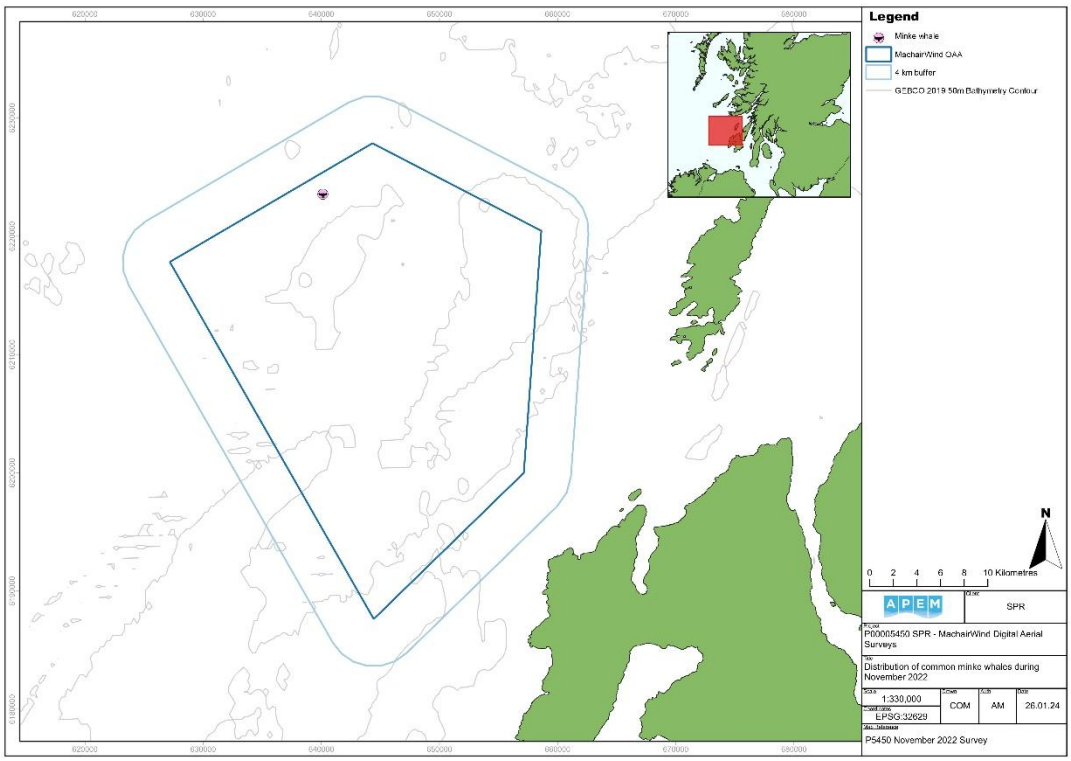


Figure 289 Spatial distribution of common minke whales recorded in the November 2022 survey

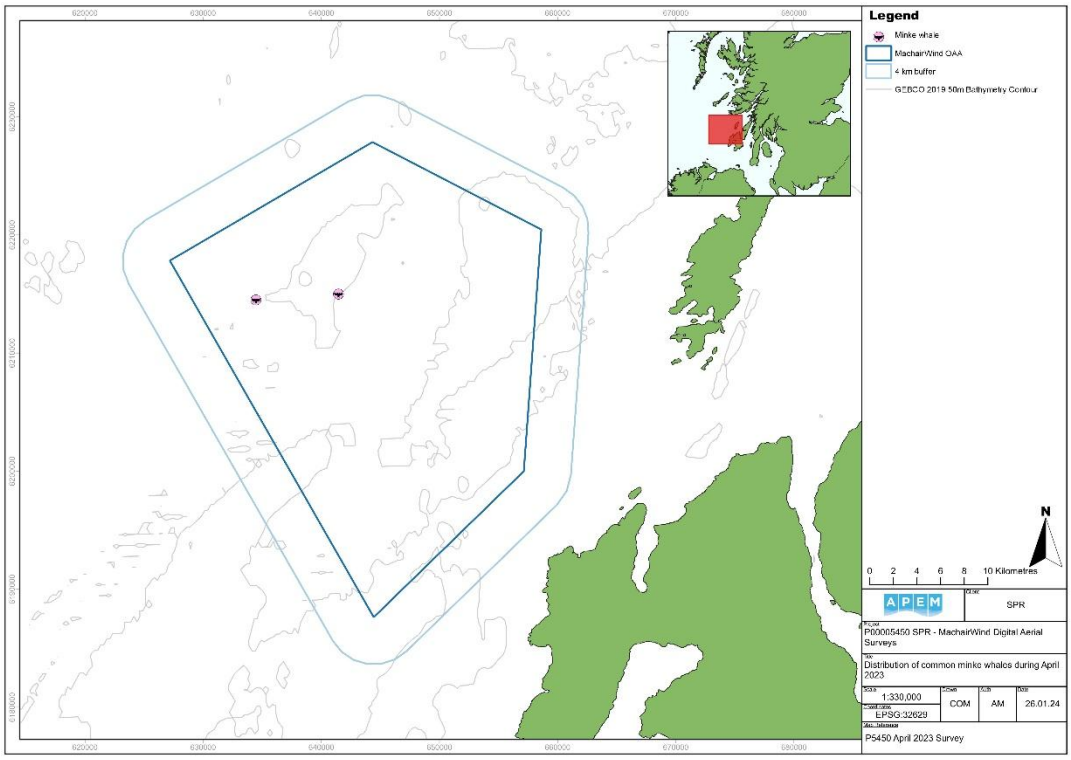


Figure 290 Spatial distribution of common minke whales recorded in the April 2023 survey

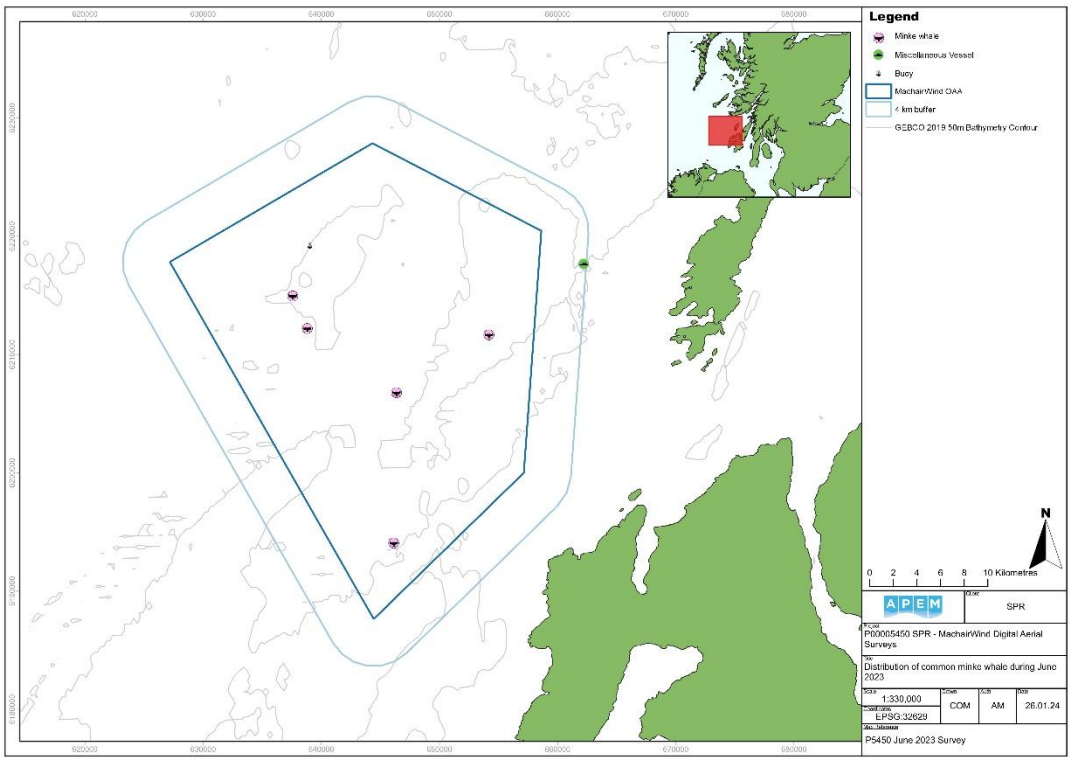


Figure 291 Spatial distribution of common minke whales recorded in the June 2023 survey

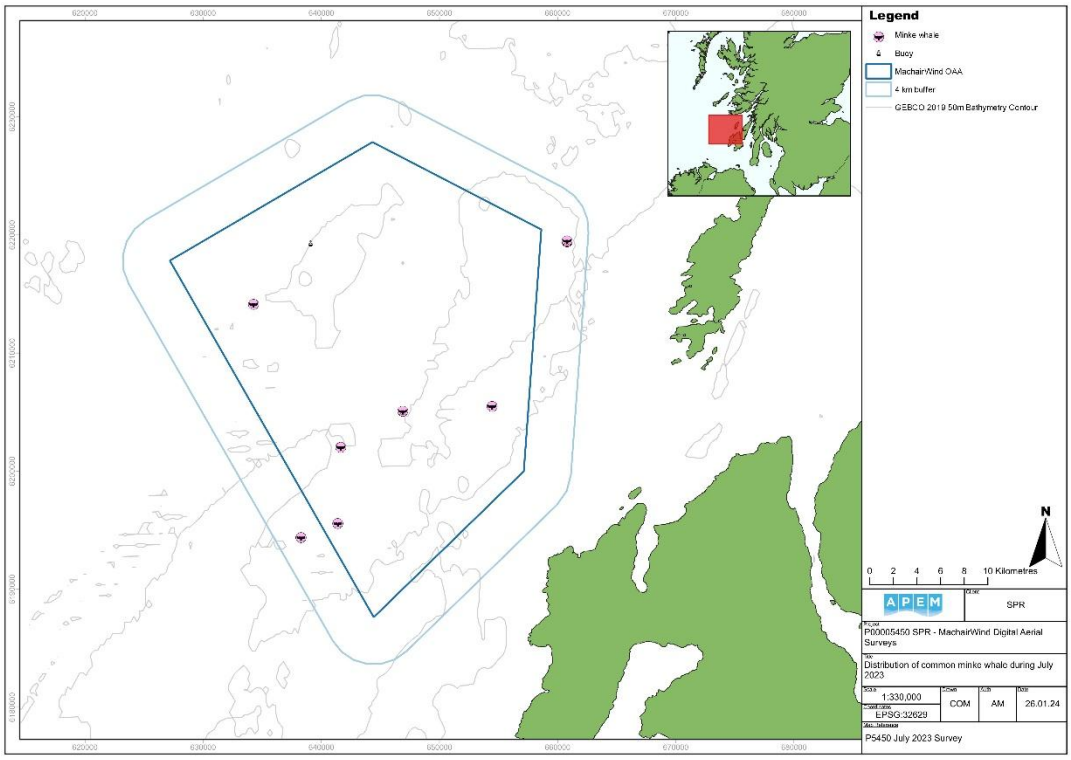


Figure 292 Spatial distribution of common minke whales recorded in the July 2023 survey

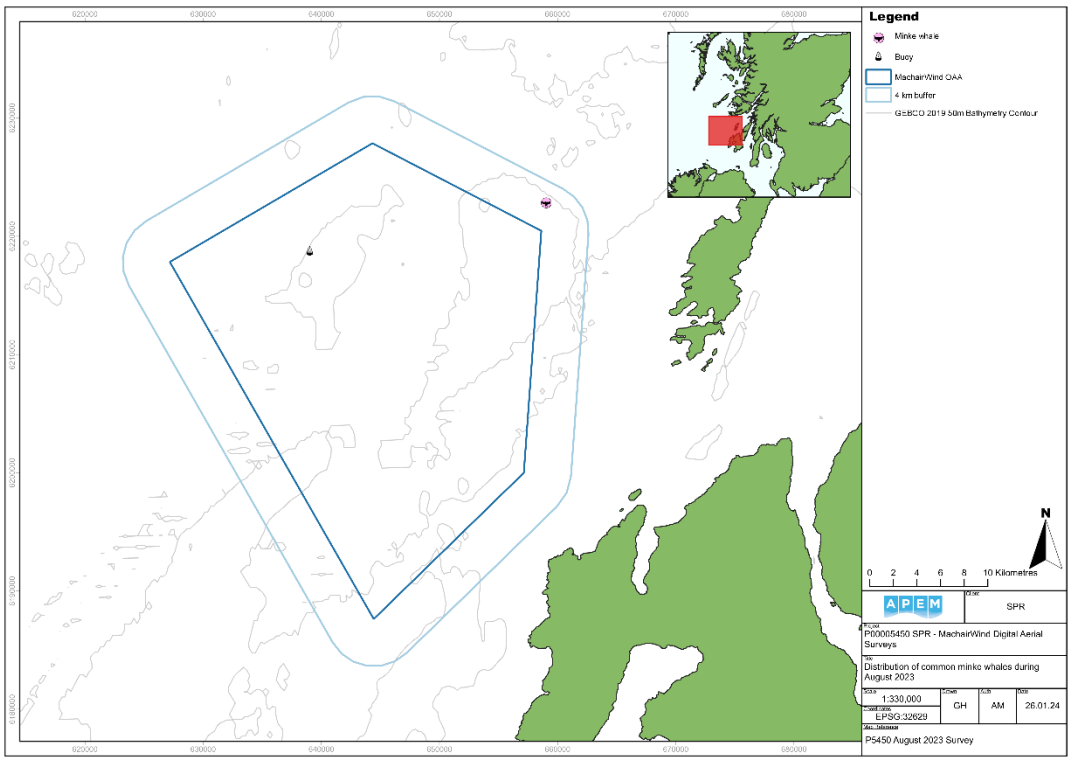


Figure 293 Spatial distribution of common minke whales recorded in the August 2023 survey

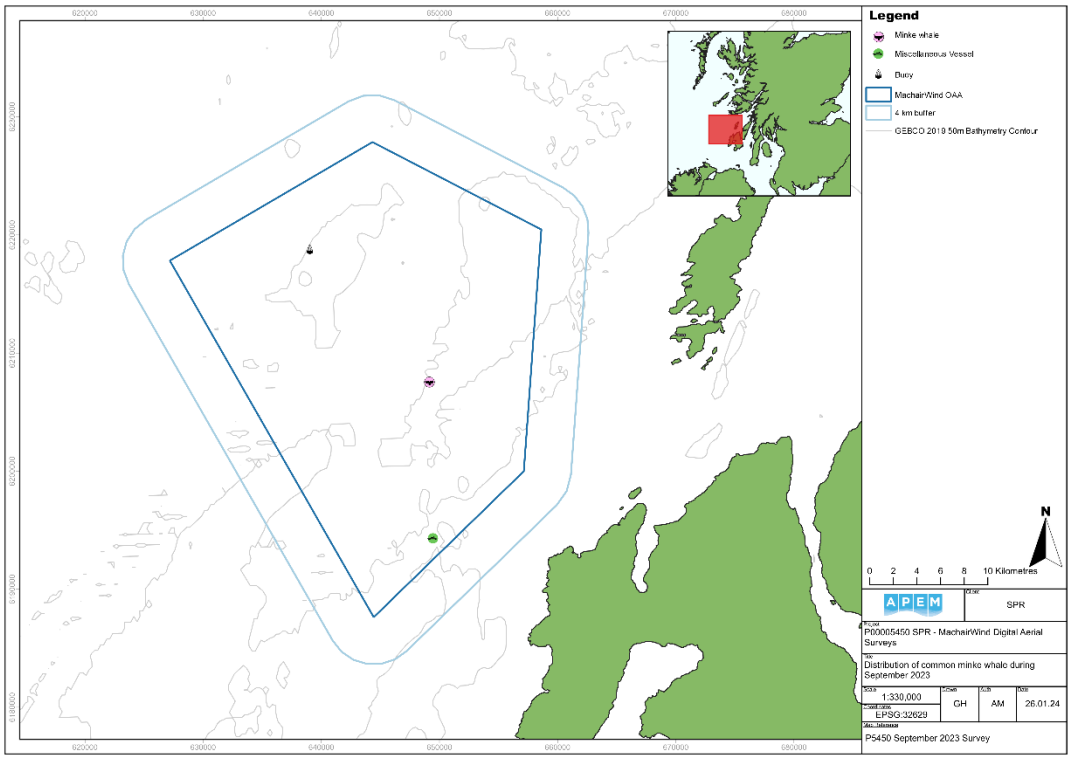


Figure 294 Spatial distribution of common minke whales recorded in the September 2023 survey

11.2.5 Basking sharks

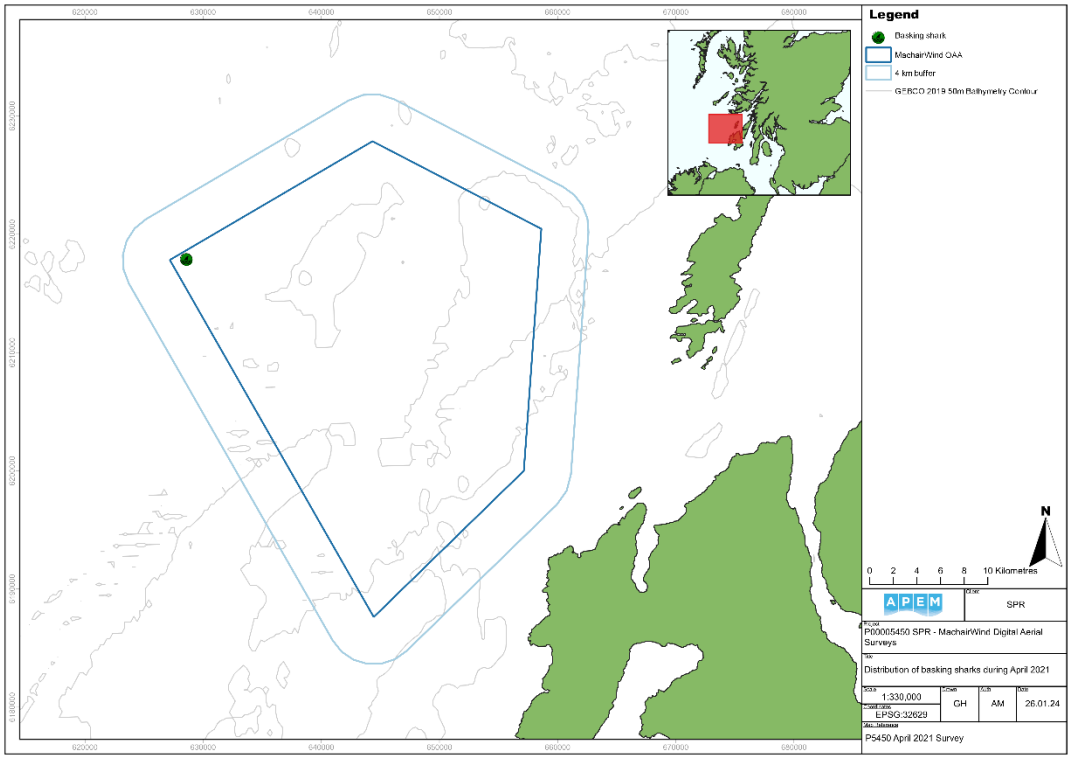


Figure 295 Spatial distribution of basking sharks recorded in the April 2021 survey

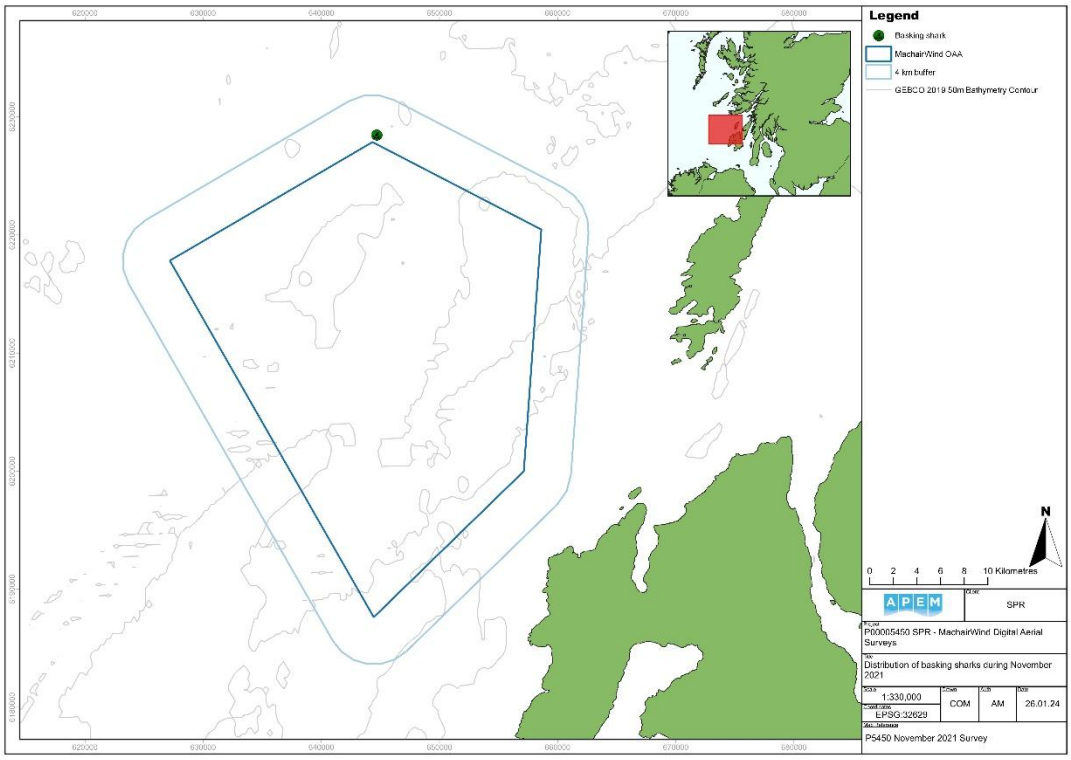


Figure 296 Spatial distribution of basking sharks recorded in the November 2021 survey

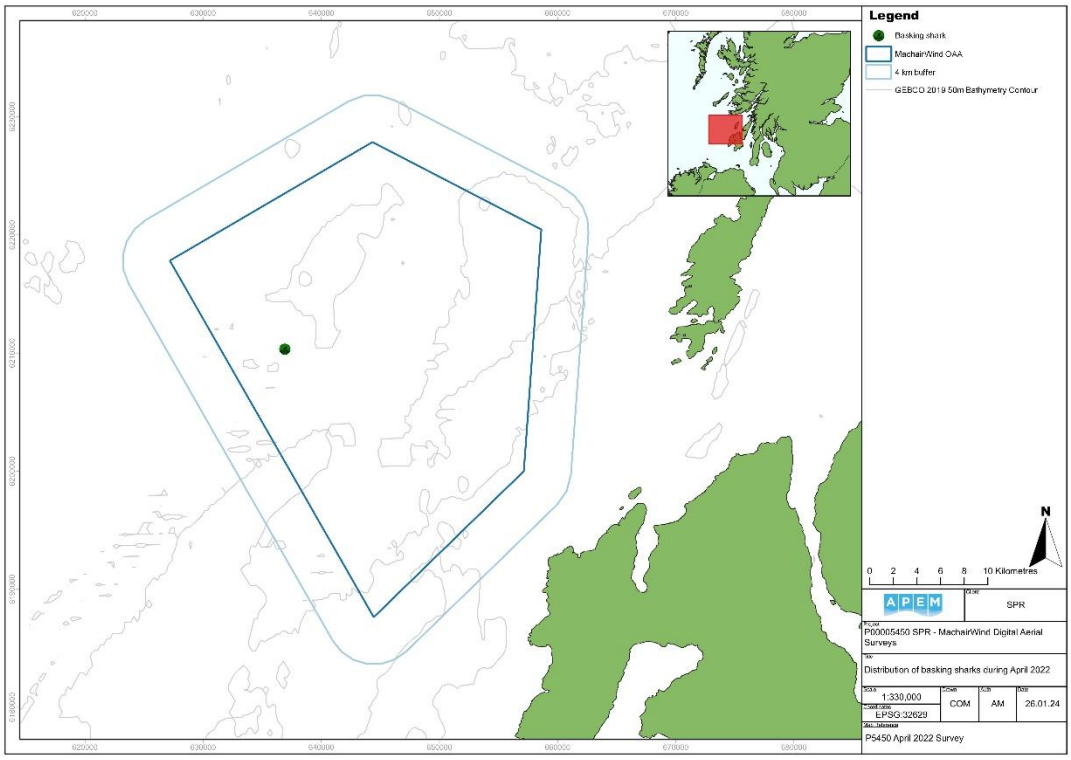


Figure 297 Spatial distribution of basking sharks recorded in the April 2022 survey

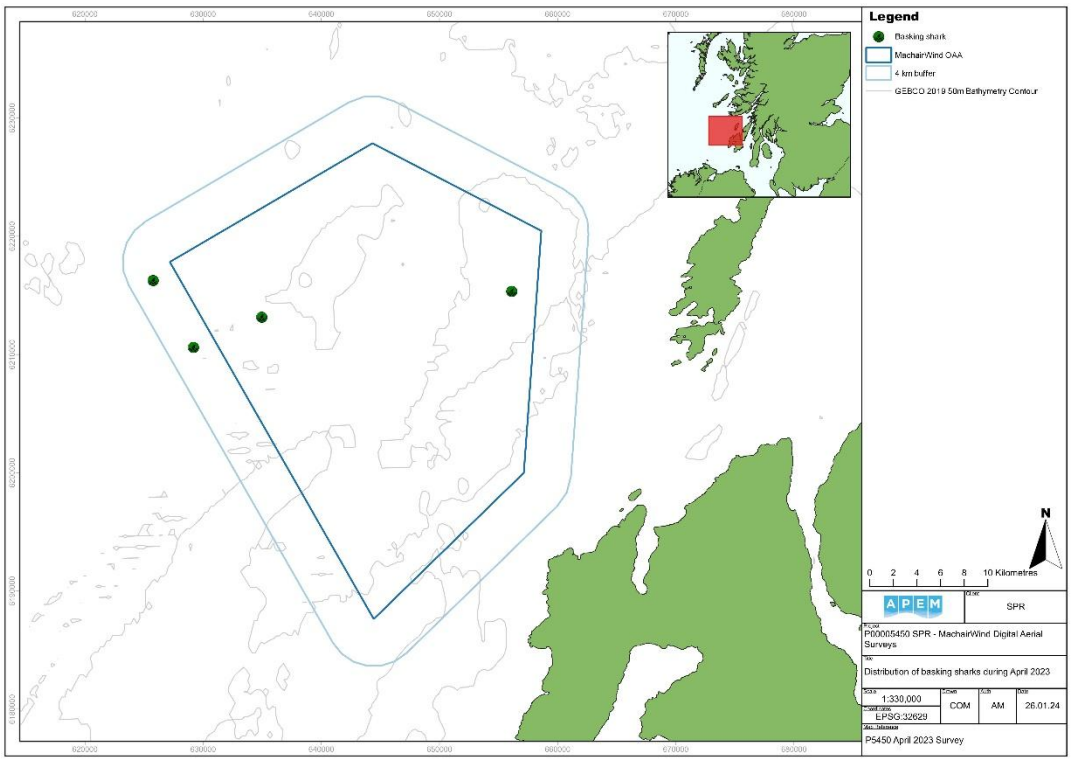


Figure 298 Spatial distribution of basking sharks recorded in the April 2023 survey

12.Appendix IV Spatial Density Distribution Maps

12.1 Birds

12.1.1 Kittiwake

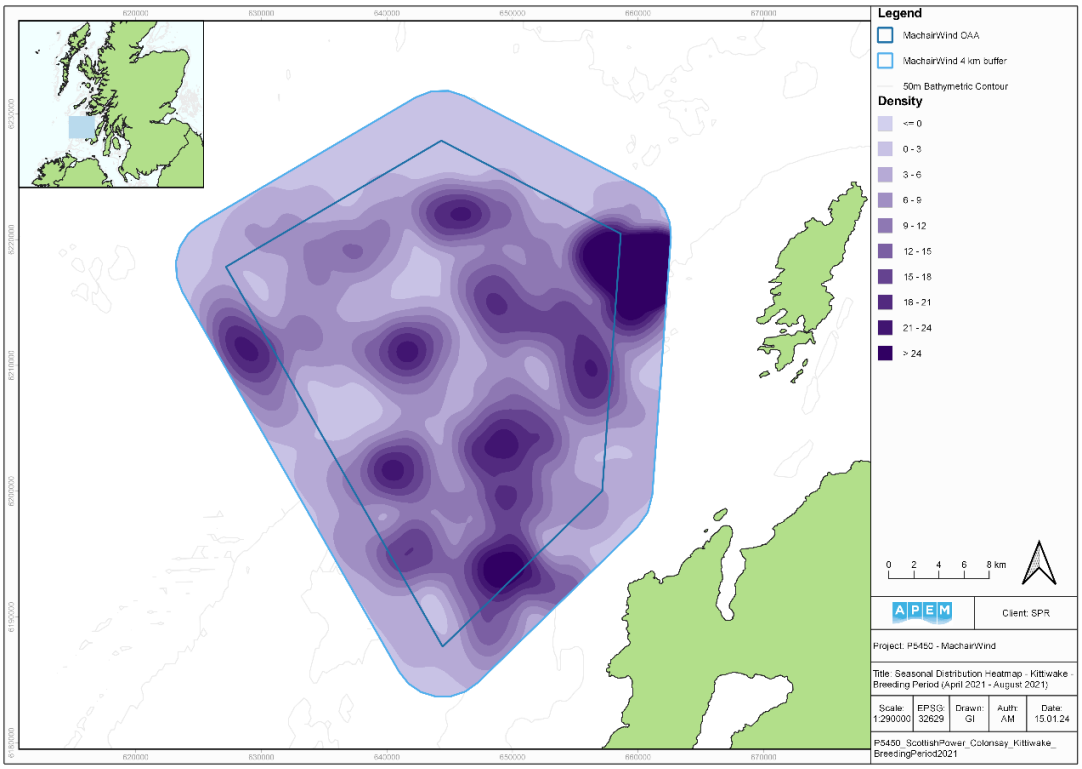


Figure 299 Kittiwake Breeding Period 2021

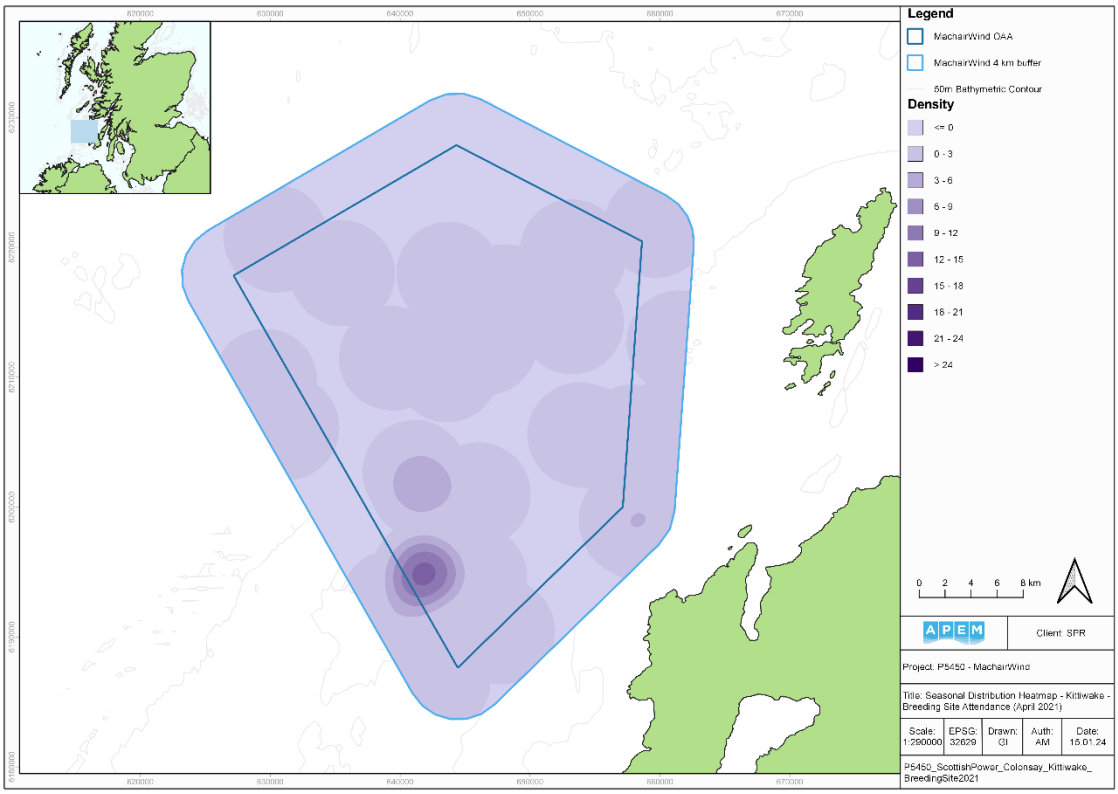


Figure 300 Kittiwake Breeding Site Attendance 2021

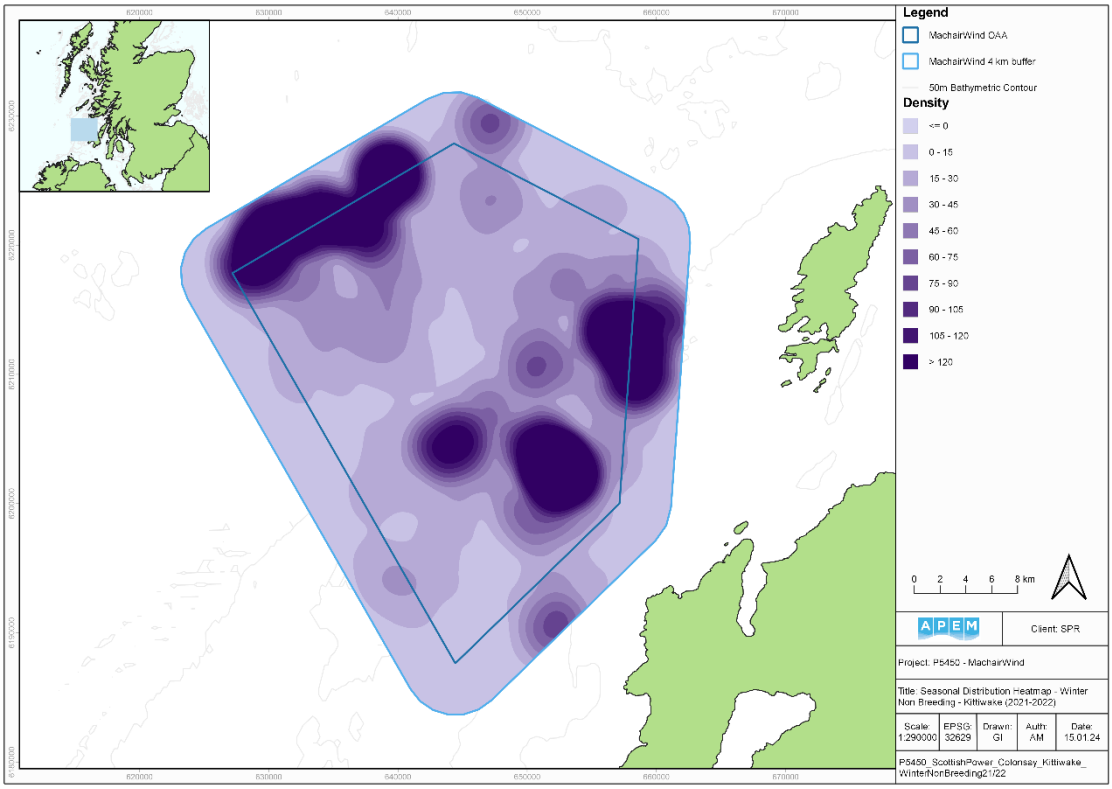


Figure 301 Kittiwake Winter Non-Breeding 2021-2022

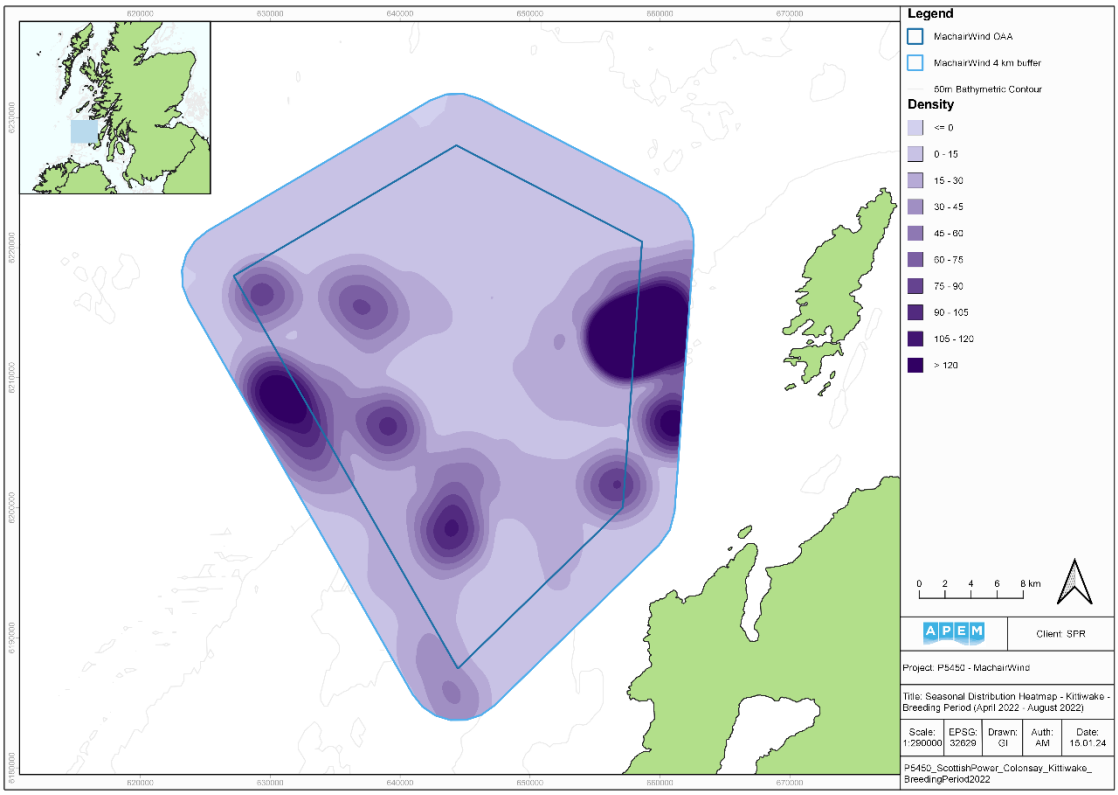


Figure 302 Kittiwake Breeding Period 2022

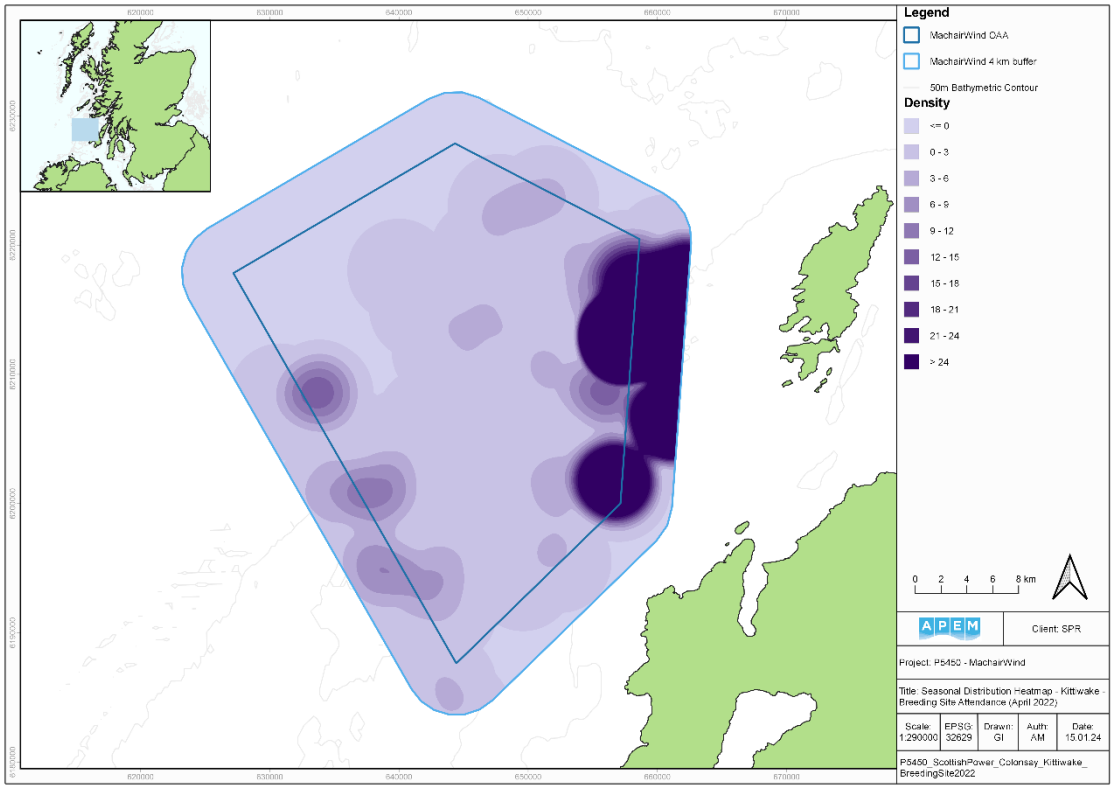


Figure 303 Kittiwake Breeding Site Attendance 2022

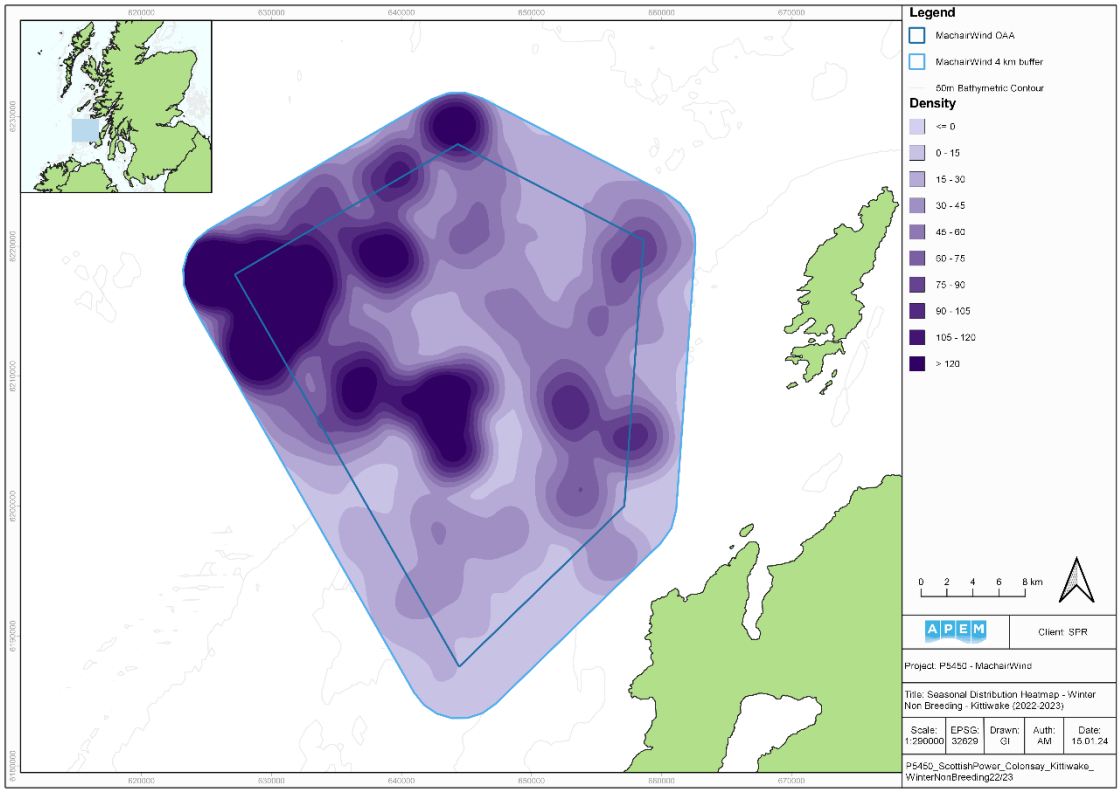


Figure 304 Kittiwake Winter Non-Breeding 2022-2023

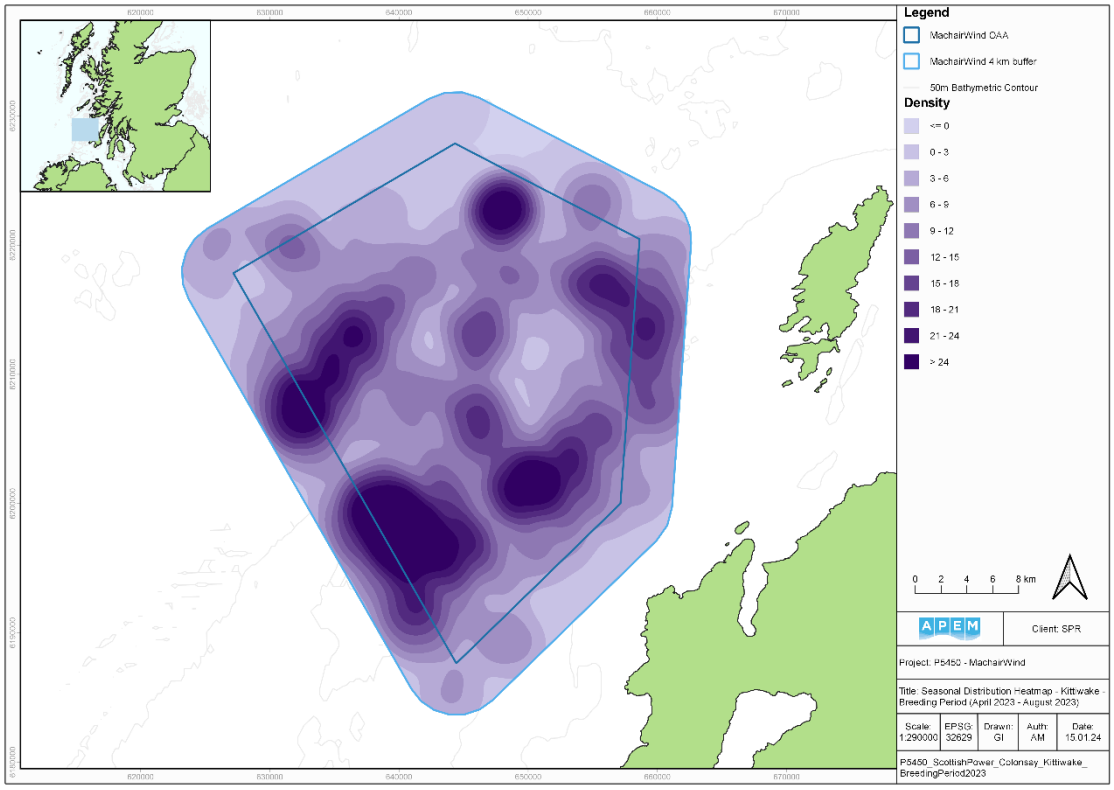


Figure 305 Kittiwake Breeding Period 2023

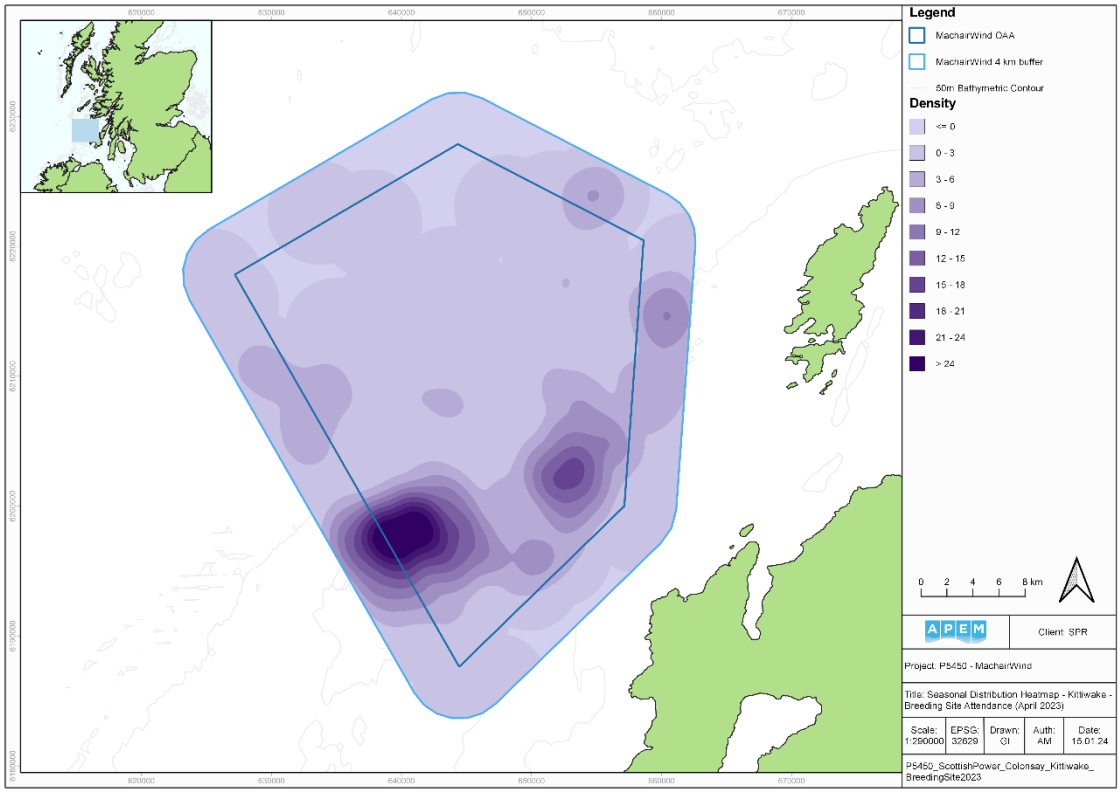


Figure 306 Kittiwake Breeding Site Attendance 2023

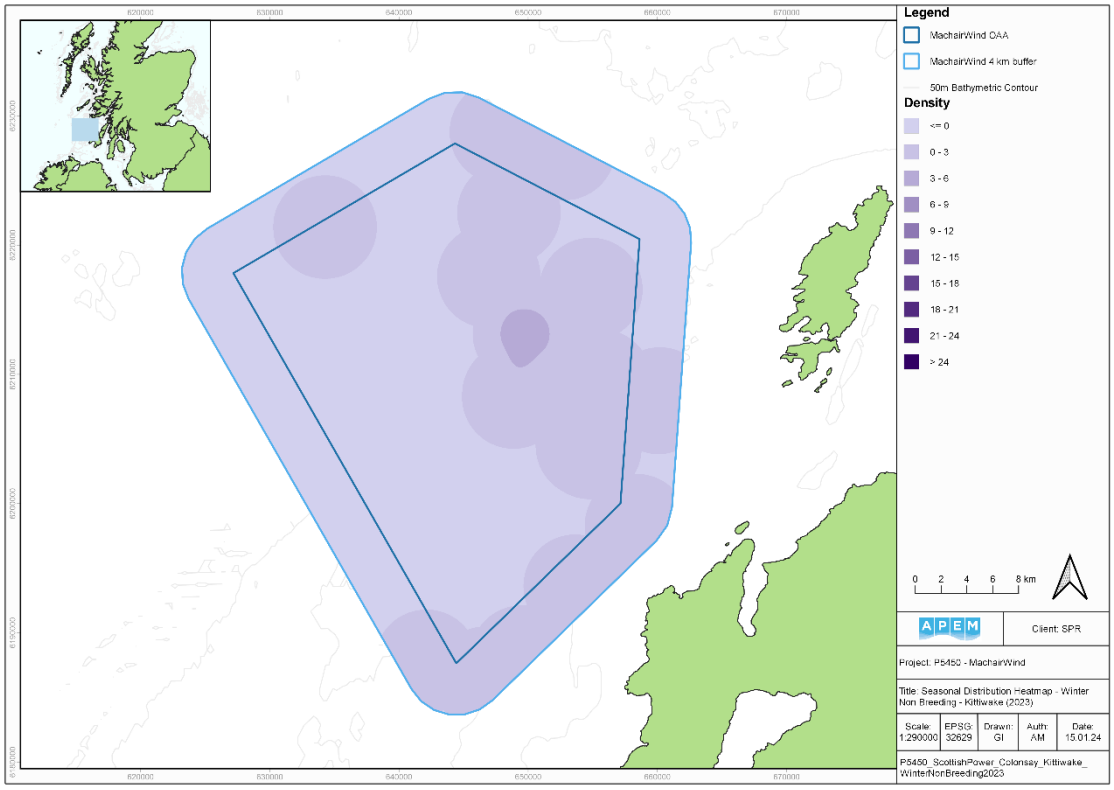


Figure 307 Kittiwake Winter Non-Breeding 2023

12.1.2 Great black-backed gull

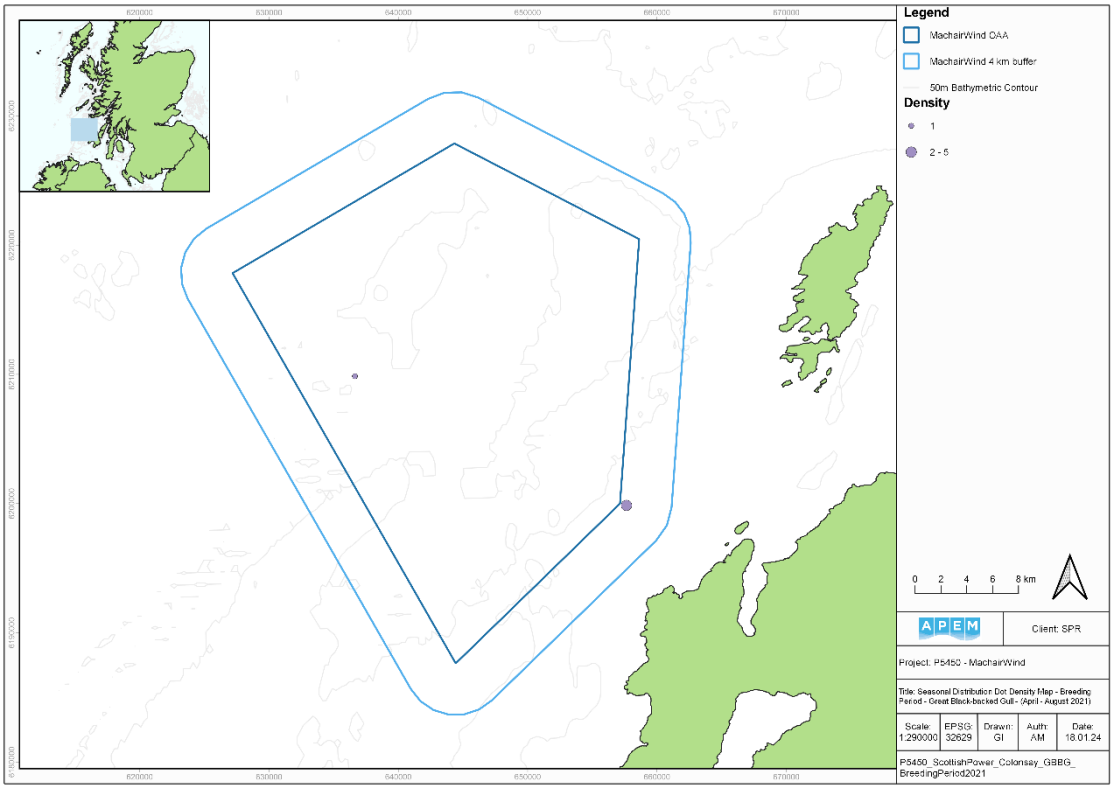


Figure 308 Great Black-backed Gull Breeding Period 2021

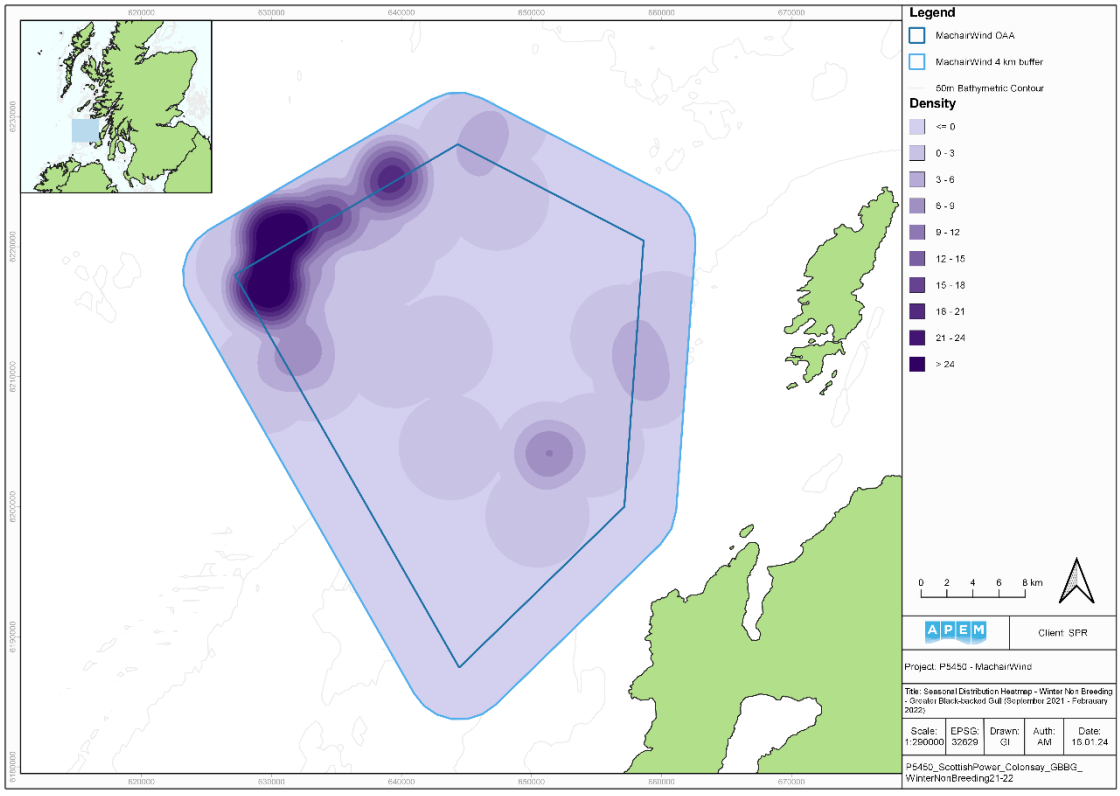


Figure 309 Great Black-backed Gull Winter Non-Breeding 2021-2022

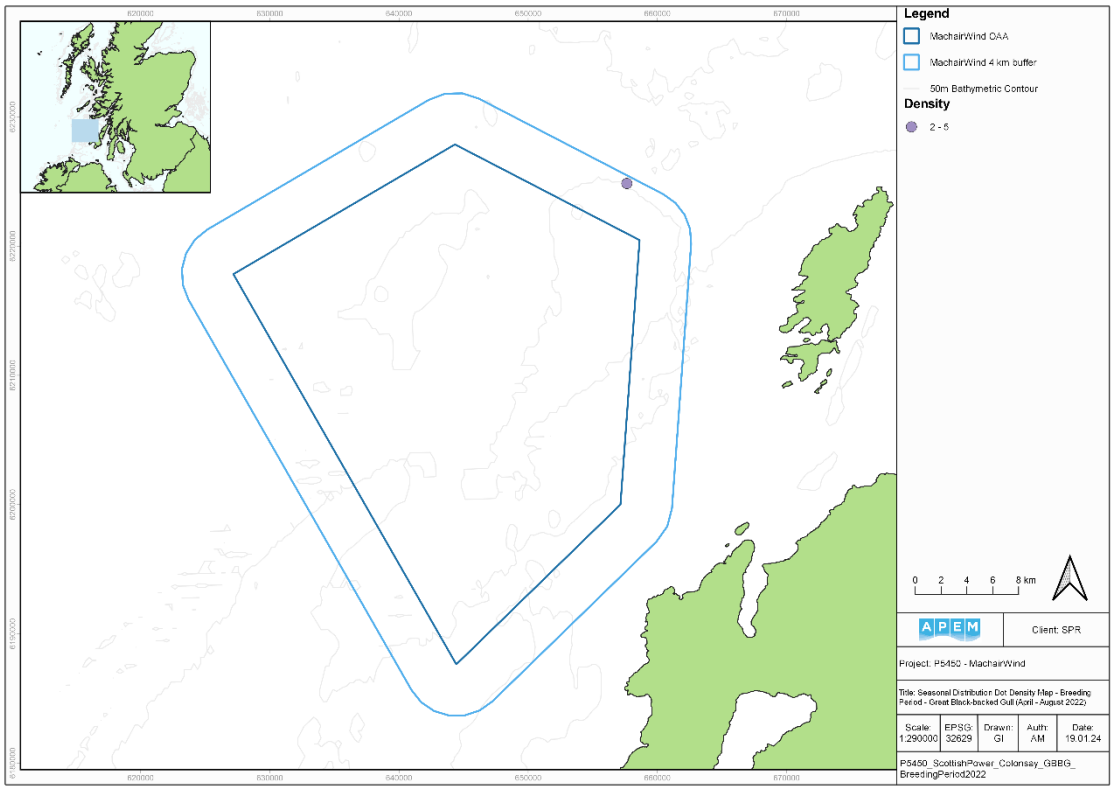


Figure 310 Great Black-backed Gull Breeding Period 2022

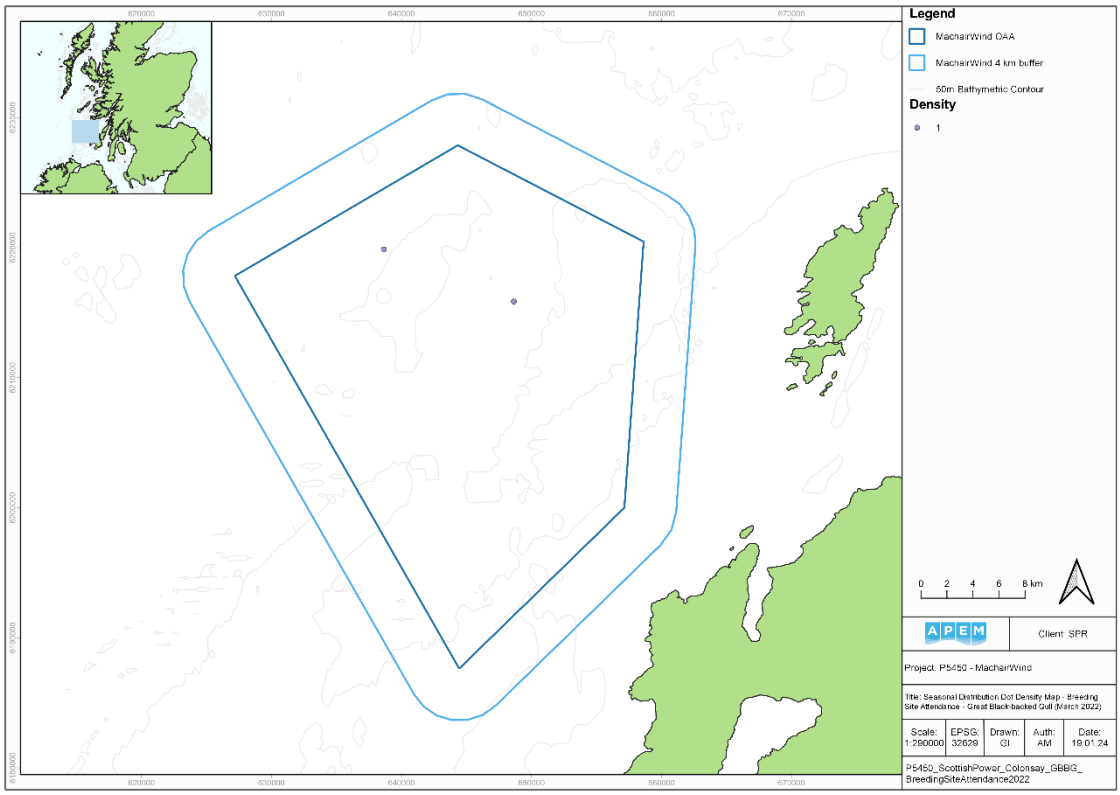


Figure 311 Great Black-backed Gull Breeding Site Attendance 2022

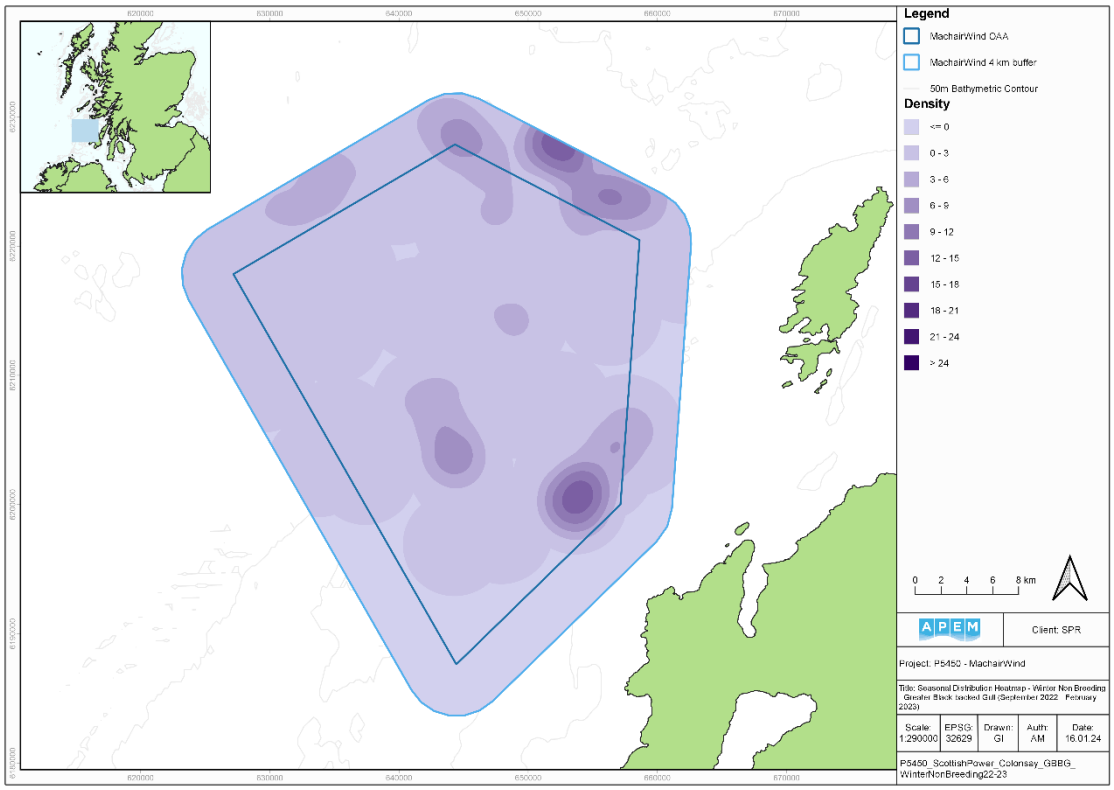


Figure 312 Great Black-backed Gull Winter Non-Breeding 2022-2023

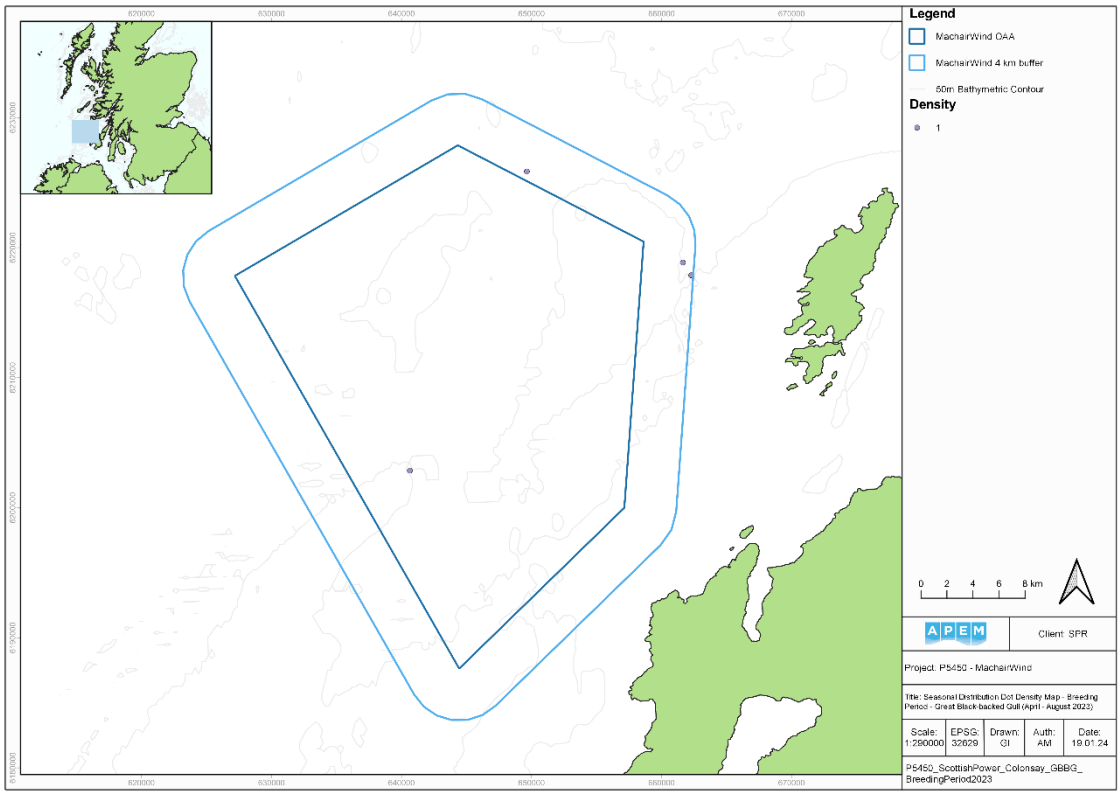


Figure 313 Great Black-backed Gull Breeding Period 2023

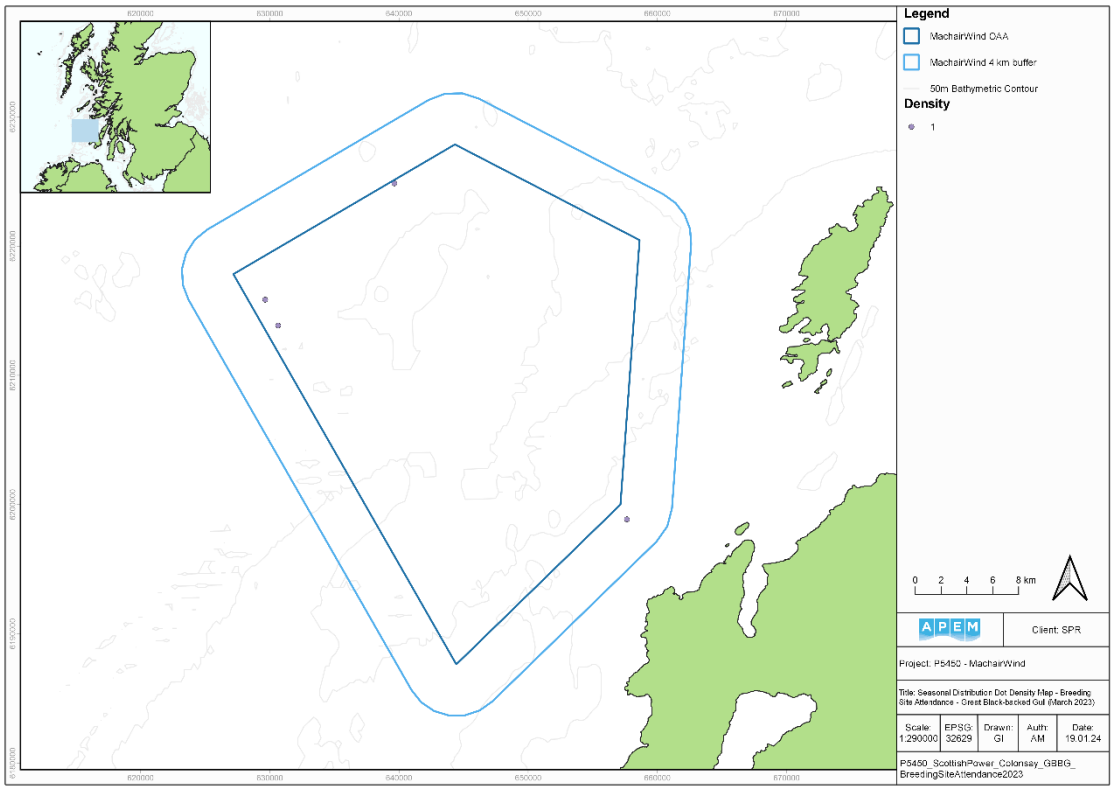


Figure 314 Great Black-backed Gull Breeding Site Attendance 2023

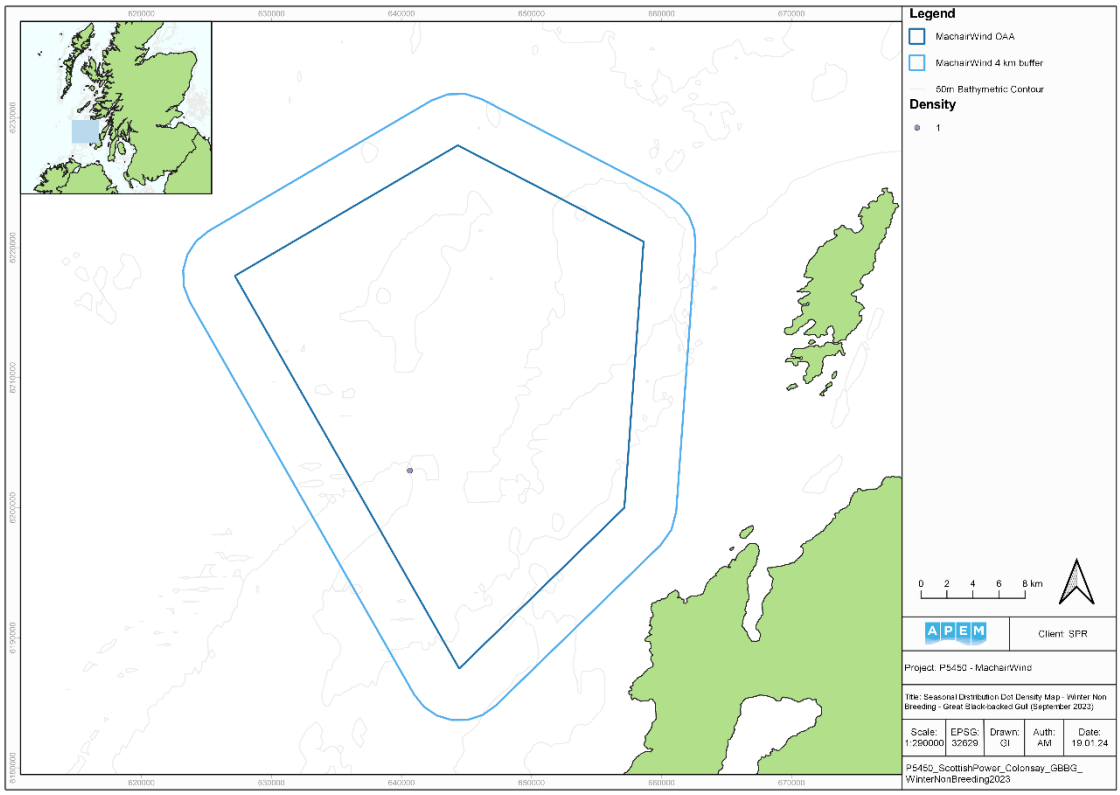


Figure 315 Great Black-backed Gull Winter Non-Breeding 2023

12.1.3 Herring Gull

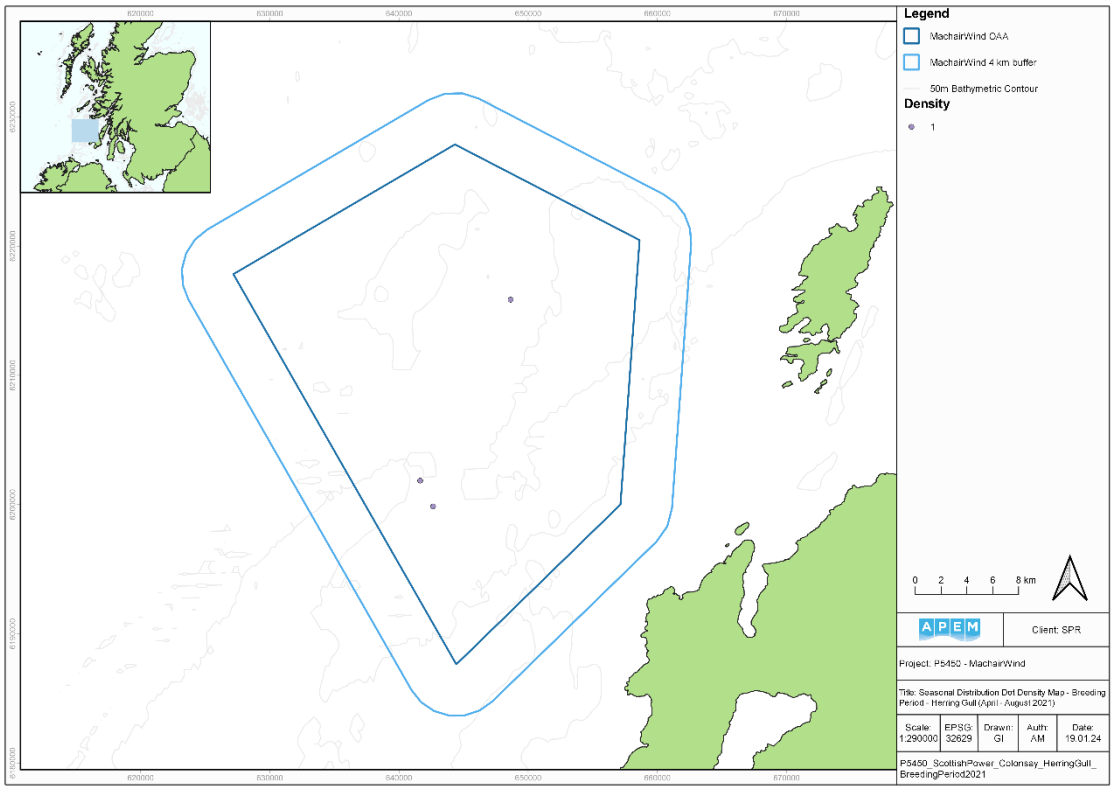


Figure 316 Herring Gull Breeding Period 2021

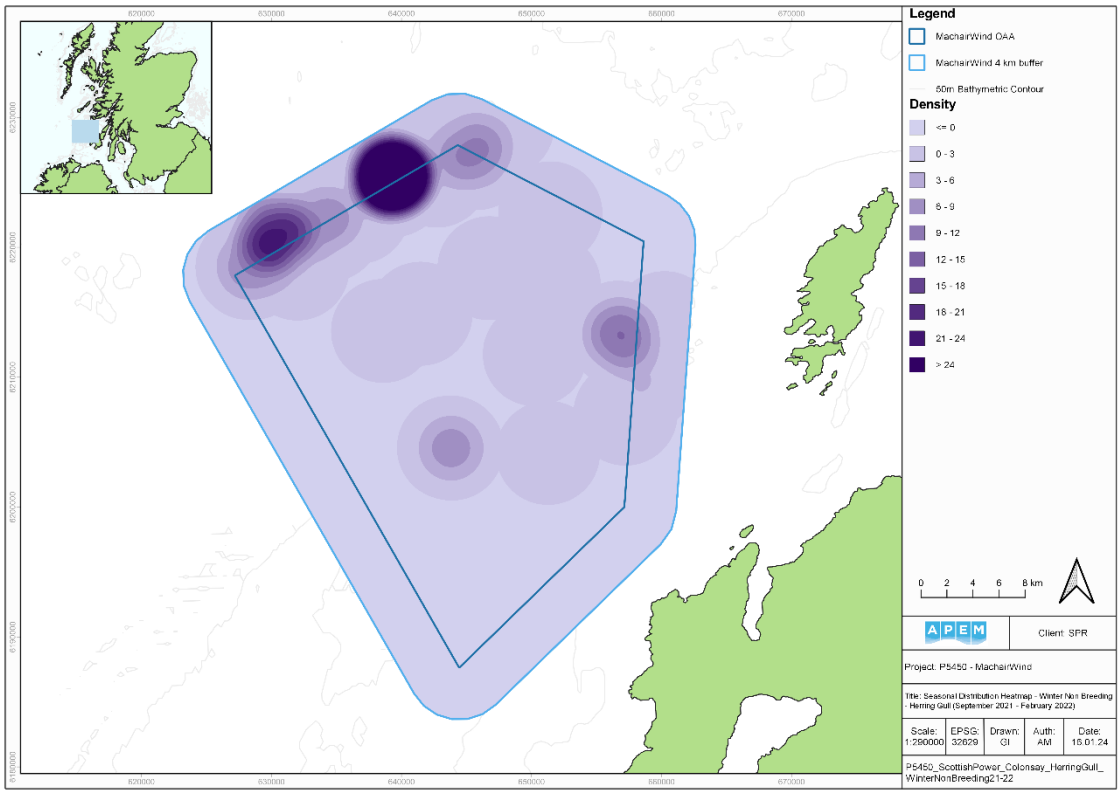


Figure 317 Herring Gull Winter Non-Breeding 2021 - 2022

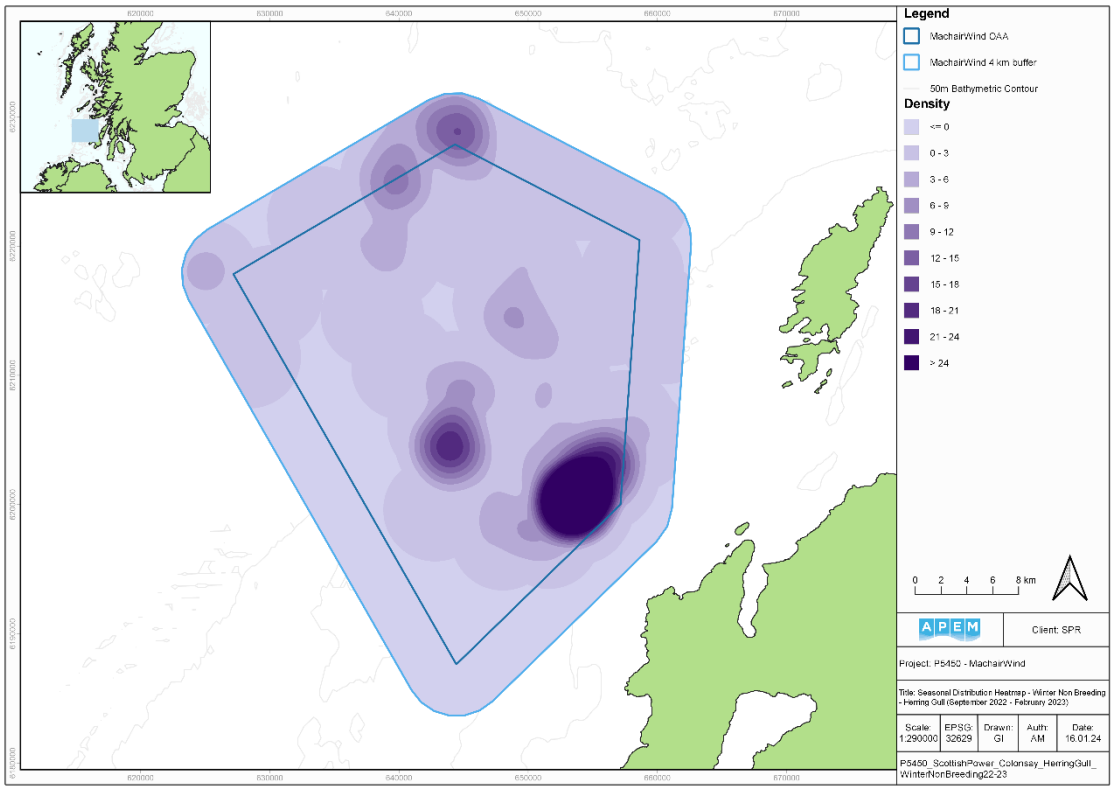


Figure 318 Herring Gull Winter Non-Breeding 2022 - 2023

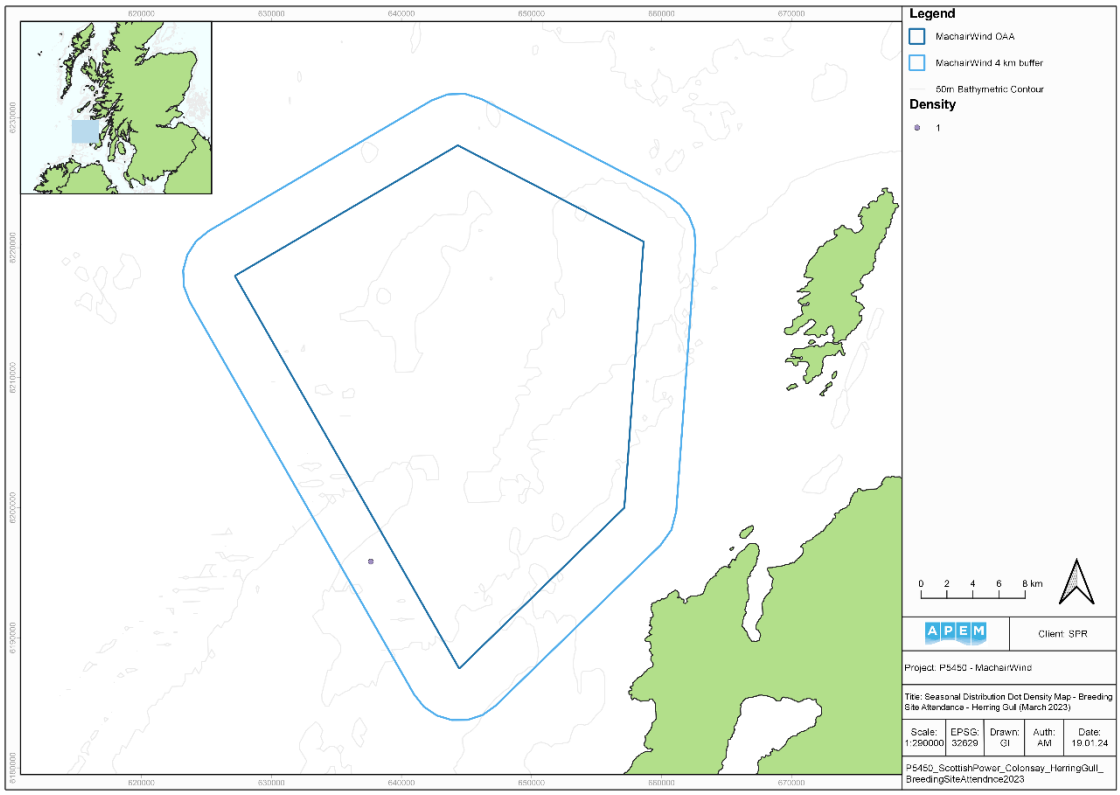


Figure 319 Herring Gull Breeding Site Attendance 2023

12.1.4 Common Tern

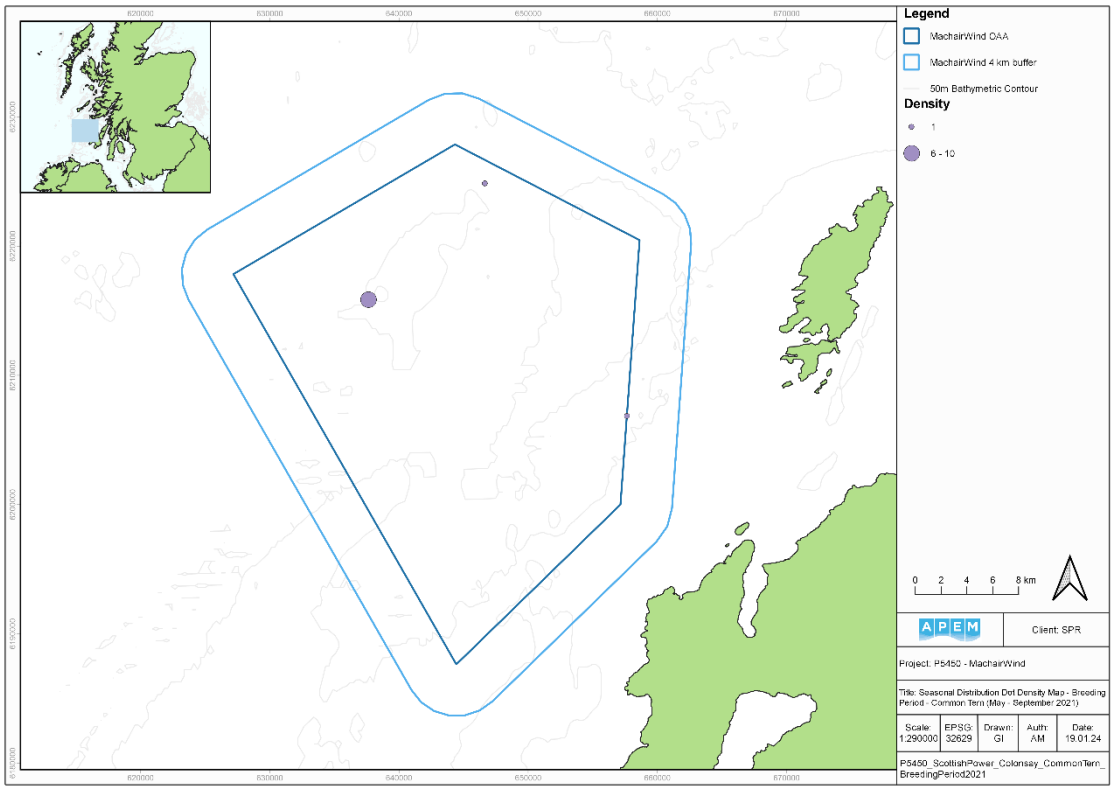


Figure 320 Common Tern Breeding Period 2021

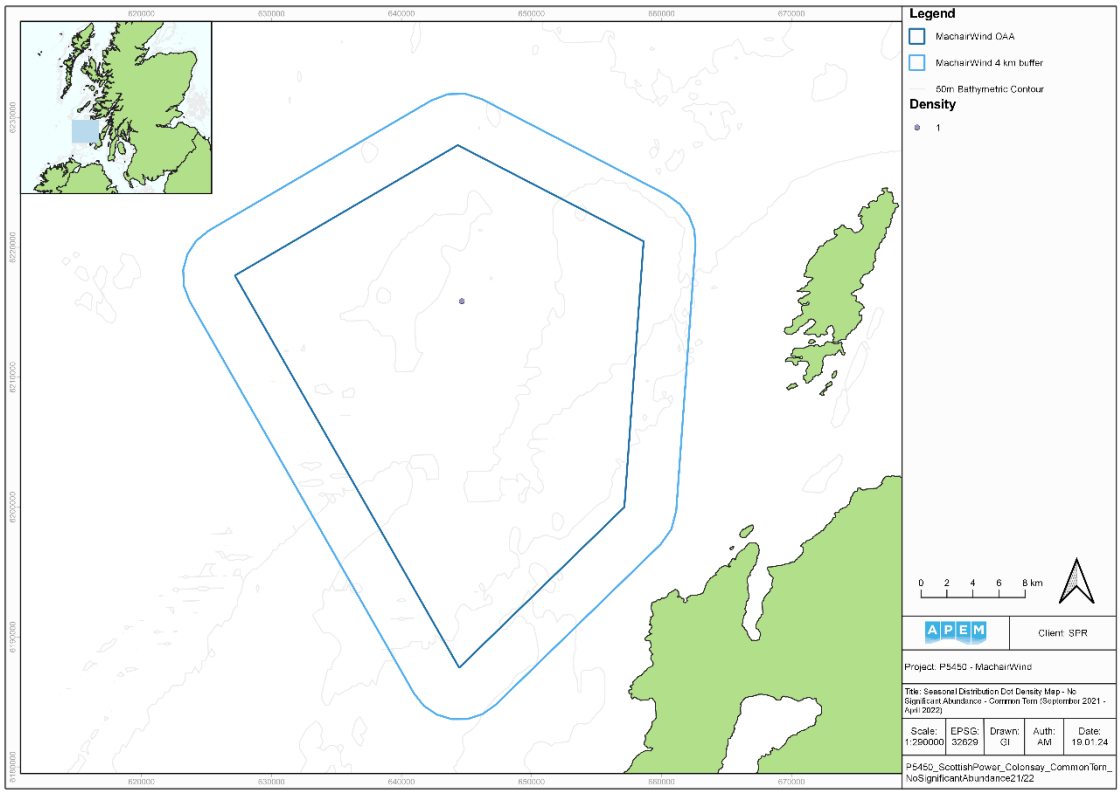


Figure 321 Common Tern No Significant Abundance in Scottish Waters 2021 - 2022

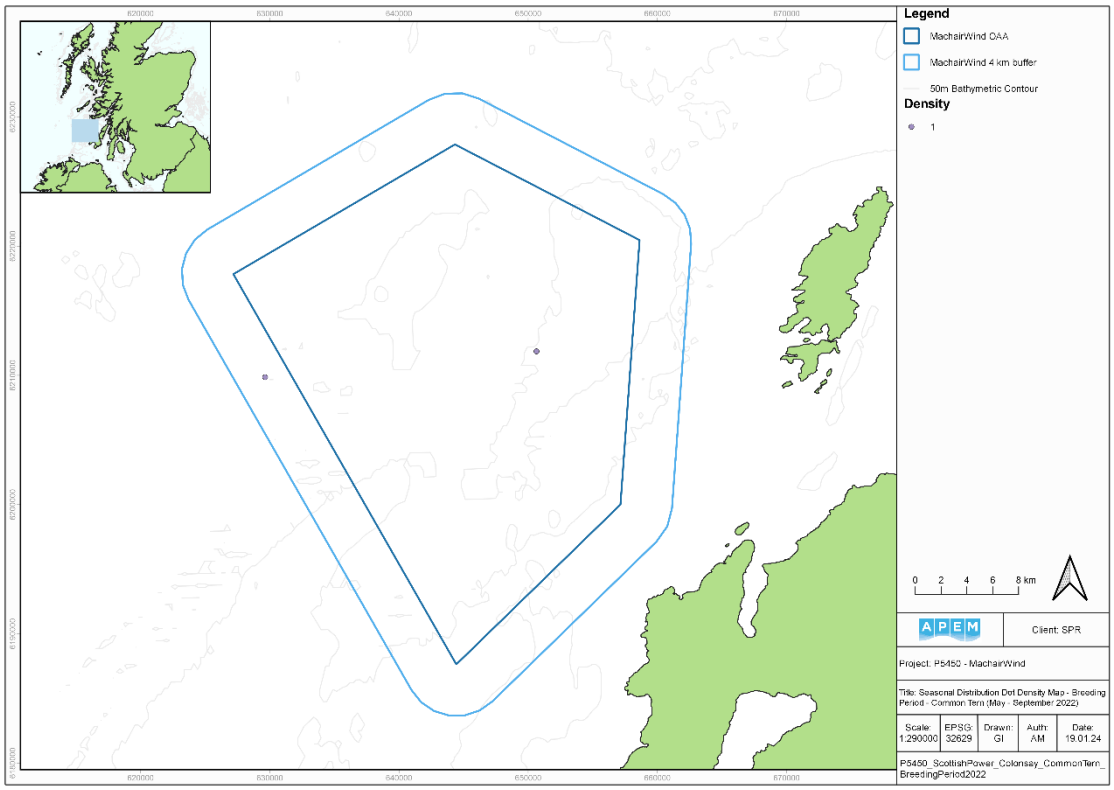


Figure 322 Common Tern Breeding Period 2022

12.1.5 Arctic Tern

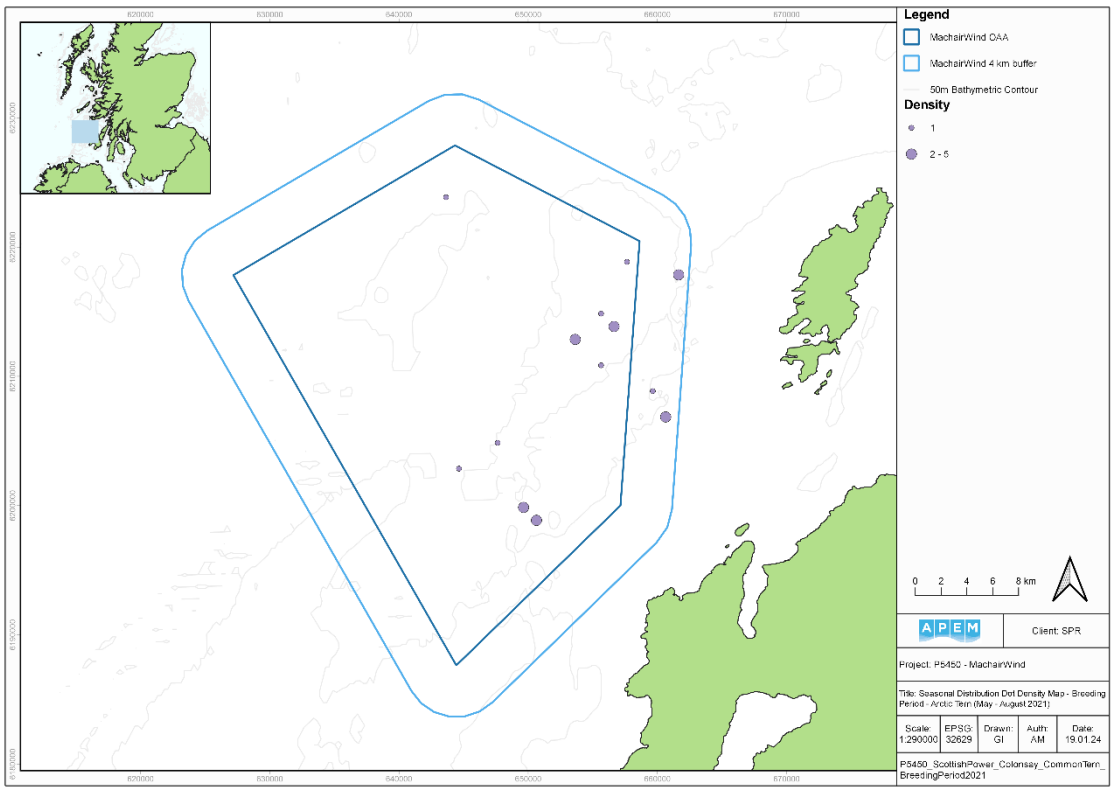


Figure 323 Arctic Tern Breeding Period 2021

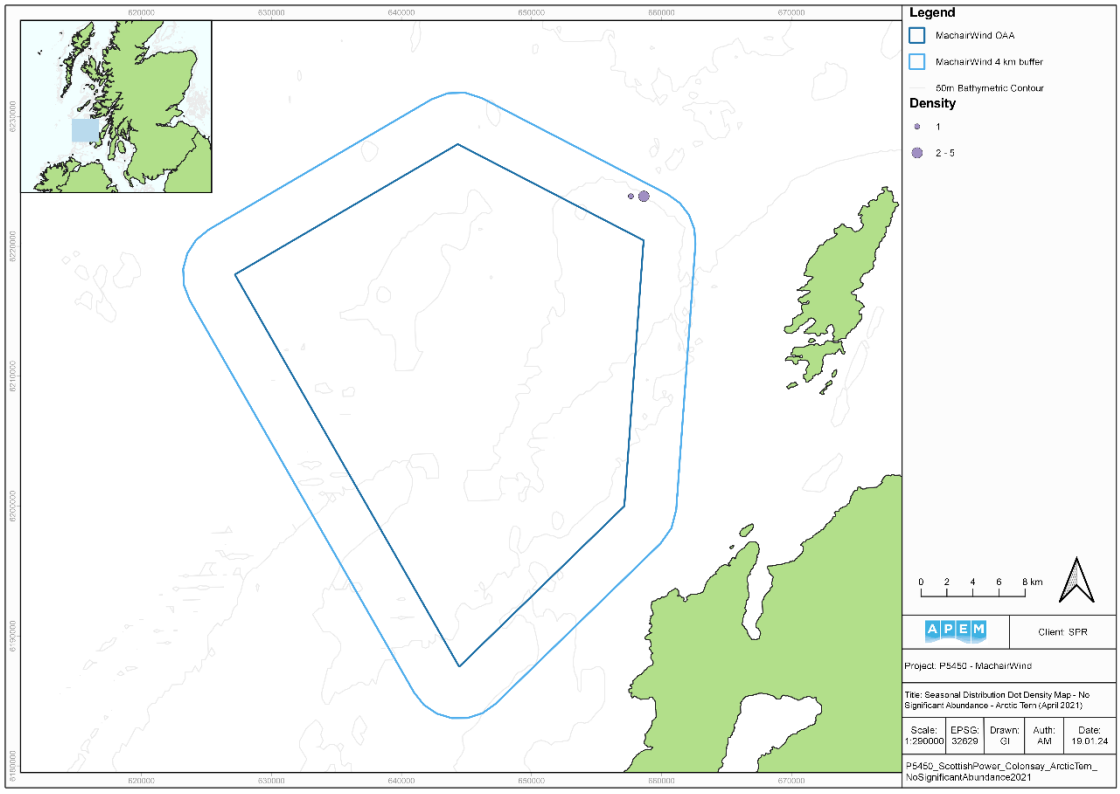


Figure 324 Arctic Tern No Significant Abundance in Scottish Waters 2021

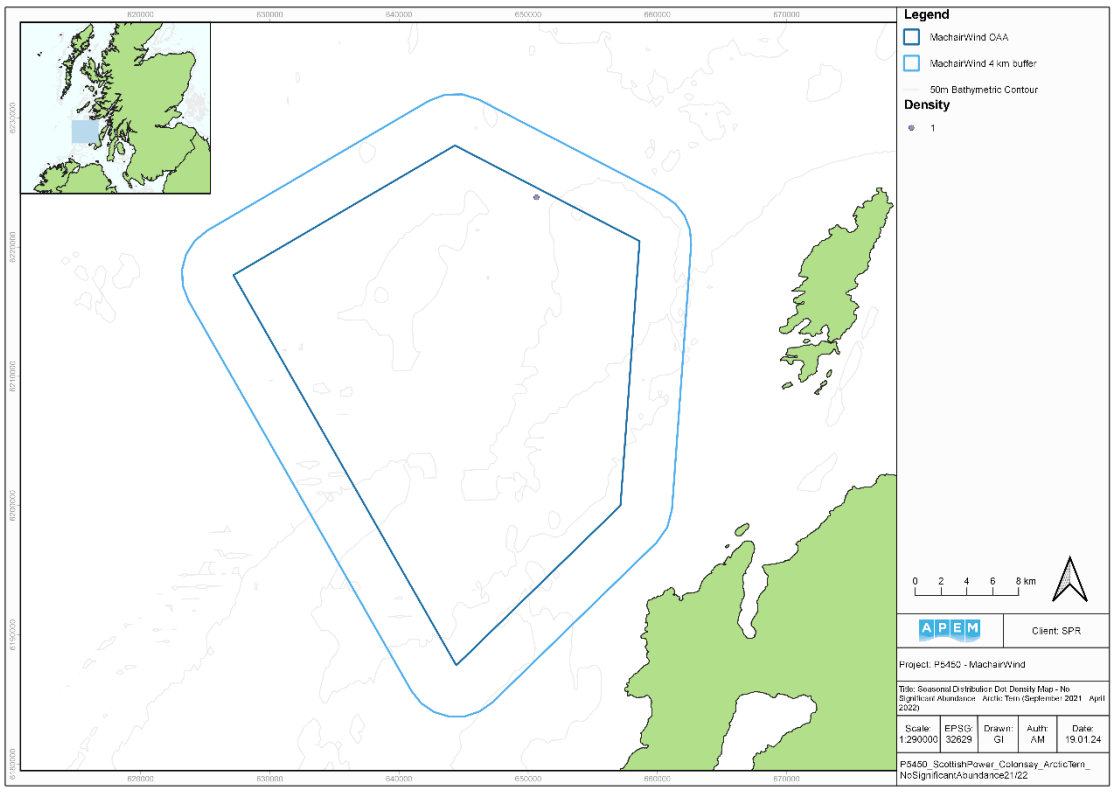


Figure 325 Arctic Tern No Significant Abundance in Scottish Waters 2021 - 2022

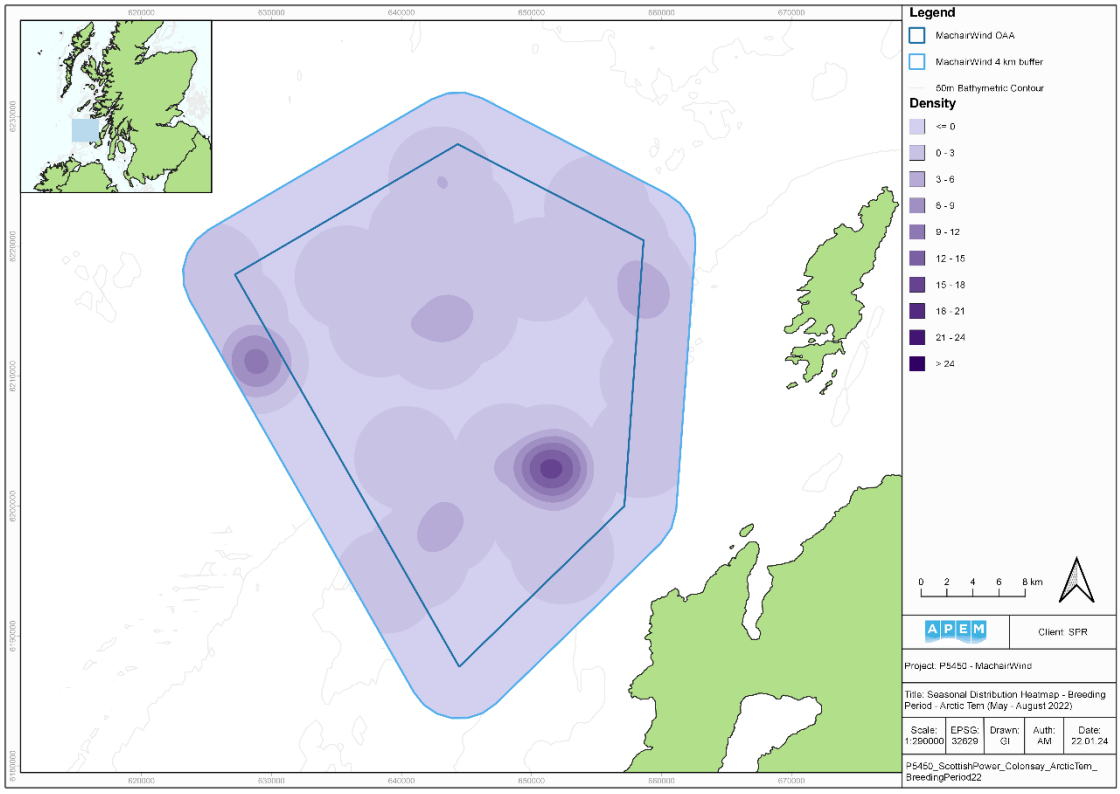


Figure 326 Arctic Tern Breeding Period 2022

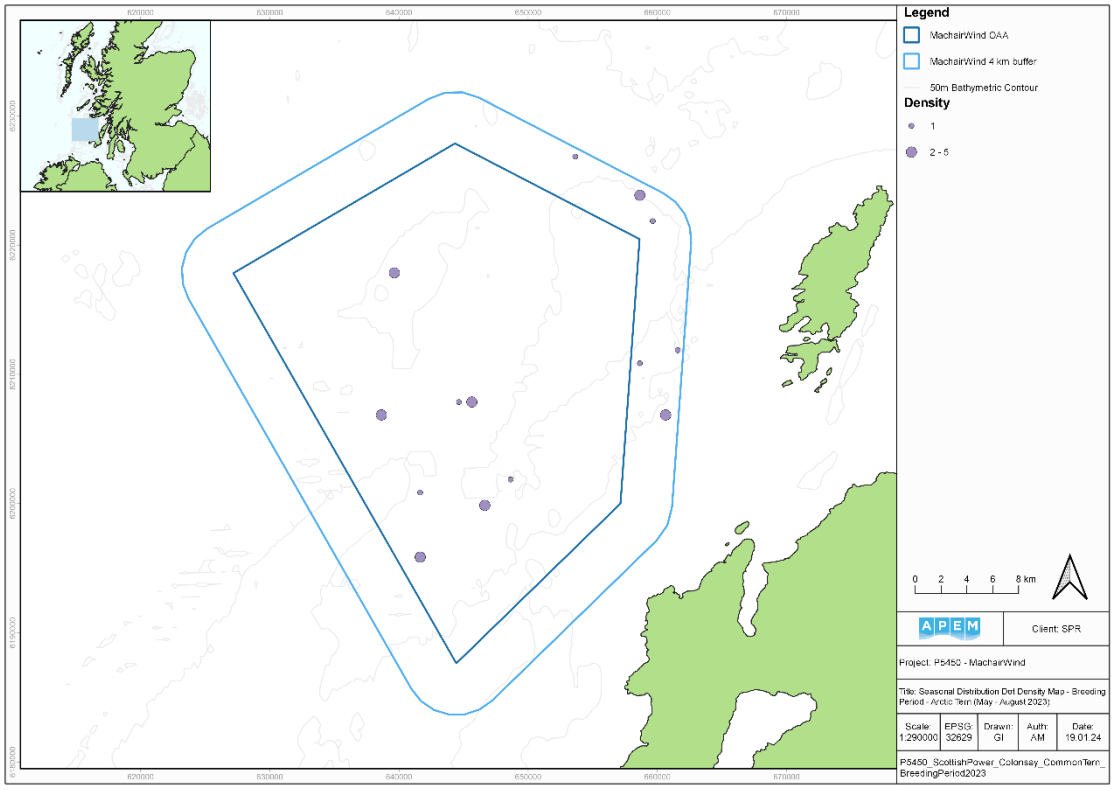


Figure 327 Arctic Tern Breeding Period 2023

12.1.6 Guillemot

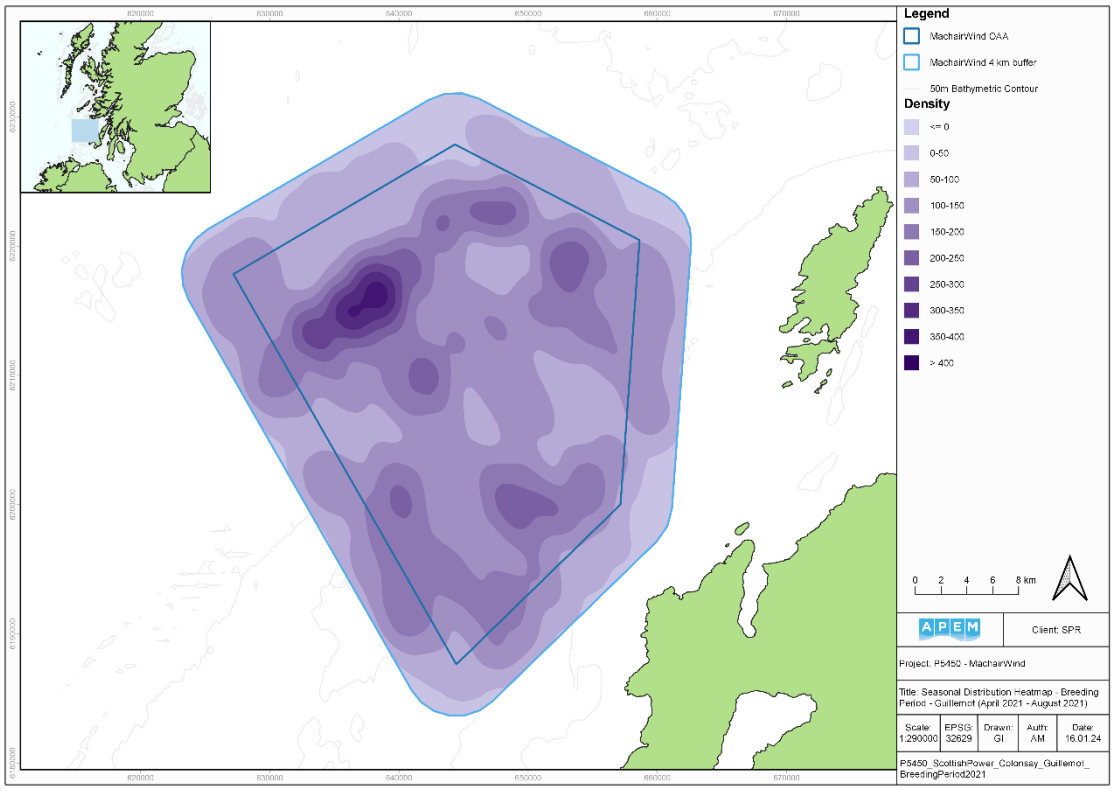


Figure 328 Guillemot Breeding Period 2021

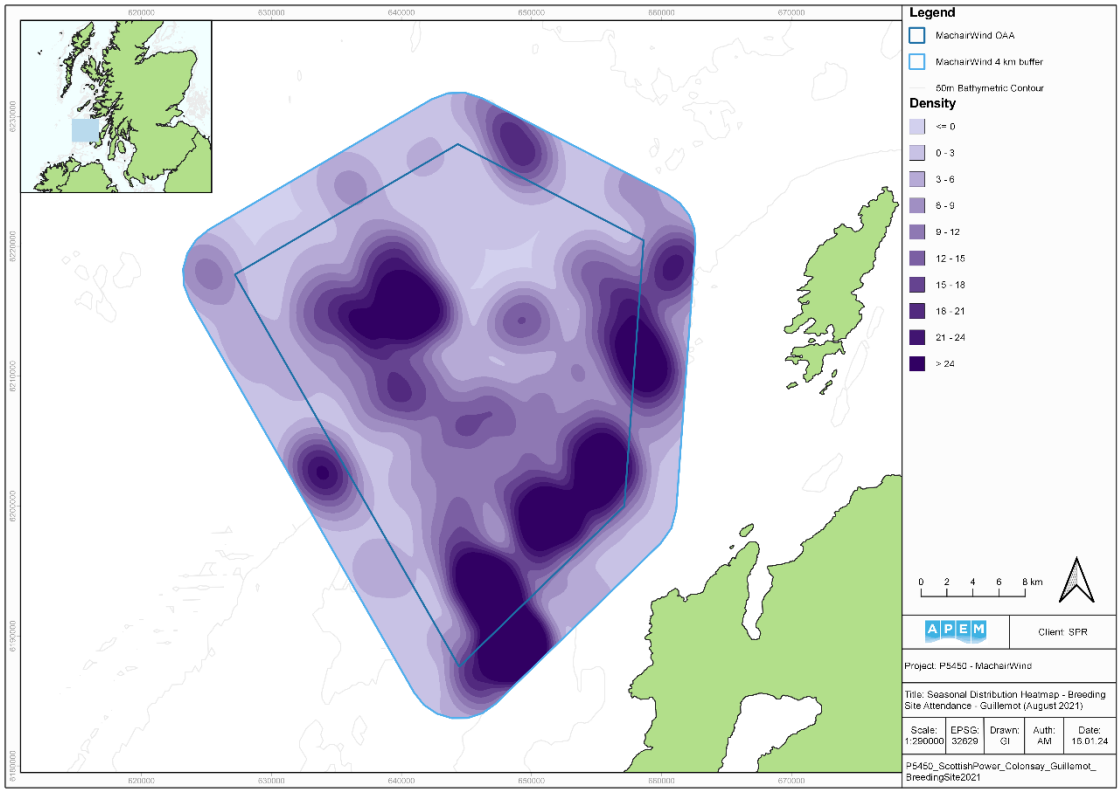


Figure 329 Guillemot Breeding Site Attendance 2021

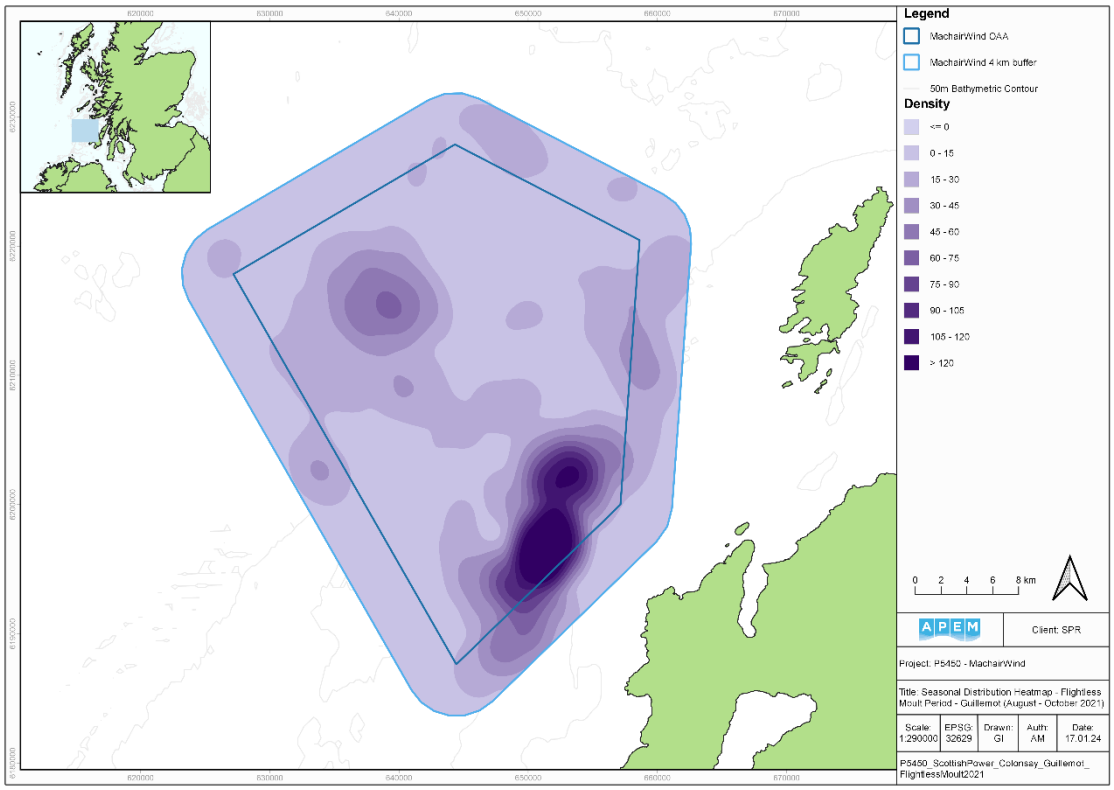


Figure 330 Guillemot Flightless Moult Period 2021

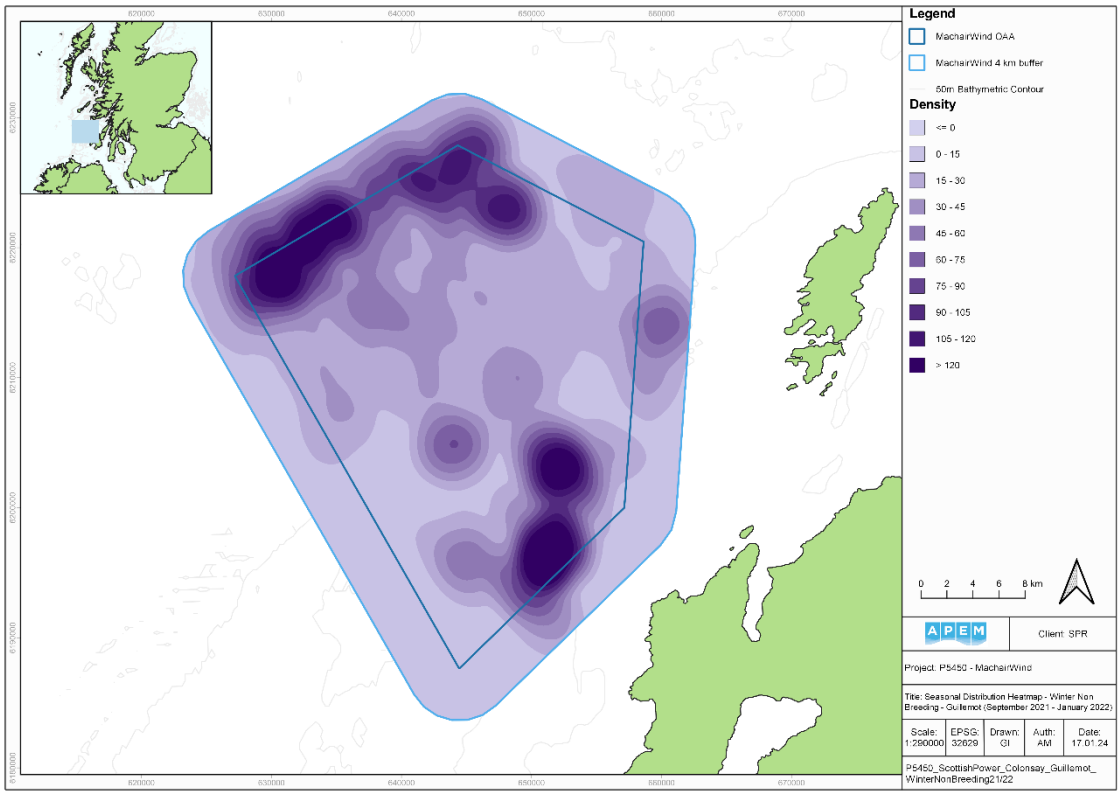


Figure 331 Guillemot Winter Non-Breeding 2021 - 2022

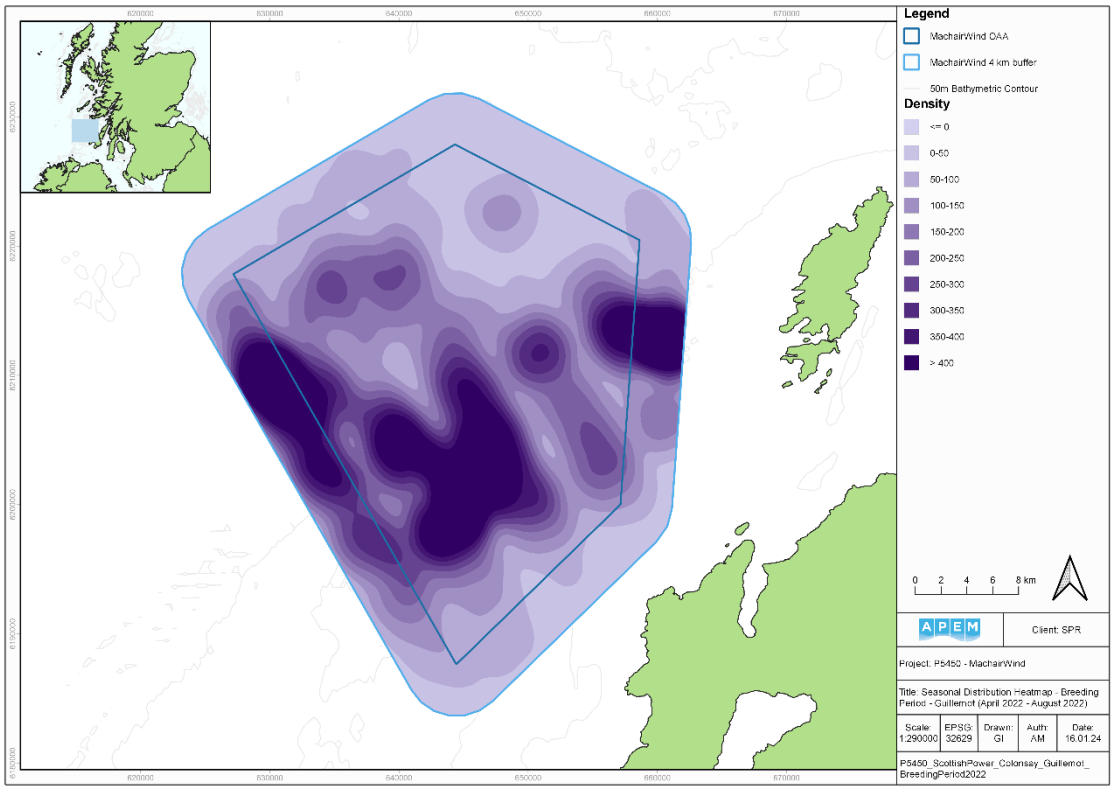


Figure 332 Guillemot Breeding Period 2022

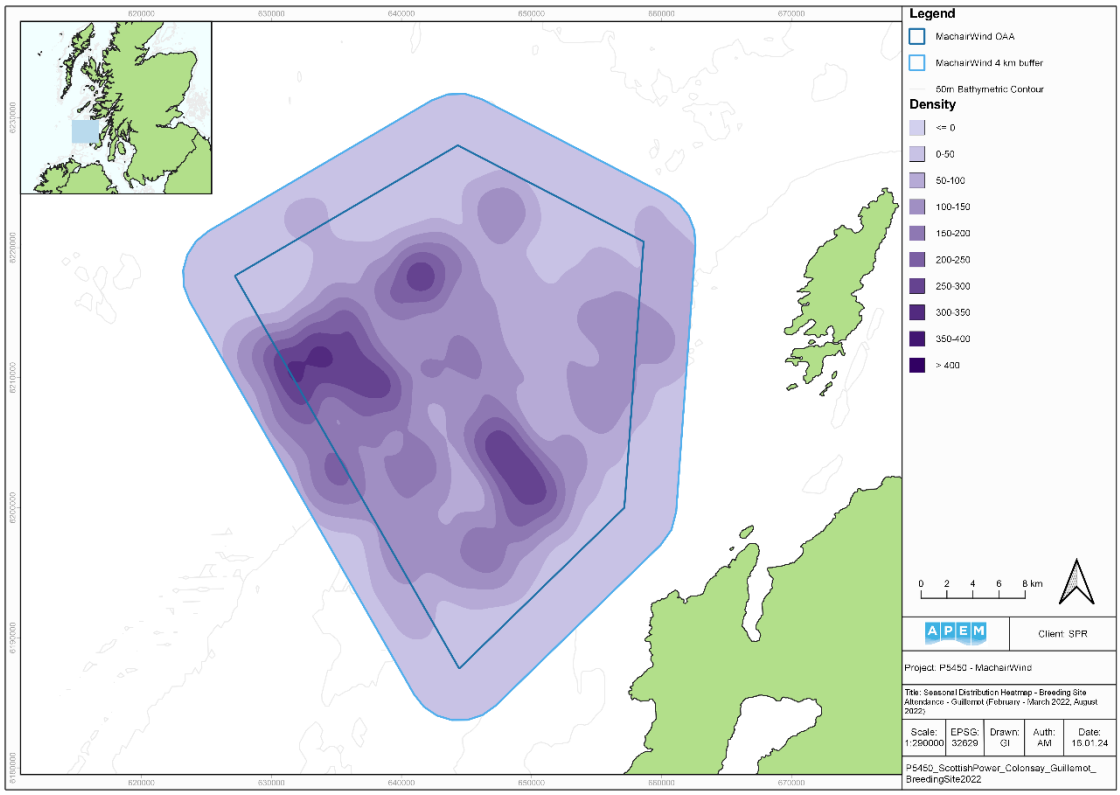


Figure 333 Guillemot Breeding Site Attendance 2022

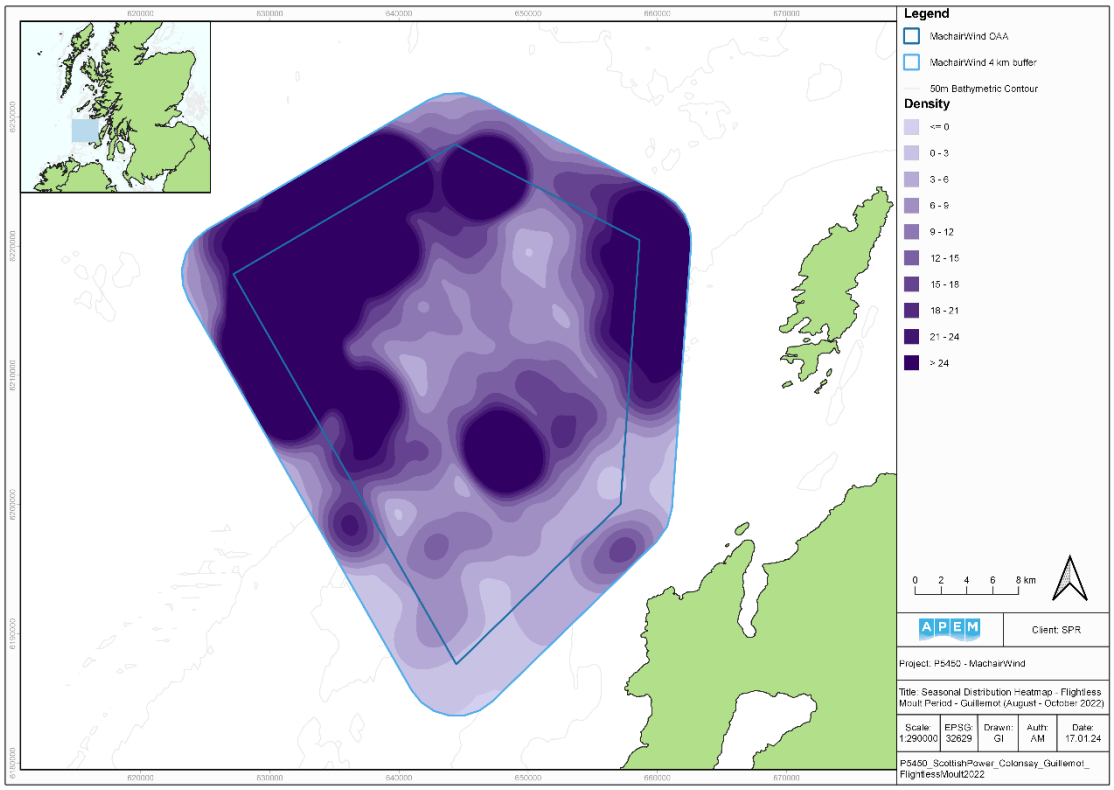


Figure 334 Guillemot Flightless Moult Period 2022

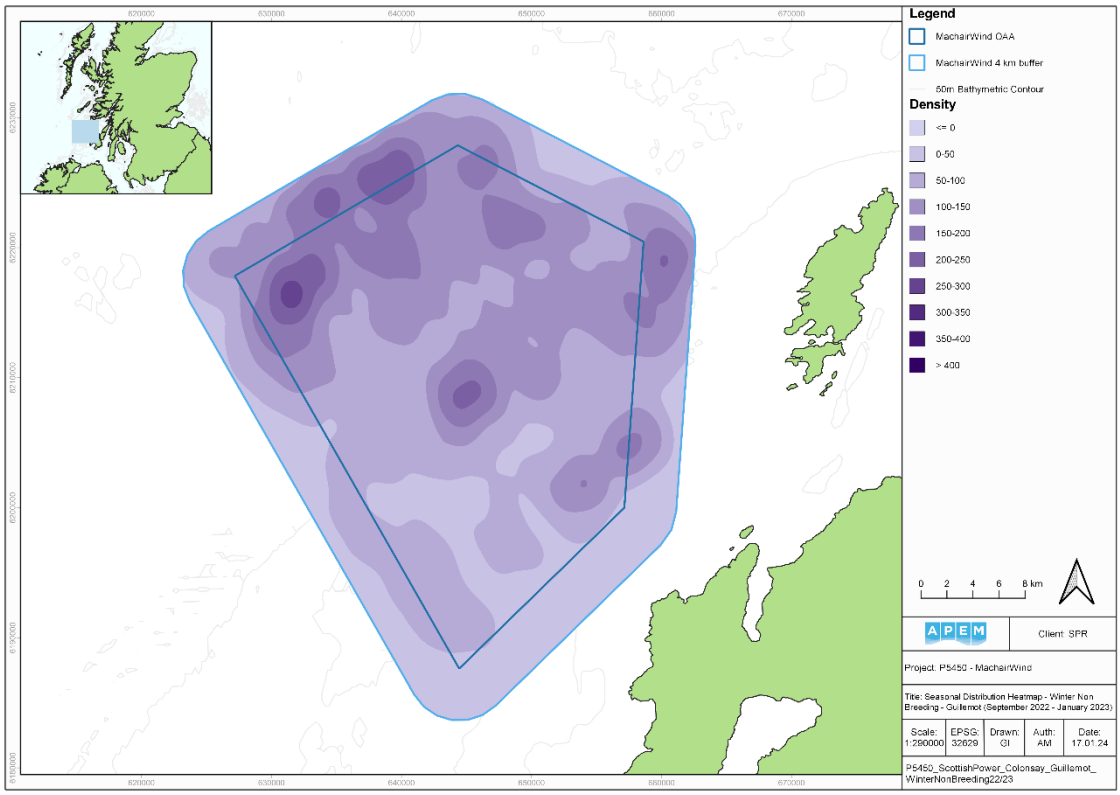


Figure 335 Guillemot Winter Non-Breeding 2022 - 2023

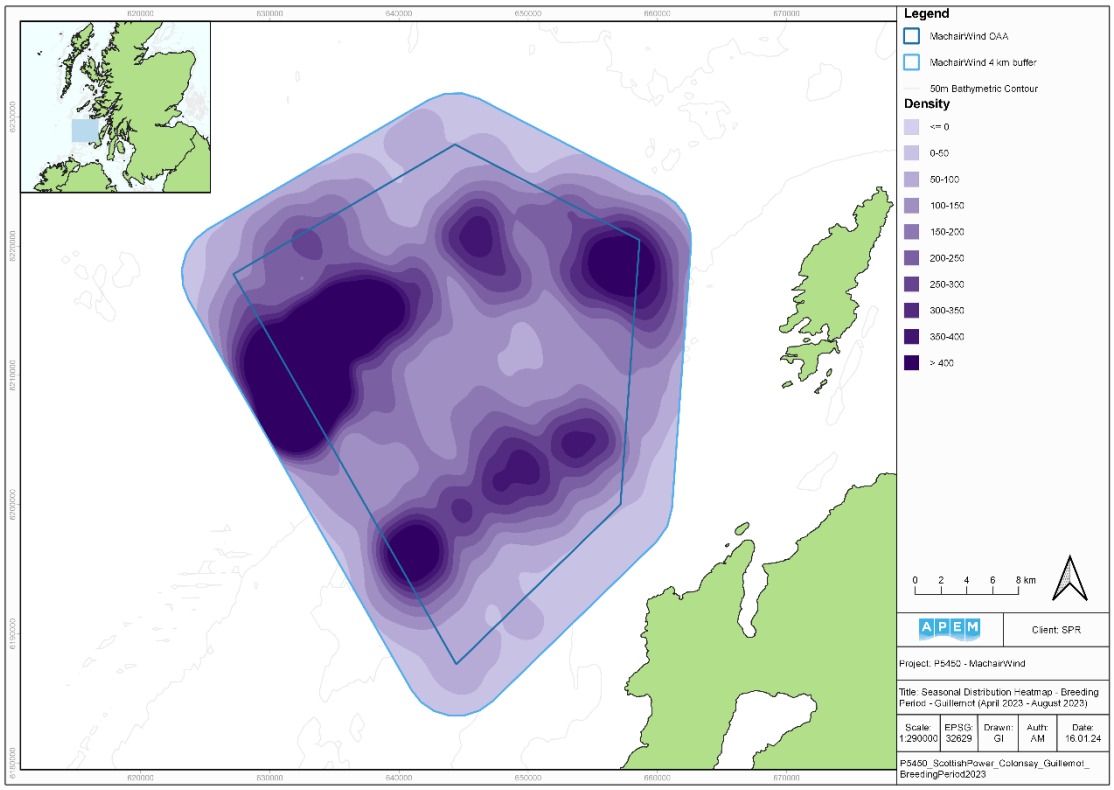


Figure 336 Guillemot Breeding Period 2023

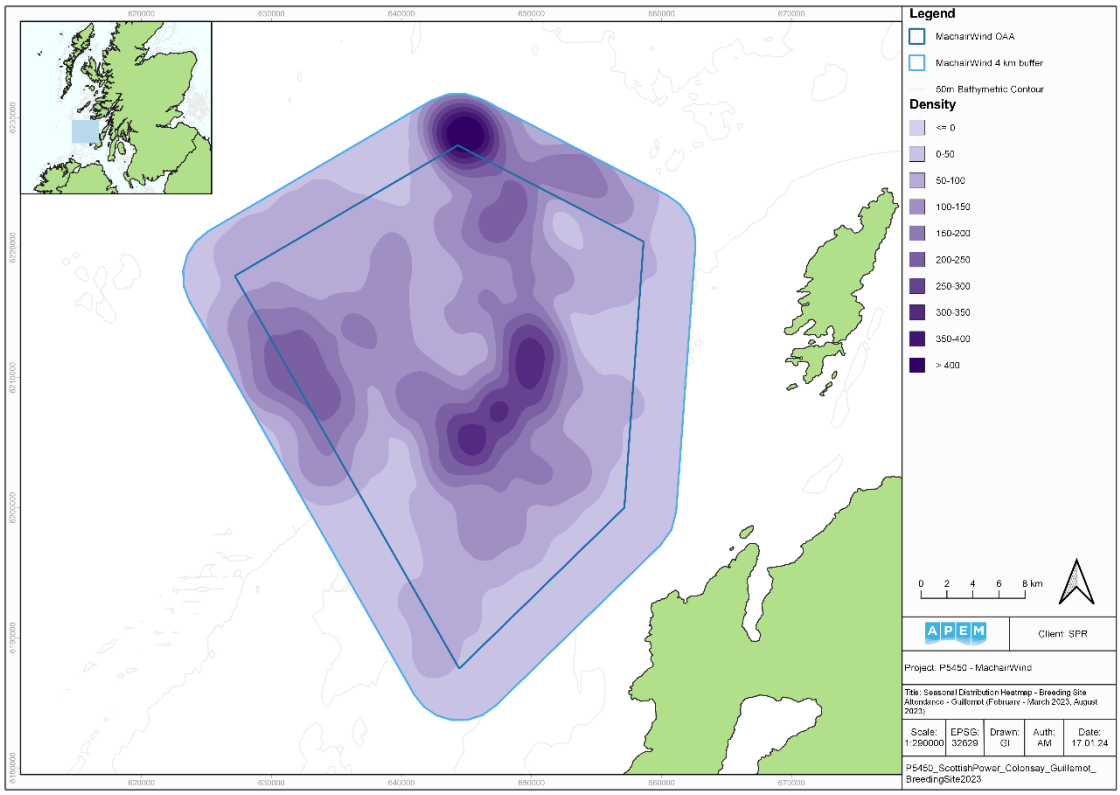


Figure 337 Guillemot Breeding Site Attendance 2023

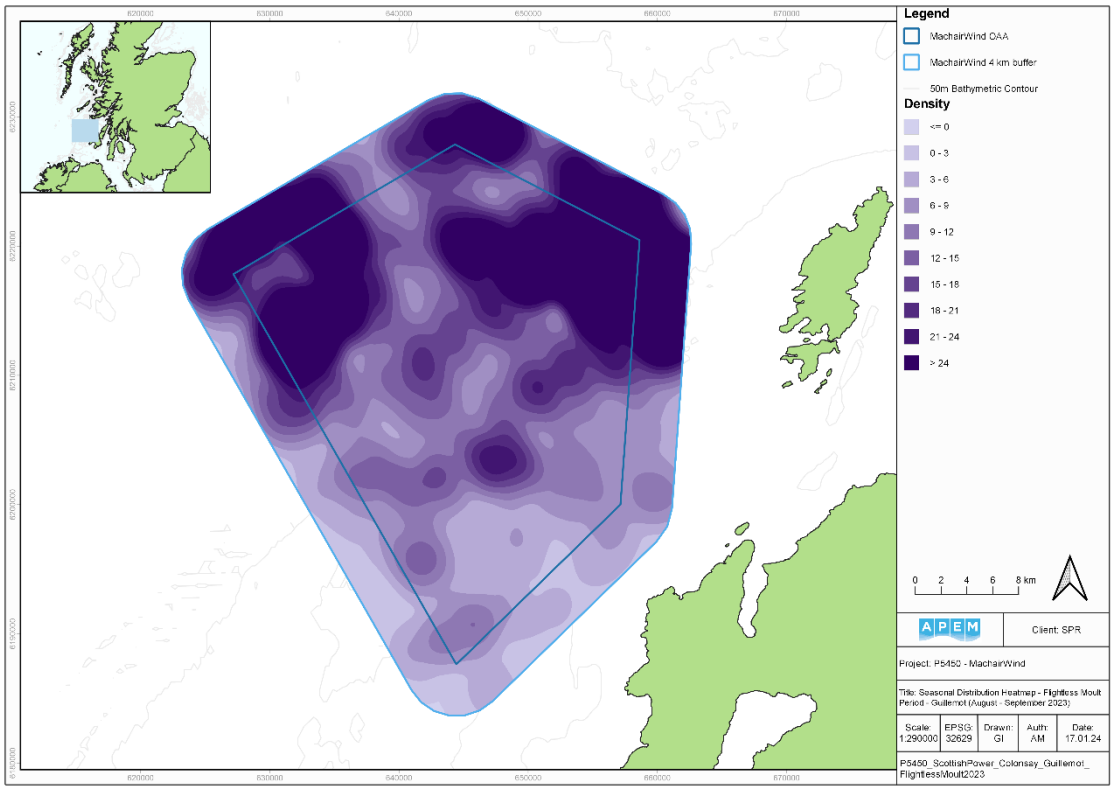


Figure 338 Guillemot Flightless Moult Period 2023

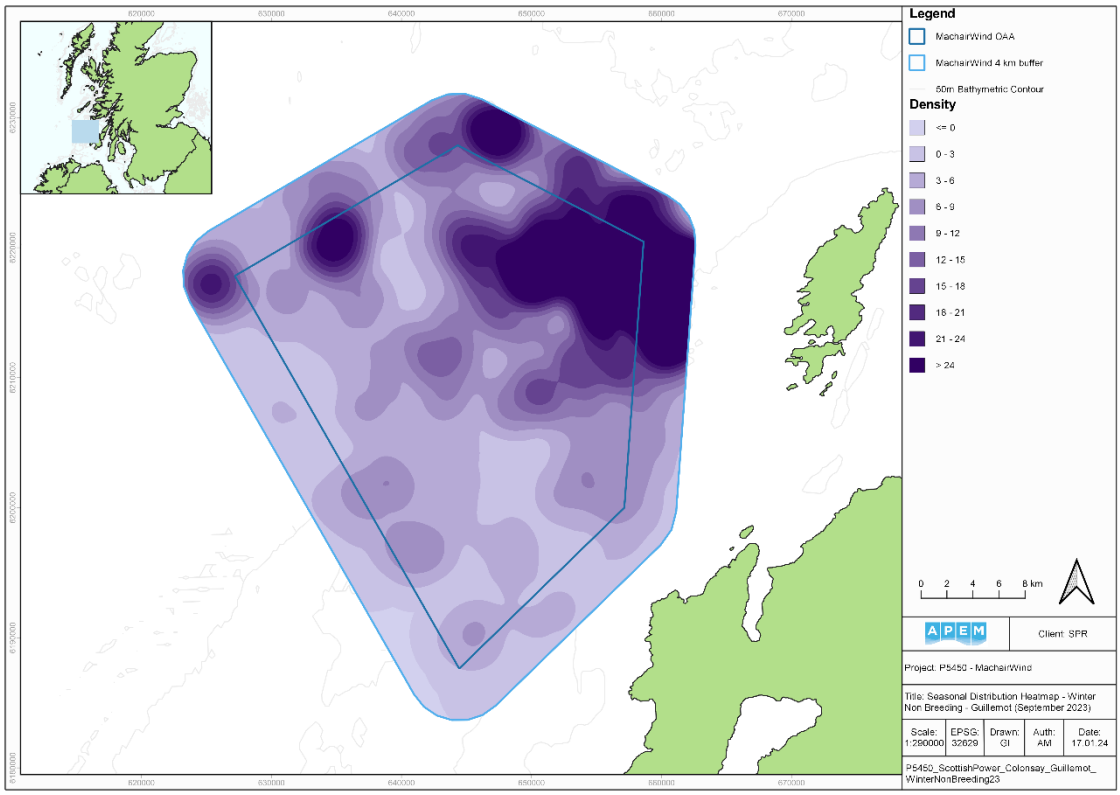


Figure 339 Guillemot Winter Non-Breeding 2023

12.1.7 Razorbill

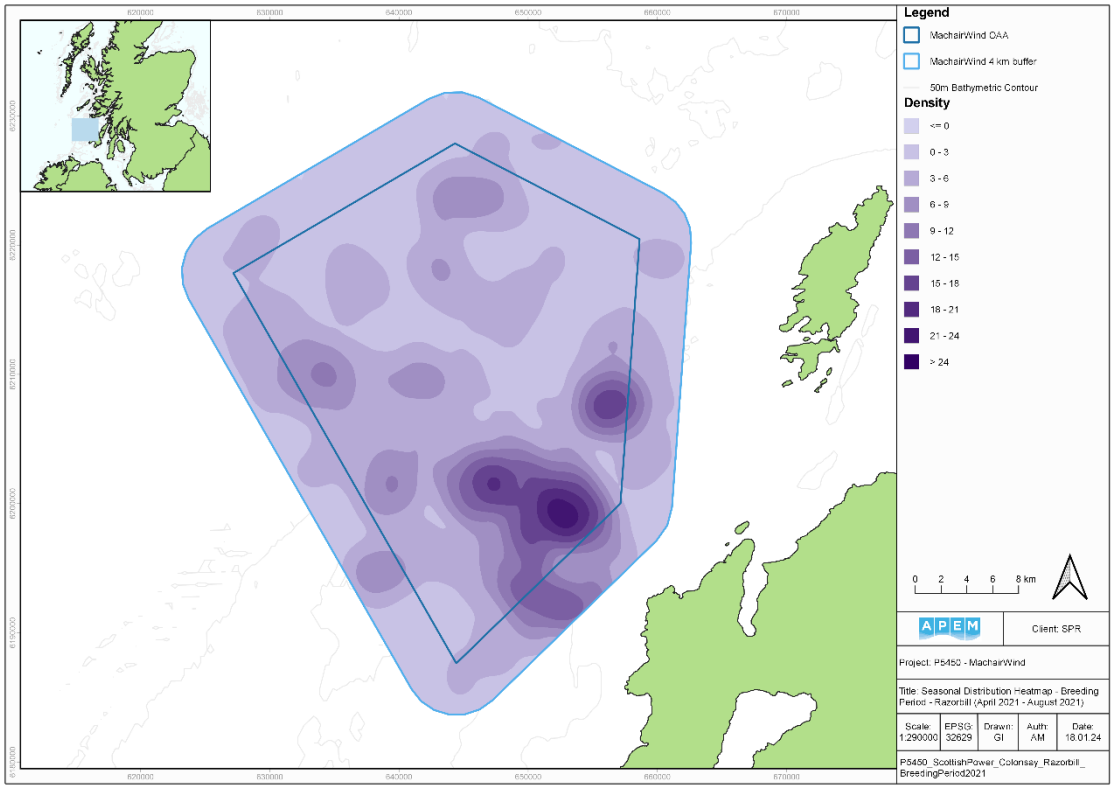


Figure 340 Razorbill Breeding Period 2021

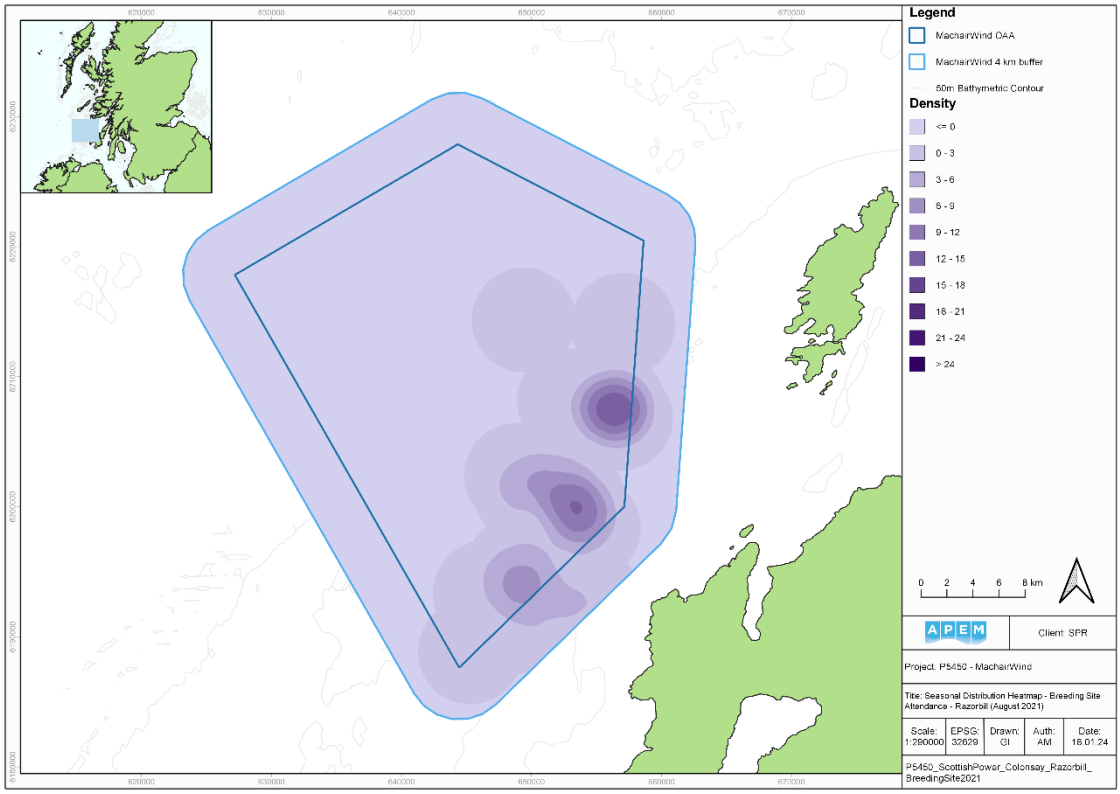


Figure 341 Razorbill Breeding Site Attendance 2021

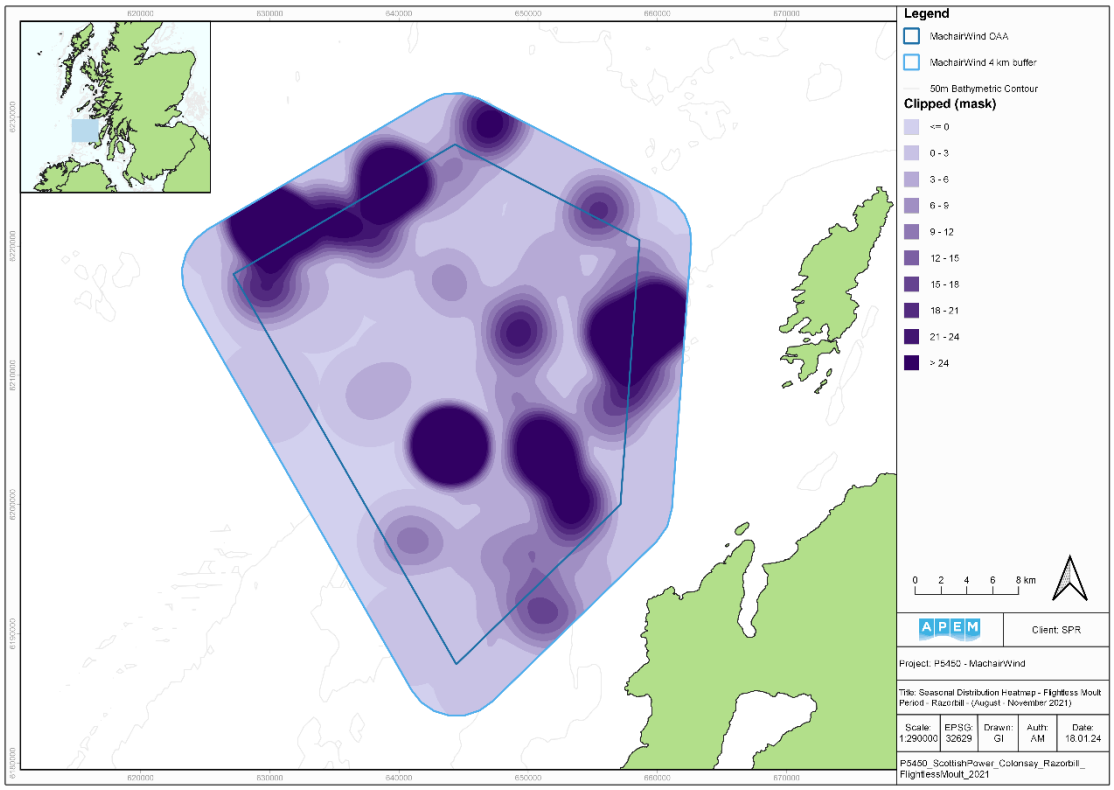


Figure 342 Razorbill Flightless Moult Period 2021

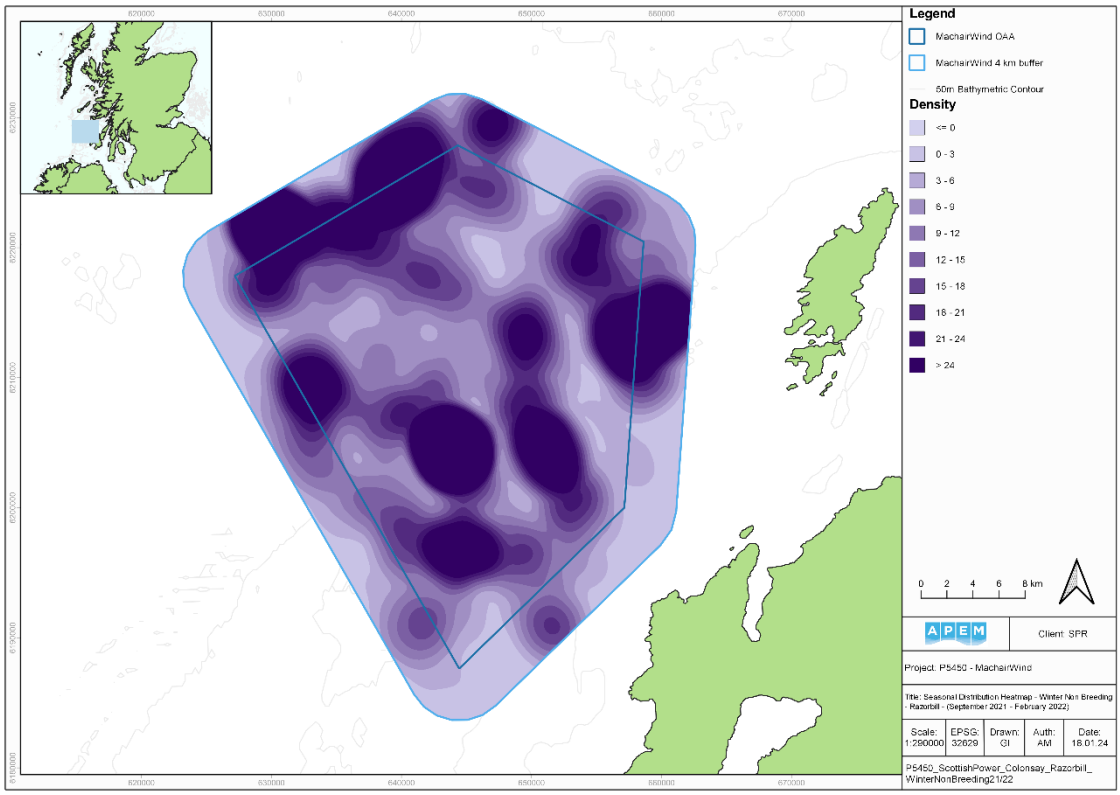


Figure 343 Razorbill Winter Non-Breeding 2021 - 2022

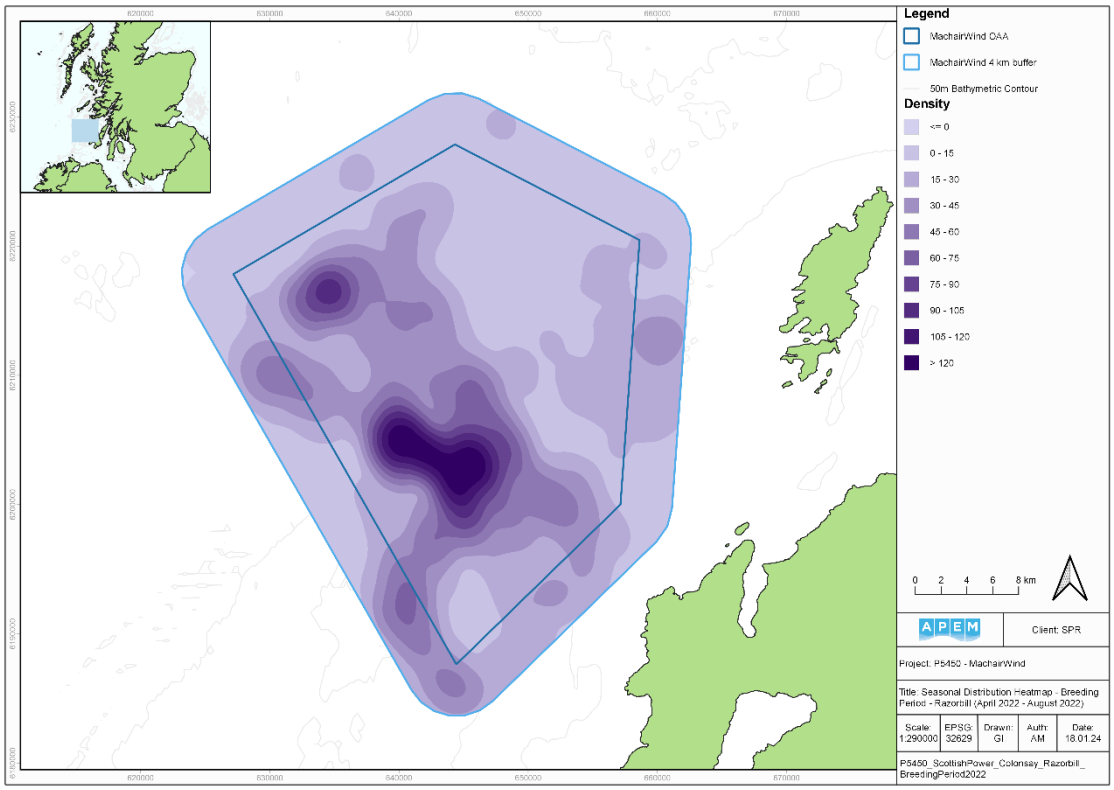


Figure 344 Razorbill Breeding Period 2022

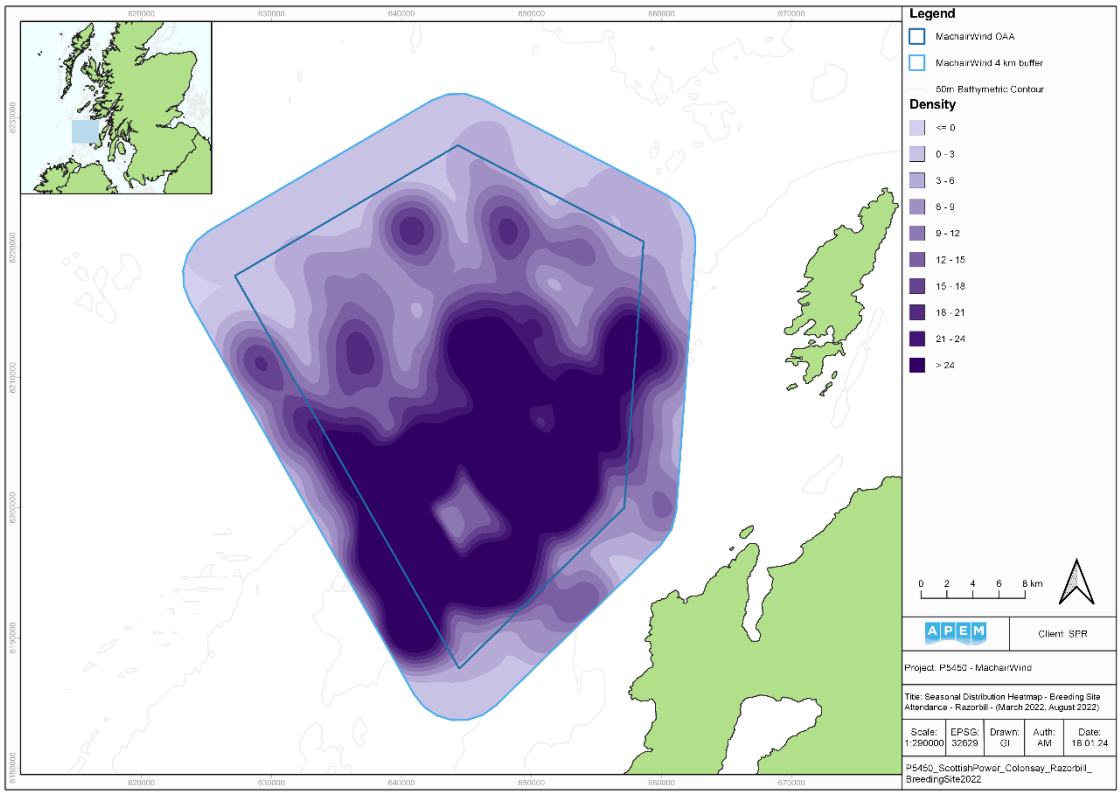


Figure 345 Razorbill Breeding Site Attendance 2022

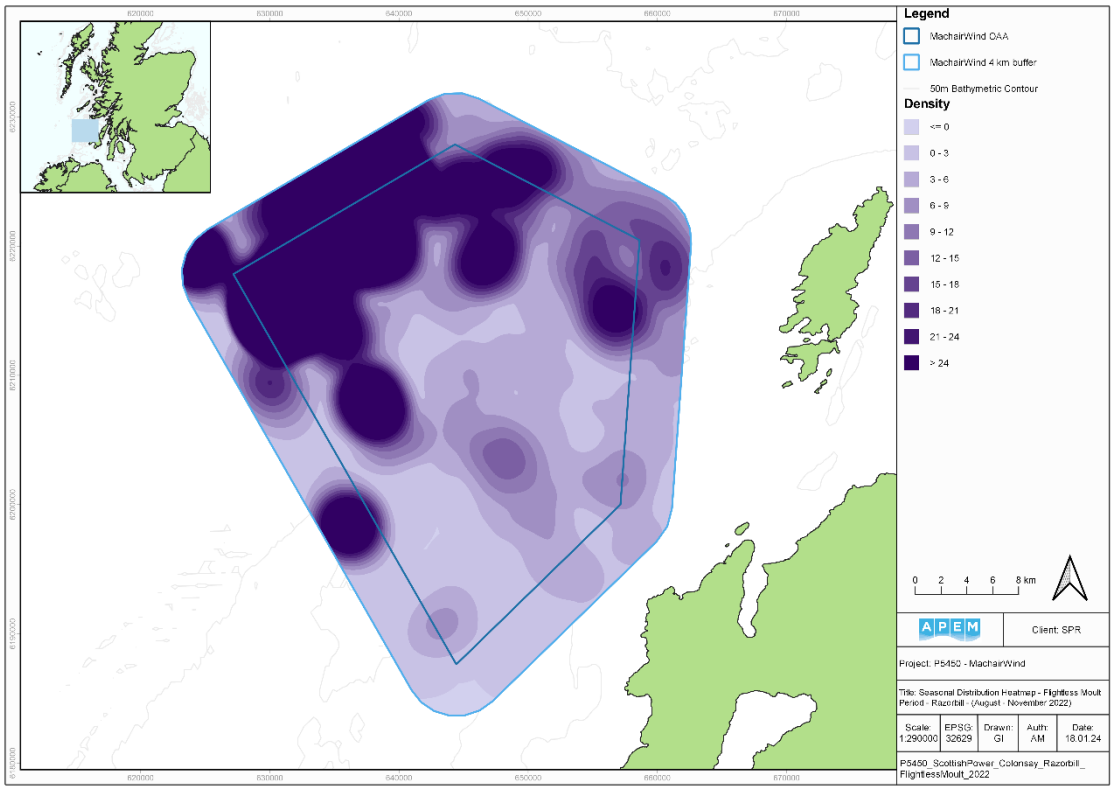


Figure 346 Razorbill Flightless Moult Period 2022

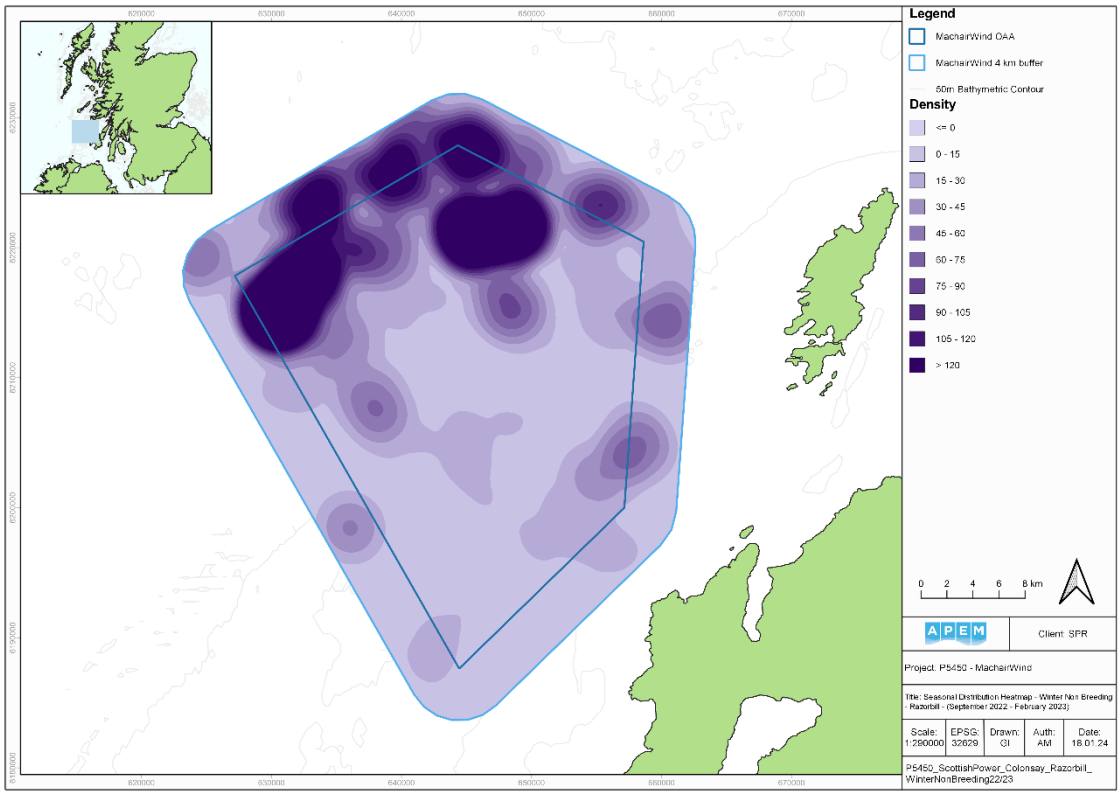


Figure 347 Razorbill Winter Non-Breeding 2022

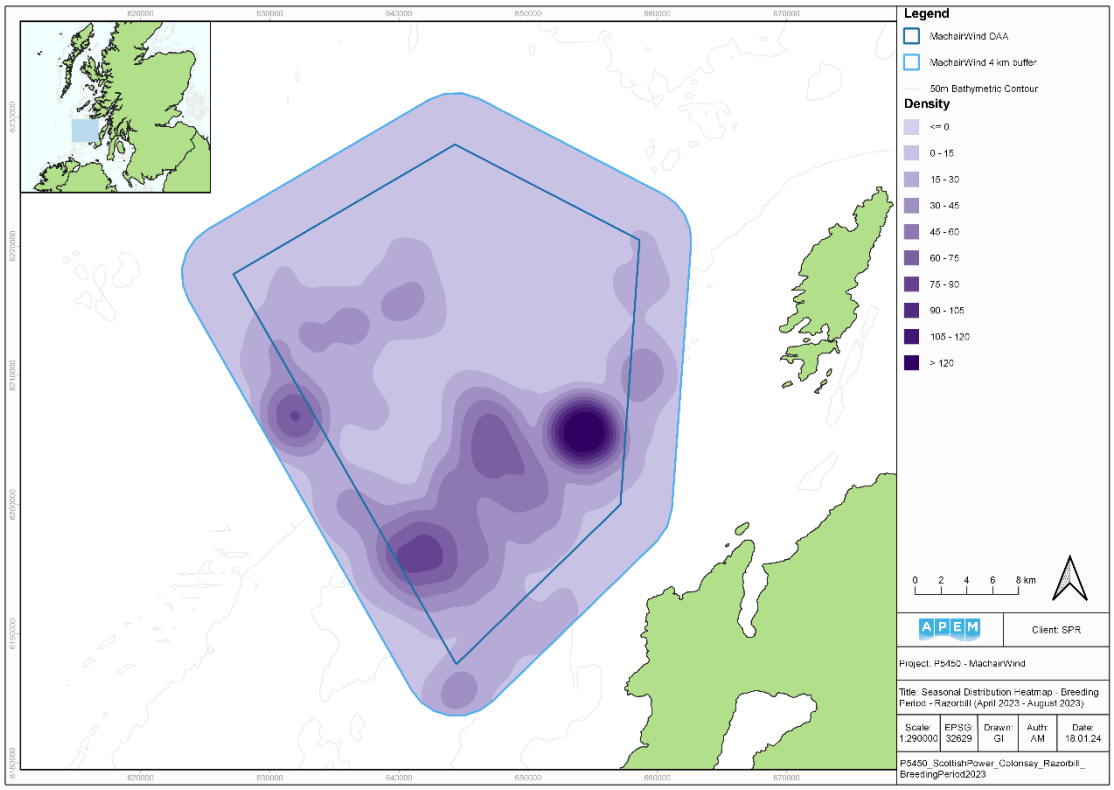


Figure 348 Razorbill Breeding Period 2023

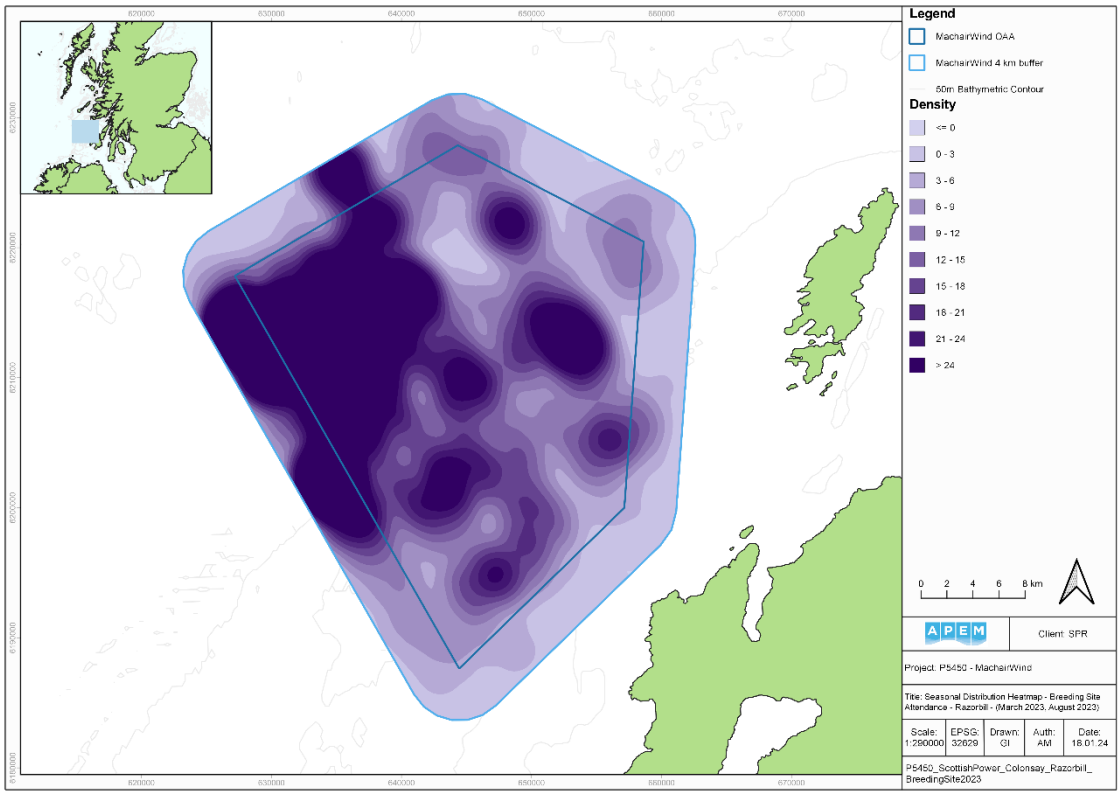


Figure 349 Razorbill Breeding Site Attendance 2023

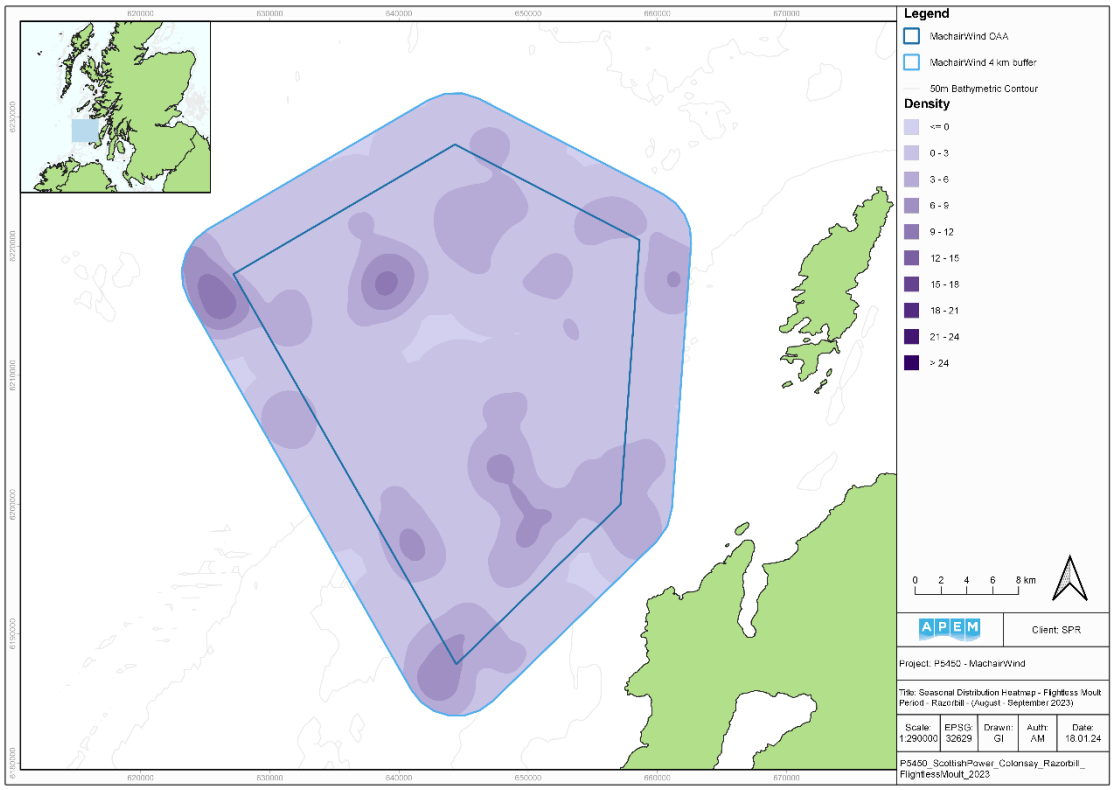


Figure 350 Razorbill Flightless Moult Period 2023

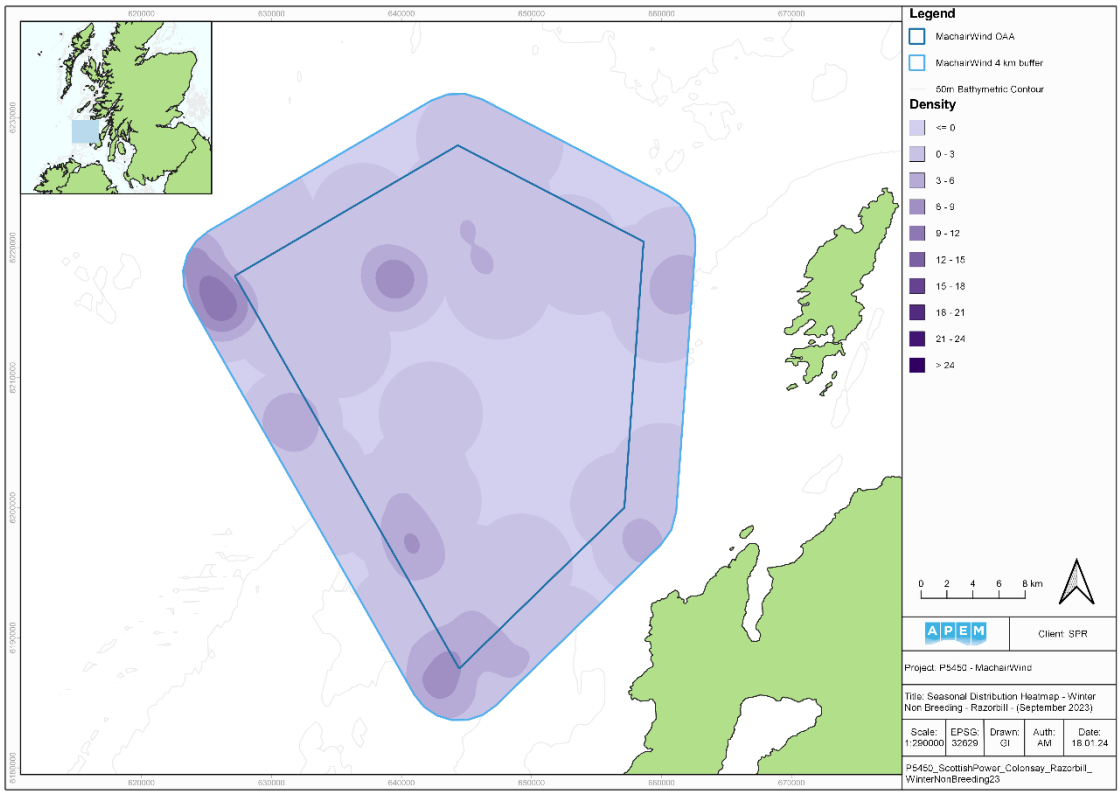


Figure 351 Razorbill Winter Non-Breeding 2023

12.1.8 Puffin

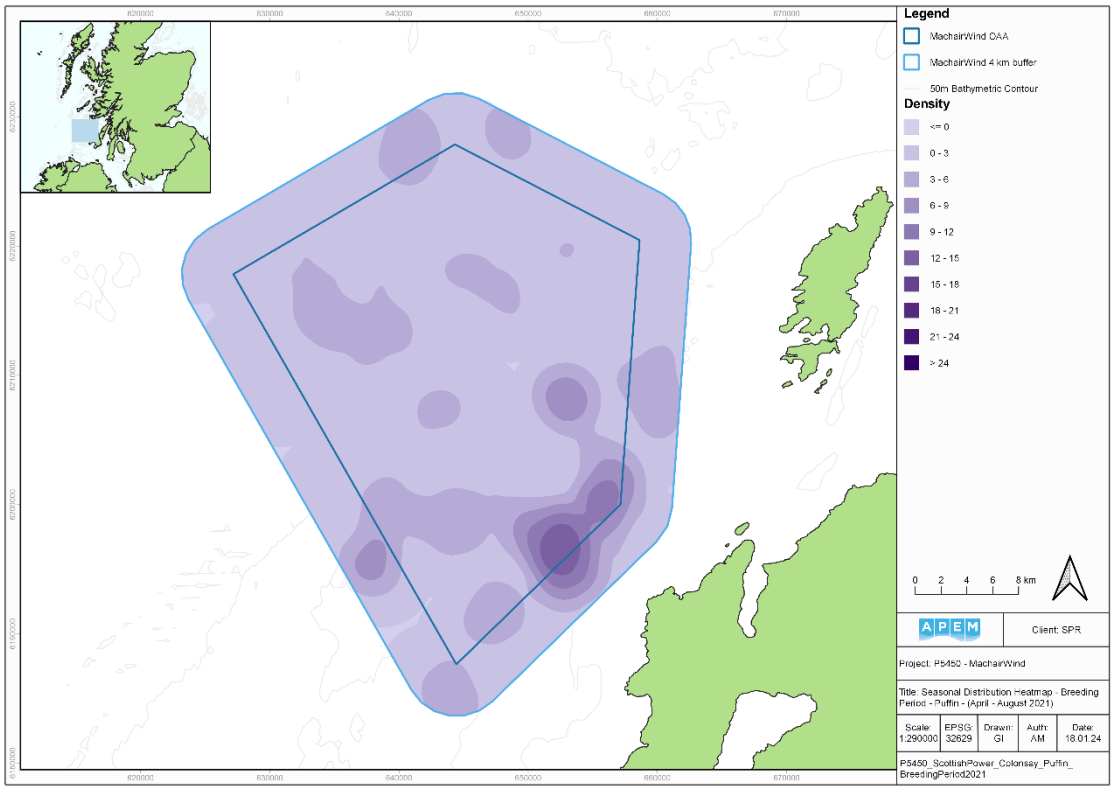


Figure 352 Puffin Breeding Period 2021

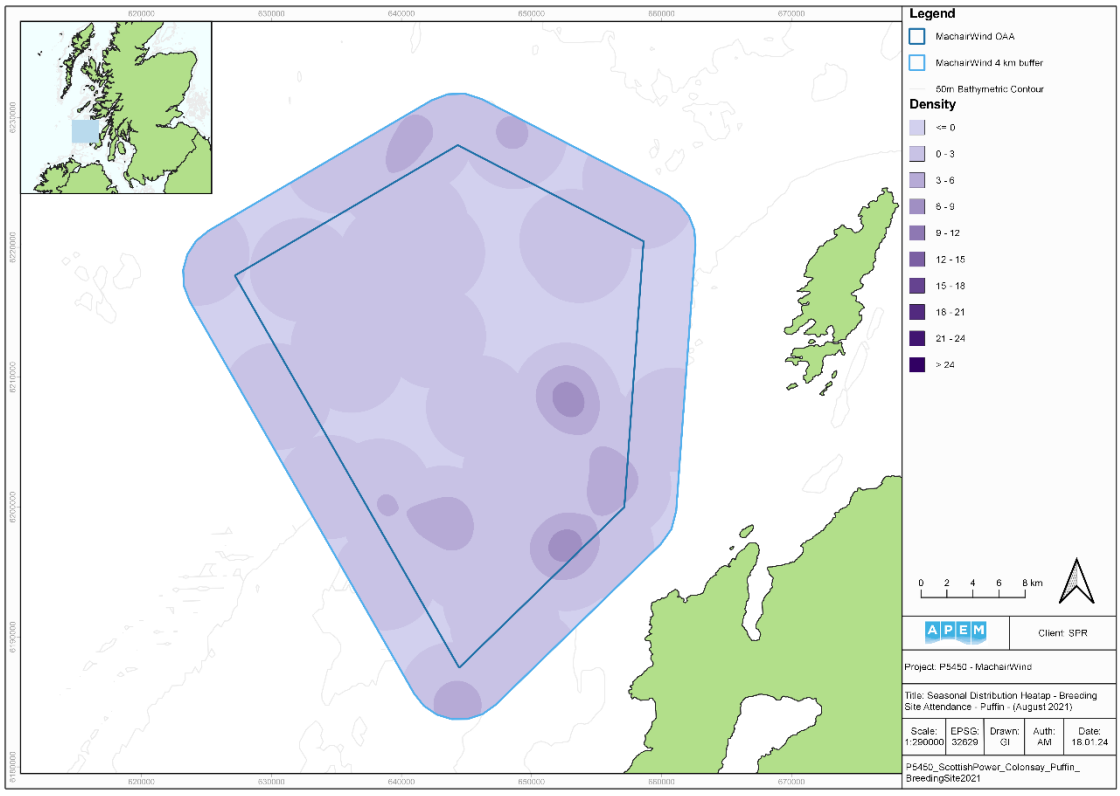


Figure 353 Puffin Breeding Site Attendance 2021

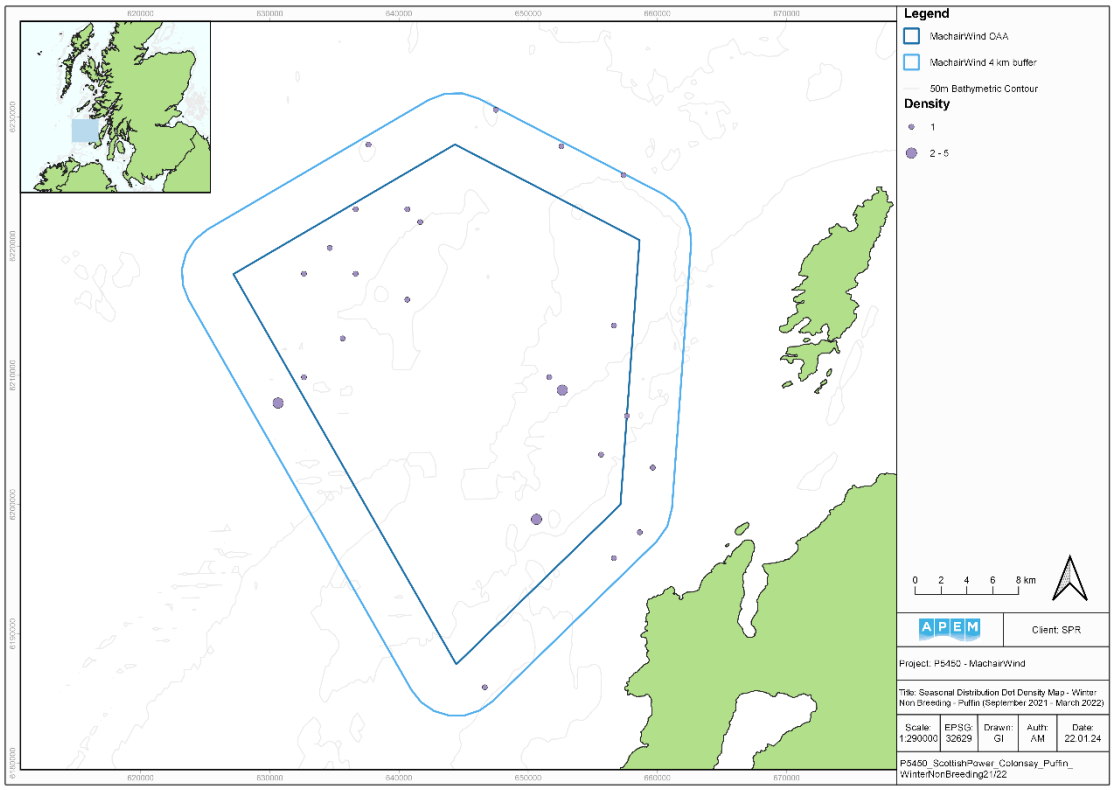


Figure 354 Puffin Winter Non-Breeding 2021 - 2022

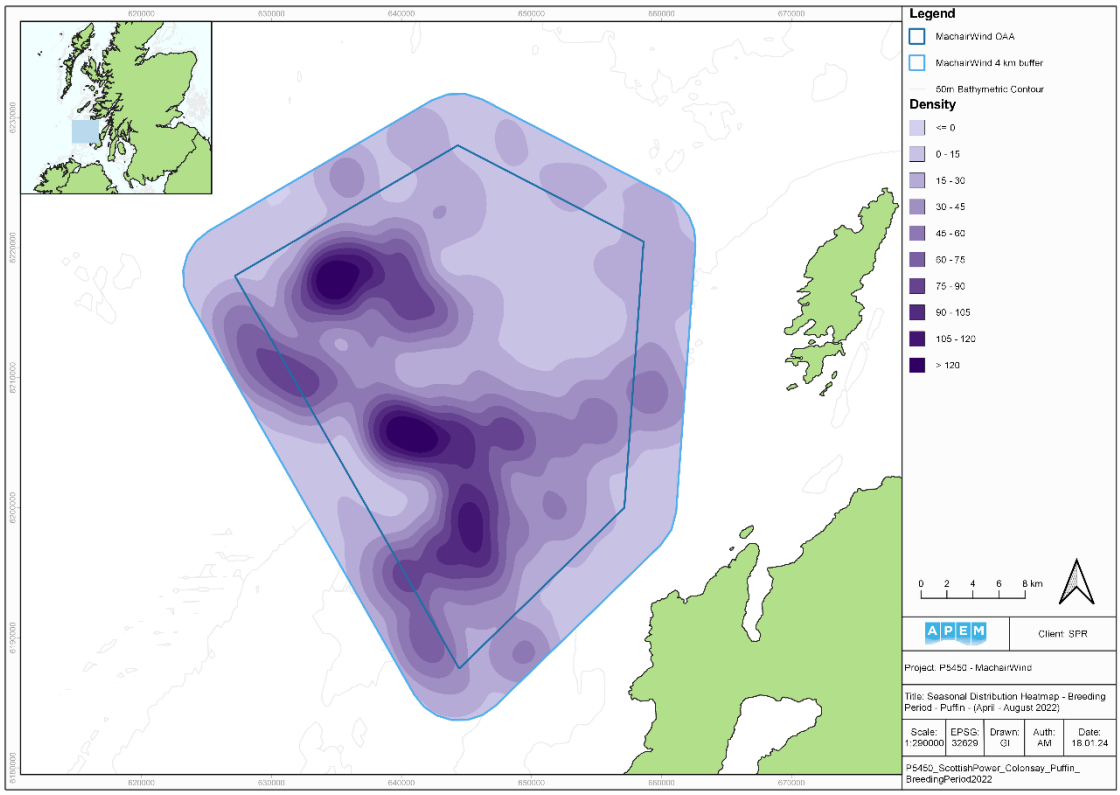


Figure 355 Puffin Breeding Period 2022

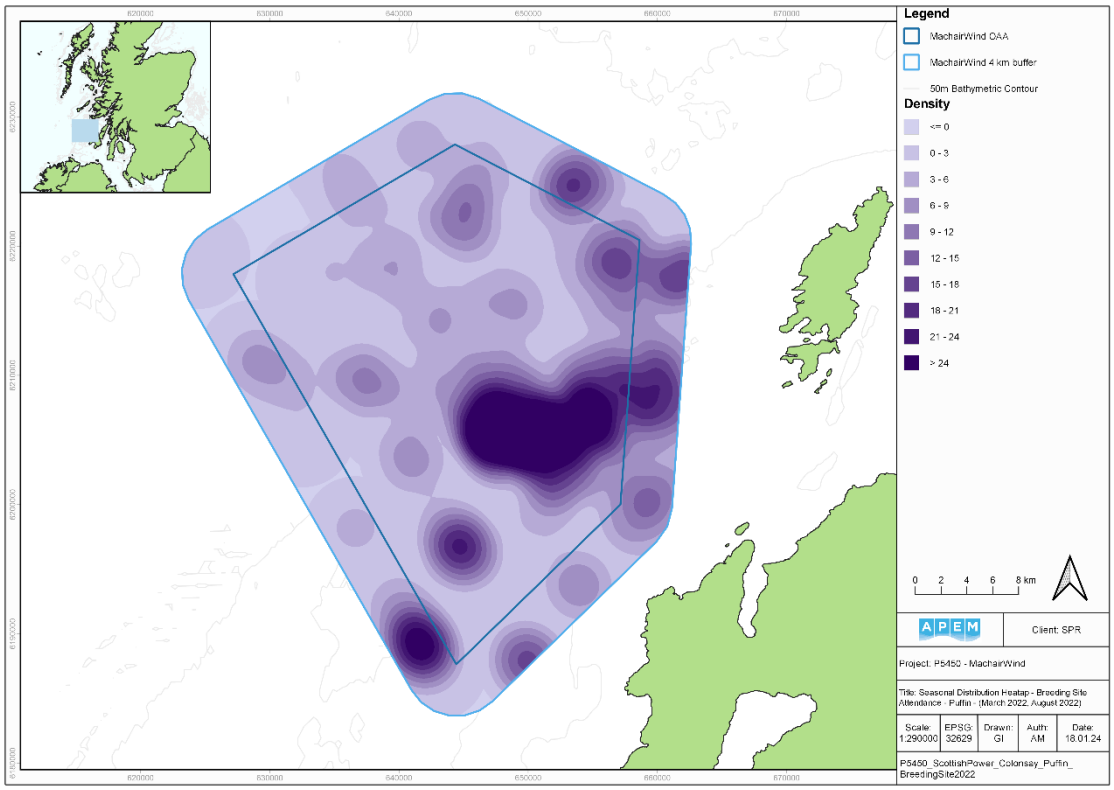


Figure 356 Puffin Breeding Site Attendance 2022

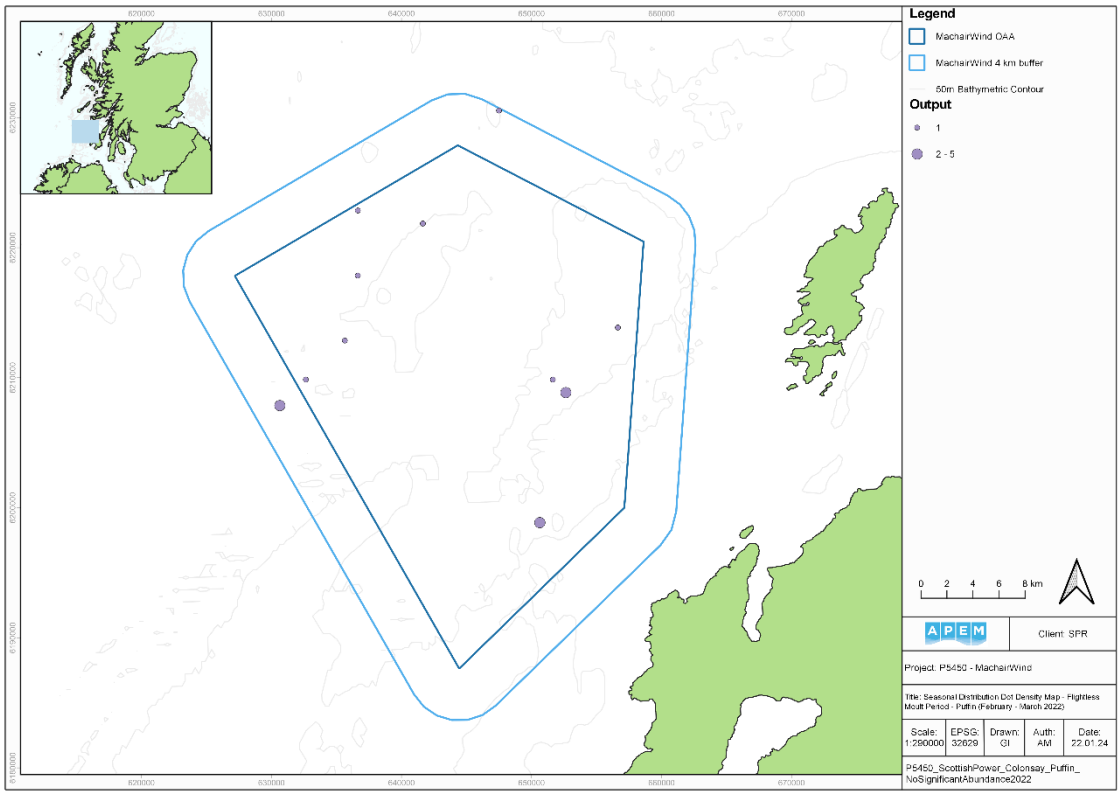


Figure 357 Puffin Flightless Moult Period 2022

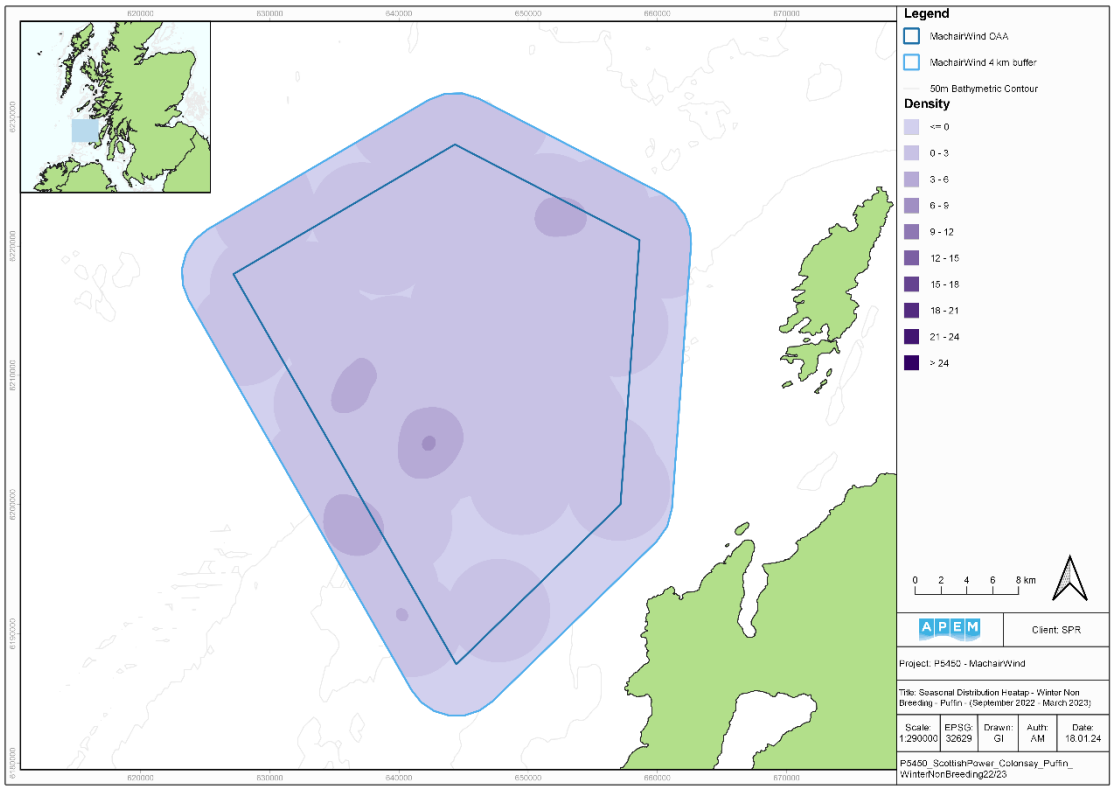


Figure 358 Puffin Winter Non-Breeding 2022 - 2023

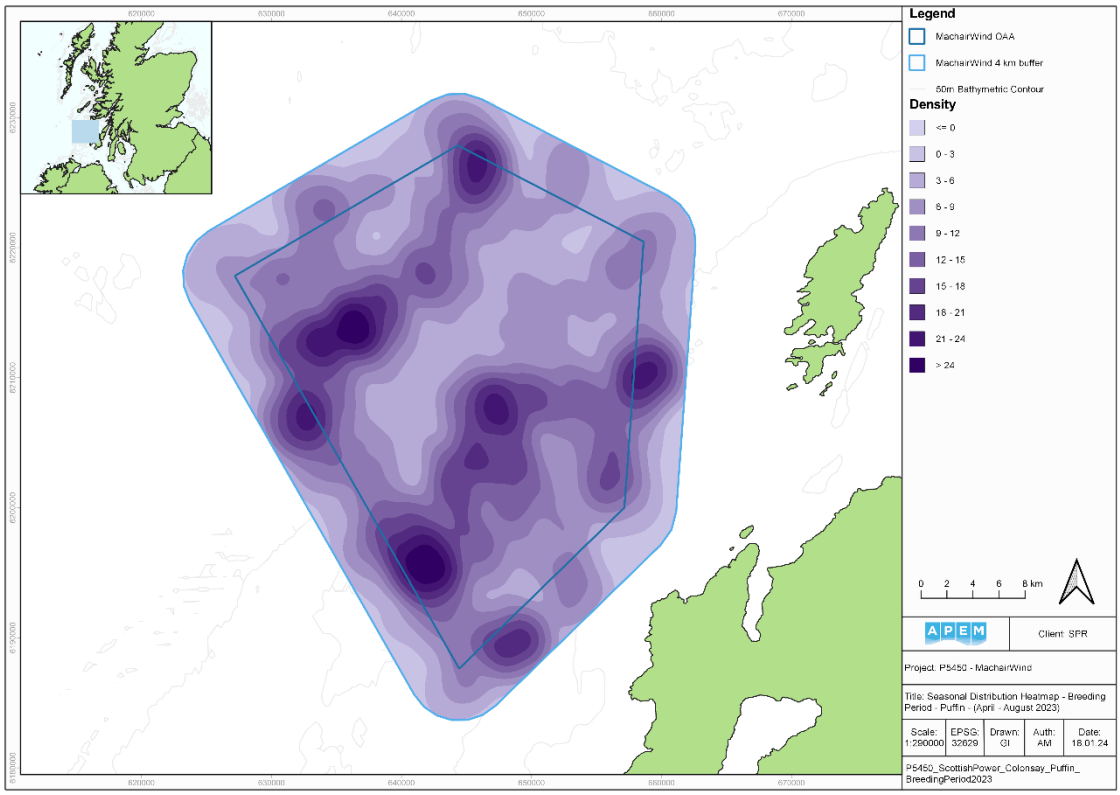


Figure 359 Puffin Breeding Period 2023

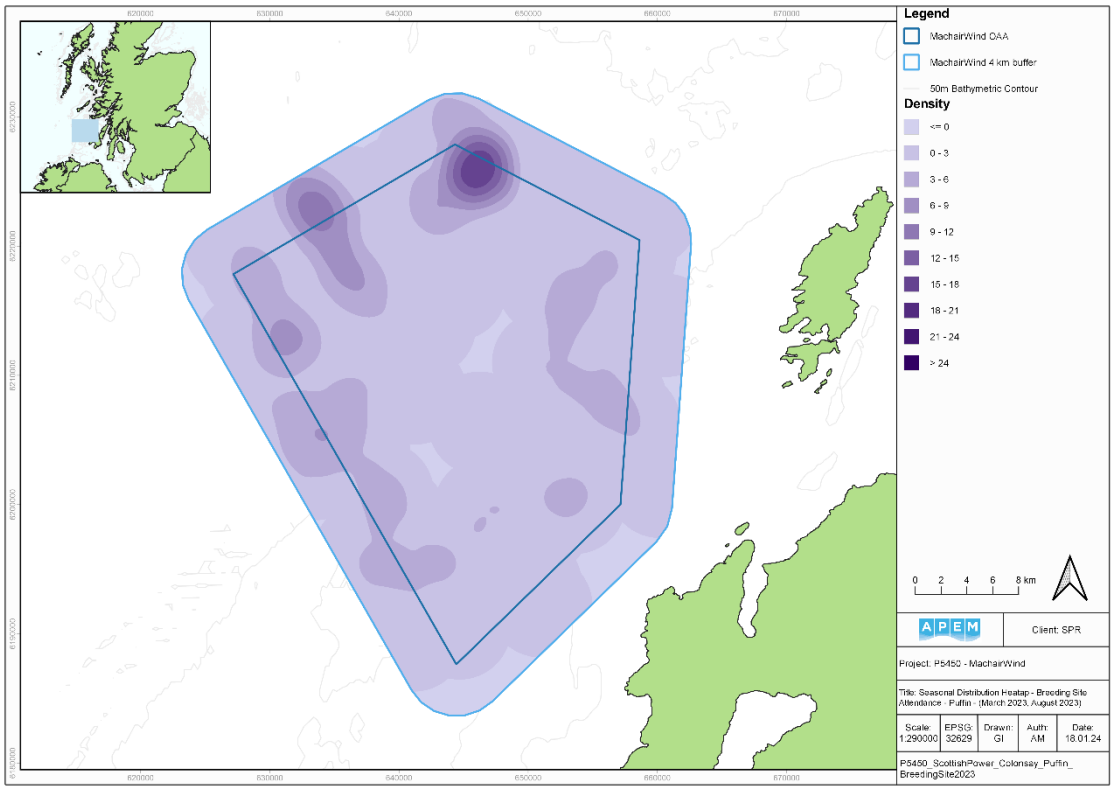


Figure 360 Puffin Breeding Site Attendance 2023

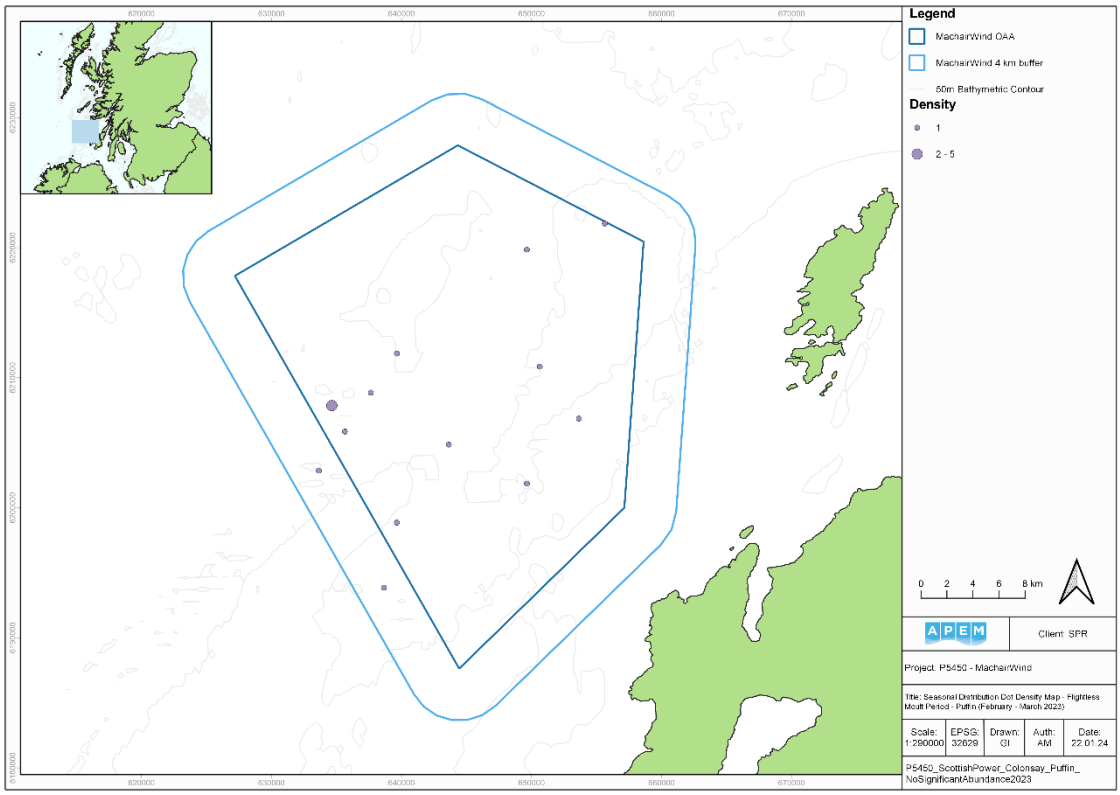


Figure 361 Puffin Flightless Moult Period 2023

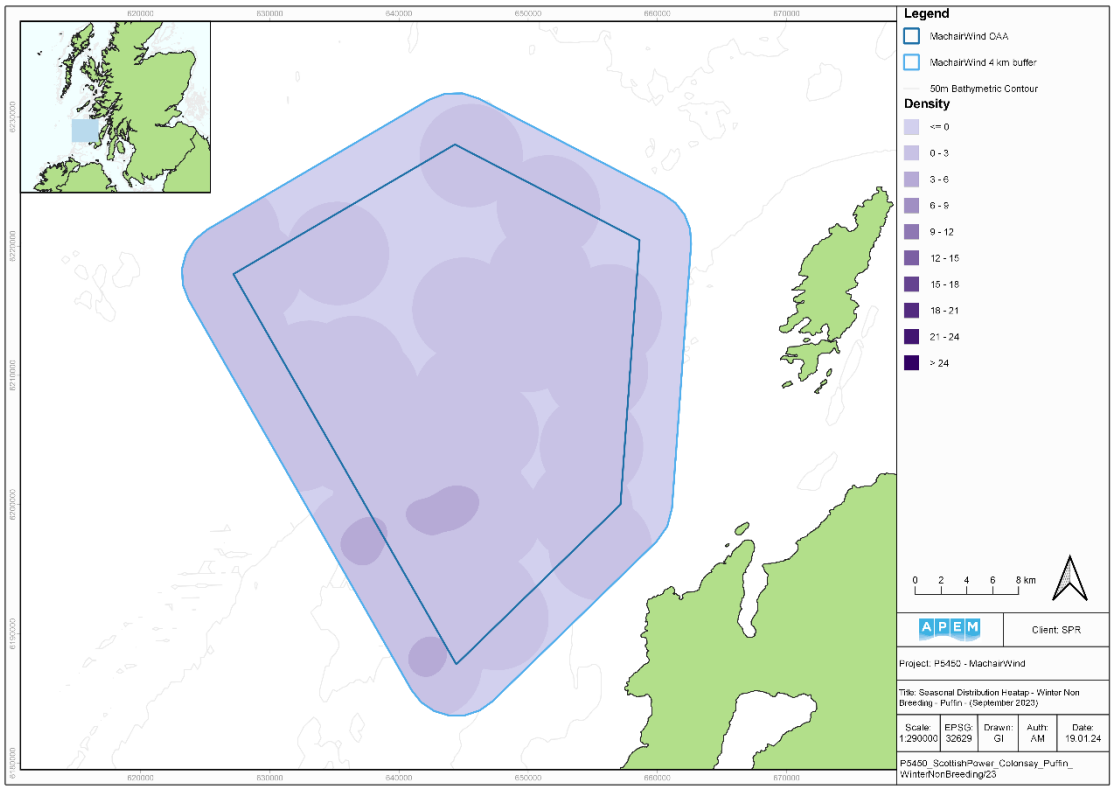


Figure 362 Puffin Winter Non-Breeding 2023

12.1.9 Great Northern Diver

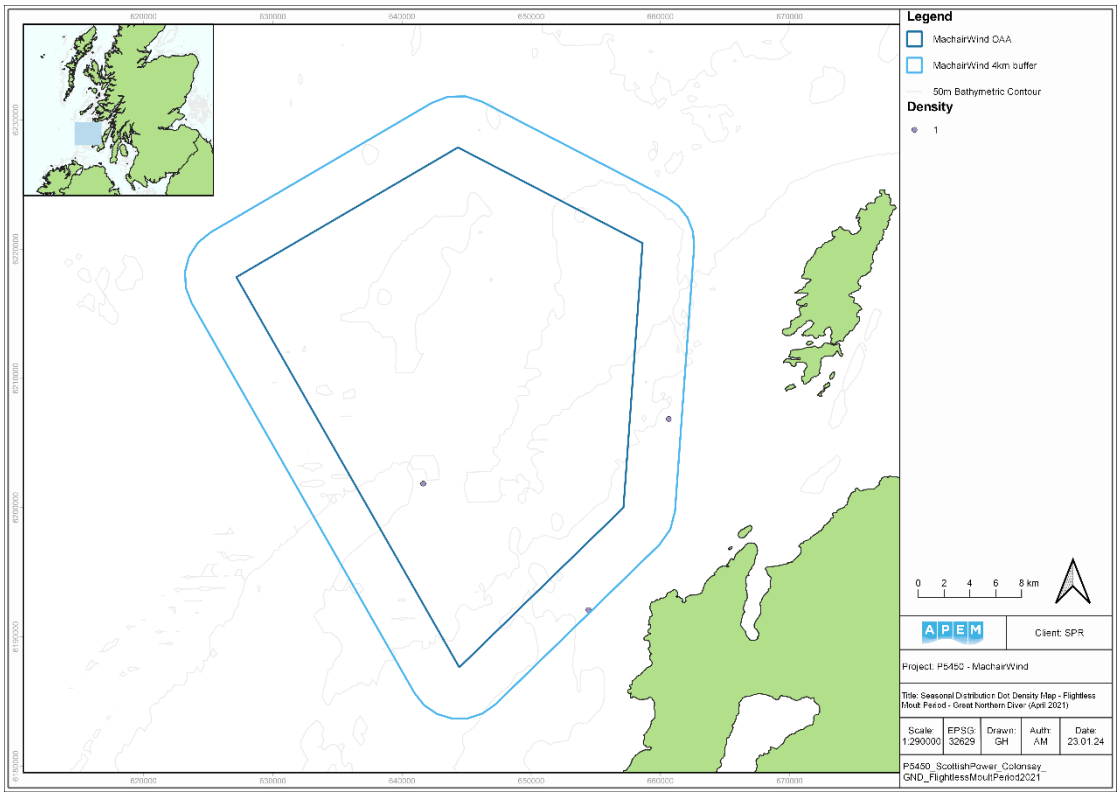


Figure 363 Great Northern Diver Flightless Moult Period 2021

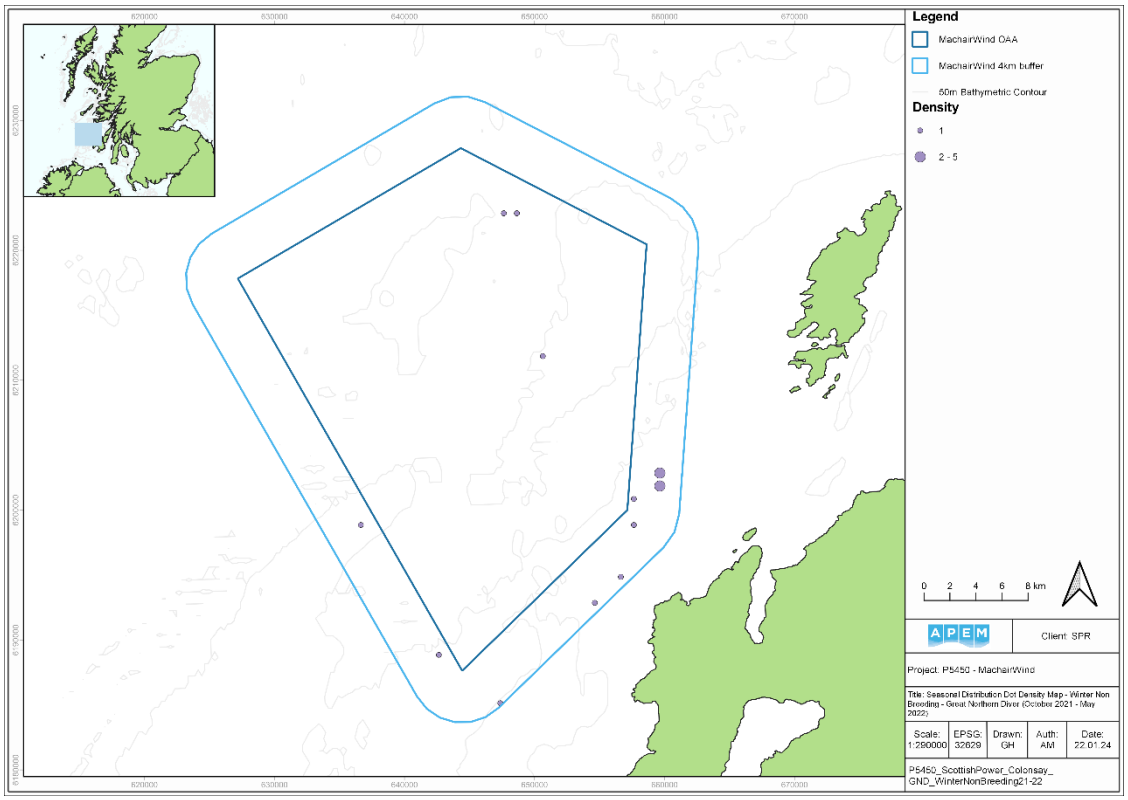


Figure 364 Great Northern Diver Winter Non-Breeding 2021 - 2022

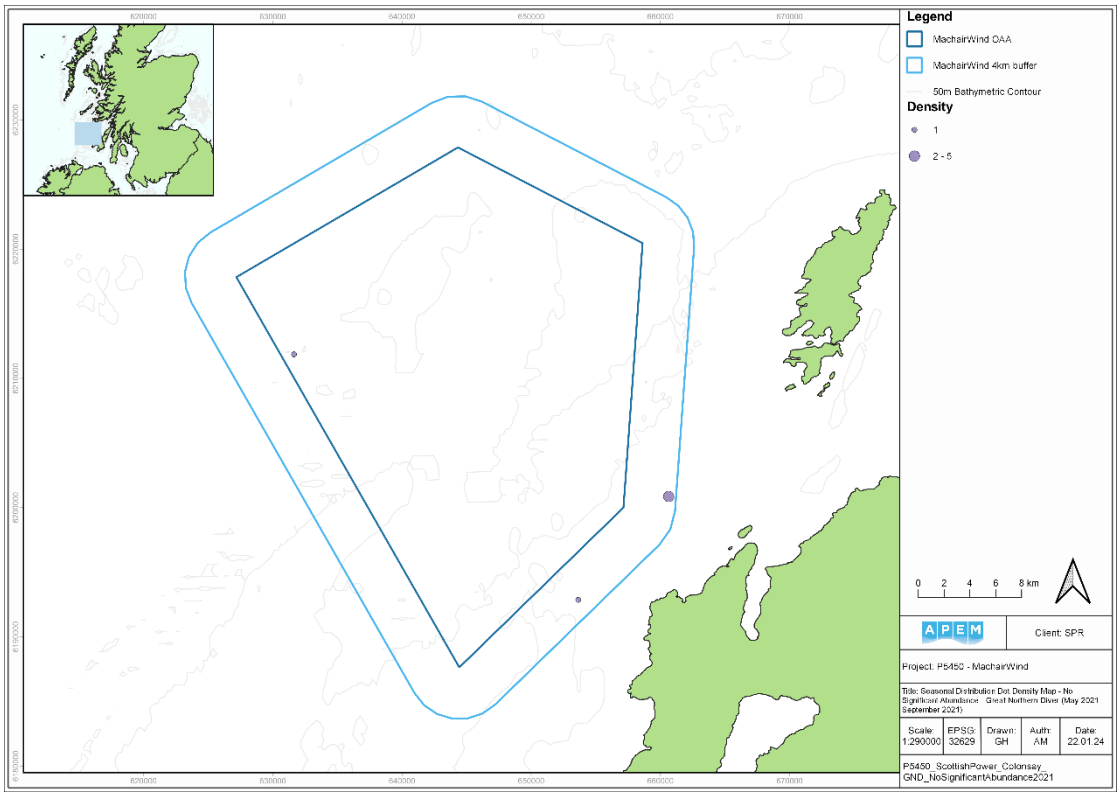


Figure 365 Great Northern Diver No Significant Abundance in Scottish Waters 2021

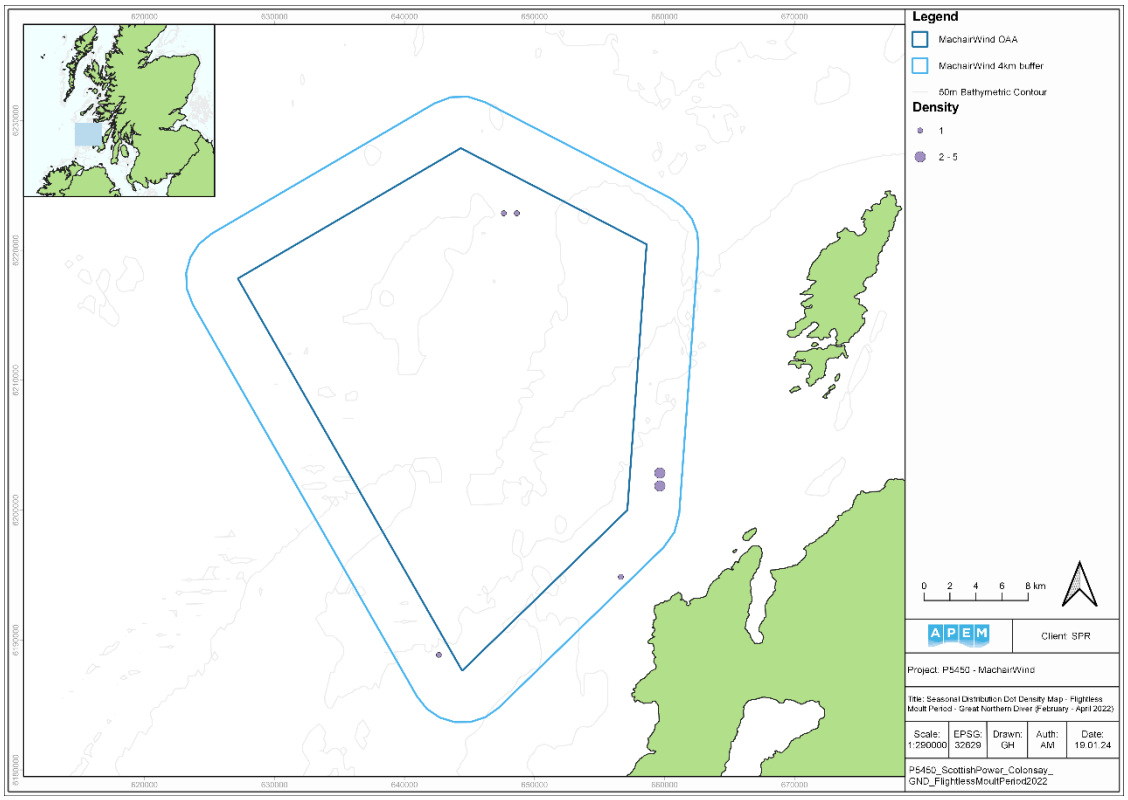


Figure 366 Great Northern Diver Flightless Moult Period 2022

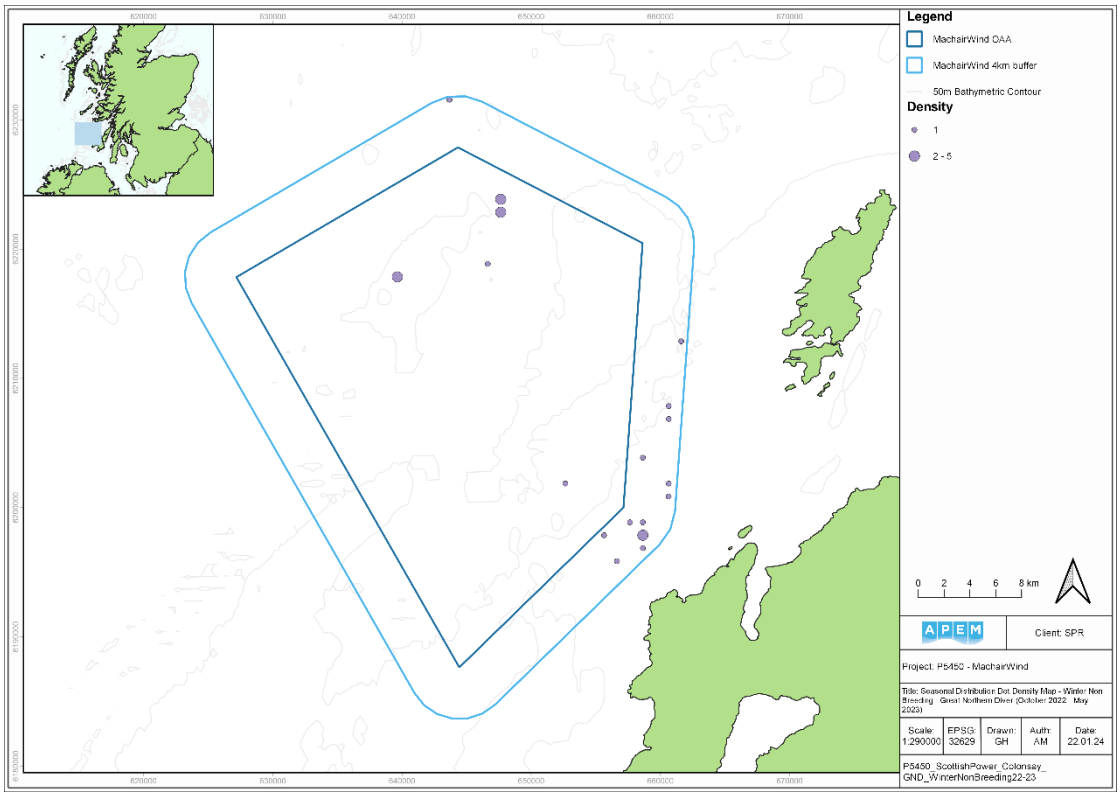


Figure 367 Great Northern Diver Winter Non-Breeding 2022 - 2023

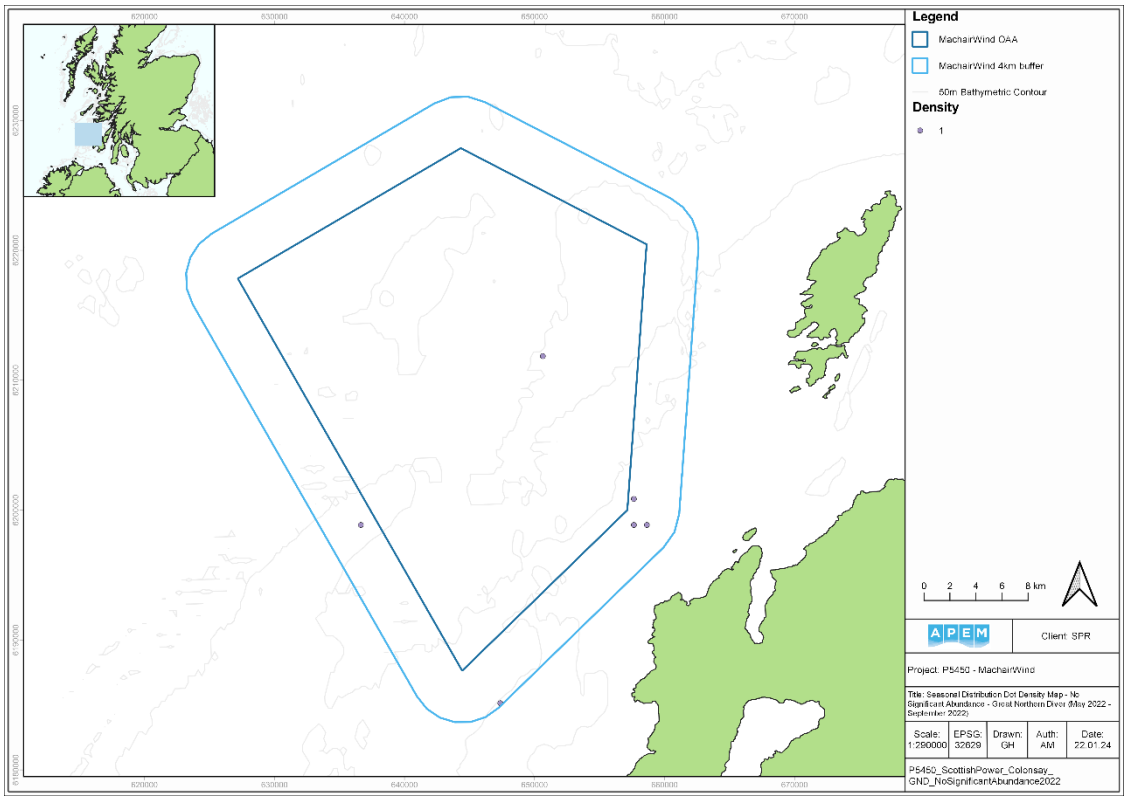


Figure 368 Great Northern Diver No Significant Abundance in Scottish Waters 2022

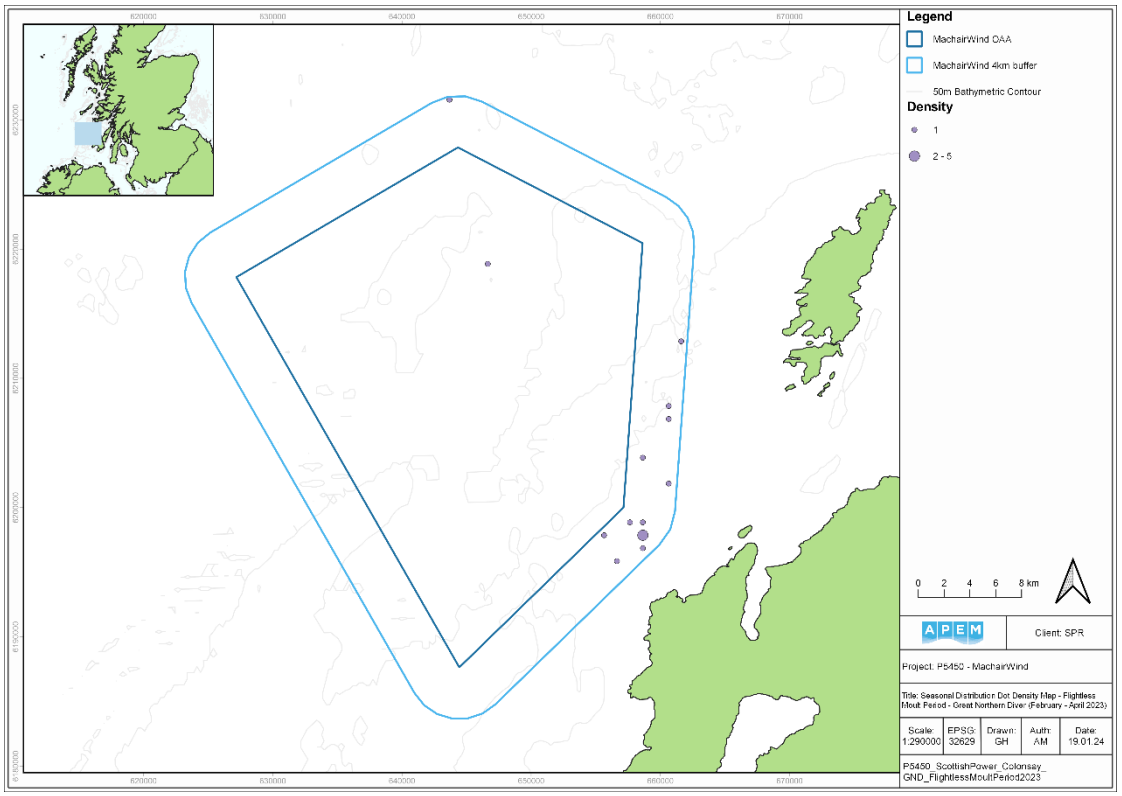


Figure 369 Great Northern Diver Flightless Moult Period 2023

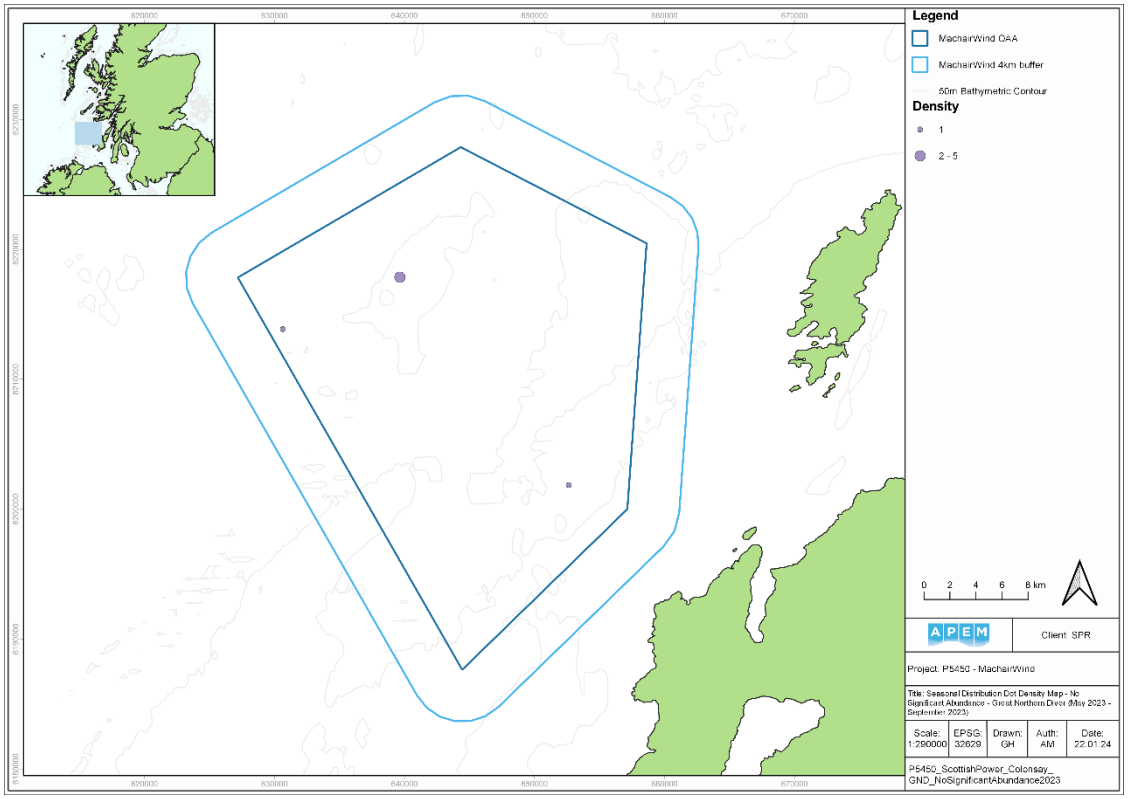


Figure 370 Great Northern Diver No Significant Abundance in Scottish Waters 2023

12.1.10 European Storm Petrel

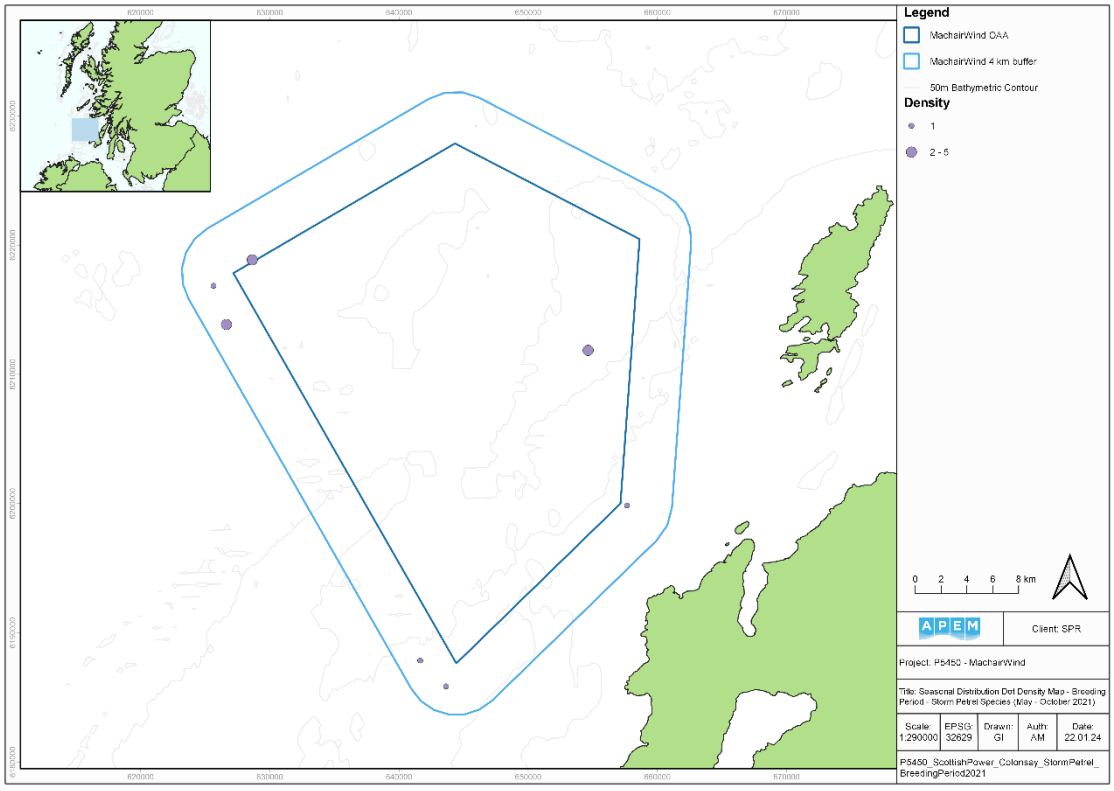


Figure 371 Storm Petrel Breeding Period 2021

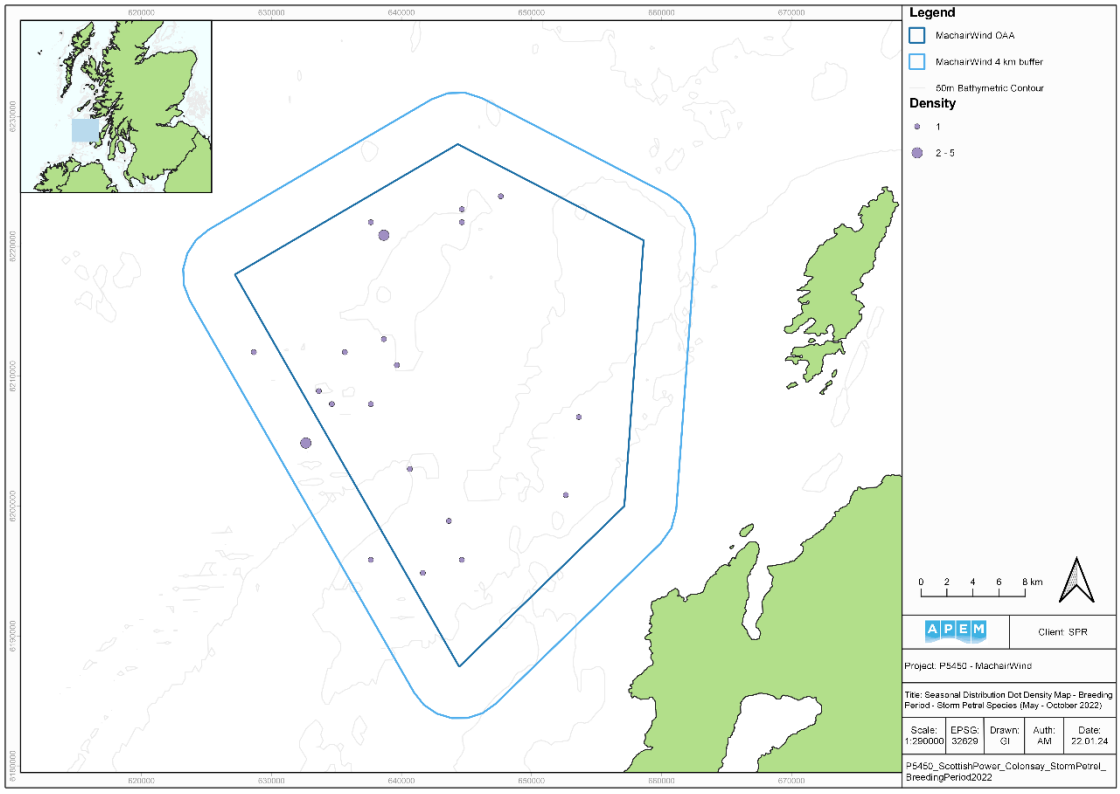


Figure 372 Storm Petrel Breeding Period 2022

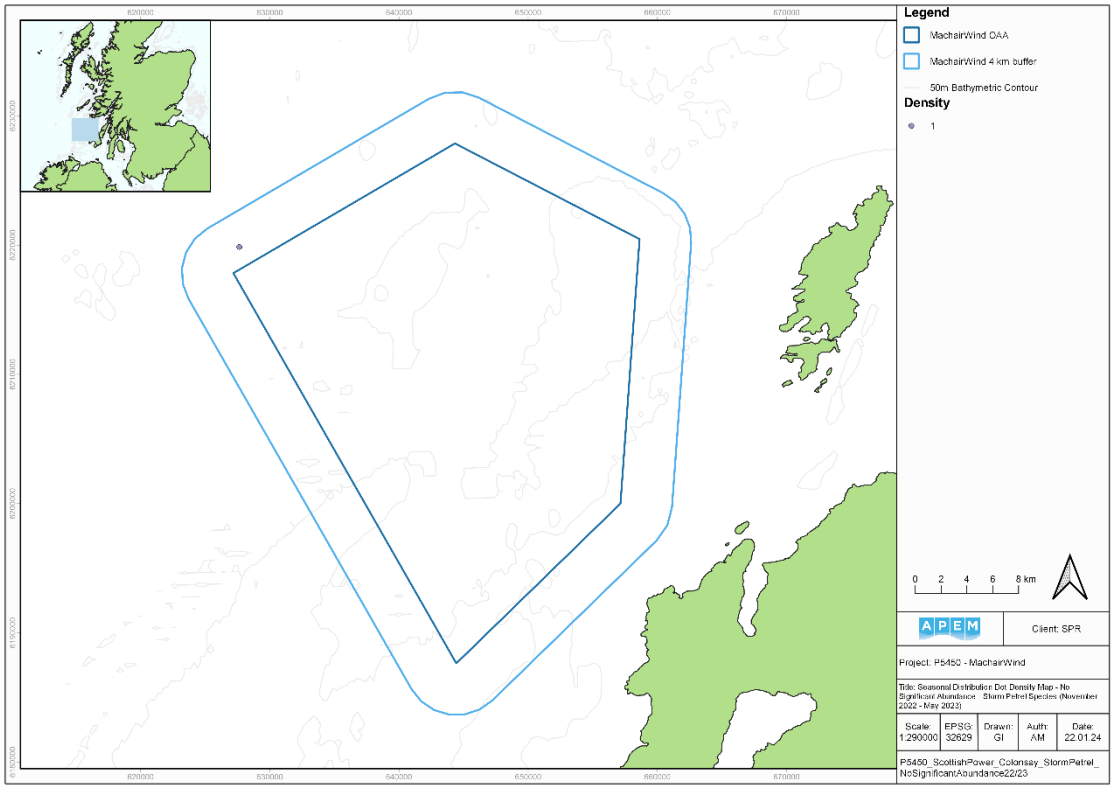


Figure 373 Storm Petrel No Significant Abundance in Scottish Waters 2022 - 2023

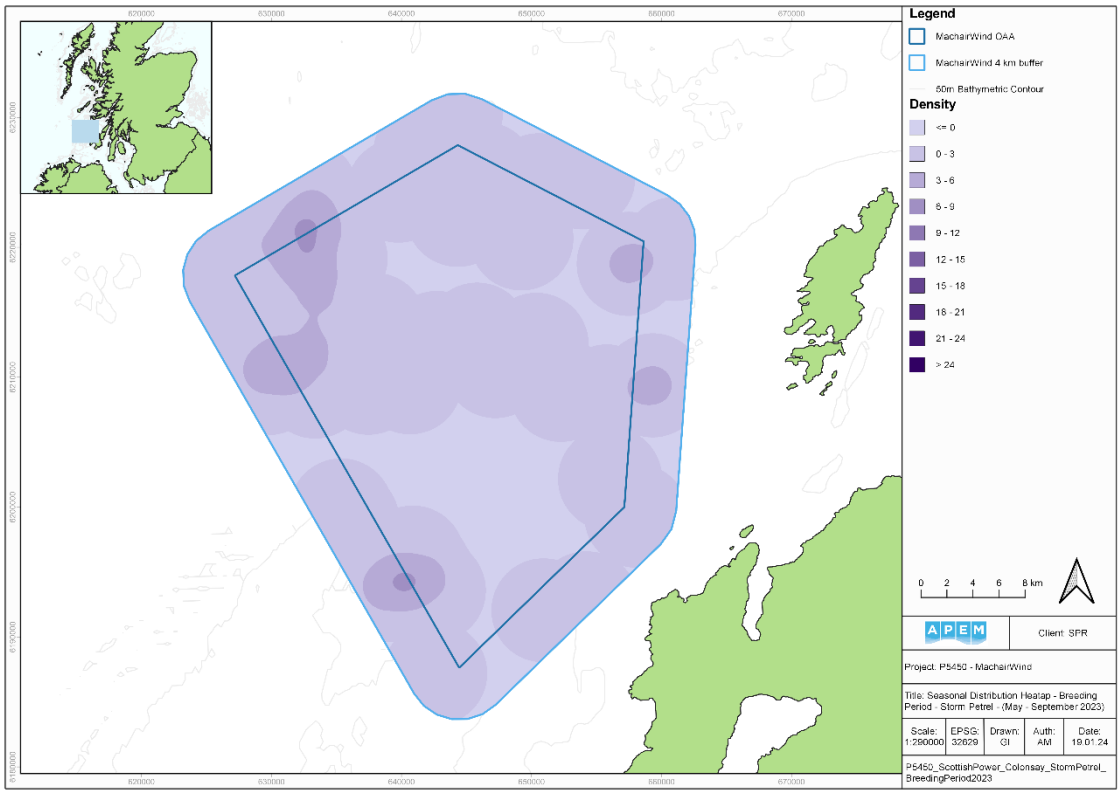


Figure 374 Storm Petrel Breeding Period 2023

12.1.11 Fulmar

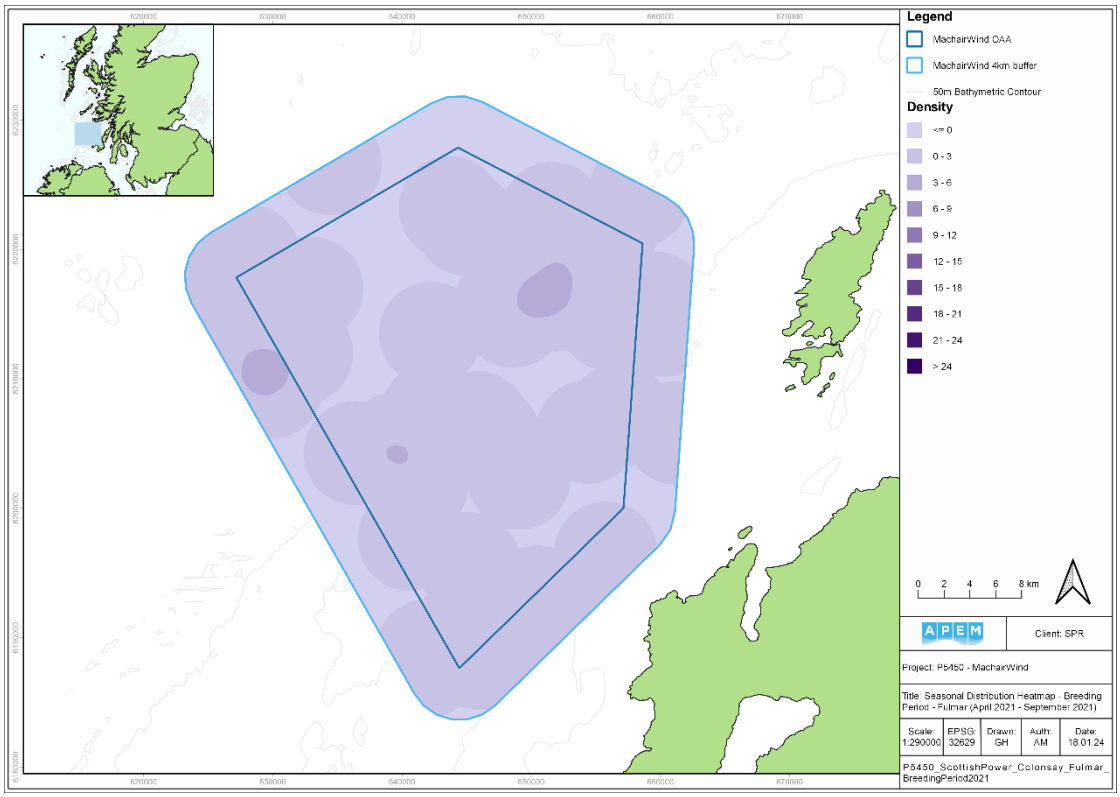


Figure 375 Fulmar Breeding Period 2021

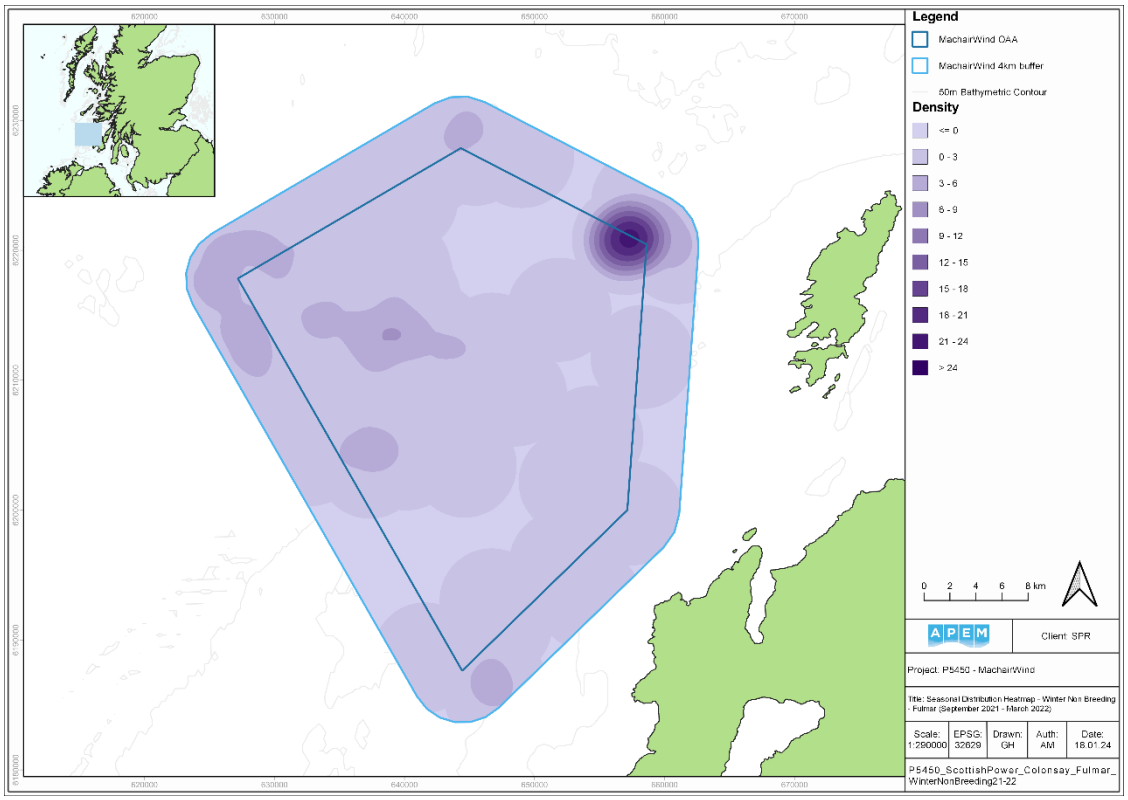


Figure 376 Fulmar Winter Non-Breeding 2021 - 2022

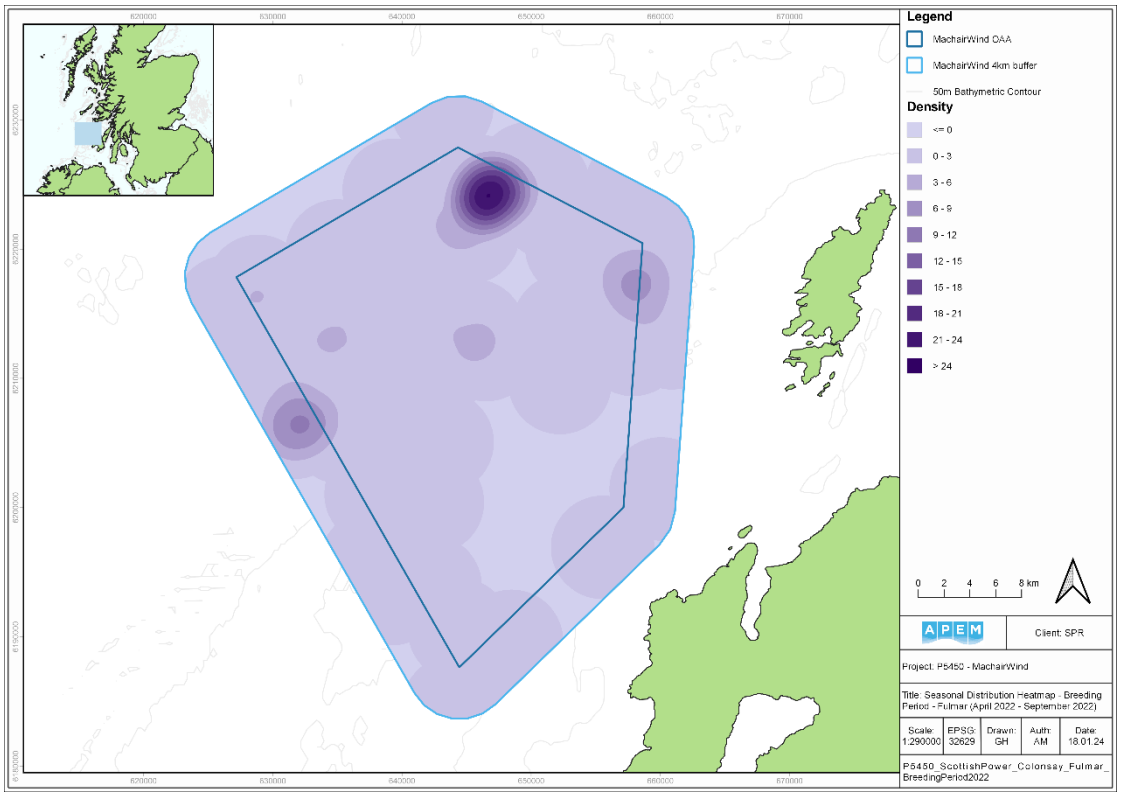


Figure 377 Fulmar Breeding Period 2022

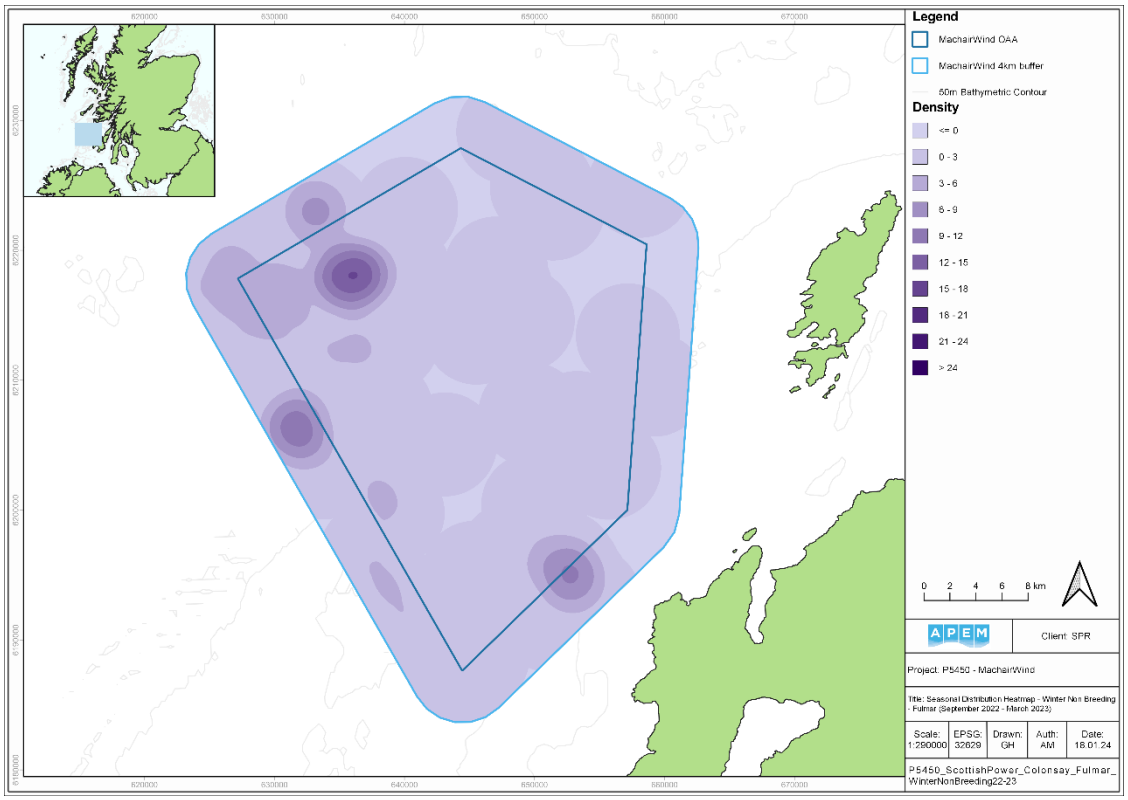


Figure 378 Fulmar Winter Non-Breeding 2022 - 2023

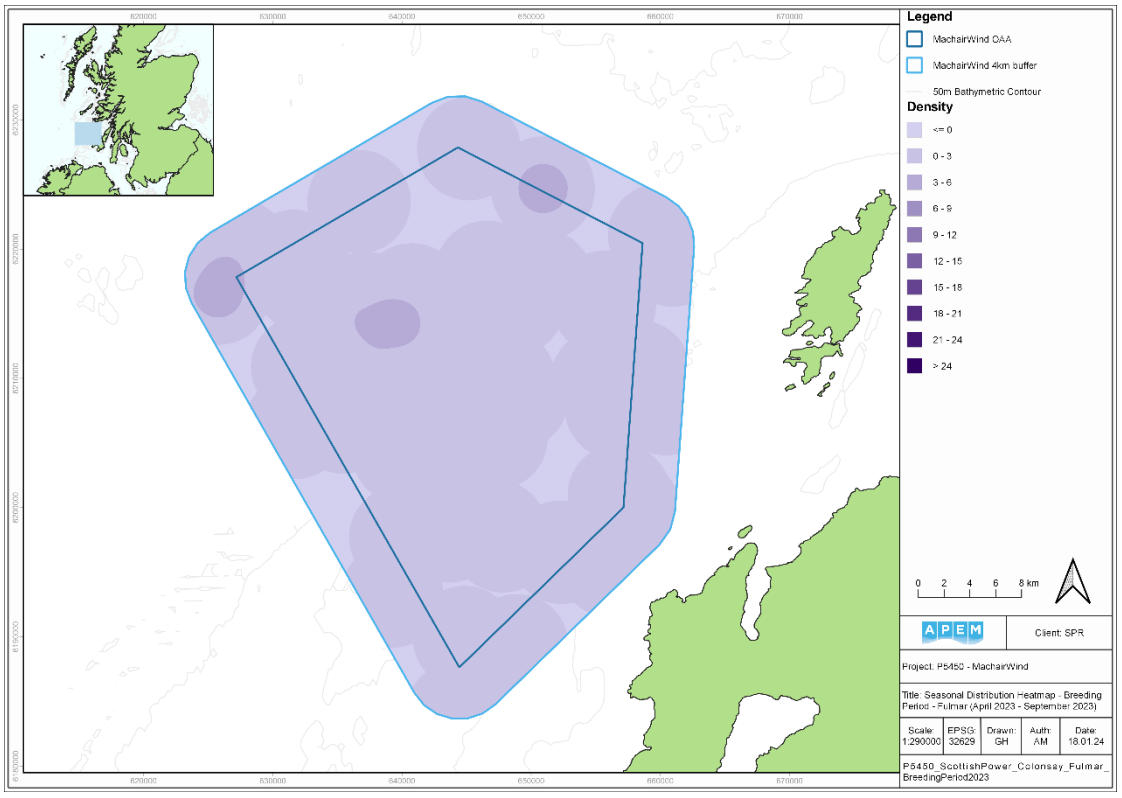


Figure 379 Fulmar Breeding Period 2023

12.1.12 Manx Shearwater

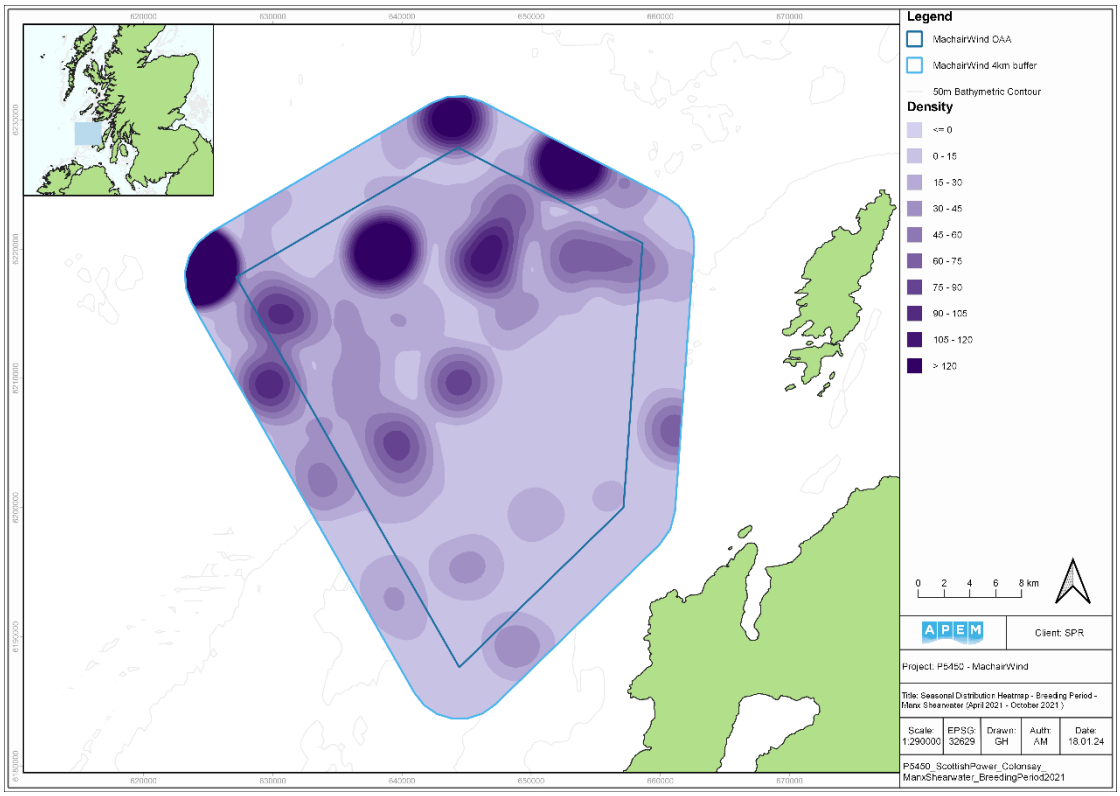


Figure 380 Manx Shearwater Breeding Period 2021

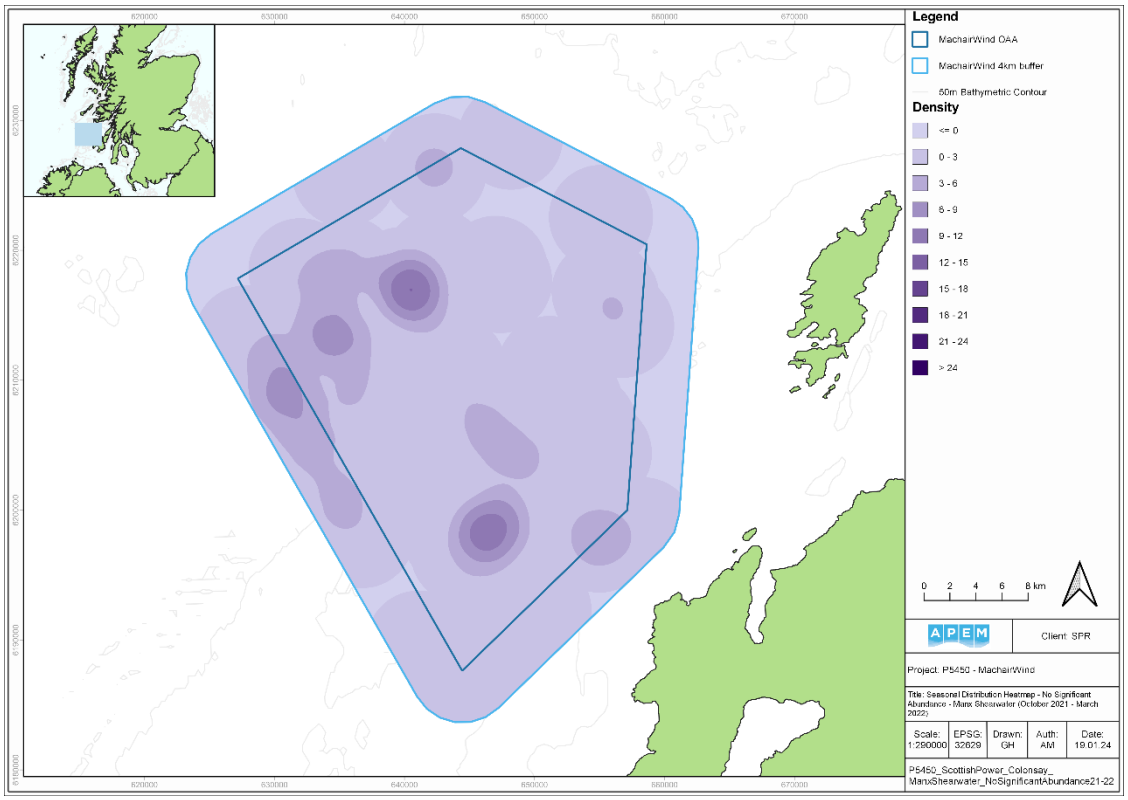


Figure 381 Manx Shearwater No Significant Abundance in Scottish Waters 2021 - 2022

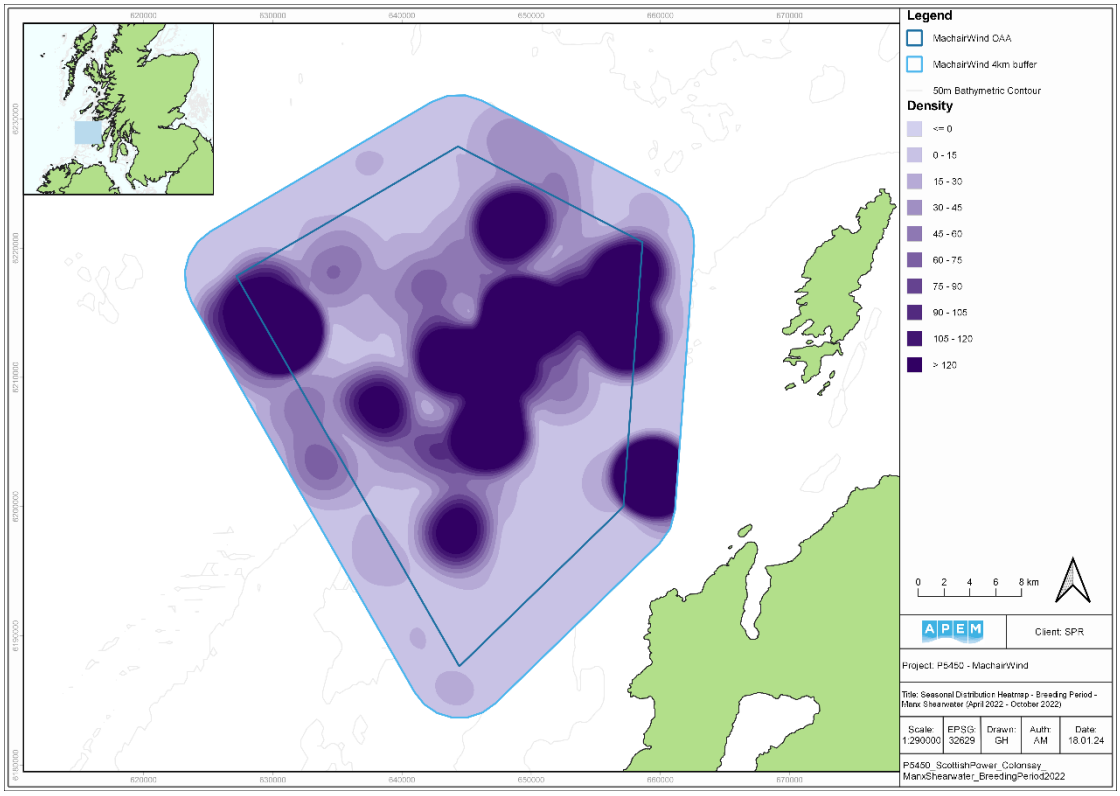


Figure 382 Manx Shearwater Breeding Period 2022

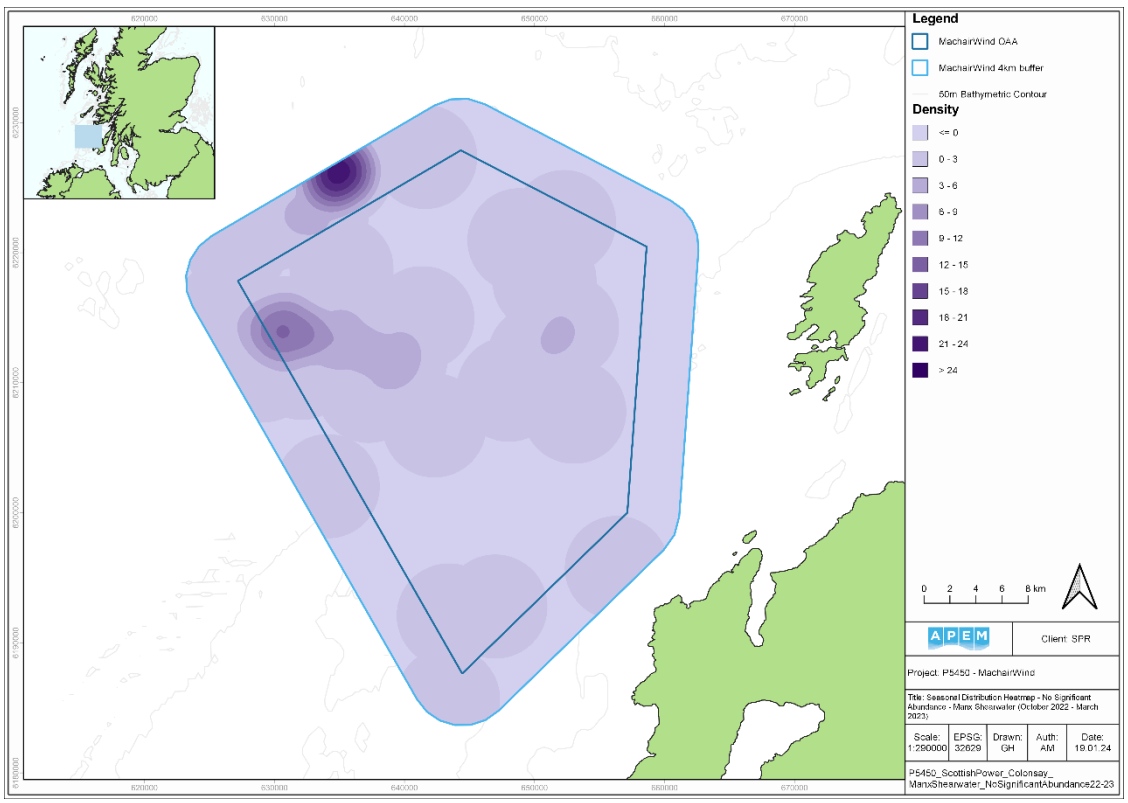


Figure 383 Manx Shearwater No Significant Abundance in Scottish Waters 2022 - 2023

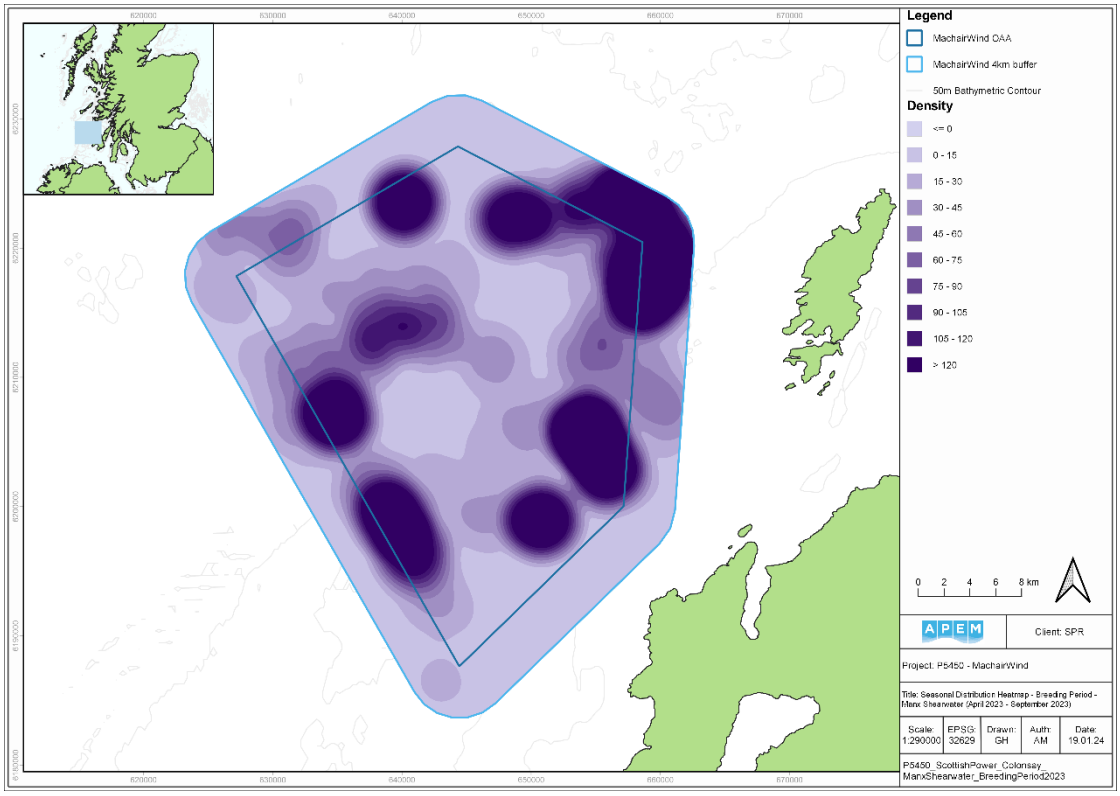


Figure 384 Manx Shearwater Breeding Period 2023

12.1.13 Gannet

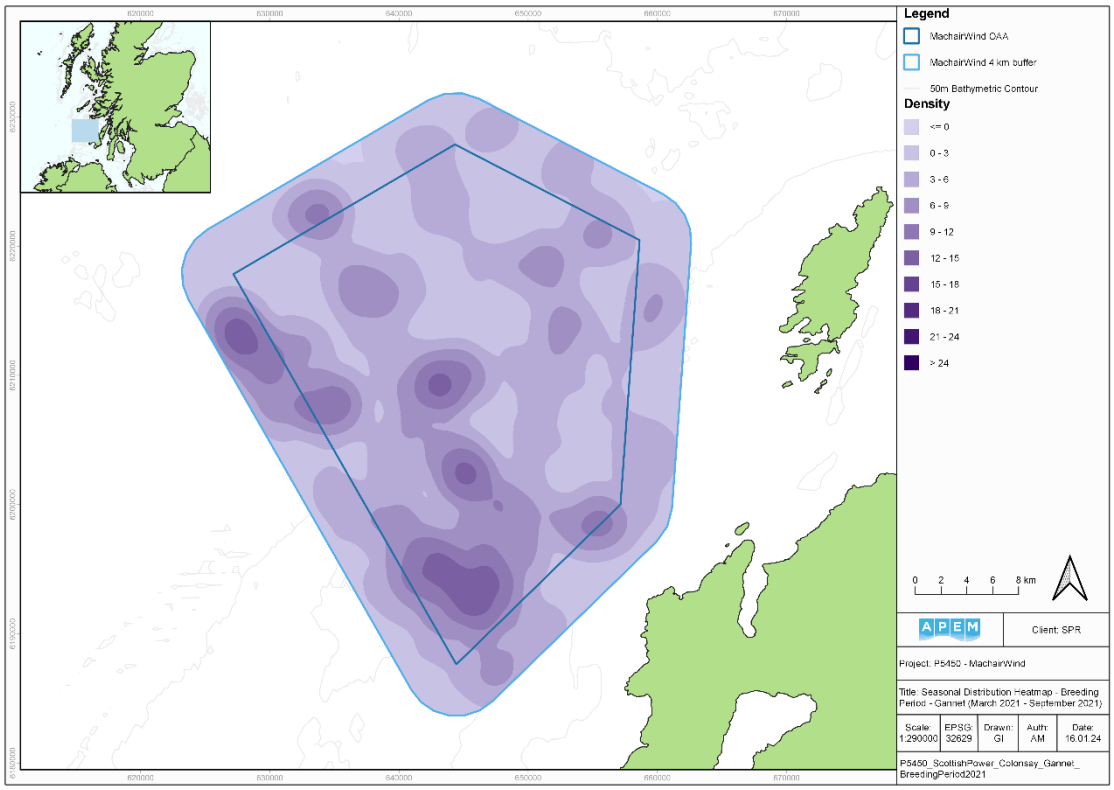


Figure 385 Gannet Breeding Period 2021

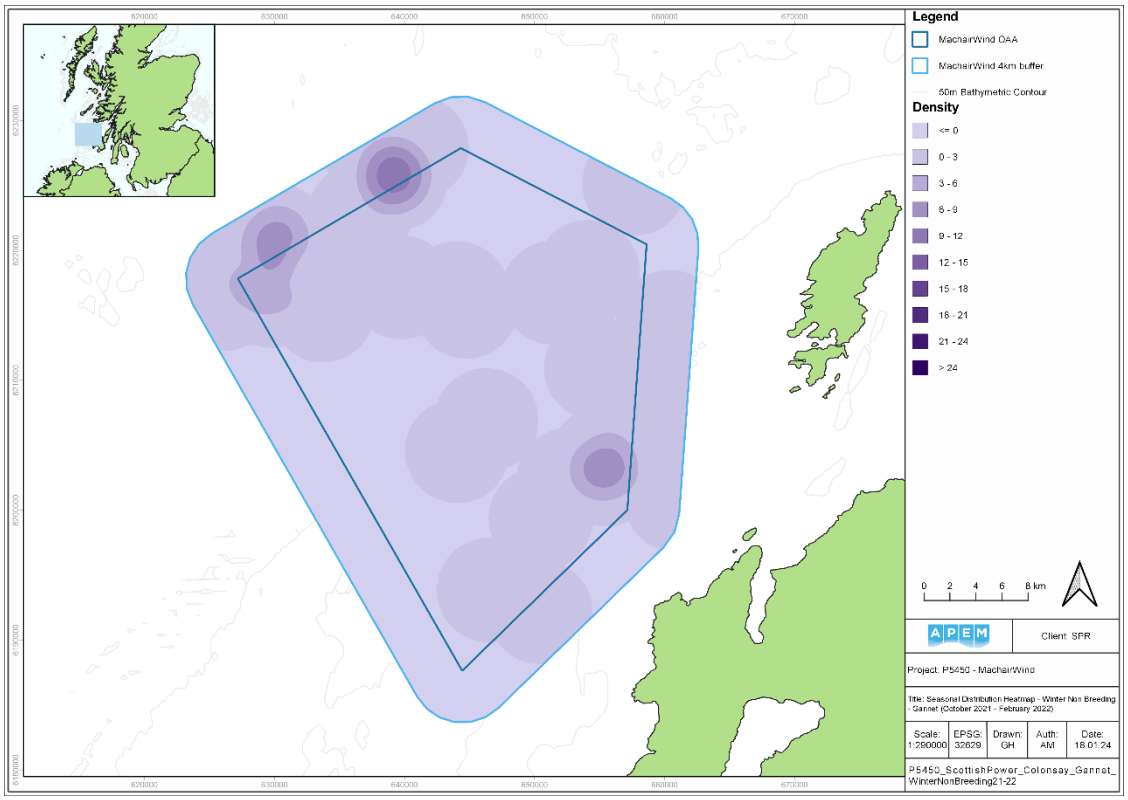


Figure 386 Gannet Winter Non-Breeding 2021 - 2022

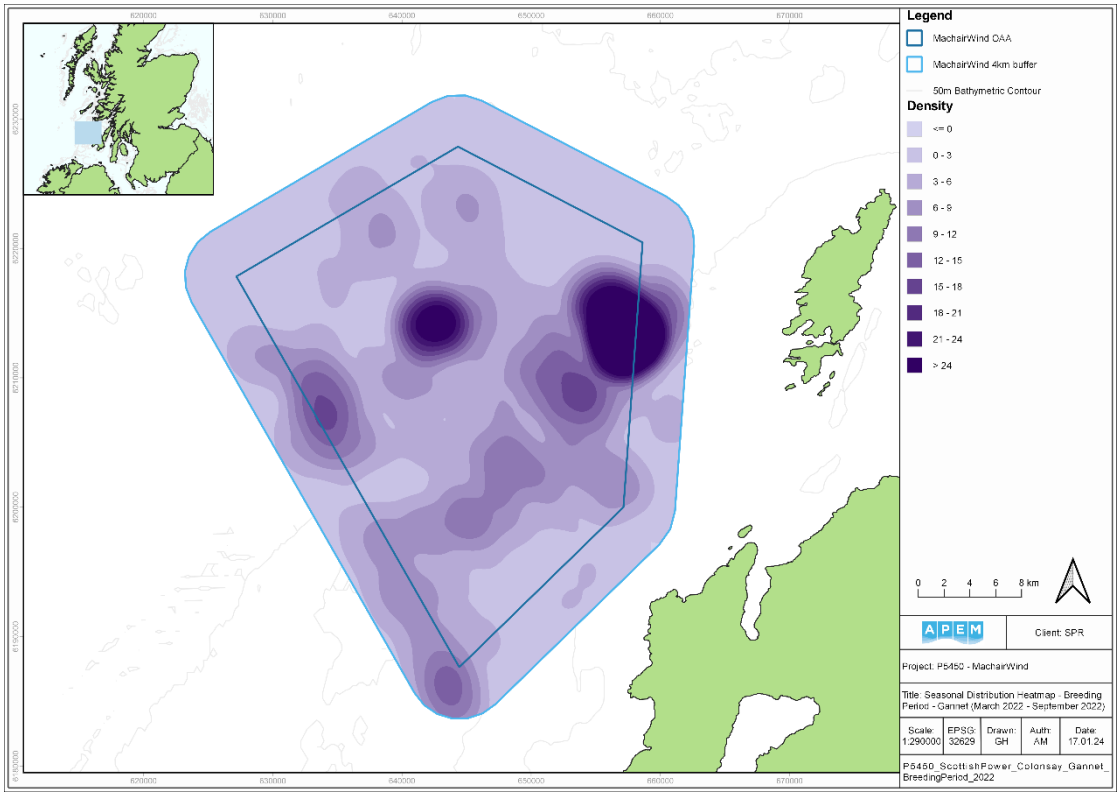


Figure 387 Gannet Breeding Period 2022

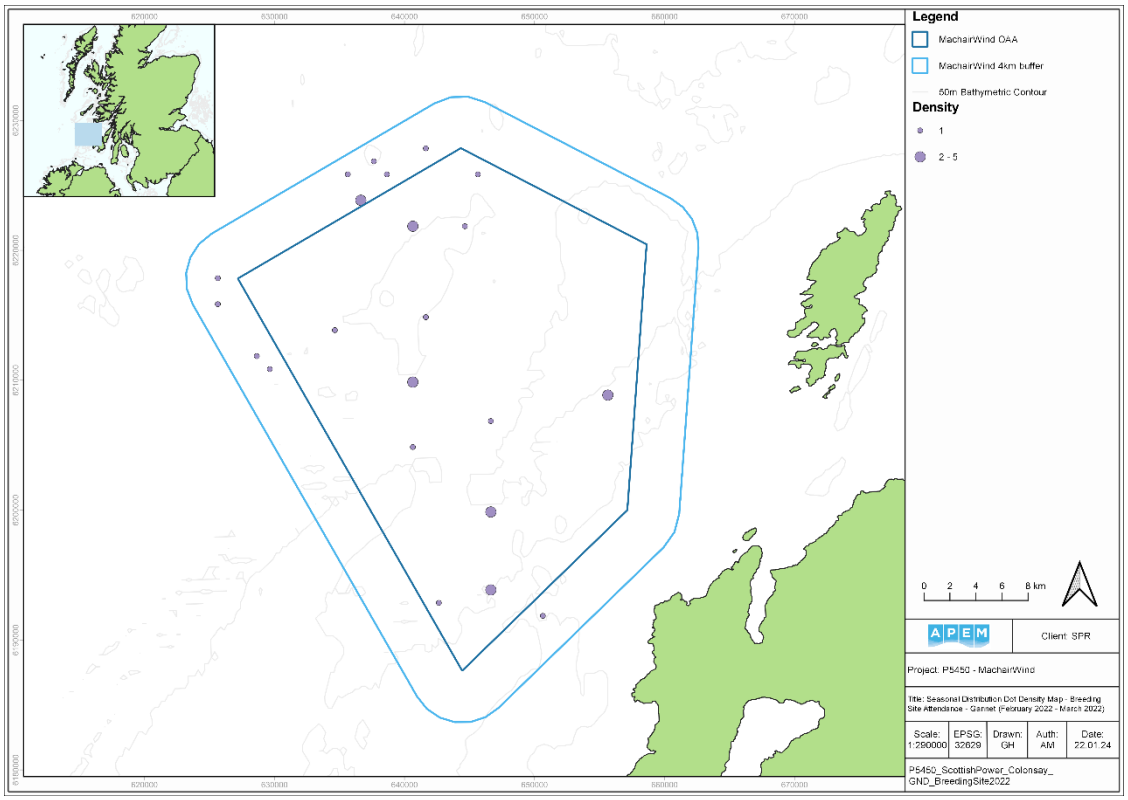


Figure 388 Gannet Breeding Site Attendance 2022

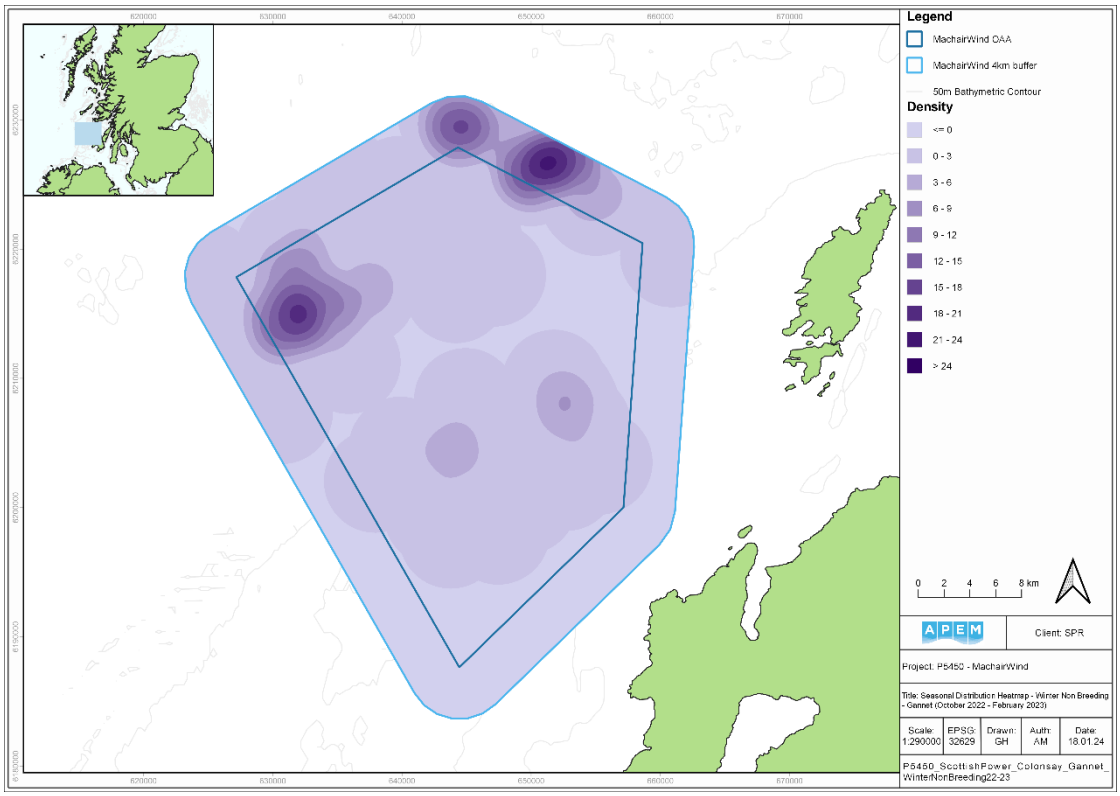


Figure 389 Gannet Winter Non-Breeding 2022 - 2023

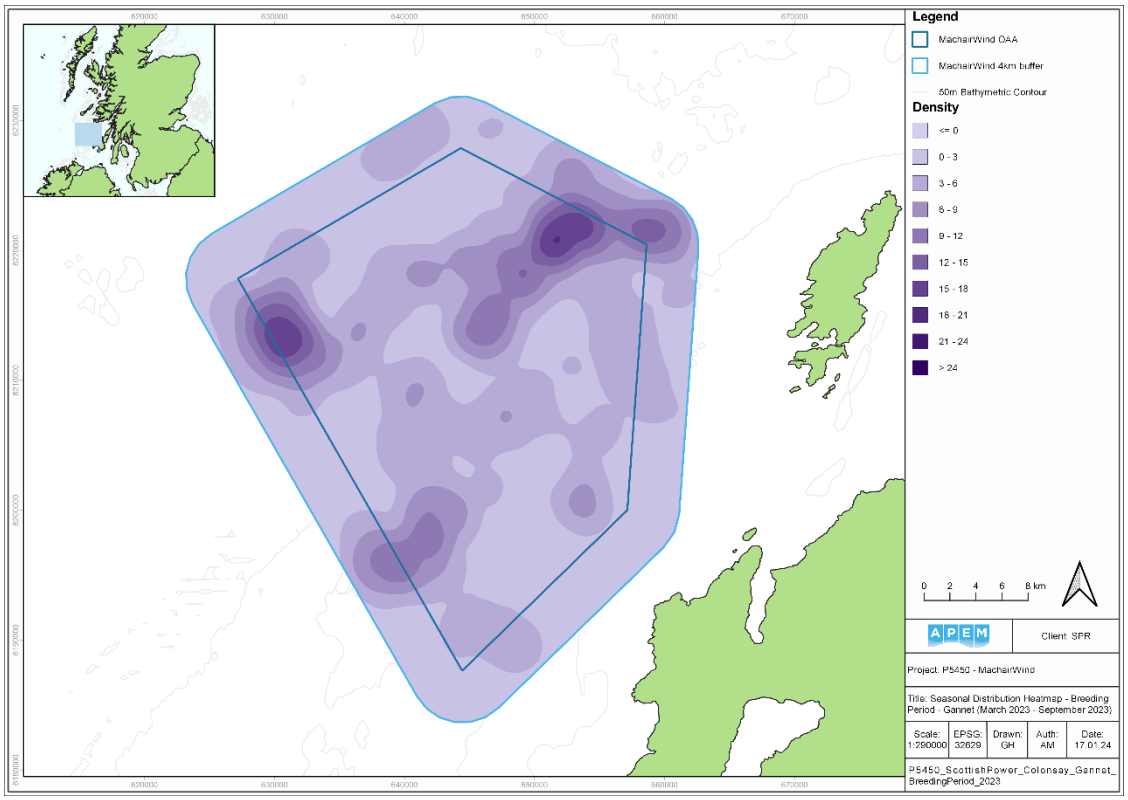


Figure 390 Gannet Breeding Period 2023

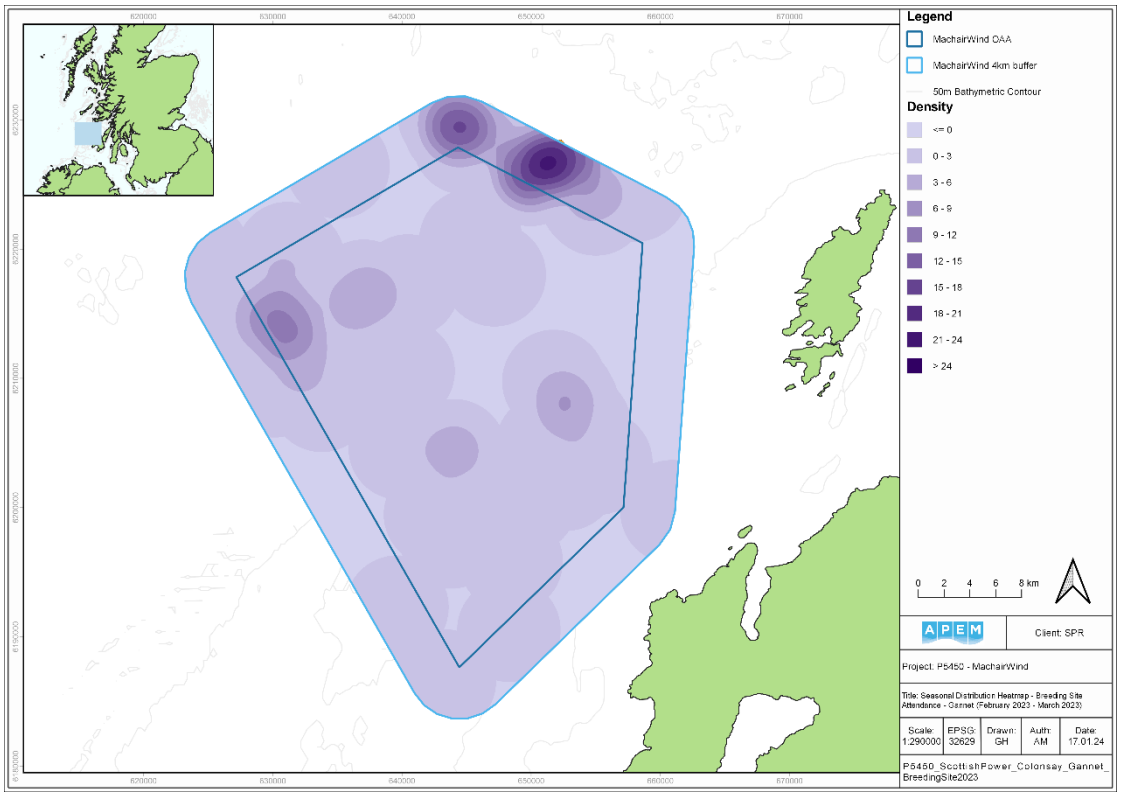


Figure 391 Gannet Breeding Site Attendance 2023

12.2 Marine Megafauna

12.2.1 Grey Seal

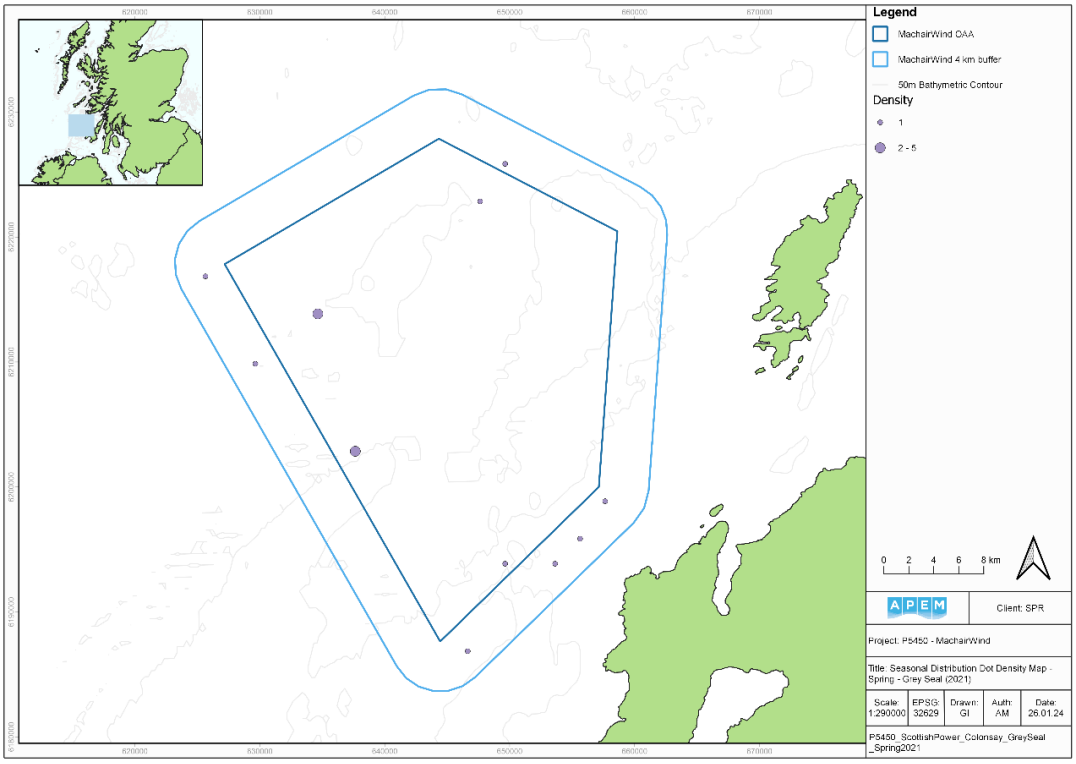


Figure 392 Grey Seal Spring 2021

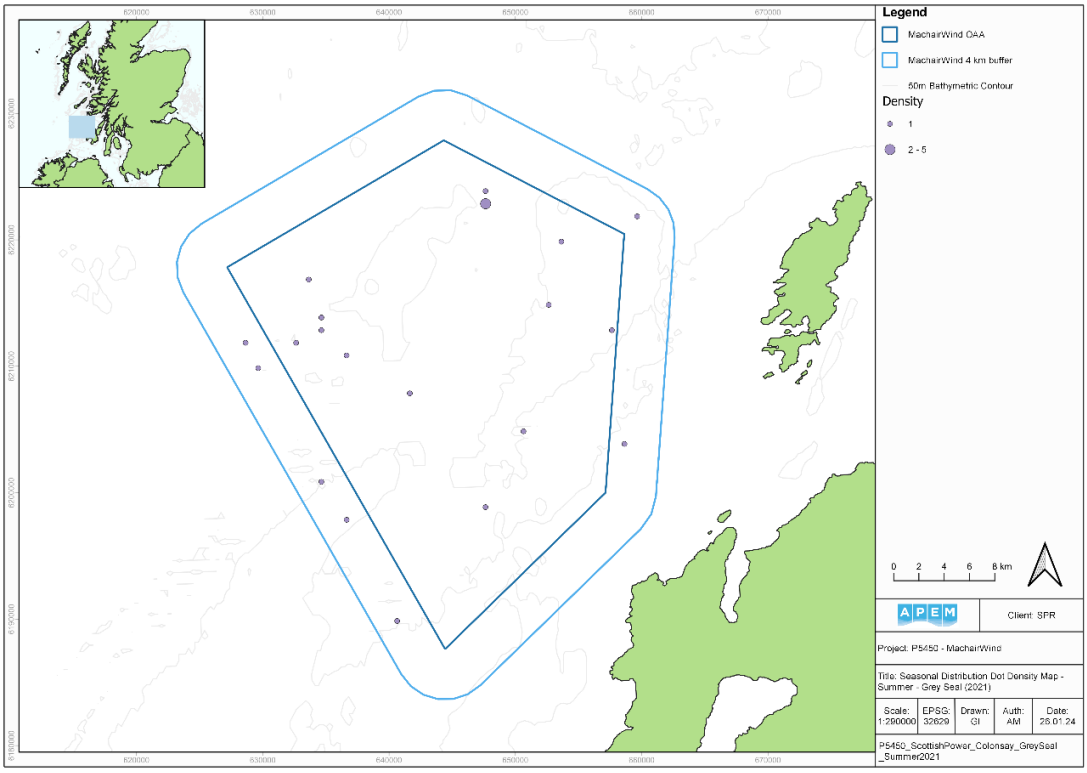


Figure 393 Grey Seal Summer 2021

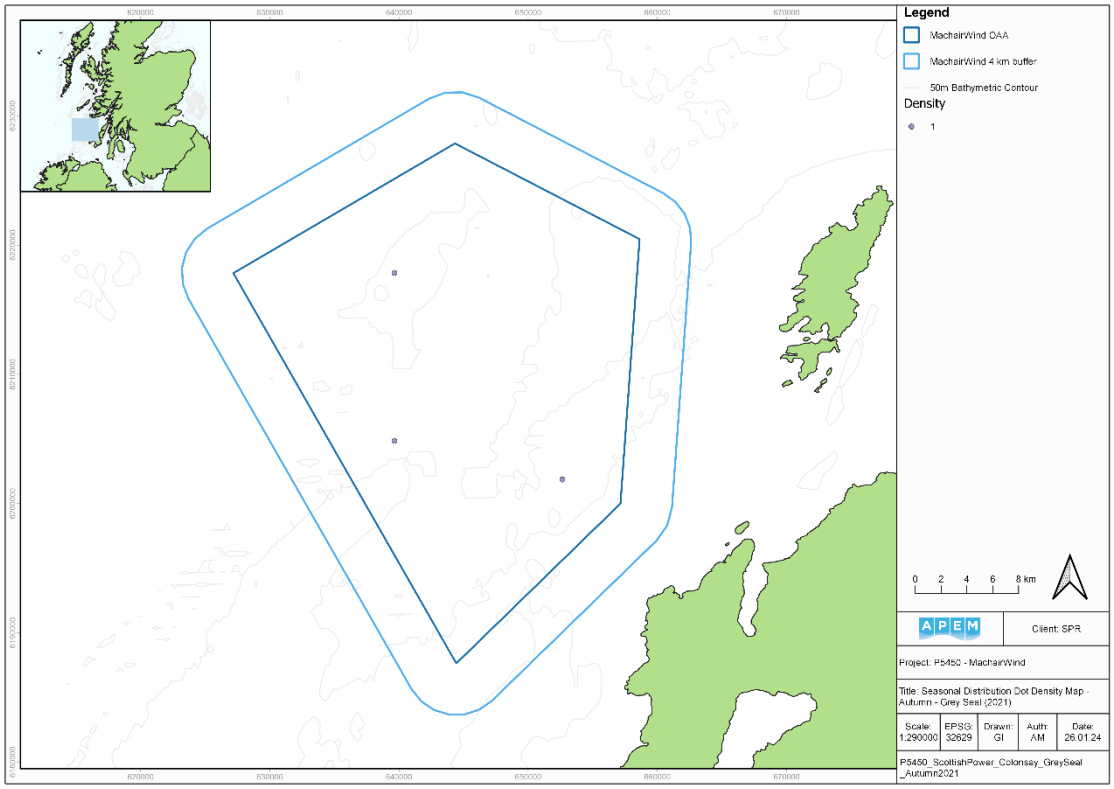


Figure 394 Grey Seal Autumn 2021

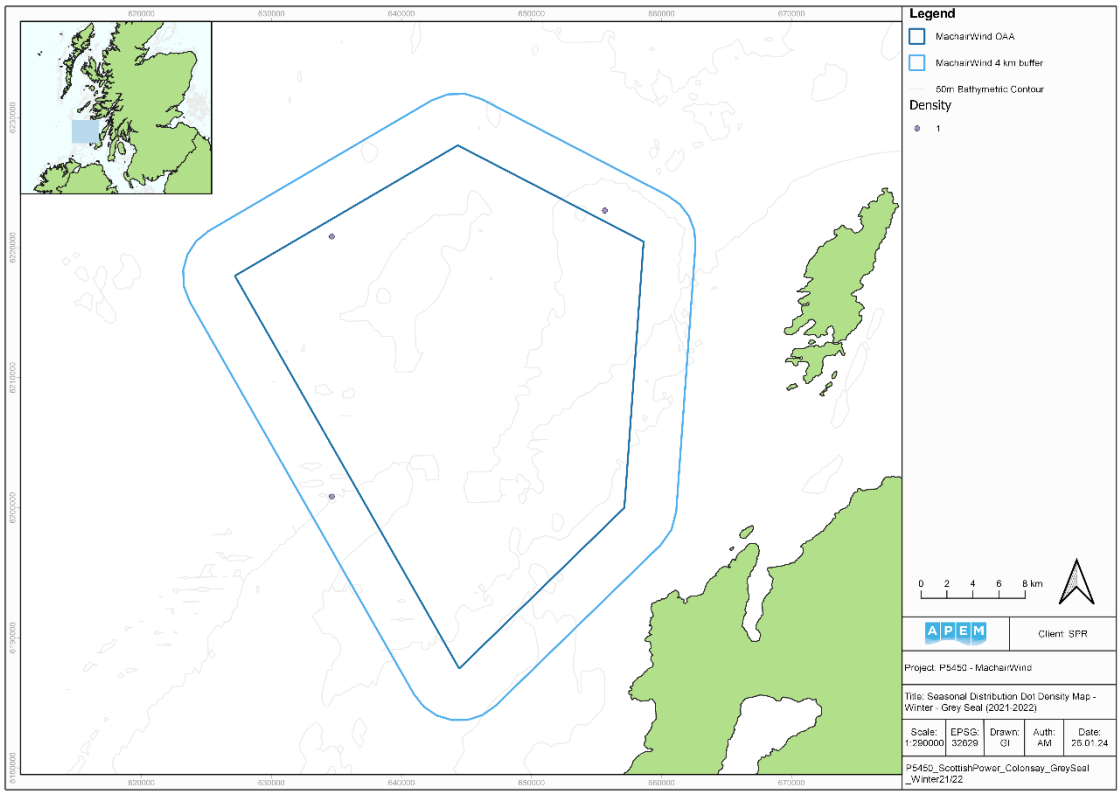


Figure 395 Grey Seal Winter 2021 - 2022

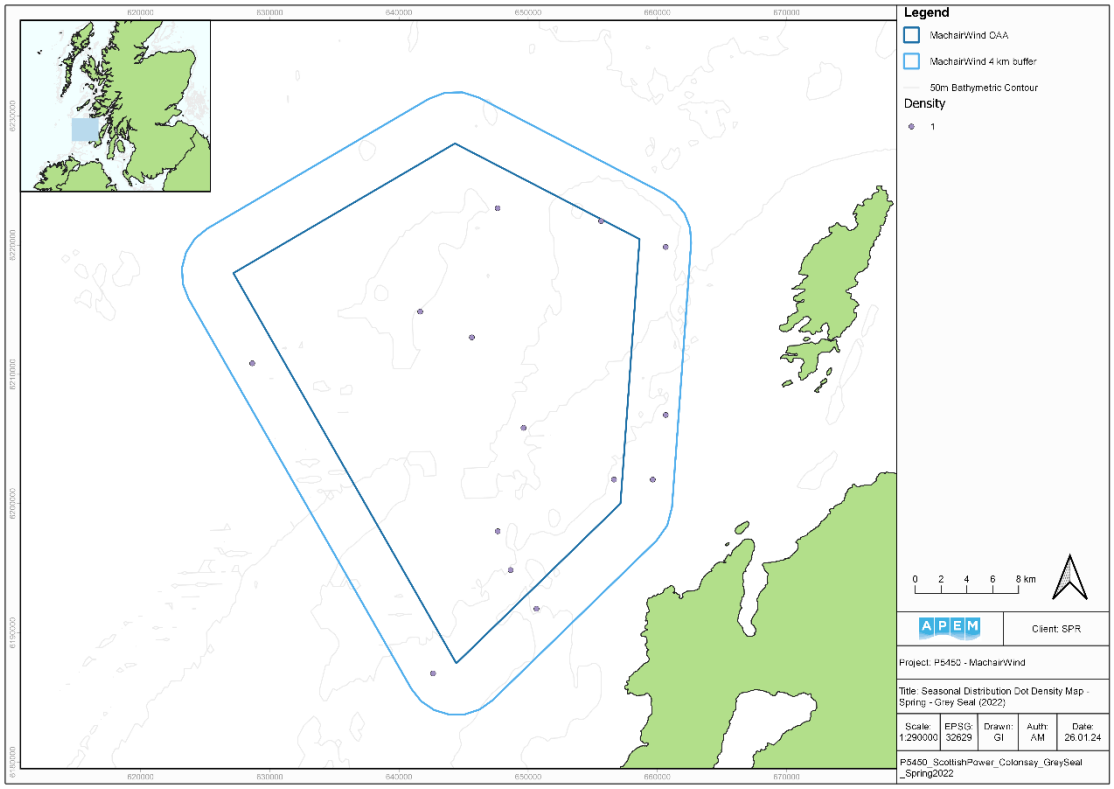


Figure 396 Grey Seal Spring 2022

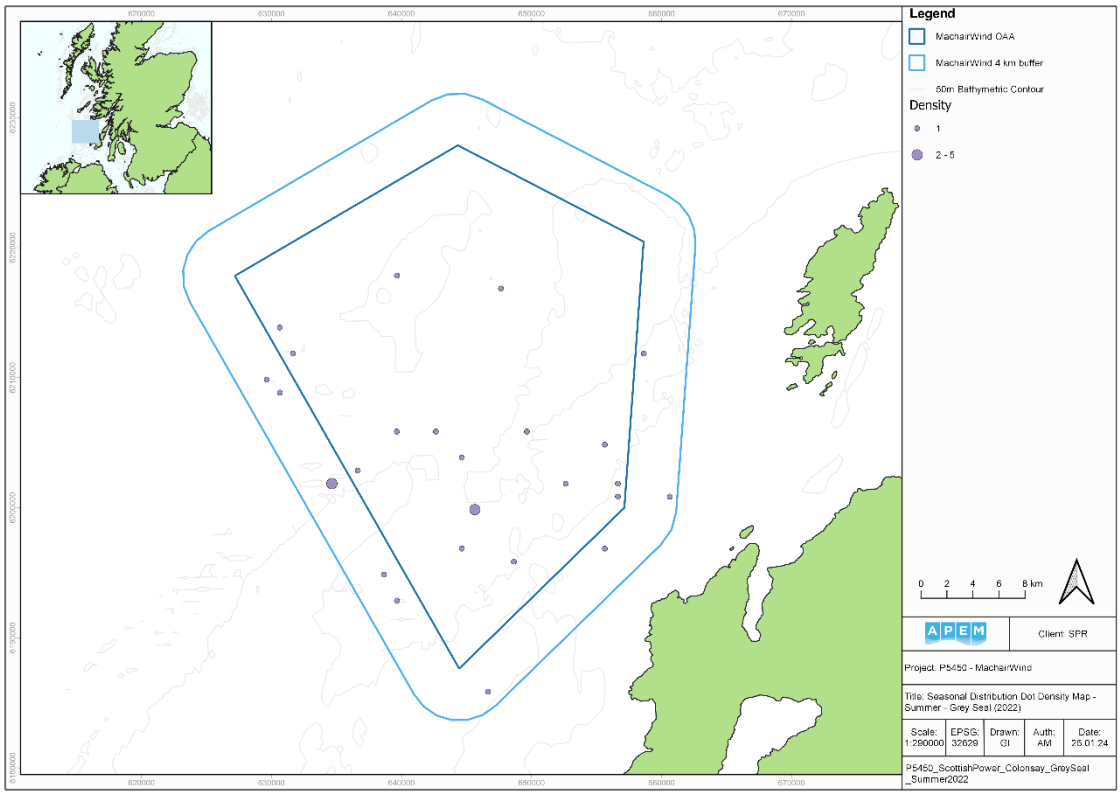


Figure 397 Grey Seal Summer 2022

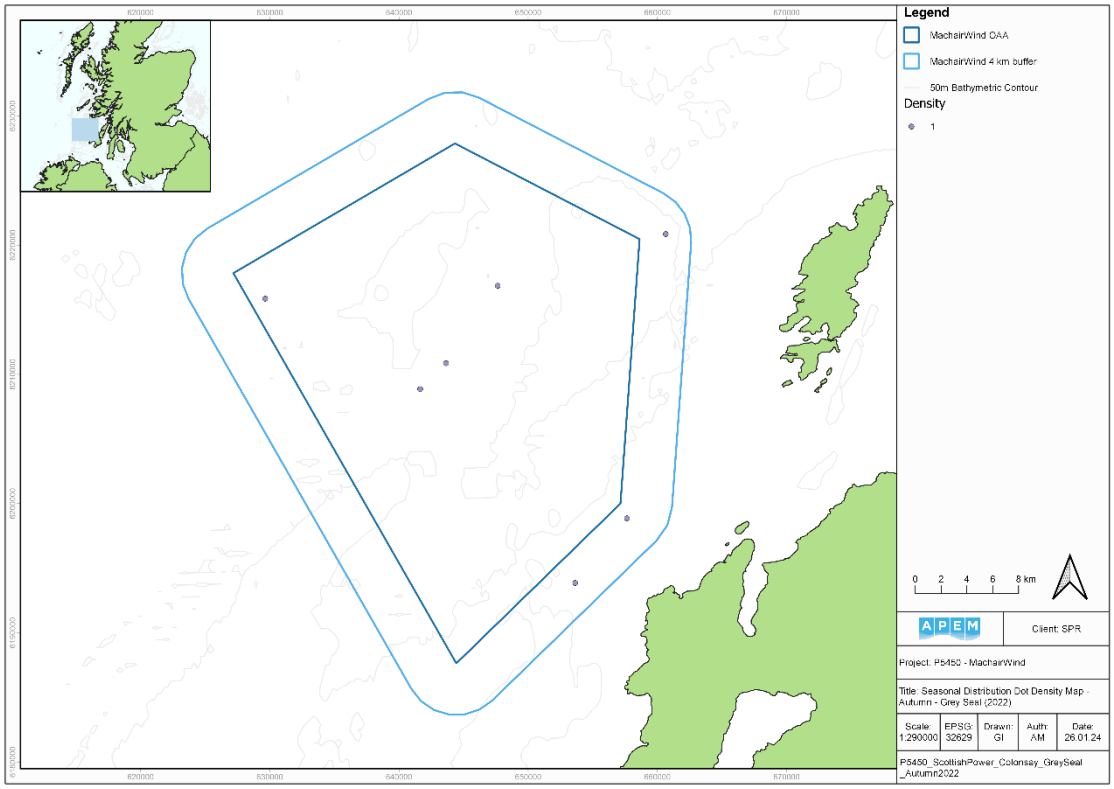
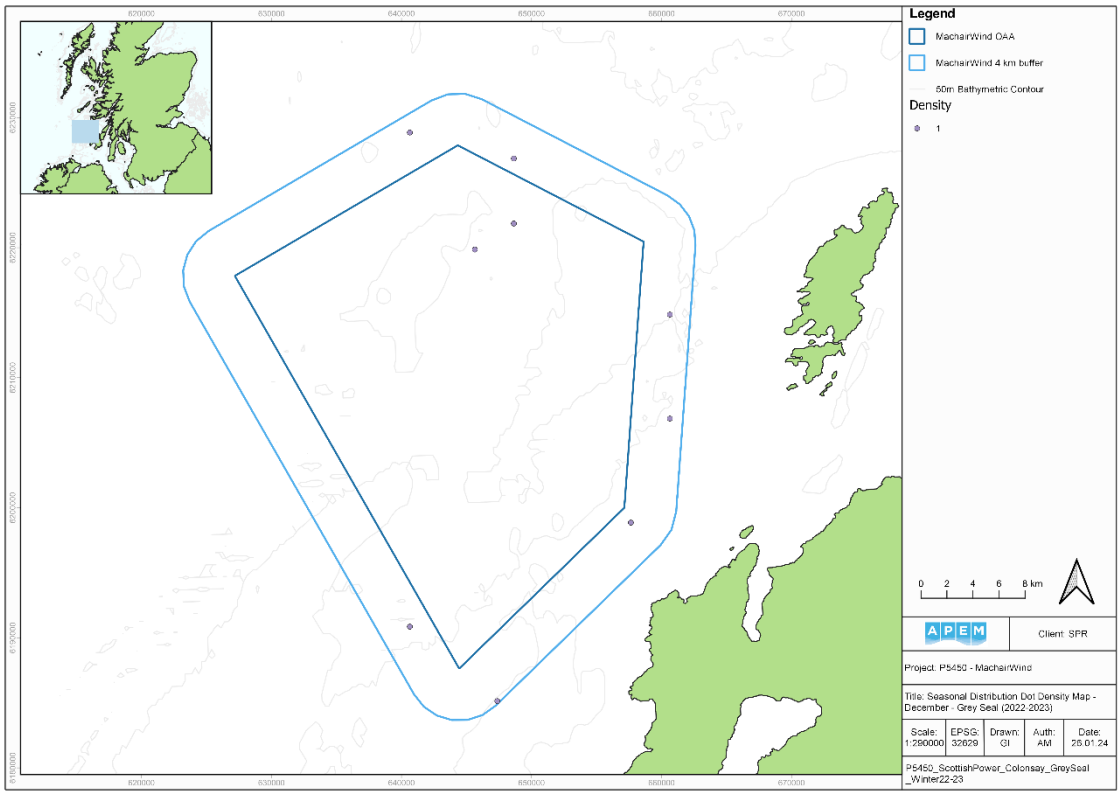


Figure 398 Grey Seal Autumn 2022



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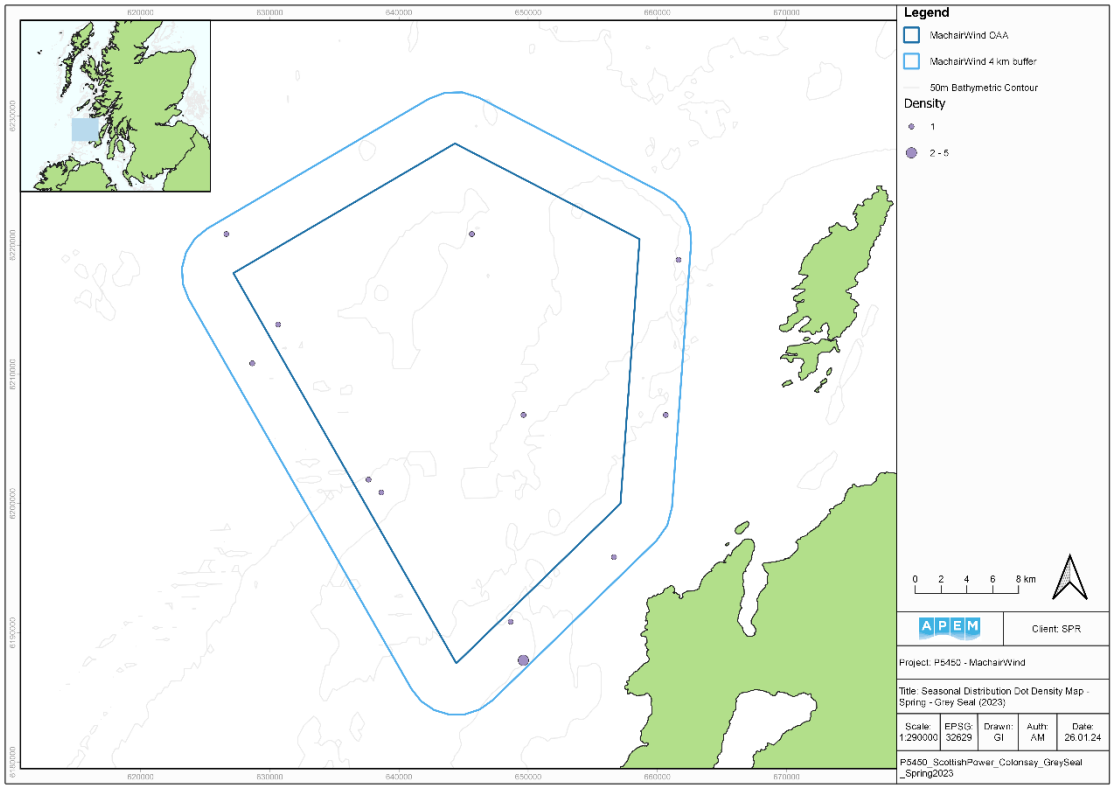

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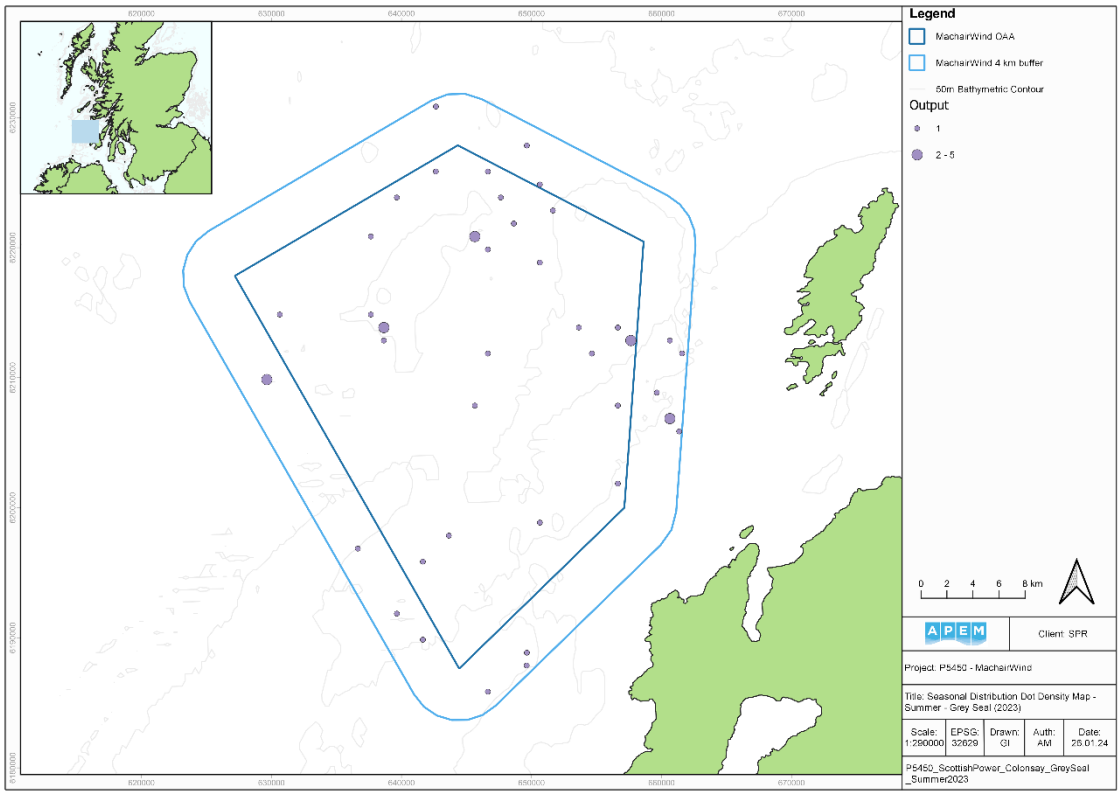

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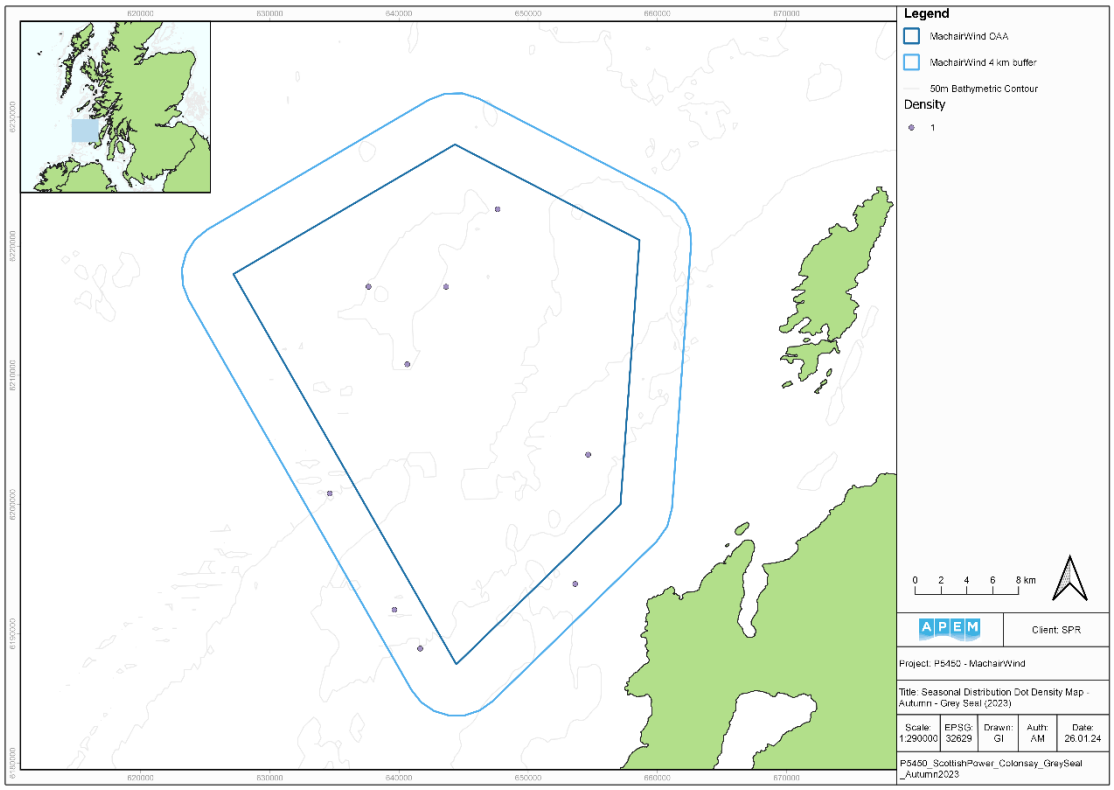
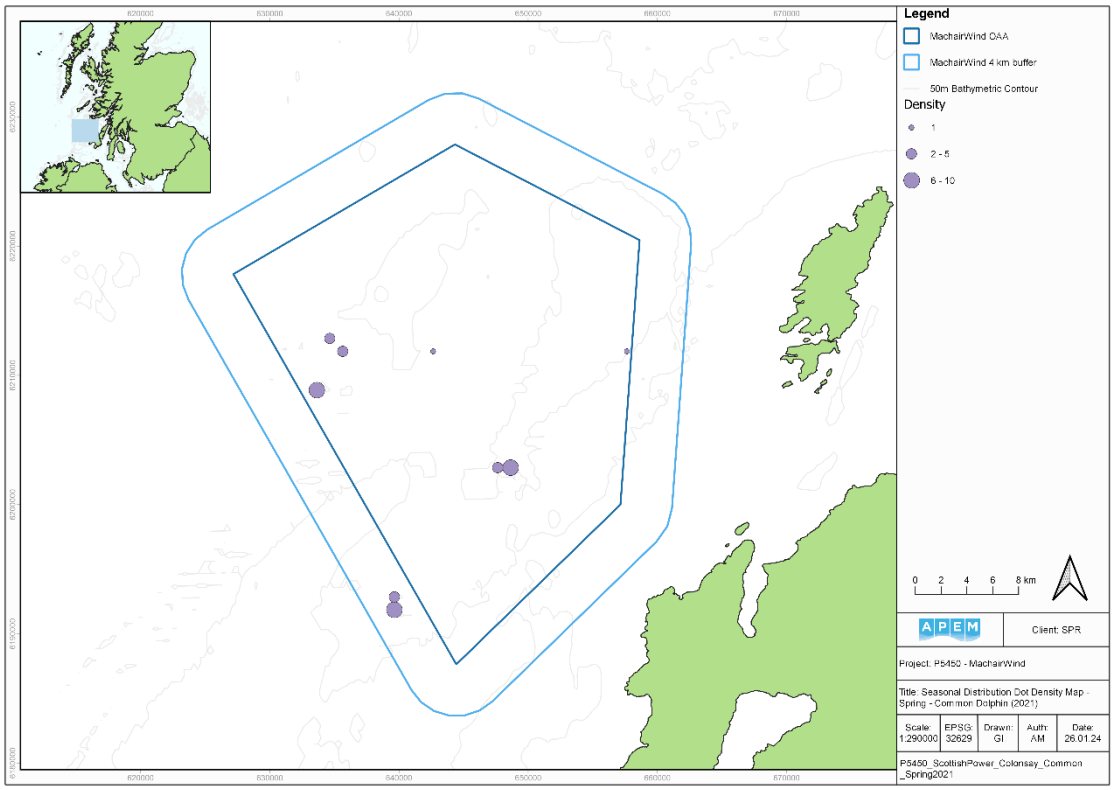


Figure 402 Grey Seal Autumn 2023

12.2.2 Common Dolphin



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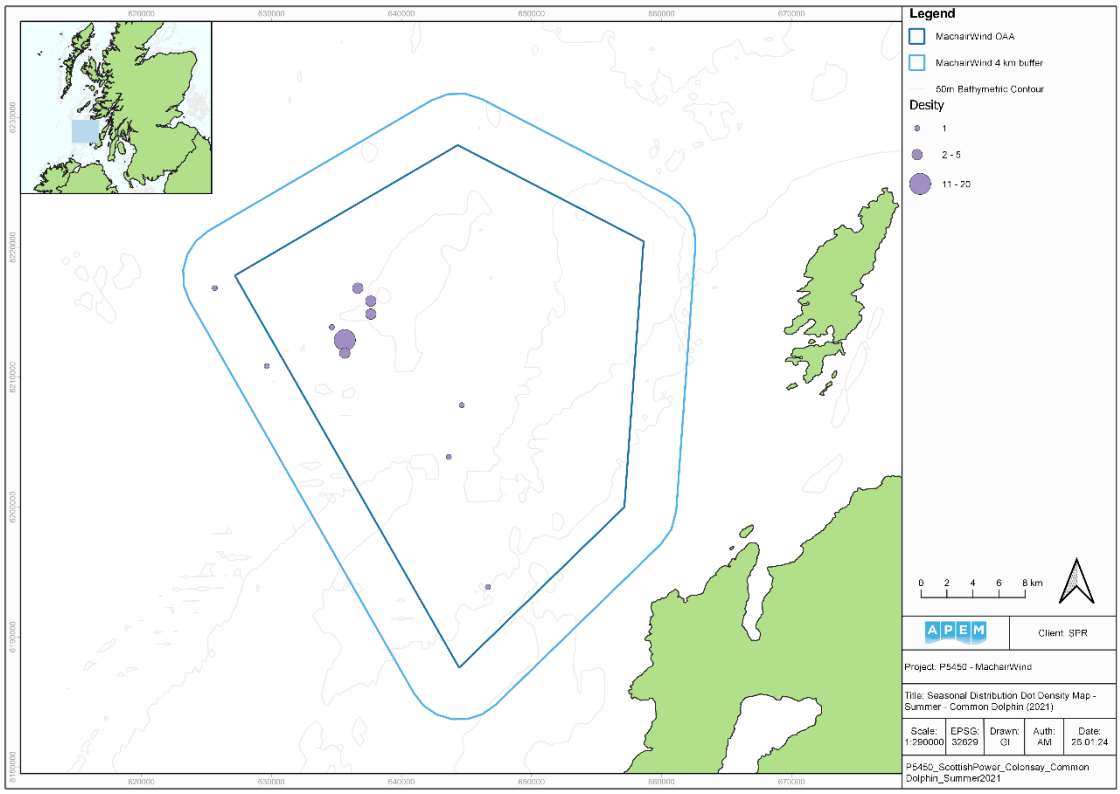

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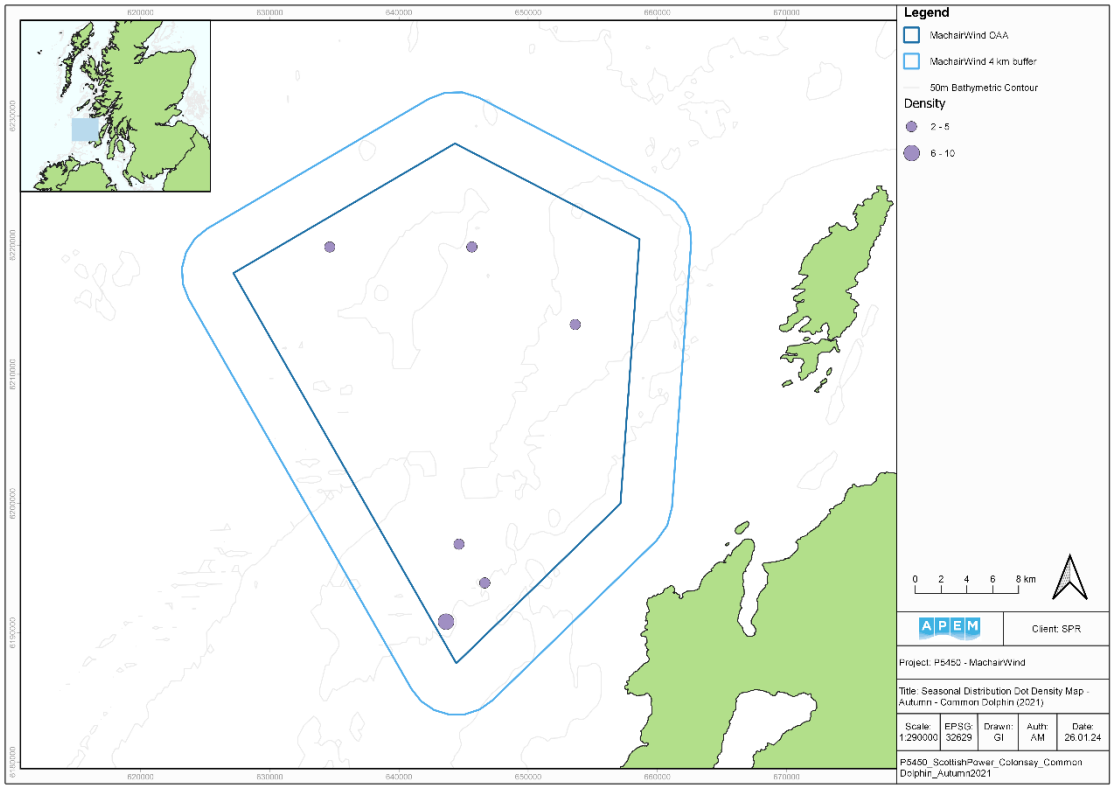
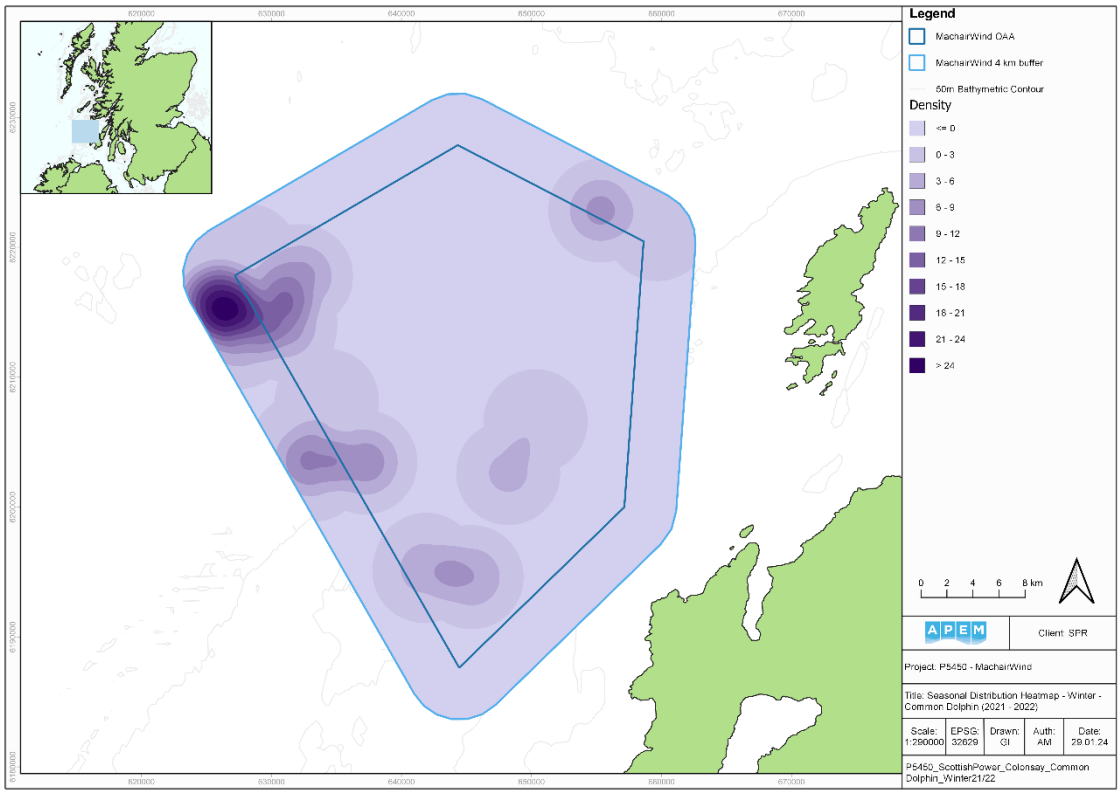


Figure 405 Common Dolphin Autumn 2021



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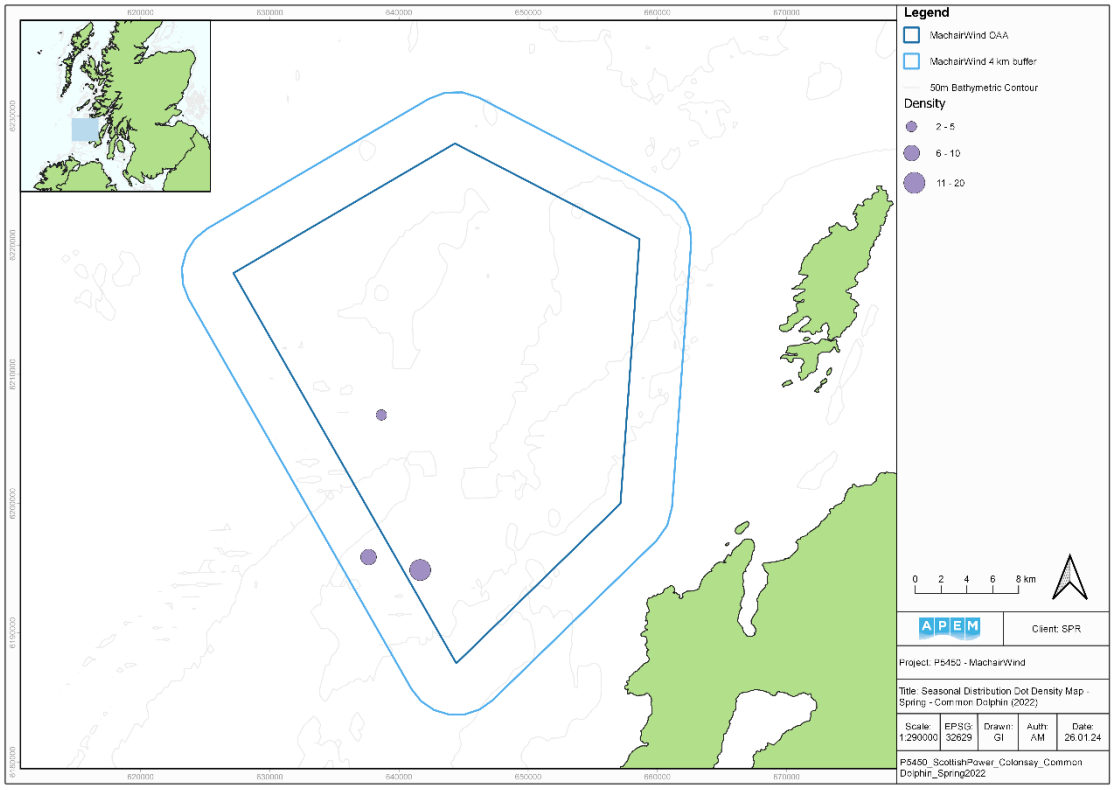
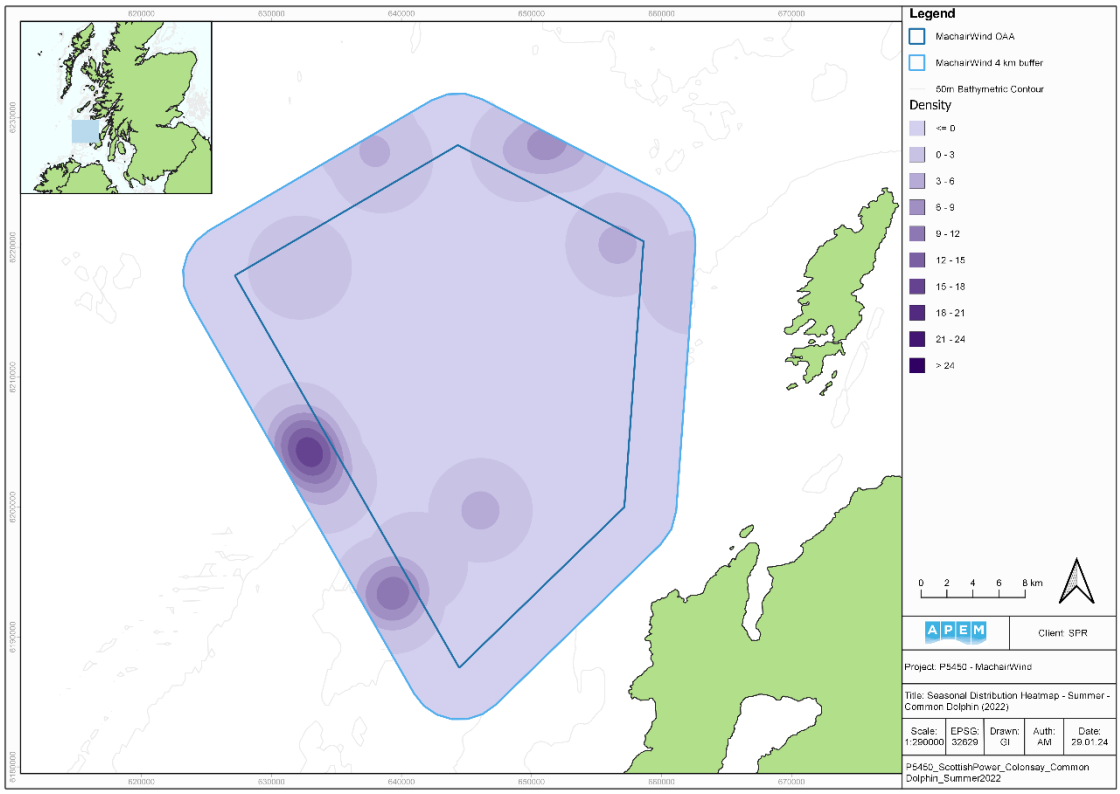


Figure 407 Common Dolphin Spring 2022



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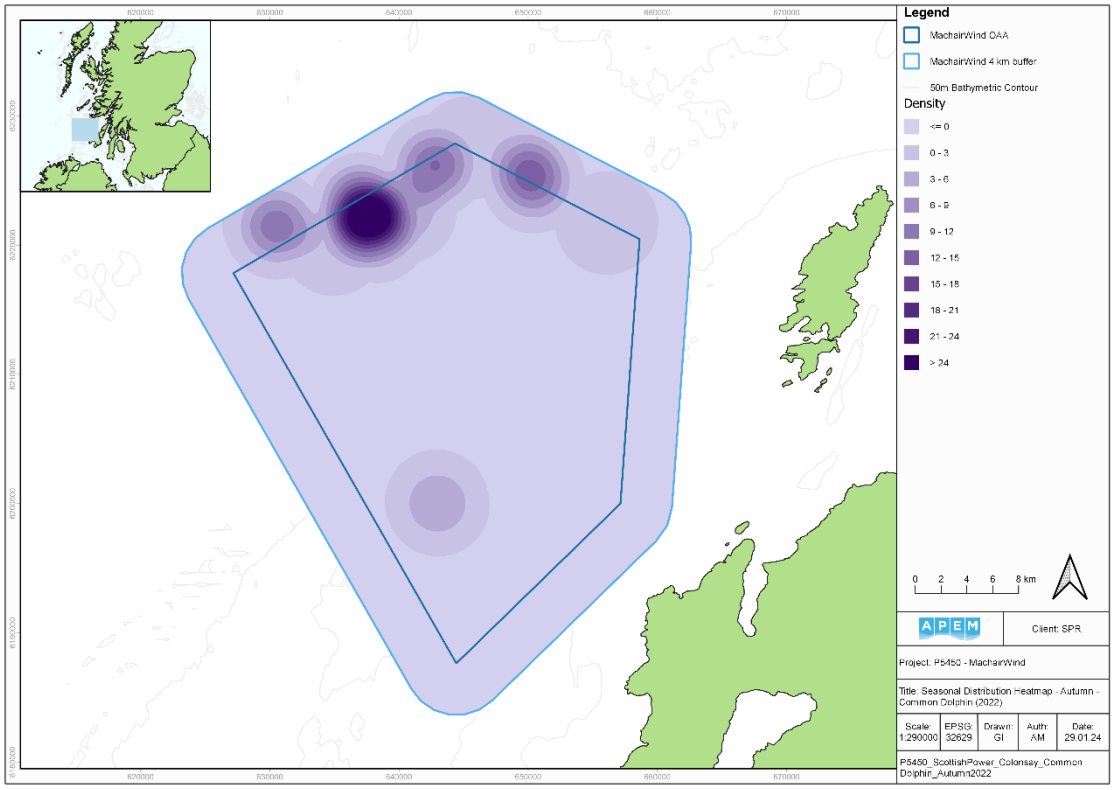


Figure 409 Common Dolphin Autumn 2022

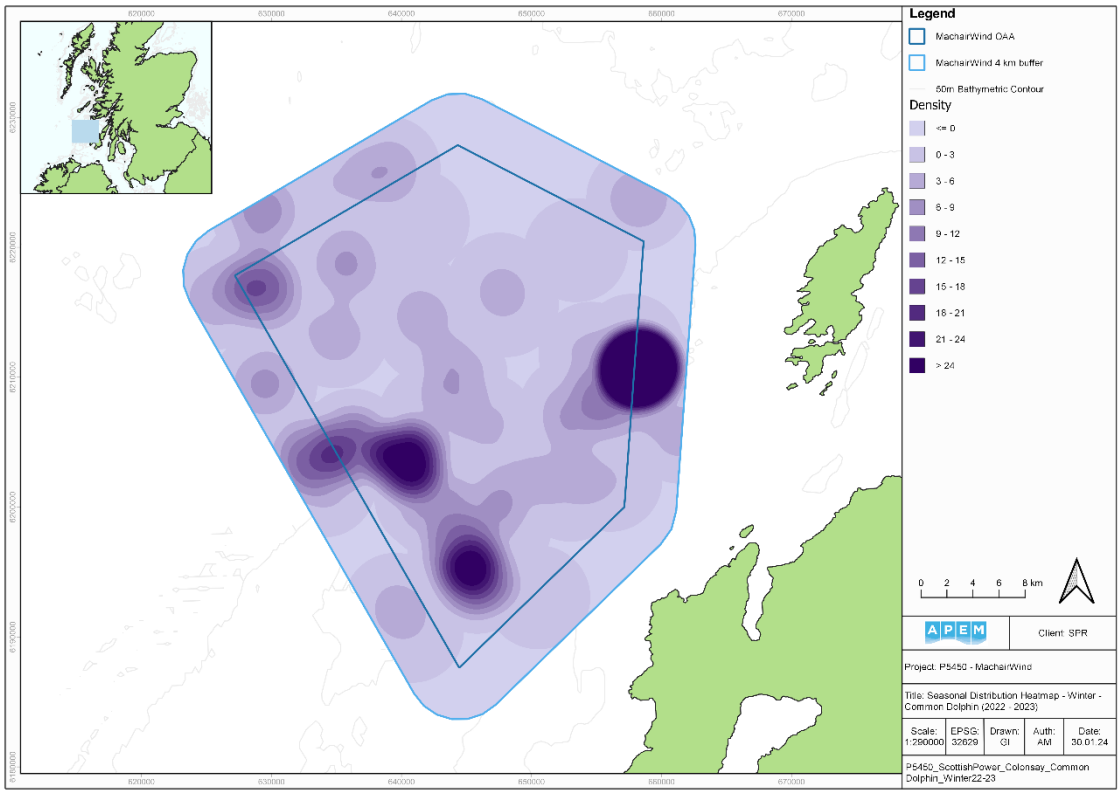


Figure 410 Common Dolphin Winter 2022 - 2023

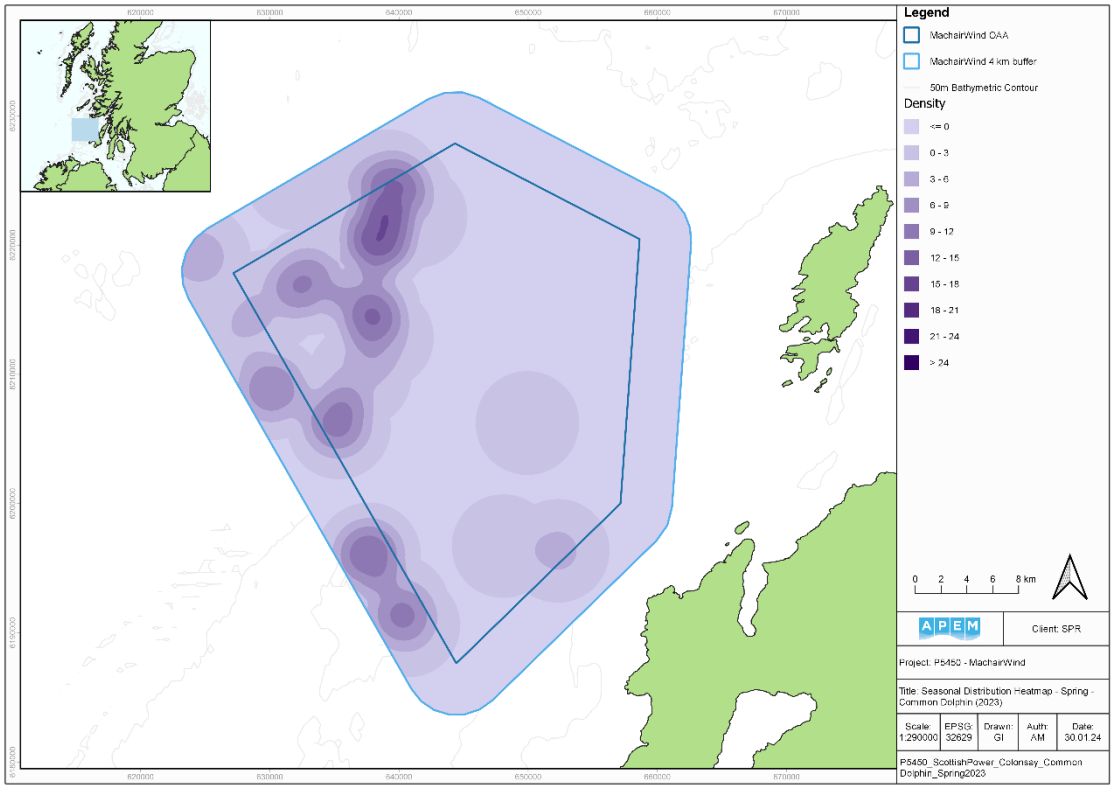


Figure 411 Common Dolphin Spring 2023

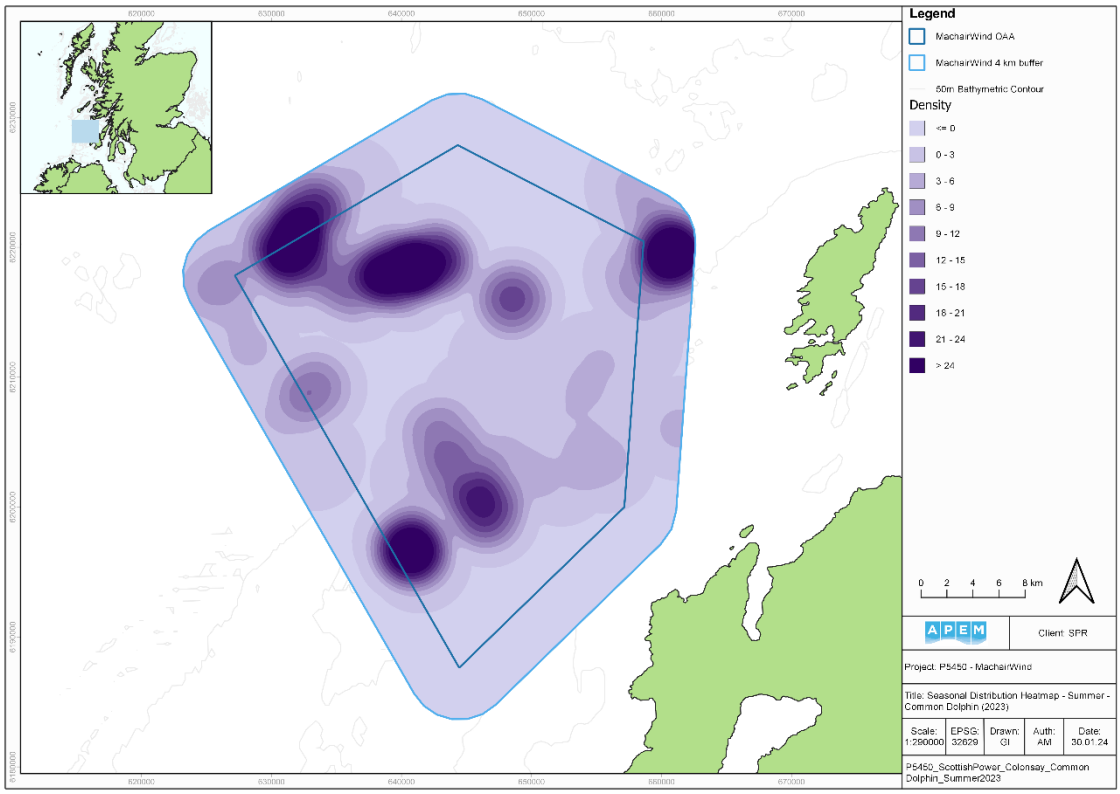


Figure 412 Common Dolphin Summer 2023

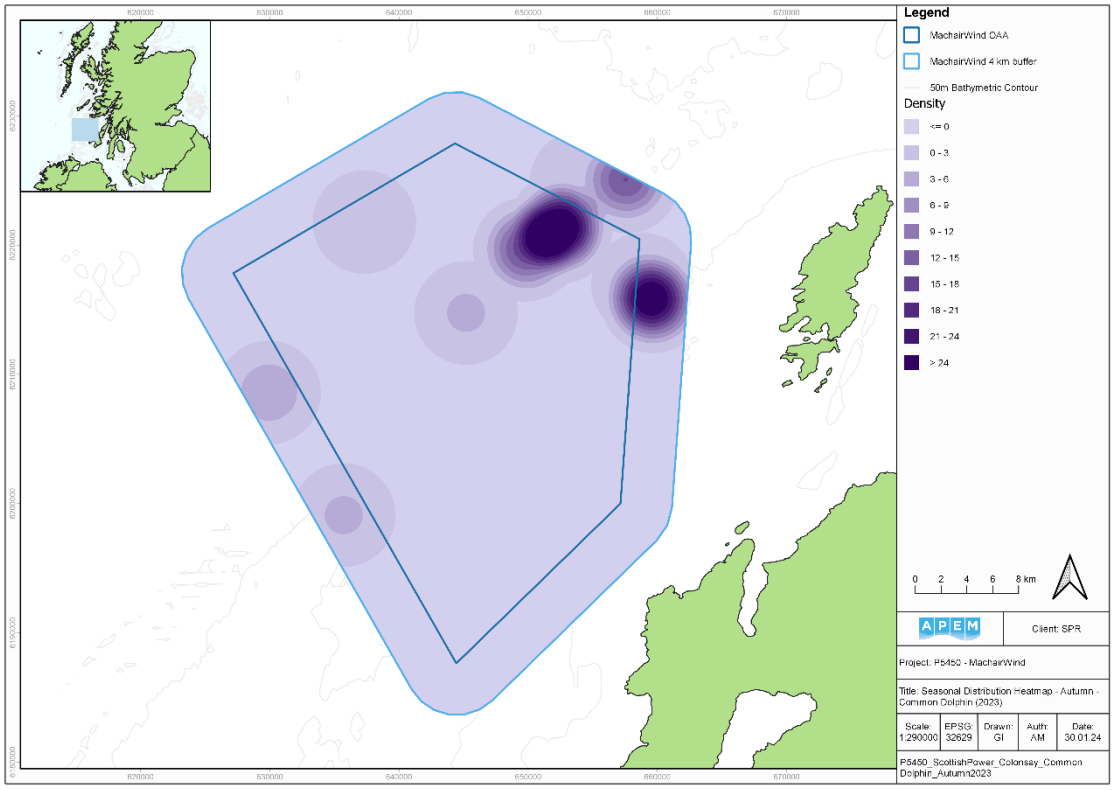


Figure 413 Common Dolphin Autumn 2023

12.2.3 Bottlenose Dolphin

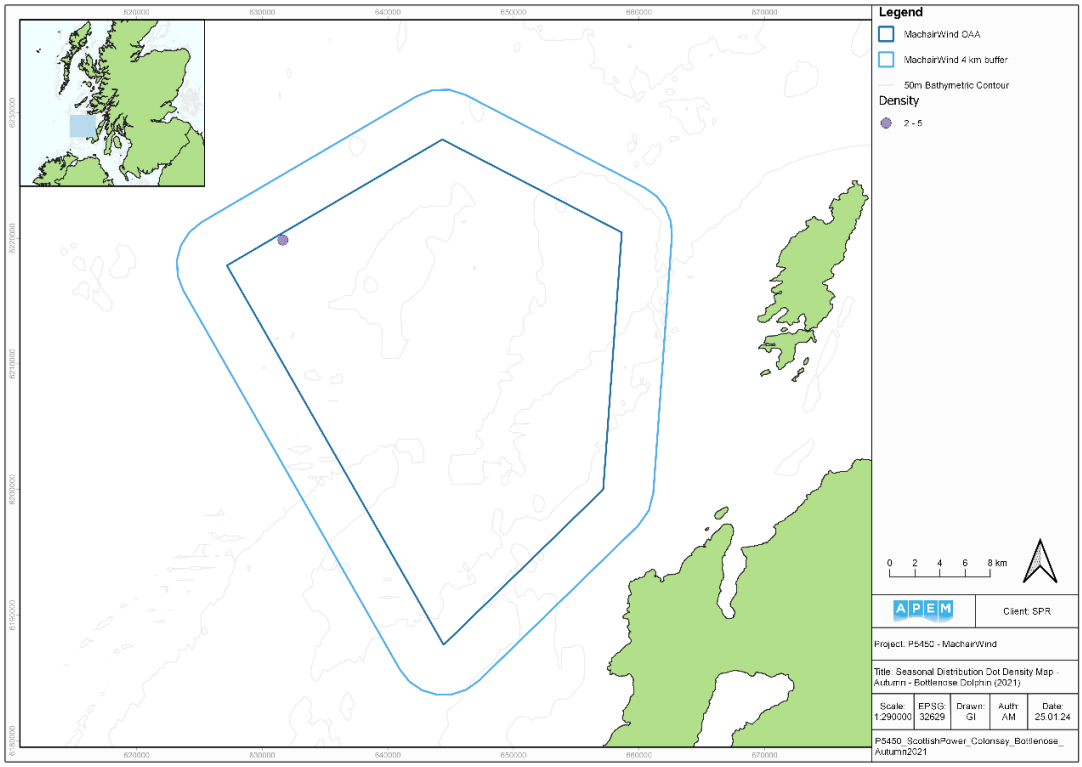


Figure 414 Bottlenose Dolphin Autumn 2021

12.2.4 Risso's Dolphin

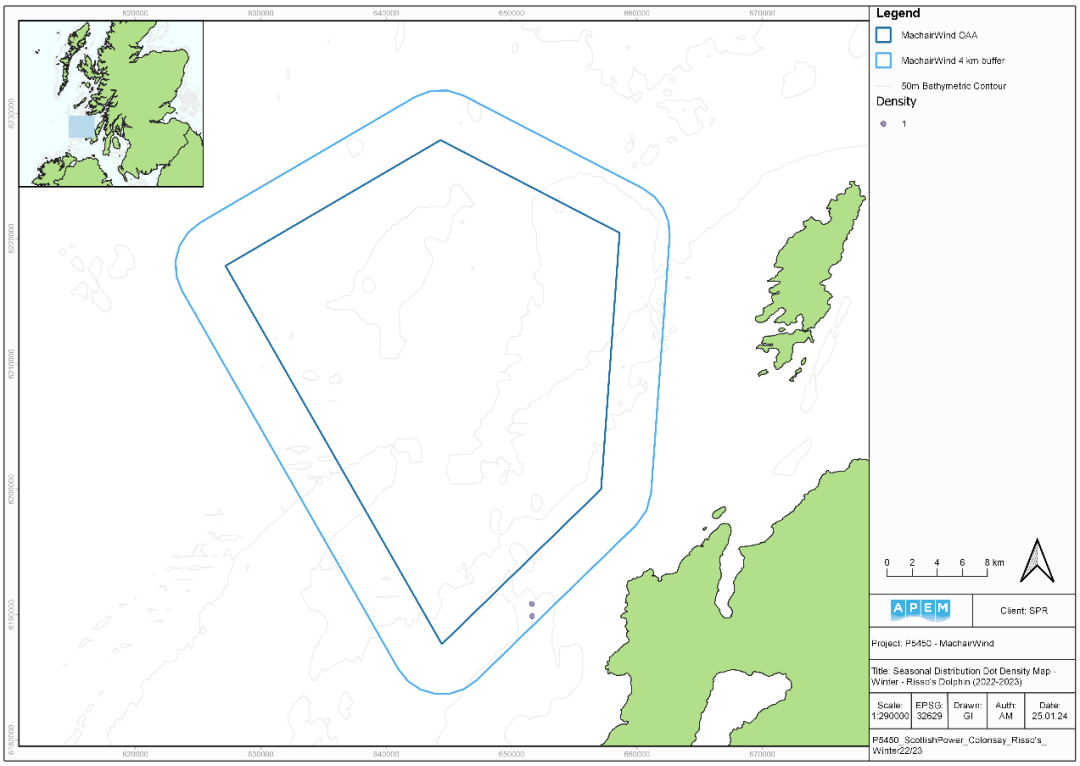


Figure 415 Risso's Dolphin Winter 2022 - 2023

12.2.5 Harbour Porpoise

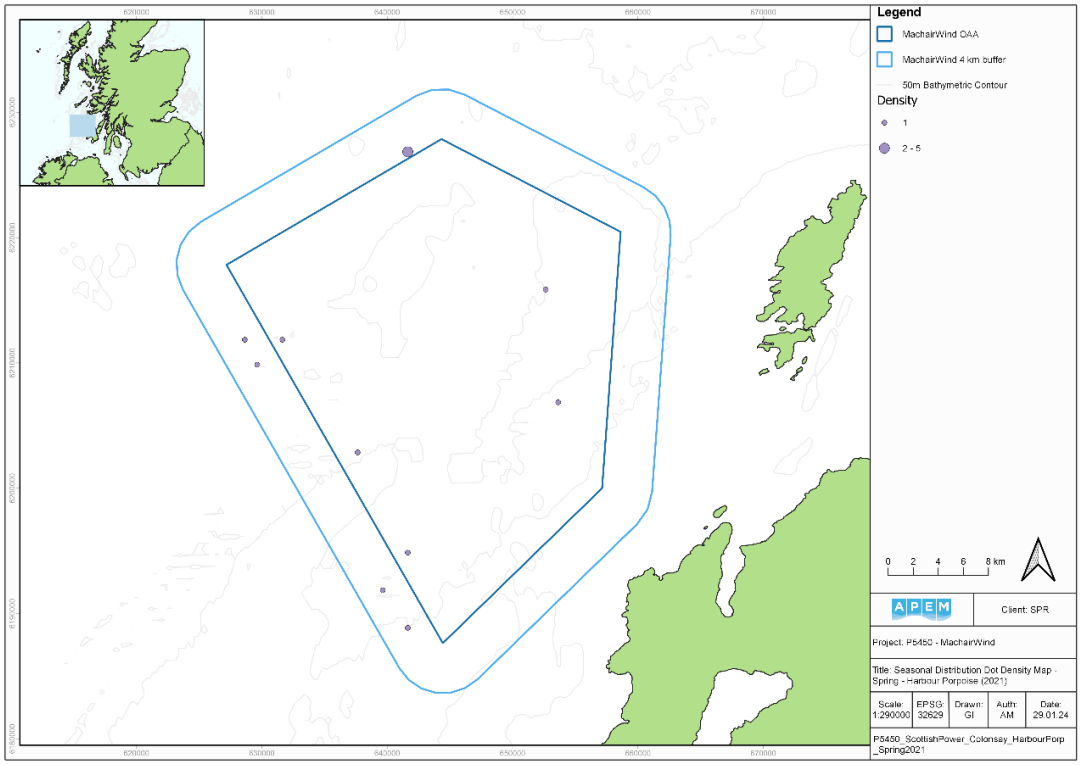


Figure 416 Harbour Porpoise Spring 2021

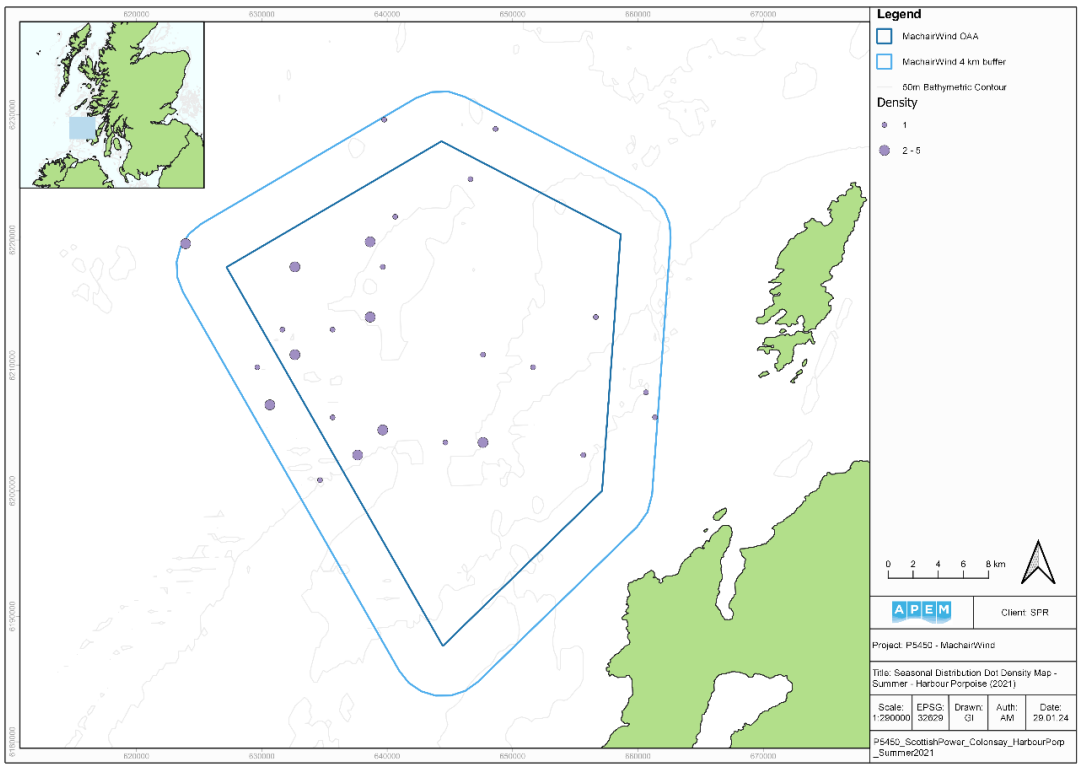


Figure 417 Harbour Porpoise Summer 2021

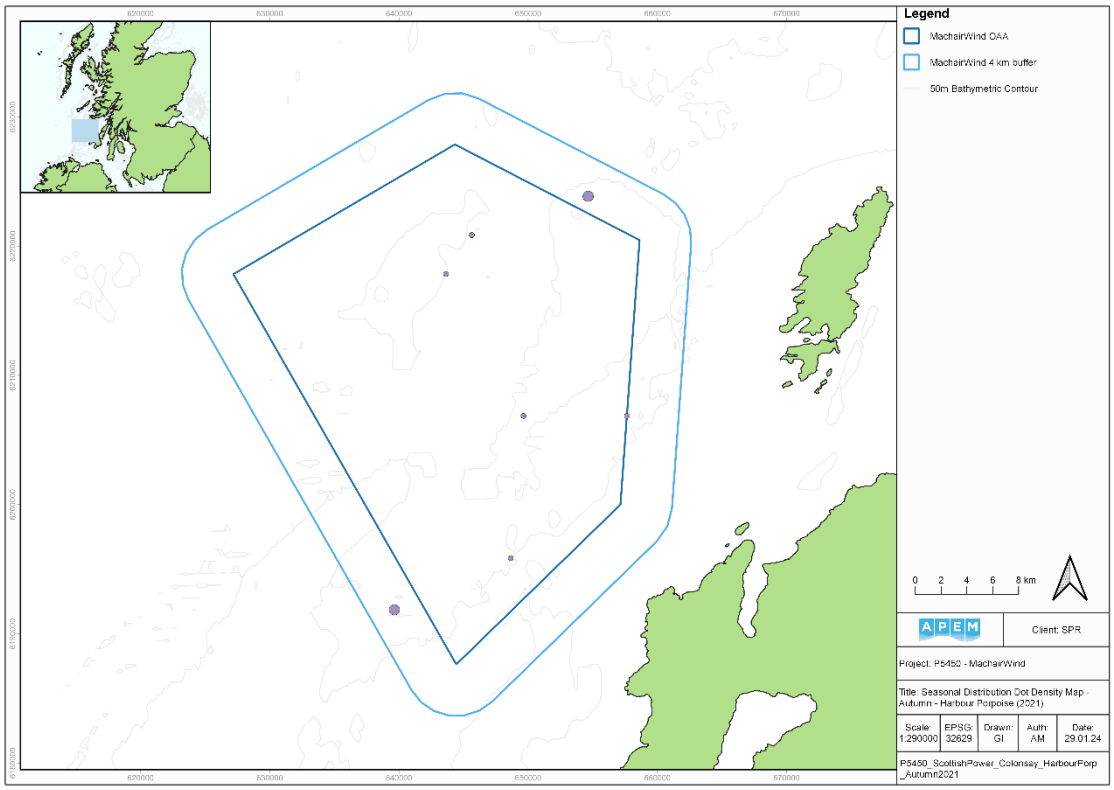


Figure 418 Harbour Porpoise Autumn 2021

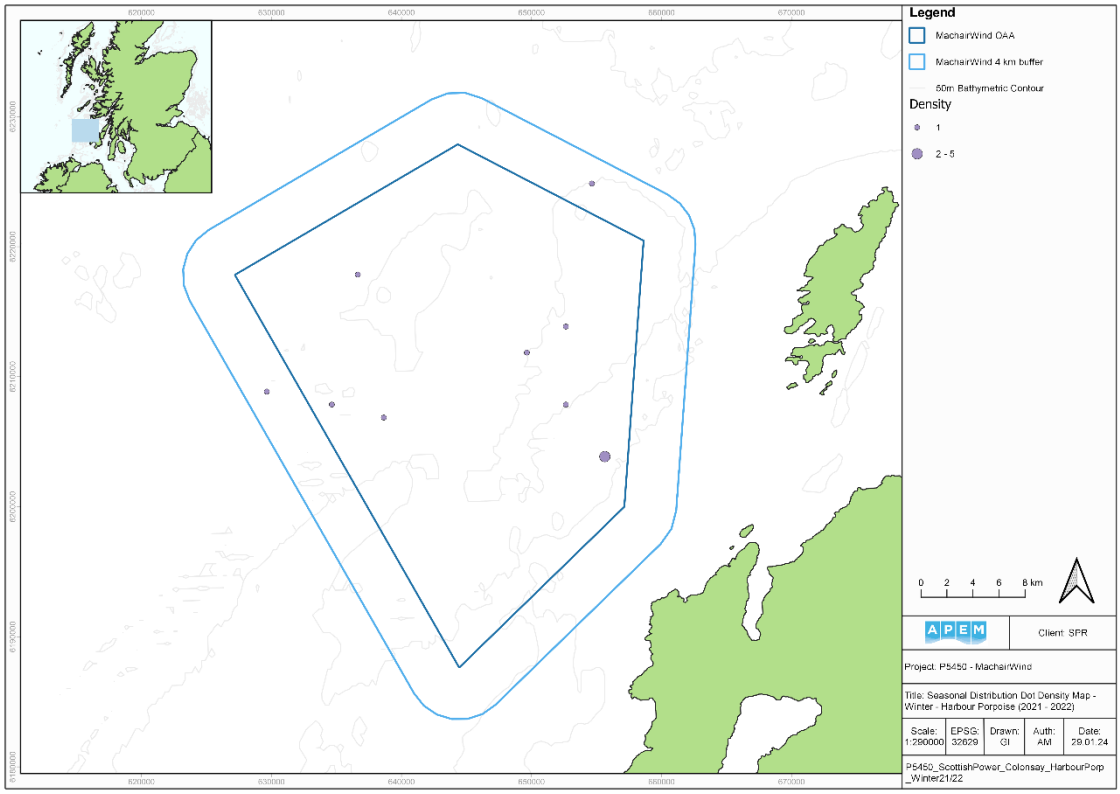


Figure 419 Harbour Porpoise Winter 2021 – 2022

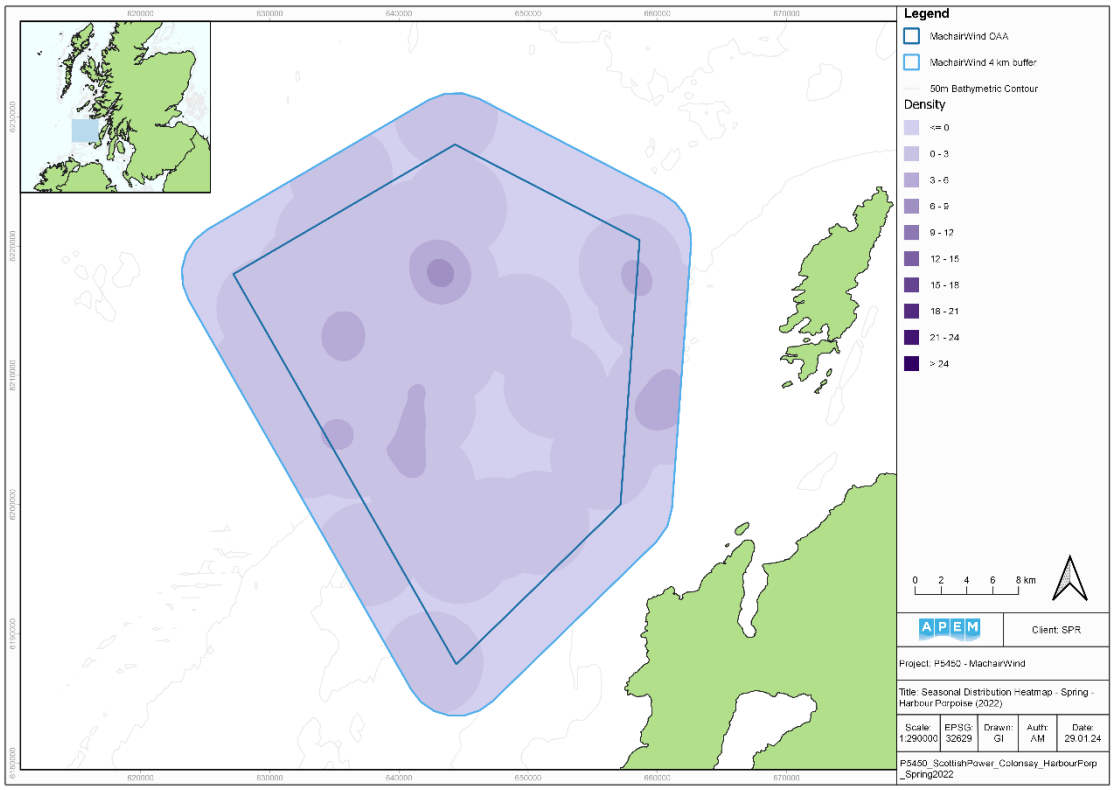


Figure 420 Harbour Porpoise Spring 2022

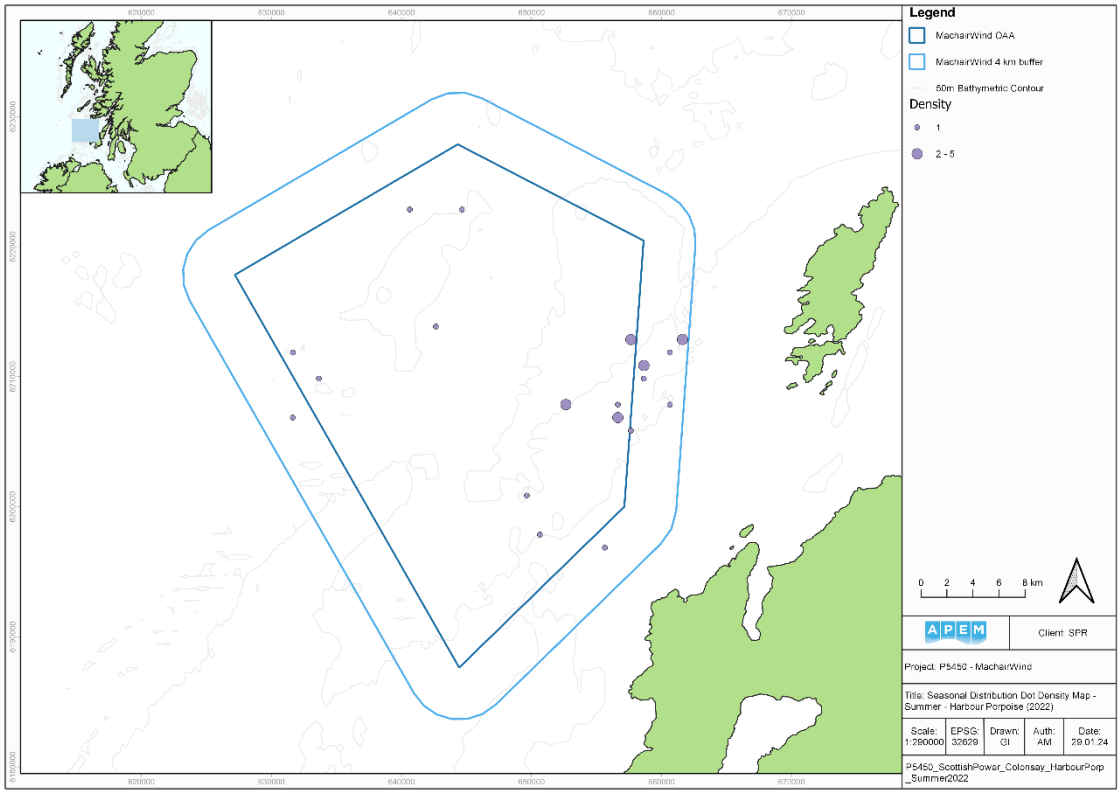
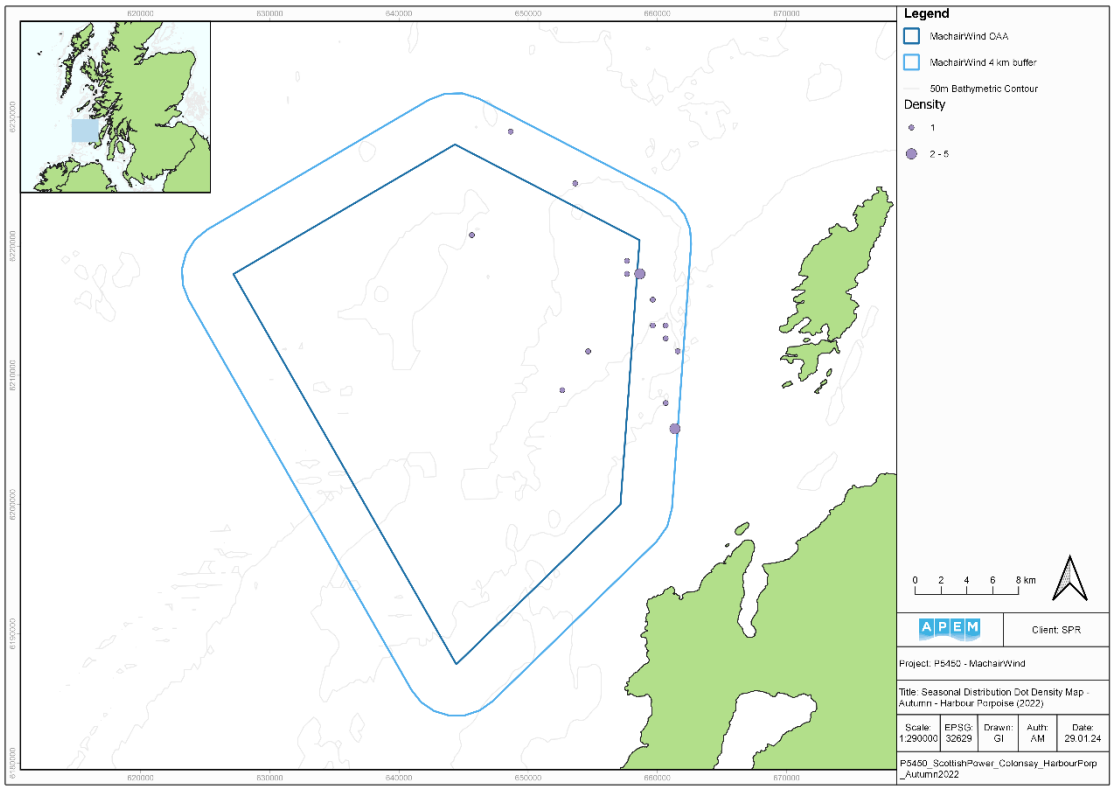


Figure 421 Harbour Porpoise Summer 2022



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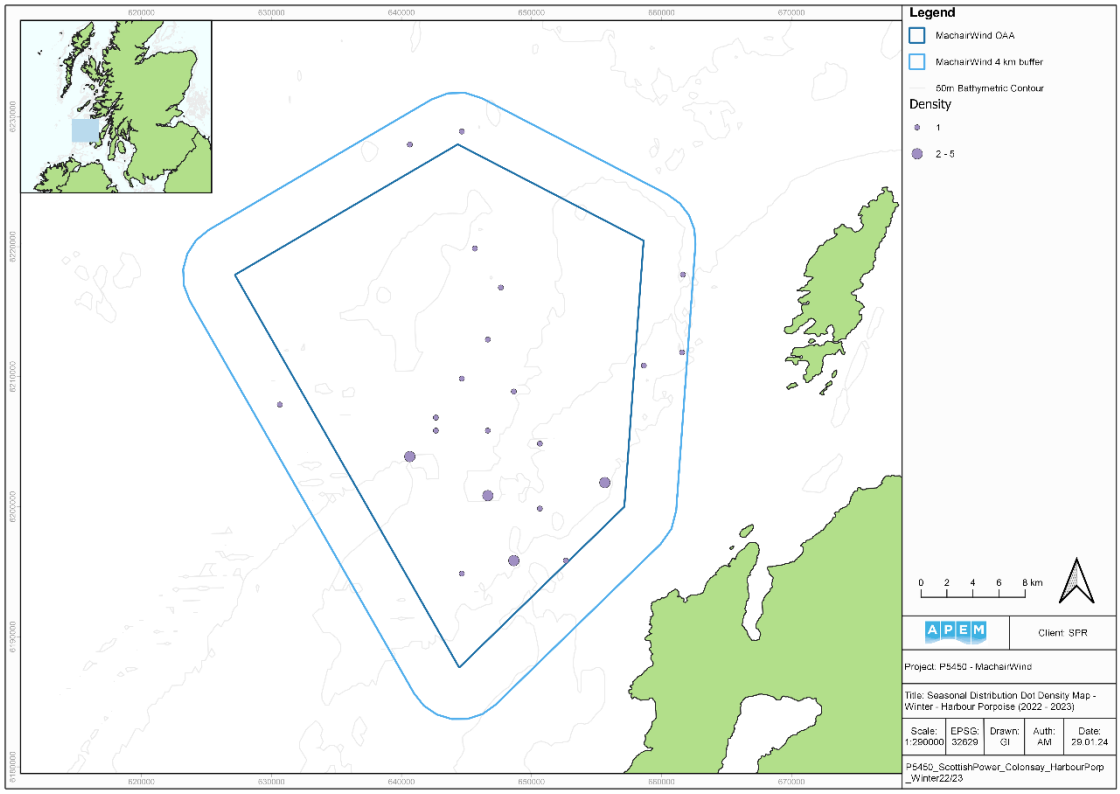


Figure 423 Harbour Porpoise Winter 2022 - 2023

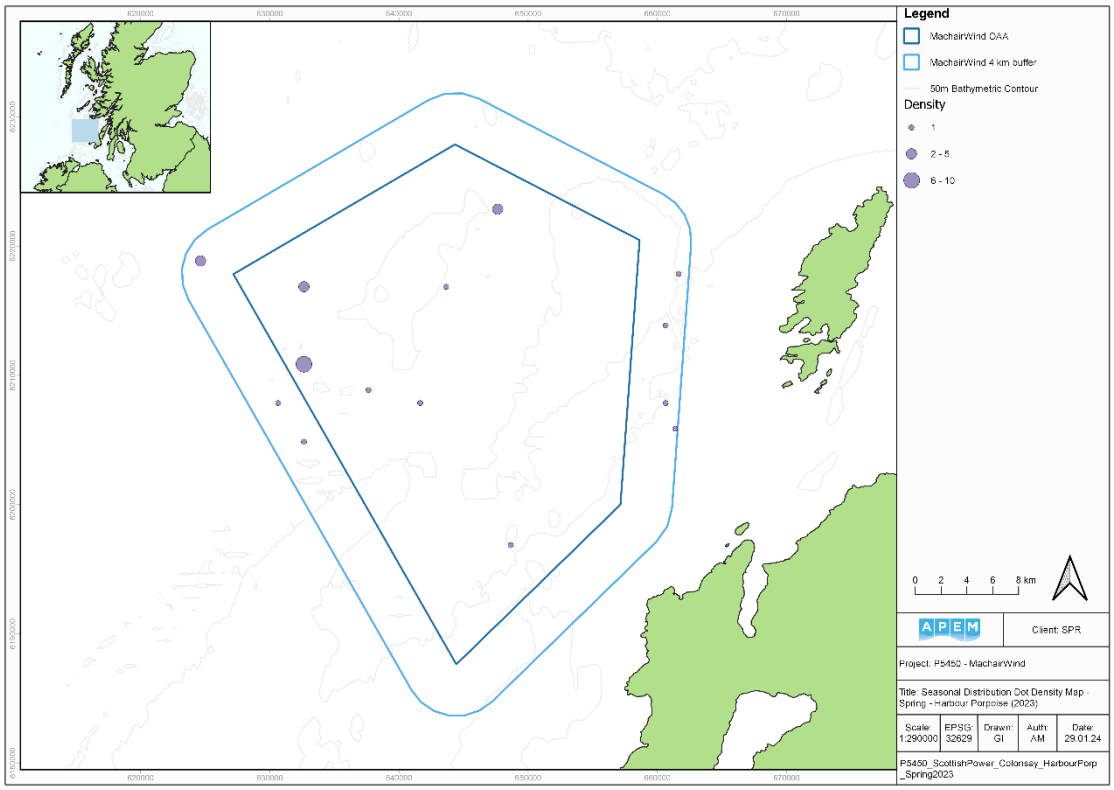


Figure 424 Harbour Porpoise Spring 2023

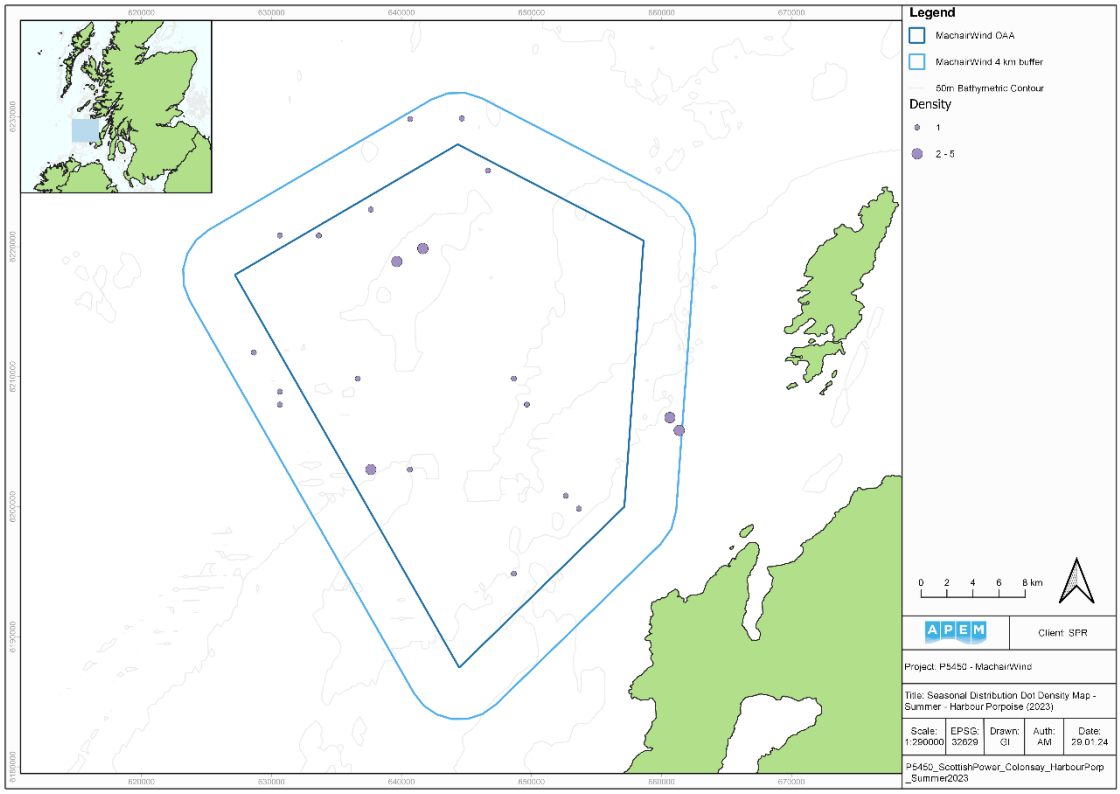


Figure 425 Harbour Porpoise Summer 2023

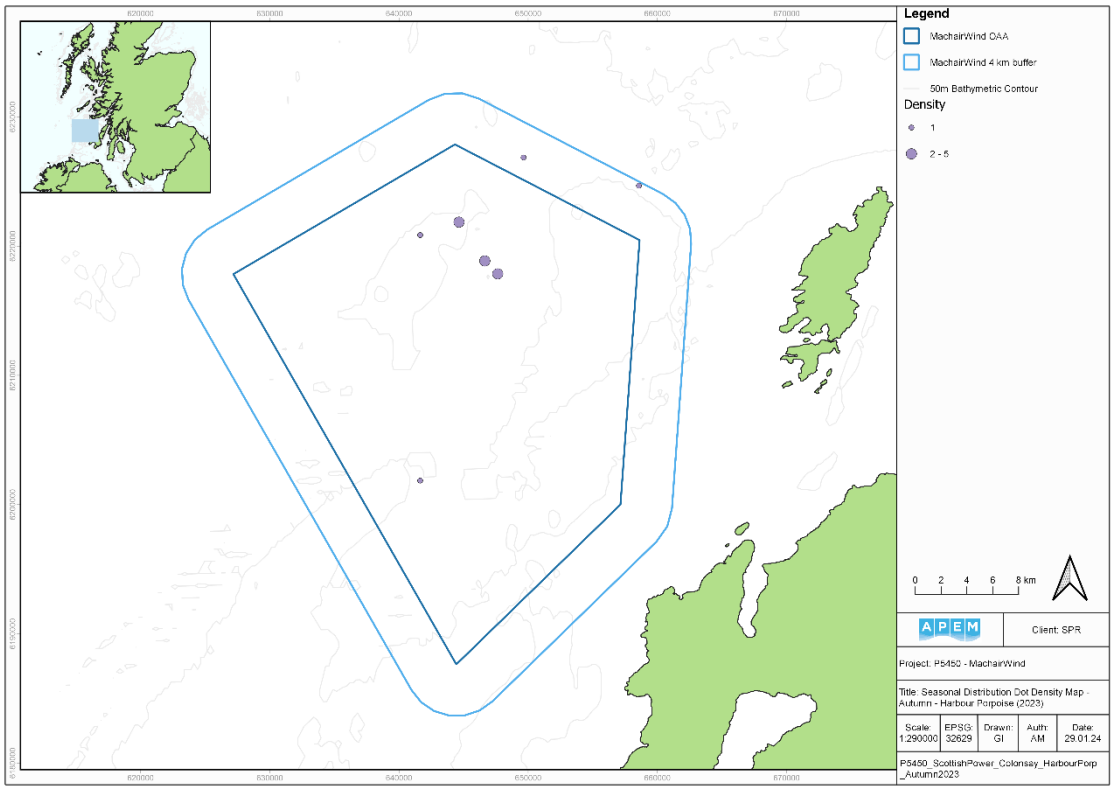


Figure 426 Harbour Porpoise Autumn 2023

12.2.6 Minke Whale

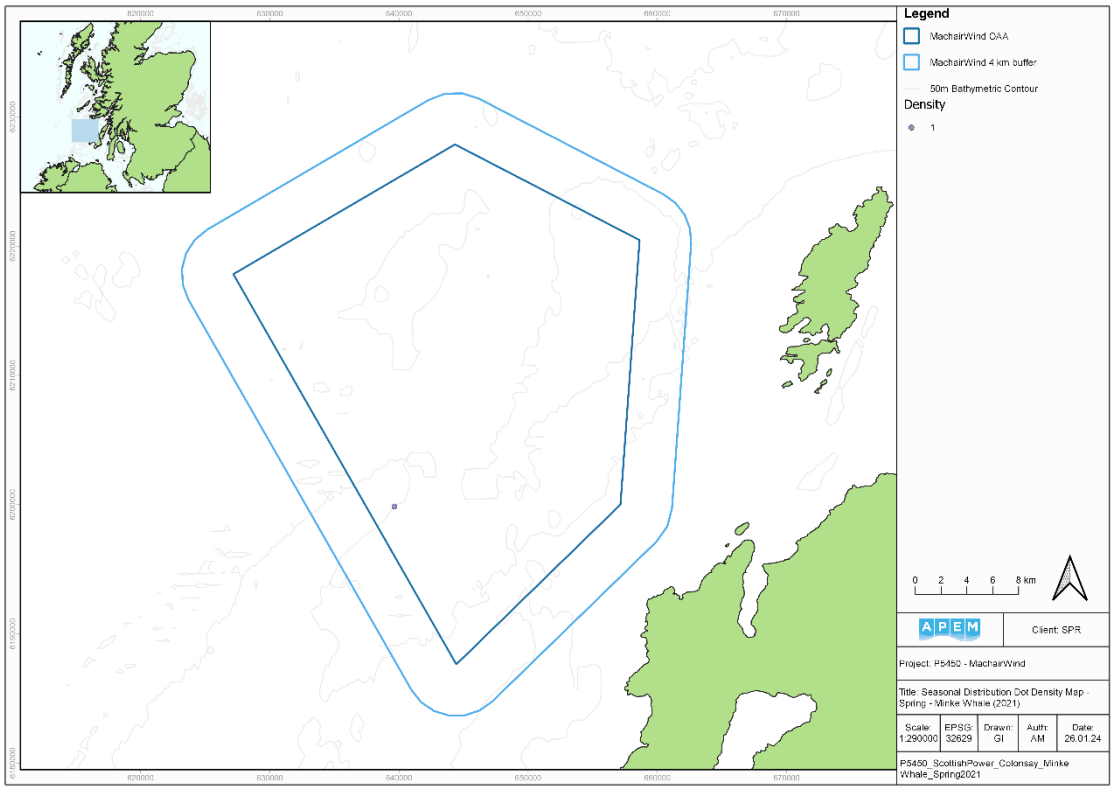


Figure 427 Minke Whale Spring 2021

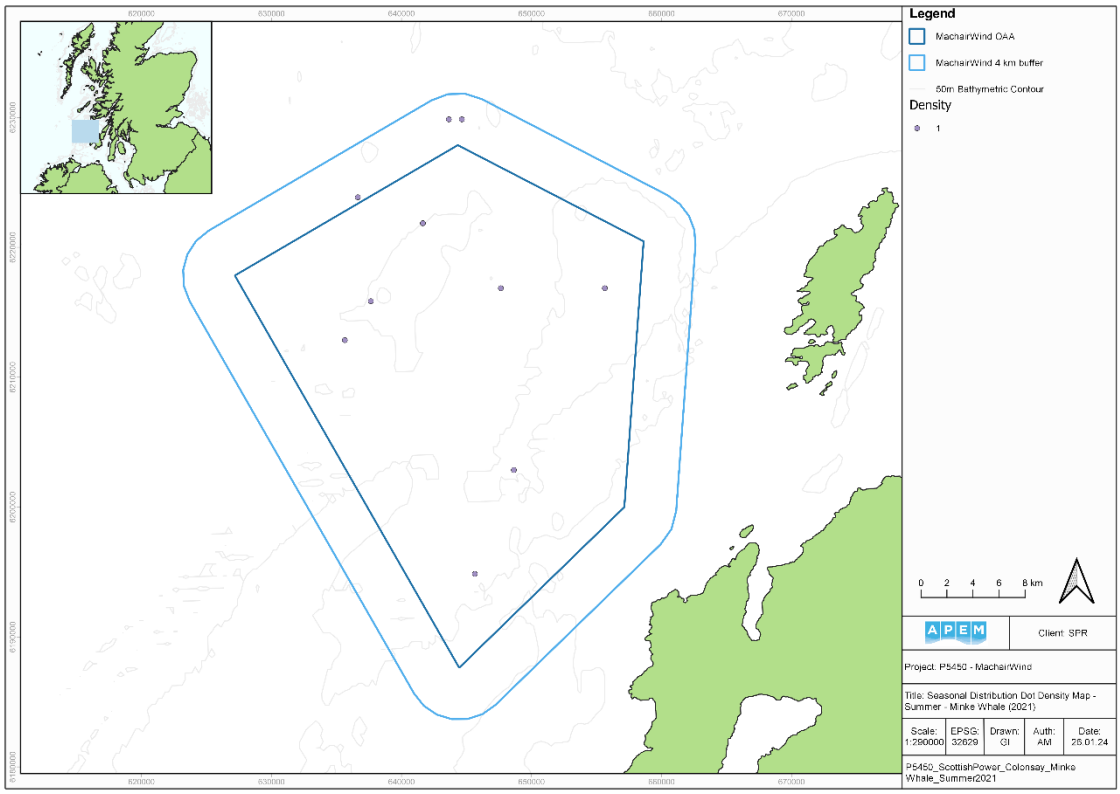


Figure 428 Minke Whale Summer 2021

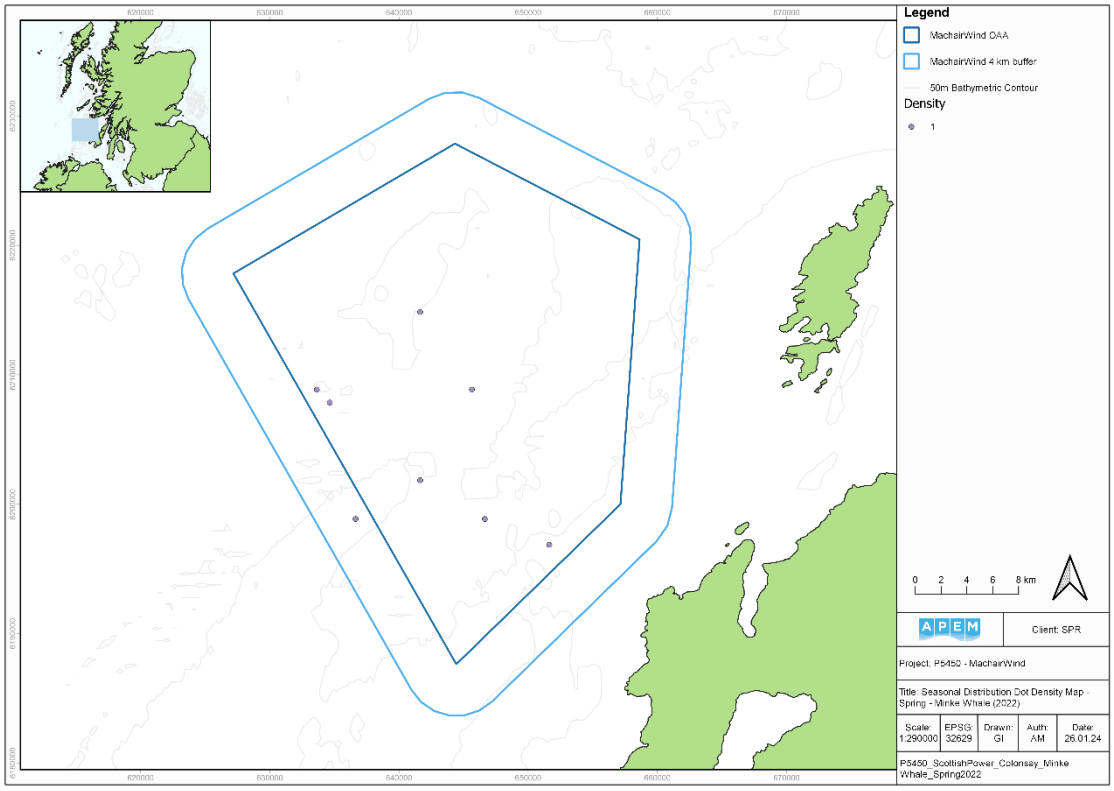


Figure 429 Minke Whale Spring 2022

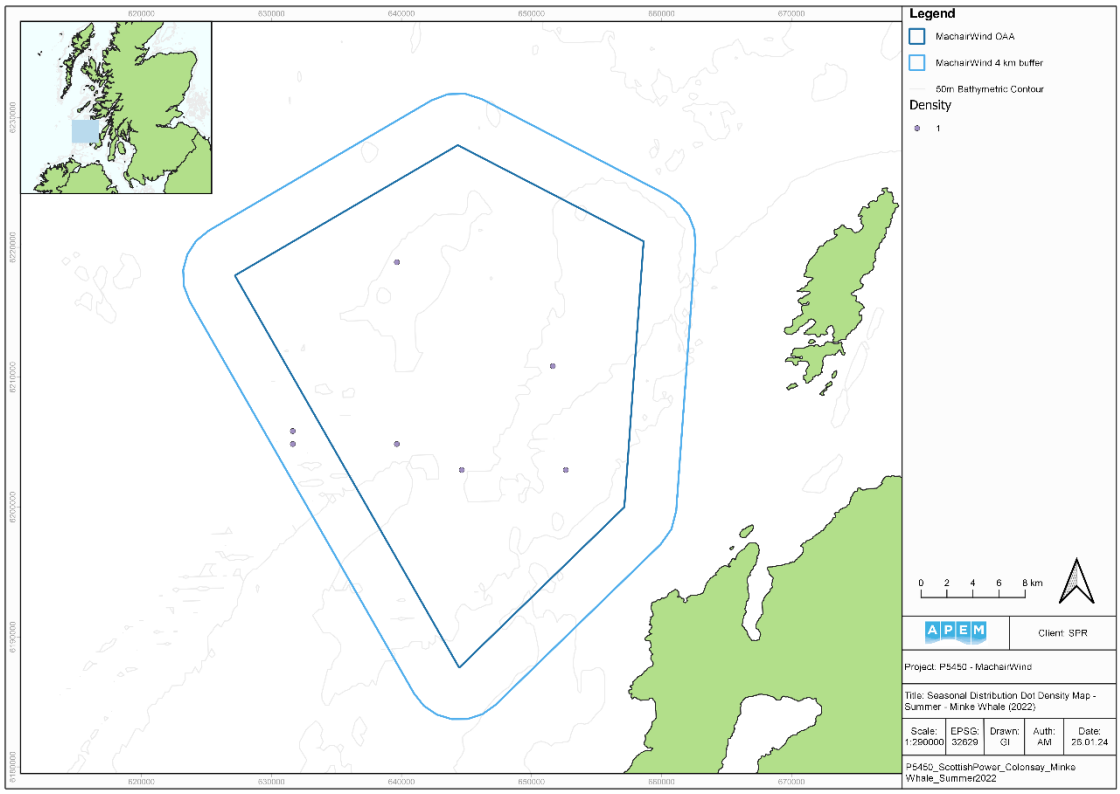


Figure 430 Minke Whale Summer 2022

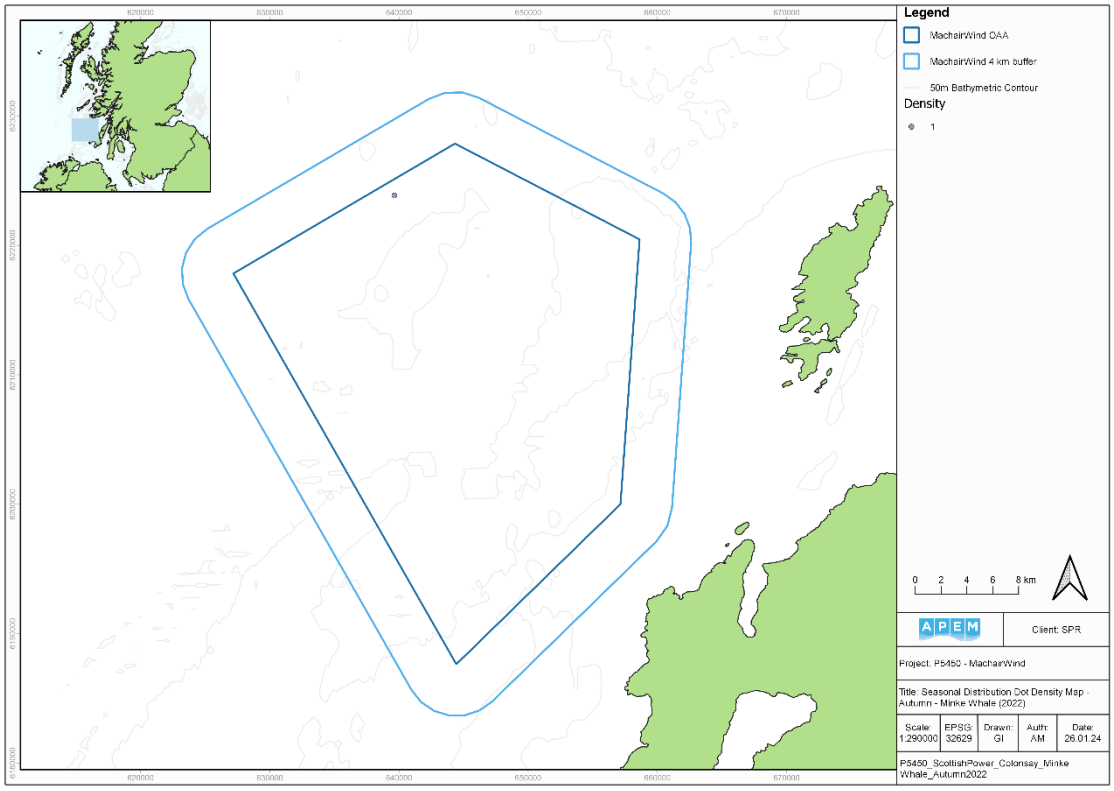


Figure 431 Minke Whale Autumn 2022

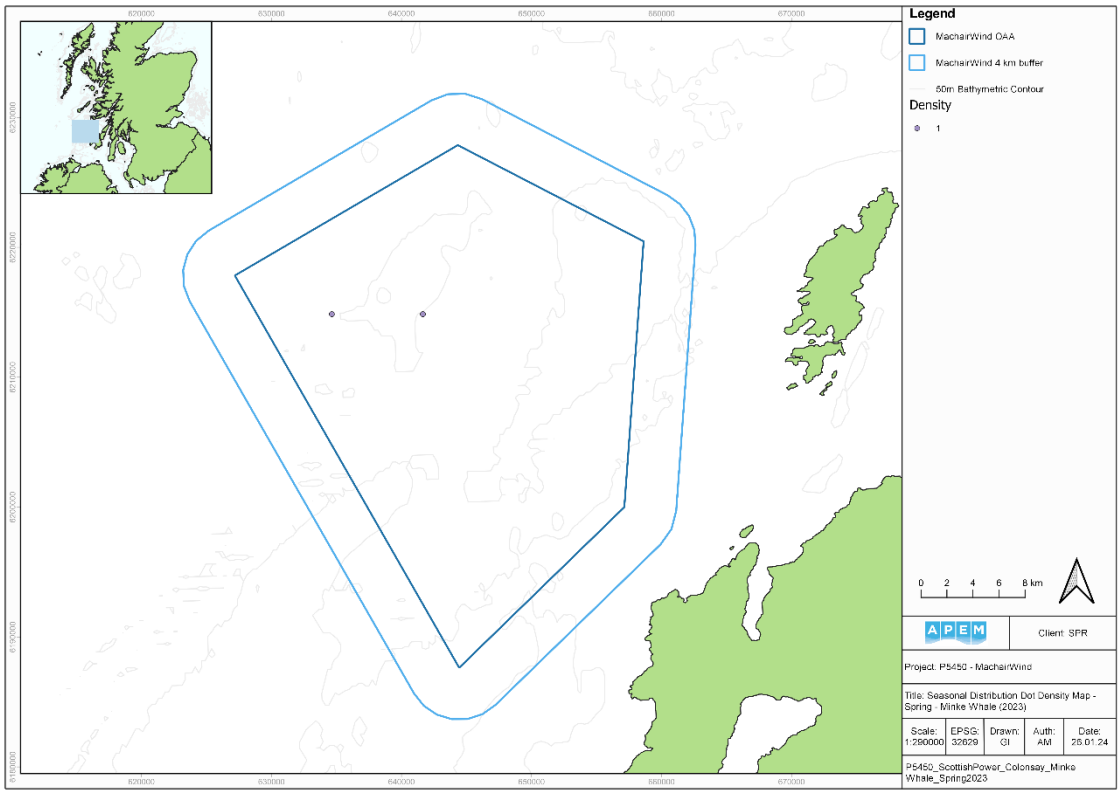
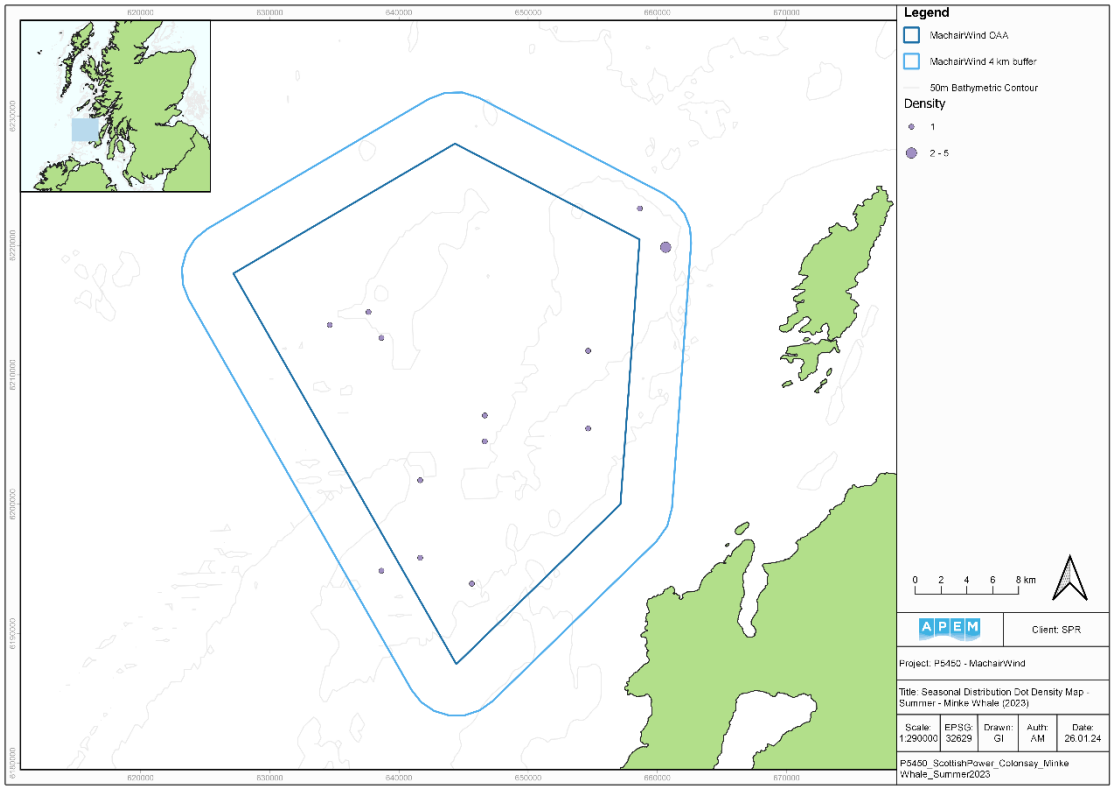


Figure 432 Minke Whale Spring 2023



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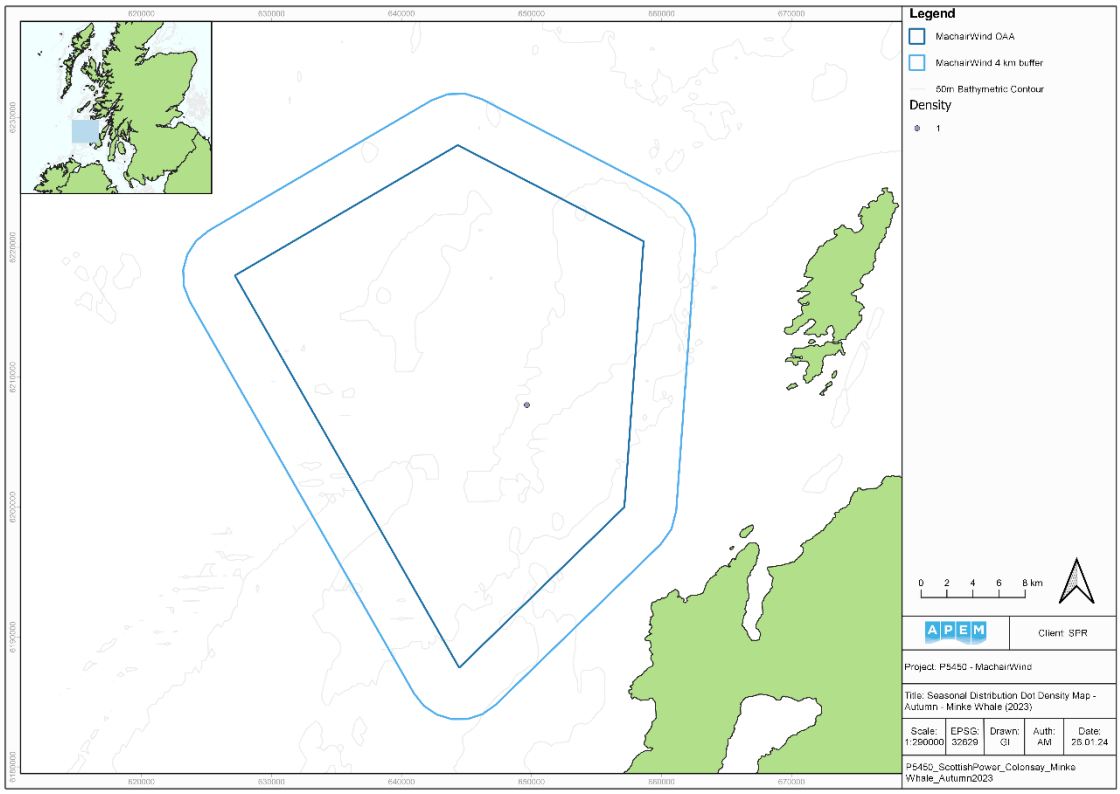

Figure 434 Minke Whale Autumn 2023

12.2.7 Basking Shark

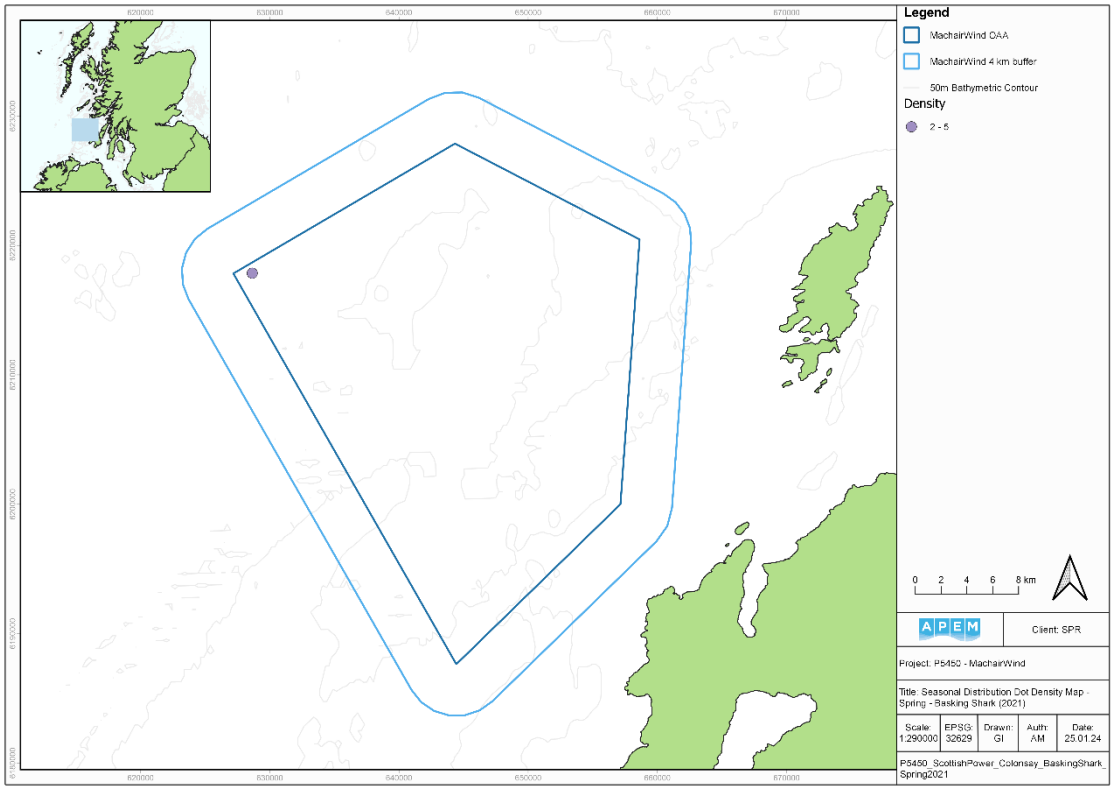

Figure 435 Basking Shark Spring 2021

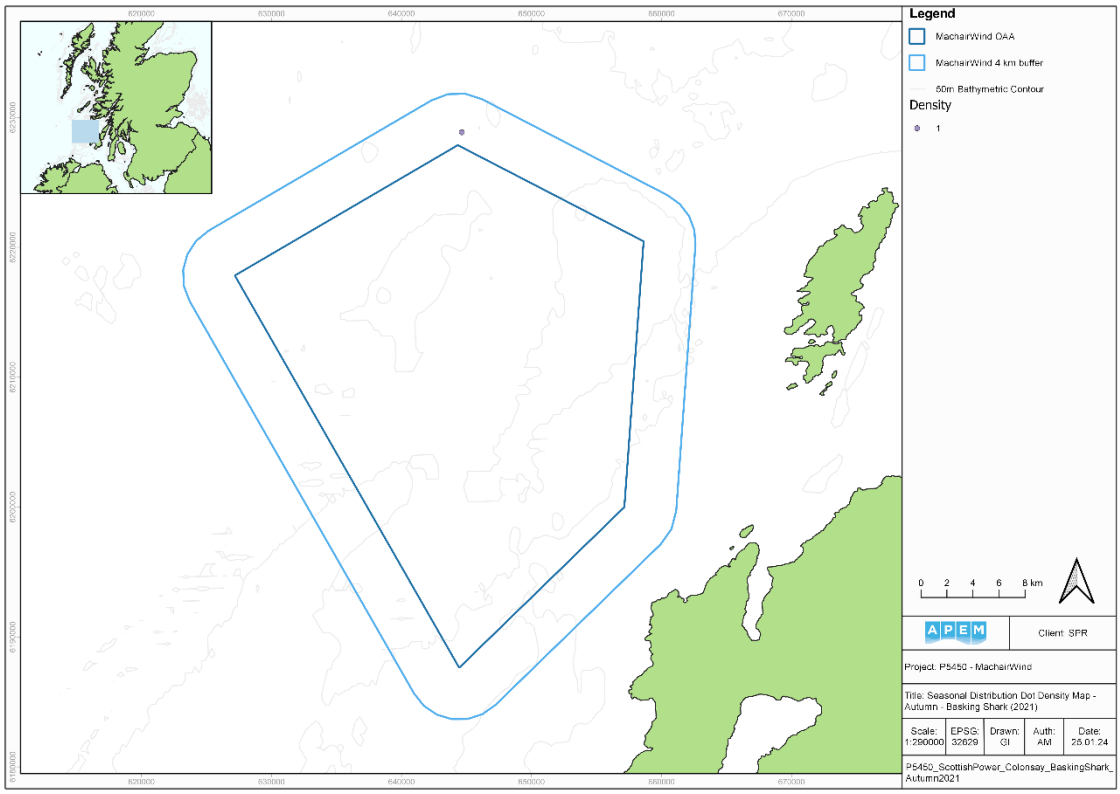

Figure 436 Basking Shark Autumn 2021

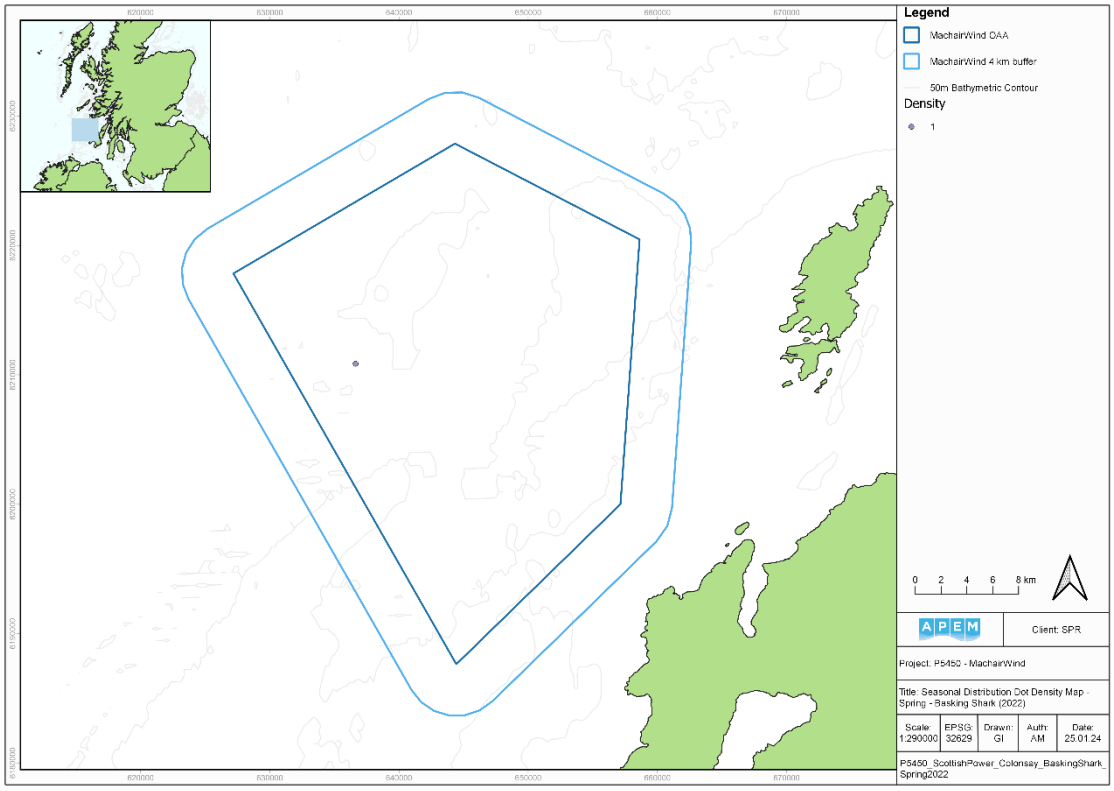

Figure 437 Basking Shark Spring 2022

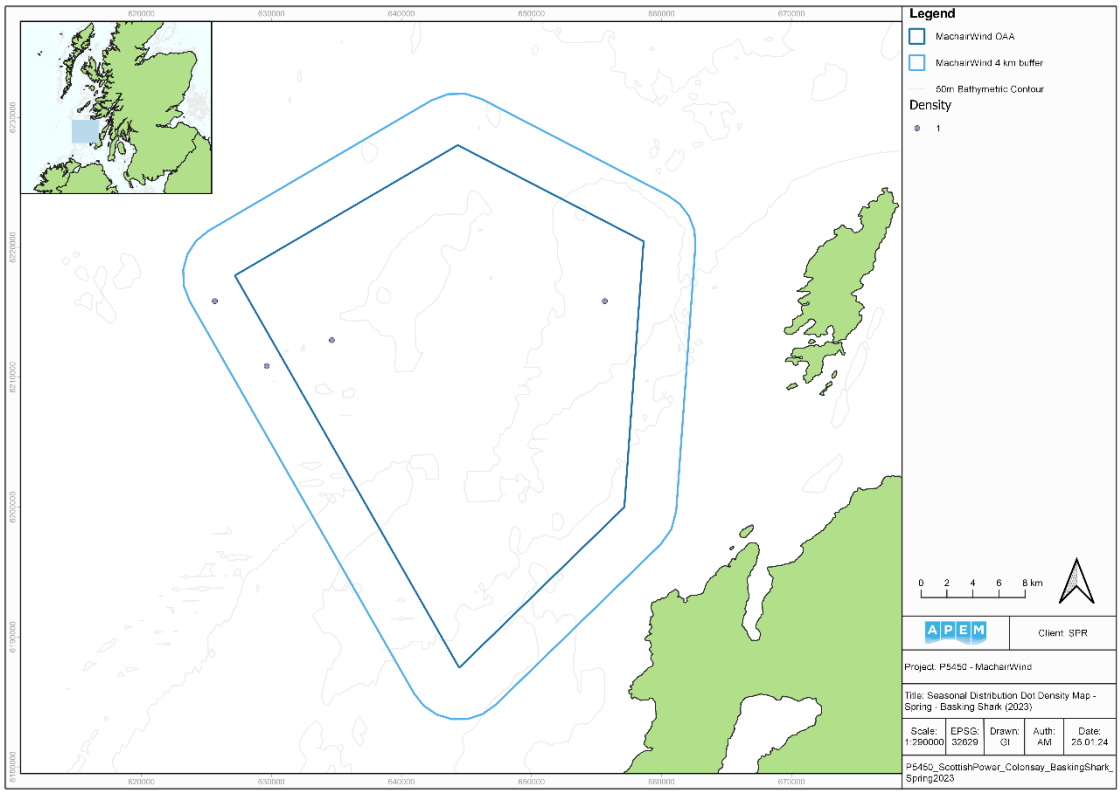

Figure 438 Basking Shark Spring 2023

13.Appendix V Scientific Names and Taxonomy

Scientific names and taxonomy, including JNCC categories, for all species can be found in the accompanying appendix document.

Common Name	Scientific Name	Family	Class
Dunlin	*Calidris alpina*	Scolopacidae	Aves
Grey Phalarope	*Phalaropus fulicarius*	Scolopacidae	Aves
Golden Plover	*Pluvialis apricaria*	Charadriidae	Aves
Kittiwake	*Rissa tridactyla*	Laridae	Aves
Black-headed Gull	*Chroicocephalus ridibundus*	Laridae	Aves
Great Black-backed Gull	*Larus marinus*	Laridae	Aves
Herring Gull	*Larus argentatus*	Laridae	Aves
Common Gull	*Larus canus*	Laridae	Aves
Lesser Black-backed Gull	*Larus fuscus*	Laridae	Aves
Common Tern	*Sterna hirundo*	Laridae	Aves
Arctic Tern	*Sterna paradisaea*	Laridae	Aves
Great Skua	*Stercorarius skua*	Stercorariidae	Aves
Arctic Skua	*Stercorarius parasiticus*	Stercorariidae	Aves
Guillemot	*Uria aalge*	Alcidae	Aves
Black Guillemot	*Cepphus grylle*	Alcidae	Aves
Razorbill	*Alca torda*	Alcidae	Aves
Puffin	*Fratercula arctica*	Alcidae	Aves
European Storm Petrel	*Hydrobates pelagicus*	Hydrobatidae	Aves
Great Northern Diver	*Gavia immer*	Gaviidae	Aves
Red-throated Diver	*Gavia stellata*	Gaviidae	Aves
Fulmar	*Fulmarus glacialis*	Procellariidae	Aves
Manx Shearwater	*Puffinus puffinus*	Procellariidae	Aves
Sooty Shearwater	*Puffinus griseus*	Procellariidae	Aves
Great Shearwater	*Puffinus gravis*	Procellariidae	Aves
Gannet	*Morus bassanus*	Sulidae	Aves
Little Egret	*Egretta garzetta*	Pelecaniformes	Aves
Harbour Porpoise	*Phocoena phocoena*	Phocoenidae	Mammalia
White-beaked Dolphin	*Lagenorhynchus albirostris*	Delphinidae	Mammalia
Grey Seal	*Halichoerus grypus*	Phocidae	Mammalia
Common Dolphin	*Delphinus delphis*	Delphinidae	Mammalia
Bottlenose Dolphin	*Tursiops truncatus*	Delphinidae	Mammalia
Risso's Dolphin	*Grampus griseus*	Delphinidae	Mammalia
Common Minke Whale	*Balaenoptera acutorostrata*	Balaenopteridae	Mammalia
Basking Shark	*Cetorhinus maximus*	Cetorhinidae	Chondrichthyes
Ocean Sunfish	*Mola mola*	Molidae	Actinopterygii
Atlantic Bluefin Tuna	*Thunnus thynnus*	Scombridae	Actinopteri
Leatherback Turtle	*Dermochelys coriacea*	Dermochelyidae	Reptilia

14.Appendix VI Apportionment and Availability Bias

14.1 Guillemot and Razorbill

The correction factor applied to each relevant species is based on that recommended by JNCC in a submission during the examination phase of the East Anglia ONE OWF, referred to by JNCC as Method C. A copy of the text on Method C is provided below. This has been taken from Paragraph 5.6.5 of the JNCC Expert Statement on Ornithological Issues for Written Representations in Respect of East Anglia ONE Offshore Windfarm (JNCC, 2013)

METHOD C

Guillemots

Underwater (1.9h) / [Sea surface (5.1h) + Diving activity (2.9h)] = 0.2375

Therefore, for **guillemot availability** JNCC would calculate ***g(0)* = 0.7625**

Razorbills

Underwater (0.8h) / [Sea surface (3.1h) + Diving activity (1.5h)] = 0.1739

Therefore, for **razorbill availability** JNCC would calculate ***g(0)* = 0.8261**

This works on the following assumptions:

1. That all birds observed on the water in the project area are undertaking a foraging trip (in most cases this seems appropriate);
2. That 'birds in flight' are adequately characterised within the 'birds in flight' quotion of the Thaxter et al. (2010) figures (i.e. that portion which has been removed from the Correction Factor calculation;
3. That the proportions of time spent foraging underwater are representative of behaviour throughout the year (i.e. not just the breeding season – the period in which this proportional data was calculated from by Thaxter et al. 2010), should the Correction Factor be applied to annual abundance estimates.

14.2 Harbour Porpoise

Aerial digital surveys are commonly used to capture marine mammals for baseline characterisation of offshore wind farm sites in the UK. The benefit of this method includes the permanent record which allows for third party corroboration on species identification as well as allowing for group size and behaviour to be re-examined, if required.

The correction factors which were applied to harbour porpoise monthly abundance estimates are described in Voet *et al.* (2017). This was based on a study by Teilmann *et al.* (2013) which tagged 35 harbour porpoises in the waters around Denmark using satellite transmitters. The satellite tags collected data on average for 135 days (minimum 25 days, maximum 349 days). Amongst other variables that were studied, the percentage of time spent in the upper 2m of the water column was recorded and analysed. There was no significant difference in time spent in the upper 2m between sex or geographical location of tagging. There was also no significant correlation between the length of the harbour porpoise and time spent at 0-2 m. However, month was identified as a significant effect and therefore varied between seasons. The correction factors were applied to the total abundance (surfacing and submerged individuals) as per the recommendation by Teilmann *et al.* (2013). The correction factors applied are provided in Table 31.

Table 31 Seasonal harbour porpoise correction factors

Season	Correction Factor
Spring (Mar-May)	0.571
Summer (Jun-Aug)	0.547
Autumn (Sep-Nov)	0.455
Winter (Dec-Feb)	0.472

15.Appendix VII Apportioned Abundance and Density Estimates

15.1 Birds

15.1.1 Kittiwake

Survey Area

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	405	0.33	28	0.02	0	0.00	0	0.00	433	0.35
May-21 (S02)	2,185	1.76	434	0.35	0	0.00	0	0.00	2,619	2.11
Jun-21 (S03)	822	0.66	50	0.04	0	0.00	0	0.00	872	0.70
Jul-21 (S04)	707	0.57	157	0.13	0	0.00	0	0.00	864	0.70
Aug-21 (S05)	437	0.35	222	0.18	0	0.00	0	0.00	659	0.53
Sep-21 (S06)	384	0.31	99	0.08	0	0.00	0	0.00	483	0.39
Oct-21 (S07)	2,001	1.61	2,802	2.26	0	0.00	0	0.00	4,803	3.87
Nov-21 (S08)	7,139	5.76	10,832	8.73	0	0.00	0	0.00	17,971	14.49
Jan-22 (S09)	551	0.44	509	0.41	0	0.00	0	0.00	1,060	0.85
Mar-22 (S10)	1,137	0.92	884	0.71	0	0.00	0	0.00	2,021	1.63
Mar-22 (S11)	690	0.56	291	0.23	0	0.00	0	0.00	981	0.79
Apr-22 (S12)	3,491	2.81	5,186	4.18	0	0.00	0	0.00	8,677	7.00
May-22 (S13)	1,808	1.46	292	0.24	0	0.00	0	0.00	2,100	1.69
Jun-22 (S14)	1,810	1.46	333	0.27	0	0.00	0	0.00	2,143	1.73
Jul-22 (S15)	3,207	2.59	2,681	2.16	0	0.00	0	0.00	5,888	4.75
Aug-22 (S16)	64	0.05	28	0.02	0	0.00	0	0.00	92	0.07
Sep-22 (S17)	28	0.02	14	0.01	0	0.00	0	0.00	42	0.03
Oct-22 (S18)	3,641	2.94	3,584	2.89	0	0.00	0	0.00	7,225	5.83
Nov-22 (S19)	3,894	3.14	2,107	1.70	0	0.00	0	0.00	6,001	4.84
Dec-22 (S20)	2,833	2.28	762	0.61	0	0.00	0	0.00	3,595	2.90
Dec-22 (S21)	3,364	2.71	741	0.60	0	0.00	0	0.00	4,105	3.31
Jan-23 (S22)	1,899	1.53	978	0.79	0	0.00	0	0.00	2,877	2.32
Feb-23 (S23)	3,887	3.13	3,510	2.83	0	0.00	0	0.00	7,397	5.96
Mar-23 (S24)	1,108	0.89	508	0.41	0	0.00	0	0.00	1,616	1.30
Apr-23 (S25)	1,247	1.01	416	0.34	0	0.00	0	0.00	1,663	1.34
May-23 (S26)	827	0.67	470	0.38	0	0.00	0	0.00	1,297	1.05
Jun-23 (S27)	1,613	1.30	332	0.27	0	0.00	0	0.00	1,945	1.57
Jul-23 (S28)	611	0.49	135	0.11	0	0.00	0	0.00	746	0.60
Aug-23 (S29)	7	0.01	14	0.01	0	0.00	0	0.00	21	0.02
Sep-23 (S30)	157	0.13	57	0.05	0	0.00	0	0.00	214	0.17

Site

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	261	0.35	14	0.02	0	0.00	0	0.00	275	0.36
May-21 (S02)	1,439	1.91	179	0.24	0	0.00	0	0.00	1,618	2.14
Jun-21 (S03)	502	0.67	42	0.06	0	0.00	0	0.00	544	0.72
Jul-21 (S04)	380	0.50	124	0.16	0	0.00	0	0.00	504	0.67
Aug-21 (S05)	298	0.40	180	0.24	0	0.00	0	0.00	478	0.63
Sep-21 (S06)	302	0.40	34	0.05	0	0.00	0	0.00	336	0.45

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Oct-21 (S07)	1,504	1.99	2,249	2.98	0	0.00	0	0.00	3,753	4.98
Nov-21 (S08)	4,540	6.02	4,904	6.50	0	0.00	0	0.00	9,444	12.52
Jan-22 (S09)	376	0.50	362	0.48	0	0.00	0	0.00	738	0.98
Mar-22 (S10)	849	1.13	637	0.84	0	0.00	0	0.00	1,486	1.97
Mar-22 (S11)	470	0.62	147	0.19	0	0.00	0	0.00	617	0.82
Apr-22 (S12)	1,835	2.43	2,787	3.69	0	0.00	0	0.00	4,622	6.13
May-22 (S13)	1,400	1.86	179	0.24	0	0.00	0	0.00	1,579	2.09
Jun-22 (S14)	811	1.08	126	0.17	0	0.00	0	0.00	937	1.24
Jul-22 (S15)	1,860	2.47	2,237	2.97	0	0.00	0	0.00	4,097	5.43
Aug-22 (S16)	27	0.04	27	0.04	0	0.00	0	0.00	54	0.07
Sep-22 (S17)	14	0.02	7	0.01	0	0.00	0	0.00	21	0.03
Oct-22 (S18)	1,922	2.55	2,646	3.51	0	0.00	0	0.00	4,568	6.06
Nov-22 (S19)	2,247	2.98	790	1.05	0	0.00	0	0.00	3,037	4.03
Dec-22 (S20)	1,693	2.24	475	0.63	0	0.00	0	0.00	2,168	2.87
Dec-22 (S21)	2,459	3.26	455	0.60	0	0.00	0	0.00	2,914	3.86
Jan-23 (S22)	1,282	1.70	510	0.68	0	0.00	0	0.00	1,792	2.38
Feb-23 (S23)	2,398	3.18	2,490	3.30	0	0.00	0	0.00	4,888	6.48
Mar-23 (S24)	821	1.09	407	0.54	0	0.00	0	0.00	1,228	1.63
Apr-23 (S25)	862	1.14	222	0.29	0	0.00	0	0.00	1,084	1.44
May-23 (S26)	573	0.76	338	0.45	0	0.00	0	0.00	911	1.21
Jun-23 (S27)	1,228	1.63	218	0.29	0	0.00	0	0.00	1,446	1.92
Jul-23 (S28)	418	0.55	75	0.10	0	0.00	0	0.00	493	0.65
Aug-23 (S29)	0	0.00	14	0.02	0	0.00	0	0.00	14	0.02
Sep-23 (S30)	76	0.10	48	0.06	0	0.00	0	0.00	124	0.16

4 km Buffer only

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	142	0.29	15	0.03	0	0.00	0	0.00	157	0.32
May-21 (S02)	736	1.51	263	0.54	0	0.00	0	0.00	999	2.06
Jun-21 (S03)	320	0.66	8	0.02	0	0.00	0	0.00	328	0.68
Jul-21 (S04)	333	0.69	31	0.06	0	0.00	0	0.00	364	0.75
Aug-21 (S05)	136	0.28	38	0.08	0	0.00	0	0.00	174	0.36
Sep-21 (S06)	75	0.15	68	0.14	0	0.00	0	0.00	143	0.29
Oct-21 (S07)	470	0.97	500	1.03	0	0.00	0	0.00	970	2.00
Nov-21 (S08)	2,579	5.31	6,085	12.52	0	0.00	0	0.00	8,664	17.83
Jan-22 (S09)	171	0.35	141	0.29	0	0.00	0	0.00	312	0.64
Mar-22 (S10)	273	0.56	238	0.49	0	0.00	0	0.00	511	1.05
Mar-22 (S11)	216	0.44	146	0.30	0	0.00	0	0.00	362	0.75
Apr-22 (S12)	1,685	3.47	2,437	5.02	0	0.00	0	0.00	4,122	8.48
May-22 (S13)	382	0.79	112	0.23	0	0.00	0	0.00	494	1.02
Jun-22 (S14)	1,027	2.11	215	0.44	0	0.00	0	0.00	1,242	2.56
Jul-22 (S15)	1,355	2.79	384	0.79	0	0.00	0	0.00	1,739	3.58
Aug-22 (S16)	38	0.08	0	0.00	0	0.00	0	0.00	38	0.08
Sep-22 (S17)	15	0.03	8	0.02	0	0.00	0	0.00	23	0.05
Oct-22 (S18)	1,746	3.59	895	1.84	0	0.00	0	0.00	2,641	5.44
Nov-22 (S19)	1,660	3.42	1,365	2.81	0	0.00	0	0.00	3,025	6.23
Dec-22 (S20)	1,142	2.35	286	0.59	0	0.00	0	0.00	1,428	2.94

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Dec-22 (S21)	866	1.78	286	0.59	0	0.00	0	0.00	1,152	2.37
Jan-23 (S22)	604	1.24	476	0.98	0	0.00	0	0.00	1,080	2.22
Feb-23 (S23)	1,486	3.06	986	2.03	0	0.00	0	0.00	2,472	5.09
Mar-23 (S24)	273	0.56	91	0.19	0	0.00	0	0.00	364	0.75
Apr-23 (S25)	377	0.78	196	0.40	0	0.00	0	0.00	573	1.18
May-23 (S26)	248	0.51	128	0.26	0	0.00	0	0.00	376	0.77
Jun-23 (S27)	360	0.74	113	0.23	0	0.00	0	0.00	473	0.97
Jul-23 (S28)	188	0.39	60	0.12	0	0.00	0	0.00	248	0.51
Aug-23 (S29)	8	0.02	0	0.00	0	0.00	0	0.00	8	0.02
Sep-23 (S30)	83	0.17	8	0.02	0	0.00	0	0.00	91	0.19

15.1.2 Great Black-backed Gull

Survey Area

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
May-21 (S02)	4	0.00	0	0.00	0	0.00	0	0.00	4	0.00
Jun-21 (S03)	7	0.01	0	0.00	0	0.00	29	0.02	36	0.03
Jul-21 (S04)	11	0.01	0	0.00	0	0.00	0	0.00	11	0.01
Aug-21 (S05)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Sep-21 (S06)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Oct-21 (S07)	0	0.00	1	0.00	0	0.00	0	0.00	1	0.00
Nov-21 (S08)	176	0.14	1,043	0.84	0	0.00	0	0.00	1,219	0.98
Jan-22 (S09)	21	0.02	70	0.06	0	0.00	0	0.00	91	0.07
Mar-22 (S10)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S11)	7	0.01	14	0.01	0	0.00	0	0.00	21	0.02
Apr-22 (S12)	14	0.01	0	0.00	0	0.00	0	0.00	14	0.01
May-22 (S13)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jun-22 (S14)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jul-22 (S15)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Aug-22 (S16)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Sep-22 (S17)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Oct-22 (S18)	7	0.01	60	0.05	0	0.00	0	0.00	67	0.05
Nov-22 (S19)	21	0.02	14	0.01	0	0.00	0	0.00	35	0.03
Dec-22 (S20)	43	0.03	64	0.05	0	0.00	0	0.00	107	0.09
Dec-22 (S21)	107	0.09	259	0.21	0	0.00	0	0.00	366	0.30
Jan-23 (S22)	43	0.03	68	0.05	0	0.00	0	0.00	111	0.09
Feb-23 (S23)	52	0.04	237	0.19	0	0.00	0	0.00	289	0.23
Mar-23 (S24)	21	0.02	7	0.01	0	0.00	0	0.00	28	0.02
Apr-23 (S25)	7	0.01	7	0.01	0	0.00	0	0.00	14	0.01
May-23 (S26)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jun-23 (S27)	0	0.00	7	0.01	0	0.00	0	0.00	7	0.01
Jul-23 (S28)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Aug-23 (S29)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Sep-23 (S30)	7	0.01	0	0.00	0	0.00	0	0.00	7	0.01

Site

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
May-21 (S02)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jun-21 (S03)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jul-21 (S04)	7	0.01	0	0.00	0	0.00	0	0.00	7	0.01
Aug-21 (S05)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Sep-21 (S06)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Oct-21 (S07)	0	0.00	4	0.01	0	0.00	0	0.00	4	0.01
Nov-21 (S08)	133	0.18	448	0.59	0	0.00	0	0.00	581	0.77
Jan-22 (S09)	7	0.01	60	0.08	0	0.00	0	0.00	67	0.09
Mar-22 (S10)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S11)	7	0.01	14	0.02	0	0.00	0	0.00	21	0.03
Apr-22 (S12)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
May-22 (S13)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jun-22 (S14)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jul-22 (S15)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Aug-22 (S16)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Sep-22 (S17)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Oct-22 (S18)	7	0.01	34	0.05	0	0.00	0	0.00	41	0.05
Nov-22 (S19)	14	0.02	7	0.01	0	0.00	0	0.00	21	0.03
Dec-22 (S20)	28	0.04	28	0.04	0	0.00	0	0.00	56	0.07
Dec-22 (S21)	83	0.11	167	0.22	0	0.00	0	0.00	250	0.33
Jan-23 (S22)	21	0.03	18	0.02	0	0.00	0	0.00	39	0.05
Feb-23 (S23)	21	0.03	50	0.07	0	0.00	0	0.00	71	0.09
Mar-23 (S24)	14	0.02	7	0.01	0	0.00	0	0.00	21	0.03
Apr-23 (S25)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
May-23 (S26)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jun-23 (S27)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jul-23 (S28)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Aug-23 (S29)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Sep-23 (S30)	7	0.01	0	0.00	0	0.00	0	0.00	7	0.01

4 km Buffer only

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
May-21 (S02)	4	0.01	0	0.00	0	0.00	0	0.00	4	0.01
Jun-21 (S03)	8	0.02	0	0.00	0	0.00	30	0.06	38	0.08
Jul-21 (S04)	4	0.01	0	0.00	0	0.00	0	0.00	4	0.01
Aug-21 (S05)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Sep-21 (S06)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Oct-21 (S07)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Nov-21 (S08)	40	0.08	615	1.27	0	0.00	0	0.00	655	1.35
Jan-22 (S09)	15	0.03	7	0.01	0	0.00	0	0.00	22	0.05
Mar-22 (S10)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S11)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Apr-22 (S12)	15	0.03	0	0.00	0	0.00	0	0.00	15	0.03

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
May-22 (S13)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jun-22 (S14)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jul-22 (S15)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Aug-22 (S16)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Sep-22 (S17)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Oct-22 (S18)	0	0.00	25	0.05	0	0.00	0	0.00	25	0.05
Nov-22 (S19)	8	0.02	8	0.02	0	0.00	0	0.00	16	0.03
Dec-22 (S20)	15	0.03	38	0.08	0	0.00	0	0.00	53	0.11
Dec-22 (S21)	23	0.05	90	0.19	0	0.00	0	0.00	113	0.23
Jan-23 (S22)	23	0.05	53	0.11	0	0.00	0	0.00	76	0.16
Feb-23 (S23)	31	0.06	196	0.40	0	0.00	0	0.00	227	0.47
Mar-23 (S24)	8	0.02	0	0.00	0	0.00	0	0.00	8	0.02
Apr-23 (S25)	8	0.02	8	0.02	0	0.00	0	0.00	16	0.03
May-23 (S26)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jun-23 (S27)	0	0.00	8	0.02	0	0.00	0	0.00	8	0.02
Jul-23 (S28)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Aug-23 (S29)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Sep-23 (S30)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00

15.1.3 Herring Gull

Survey Area

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
May-21 (S02)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jun-21 (S03)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jul-21 (S04)	11	0.01	36	0.03	0	0.00	0	0.00	47	0.04
Aug-21 (S05)	7	0.01	7	0.01	0	0.00	0	0.00	14	0.01
Sep-21 (S06)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Oct-21 (S07)	0	0.00	6	0.00	0	0.00	0	0.00	6	0.00
Nov-21 (S08)	276	0.22	1,026	0.83	0	0.00	0	0.00	1,302	1.05
Jan-22 (S09)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S10)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S11)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Apr-22 (S12)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
May-22 (S13)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jun-22 (S14)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jul-22 (S15)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Aug-22 (S16)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Sep-22 (S17)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Oct-22 (S18)	29	0.02	82	0.07	0	0.00	0	0.00	111	0.09
Nov-22 (S19)	78	0.06	64	0.05	0	0.00	0	0.00	142	0.11
Dec-22 (S20)	7	0.01	7	0.01	0	0.00	0	0.00	14	0.01
Dec-22 (S21)	599	0.48	497	0.40	0	0.00	0	0.00	1,096	0.88
Jan-23 (S22)	43	0.03	60	0.05	0	0.00	0	0.00	103	0.08
Feb-23 (S23)	7	0.01	134	0.11	0	0.00	0	0.00	141	0.11

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Mar-23 (S24)	0	0.00	7	0.01	0	0.00	0	0.00	7	0.01
Apr-23 (S25)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
May-23 (S26)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jun-23 (S27)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jul-23 (S28)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Aug-23 (S29)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Sep-23 (S30)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00

Site

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
May-21 (S02)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jun-21 (S03)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jul-21 (S04)	7	0.01	21	0.03	0	0.00	0	0.00	28	0.04
Aug-21 (S05)	7	0.01	0	0.00	0	0.00	0	0.00	7	0.01
Sep-21 (S06)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Oct-21 (S07)	0	0.00	3	0.00	0	0.00	0	0.00	3	0.00
Nov-21 (S08)	126	0.17	241	0.32	0	0.00	0	0.00	366	0.49
Jan-22 (S09)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S10)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S11)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Apr-22 (S12)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
May-22 (S13)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jun-22 (S14)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jul-22 (S15)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Aug-22 (S16)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Sep-22 (S17)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Oct-22 (S18)	21	0.03	21	0.03	0	0.00	0	0.00	42	0.06
Nov-22 (S19)	69	0.09	34	0.05	0	0.00	0	0.00	103	0.14
Dec-22 (S20)	7	0.01	7	0.01	0	0.00	0	0.00	14	0.02
Dec-22 (S21)	572	0.76	446	0.59	0	0.00	0	0.00	1,018	1.35
Jan-23 (S22)	34	0.05	18	0.02	0	0.00	0	0.00	52	0.07
Feb-23 (S23)	7	0.01	14	0.02	0	0.00	0	0.00	21	0.03
Mar-23 (S24)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Apr-23 (S25)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
May-23 (S26)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jun-23 (S27)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jul-23 (S28)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Aug-23 (S29)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Sep-23 (S30)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00

4 km Buffer only

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
May-21 (S02)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jun-21 (S03)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jul-21 (S04)	0	0.00	15	0.03	0	0.00	0	0.00	15	0.03
Aug-21 (S05)	0	0.00	8	0.02	0	0.00	0	0.00	8	0.02
Sep-21 (S06)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Oct-21 (S07)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Nov-21 (S08)	154	0.32	821	1.69	0	0.00	0	0.00	974	2.01
Jan-22 (S09)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S10)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S11)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Apr-22 (S12)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
May-22 (S13)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jun-22 (S14)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jul-22 (S15)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Aug-22 (S16)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Sep-22 (S17)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Oct-22 (S18)	8	0.02	66	0.14	0	0.00	0	0.00	74	0.15
Nov-22 (S19)	8	0.02	30	0.06	0	0.00	0	0.00	38	0.08
Dec-22 (S20)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Dec-22 (S21)	8	0.02	38	0.08	0	0.00	0	0.00	46	0.09
Jan-23 (S22)	8	0.02	45	0.09	0	0.00	0	0.00	53	0.11
Feb-23 (S23)	0	0.00	125	0.26	0	0.00	0	0.00	125	0.26
Mar-23 (S24)	0	0.00	8	0.02	0	0.00	0	0.00	8	0.02
Apr-23 (S25)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
May-23 (S26)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jun-23 (S27)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jul-23 (S28)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Aug-23 (S29)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Sep-23 (S30)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00

15.1.4 Common Tern

Survey Area

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
May-21 (S02)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jun-21 (S03)	7	0.01	0	0.00	0	0.00	0	0.00	7	0.01
Jul-21 (S04)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Aug-21 (S05)	160	0.13	0	0.00	0	0.00	0	0.00	160	0.13
Sep-21 (S06)	39	0.03	0	0.00	0	0.00	0	0.00	39	0.03
Oct-21 (S07)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Nov-21 (S08)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-22 (S09)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Mar-22 (S10)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S11)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Apr-22 (S12)	7	0.01	0	0.00	0	0.00	0	0.00	7	0.01
May-22 (S13)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jun-22 (S14)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jul-22 (S15)	26	0.02	0	0.00	0	0.00	0	0.00	26	0.02
Aug-22 (S16)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Sep-22 (S17)	78	0.06	0	0.00	0	0.00	0	0.00	78	0.06
Oct-22 (S18)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Nov-22 (S19)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Dec-22 (S20)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Dec-22 (S21)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-23 (S22)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Feb-23 (S23)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-23 (S24)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Apr-23 (S25)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
May-23 (S26)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jun-23 (S27)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jul-23 (S28)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Aug-23 (S29)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Sep-23 (S30)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00

Site

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
May-21 (S02)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jun-21 (S03)	7	0.01	0	0.00	0	0.00	0	0.00	7	0.01
Jul-21 (S04)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Aug-21 (S05)	143	0.19	0	0.00	0	0.00	0	0.00	143	0.19
Sep-21 (S06)	7	0.01	0	0.00	0	0.00	0	0.00	7	0.01
Oct-21 (S07)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Nov-21 (S08)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-22 (S09)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S10)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S11)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Apr-22 (S12)	7	0.01	0	0.00	0	0.00	0	0.00	7	0.01
May-22 (S13)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jun-22 (S14)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jul-22 (S15)	10	0.01	0	0.00	0	0.00	0	0.00	10	0.01
Aug-22 (S16)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Sep-22 (S17)	41	0.05	0	0.00	0	0.00	0	0.00	41	0.05
Oct-22 (S18)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Nov-22 (S19)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Dec-22 (S20)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Dec-22 (S21)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-23 (S22)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Feb-23 (S23)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Mar-23 (S24)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Apr-23 (S25)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
May-23 (S26)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jun-23 (S27)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jul-23 (S28)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Aug-23 (S29)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Sep-23 (S30)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00

4 km Buffer only

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
May-21 (S02)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jun-21 (S03)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jul-21 (S04)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Aug-21 (S05)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Sep-21 (S06)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Oct-21 (S07)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Nov-21 (S08)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-22 (S09)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S10)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S11)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Apr-22 (S12)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
May-22 (S13)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jun-22 (S14)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jul-22 (S15)	29	0.06	0	0.00	0	0.00	0	0.00	29	0.06
Aug-22 (S16)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Sep-22 (S17)	38	0.08	0	0.00	0	0.00	0	0.00	38	0.08
Oct-22 (S18)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Nov-22 (S19)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Dec-22 (S20)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Dec-22 (S21)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-23 (S22)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Feb-23 (S23)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-23 (S24)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Apr-23 (S25)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
May-23 (S26)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jun-23 (S27)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jul-23 (S28)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Aug-23 (S29)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Sep-23 (S30)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00

15.1.5 Arctic Tern

Survey Area

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	21	0.02	0	0.00	0	0.00	0	0.00	21	0.02
May-21 (S02)	292	0.24	43	0.03	0	0.00	0	0.00	335	0.27
Jun-21 (S03)	14	0.01	0	0.00	0	0.00	0	0.00	14	0.01
Jul-21 (S04)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Aug-21 (S05)	18	0.01	0	0.00	0	0.00	0	0.00	18	0.01
Sep-21 (S06)	39	0.03	0	0.00	0	0.00	0	0.00	39	0.03
Oct-21 (S07)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Nov-21 (S08)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-22 (S09)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S10)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S11)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Apr-22 (S12)	7	0.01	21	0.02	0	0.00	0	0.00	28	0.02
May-22 (S13)	28	0.02	0	0.00	0	0.00	0	0.00	28	0.02
Jun-22 (S14)	123	0.10	0	0.00	0	0.00	0	0.00	123	0.10
Jul-22 (S15)	160	0.13	7	0.01	0	0.00	0	0.00	167	0.13
Aug-22 (S16)	340	0.27	63	0.05	0	0.00	0	0.00	403	0.32
Sep-22 (S17)	78	0.06	0	0.00	0	0.00	0	0.00	78	0.06
Oct-22 (S18)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Nov-22 (S19)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Dec-22 (S20)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Dec-22 (S21)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-23 (S22)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Feb-23 (S23)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-23 (S24)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Apr-23 (S25)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
May-23 (S26)	71	0.06	29	0.02	0	0.00	0	0.00	100	0.08
Jun-23 (S27)	28	0.02	0	0.00	0	0.00	0	0.00	28	0.02
Jul-23 (S28)	35	0.03	28	0.02	0	0.00	0	0.00	63	0.05
Aug-23 (S29)	72	0.06	0	0.00	0	0.00	0	0.00	72	0.06
Sep-23 (S30)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00

Site

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
May-21 (S02)	172	0.23	41	0.05	0	0.00	0	0.00	213	0.28
Jun-21 (S03)	14	0.02	0	0.00	0	0.00	0	0.00	14	0.02
Jul-21 (S04)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Aug-21 (S05)	16	0.02	0	0.00	0	0.00	0	0.00	16	0.02
Sep-21 (S06)	7	0.01	0	0.00	0	0.00	0	0.00	7	0.01
Oct-21 (S07)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Nov-21 (S08)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-22 (S09)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S10)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Mar-22 (S11)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Apr-22 (S12)	7	0.01	21	0.03	0	0.00	0	0.00	28	0.04
May-22 (S13)	7	0.01	0	0.00	0	0.00	0	0.00	7	0.01
Jun-22 (S14)	77	0.10	0	0.00	0	0.00	0	0.00	77	0.10
Jul-22 (S15)	94	0.13	0	0.00	0	0.00	0	0.00	94	0.13
Aug-22 (S16)	268	0.36	27	0.04	0	0.00	0	0.00	295	0.39
Sep-22 (S17)	41	0.05	0	0.00	0	0.00	0	0.00	41	0.05
Oct-22 (S18)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Nov-22 (S19)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Dec-22 (S20)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Dec-22 (S21)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-23 (S22)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Feb-23 (S23)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-23 (S24)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Apr-23 (S25)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
May-23 (S26)	35	0.05	28	0.04	0	0.00	0	0.00	63	0.08
Jun-23 (S27)	7	0.01	0	0.00	0	0.00	0	0.00	7	0.01
Jul-23 (S28)	34	0.05	27	0.04	0	0.00	0	0.00	61	0.08
Aug-23 (S29)	35	0.05	0	0.00	0	0.00	0	0.00	35	0.05
Sep-23 (S30)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00

4 km Buffer only

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	22	0.05	0	0.00	0	0.00	0	0.00	22	0.05
May-21 (S02)	120	0.25	0	0.00	0	0.00	0	0.00	120	0.25
Jun-21 (S03)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jul-21 (S04)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Aug-21 (S05)	15	0.03	0	0.00	0	0.00	0	0.00	15	0.03
Sep-21 (S06)	68	0.14	0	0.00	0	0.00	0	0.00	68	0.14
Oct-21 (S07)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Nov-21 (S08)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-22 (S09)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S10)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S11)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Apr-22 (S12)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
May-22 (S13)	22	0.05	0	0.00	0	0.00	0	0.00	22	0.05
Jun-22 (S14)	46	0.09	0	0.00	0	0.00	0	0.00	46	0.09
Jul-22 (S15)	55	0.11	8	0.02	0	0.00	0	0.00	63	0.13
Aug-22 (S16)	68	0.14	38	0.08	0	0.00	0	0.00	106	0.22
Sep-22 (S17)	38	0.08	0	0.00	0	0.00	0	0.00	38	0.08
Oct-22 (S18)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Nov-22 (S19)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Dec-22 (S20)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Dec-22 (S21)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-23 (S22)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Feb-23 (S23)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-23 (S24)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-23 (S25)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
May-23 (S26)	38	0.08	0	0.00	0	0.00	0	0.00	38	0.08
Jun-23 (S27)	23	0.05	0	0.00	0	0.00	0	0.00	23	0.05
Jul-23 (S28)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Aug-23 (S29)	38	0.08	0	0.00	0	0.00	0	0.00	38	0.08
Sep-23 (S30)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00

15.1.6 Guillemot

Survey Area

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	972	0.78	10,683	8.61	0	0.00	0	0.00	11,656	9.40
May-21 (S02)	836	0.67	19,528	15.75	0	0.00	0	0.00	20,364	16.42
Jun-21 (S03)	543	0.44	8,295	6.69	0	0.00	0	0.00	8,837	7.13
Jul-21 (S04)	494	0.40	22,875	18.44	0	0.00	0	0.00	23,369	18.84
Aug-21 (S05)	7	0.01	6,262	5.05	0	0.00	0	0.00	6,269	5.05
Sep-21 (S06)	133	0.11	2,783	2.24	0	0.00	0	0.00	2,916	2.35
Oct-21 (S07)	29	0.02	6,467	5.21	0	0.00	0	0.00	6,496	5.24
Nov-21 (S08)	696	0.56	24,143	19.47	0	0.00	0	0.00	24,838	20.03
Jan-22 (S09)	126	0.10	10,519	8.48	0	0.00	0	0.00	10,645	8.58
Mar-22 (S10)	551	0.44	13,142	10.60	0	0.00	0	0.00	13,693	11.04
Mar-22 (S11)	1,942	1.57	40,006	32.26	0	0.00	0	0.00	41,948	33.82
Apr-22 (S12)	601	0.48	46,580	37.56	0	0.00	0	0.00	47,180	38.04
May-22 (S13)	276	0.22	6,386	5.15	0	0.00	0	0.00	6,662	5.37
Jun-22 (S14)	321	0.26	14,522	11.71	0	0.00	0	0.00	14,843	11.97
Jul-22 (S15)	164	0.13	35,971	29.00	0	0.00	0	0.00	36,135	29.14
Aug-22 (S16)	0	0.00	4,924	3.97	0	0.00	0	0.00	4,924	3.97
Sep-22 (S17)	76	0.06	1,929	1.56	0	0.00	0	0.00	2,005	1.62
Oct-22 (S18)	591	0.48	10,986	8.86	0	0.00	0	0.00	11,576	9.33
Nov-22 (S19)	839	0.68	14,551	11.73	0	0.00	0	0.00	15,391	12.41
Dec-22 (S20)	251	0.20	6,628	5.34	0	0.00	0	0.00	6,879	5.55
Dec-22 (S21)	161	0.13	5,346	4.31	0	0.00	0	0.00	5,508	4.44
Jan-23 (S22)	228	0.18	19,912	16.06	0	0.00	0	0.00	20,140	16.24
Feb-23 (S23)	604	0.49	37,751	30.44	0	0.00	0	0.00	38,355	30.93
Mar-23 (S24)	779	0.63	15,522	12.52	0	0.00	0	0.00	16,302	13.14
Apr-23 (S25)	781	0.63	14,410	11.62	0	0.00	0	0.00	15,191	12.25
May-23 (S26)	975	0.79	29,388	23.70	29	0.02	0	0.00	30,392	24.51
Jun-23 (S27)	1,146	0.92	26,724	21.55	21	0.02	0	0.00	27,891	22.49
Jul-23 (S28)	484	0.39	39,969	32.23	7	0.01	0	0.00	40,461	32.62
Aug-23 (S29)	7	0.01	4,801	3.87	0	0.00	0	0.00	4,809	3.88
Sep-23 (S30)	38	0.03	6,561	5.29	0	0.00	0	0.00	6,599	5.32

Site

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	681	0.90	7,782	10.32	0	0.00	0	0.00	8,463	11.22
May-21 (S02)	540	0.72	14,967	19.84	0	0.00	0	0.00	15,507	20.56
Jun-21 (S03)	421	0.56	5,369	7.12	0	0.00	0	0.00	5,790	7.68
Jul-21 (S04)	290	0.38	13,942	18.48	0	0.00	0	0.00	14,232	18.87
Aug-21 (S05)	7	0.01	3,861	5.12	0	0.00	0	0.00	3,868	5.13
Sep-21 (S06)	56	0.07	1,815	2.41	0	0.00	0	0.00	1,872	2.48
Oct-21 (S07)	21	0.03	5,119	6.79	0	0.00	0	0.00	5,140	6.81
Nov-21 (S08)	420	0.56	16,888	22.39	0	0.00	0	0.00	17,307	22.94
Jan-22 (S09)	88	0.12	7,707	10.22	0	0.00	0	0.00	7,795	10.33
Mar-22 (S10)	376	0.50	9,128	12.10	0	0.00	0	0.00	9,504	12.60
Mar-22 (S11)	1,633	2.17	32,051	42.49	0	0.00	0	0.00	33,685	44.66
Apr-22 (S12)	310	0.41	32,341	42.87	0	0.00	0	0.00	32,651	43.29
May-22 (S13)	165	0.22	4,585	6.08	0	0.00	0	0.00	4,750	6.30
Jun-22 (S14)	256	0.34	8,424	11.17	0	0.00	0	0.00	8,680	11.51
Jul-22 (S15)	103	0.14	21,967	29.12	0	0.00	0	0.00	22,070	29.26
Aug-22 (S16)	0	0.00	2,727	3.61	0	0.00	0	0.00	2,727	3.61
Sep-22 (S17)	37	0.05	1,100	1.46	0	0.00	0	0.00	1,136	1.51
Oct-22 (S18)	342	0.45	6,392	8.47	0	0.00	0	0.00	6,735	8.93
Nov-22 (S19)	677	0.90	9,108	12.07	0	0.00	0	0.00	9,785	12.97
Dec-22 (S20)	108	0.14	3,531	4.68	0	0.00	0	0.00	3,639	4.82
Dec-22 (S21)	118	0.16	2,814	3.73	0	0.00	0	0.00	2,931	3.89
Jan-23 (S22)	159	0.21	13,426	17.80	0	0.00	0	0.00	13,585	18.01
Feb-23 (S23)	213	0.28	25,395	33.67	0	0.00	0	0.00	25,608	33.95
Mar-23 (S24)	573	0.76	11,114	14.73	0	0.00	0	0.00	11,687	15.49
Apr-23 (S25)	464	0.61	8,934	11.84	0	0.00	0	0.00	9,398	12.46
May-23 (S26)	632	0.84	20,428	27.08	7	0.01	0	0.00	21,066	27.93
Jun-23 (S27)	614	0.81	20,150	26.71	7	0.01	0	0.00	20,771	27.54
Jul-23 (S28)	266	0.35	28,452	37.72	7	0.01	0	0.00	28,725	38.08
Aug-23 (S29)	0	0.00	2,905	3.85	0	0.00	0	0.00	2,905	3.85
Sep-23 (S30)	30	0.04	3,576	4.74	0	0.00	0	0.00	3,607	4.78

4 km Buffer only

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	283	0.58	2,786	5.73	0	0.00	0	0.00	3,069	6.32
May-21 (S02)	293	0.60	4,279	8.81	0	0.00	0	0.00	4,572	9.41
Jun-21 (S03)	114	0.23	2,891	5.95	0	0.00	0	0.00	3,005	6.18
Jul-21 (S04)	206	0.42	8,931	18.38	0	0.00	0	0.00	9,137	18.80
Aug-21 (S05)	0	0.00	2,396	4.93	0	0.00	0	0.00	2,396	4.93
Sep-21 (S06)	53	0.11	958	1.97	0	0.00	0	0.00	1,011	2.08
Oct-21 (S07)	8	0.02	1,234	2.54	0	0.00	0	0.00	1,242	2.56
Nov-21 (S08)	266	0.55	7,259	14.94	0	0.00	0	0.00	7,525	15.49
Jan-22 (S09)	37	0.08	2,679	5.51	0	0.00	0	0.00	2,716	5.59
Mar-22 (S10)	170	0.35	3,910	8.05	0	0.00	0	0.00	4,081	8.40
Mar-22 (S11)	253	0.52	7,196	14.81	0	0.00	0	0.00	7,449	15.33
Apr-22 (S12)	296	0.61	13,853	28.51	0	0.00	0	0.00	14,149	29.12

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
May-22 (S13)	112	0.23	1,741	3.58	0	0.00	0	0.00	1,853	3.81
Jun-22 (S14)	61	0.13	6,147	12.65	0	0.00	0	0.00	6,208	12.78
Jul-22 (S15)	60	0.12	13,914	28.64	0	0.00	0	0.00	13,974	28.76
Aug-22 (S16)	0	0.00	2,222	4.57	0	0.00	0	0.00	2,222	4.57
Sep-22 (S17)	143	0.29	842	1.73	0	0.00	0	0.00	985	2.03
Oct-22 (S18)	250	0.51	4,689	9.65	0	0.00	0	0.00	4,939	10.17
Nov-22 (S19)	146	0.30	5,382	11.08	0	0.00	0	0.00	5,528	11.38
Dec-22 (S20)	148	0.30	3,185	6.55	0	0.00	0	0.00	3,332	6.86
Dec-22 (S21)	61	0.13	2,576	5.30	0	0.00	0	0.00	2,637	5.43
Jan-23 (S22)	68	0.14	6,352	13.07	0	0.00	0	0.00	6,420	13.21
Feb-23 (S23)	405	0.83	12,126	24.96	0	0.00	0	0.00	12,531	25.79
Mar-23 (S24)	200	0.41	4,243	8.73	0	0.00	0	0.00	4,443	9.14
Apr-23 (S25)	320	0.66	5,459	11.24	0	0.00	0	0.00	5,779	11.89
May-23 (S26)	341	0.70	8,730	17.97	23	0.05	0	0.00	9,095	18.72
Jun-23 (S27)	540	1.11	6,178	12.71	15	0.03	0	0.00	6,733	13.86
Jul-23 (S28)	221	0.45	11,116	22.88	0	0.00	0	0.00	11,337	23.33
Aug-23 (S29)	9	0.02	1,899	3.91	0	0.00	0	0.00	1,908	3.93
Sep-23 (S30)	8	0.02	3,024	6.22	0	0.00	0	0.00	3,032	6.24

15.1.7 Razorbill

Survey Area

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	8	0.01	350	0.28	0	0.00	0	0.00	358	0.29
May-21 (S02)	0	0.00	695	0.56	0	0.00	0	0.00	695	0.56
Jun-21 (S03)	14	0.01	569	0.46	0	0.00	0	0.00	584	0.47
Jul-21 (S04)	0	0.00	586	0.47	0	0.00	0	0.00	586	0.47
Aug-21 (S05)	0	0.00	451	0.36	0	0.00	0	0.00	451	0.36
Sep-21 (S06)	87	0.07	678	0.55	0	0.00	0	0.00	765	0.62
Oct-21 (S07)	0	0.00	544	0.44	0	0.00	0	0.00	544	0.44
Nov-21 (S08)	634	0.51	14,392	11.60	0	0.00	0	0.00	15,027	12.12
Jan-22 (S09)	0	0.00	1,958	1.58	0	0.00	0	0.00	1,958	1.58
Mar-22 (S10)	193	0.16	3,300	2.66	0	0.00	0	0.00	3,494	2.82
Mar-22 (S11)	446	0.36	10,271	8.28	0	0.00	0	0.00	10,717	8.64
Apr-22 (S12)	14	0.01	597	0.48	0	0.00	0	0.00	611	0.49
May-22 (S13)	15	0.01	288	0.23	0	0.00	0	0.00	303	0.24
Jun-22 (S14)	37	0.03	5,936	4.79	0	0.00	0	0.00	5,973	4.82
Jul-22 (S15)	22	0.02	8,736	7.04	0	0.00	0	0.00	8,759	7.06
Aug-22 (S16)	0	0.00	825	0.67	0	0.00	0	0.00	825	0.67
Sep-22 (S17)	383	0.31	303	0.24	0	0.00	0	0.00	686	0.55
Oct-22 (S18)	662	0.53	11,923	9.61	0	0.00	0	0.00	12,585	10.15
Nov-22 (S19)	272	0.22	2,742	2.21	0	0.00	0	0.00	3,013	2.43
Dec-22 (S20)	226	0.18	5,199	4.19	0	0.00	0	0.00	5,425	4.37
Dec-22 (S21)	402	0.32	7,353	5.93	0	0.00	0	0.00	7,754	6.25
Jan-23 (S22)	0	0.00	1,067	0.86	0	0.00	0	0.00	1,067	0.86
Feb-23 (S23)	0	0.00	880	0.71	0	0.00	0	0.00	880	0.71

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Mar-23 (S24)	594	0.48	8,403	6.78	0	0.00	0	0.00	8,997	7.25
Apr-23 (S25)	0	0.00	410	0.33	0	0.00	0	0.00	410	0.33
May-23 (S26)	170	0.14	3,333	2.69	0	0.00	0	0.00	3,503	2.82
Jun-23 (S27)	0	0.00	809	0.65	0	0.00	0	0.00	809	0.65
Jul-23 (S28)	173	0.14	6,630	5.35	0	0.00	0	0.00	6,803	5.49
Aug-23 (S29)	0	0.00	660	0.53	0	0.00	0	0.00	660	0.53
Sep-23 (S30)	225	0.18	578	0.47	0	0.00	0	0.00	803	0.65

Site

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	0	0.00	252	0.33	0	0.00	0	0.00	252	0.33
May-21 (S02)	0	0.00	453	0.60	0	0.00	0	0.00	453	0.60
Jun-21 (S03)	0	0.00	283	0.37	0	0.00	0	0.00	283	0.37
Jul-21 (S04)	0	0.00	444	0.59	0	0.00	0	0.00	444	0.59
Aug-21 (S05)	0	0.00	383	0.51	0	0.00	0	0.00	383	0.51
Sep-21 (S06)	109	0.14	475	0.63	0	0.00	0	0.00	584	0.77
Oct-21 (S07)	0	0.00	356	0.47	0	0.00	0	0.00	356	0.47
Nov-21 (S08)	499	0.66	7,948	10.54	0	0.00	0	0.00	8,448	11.20
Jan-22 (S09)	0	0.00	1,281	1.70	0	0.00	0	0.00	1,281	1.70
Mar-22 (S10)	120	0.16	2,424	3.21	0	0.00	0	0.00	2,544	3.37
Mar-22 (S11)	287	0.38	8,079	10.71	0	0.00	0	0.00	8,366	11.09
Apr-22 (S12)	0	0.00	379	0.50	0	0.00	0	0.00	379	0.50
May-22 (S13)	15	0.02	143	0.19	0	0.00	0	0.00	158	0.21
Jun-22 (S14)	37	0.05	3,928	5.21	0	0.00	0	0.00	3,964	5.26
Jul-22 (S15)	15	0.02	6,730	8.92	0	0.00	0	0.00	6,745	8.94
Aug-22 (S16)	0	0.00	449	0.60	0	0.00	0	0.00	449	0.60
Sep-22 (S17)	276	0.37	129	0.17	0	0.00	0	0.00	405	0.54
Oct-22 (S18)	388	0.51	7,793	10.33	0	0.00	0	0.00	8,180	10.84
Nov-22 (S19)	175	0.23	1,382	1.83	0	0.00	0	0.00	1,557	2.06
Dec-22 (S20)	147	0.20	3,867	5.13	0	0.00	0	0.00	4,014	5.32
Dec-22 (S21)	68	0.09	3,812	5.05	0	0.00	0	0.00	3,881	5.14
Jan-23 (S22)	0	0.00	493	0.65	0	0.00	0	0.00	493	0.65
Feb-23 (S23)	0	0.00	547	0.73	0	0.00	0	0.00	547	0.73
Mar-23 (S24)	467	0.62	5,613	7.44	0	0.00	0	0.00	6,080	8.06
Apr-23 (S25)	0	0.00	177	0.23	0	0.00	0	0.00	177	0.23
May-23 (S26)	86	0.11	2,185	2.90	0	0.00	0	0.00	2,271	3.01
Jun-23 (S27)	0	0.00	553	0.73	0	0.00	0	0.00	553	0.73
Jul-23 (S28)	120	0.16	4,656	6.17	0	0.00	0	0.00	4,776	6.33
Aug-23 (S29)	0	0.00	475	0.63	0	0.00	0	0.00	475	0.63
Sep-23 (S30)	113	0.15	226	0.30	0	0.00	0	0.00	339	0.45

4 km Buffer only

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	8	0.02	95	0.20	0	0.00	0	0.00	103	0.21
May-21 (S02)	0	0.00	240	0.49	0	0.00	0	0.00	240	0.49
Jun-21 (S03)	15	0.03	296	0.61	0	0.00	0	0.00	311	0.64
Jul-21 (S04)	0	0.00	135	0.28	0	0.00	0	0.00	135	0.28
Aug-21 (S05)	0	0.00	58	0.12	0	0.00	0	0.00	58	0.12
Sep-21 (S06)	0	0.00	193	0.40	0	0.00	0	0.00	193	0.40
Oct-21 (S07)	0	0.00	180	0.37	0	0.00	0	0.00	180	0.37
Nov-21 (S08)	133	0.27	6,309	12.98	0	0.00	0	0.00	6,442	13.26
Jan-22 (S09)	0	0.00	662	1.36	0	0.00	0	0.00	662	1.36
Mar-22 (S10)	75	0.15	842	1.73	0	0.00	0	0.00	916	1.89
Mar-22 (S11)	169	0.35	2,020	4.16	0	0.00	0	0.00	2,188	4.50
Apr-22 (S12)	15	0.03	218	0.45	0	0.00	0	0.00	233	0.48
May-22 (S13)	0	0.00	149	0.31	0	0.00	0	0.00	149	0.31
Jun-22 (S14)	0	0.00	1,969	4.05	0	0.00	0	0.00	1,969	4.05
Jul-22 (S15)	8	0.02	1,934	3.98	0	0.00	0	0.00	1,942	4.00
Aug-22 (S16)	0	0.00	381	0.78	0	0.00	0	0.00	381	0.78
Sep-22 (S17)	0	0.00	175	0.36	0	0.00	0	0.00	175	0.36
Oct-22 (S18)	277	0.57	4,009	8.25	0	0.00	0	0.00	4,285	8.82
Nov-22 (S19)	95	0.20	1,422	2.93	0	0.00	0	0.00	1,517	3.12
Dec-22 (S20)	78	0.16	1,227	2.53	0	0.00	0	0.00	1,306	2.69
Dec-22 (S21)	331	0.68	3,600	7.41	0	0.00	0	0.00	3,931	8.09
Jan-23 (S22)	0	0.00	597	1.23	0	0.00	0	0.00	597	1.23
Feb-23 (S23)	0	0.00	331	0.68	0	0.00	0	0.00	331	0.68
Mar-23 (S24)	115	0.24	2,745	5.65	0	0.00	0	0.00	2,859	5.89
Apr-23 (S25)	0	0.00	242	0.50	0	0.00	0	0.00	242	0.50
May-23 (S26)	86	0.18	1,135	2.34	0	0.00	0	0.00	1,221	2.51
Jun-23 (S27)	0	0.00	251	0.52	0	0.00	0	0.00	251	0.52
Jul-23 (S28)	54	0.11	1,916	3.94	0	0.00	0	0.00	1,970	4.05
Aug-23 (S29)	0	0.00	177	0.36	0	0.00	0	0.00	177	0.36
Sep-23 (S30)	113	0.23	359	0.74	0	0.00	0	0.00	472	0.97

15.1.8 Puffin

Survey Area

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	0	0.00	50	0.04	0	0.00	0	0.00	50	0.04
May-21 (S02)	0	0.00	43	0.03	0	0.00	0	0.00	43	0.03
Jun-21 (S03)	0	0.00	706	0.57	0	0.00	0	0.00	706	0.57
Jul-21 (S04)	0	0.00	44	0.04	0	0.00	0	0.00	44	0.04
Aug-21 (S05)	0	0.00	591	0.48	0	0.00	0	0.00	591	0.48
Sep-21 (S06)	0	0.00	62	0.05	0	0.00	0	0.00	62	0.05
Oct-21 (S07)	0	0.00	43	0.03	0	0.00	0	0.00	43	0.03
Nov-21 (S08)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-22 (S09)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Mar-22 (S10)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S11)	29	0.02	93	0.07	0	0.00	0	0.00	122	0.10
Apr-22 (S12)	0	0.00	136	0.11	0	0.00	0	0.00	136	0.11
May-22 (S13)	0	0.00	144	0.12	0	0.00	0	0.00	144	0.12
Jun-22 (S14)	36	0.03	1,924	1.55	0	0.00	0	0.00	1,961	1.58
Jul-22 (S15)	43	0.04	13,716	11.06	0	0.00	0	0.00	13,759	11.09
Aug-22 (S16)	8	0.01	3,750	3.02	0	0.00	0	0.00	3,758	3.03
Sep-22 (S17)	0	0.00	413	0.33	0	0.00	0	0.00	413	0.33
Oct-22 (S18)	0	0.00	7	0.01	0	0.00	0	0.00	7	0.01
Nov-22 (S19)	0	0.00	7	0.01	0	0.00	0	0.00	7	0.01
Dec-22 (S20)	0	0.00	36	0.03	0	0.00	0	0.00	36	0.03
Dec-22 (S21)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-23 (S22)	0	0.00	21	0.02	0	0.00	0	0.00	21	0.02
Feb-23 (S23)	0	0.00	29	0.02	0	0.00	0	0.00	29	0.02
Mar-23 (S24)	0	0.00	73	0.06	0	0.00	0	0.00	73	0.06
Apr-23 (S25)	0	0.00	50	0.04	0	0.00	0	0.00	50	0.04
May-23 (S26)	0	0.00	454	0.37	0	0.00	0	0.00	454	0.37
Jun-23 (S27)	21	0.02	1,316	1.06	0	0.00	0	0.00	1,337	1.08
Jul-23 (S28)	28	0.02	2,236	1.80	0	0.00	0	0.00	2,264	1.83
Aug-23 (S29)	0	0.00	1,109	0.89	0	0.00	0	0.00	1,109	0.89
Sep-23 (S30)	0	0.00	416	0.34	0	0.00	0	0.00	416	0.34

Site

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	0	0.00	21	0.03	0	0.00	0	0.00	21	0.03
May-21 (S02)	0	0.00	41	0.05	0	0.00	0	0.00	41	0.05
Jun-21 (S03)	0	0.00	426	0.56	0	0.00	0	0.00	426	0.56
Jul-21 (S04)	0	0.00	28	0.04	0	0.00	0	0.00	28	0.04
Aug-21 (S05)	0	0.00	350	0.46	0	0.00	0	0.00	350	0.46
Sep-21 (S06)	0	0.00	22	0.03	0	0.00	0	0.00	22	0.03
Oct-21 (S07)	0	0.00	28	0.04	0	0.00	0	0.00	28	0.04
Nov-21 (S08)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-22 (S09)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S10)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S11)	28	0.04	67	0.09	0	0.00	0	0.00	95	0.13
Apr-22 (S12)	0	0.00	48	0.06	0	0.00	0	0.00	48	0.06
May-22 (S13)	0	0.00	91	0.12	0	0.00	0	0.00	91	0.12
Jun-22 (S14)	14	0.02	1,177	1.56	0	0.00	0	0.00	1,191	1.58
Jul-22 (S15)	34	0.05	10,018	13.28	0	0.00	0	0.00	10,052	13.33
Aug-22 (S16)	8	0.01	2,256	2.99	0	0.00	0	0.00	2,264	3.00
Sep-22 (S17)	0	0.00	276	0.37	0	0.00	0	0.00	276	0.37
Oct-22 (S18)	0	0.00	7	0.01	0	0.00	0	0.00	7	0.01
Nov-22 (S19)	0	0.00	7	0.01	0	0.00	0	0.00	7	0.01
Dec-22 (S20)	0	0.00	28	0.04	0	0.00	0	0.00	28	0.04
Dec-22 (S21)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-23 (S22)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Feb-23 (S23)	0	0.00	28	0.04	0	0.00	0	0.00	28	0.04

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Mar-23 (S24)	0	0.00	49	0.07	0	0.00	0	0.00	49	0.07
Apr-23 (S25)	0	0.00	42	0.06	0	0.00	0	0.00	42	0.06
May-23 (S26)	0	0.00	279	0.37	0	0.00	0	0.00	279	0.37
Jun-23 (S27)	20	0.03	801	1.06	0	0.00	0	0.00	821	1.09
Jul-23 (S28)	21	0.03	1,578	2.09	0	0.00	0	0.00	1,599	2.12
Aug-23 (S29)	0	0.00	739	0.98	0	0.00	0	0.00	739	0.98
Sep-23 (S30)	0	0.00	270	0.36	0	0.00	0	0.00	270	0.36

4 km Buffer only

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	0	0.00	30	0.06	0	0.00	0	0.00	30	0.06
May-21 (S02)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jun-21 (S03)	0	0.00	281	0.58	0	0.00	0	0.00	281	0.58
Jul-21 (S04)	0	0.00	15	0.03	0	0.00	0	0.00	15	0.03
Aug-21 (S05)	0	0.00	242	0.50	0	0.00	0	0.00	242	0.50
Sep-21 (S06)	0	0.00	45	0.09	0	0.00	0	0.00	45	0.09
Oct-21 (S07)	0	0.00	15	0.03	0	0.00	0	0.00	15	0.03
Nov-21 (S08)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-22 (S09)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S10)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S11)	0	0.00	25	0.05	0	0.00	0	0.00	25	0.05
Apr-22 (S12)	0	0.00	92	0.19	0	0.00	0	0.00	92	0.19
May-22 (S13)	0	0.00	53	0.11	0	0.00	0	0.00	53	0.11
Jun-22 (S14)	23	0.05	747	1.54	0	0.00	0	0.00	770	1.59
Jul-22 (S15)	8	0.02	3,547	7.30	0	0.00	0	0.00	3,555	7.32
Aug-22 (S16)	0	0.00	1,498	3.08	0	0.00	0	0.00	1,498	3.08
Sep-22 (S17)	0	0.00	139	0.29	0	0.00	0	0.00	139	0.29
Oct-22 (S18)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Nov-22 (S19)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Dec-22 (S20)	0	0.00	8	0.02	0	0.00	0	0.00	8	0.02
Dec-22 (S21)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-23 (S22)	0	0.00	23	0.05	0	0.00	0	0.00	23	0.05
Feb-23 (S23)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-23 (S24)	0	0.00	23	0.05	0	0.00	0	0.00	23	0.05
Apr-23 (S25)	0	0.00	8	0.02	0	0.00	0	0.00	8	0.02
May-23 (S26)	0	0.00	176	0.36	0	0.00	0	0.00	176	0.36
Jun-23 (S27)	0	0.00	515	1.06	0	0.00	0	0.00	515	1.06
Jul-23 (S28)	8	0.02	637	1.31	0	0.00	0	0.00	645	1.33
Aug-23 (S29)	0	0.00	364	0.75	0	0.00	0	0.00	364	0.75
Sep-23 (S30)	0	0.00	145	0.30	0	0.00	0	0.00	145	0.30

15.1.9 Great Northern Diver

Survey Area

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	0	0.00	21	0.02	0	0.00	0	0.00	21	0.02
May-21 (S02)	0	0.00	14	0.01	0	0.00	0	0.00	14	0.01
Jun-21 (S03)	0	0.00	14	0.01	0	0.00	0	0.00	14	0.01
Jul-21 (S04)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Aug-21 (S05)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Sep-21 (S06)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Oct-21 (S07)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Nov-21 (S08)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-22 (S09)	0	0.00	14	0.01	0	0.00	0	0.00	14	0.01
Mar-22 (S10)	0	0.00	20	0.02	0	0.00	0	0.00	20	0.02
Mar-22 (S11)	0	0.00	22	0.02	0	0.00	0	0.00	22	0.02
Apr-22 (S12)	0	0.00	14	0.01	0	0.00	0	0.00	14	0.01
May-22 (S13)	7	0.01	28	0.02	0	0.00	0	0.00	35	0.03
Jun-22 (S14)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jul-22 (S15)	0	0.00	7	0.01	0	0.00	0	0.00	7	0.01
Aug-22 (S16)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Sep-22 (S17)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Oct-22 (S18)	0	0.00	7	0.01	0	0.00	0	0.00	7	0.01
Nov-22 (S19)	0	0.00	21	0.02	0	0.00	0	0.00	21	0.02
Dec-22 (S20)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Dec-22 (S21)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-23 (S22)	0	0.00	7	0.01	0	0.00	0	0.00	7	0.01
Feb-23 (S23)	0	0.00	37	0.03	0	0.00	0	0.00	37	0.03
Mar-23 (S24)	0	0.00	29	0.02	0	0.00	0	0.00	29	0.02
Apr-23 (S25)	0	0.00	36	0.03	0	0.00	0	0.00	36	0.03
May-23 (S26)	7	0.01	14	0.01	0	0.00	0	0.00	21	0.02
Jun-23 (S27)	0	0.00	7	0.01	0	0.00	0	0.00	7	0.01
Jul-23 (S28)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Aug-23 (S29)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Sep-23 (S30)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00

Site

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	0	0.00	7	0.01	0	0.00	0	0.00	7	0.01
May-21 (S02)	0	0.00	7	0.01	0	0.00	0	0.00	7	0.01
Jun-21 (S03)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jul-21 (S04)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Aug-21 (S05)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Sep-21 (S06)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Oct-21 (S07)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Nov-21 (S08)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-22 (S09)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S10)	0	0.00	6	0.01	0	0.00	0	0.00	6	0.01

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Mar-22 (S11)	0	0.00	7	0.01	0	0.00	0	0.00	7	0.01
Apr-22 (S12)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
May-22 (S13)	0	0.00	7	0.01	0	0.00	0	0.00	7	0.01
Jun-22 (S14)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jul-22 (S15)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Aug-22 (S16)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Sep-22 (S17)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Oct-22 (S18)	0	0.00	7	0.01	0	0.00	0	0.00	7	0.01
Nov-22 (S19)	0	0.00	21	0.03	0	0.00	0	0.00	21	0.03
Dec-22 (S20)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Dec-22 (S21)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-23 (S22)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Feb-23 (S23)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-23 (S24)	0	0.00	7	0.01	0	0.00	0	0.00	7	0.01
Apr-23 (S25)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
May-23 (S26)	7	0.01	14	0.02	0	0.00	0	0.00	21	0.03
Jun-23 (S27)	0	0.00	7	0.01	0	0.00	0	0.00	7	0.01
Jul-23 (S28)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Aug-23 (S29)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Sep-23 (S30)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00

4 km Buffer only

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	0	0.00	15	0.03	0	0.00	0	0.00	15	0.03
May-21 (S02)	0	0.00	8	0.02	0	0.00	0	0.00	8	0.02
Jun-21 (S03)	0	0.00	15	0.03	0	0.00	0	0.00	15	0.03
Jul-21 (S04)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Aug-21 (S05)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Sep-21 (S06)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Oct-21 (S07)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Nov-21 (S08)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-22 (S09)	0	0.00	15	0.03	0	0.00	0	0.00	15	0.03
Mar-22 (S10)	0	0.00	14	0.03	0	0.00	0	0.00	14	0.03
Mar-22 (S11)	0	0.00	15	0.03	0	0.00	0	0.00	15	0.03
Apr-22 (S12)	0	0.00	15	0.03	0	0.00	0	0.00	15	0.03
May-22 (S13)	7	0.01	22	0.05	0	0.00	0	0.00	29	0.06
Jun-22 (S14)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jul-22 (S15)	0	0.00	8	0.02	0	0.00	0	0.00	8	0.02
Aug-22 (S16)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Sep-22 (S17)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Oct-22 (S18)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Nov-22 (S19)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Dec-22 (S20)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Dec-22 (S21)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-23 (S22)	0	0.00	8	0.02	0	0.00	0	0.00	8	0.02
Feb-23 (S23)	0	0.00	39	0.08	0	0.00	0	0.00	39	0.08
Mar-23 (S24)	0	0.00	23	0.05	0	0.00	0	0.00	23	0.05

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-23 (S25)	0	0.00	38	0.08	0	0.00	0	0.00	38	0.08
May-23 (S26)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jun-23 (S27)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jul-23 (S28)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Aug-23 (S29)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Sep-23 (S30)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00

15.1.10 European Storm Petrel/Storm Petrel Species

Survey Area

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
May-21 (S02)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jun-21 (S03)	58	0.05	0	0.00	0	0.00	0	0.00	58	0.05
Jul-21 (S04)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Aug-21 (S05)	43	0.03	0	0.00	0	0.00	0	0.00	43	0.03
Sep-21 (S06)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Oct-21 (S07)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Nov-21 (S08)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-22 (S09)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S10)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S11)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Apr-22 (S12)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
May-22 (S13)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jun-22 (S14)	14	0.01	0	0.00	0	0.00	0	0.00	14	0.01
Jul-22 (S15)	121	0.10	0	0.00	0	0.00	0	0.00	121	0.10
Aug-22 (S16)	35	0.03	0	0.00	0	0.00	0	0.00	35	0.03
Sep-22 (S17)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Oct-22 (S18)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Nov-22 (S19)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Dec-22 (S20)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Dec-22 (S21)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-23 (S22)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Feb-23 (S23)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-23 (S24)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Apr-23 (S25)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
May-23 (S26)	7	0.01	0	0.00	0	0.00	0	0.00	7	0.01
Jun-23 (S27)	78	0.06	0	0.00	0	0.00	0	0.00	78	0.06
Jul-23 (S28)	298	0.24	0	0.00	0	0.00	0	0.00	298	0.24
Aug-23 (S29)	179	0.14	0	0.00	0	0.00	0	0.00	179	0.14
Sep-23 (S30)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00

Site

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
May-21 (S02)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jun-21 (S03)	14	0.02	0	0.00	0	0.00	0	0.00	14	0.02
Jul-21 (S04)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Aug-21 (S05)	21	0.03	0	0.00	0	0.00	0	0.00	21	0.03
Sep-21 (S06)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Oct-21 (S07)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Nov-21 (S08)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-22 (S09)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S10)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S11)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Apr-22 (S12)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
May-22 (S13)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jun-22 (S14)	14	0.02	0	0.00	0	0.00	0	0.00	14	0.02
Jul-22 (S15)	89	0.12	0	0.00	0	0.00	0	0.00	89	0.12
Aug-22 (S16)	34	0.05	0	0.00	0	0.00	0	0.00	34	0.05
Sep-22 (S17)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Oct-22 (S18)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Nov-22 (S19)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Dec-22 (S20)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Dec-22 (S21)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-23 (S22)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Feb-23 (S23)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-23 (S24)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Apr-23 (S25)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
May-23 (S26)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jun-23 (S27)	34	0.05	0	0.00	0	0.00	0	0.00	34	0.05
Jul-23 (S28)	226	0.30	0	0.00	0	0.00	0	0.00	226	0.30
Aug-23 (S29)	42	0.06	0	0.00	0	0.00	0	0.00	42	0.06
Sep-23 (S30)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00

4 km Buffer only

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
May-21 (S02)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jun-21 (S03)	46	0.09	0	0.00	0	0.00	0	0.00	46	0.09
Jul-21 (S04)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Aug-21 (S05)	23	0.05	0	0.00	0	0.00	0	0.00	23	0.05
Sep-21 (S06)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Oct-21 (S07)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Nov-21 (S08)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-22 (S09)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S10)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S11)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Apr-22 (S12)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
May-22 (S13)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jun-22 (S14)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jul-22 (S15)	30	0.06	0	0.00	0	0.00	0	0.00	30	0.06
Aug-22 (S16)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Sep-22 (S17)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Oct-22 (S18)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Nov-22 (S19)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Dec-22 (S20)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Dec-22 (S21)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-23 (S22)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Feb-23 (S23)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-23 (S24)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Apr-23 (S25)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
May-23 (S26)	8	0.02	0	0.00	0	0.00	0	0.00	8	0.02
Jun-23 (S27)	45	0.09	0	0.00	0	0.00	0	0.00	45	0.09
Jul-23 (S28)	68	0.14	0	0.00	0	0.00	0	0.00	68	0.14
Aug-23 (S29)	143	0.29	0	0.00	0	0.00	0	0.00	143	0.29
Sep-23 (S30)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00

15.1.11 Manx Shearwater

Survey Area

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	1,322	1.07	768	0.62	0	0.00	0	0.00	2,090	1.69
May-21 (S02)	2,602	2.10	1,081	0.87	0	0.00	0	0.00	3,683	2.97
Jun-21 (S03)	682	0.55	193	0.16	0	0.00	0	0.00	874	0.71
Jul-21 (S04)	4,350	3.51	8,955	7.22	0	0.00	0	0.00	13,304	10.73
Aug-21 (S05)	981	0.79	274	0.22	0	0.00	0	0.00	1,255	1.01
Sep-21 (S06)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Oct-21 (S07)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Nov-21 (S08)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-22 (S09)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S10)	13	0.01	7	0.01	0	0.00	0	0.00	20	0.02
Mar-22 (S11)	324	0.26	571	0.46	0	0.00	0	0.00	895	0.72
Apr-22 (S12)	4,078	3.29	16,905	13.63	0	0.00	0	0.00	20,983	16.92
May-22 (S13)	2,534	2.04	7,285	5.87	0	0.00	0	0.00	9,819	7.92
Jun-22 (S14)	3,325	2.68	775	0.62	0	0.00	0	0.00	4,100	3.31
Jul-22 (S15)	1,774	1.43	3,563	2.87	0	0.00	0	0.00	5,337	4.30
Aug-22 (S16)	573	0.46	928	0.75	0	0.00	0	0.00	1,501	1.21
Sep-22 (S17)	56	0.05	87	0.07	0	0.00	0	0.00	143	0.12
Oct-22 (S18)	14	0.01	7	0.01	0	0.00	0	0.00	21	0.02
Nov-22 (S19)	7	0.01	0	0.00	0	0.00	0	0.00	7	0.01
Dec-22 (S20)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Dec-22 (S21)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-23 (S22)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Feb-23 (S23)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Mar-23 (S24)	344	0.28	210	0.17	0	0.00	0	0.00	554	0.45
Apr-23 (S25)	1,741	1.40	4,823	3.89	0	0.00	0	0.00	6,563	5.29
May-23 (S26)	759	0.61	2,092	1.69	0	0.00	0	0.00	2,851	2.30
Jun-23 (S27)	1,818	1.47	9,298	7.50	7	0.01	0	0.00	11,123	8.97
Jul-23 (S28)	3,523	2.84	8,875	7.16	0	0.00	0	0.00	12,398	10.00
Aug-23 (S29)	1,001	0.81	2,418	1.95	0	0.00	0	0.00	3,419	2.76
Sep-23 (S30)	681	0.55	1,167	0.94	0	0.00	0	0.00	1,848	1.49

Site

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	488	0.65	55	0.07	0	0.00	0	0.00	543	0.72
May-21 (S02)	1,994	2.64	859	1.14	0	0.00	0	0.00	2,853	3.78
Jun-21 (S03)	499	0.66	150	0.20	0	0.00	0	0.00	648	0.86
Jul-21 (S04)	2,146	2.84	2,571	3.41	0	0.00	0	0.00	4,717	6.25
Aug-21 (S05)	547	0.73	182	0.24	0	0.00	0	0.00	729	0.97
Sep-21 (S06)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Oct-21 (S07)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Nov-21 (S08)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-22 (S09)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S10)	0	0.00	6	0.01	0	0.00	0	0.00	6	0.01
Mar-22 (S11)	220	0.29	401	0.53	0	0.00	0	0.00	621	0.82
Apr-22 (S12)	3,704	4.91	15,977	21.18	0	0.00	0	0.00	19,681	26.09
May-22 (S13)	1,510	2.00	3,513	4.66	0	0.00	0	0.00	5,023	6.66
Jun-22 (S14)	1,657	2.20	290	0.38	0	0.00	0	0.00	1,947	2.58
Jul-22 (S15)	1,522	2.02	3,118	4.13	0	0.00	0	0.00	4,640	6.15
Aug-22 (S16)	300	0.40	124	0.16	0	0.00	0	0.00	423	0.56
Sep-22 (S17)	0	0.00	21	0.03	0	0.00	0	0.00	21	0.03
Oct-22 (S18)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Nov-22 (S19)	7	0.01	0	0.00	0	0.00	0	0.00	7	0.01
Dec-22 (S20)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Dec-22 (S21)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-23 (S22)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Feb-23 (S23)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-23 (S24)	107	0.14	176	0.23	0	0.00	0	0.00	283	0.37
Apr-23 (S25)	1,100	1.46	2,618	3.47	0	0.00	0	0.00	3,718	4.93
May-23 (S26)	511	0.68	1,470	1.95	0	0.00	0	0.00	1,981	2.63
Jun-23 (S27)	1,228	1.63	6,232	8.26	7	0.01	0	0.00	7,467	9.90
Jul-23 (S28)	2,699	3.58	8,343	11.06	0	0.00	0	0.00	11,042	14.64
Aug-23 (S29)	284	0.38	208	0.28	0	0.00	0	0.00	492	0.65
Sep-23 (S30)	460	0.61	651	0.86	0	0.00	0	0.00	1,111	1.47

4 km Buffer only

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	861	1.77	750	1.54	0	0.00	0	0.00	1,611	3.32
May-21 (S02)	571	1.18	204	0.42	0	0.00	0	0.00	775	1.60
Jun-21 (S03)	175	0.36	39	0.08	0	0.00	0	0.00	214	0.44
Jul-21 (S04)	2,251	4.63	6,656	13.70	0	0.00	0	0.00	8,906	18.33
Aug-21 (S05)	438	0.90	92	0.19	0	0.00	0	0.00	530	1.09
Sep-21 (S06)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Oct-21 (S07)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Nov-21 (S08)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-22 (S09)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S10)	14	0.03	0	0.00	0	0.00	0	0.00	14	0.03
Mar-22 (S11)	102	0.21	167	0.34	0	0.00	0	0.00	269	0.55
Apr-22 (S12)	251	0.52	336	0.69	0	0.00	0	0.00	587	1.21
May-22 (S13)	1,027	2.11	3,849	7.92	0	0.00	0	0.00	4,876	10.04
Jun-22 (S14)	1,701	3.50	502	1.03	0	0.00	0	0.00	2,203	4.53
Jul-22 (S15)	211	0.43	356	0.73	0	0.00	0	0.00	567	1.17
Aug-22 (S16)	278	0.57	844	1.74	0	0.00	0	0.00	1,122	2.31
Sep-22 (S17)	60	0.12	68	0.14	0	0.00	0	0.00	128	0.26
Oct-22 (S18)	16	0.03	8	0.02	0	0.00	0	0.00	24	0.05
Nov-22 (S19)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Dec-22 (S20)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Dec-22 (S21)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-23 (S22)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Feb-23 (S23)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-23 (S24)	246	0.51	30	0.06	0	0.00	0	0.00	276	0.57
Apr-23 (S25)	638	1.31	2,231	4.59	0	0.00	0	0.00	2,869	5.90
May-23 (S26)	244	0.50	604	1.24	0	0.00	0	0.00	848	1.75
Jun-23 (S27)	578	1.19	3,011	6.20	0	0.00	0	0.00	3,589	7.39
Jul-23 (S28)	770	1.59	244	0.50	0	0.00	0	0.00	1,014	2.09
Aug-23 (S29)	747	1.54	2,325	4.79	0	0.00	0	0.00	3,073	6.32
Sep-23 (S30)	219	0.45	522	1.07	0	0.00	0	0.00	741	1.52

15.2 Marine Megafauna

15.2.1 Grey Seal

Survey Area

Survey	Submerged		Surfacing		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	14	0.01	28	0.02	42	0.03
May-21 (S02)	78	0.06	0	0.00	78	0.06
Jun-21 (S03)	7	0.01	29	0.02	36	0.03
Jul-21 (S04)	66	0.05	93	0.07	159	0.13
Aug-21 (S05)	14	0.01	21	0.02	35	0.03
Sep-21 (S06)	7	0.01	7	0.01	14	0.01
Oct-21 (S07)	0	0.00	14	0.01	14	0.01
Nov-21 (S08)	15	0.01	0	0.00	15	0.01

Survey	Submerged		Surfacing		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Jan-22 (S09)	21	0.02	7	0.01	28	0.02
Mar-22 (S10)	0	0.00	0	0.00	0	0.00
Mar-22 (S11)	14	0.01	66	0.05	80	0.06
Apr-22 (S12)	15	0.01	0	0.00	15	0.01
May-22 (S13)	42	0.03	24	0.02	66	0.05
Jun-22 (S14)	43	0.03	0	0.00	43	0.03
Jul-22 (S15)	85	0.07	64	0.05	149	0.12
Aug-22 (S16)	49	0.04	7	0.01	56	0.05
Sep-22 (S17)	35	0.03	28	0.02	63	0.05
Oct-22 (S18)	0	0.00	7	0.01	7	0.01
Nov-22 (S19)	14	0.01	15	0.01	29	0.02
Dec-22 (S20)	14	0.01	9	0.01	23	0.02
Dec-22 (S21)	0	0.00	7	0.01	7	0.01
Jan-23 (S22)	14	0.01	14	0.01	28	0.02
Feb-23 (S23)	37	0.03	66	0.05	103	0.08
Mar-23 (S24)	21	0.02	0	0.00	21	0.02
Apr-23 (S25)	28	0.02	14	0.01	42	0.03
May-23 (S26)	29	0.02	14	0.01	43	0.04
Jun-23 (S27)	57	0.05	42	0.03	99	0.08
Jul-23 (S28)	64	0.05	85	0.07	149	0.12
Aug-23 (S29)	79	0.06	143	0.12	222	0.18
Sep-23 (S30)	43	0.03	21	0.02	64	0.05

Site

Survey	Submerged		Surfacing		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	7	0.01	21	0.03	28	0.04
May-21 (S02)	28	0.04	0	0.00	28	0.04
Jun-21 (S03)	0	0.00	21	0.03	21	0.03
Jul-21 (S04)	29	0.04	83	0.11	112	0.15
Aug-21 (S05)	14	0.02	14	0.02	28	0.04
Sep-21 (S06)	7	0.01	0	0.00	7	0.01
Oct-21 (S07)	0	0.00	14	0.02	14	0.02
Nov-21 (S08)	14	0.02	0	0.00	14	0.02
Jan-22 (S09)	14	0.02	0	0.00	14	0.02
Mar-22 (S10)	0	0.00	0	0.00	0	0.00
Mar-22 (S11)	0	0.00	56	0.07	56	0.07
Apr-22 (S12)	7	0.01	0	0.00	7	0.01
May-22 (S13)	21	0.03	21	0.03	42	0.06
Jun-22 (S14)	21	0.03	0	0.00	21	0.03
Jul-22 (S15)	55	0.07	21	0.03	76	0.10
Aug-22 (S16)	48	0.06	0	0.00	48	0.06
Sep-22 (S17)	14	0.02	21	0.03	35	0.05
Oct-22 (S18)	0	0.00	7	0.01	7	0.01
Nov-22 (S19)	0	0.00	0	0.00	0	0.00
Dec-22 (S20)	0	0.00	0	0.00	0	0.00
Dec-22 (S21)	0	0.00	0	0.00	0	0.00
Jan-23 (S22)	7	0.01	0	0.00	7	0.01

Survey	Submerged		Surfacing		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Feb-23 (S23)	14	0.02	28	0.04	42	0.06
Mar-23 (S24)	7	0.01	0	0.00	7	0.01
Apr-23 (S25)	14	0.02	7	0.01	21	0.03
May-23 (S26)	14	0.02	0	0.00	14	0.02
Jun-23 (S27)	27	0.04	27	0.04	54	0.07
Jul-23 (S28)	34	0.05	48	0.06	82	0.11
Aug-23 (S29)	35	0.05	111	0.15	146	0.19
Sep-23 (S30)	28	0.04	7	0.01	35	0.05

4 km Buffer only

Survey	Submerged		Surfacing		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	7	0.01	7	0.01	14	0.03
May-21 (S02)	53	0.11	0	0.00	53	0.11
Jun-21 (S03)	8	0.02	8	0.02	16	0.03
Jul-21 (S04)	38	0.08	8	0.02	46	0.09
Aug-21 (S05)	0	0.00	8	0.02	8	0.02
Sep-21 (S06)	0	0.00	8	0.02	8	0.02
Oct-21 (S07)	0	0.00	0	0.00	0	0.00
Nov-21 (S08)	0	0.00	0	0.00	0	0.00
Jan-22 (S09)	7	0.01	7	0.01	14	0.03
Mar-22 (S10)	1	0.00	0	0.00	1	0.00
Mar-22 (S11)	16	0.03	8	0.02	24	0.05
Apr-22 (S12)	10	0.02	0	0.00	10	0.02
May-22 (S13)	22	0.05	7	0.01	29	0.06
Jun-22 (S14)	23	0.05	0	0.00	23	0.05
Jul-22 (S15)	30	0.06	45	0.09	75	0.15
Aug-22 (S16)	0	0.00	8	0.02	8	0.02
Sep-22 (S17)	23	0.05	8	0.02	31	0.06
Oct-22 (S18)	0	0.00	0	0.00	0	0.00
Nov-22 (S19)	15	0.03	16	0.03	31	0.06
Dec-22 (S20)	15	0.03	8	0.02	23	0.05
Dec-22 (S21)	0	0.00	8	0.02	8	0.02
Jan-23 (S22)	8	0.02	16	0.03	24	0.05
Feb-23 (S23)	23	0.05	39	0.08	62	0.13
Mar-23 (S24)	15	0.03	0	0.00	15	0.03
Apr-23 (S25)	15	0.03	8	0.02	23	0.05
May-23 (S26)	16	0.03	15	0.03	31	0.06
Jun-23 (S27)	30	0.06	15	0.03	45	0.09
Jul-23 (S28)	30	0.06	38	0.08	68	0.14
Aug-23 (S29)	45	0.09	30	0.06	75	0.15
Sep-23 (S30)	15	0.03	15	0.03	30	0.06

15.2.2 Common Dolphin

Survey Area

Survey	Submerged		Surfacing		Total	
	Abundance Estimate	Density (km^2)	Abundance Estimate	Density (km^2)	Abundance Estimate	Density (km^2)
Apr-21 (S01)	193	0.16	7	0.01	200	0.16
May-21 (S02)	166	0.13	28	0.02	194	0.16
Jun-21 (S03)	36	0.03	0	0.00	36	0.03
Jul-21 (S04)	35	0.03	0	0.00	35	0.03
Aug-21 (S05)	172	0.14	14	0.01	186	0.15
Sep-21 (S06)	33	0.03	28	0.02	61	0.05
Oct-21 (S07)	90	0.07	14	0.01	104	0.08
Nov-21 (S08)	22	0.02	15	0.01	37	0.03
Jan-22 (S09)	662	0.53	80	0.06	742	0.60
Mar-22 (S10)	61	0.05	17	0.01	78	0.06
Mar-22 (S11)	104	0.08	0	0.00	104	0.08
Apr-22 (S12)	19	0.01	0	0.00	19	0.01
May-22 (S13)	59	0.05	8	0.01	67	0.05
Jun-22 (S14)	152	0.12	58	0.05	210	0.17
Jul-22 (S15)	114	0.09	28	0.02	142	0.11
Aug-22 (S16)	71	0.06	28	0.02	99	0.08
Sep-22 (S17)	55	0.04	14	0.01	69	0.06
Oct-22 (S18)	63	0.05	0	0.00	63	0.05
Nov-22 (S19)	558	0.45	40	0.03	598	0.48
Dec-22 (S20)	77	0.06	19	0.02	96	0.08
Dec-22 (S21)	14	0.01	26	0.02	40	0.03
Jan-23 (S22)	477	0.38	7	0.01	484	0.39
Feb-23 (S23)	1,980	1.60	189	0.15	2,170	1.75
Mar-23 (S24)	393	0.32	36	0.03	429	0.35
Apr-23 (S25)	33	0.03	0	0.00	33	0.03
May-23 (S26)	403	0.33	36	0.03	439	0.35
Jun-23 (S27)	1,132	0.91	127	0.10	1,259	1.02
Jul-23 (S28)	901	0.73	142	0.11	1,043	0.84
Aug-23 (S29)	315	0.25	12	0.01	327	0.26
Sep-23 (S30)	803	0.65	36	0.03	839	0.68

Site

Survey	Submerged		Surfacing		Total	
	Abundance Estimate	Density (km^2)	Abundance Estimate	Density (km^2)	Abundance Estimate	Density (km^2)
Apr-21 (S01)	151	0.20	7	0.01	158	0.21
May-21 (S02)	86	0.11	14	0.02	100	0.13
Jun-21 (S03)	0	0.00	0	0.00	0	0.00
Jul-21 (S04)	17	0.02	0	0.00	17	0.02
Aug-21 (S05)	169	0.22	14	0.02	183	0.24
Sep-21 (S06)	32	0.04	21	0.03	53	0.07
Oct-21 (S07)	76	0.10	14	0.02	90	0.12
Nov-21 (S08)	21	0.03	14	0.02	35	0.05
Jan-22 (S09)	281	0.37	39	0.05	320	0.42
Mar-22 (S10)	48	0.06	16	0.02	64	0.08

Survey	Submerged		Surfacing		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Mar-22 (S11)	101	0.13	0	0.00	101	0.13
Apr-22 (S12)	20	0.03	0	0.00	20	0.03
May-22 (S13)	0	0.00	0	0.00	0	0.00
Jun-22 (S14)	0	0.00	18	0.02	18	0.02
Jul-22 (S15)	34	0.05	7	0.01	41	0.05
Aug-22 (S16)	14	0.02	0	0.00	14	0.02
Sep-22 (S17)	55	0.07	0	0.00	55	0.07
Oct-22 (S18)	26	0.03	0	0.00	26	0.03
Nov-22 (S19)	357	0.47	33	0.04	389	0.52
Dec-22 (S20)	48	0.06	7	0.01	55	0.07
Dec-22 (S21)	0	0.00	21	0.03	21	0.03
Jan-23 (S22)	337	0.45	7	0.01	344	0.46
Feb-23 (S23)	1,035	1.37	48	0.06	1,083	1.44
Mar-23 (S24)	200	0.27	28	0.04	228	0.30
Apr-23 (S25)	33	0.04	0	0.00	33	0.04
May-23 (S26)	221	0.29	28	0.04	249	0.33
Jun-23 (S27)	825	1.09	89	0.12	914	1.21
Jul-23 (S28)	664	0.88	82	0.11	746	0.99
Aug-23 (S29)	125	0.17	0	0.00	125	0.17
Sep-23 (S30)	357	0.47	35	0.05	392	0.52

4 km Buffer only

Survey	Submerged		Surfacing		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	7	0.01	0	0.00	7	0.01
May-21 (S02)	83	0.17	16	0.03	99	0.20
Jun-21 (S03)	53	0.11	12	0.02	65	0.13
Jul-21 (S04)	18	0.04	0	0.00	18	0.04
Aug-21 (S05)	0	0.00	0	0.00	0	0.00
Sep-21 (S06)	0	0.00	0	0.00	0	0.00
Oct-21 (S07)	15	0.03	0	0.00	15	0.03
Nov-21 (S08)	0	0.00	0	0.00	0	0.00
Jan-22 (S09)	393	0.81	42	0.09	435	0.90
Mar-22 (S10)	0	0.00	0	0.00	0	0.00
Mar-22 (S11)	0	0.00	0	0.00	0	0.00
Apr-22 (S12)	0	0.00	0	0.00	0	0.00
May-22 (S13)	52	0.11	7	0.01	59	0.12
Jun-22 (S14)	161	0.33	43	0.09	204	0.42
Jul-22 (S15)	83	0.17	23	0.05	106	0.22
Aug-22 (S16)	60	0.12	31	0.06	91	0.19
Sep-22 (S17)	0	0.00	5	0.01	5	0.01
Oct-22 (S18)	38	0.08	0	0.00	38	0.08
Nov-22 (S19)	196	0.40	8	0.02	204	0.42
Dec-22 (S20)	30	0.06	15	0.03	45	0.09
Dec-22 (S21)	15	0.03	0	0.00	15	0.03
Jan-23 (S22)	136	0.28	0	0.00	136	0.28
Feb-23 (S23)	955	1.97	148	0.30	1,103	2.27
Mar-23 (S24)	197	0.41	8	0.02	205	0.42

Survey	Submerged		Surfacing		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-23 (S25)	0	0.00	0	0.00	0	0.00
May-23 (S26)	184	0.38	8	0.02	192	0.40
Jun-23 (S27)	293	0.60	38	0.08	331	0.68
Jul-23 (S28)	226	0.47	60	0.12	286	0.59
Aug-23 (S29)	197	0.41	8	0.02	205	0.42
Sep-23 (S30)	459	0.94	0	0.00	459	0.94

15.2.3 Bottlenose Dolphin

Survey Area

Survey	Submerged		Surfacing		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	0	0.00	0	0.00	0	0.00
May-21 (S02)	0	0.00	0	0.00	0	0.00
Jun-21 (S03)	0	0.00	0	0.00	0	0.00
Jul-21 (S04)	0	0.00	0	0.00	0	0.00
Aug-21 (S05)	0	0.00	0	0.00	0	0.00
Sep-21 (S06)	0	0.00	0	0.00	0	0.00
Oct-21 (S07)	24	0.03	0	0.00	24	0.03
Nov-21 (S08)	0	0.00	0	0.00	0	0.00
Jan-22 (S09)	0	0.00	0	0.00	0	0.00
Mar-22 (S10)	0	0.00	0	0.00	0	0.00
Mar-22 (S11)	0	0.00	0	0.00	0	0.00
Apr-22 (S12)	0	0.00	0	0.00	0	0.00
May-22 (S13)	0	0.00	0	0.00	0	0.00
Jun-22 (S14)	0	0.00	0	0.00	0	0.00
Jul-22 (S15)	0	0.00	0	0.00	0	0.00
Aug-22 (S16)	0	0.00	0	0.00	0	0.00
Sep-22 (S17)	0	0.00	0	0.00	0	0.00
Oct-22 (S18)	0	0.00	0	0.00	0	0.00
Nov-22 (S19)	0	0.00	0	0.00	0	0.00
Dec-22 (S20)	0	0.00	0	0.00	0	0.00
Dec-22 (S21)	0	0.00	0	0.00	0	0.00
Jan-23 (S22)	0	0.00	0	0.00	0	0.00
Feb-23 (S23)	0	0.00	0	0.00	0	0.00
Mar-23 (S24)	0	0.00	0	0.00	0	0.00
Apr-23 (S25)	0	0.00	0	0.00	0	0.00
May-23 (S26)	0	0.00	0	0.00	0	0.00
Jun-23 (S27)	0	0.00	0	0.00	0	0.00
Jul-23 (S28)	0	0.00	0	0.00	0	0.00
Aug-23 (S29)	0	0.00	0	0.00	0	0.00
Sep-23 (S30)	0	0.00	0	0.00	0	0.00

Site

Survey	Submerged		Surfacing		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	0	0.00	0	0.00	0	0.00
May-21 (S02)	0	0.00	0	0.00	0	0.00
Jun-21 (S03)	0	0.00	0	0.00	0	0.00
Jul-21 (S04)	0	0.00	0	0.00	0	0.00
Aug-21 (S05)	0	0.00	0	0.00	0	0.00
Sep-21 (S06)	0	0.00	0	0.00	0	0.00
Oct-21 (S07)	21	0.04	0	0.00	0	0.00
Nov-21 (S08)	0	0.00	0	0.00	0	0.00
Jan-22 (S09)	0	0.00	0	0.00	0	0.00
Mar-22 (S10)	0	0.00	0	0.00	0	0.00
Mar-22 (S11)	0	0.00	0	0.00	0	0.00
Apr-22 (S12)	0	0.00	0	0.00	0	0.00
May-22 (S13)	0	0.00	0	0.00	0	0.00
Jun-22 (S14)	0	0.00	0	0.00	0	0.00
Jul-22 (S15)	0	0.00	0	0.00	0	0.00
Aug-22 (S16)	0	0.00	0	0.00	0	0.00
Sep-22 (S17)	0	0.00	0	0.00	0	0.00
Oct-22 (S18)	0	0.00	0	0.00	0	0.00
Nov-22 (S19)	0	0.00	0	0.00	0	0.00
Dec-22 (S20)	0	0.00	0	0.00	0	0.00
Dec-22 (S21)	0	0.00	0	0.00	0	0.00
Jan-23 (S22)	0	0.00	0	0.00	0	0.00
Feb-23 (S23)	0	0.00	0	0.00	0	0.00
Mar-23 (S24)	0	0.00	0	0.00	0	0.00
Apr-23 (S25)	0	0.00	0	0.00	0	0.00
May-23 (S26)	0	0.00	0	0.00	0	0.00
Jun-23 (S27)	0	0.00	0	0.00	0	0.00
Jul-23 (S28)	0	0.00	0	0.00	0	0.00
Aug-23 (S29)	0	0.00	0	0.00	0	0.00
Sep-23 (S30)	0	0.00	0	0.00	0	0.00

4 km Buffer only

Survey	Submerged		Surfacing		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	0	0.00	0	0.00	0	0.00
May-21 (S02)	0	0.00	0	0.00	0	0.00
Jun-21 (S03)	0	0.00	0	0.00	0	0.00
Jul-21 (S04)	0	0.00	0	0.00	0	0.00
Aug-21 (S05)	0	0.00	0	0.00	0	0.00
Sep-21 (S06)	0	0.00	0	0.00	0	0.00
Oct-21 (S07)	0	0.00	0	0.00	0	0.00
Nov-21 (S08)	0	0.00	0	0.00	0	0.00
Jan-22 (S09)	0	0.00	0	0.00	0	0.00
Mar-22 (S10)	0	0.00	0	0.00	0	0.00
Mar-22 (S11)	0	0.00	0	0.00	0	0.00
Apr-22 (S12)	0	0.00	0	0.00	0	0.00

Survey	Submerged		Surfacing		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
May-22 (S13)	0	0.00	0	0.00	0	0.00
Jun-22 (S14)	0	0.00	0	0.00	0	0.00
Jul-22 (S15)	0	0.00	0	0.00	0	0.00
Aug-22 (S16)	0	0.00	0	0.00	0	0.00
Sep-22 (S17)	0	0.00	0	0.00	0	0.00
Oct-22 (S18)	0	0.00	0	0.00	0	0.00
Nov-22 (S19)	0	0.00	0	0.00	0	0.00
Dec-22 (S20)	0	0.00	0	0.00	0	0.00
Dec-22 (S21)	0	0.00	0	0.00	0	0.00
Jan-23 (S22)	0	0.00	0	0.00	0	0.00
Feb-23 (S23)	0	0.00	0	0.00	0	0.00
Mar-23 (S24)	0	0.00	0	0.00	0	0.00
Apr-23 (S25)	0	0.00	0	0.00	0	0.00
May-23 (S26)	0	0.00	0	0.00	0	0.00
Jun-23 (S27)	0	0.00	0	0.00	0	0.00
Jul-23 (S28)	0	0.00	0	0.00	0	0.00
Aug-23 (S29)	0	0.00	0	0.00	0	0.00
Sep-23 (S30)	0	0.00	0	0.00	0	0.00

15.2.4 Harbour Porpoise

Survey Area

Survey	Submerged		Surfacing		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	27	0.02	21	0.02	48	0.04
May-21 (S02)	40	0.03	0	0.00	40	0.03
Jun-21 (S03)	65	0.05	28	0.02	93	0.07
Jul-21 (S04)	164	0.13	36	0.03	200	0.16
Aug-21 (S05)	57	0.05	21	0.02	78	0.06
Sep-21 (S06)	16	0.01	0	0.00	16	0.01
Oct-21 (S07)	7	0.01	14	0.01	21	0.02
Nov-21 (S08)	29	0.02	15	0.01	44	0.04
Jan-22 (S09)	15	0.01	32	0.03	47	0.04
Mar-22 (S10)	46	0.04	17	0.01	62	0.05
Mar-22 (S11)	200	0.16	109	0.09	309	0.25
Apr-22 (S12)	57	0.05	14	0.01	71	0.06
May-22 (S13)	76	0.06	24	0.02	100	0.08
Jun-22 (S14)	22	0.02	29	0.02	51	0.04
Jul-22 (S15)	114	0.09	28	0.02	142	0.11
Aug-22 (S16)	0	0.00	0	0.00	0	0.00
Sep-22 (S17)	8	0.01	0	0.00	8	0.01
Oct-22 (S18)	15	0.01	14	0.01	29	0.02
Nov-22 (S19)	69	0.06	23	0.02	92	0.07
Dec-22 (S20)	0	0.00	0	0.00	0	0.00
Dec-22 (S21)	0	0.00	9	0.01	9	0.01
Jan-23 (S22)	31	0.02	7	0.01	38	0.03
Feb-23 (S23)	156	0.13	17	0.01	172	0.14

Survey	Submerged		Surfacing		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Mar-23 (S24)	0	0.00	14	0.01	14	0.01
Apr-23 (S25)	74	0.06	29	0.02	103	0.08
May-23 (S26)	52	0.04	7	0.01	59	0.05
Jun-23 (S27)	57	0.05	14	0.01	71	0.06
Jul-23 (S28)	22	0.02	14	0.01	36	0.03
Aug-23 (S29)	72	0.06	23	0.02	95	0.08
Sep-23 (S30)	84	0.07	0	0.00	84	0.07

Site

Survey	Submerged		Surfacing		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	15	0.02	7	0.01	22	0.03
May-21 (S02)	18	0.02	0	0.00	18	0.02
Jun-21 (S03)	49	0.06	14	0.02	63	0.08
Jul-21 (S04)	85	0.11	35	0.05	120	0.16
Aug-21 (S05)	25	0.03	21	0.03	46	0.06
Sep-21 (S06)	16	0.02	0	0.00	16	0.02
Oct-21 (S07)	7	0.01	14	0.02	21	0.03
Nov-21 (S08)	7	0.01	0	0.00	7	0.01
Jan-22 (S09)	14	0.02	15	0.02	29	0.04
Mar-22 (S10)	35	0.05	16	0.02	51	0.07
Mar-22 (S11)	158	0.21	84	0.11	242	0.32
Apr-22 (S12)	29	0.04	14	0.02	43	0.06
May-22 (S13)	69	0.09	0	0.00	69	0.09
Jun-22 (S14)	21	0.03	18	0.02	39	0.05
Jul-22 (S15)	62	0.08	14	0.02	76	0.10
Aug-22 (S16)	0	0.00	0	0.00	0	0.00
Sep-22 (S17)	0	0.00	0	0.00	0	0.00
Oct-22 (S18)	9	0.01	14	0.02	23	0.03
Nov-22 (S19)	21	0.03	8	0.01	30	0.04
Dec-22 (S20)	0	0.00	0	0.00	0	0.00
Dec-22 (S21)	0	0.00	0	0.00	0	0.00
Jan-23 (S22)	29	0.04	7	0.01	36	0.05
Feb-23 (S23)	125	0.17	9	0.01	134	0.18
Mar-23 (S24)	0	0.00	14	0.02	14	0.02
Apr-23 (S25)	58	0.08	14	0.02	72	0.10
May-23 (S26)	21	0.03	7	0.01	28	0.04
Jun-23 (S27)	34	0.05	0	0.00	34	0.05
Jul-23 (S28)	22	0.03	7	0.01	29	0.04
Aug-23 (S29)	35	0.05	28	0.04	63	0.08
Sep-23 (S30)	65	0.09	0	0.00	65	0.09

4 km Buffer only

Survey	Submerged		Surfacing		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	44	0.09	15	0.03	59	0.12
May-21 (S02)	23	0.05	0	0.00	23	0.05
Jun-21 (S03)	0	0.00	3	0.01	3	0.01
Jul-21 (S04)	80	0.17	0	0.00	80	0.17
Aug-21 (S05)	30	0.06	0	0.00	30	0.06
Sep-21 (S06)	0	0.00	8	0.02	8	0.02
Oct-21 (S07)	0	0.00	0	0.00	0	0.00
Nov-21 (S08)	23	0.05	16	0.03	39	0.08
Jan-22 (S09)	0	0.00	17	0.04	17	0.04
Mar-22 (S10)	20	0.04	0	0.00	20	0.04
Mar-22 (S11)	38	0.08	23	0.05	61	0.13
Apr-22 (S12)	29	0.06	0	0.00	29	0.06
May-22 (S13)	15	0.03	22	0.05	37	0.08
Jun-22 (S14)	0	0.00	11	0.02	11	0.02
Jul-22 (S15)	53	0.11	15	0.03	68	0.14
Aug-22 (S16)	0	0.00	0	0.00	0	0.00
Sep-22 (S17)	8	0.02	10	0.02	18	0.04
Oct-22 (S18)	8	0.02	0	0.00	8	0.02
Nov-22 (S19)	53	0.11	15	0.03	68	0.14
Dec-22 (S20)	0	0.00	0	0.00	0	0.00
Dec-22 (S21)	0	0.00	16	0.03	16	0.03
Jan-23 (S22)	0	0.00	0	0.00	0	0.00
Feb-23 (S23)	33	0.07	8	0.02	41	0.08
Mar-23 (S24)	0	0.00	0	0.00	0	0.00
Apr-23 (S25)	15	0.03	15	0.03	30	0.06
May-23 (S26)	33	0.07	0	0.00	33	0.07
Jun-23 (S27)	23	0.05	15	0.03	38	0.08
Jul-23 (S28)	0	0.00	8	0.02	8	0.02
Aug-23 (S29)	38	0.08	0	0.00	38	0.08
Sep-23 (S30)	16	0.03	0	0.00	16	0.03

15.2.5 Minke Whale

Survey Area

Survey	Submerged		Surfacing		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	0	0.00	0	0.00	0	0.00
May-21 (S02)	7	0.01	0	0.00	7	0.01
Jun-21 (S03)	0	0.00	0	0.00	0	0.00
Jul-21 (S04)	30	0.02	0	0.00	30	0.02
Aug-21 (S05)	36	0.03	7	0.01	43	0.03
Sep-21 (S06)	0	0.00	0	0.00	0	0.00
Oct-21 (S07)	0	0.00	0	0.00	0	0.00
Nov-21 (S08)	0	0.00	0	0.00	0	0.00
Jan-22 (S09)	0	0.00	0	0.00	0	0.00

Survey	Submerged		Surfacing		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Mar-22 (S10)	0	0.00	0	0.00	0	0.00
Mar-22 (S11)	15	0.01	0	0.00	15	0.01
Apr-22 (S12)	23	0.02	7	0.01	30	0.02
May-22 (S13)	14	0.01	0	0.00	14	0.01
Jun-22 (S14)	14	0.01	0	0.00	14	0.01
Jul-22 (S15)	28	0.02	0	0.00	28	0.02
Aug-22 (S16)	7	0.01	0	0.00	7	0.01
Sep-22 (S17)	0	0.00	0	0.00	0	0.00
Oct-22 (S18)	0	0.00	0	0.00	0	0.00
Nov-22 (S19)	7	0.01	0	0.00	7	0.01
Dec-22 (S20)	0	0.00	0	0.00	0	0.00
Dec-22 (S21)	0	0.00	0	0.00	0	0.00
Jan-23 (S22)	0	0.00	0	0.00	0	0.00
Feb-23 (S23)	0	0.00	0	0.00	0	0.00
Mar-23 (S24)	0	0.00	0	0.00	0	0.00
Apr-23 (S25)	0	0.00	14	0.01	14	0.01
May-23 (S26)	0	0.00	0	0.00	0	0.00
Jun-23 (S27)	28	0.02	7	0.01	35	0.03
Jul-23 (S28)	50	0.04	7	0.01	57	0.05
Aug-23 (S29)	7	0.01	0	0.00	7	0.01
Sep-23 (S30)	7	0.01	0	0.00	7	0.01

Site

Survey	Submerged		Surfacing		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	0	0.00	0	0.00	0	0.00
May-21 (S02)	7	0.01	0	0.00	7	0.01
Jun-21 (S03)	0	0.00	0	0.00	0	0.00
Jul-21 (S04)	7	0.01	0	0.00	7	0.01
Aug-21 (S05)	35	0.05	7	0.01	42	0.06
Sep-21 (S06)	0	0.00	0	0.00	0	0.00
Oct-21 (S07)	0	0.00	0	0.00	0	0.00
Nov-21 (S08)	0	0.00	0	0.00	0	0.00
Jan-22 (S09)	0	0.00	0	0.00	0	0.00
Mar-22 (S10)	0	0.00	0	0.00	0	0.00
Mar-22 (S11)	14	0.02	0	0.00	14	0.02
Apr-22 (S12)	21	0.03	0	0.00	21	0.03
May-22 (S13)	14	0.02	0	0.00	14	0.02
Jun-22 (S14)	0	0.00	0	0.00	0	0.00
Jul-22 (S15)	27	0.04	0	0.00	27	0.04
Aug-22 (S16)	7	0.01	0	0.00	7	0.01
Sep-22 (S17)	0	0.00	0	0.00	0	0.00
Oct-22 (S18)	0	0.00	0	0.00	0	0.00
Nov-22 (S19)	7	0.01	0	0.00	7	0.01
Dec-22 (S20)	0	0.00	0	0.00	0	0.00
Dec-22 (S21)	0	0.00	0	0.00	0	0.00
Jan-23 (S22)	0	0.00	0	0.00	0	0.00
Feb-23 (S23)	0	0.00	0	0.00	0	0.00

Survey	Submerged		Surfacing		Total	
	Abundance Estimate	Density (km^2)	Abundance Estimate	Density (km^2)	Abundance Estimate	Density (km^2)
Mar-23 (S24)	0	0.00	0	0.00	0	0.00
Apr-23 (S25)	0	0.00	14	0.02	14	0.02
May-23 (S26)	0	0.00	0	0.00	0	0.00
Jun-23 (S27)	27	0.04	7	0.01	34	0.05
Jul-23 (S28)	34	0.05	0	0.00	34	0.05
Aug-23 (S29)	0	0.00	0	0.00	0	0.00
Sep-23 (S30)	7	0.01	0	0.00	7	0.01

4 km Buffer only

Survey	Submerged		Surfacing		Total	
	Abundance Estimate	Density (km^2)	Abundance Estimate	Density (km^2)	Abundance Estimate	Density (km^2)
Apr-21 (S01)	0	0.00	0	0.00	0	0.00
May-21 (S02)	0	0.00	0	0.00	0	0.00
Jun-21 (S03)	0	0.00	0	0.00	0	0.00
Jul-21 (S04)	23	0.05	0	0.00	23	0.05
Aug-21 (S05)	0	0.00	0	0.00	0	0.00
Sep-21 (S06)	0	0.00	0	0.00	0	0.00
Oct-21 (S07)	0	0.00	0	0.00	0	0.00
Nov-21 (S08)	0	0.00	0	0.00	0	0.00
Jan-22 (S09)	0	0.00	0	0.00	0	0.00
Mar-22 (S10)	0	0.00	0	0.00	0	0.00
Mar-22 (S11)	0	0.00	0	0.00	0	0.00
Apr-22 (S12)	0	0.00	8	0.02	8	0.02
May-22 (S13)	0	0.00	0	0.00	0	0.00
Jun-22 (S14)	15	0.03	0	0.00	15	0.03
Jul-22 (S15)	0	0.00	0	0.00	0	0.00
Aug-22 (S16)	0	0.00	0	0.00	0	0.00
Sep-22 (S17)	0	0.00	0	0.00	0	0.00
Oct-22 (S18)	0	0.00	0	0.00	0	0.00
Nov-22 (S19)	0	0.00	0	0.00	0	0.00
Dec-22 (S20)	0	0.00	0	0.00	0	0.00
Dec-22 (S21)	0	0.00	0	0.00	0	0.00
Jan-23 (S22)	0	0.00	0	0.00	0	0.00
Feb-23 (S23)	0	0.00	0	0.00	0	0.00
Mar-23 (S24)	0	0.00	0	0.00	0	0.00
Apr-23 (S25)	0	0.00	0	0.00	0	0.00
May-23 (S26)	0	0.00	0	0.00	0	0.00
Jun-23 (S27)	0	0.00	0	0.00	0	0.00
Jul-23 (S28)	15	0.03	8	0.02	23	0.05
Aug-23 (S29)	8	0.02	0	0.00	8	0.02
Sep-23 (S30)	0	0.00	0	0.00	0	0.00

15.2.6 Basking Shark

Survey Area

Survey	Submerged		Surfacing		Total	
	Abundance Estimate	Density (km^2)	Abundance Estimate	Density (km^2)	Abundance Estimate	Density (km^2)
Apr-21 (S01)	14	0.01	0	0.00	14	0.01
May-21 (S02)	0	0.00	0	0.00	0	0.00
Jun-21 (S03)	0	0.00	0	0.00	0	0.00
Jul-21 (S04)	0	0.00	0	0.00	0	0.00
Aug-21 (S05)	0	0.00	0	0.00	0	0.00
Sep-21 (S06)	0	0.00	0	0.00	0	0.00
Oct-21 (S07)	7	0.01	0	0.00	7	0.01
Nov-21 (S08)	7	0.01	0	0.00	7	0.01
Jan-22 (S09)	0	0.00	0	0.00	0	0.00
Mar-22 (S10)	0	0.00	0	0.00	0	0.00
Mar-22 (S11)	0	0.00	0	0.00	0	0.00
Apr-22 (S12)	7	0.01	0	0.00	7	0.01
May-22 (S13)	0	0.00	0	0.00	0	0.00
Jun-22 (S14)	0	0.00	0	0.00	0	0.00
Jul-22 (S15)	0	0.00	0	0.00	0	0.00
Aug-22 (S16)	0	0.00	0	0.00	0	0.00
Sep-22 (S17)	0	0.00	0	0.00	0	0.00
Oct-22 (S18)	0	0.00	0	0.00	0	0.00
Nov-22 (S19)	0	0.00	0	0.00	0	0.00
Dec-22 (S20)	0	0.00	0	0.00	0	0.00
Dec-22 (S21)	0	0.00	0	0.00	0	0.00
Jan-23 (S22)	0	0.00	0	0.00	0	0.00
Feb-23 (S23)	0	0.00	0	0.00	0	0.00
Mar-23 (S24)	0	0.00	0	0.00	0	0.00
Apr-23 (S25)	29	0.02	0	0.00	29	0.02
May-23 (S26)	0	0.00	0	0.00	0	0.00
Jun-23 (S27)	0	0.00	0	0.00	0	0.00
Jul-23 (S28)	0	0.00	0	0.00	0	0.00
Aug-23 (S29)	0	0.00	0	0.00	0	0.00
Sep-23 (S30)	0	0.00	0	0.00	0	0.00

Site

Survey	Submerged		Surfacing		Total	
	Abundance Estimate	Density (km^2)	Abundance Estimate	Density (km^2)	Abundance Estimate	Density (km^2)
Apr-21 (S01)	14	0.02	0	0.00	14	0.02
May-21 (S02)	0	0.00	0	0.00	0	0.00
Jun-21 (S03)	0	0.00	0	0.00	0	0.00
Jul-21 (S04)	0	0.00	0	0.00	0	0.00
Aug-21 (S05)	0	0.00	0	0.00	0	0.00
Sep-21 (S06)	0	0.00	0	0.00	0	0.00
Oct-21 (S07)	7	0.01	0	0.00	7	0.01
Nov-21 (S08)	0	0.00	0	0.00	0	0.00
Jan-22 (S09)	0	0.00	0	0.00	0	0.00
Mar-22 (S10)	0	0.00	0	0.00	0	0.00

Survey	Submerged		Surfacing		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Mar-22 (S11)	0	0.00	0	0.00	0	0.00
Apr-22 (S12)	7	0.01	0	0.00	7	0.01
May-22 (S13)	0	0.00	0	0.00	0	0.00
Jun-22 (S14)	0	0.00	0	0.00	0	0.00
Jul-22 (S15)	0	0.00	0	0.00	0	0.00
Aug-22 (S16)	0	0.00	0	0.00	0	0.00
Sep-22 (S17)	0	0.00	0	0.00	0	0.00
Oct-22 (S18)	0	0.00	0	0.00	0	0.00
Nov-22 (S19)	0	0.00	0	0.00	0	0.00
Dec-22 (S20)	0	0.00	0	0.00	0	0.00
Dec-22 (S21)	0	0.00	0	0.00	0	0.00
Jan-23 (S22)	0	0.00	0	0.00	0	0.00
Feb-23 (S23)	0	0.00	0	0.00	0	0.00
Mar-23 (S24)	0	0.00	0	0.00	0	0.00
Apr-23 (S25)	14	0.02	0	0.00	14	0.02
May-23 (S26)	0	0.00	0	0.00	0	0.00
Jun-23 (S27)	0	0.00	0	0.00	0	0.00
Jul-23 (S28)	0	0.00	0	0.00	0	0.00
Aug-23 (S29)	0	0.00	0	0.00	0	0.00
Sep-23 (S30)	0	0.00	0	0.00	0	0.00

4 km Buffer only

Survey	Submerged		Surfacing		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	0	0.00	0	0.00	0	0.00
May-21 (S02)	0	0.00	0	0.00	0	0.00
Jun-21 (S03)	0	0.00	0	0.00	0	0.00
Jul-21 (S04)	0	0.00	0	0.00	0	0.00
Aug-21 (S05)	0	0.00	0	0.00	0	0.00
Sep-21 (S06)	0	0.00	0	0.00	0	0.00
Oct-21 (S07)	0	0.00	0	0.00	0	0.00
Nov-21 (S08)	8	0.02	0	0.00	8	0.02
Jan-22 (S09)	0	0.00	0	0.00	0	0.00
Mar-22 (S10)	0	0.00	0	0.00	0	0.00
Mar-22 (S11)	0	0.00	0	0.00	0	0.00
Apr-22 (S12)	0	0.00	0	0.00	0	0.00
May-22 (S13)	0	0.00	0	0.00	0	0.00
Jun-22 (S14)	0	0.00	0	0.00	0	0.00
Jul-22 (S15)	0	0.00	0	0.00	0	0.00
Aug-22 (S16)	0	0.00	0	0.00	0	0.00
Sep-22 (S17)	0	0.00	0	0.00	0	0.00
Oct-22 (S18)	0	0.00	0	0.00	0	0.00
Nov-22 (S19)	0	0.00	0	0.00	0	0.00
Dec-22 (S20)	0	0.00	0	0.00	0	0.00
Dec-22 (S21)	0	0.00	0	0.00	0	0.00
Jan-23 (S22)	0	0.00	0	0.00	0	0.00
Feb-23 (S23)	0	0.00	0	0.00	0	0.00
Mar-23 (S24)	0	0.00	0	0.00	0	0.00

Survey	Submerged		Surfacing		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-23 (S25)	15	0.03	0	0.00	15	0.03
May-23 (S26)	0	0.00	0	0.00	0	0.00
Jun-23 (S27)	0	0.00	0	0.00	0	0.00
Jul-23 (S28)	0	0.00	0	0.00	0	0.00
Aug-23 (S29)	0	0.00	0	0.00	0	0.00
Sep-23 (S30)	0	0.00	0	0.00	0	0.00

16.Appendix VIII Corrected Abundance and Density Estimates

16.1 Guillemot

Survey Area

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	972	0.78	14,006	11.29	0	0.00	0	0.00	14,978	12.08
May-21 (S02)	836	0.67	25,601	20.64	0	0.00	0	0.00	26,437	21.32
Jun-21 (S03)	543	0.44	10,874	8.77	0	0.00	0	0.00	11,417	9.21
Jul-21 (S04)	494	0.40	29,989	24.18	0	0.00	0	0.00	30,483	24.58
Aug-21 (S05)	7	0.01	8,209	6.62	0	0.00	0	0.00	8,216	6.63
Sep-21 (S06)	133	0.11	3,648	2.94	0	0.00	0	0.00	3,781	3.05
Oct-21 (S07)	29	0.02	8,478	6.84	0	0.00	0	0.00	8,507	6.86
Nov-21 (S08)	696	0.56	31,651	25.52	0	0.00	0	0.00	32,347	26.08
Jan-22 (S09)	126	0.10	13,790	11.12	0	0.00	0	0.00	13,916	11.22
Mar-22 (S10)	551	0.44	17,229	13.89	0	0.00	0	0.00	17,780	14.34
Mar-22 (S11)	1,942	1.57	52,448	42.29	0	0.00	0	0.00	54,390	43.86
Apr-22 (S12)	601	0.48	61,066	49.24	0	0.00	0	0.00	61,667	49.72
May-22 (S13)	276	0.22	8,372	6.75	0	0.00	0	0.00	8,648	6.97
Jun-22 (S14)	321	0.26	19,039	15.35	0	0.00	0	0.00	19,360	15.61
Jul-22 (S15)	164	0.13	47,158	38.02	0	0.00	0	0.00	47,322	38.16
Aug-22 (S16)	0	0.00	6,456	5.21	0	0.00	0	0.00	6,456	5.21
Sep-22 (S17)	76	0.06	2,529	2.04	0	0.00	0	0.00	2,605	2.10
Oct-22 (S18)	591	0.48	14,402	11.61	0	0.00	0	0.00	14,993	12.09
Nov-22 (S19)	839	0.68	19,077	15.38	0	0.00	0	0.00	19,916	16.06
Dec-22 (S20)	251	0.20	8,690	7.01	0	0.00	0	0.00	8,941	7.21
Dec-22 (S21)	161	0.13	7,009	5.65	0	0.00	0	0.00	7,170	5.78
Jan-23 (S22)	228	0.18	26,105	21.05	0	0.00	0	0.00	26,333	21.23
Feb-23 (S23)	604	0.49	49,492	39.91	0	0.00	0	0.00	50,096	40.39
Mar-23 (S24)	779	0.63	20,350	16.41	0	0.00	0	0.00	21,129	17.04
Apr-23 (S25)	781	0.63	18,891	15.23	0	0.00	0	0.00	19,672	15.86
May-23 (S26)	975	0.79	38,527	31.07	29	0.02	0	0.00	39,503	31.85
Jun-23 (S27)	1,146	0.92	35,036	28.25	21	0.02	0	0.00	36,182	29.17

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Jul-23 (S28)	484	0.39	52,400	42.25	7	0.01	0	0.00	52,884	42.64
Aug-23 (S29)	7	0.01	6,295	5.08	0	0.00	0	0.00	6,302	5.08
Sep-23 (S30)	38	0.03	8,601	6.94	0	0.00	0	0.00	8,639	6.97

Site

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	681	0.90	10,202	13.52	0	0.00	0	0.00	10,883	14.43
May-21 (S02)	540	0.72	19,622	26.01	0	0.00	0	0.00	20,162	26.73
Jun-21 (S03)	421	0.56	7,039	9.33	0	0.00	0	0.00	7,460	9.89
Jul-21 (S04)	290	0.38	18,278	24.23	0	0.00	0	0.00	18,568	24.62
Aug-21 (S05)	7	0.01	5,062	6.71	0	0.00	0	0.00	5,069	6.72
Sep-21 (S06)	56	0.07	2,380	3.15	0	0.00	0	0.00	2,436	3.23
Oct-21 (S07)	21	0.03	6,712	8.90	0	0.00	0	0.00	6,733	8.93
Nov-21 (S08)	420	0.56	22,140	29.35	0	0.00	0	0.00	22,559	29.91
Jan-22 (S09)	88	0.12	10,104	13.40	0	0.00	0	0.00	10,192	13.51
Mar-22 (S10)	376	0.50	11,967	15.86	0	0.00	0	0.00	12,343	16.36
Mar-22 (S11)	1,633	2.17	42,019	55.70	0	0.00	0	0.00	43,653	57.87
Apr-22 (S12)	310	0.41	42,399	56.21	0	0.00	0	0.00	42,709	56.62
May-22 (S13)	165	0.22	6,011	7.97	0	0.00	0	0.00	6,175	8.19
Jun-22 (S14)	256	0.34	11,044	14.64	0	0.00	0	0.00	11,300	14.98
Jul-22 (S15)	103	0.14	28,798	38.18	0	0.00	0	0.00	28,902	38.31
Aug-22 (S16)	0	0.00	3,575	4.74	0	0.00	0	0.00	3,575	4.74
Sep-22 (S17)	37	0.05	1,442	1.91	0	0.00	0	0.00	1,479	1.96
Oct-22 (S18)	342	0.45	8,380	11.11	0	0.00	0	0.00	8,722	11.56
Nov-22 (S19)	677	0.90	11,940	15.83	0	0.00	0	0.00	12,617	16.73
Dec-22 (S20)	108	0.14	4,629	6.14	0	0.00	0	0.00	4,737	6.28
Dec-22 (S21)	118	0.16	3,689	4.89	0	0.00	0	0.00	3,806	5.05
Jan-23 (S22)	159	0.21	17,601	23.33	0	0.00	0	0.00	17,760	23.54
Feb-23 (S23)	213	0.28	33,293	44.14	0	0.00	0	0.00	33,506	44.42
Mar-23 (S24)	573	0.76	14,570	19.32	0	0.00	0	0.00	15,143	20.08
Apr-23 (S25)	464	0.61	11,713	15.53	0	0.00	0	0.00	12,176	16.14
May-23 (S26)	632	0.84	26,780	35.50	7	0.01	0	0.00	27,412	36.34
Jun-23 (S27)	614	0.81	26,416	35.02	7	0.01	0	0.00	27,030	35.83
Jul-23 (S28)	266	0.35	37,300	49.45	7	0.01	0	0.00	37,567	49.80
Aug-23 (S29)	0	0.00	3,808	5.05	0	0.00	0	0.00	3,808	5.05
Sep-23 (S30)	30	0.04	4,688	6.22	0	0.00	0	0.00	4,719	6.26

4 km Buffer only

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	283	0.58	3,652	7.52	0	0.00	0	0.00	3,935	8.10
May-21 (S02)	293	0.60	5,609	11.54	0	0.00	0	0.00	5,902	12.15
Jun-21 (S03)	114	0.23	3,790	7.80	0	0.00	0	0.00	3,904	8.03
Jul-21 (S04)	206	0.42	11,708	24.10	0	0.00	0	0.00	11,914	24.52

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Aug-21 (S05)	0	0.00	3,141	6.47	0	0.00	0	0.00	3,141	6.47
Sep-21 (S06)	53	0.11	1,256	2.59	0	0.00	0	0.00	1,309	2.69
Oct-21 (S07)	8	0.02	1,618	3.33	0	0.00	0	0.00	1,626	3.35
Nov-21 (S08)	266	0.55	9,517	19.59	0	0.00	0	0.00	9,783	20.13
Jan-22 (S09)	37	0.08	3,512	7.23	0	0.00	0	0.00	3,549	7.31
Mar-22 (S10)	170	0.35	5,126	10.55	0	0.00	0	0.00	5,297	10.90
Mar-22 (S11)	253	0.52	9,434	19.42	0	0.00	0	0.00	9,687	19.94
Apr-22 (S12)	296	0.61	18,161	37.38	0	0.00	0	0.00	18,457	37.99
May-22 (S13)	112	0.23	2,283	4.70	0	0.00	0	0.00	2,395	4.93
Jun-22 (S14)	61	0.13	8,059	16.59	0	0.00	0	0.00	8,120	16.71
Jul-22 (S15)	60	0.12	18,242	37.54	0	0.00	0	0.00	18,302	37.67
Aug-22 (S16)	0	0.00	2,914	6.00	0	0.00	0	0.00	2,914	6.00
Sep-22 (S17)	143	0.29	1,104	2.27	0	0.00	0	0.00	1,247	2.57
Oct-22 (S18)	250	0.51	6,147	12.65	0	0.00	0	0.00	6,398	13.17
Nov-22 (S19)	146	0.30	7,056	14.52	0	0.00	0	0.00	7,202	14.82
Dec-22 (S20)	148	0.30	4,175	8.59	0	0.00	0	0.00	4,323	8.90
Dec-22 (S21)	61	0.13	3,377	6.95	0	0.00	0	0.00	3,438	7.08
Jan-23 (S22)	68	0.14	8,328	17.14	0	0.00	0	0.00	8,396	17.28
Feb-23 (S23)	405	0.83	15,897	32.72	0	0.00	0	0.00	16,302	33.55
Mar-23 (S24)	200	0.41	5,562	11.45	0	0.00	0	0.00	5,762	11.86
Apr-23 (S25)	320	0.66	7,157	14.73	0	0.00	0	0.00	7,476	15.39
May-23 (S26)	341	0.70	11,445	23.56	23	0.05	0	0.00	11,787	24.26
Jun-23 (S27)	540	1.11	8,099	16.67	15	0.03	0	0.00	8,639	17.78
Jul-23 (S28)	221	0.45	14,573	29.99	0	0.00	0	0.00	14,794	30.45
Aug-23 (S29)	9	0.02	2,490	5.12	0	0.00	0	0.00	2,498	5.14
Sep-23 (S30)	8	0.02	3,965	8.16	0	0.00	0	0.00	3,973	8.18

16.2 Razorbill

Survey Area

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	8	0.01	424	0.34	0	0.00	0	0.00	432	0.35
May-21 (S02)	0	0.00	841	0.68	0	0.00	0	0.00	841	0.68
Jun-21 (S03)	14	0.01	689	0.56	0	0.00	0	0.00	704	0.57
Jul-21 (S04)	0	0.00	709	0.57	0	0.00	0	0.00	709	0.57
Aug-21 (S05)	0	0.00	546	0.44	0	0.00	0	0.00	546	0.44
Sep-21 (S06)	87	0.07	821	0.66	0	0.00	0	0.00	908	0.73
Oct-21 (S07)	0	0.00	658	0.53	0	0.00	0	0.00	658	0.53
Nov-21 (S08)	634	0.51	17,429	14.05	0	0.00	0	0.00	18,063	14.56
Jan-22 (S09)	0	0.00	2,371	1.91	0	0.00	0	0.00	2,371	1.91
Mar-22 (S10)	193	0.16	3,997	3.22	0	0.00	0	0.00	4,190	3.38
Mar-22 (S11)	446	0.36	12,438	10.03	0	0.00	0	0.00	12,884	10.39
Apr-22 (S12)	14	0.01	723	0.58	0	0.00	0	0.00	737	0.59
May-22 (S13)	15	0.01	349	0.28	0	0.00	0	0.00	364	0.29
Jun-22 (S14)	37	0.03	7,188	5.80	0	0.00	0	0.00	7,226	5.83
Jul-22 (S15)	22	0.02	10,580	8.53	0	0.00	0	0.00	10,602	8.55
Aug-22 (S16)	0	0.00	999	0.81	0	0.00	0	0.00	999	0.81

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Sep-22 (S17)	383	0.31	367	0.30	0	0.00	0	0.00	750	0.60
Oct-22 (S18)	662	0.53	14,439	11.64	0	0.00	0	0.00	15,101	12.18
Nov-22 (S19)	272	0.22	3,320	2.68	0	0.00	0	0.00	3,592	2.90
Dec-22 (S20)	226	0.18	6,296	5.08	0	0.00	0	0.00	6,522	5.26
Dec-22 (S21)	402	0.32	8,904	7.18	0	0.00	0	0.00	9,306	7.50
Jan-23 (S22)	0	0.00	1,292	1.04	0	0.00	0	0.00	1,292	1.04
Feb-23 (S23)	0	0.00	1,065	0.86	0	0.00	0	0.00	1,065	0.86
Mar-23 (S24)	594	0.48	10,176	8.21	0	0.00	0	0.00	10,770	8.68
Apr-23 (S25)	0	0.00	497	0.40	0	0.00	0	0.00	497	0.40
May-23 (S26)	170	0.14	4,036	3.25	0	0.00	0	0.00	4,206	3.39
Jun-23 (S27)	0	0.00	980	0.79	0	0.00	0	0.00	980	0.79
Jul-23 (S28)	173	0.14	8,029	6.47	0	0.00	0	0.00	8,202	6.61
Aug-23 (S29)	0	0.00	799	0.64	0	0.00	0	0.00	799	0.64
Sep-23 (S30)	225	0.18	700	0.56	0	0.00	0	0.00	925	0.75

Site

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	0	0.00	305	0.40	0	0.00	0	0.00	305	0.40
May-21 (S02)	0	0.00	549	0.73	0	0.00	0	0.00	549	0.73
Jun-21 (S03)	0	0.00	343	0.45	0	0.00	0	0.00	343	0.45
Jul-21 (S04)	0	0.00	538	0.71	0	0.00	0	0.00	538	0.71
Aug-21 (S05)	0	0.00	464	0.62	0	0.00	0	0.00	464	0.62
Sep-21 (S06)	109	0.14	575	0.76	0	0.00	0	0.00	684	0.91
Oct-21 (S07)	0	0.00	432	0.57	0	0.00	0	0.00	432	0.57
Nov-21 (S08)	499	0.66	9,625	12.76	0	0.00	0	0.00	10,125	13.42
Jan-22 (S09)	0	0.00	1,551	2.06	0	0.00	0	0.00	1,551	2.06
Mar-22 (S10)	120	0.16	2,936	3.89	0	0.00	0	0.00	3,055	4.05
Mar-22 (S11)	287	0.38	9,784	12.97	0	0.00	0	0.00	10,070	13.35
Apr-22 (S12)	0	0.00	458	0.61	0	0.00	0	0.00	458	0.61
May-22 (S13)	15	0.02	173	0.23	0	0.00	0	0.00	188	0.25
Jun-22 (S14)	37	0.05	4,757	6.31	0	0.00	0	0.00	4,793	6.35
Jul-22 (S15)	15	0.02	8,150	10.80	0	0.00	0	0.00	8,165	10.82
Aug-22 (S16)	0	0.00	544	0.72	0	0.00	0	0.00	544	0.72
Sep-22 (S17)	276	0.37	156	0.21	0	0.00	0	0.00	432	0.57
Oct-22 (S18)	388	0.51	9,437	12.51	0	0.00	0	0.00	9,825	13.02
Nov-22 (S19)	175	0.23	1,674	2.22	0	0.00	0	0.00	1,849	2.45
Dec-22 (S20)	147	0.20	4,683	6.21	0	0.00	0	0.00	4,830	6.40
Dec-22 (S21)	68	0.09	4,617	6.12	0	0.00	0	0.00	4,685	6.21
Jan-23 (S22)	0	0.00	597	0.79	0	0.00	0	0.00	597	0.79
Feb-23 (S23)	0	0.00	662	0.88	0	0.00	0	0.00	662	0.88
Mar-23 (S24)	467	0.62	6,797	9.01	0	0.00	0	0.00	7,265	9.63
Apr-23 (S25)	0	0.00	214	0.28	0	0.00	0	0.00	214	0.28
May-23 (S26)	86	0.11	2,646	3.51	0	0.00	0	0.00	2,732	3.62
Jun-23 (S27)	0	0.00	670	0.89	0	0.00	0	0.00	670	0.89
Jul-23 (S28)	120	0.16	5,639	7.48	0	0.00	0	0.00	5,759	7.63
Aug-23 (S29)	0	0.00	575	0.76	0	0.00	0	0.00	575	0.76
Sep-23 (S30)	113	0.15	274	0.36	0	0.00	0	0.00	387	0.51

4 km Buffer only

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	8	0.02	115	0.24	0	0.00	0	0.00	124	0.25
May-21 (S02)	0	0.00	291	0.60	0	0.00	0	0.00	291	0.60
Jun-21 (S03)	15	0.03	358	0.74	0	0.00	0	0.00	373	0.77
Jul-21 (S04)	0	0.00	163	0.34	0	0.00	0	0.00	163	0.34
Aug-21 (S05)	0	0.00	70	0.14	0	0.00	0	0.00	70	0.14
Sep-21 (S06)	0	0.00	233	0.48	0	0.00	0	0.00	233	0.48
Oct-21 (S07)	0	0.00	218	0.45	0	0.00	0	0.00	218	0.45
Nov-21 (S08)	133	0.27	7,640	15.72	0	0.00	0	0.00	7,773	16.00
Jan-22 (S09)	0	0.00	801	1.65	0	0.00	0	0.00	801	1.65
Mar-22 (S10)	75	0.15	1,019	2.10	0	0.00	0	0.00	1,094	2.25
Mar-22 (S11)	169	0.35	2,446	5.03	0	0.00	0	0.00	2,614	5.38
Apr-22 (S12)	15	0.03	264	0.54	0	0.00	0	0.00	279	0.58
May-22 (S13)	0	0.00	180	0.37	0	0.00	0	0.00	180	0.37
Jun-22 (S14)	0	0.00	2,384	4.91	0	0.00	0	0.00	2,384	4.91
Jul-22 (S15)	8	0.02	2,342	4.82	0	0.00	0	0.00	2,350	4.84
Aug-22 (S16)	0	0.00	462	0.95	0	0.00	0	0.00	462	0.95
Sep-22 (S17)	0	0.00	212	0.44	0	0.00	0	0.00	212	0.44
Oct-22 (S18)	277	0.57	4,855	9.99	0	0.00	0	0.00	5,131	10.56
Nov-22 (S19)	95	0.20	1,722	3.54	0	0.00	0	0.00	1,817	3.74
Dec-22 (S20)	78	0.16	1,486	3.06	0	0.00	0	0.00	1,565	3.22
Dec-22 (S21)	331	0.68	4,360	8.97	0	0.00	0	0.00	4,691	9.65
Jan-23 (S22)	0	0.00	723	1.49	0	0.00	0	0.00	723	1.49
Feb-23 (S23)	0	0.00	401	0.83	0	0.00	0	0.00	401	0.83
Mar-23 (S24)	115	0.24	3,324	6.84	0	0.00	0	0.00	3,439	7.08
Apr-23 (S25)	0	0.00	293	0.60	0	0.00	0	0.00	293	0.60
May-23 (S26)	86	0.18	1,375	2.83	0	0.00	0	0.00	1,460	3.01
Jun-23 (S27)	0	0.00	304	0.62	0	0.00	0	0.00	304	0.62
Jul-23 (S28)	54	0.11	2,320	4.78	0	0.00	0	0.00	2,374	4.89
Aug-23 (S29)	0	0.00	214	0.44	0	0.00	0	0.00	214	0.44
Sep-23 (S30)	113	0.23	435	0.90	0	0.00	0	0.00	548	1.13

16.3 Puffin

Survey Area

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	0	0.00	59	0.05	0	0.00	0	0.00	59	0.05
May-21 (S02)	0	0.00	50	0.04	0	0.00	0	0.00	50	0.04
Jun-21 (S03)	0	0.00	822	0.66	0	0.00	0	0.00	822	0.66
Jul-21 (S04)	0	0.00	51	0.04	0	0.00	0	0.00	51	0.04
Aug-21 (S05)	0	0.00	689	0.56	0	0.00	0	0.00	689	0.56
Sep-21 (S06)	0	0.00	72	0.06	0	0.00	0	0.00	72	0.06
Oct-21 (S07)	0	0.00	50	0.04	0	0.00	0	0.00	50	0.04
Nov-21 (S08)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-22 (S09)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S10)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Mar-22 (S11)	29	0.02	108	0.09	0	0.00	0	0.00	138	0.11
Apr-22 (S12)	0	0.00	159	0.13	0	0.00	0	0.00	159	0.13
May-22 (S13)	0	0.00	167	0.13	0	0.00	0	0.00	167	0.13
Jun-22 (S14)	36	0.03	2,242	1.81	0	0.00	0	0.00	2,278	1.84
Jul-22 (S15)	43	0.04	15,979	12.88	0	0.00	0	0.00	16,022	12.92
Aug-22 (S16)	8	0.01	4,369	3.52	0	0.00	0	0.00	4,377	3.53
Sep-22 (S17)	0	0.00	482	0.39	0	0.00	0	0.00	482	0.39
Oct-22 (S18)	0	0.00	8	0.01	0	0.00	0	0.00	8	0.01
Nov-22 (S19)	0	0.00	8	0.01	0	0.00	0	0.00	8	0.01
Dec-22 (S20)	0	0.00	42	0.03	0	0.00	0	0.00	42	0.03
Dec-22 (S21)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-23 (S22)	0	0.00	24	0.02	0	0.00	0	0.00	24	0.02
Feb-23 (S23)	0	0.00	34	0.03	0	0.00	0	0.00	34	0.03
Mar-23 (S24)	0	0.00	85	0.07	0	0.00	0	0.00	85	0.07
Apr-23 (S25)	0	0.00	59	0.05	0	0.00	0	0.00	59	0.05
May-23 (S26)	0	0.00	529	0.43	0	0.00	0	0.00	529	0.43
Jun-23 (S27)	21	0.02	1,533	1.24	0	0.00	0	0.00	1,554	1.25
Jul-23 (S28)	28	0.02	2,605	2.10	0	0.00	0	0.00	2,633	2.12
Aug-23 (S29)	0	0.00	1,292	1.04	0	0.00	0	0.00	1,292	1.04
Sep-23 (S30)	0	0.00	485	0.39	0	0.00	0	0.00	485	0.39

Site

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	0	0.00	25	0.03	0	0.00	0	0.00	25	0.03
May-21 (S02)	0	0.00	48	0.06	0	0.00	0	0.00	48	0.06
Jun-21 (S03)	0	0.00	496	0.66	0	0.00	0	0.00	496	0.66
Jul-21 (S04)	0	0.00	33	0.04	0	0.00	0	0.00	33	0.04
Aug-21 (S05)	0	0.00	408	0.54	0	0.00	0	0.00	408	0.54
Sep-21 (S06)	0	0.00	25	0.03	0	0.00	0	0.00	25	0.03
Oct-21 (S07)	0	0.00	33	0.04	0	0.00	0	0.00	33	0.04
Nov-21 (S08)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-22 (S09)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S10)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S11)	28	0.04	78	0.10	0	0.00	0	0.00	106	0.14
Apr-22 (S12)	0	0.00	56	0.07	0	0.00	0	0.00	56	0.07
May-22 (S13)	0	0.00	106	0.14	0	0.00	0	0.00	106	0.14
Jun-22 (S14)	14	0.02	1,371	1.82	0	0.00	0	0.00	1,385	1.84
Jul-22 (S15)	34	0.05	11,671	15.47	0	0.00	0	0.00	11,705	15.52
Aug-22 (S16)	8	0.01	2,629	3.48	0	0.00	0	0.00	2,637	3.50
Sep-22 (S17)	0	0.00	321	0.43	0	0.00	0	0.00	321	0.43
Oct-22 (S18)	0	0.00	8	0.01	0	0.00	0	0.00	8	0.01
Nov-22 (S19)	0	0.00	8	0.01	0	0.00	0	0.00	8	0.01
Dec-22 (S20)	0	0.00	33	0.04	0	0.00	0	0.00	33	0.04
Dec-22 (S21)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-23 (S22)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Feb-23 (S23)	0	0.00	33	0.04	0	0.00	0	0.00	33	0.04
Mar-23 (S24)	0	0.00	57	0.08	0	0.00	0	0.00	57	0.08

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-23 (S25)	0	0.00	49	0.07	0	0.00	0	0.00	49	0.07
May-23 (S26)	0	0.00	325	0.43	0	0.00	0	0.00	325	0.43
Jun-23 (S27)	20	0.03	933	1.24	0	0.00	0	0.00	954	1.26
Jul-23 (S28)	21	0.03	1,838	2.44	0	0.00	0	0.00	1,859	2.46
Aug-23 (S29)	0	0.00	861	1.14	0	0.00	0	0.00	861	1.14
Sep-23 (S30)	0	0.00	314	0.42	0	0.00	0	0.00	314	0.42

4 km Buffer only

Survey	Flying		Sitting		Diving		Perched		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	0	0.00	35	0.07	0	0.00	0	0.00	35	0.07
May-21 (S02)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jun-21 (S03)	0	0.00	327	0.67	0	0.00	0	0.00	327	0.67
Jul-21 (S04)	0	0.00	18	0.04	0	0.00	0	0.00	18	0.04
Aug-21 (S05)	0	0.00	282	0.58	0	0.00	0	0.00	282	0.58
Sep-21 (S06)	0	0.00	53	0.11	0	0.00	0	0.00	53	0.11
Oct-21 (S07)	0	0.00	18	0.04	0	0.00	0	0.00	18	0.04
Nov-21 (S08)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-22 (S09)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S10)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-22 (S11)	0	0.00	29	0.06	0	0.00	0	0.00	29	0.06
Apr-22 (S12)	0	0.00	107	0.22	0	0.00	0	0.00	107	0.22
May-22 (S13)	0	0.00	61	0.13	0	0.00	0	0.00	61	0.13
Jun-22 (S14)	23	0.05	870	1.79	0	0.00	0	0.00	893	1.84
Jul-22 (S15)	8	0.02	4,132	8.50	0	0.00	0	0.00	4,140	8.52
Aug-22 (S16)	0	0.00	1,745	3.59	0	0.00	0	0.00	1,745	3.59
Sep-22 (S17)	0	0.00	161	0.33	0	0.00	0	0.00	161	0.33
Oct-22 (S18)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Nov-22 (S19)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Dec-22 (S20)	0	0.00	9	0.02	0	0.00	0	0.00	9	0.02
Dec-22 (S21)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Jan-23 (S22)	0	0.00	27	0.06	0	0.00	0	0.00	27	0.06
Feb-23 (S23)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Mar-23 (S24)	0	0.00	27	0.06	0	0.00	0	0.00	27	0.06
Apr-23 (S25)	0	0.00	9	0.02	0	0.00	0	0.00	9	0.02
May-23 (S26)	0	0.00	204	0.42	0	0.00	0	0.00	204	0.42
Jun-23 (S27)	0	0.00	599	1.23	0	0.00	0	0.00	599	1.23
Jul-23 (S28)	8	0.02	742	1.53	0	0.00	0	0.00	750	1.54
Aug-23 (S29)	0	0.00	424	0.87	0	0.00	0	0.00	424	0.87
Sep-23 (S30)	0	0.00	169	0.35	0	0.00	0	0.00	169	0.35

16.4 Harbour Porpoise

Survey Area

Survey	Submerged		Surfacing		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	48	0.04	37	0.03	85	0.07
May-21 (S02)	70	0.06	0	0.00	70	0.06
Jun-21 (S03)	119	0.10	51	0.04	170	0.14
Jul-21 (S04)	299	0.24	66	0.05	365	0.29
Aug-21 (S05)	105	0.08	38	0.03	143	0.12
Sep-21 (S06)	36	0.03	0	0.00	36	0.03
Oct-21 (S07)	15	0.01	31	0.02	46	0.04
Nov-21 (S08)	64	0.05	32	0.03	96	0.08
Jan-22 (S09)	31	0.03	68	0.05	99	0.08
Mar-22 (S10)	96	0.08	35	0.03	131	0.11
Mar-22 (S11)	351	0.28	191	0.15	542	0.44
Apr-22 (S12)	100	0.08	25	0.02	125	0.10
May-22 (S13)	133	0.11	42	0.03	175	0.14
Jun-22 (S14)	40	0.03	54	0.04	94	0.08
Jul-22 (S15)	208	0.17	51	0.04	260	0.21
Aug-22 (S16)	0	0.00	0	0.00	0	0.00
Sep-22 (S17)	18	0.01	0	0.00	18	0.01
Oct-22 (S18)	34	0.03	31	0.02	65	0.05
Nov-22 (S19)	151	0.12	51	0.04	202	0.16
Dec-22 (S20)	0	0.00	0	0.00	0	0.00
Dec-22 (S21)	0	0.00	19	0.01	19	0.01
Jan-23 (S22)	65	0.05	15	0.01	80	0.06
Feb-23 (S23)	330	0.27	36	0.03	365	0.29
Mar-23 (S24)	0	0.00	25	0.02	25	0.02
Apr-23 (S25)	129	0.10	51	0.04	180	0.14
May-23 (S26)	92	0.07	12	0.01	104	0.08
Jun-23 (S27)	104	0.08	26	0.02	130	0.10
Jul-23 (S28)	41	0.03	26	0.02	66	0.05
Aug-23 (S29)	132	0.11	43	0.03	174	0.14
Sep-23 (S30)	184	0.15	0	0.00	184	0.15

Site

Survey	Submerged		Surfacing		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	27	0.04	12	0.02	39	0.05
May-21 (S02)	31	0.04	0	0.00	31	0.04
Jun-21 (S03)	90	0.12	26	0.03	115	0.15
Jul-21 (S04)	155	0.21	64	0.08	219	0.29
Aug-21 (S05)	45	0.06	38	0.05	83	0.11
Sep-21 (S06)	36	0.05	0	0.00	36	0.05
Oct-21 (S07)	15	0.02	31	0.04	46	0.06
Nov-21 (S08)	15	0.02	0	0.00	15	0.02
Jan-22 (S09)	30	0.04	32	0.04	61	0.08
Mar-22 (S10)	74	0.10	34	0.04	108	0.14

Survey	Submerged		Surfacing		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Mar-22 (S11)	277	0.37	147	0.20	424	0.56
Apr-22 (S12)	51	0.07	25	0.03	76	0.10
May-22 (S13)	121	0.16	0	0.00	121	0.16
Jun-22 (S14)	38	0.05	32	0.04	70	0.09
Jul-22 (S15)	113	0.15	26	0.03	139	0.18
Aug-22 (S16)	0	0.00	0	0.00	0	0.00
Sep-22 (S17)	0	0.00	0	0.00	0	0.00
Oct-22 (S18)	19	0.03	31	0.04	50	0.07
Nov-22 (S19)	47	0.06	19	0.02	66	0.09
Dec-22 (S20)	0	0.00	0	0.00	0	0.00
Dec-22 (S21)	0	0.00	0	0.00	0	0.00
Jan-23 (S22)	60	0.08	15	0.02	75	0.10
Feb-23 (S23)	264	0.35	20	0.03	284	0.38
Mar-23 (S24)	0	0.00	25	0.03	25	0.03
Apr-23 (S25)	101	0.13	25	0.03	126	0.17
May-23 (S26)	37	0.05	12	0.02	49	0.07
Jun-23 (S27)	62	0.08	0	0.00	62	0.08
Jul-23 (S28)	41	0.05	13	0.02	54	0.07
Aug-23 (S29)	64	0.08	51	0.07	115	0.15
Sep-23 (S30)	143	0.19	0	0.00	143	0.19

4 km Buffer only

Survey	Submerged		Surfacing		Total	
	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)	Abundance Estimate	Density (km²)
Apr-21 (S01)	77	0.16	26	0.05	103	0.21
May-21 (S02)	40	0.08	0	0.00	40	0.08
Jun-21 (S03)	0	0.00	6	0.01	6	0.01
Jul-21 (S04)	147	0.30	0	0.00	147	0.30
Aug-21 (S05)	55	0.11	0	0.00	55	0.11
Sep-21 (S06)	0	0.00	18	0.04	18	0.04
Oct-21 (S07)	0	0.00	0	0.00	0	0.00
Nov-21 (S08)	51	0.10	35	0.07	86	0.18
Jan-22 (S09)	0	0.00	36	0.07	36	0.07
Mar-22 (S10)	42	0.09	0	0.00	42	0.09
Mar-22 (S11)	67	0.14	40	0.08	107	0.22
Apr-22 (S12)	51	0.10	0	0.00	51	0.10
May-22 (S13)	26	0.05	39	0.08	65	0.13
Jun-22 (S14)	0	0.00	20	0.04	20	0.04
Jul-22 (S15)	97	0.20	27	0.06	124	0.26
Aug-22 (S16)	0	0.00	0	0.00	0	0.00
Sep-22 (S17)	18	0.04	22	0.04	39	0.08
Oct-22 (S18)	18	0.04	0	0.00	18	0.04
Nov-22 (S19)	117	0.24	33	0.07	150	0.31
Dec-22 (S20)	0	0.00	0	0.00	0	0.00
Dec-22 (S21)	0	0.00	34	0.07	34	0.07
Jan-23 (S22)	0	0.00	0	0.00	0	0.00
Feb-23 (S23)	69	0.14	18	0.04	87	0.18
Mar-23 (S24)	0	0.00	0	0.00	0	0.00

Survey	Submerged		Surfacing		Total	
	Abundance Estimate	Density (km^2)	Abundance Estimate	Density (km^2)	Abundance Estimate	Density (km^2)
Apr-23 (S25)	26	0.05	26	0.05	53	0.11
May-23 (S26)	59	0.12	0	0.00	59	0.12
Jun-23 (S27)	42	0.09	27	0.06	69	0.14
Jul-23 (S28)	0	0.00	15	0.03	15	0.03
Aug-23 (S29)	69	0.14	0	0.00	69	0.14
Sep-23 (S30)	35	0.07	0	0.00	35	0.07