



**JNCC Report 822**

**Marine Natural Capital and Ecosystem Assessment, Offshore  
Survey September–October 2024 (COR0924) Survey Report**

**Albrecht, J., Hirschle, L., Thomas, K. and Taylor, N.**

**April 2026**

**© JNCC, Peterborough 2026**

**ISSN 0963 8091**

JNCC's report series serves as a record of the work undertaken or commissioned by JNCC. The series also helps us to share, and promote the use of, our work and to develop future collaborations.

**For further information please contact:**

JNCC, Quay House, 2 East Station Road, Fletton Quays, Peterborough PE2 8YY.

<https://jncc.gov.uk/>

[Communications@jncc.gov.uk](mailto:Communications@jncc.gov.uk)

**This document should be cited as:**

Albrecht, J, Hirschle, L., Thomas, K. & Taylor, N. 2026. Marine Natural Capital and Ecosystem Assessment, Offshore Survey September–October 2024 (COR0924) Survey Report. *JNCC Report 822*. JNCC, Peterborough, ISSN 0963-8091.

<https://jncc.gov.uk/resources/ed806334-706e-4eca-976d-a6fee0981af3>.

**Acknowledgments:**

We thank the captain, crew, and scientists of the *MRV Corystes* survey COR0924.

**Evidence Quality Assurance:**

Please note that observations made in this Survey Report represent preliminary field observations. These observations have not been subject to [JNCC's Evidence Quality Assurance](#) procedures. Please refer to the Final Report from this survey for Quality Assured evidence when available. This statement should be acknowledged when referencing this survey report.

**Evidence Quality Assurance:**

This report and any accompanying material is published by JNCC under the [Open Government Licence](#) (OGLv3.0 for public sector information), unless otherwise stated. Note that some images [maps, tables] may not be copyright JNCC; please check sources for conditions of re-use.

**Disclaimer:**

Whilst every effort is made to ensure that the information in this resource is complete, accurate and up-to-date, JNCC is not liable for any errors or omissions in the information and shall not be liable for any loss, injury or damage of any kind caused by its use. Whenever possible, JNCC will act on any inaccuracies that are brought to its attention and endeavour to correct them in subsequent versions of the resource but cannot guarantee the continued supply of the information.

The views and recommendations presented in this report do not necessarily reflect the views and policies of JNCC.

## Executive summary

As part of the marine Natural Capital and Ecosystem Assessment programme, the Joint Nature Conservation Committee (JNCC) undertook an offshore seabed survey at an area south of Seas off St Kilda Special Protection Area (SPA), Stanton Banks Special Area of Conservation (SAC) and South Rigg Marine Conservation Zone (MCZ) aboard the Marine Research Vessel *Corystes* from 25 September to 12 October 2024 (Survey code COR0924).

The aims of the COR0924 survey were to gather data collection which addresses significant information gaps in marine offshore habitats and to conduct research and development sampling to test novel technologies. Additionally, the survey provided an opportunity to trial options for marine mammal data collection on a platform primarily mobilised for benthic survey activity.

At St Kilda, 11 camera sledge transects were successfully completed and eight Day grab infaunal and 12 particle size subsamples were collected in deep circalittoral mud habitats.

At Stanton Banks, five drop camera transects were completed in deep circalittoral mud with an additional nine transects across rock and sand. 58 Day grab infaunal and 64 particle size subsamples collected across habitats at the site. Additionally, 45 km<sup>2</sup> of multibeam bathymetry and backscatter was acquired from a previously un-surveyed area.

At South Rigg, 45 camera sledge transects were successfully completed as well as 34 Day grabs infaunal and particle size subsamples collected from inside and outside the MCZ.

A total of 5 x 16 km marine mammal observation transects were completed in the North Channel Harbour Porpoise SAC. The marine mammal thermal imaging camera recorded data throughout the survey. Marine mammal eDNA samples were collected from 15 metaprobe tows and 45 water samples collected from Niskin bottles.

The Pelagic and Benthic BRUVs were successfully deployed twice each, once at Stanton Banks and once at South Rigg.

A total of 18 eDNA metaprobes were attached the camera frames across all sites.

**Please note that observations made in this Survey Report represent preliminary field observations. These observations have not been subject to JNCC's Evidence Quality Assurance procedures. Please refer to the Final Report for this survey/ for Quality Assured evidence. This disclaimer should be included when referencing this survey Report.**

## Contents

Executive summary .....	c
1. Introduction .....	1
1.1 Staff.....	1
1.2 Location .....	2
2. Aims and Objectives .....	4
2.1 mNCEA Offshore Marine monitoring project aims .....	4
3 Changes to survey plan .....	6
4 Cruise Narrative .....	7
4.1 Wednesday 25 September .....	7
4.2 Thursday 26 September .....	7
4.3 Friday 27 September.....	7
4.4 Saturday 28 September.....	8
4.5 Sunday 29 September.....	8
4.6 Monday 30 September .....	8
4.7 Tuesday 1 October .....	9
4.8 Wednesday 2 October.....	9
4.9 Thursday 3 October.....	9
4.10 Friday 4 October.....	10
4.11 Saturday 5 October .....	10
4.12 Sunday 6 October .....	10
4.13 Monday 7 October.....	11
4.14 Tuesday 8 October .....	11
4.15 Wednesday 9 October.....	11
4.16 Thursday 10 October.....	11
4.17 Friday 11 October.....	12
5 Data acquired.....	13
5.1 St Kilda .....	14
5.2 Stanton Banks SAC .....	16
5.3 South Rigg MCZ .....	19
5.4 Marine mammal observation and eDNA data (multiple sites).....	19
6 Methods and equipment used.....	23
6.1 Day grab .....	23

6.1.1	PSA sub-sample .....	23
6.1.2	Infauna sample .....	23
6.2	Towed Camera systems.....	24
6.2.1	Camera Sledge.....	25
6.2.2	Drop frame camera .....	25
6.3	Baited Remote Underwater Video (BRUV) .....	26
6.3.1	Deployment.....	28
6.3.2	Recovery.....	30
6.4	eDNA sampling .....	30
6.4.1	Near seabed metaprobes .....	31
6.4.2	Marine mammal metaprobes .....	31
6.4.3	Niskin water bottle samples .....	31
6.5	Marine mammal observations .....	32
6.6	Thermal imaging cameras.....	33
6.7	Multibeam .....	36
7	References.....	37
	Appendix 1. Breakdown of survey operation time .....	38
	Appendix 2. Survey metadata .....	39

# 1. Introduction

The Joint Nature Conservation Committee (JNCC), in collaboration with the Agri-Food and Biosciences Institute (AFBI), conducted an offshore seabed survey on the Scottish Continental Shelf (OSPAR Region III – Celtic Seas) in September / October 2024. Fifteen days of sampling were due to be conducted under the marine Natural Capital and Ecosystems Assessment (NCEA) programme, with a focus on data collection that addresses significant information gaps in marine offshore habitats, providing greater value to data already obtained.

As a secondary objective, this survey aimed to provide an opportunity to trial options for marine mammal data collection on a platform primarily mobilised for benthic survey activity.

The plan for the COR0924 survey was to conduct sampling at stations located within and outwith Scottish and Northern Irish Marine Protected Areas (MPAs) comprising both inshore and offshore waters:

- Seas off St Kilda Special Protection Area (SPA) – Scottish Continental Shelf (inshore and offshore).
- Stanton Banks Special Area of Conservation (SAC) – Minches and Western Scotland and Scottish Continental Shelf.

Planned sampling for the mNCEA programme at St Kilda consisted of 142 grab sample stations and 36 camera sampling stations. At 22 camera sampling stations, DNA metaprobes and an Acoustic-Doppler-Current-Profiler (ADCP) were to be attached to the camera sledge. Baited Remote Underwater Video systems (BRUVs) were to be deployed, with an attached temperature logger, at five benthic and five pelagic stations. Multibeam data collection was a low priority and to be collected on an ad hoc basis.

Poor weather contingency included sampling at the Pisces Reef Complex SAC, South Rigg Marine conservation zone (MCZ) and Queenie corner MCZ due to their sheltered location in the Western Irish Sea, midway between the Isle of Man and Northern Ireland (Figure 1).

Three days of the survey were allocated for a marine mammal observer (MMO) survey within a survey box located west of St Kilda, overlapping with the shelf edge. The planned marine mammal survey consisted of a visual observer survey following single platform distance sampling protocol, and eDNA sample collection; point samples collected using Niskin bottles and two-hour tow samples using eDNA metaprobes.

Throughout the survey, thermal and high-definition cameras planned to scan the surrounding waters to detect marine mammal activity within close vicinity to the vessel to assess application for use in a monitoring capacity.

For full details of the survey plan please contact JNCC's Marine Monitoring Team at [MarineMonitoring@jncc.gov.uk](mailto:MarineMonitoring@jncc.gov.uk).

## 1.1 Staff

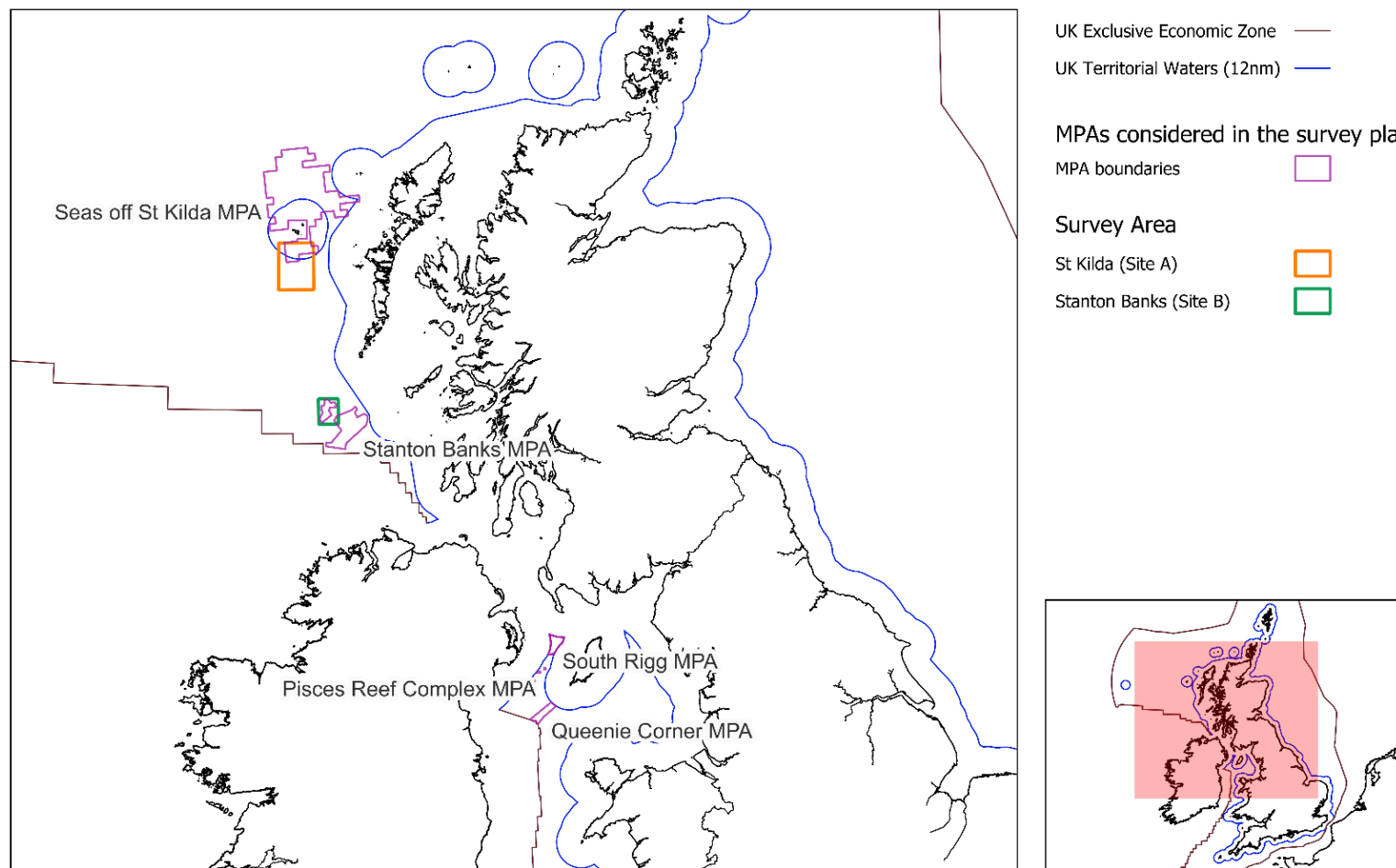
Seven JNCC and three AFBI staff joined the survey vessel. This shift pattern shown in Table 1 optimises the availability of survey staff for 24-hour operations, however, the survey personnel with MMO responsibilities required daylight hours to complete survey objective 3.1. Therefore, the JNCC survey scientists who are MMO specialists transitioned onto a shift that covers daylight hours a minimum of two days before work on survey objective 3.1 began.

**Table 1.** Survey staff and roles for COR0924. Personnel with specialist roles are identified as Scientist In Charge (SIC), JNCC shift lead (shift lead), and Marine Mammal Observation specialists (MMO).

Shift	Staff
<b>Floating shift (06:00 – 18:00)</b>	AFBI Scientist in Charge (SIC)
	JNCC Survey lead
	JNCC Data manager
<b>Day shift (12:00 – 00:00)</b>	JNCC Scientist (Shift lead)
	JNCC Scientist
	JNCC Scientist (MMO)
	ABFI technical staff
<b>Night shift (00:00 – 12:00)</b>	JNCC Scientist (shift lead)
	JNCC Scientist
	ABFI technical staff

## 1.2 Location

A map showing the survey areas included in the survey plan is provided in Figure 1.



© JNCC 2026  
 Projection: WGS 84/UTM zone 29N ( EPSG:32629)  
 Coastline © Coastline\_euroasion\_MESHarea\_WGS84

**Figure 1.** Survey areas included in the survey plan. Site A – South of St Kilda; Site B – Stanton Banks. Weather contingency sites – Pisces Reef Complex MPA, Queenie Corner MPA and South Rigg MPA.

## 2. Aims and Objectives

### 2.1 mNCEA Offshore Marine monitoring project aims

This project aims to fill key information gaps for UK status assessment of benthic communities, improving natural capital valuation of attributes and ecosystem service provision from offshore benthic habitats.

Secondly, this project aims to optimise the sampling techniques and assessment frameworks to ensure cost-efficient and high-quality natural capital data gathering of offshore habitats in the future.

#### 2.1.1 Survey/ Work package aim

Filling critical information gaps to meet policy obligations.

#### 2.1.2 COR0924 Offshore Survey Objectives

1. **Collect sufficient biological and environmental data to fill information gaps in deep circalittoral mud at selected survey area.**
  - 1.1. Collect infauna samples and analyse to produce species abundance and biomass data.
  - 1.2. Collect particle size analysis sample to produce particle size data.
  - 1.3. Collect infauna samples from a range of fishing pressures, with particular focus on low or 'reference condition' sites.
  - 1.4. Collect environmental parameters associated with infauna samples.
  - 1.5. Collect seabed video and stills to inform evidence of litter and anthropogenic impact on seabed.
  - 1.6. Collect seabed video to inform evidence of densities of sea pens and burrowing megafauna.
  - 1.7. Collect seabed video and stills to compile comprehensive species lists of both mobile and non-mobile epifauna observed during the tow, to facilitate comparison with environmental DNA data.
  - 1.8. Collect environmental parameters associated with imagery samples.
  - 1.9. Collect bathymetry data for mapping of depths of landforms below sea level.
  
2. **Conduct research and development sampling to test novel technologies**
  - 2.1. Test a Baited Remote Underwater Video (BRUV) system on the seabed across different habitats.
  - 2.2. Test a BRUV in the pelagic environment.
  - 2.3. Test the collection of environmental DNA using metaprobes attached to a camera sledge to answer the following questions:
    - 2.3.1 Does the **species richness** of benthic organisms detected vary between eDNA and imagery?
    - 2.3.2 Does **community composition** of benthic organisms detected vary between eDNA and imagery?

2.3.3 Does species richness differ between metaprobes deployed with ***mesh*** and ***no mesh***?

2.3.4 How many metaprobes are required to achieve a complete dataset?

**3. Conduct marine mammal monitoring**

- 3.1. Collect single platform distance survey data for marine mammals in data-poor shelf edge habitats.
- 3.2. Pilot the collection of marine mammal observer data on a platform primarily mobilised to collect benthic data.
- 3.3. Test the Smart Visual Detection System (SVDS) thermal and high-definition cameras for marine mammal monitoring.
- 3.4. Test data collection for a comparison study on eDNA sampling methods: stationary samples using Niskin bottles and towed samples using metaprobes, for detection of marine mammals

### 3 Changes to survey plan

Due to an unexpected live weapons firing exercise, the sea area around St Kilda was closed, and coupled with poor weather, we were required to deviate from the original survey plan to make the most of vessel time. This section summarises the changes made from the original survey plan, detailed description of activities are reported in the cruise narrative (Section 4) and data collected summarised in the data acquired section (Section 5).

Poor weather delayed the departure from the dockside at Belfast until 15:00 on 27 September 2025, and during the transit to St Kilda (Site A) a notice to mariners regarding live weapons firing between 30 Sep and 04 Oct was issued for an area including our target site at St Kilda. The decision was made to continue to the main site and conduct sampling (survey priority 1) until the vessel was required to leave the area.

At this time the vessel transited to the secondary site (Site B) at Stanton Banks to conduct day grab and imagery sampling (survey priority 2 and 3). Due to the rocky outcrops in Stanton Banks, the camera equipment needed to be changed from the camera sledge frame to the drop camera frame. The transit to site was utilised to facilitate this change of equipment, and to also tow metaprobes to collect marine mammal eDNA (survey priority 9).

At Stanton Banks, three stations were revisited to increase the replicates for survey priority 3, in addition to three extra drop camera stations to ground truth rocky areas (Figure 3).

After completion of works at Stanton Banks, weather predictions showed the best chance to collect additional data would be in the Irish Sea instead of returning north to continue sampling at St Kilda. The vessel waited on weather along the sheltered north side of Coll and Tiree before transiting to South Rigg MPA via a sheltered route to the weather contingency site. This transit also provided an opportunity to tow metaprobes to collect marine mammal eDNA (survey priority 9).

All planned stations were completed at South Rigg MPA, and instead of moving to a different site extra stations were plotted to extend outside the of the southern boundary of South Rigg MPA (Figure 5). Day grab and camera sledge sampling continued until the vessel returned to port.

As Marine Mammal observations were not conducted as planned at the shelf area near to St Kilda (site A), ad hoc sampling transects were produced to conduct a single day of marine mammal observation, metaprobe tows and Niskin bottle sampling (survey priority 8 and 9).

An Acoustic-Doppler-Current-Profiler (ADCP) was not available for use on this survey and therefore no current data was collected from the camera transects at which near seabed meta probes were attached.

## 4 Cruise Narrative

The mNCEA survey COR0924 was carried out between 25 September and 12 October.

All times are British Summer Time (UTC + 1), unless specified otherwise, and to the nearest 15 minutes.

### 4.1 Wednesday 25 September

Loading of the RV *Corystes* at Belfast Docks began in the morning, some JNCC staff arrived at 08:30 to help with loading of the thermal cameras. By 12:00 all JNCC staff had joined RV *Corystes*.

A familiarisation tour was given to all JNCC staff between 13:00 and 13:30.

A toolbox talk on the deployment of the BRUVs system was provided by Fjordstrong between 13:30 and 14:30.

The vessel was fully loaded by the end of the day and ready to sail on the 26/09/2024.

### 4.2 Thursday 26 September

A meeting with the captain was held at 09:45–10:45 to discuss the weather forecast and a potential sailing time.

The decision was made to delay sailing until approximately 12:00 on 27/09/2024. This was due to strong winds and high waves expected at the study site and along our transit route for the next 24 hours.

A BRUV test deployment was completed in the dock and the work areas onboard RV *Corystes* were prepared for work to start once we arrive at the survey site. Face fit testing was completed for JNCC staff who will be working with Formaldehyde during the survey.

### 4.3 Friday 27 September

A muster drill was held at 09:00 followed by an abandon ship drill, then RV *Corystes* left the quay side at 13:00. JNCC staff were given an at sea briefing by the first mate at 14:00.

A wet test was conducted in Belfast Loch (approximate position: 54° 44.665' N, 005° 40.580' W) at 14:30. A Sound Velocity Profile (SVP) was collected, and the camera sledge was deployed.

At 15:00 the transit to the St Kilda study area began.

At approximately 20:00 a notice to mariners came to the attention of the bridge crew. Live weapons firing would be in progress daily between 08:00 and 19:00 UTC, 30 Sep to 04 Oct in an area that covers the St Kilda study site. This military activity would not affect our plans for the next 24 hours, but it would not be possible to stay in our primary study site between 30 Sep and 04 Oct. It would therefore be necessary to use one of our contingency sites during this time.

#### 4.4 Saturday 28 September

Transit continued until we arrived at our first station (NC006) at 14:00 and started Day grab sampling.

Progress was slow as we were failing to collect good samples over 5 L in volume. Extra weight was added to the day grab, and we moved further north in the study site, where finer sediments were expected.

By midnight nine priority 1 day grab stations had been attempted and of these, four infauna samples had been processed. All the processed samples were from grab volumes of 3.5 L of sediment. The issue with the day grab sample volumes are likely due to the swell height (approximately 2 m) and water depth (approximately 150 m).

#### 4.5 Sunday 29 September

Day grab sampling to address survey priority 1 continued. Progress remained slow. At 04:20 a camera sledge tow was successfully completed at station (NC098). The Day grab survey resumed after this until 07:00 when the decision was made to move to addressing survey priorities 1 and 5 (camera sledge deployments with DNA metaprobes attached to the frame).

This continued until 13:30, when the swell had decreased slightly. At this time the decision was made to sample each camera sledge station with the sledge deployed from the vessel's stern and immediately follow this with a day grab deployed from the side gantry. This continued until 20:30. At 20:30 Niskin water bottle samples were collected and at 21:30 a metaprobes was deployed off the side gantry. At 21:30 the RV *Corystes* also began transit to Stanton Banks MCZ, with the metaprobes in tow to collect marine mammal eDNA (survey priority 9).

By the end of the day three more day grab stations had been successfully sampled for survey priority 1, 11 camera sledge stations had been successfully sampled for survey priority 2, 9 stations had been successfully sampled using metaprobes for survey priority 5, and 1 transect to collect marine mammal eDNA for survey priority 9.

#### 4.6 Monday 30 September

Transit whilst towing the marine mammal eDNA probe, RV *Corystes* stopped once at 02:40 to collect three more water samples and deploy a new metaprobe. RV *Corystes* continued transit but stopped again at 06:00 to collect three more water samples and recover the metaprobe.

Transit continued until 09:00 when the Day grab survey of the muddy areas near Stanton Banks MCZ began.

Swells were much lower now (1 m or less) and grab samples were collected much more successfully.

Whilst grab sampling was underway, water samples collected overnight were processed and AFBI camera technicians transferred the camera system from the drop sledge to the drop frame. At 22:00 drop camera operations began to check that the seabed was suitable for grab sampling at stations close the rocky areas of Stanton Banks.

By midnight 25 grab stations had been sampled to address survey priority 3 and three drop camera stations had been sampled to address survey priority 2, and nine water samples (including three collected on the 29/09/2024) had been processed for survey priority 9.

## 4.7 Tuesday 1 October

The drop camera survey of Stanton Banks continued until 02:50 at which point five stations had been sampled to confirm that they were suitable for grab sampling.

This was followed immediately by Day grab sampling which continued until 13:00.

At this time a benthic Baited Remote Underwater Video (BRUV) was deployed at station SD059. While the BRUV was deployed, for its required minimum soak time of 90 minutes, more grab samples were collected and the BRUV was successfully recovered at 15:15.

The benthic BRUV was deployed again at 15:45 (station SB061) and two more grab stations were visited before returning to the location. The marker buoy was easily located but unfortunately, the BRUV was not successfully recovered. The most likely reason for this is that the BRUV had become snagged on the seabed (the area of deployment was likely rockier than the existing habitat map suggests) and the extra strain on the links of dynema line caused a knot to pull through.

An attempt was made to grapple the BRUV, which did bind up the next link of dynema line attached to the BURV, but again the strain on the line caused the second knot to pull through. The last known location of the BRUV is 56° 22.473' N, 008° 07.496' W.

At 19:00 day grab sampling resumed and continued until midnight.

By the end of the day 30 Day grab samples had been collected, five drop camera stations had been successfully sampled, and one benthic BRUV deployment had been completed

## 4.8 Wednesday 2 October

Grab sampling continued until 01:00 however only one station was visited and after three attempts, a good sample was not acquired. After this multibeam operations began to address survey priority 11. Firstly, multibeam calibrations were required and this was followed immediately by a multibeam survey to fill in data gaps at 03:20.

Multibeam operations continued for the whole day, except for two short deviations from the multibeam lines to deploy a pelagic BRUV, and then to return and recover it. The BRUV was deployed at 13:45 and recovered at 16:15.

By the end of the day approximately 36 km<sup>2</sup> of multibeam had been collected to address survey priority 11, and one pelagic BRUV had been successfully deployed to address survey priority 7.

## 4.9 Thursday 3 October

Once the multibeam was completed at 01:30, drop camera sampling to ground truth rocky areas of Stanton Banks began. By 07:30, six drop camera stations had been visited. Of these, two metaprobes (one with mesh and one without) had been attached to the drop frame for four deployments.

Some grab stations had been identified as good sites to revisit and increase the number of replicates for survey priority 3. Twelve stations were identified and by 13:30, four samples had been collected. At this time the weather had deteriorated to the point that it was no longer possible to use the Day grab. Three Niskin water bottle samples were collected and a metaprobe was deployed as the transit to Coll and Tiree began.

At 15:30 the metaprobe was recovered and transit continued.

At 19:00, work started again to address survey priority 9. two metaprobe transects were run along the sheltered north side of Coll and Tiree. Three more Niskin water bottle samples were collected at the start of each transect. This was completed by 22:20 and the rest of the day was spent waiting on the weather.

By midnight six drop camera tows had been completed to address survey priority 4, four tows including metaprobes were completed to address survey priority 5, four Day grab samples had been collected to address survey priority 3, nine water samples and three metaprobe transects had been collected to address survey priority 9.

Survey priorities 3, 5, and 11 had now been completed. However, they may be opportunities to contribute further to these activities later in the survey.

#### **4.10 Friday 4 October**

After discussing options and the weather forecast with the captain and JNCC scientists, a decision was made to transit south to the contingency site of South Rigg MCZ, in the Irish Sea. Based on the current weather forecast this is the area that provides most opportunity to collect data over the next week.

At 12:30 RV *Corystes* left Coll and Tiree and began transit towards the Irish Sea. A sheltered route through the Sound of Mull, Sound of Islay, and along the Kintyre Peninsula was chosen.

On route Niskin water bottle samples and eDNA metaprobe tows were collected wherever possible to address survey priority 9.

One of these eDNA metaprobe tows coincided with marine mammal observations.

By midnight nine water samples, and three metaprobe tows had been collected.

RV *Corystes* waited north of the Sound of Islay, ready to transit through at 08:00 on the 05/10/2024.

#### **4.11 Saturday 5 October**

At 08:00, when the tide direction had changed, RV *Corystes* began transit through the Sound of Islay. Transit continued all day, water samples and metaprobe deployments were completed where possible. By midnight the vessel had reached South Rigg MPA, although weather conditions had not yet improved enough to start work.

By midnight nine water samples, and three metaprobe tows had been collected.

#### **4.12 Sunday 6 October**

Weather conditions improved through the early hours of the morning and at 08:15 Day grab sampling started at South Rigg. This was successful and apart from one hour of weather downtime between 13:00 and 14:00 when work stopped due to swell causing the grab to repeatedly misfire, Day grab sampling continued until midnight.

By midnight 16 Day grab stations had been successfully sampled at the South Rigg study site. This was to address survey priority 12, however as these samples are mostly from deep circalittoral mud habitats, they can be used to address mNCEA objectives as well.

### 4.13 Monday 7 October

Day grab sampling continued until 04:30, when all day grab stations had been visited. At this time operations switched to camera sledge sampling, with some sledge deployments also having metaprobes attached. This continued all day apart from four periods when BRUVs were deployed and recovered.

Between 08:00 and 09:00 camera sledge sampling stopped while RV *Corystes* transited to station SR032 to deploy a pelagic BRUV. Camera sledge sampling resumed after this but stopped again between 10:00 and 11:00, when the pelagic BRUV was recovered.

Between 15:00 and 16:00 camera sledge sampling stopped while RV *Corystes* transited to station SR024 to deploy a benthic BRUV. Camera sledge sampling resumed after this but stopped again between 17:30 and 18:30, when the benthic BRUV was recovered.

After this camera sledge sampling continued until midnight.

By midnight seven Day grab stations (survey priority 12), 16 camera sledge stations (survey priority 12), six with metaprobes attached (survey priority 5), one pelagic BRUV station (survey priority 7), and one benthic BRUV station (survey priority 6) had been successfully sampled at the South Rigg study site. Wednesday 9 October

### 4.14 Tuesday 8 October

Camera sledge sampling continued until 07:00, at which point seven camera stations had been sampled. At this time RV *Corystes* transited to the start of the first marine mammal observation transect and began sampling at 08:00. The marine mammal observation transects are all nearby South Rigg and within the North Channel Harbour Porpoise SAC. Three metaprobe deployments, each preceded by three Niskin water bottle samples, were completed concurrently with the marine mammal observation transects.

By 15:00 the wind and waves had built up to a point that it was no longer suitable to continue marine mammal observations, or any other survey work. RV *Corystes* transited to Newcastle Bay to wait out the bad weather.

By midnight seven camera stations had been sampled to address survey priority 12, five marine mammal observation transects (16 km each) had been sampled to address survey priority 8, three metaprobe transects and 9 Niskin water samples had been collected to address survey priority 9.

### 4.15 Wednesday 9 October

Weather downtime continued for the whole day. RV *Corystes* remained in the sheltered location of Newcastle Bay. The time was used to take inventory of the samples that have been collected and pack away survey equipment that is no longer in use, ready for demobilisation on 11/10/2024.

### 4.16 Thursday 10 October

RV *Corystes* left Newcastle Bay at 02:45 and began transit back to South Rigg.

RV *Corystes* arrived at the study site at 06:30 and camera sledge sampling continued for the rest of the day, only stopping after station SR007 to collect a Day grab sample that had been missed due to poor weather on a previous day.

At 23:00 RV *Corystes* began transit back to Belfast Dock.

By midnight 20 camera sledge stations had been sampled and one Day grab had been collected.

#### **4.17 Friday 11 October**

RV *Corystes* arrived in Belfast Dock and tied up to the quayside for 08:00.

Demobilisation started. The eDNA samples for survey priority 5 and 9 were transported to AFBI Headquarters (Newforge Lane Belfast), where they will be temporarily stored until they can be collected by couriers and sent to the relevant analysis laboratories.

At 12:00 the infauna and PSA samples (for survey priorities 1, 3 and 12) were collected by a courier for delivery to the analysis laboratory.

All electronic data (imagery, multibeam, thermosalinographs, digitised deck sheets, and associated metadata) were backed up, ready to be transferred onto the JNCC network.

By 12:30 demobilisation was complete and all JNCC staff had departed from the vessel, bringing the survey to a close.

## 5 Data acquired

This section is an account of the quantity and type of samples collected at each of the study sites visited during the survey. Marine mammal operations and samples collected for marine mammal eDNA are summarised separately as these samples were collected across all sites and on transits in between sites.

A summary of samples collected to address each survey objective is provided in Table 2.

**Table 2.** Prioritised survey activities, the planned samples, and the completed samples collected during COR0924.

Survey Priority	Survey Activity	Equipment	Planned samples	Completed samples
1	Infauna and PSA samples from stations in deep circalittoral mud at St Kilda	Day grab	84	8 Day grabs at St Kilda (with 4 additional PSA only samples)
2	Video and still imagery from stations in deep circalittoral mud	Camera sled/ Drop camera	44	11 CS at St Kilda 5 DC at Stanton Banks (mud) See also camera sledge tows collected for survey priority 12
3	Infauna and PSA samples from stations in other habitats	Day grab	58	58 Day grabs at Stanton Banks (with 6 additional PSA only samples) See also Day grab samples collected for survey priority 12
4	Video and still imagery from stations in other habitats	Drop camera	31	9 DC at Stanton Banks (rock & sand)
5	eDNA metaprobes attached to camera sled	Camera sled, meta probe,	12	18
6	Benthic BRUV deployment across different habitats with temperature loggers attached	BRUV, temp loggers	2 (max. 5)	2
7	Pelagic BRUV deployment with temperature loggers attached	BRUV, temp loggers	2 (max. 5)	2

Survey Priority	Survey Activity	Equipment	Planned samples	Completed samples
8	Marine mammal observation	n/a	n/a	5 x 16 km transects in the North Channel Harbour Porpoise SAC
9	Marine mammal eDNA	Metaprobes and Niskin bottles	15 towed metaprobes 45 water samples	15 towed metaprobes 45 water samples
10	Marine mammal thermal Imaging	Thermal cameras	n/a	Installed and recording since start of survey
11	Sea bathymetry mapping	Multibeam / Sidescan	n/a	45 km <sup>2</sup>
12	Irish contingency sampling	Camera sledge / Day grab	n/a	34 Day grabs at South Rigg (infauna and PSA) 45 camera sledge tows at South Rigg

## 5.1 St Kilda

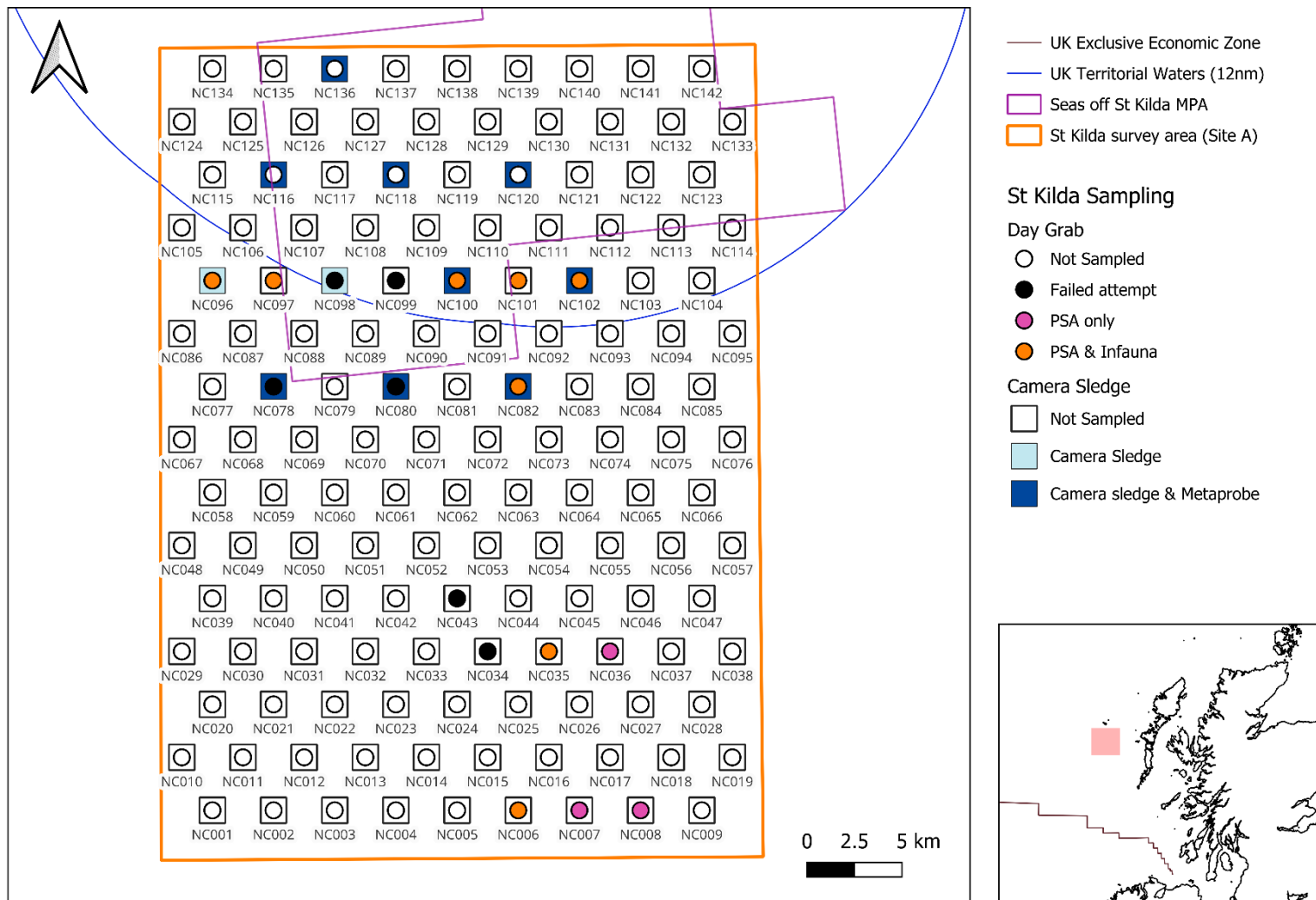
The St Kilda study site was sampled using:

- Day grab for infauna and PSA samples.
- Camera sledge for seabed video and stills samples.
- Sledge mounted metaprobes to sample near seabed eDNA.
- Niskin water bottle samples for marine mammal eDNA.
- Towed meta probes for marine mammal eDNA.

Infauna and PSA samples were collected using a Day grab from eight stations and PSA samples only were collected from stations (Figure 2). However, due to the swell conditions experienced at the site, all of these were from grab samples containing less than 5 L of sediment.

Camera sledge tows were completed at 11 stations. Of these 11 tows, nine were mounted with two metaprobes (one with mesh covering and one without), one was mounted with 10 mesh covered metaprobes, and one was mounted with 10 metaprobes without mesh (Figure 2).

On departing St Kilda, three Niskin water samples were collected and a metaprobe was deployed (see Section 5.4: Marine Mammal observation and eDNA data (multiple sites)).



© JNCC 2026  
 Projection: WGS 84/UTM zone 29N (EPSG:32629)

Figure 2. Map of Day grab and camera sledge samples collected at the St Kilda survey area.

## 5.2 Stanton Banks SAC

The Stanton Banks study site was sampled using:

- Day grab for infauna and PSA samples.
- Drop frame camera for seabed video and stills samples.
- Drop frame mounted metaprobes to sample near seabed eDNA.
- Benthic BRUV for stereo video of fish communities.
- Pelagic BRUV for stereo video of fish communities.
- Multibeam for bathymetry and backscatter.
- Niskin water bottle samples for marine mammal eDNA.
- Towed meta probes for marine mammal eDNA.

Infauna and PSA samples were collected using a Day grab from 58 stations and PSA only was collected from six stations (Figure 3).

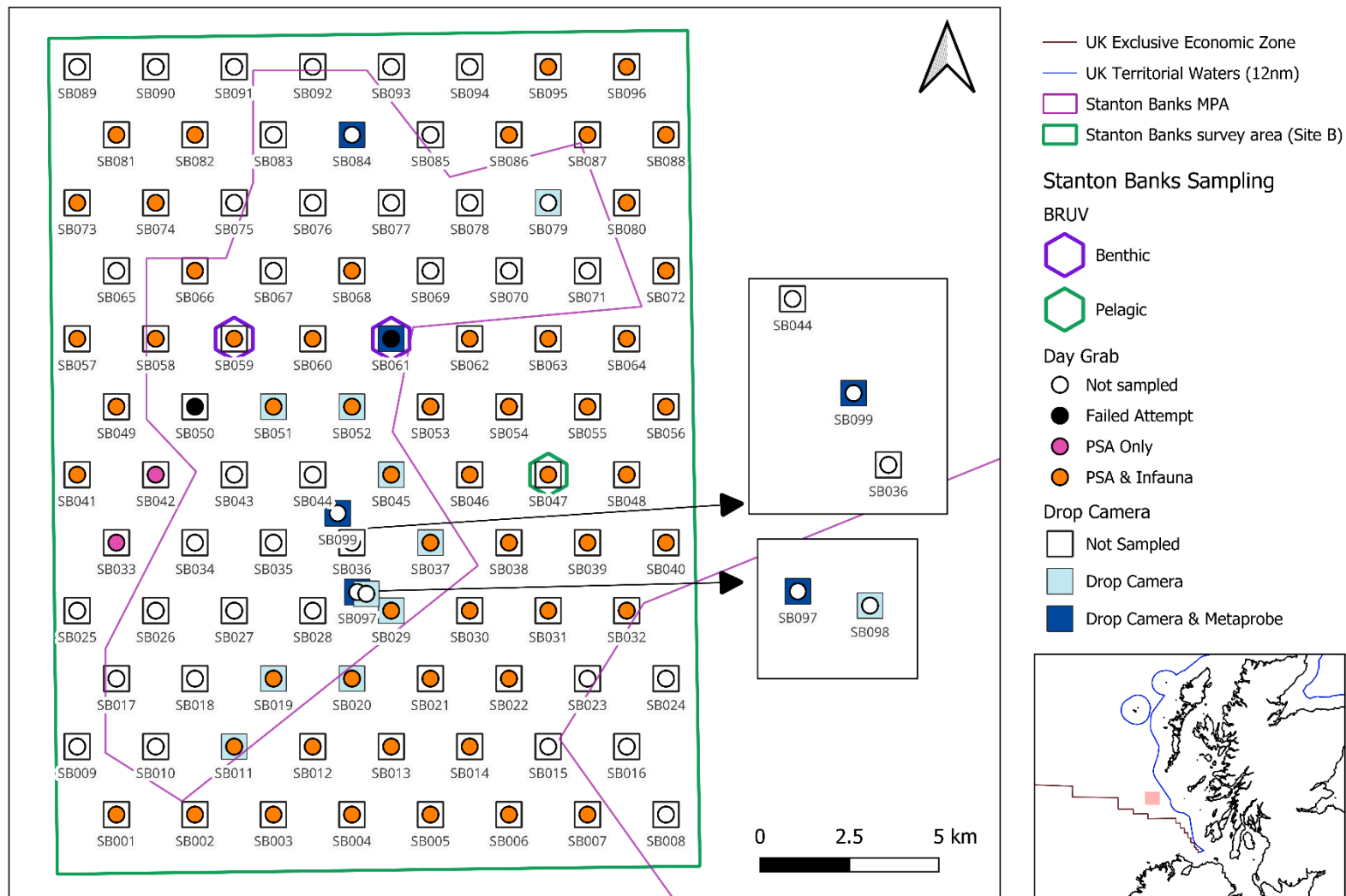
Drop frame camera tows were completed at 14 stations. Of these, three were mounted with two metaprobes (one with mesh covering and one without).

Eleven of the camera stations were part of the triangular grid of stations that had been pre-planned at Stanton Banks. The other three camera stations (SB097, SB098, and SB099) were chosen based on the newly acquired multibeam data to ground truth the rocky areas of seabed (Figure 3).

BRUV samples were successfully collected from two stations. A benthic BRUV was used to sample SB059 and a pelagic BRUV was used to sample SB047. A benthic BRUV was also lost at SB061

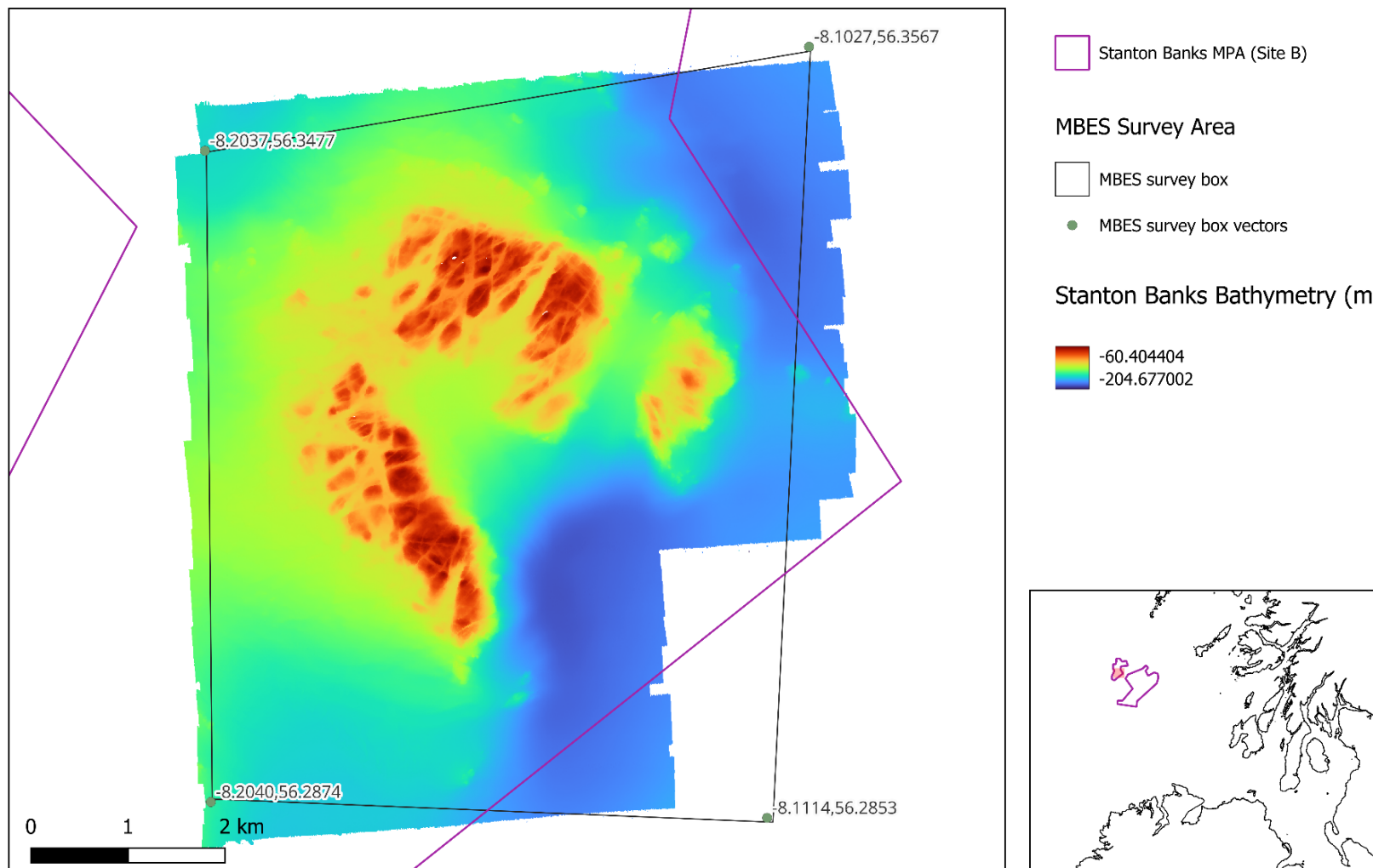
Approximately 45 km<sup>2</sup> of multibeam bathymetry and backscatter was acquired from a previously un-surveyed area of Stanton Banks MCZ (Figure 4).

On departing Stanton Banks three Niskin water samples were collected and a metaprobe was deployed (see section: Marine Mammal observation and eDNA data (multiple sites)).



© JNCC 2026  
 Projection: WGS 84/UTM zone 29N (EPSG:32629)

**Figure 3.** Map of Day grab, drop camera, and BRUV samples collected at the Stanton Banks study area.



© JNCC 2026  
 Projection: WGS84/UTM zone 29N (EPSG: 32629)  
 Coastline © GSHHG 2.2.2

**Figure 4.** Area of multibeam bathymetry and backscatter data collected at the Stanton Banks study site.

### 5.3 South Rigg MCZ

The South Rigg study site was sampled using:

- Day grab for infauna and PSA samples.
- Camera sledge for seabed video and stills samples.
- Sledge mounted metaprobes to sample near seabed eDNA.
- Benthic BRUV for stereo video of fish communities.
- Pelagic BRUV for stereo video of fish communities.
- Niskin water bottle samples for marine mammal eDNA.
- Towed meta probes for marine mammal eDNA.

Infauna and PSA samples were collected using a Day grab from 34 stations (Figure 5).

Camera sledge tows were completed at 45 stations. Of these 45 tows, 9 were mounted with two metaprobes (one with mesh covering and one without) (Figure 5).

BRUV samples were collected from two stations. A benthic BRUV was used to sample SR032 and a pelagic BRUV was used to sample SR024 (Figure 5).

Niskin water bottle samples and eDNA metaprobes deployed to sample marine mammal eDNA, coincide with the South Rigg study site (see section: Marine Mammal observation and eDNA data (multiple sites)).

### 5.4 Marine mammal observation and eDNA data (multiple sites)

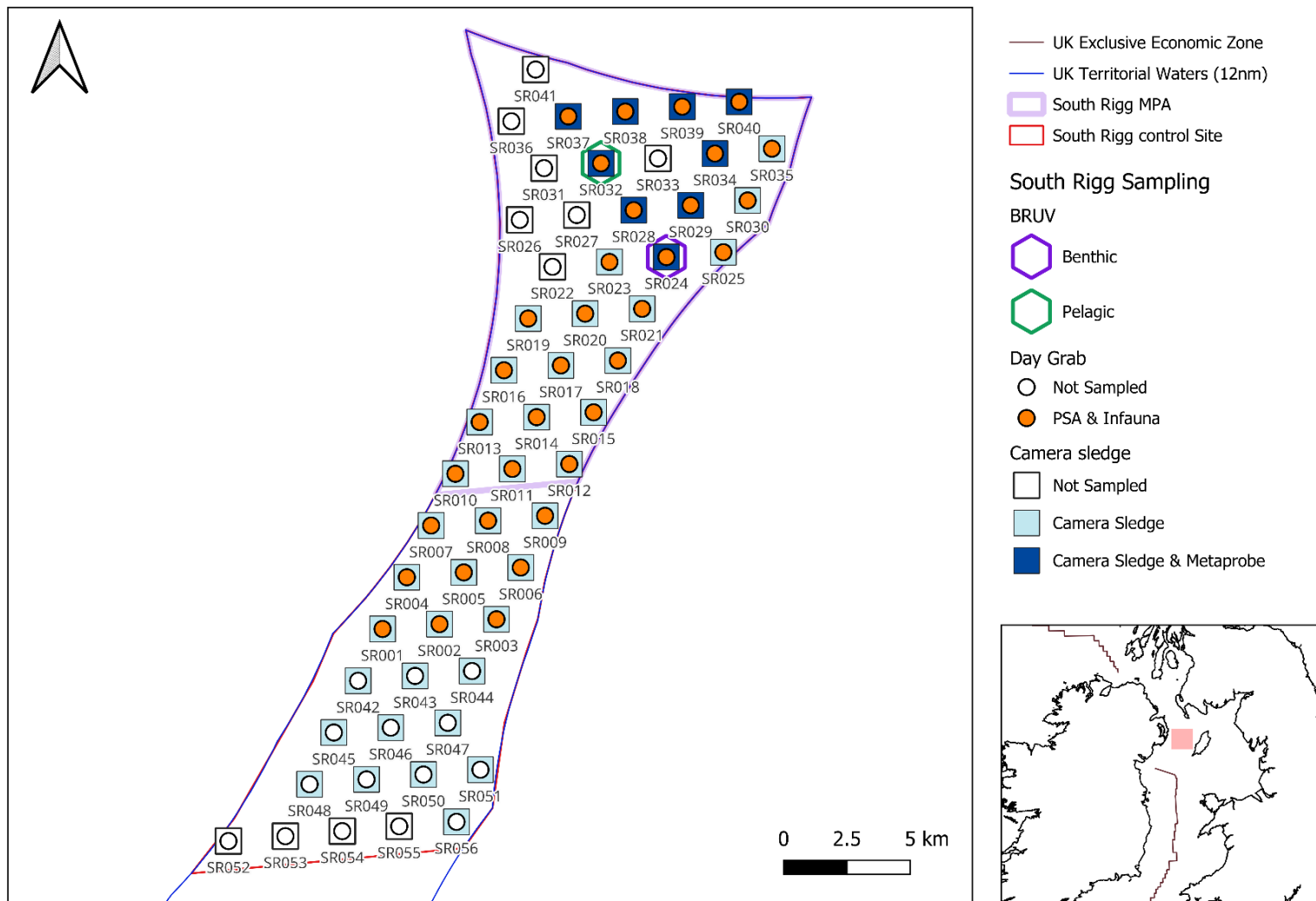
Marine Mammal eDNA sampling events were collected across all study sites and on transits between study sites, through the Inner Hebrides. Three Niskin water samples were collected at the start of each of the 15 towed metaprobe transects is shown in Figure 6. A thermosalinograph was continuously recording data using the RV *Corystes* Ferry box throughout the survey.

In some cases, eDNA sampling coincided with marine mammal observation transects.

A marine mammal observation transect was completed at the same time as a towed metaprobe transect on the 04/10/2024, as RV *Corystes* transited through the Sound of Mull.

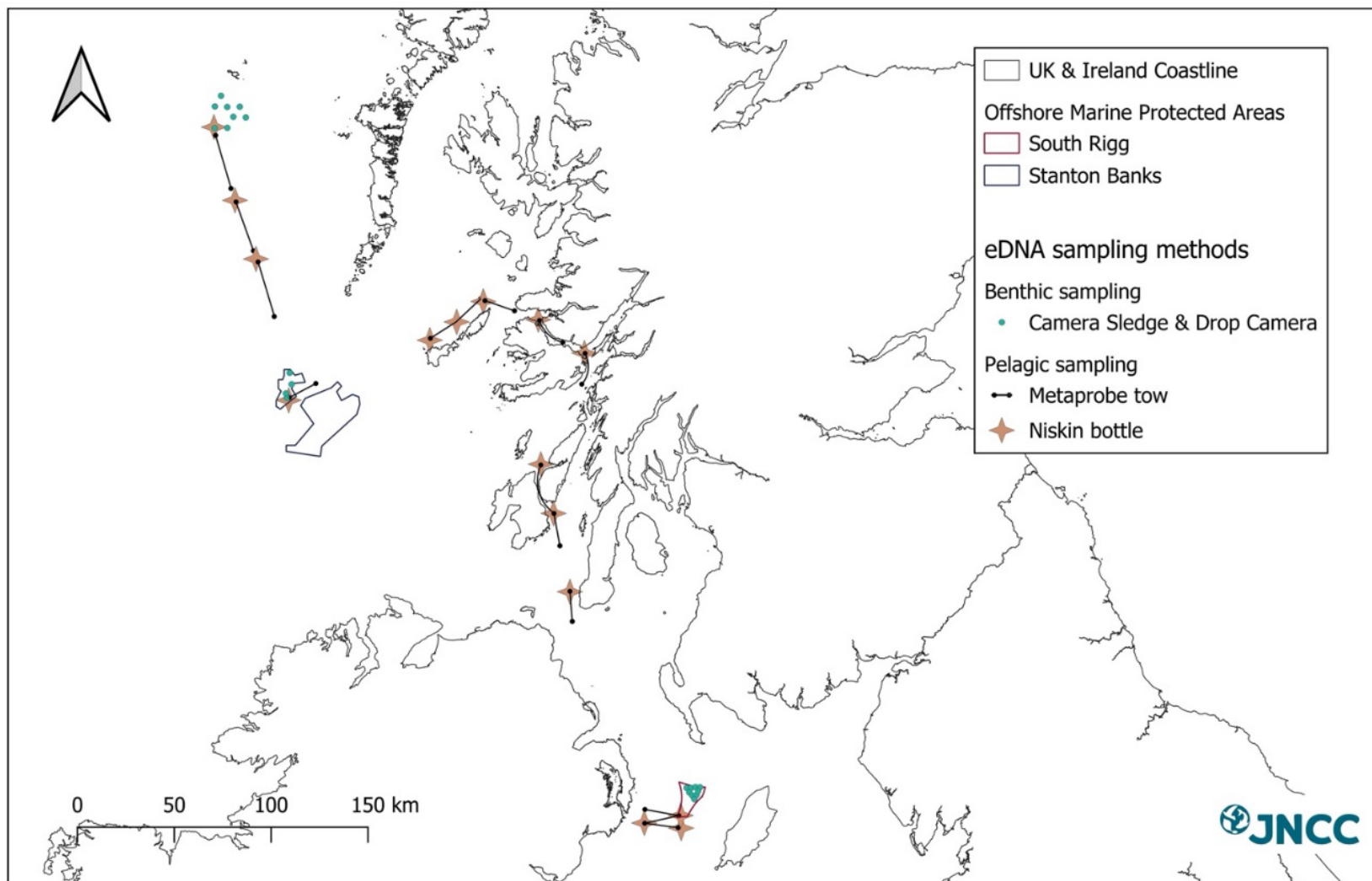
A further five marine mammal observation transects were completed inside the North Channel Harbour Porpoise SAC on 08/10/2024. Of these, three coincided with towed metaprobe transects (Figure 7).

The thermal imaging cameras were continuously recording data throughout the survey which will be reviewed against observer records to consider potential for future application as a complimentary monitoring tool.



© JNCC 2026  
 Projection: WGS 84/UTM zone 29N (EPSG:32629)

**Figure 5.** Day grab, Camera sledge and BRUV samples collected at the South Rigg study site.



@JNCC 2025 Not to be used for navigation.

**Figure 6.** Map of eDNA sampling locations, showing transects for metaprobe tows and sample collection points for Niskin bottle deployments.

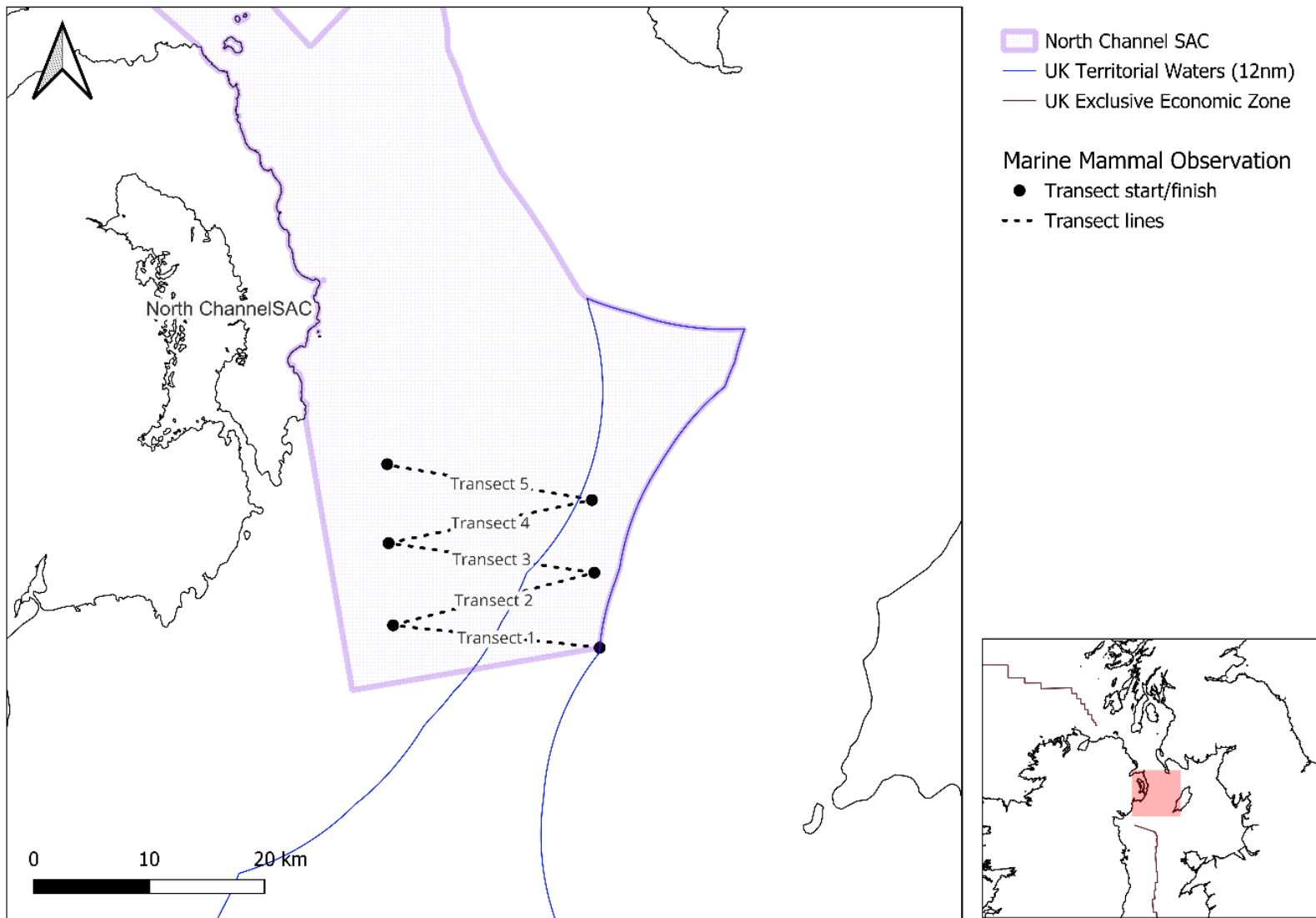


Figure 7. Marine mammal observation transects sampled on 08/10/2024.

## 6 Methods and equipment used

This section describes the survey equipment and how it was used to collect samples during COR0924.

### 6.1 Day grab

A single 0.1 m<sup>2</sup> Day grab (Figure 8) was collected from each survey station, following guidance in Section 7.2 of the monitoring guidance for marine benthic habitats. Up to three attempts, where the grab fired correctly, were made at each station. If a successful grab was not acquired after three attempts, the station was abandoned. Each grab was used to collect an infauna sample and a sediment sub-sample for Particle Size Analysis (PSA).

#### 6.1.1 PSA sub-sample

NMBAQC guidelines were followed for acquiring a PSA sub-sample. It should be noted that separate grabs for PSA and infauna were not collected. Once the grab was recovered the viewing door was opened, a visual sediment description was recorded, and a photograph of the sediment surface within the grab was taken. The depth of the sediment in the grab was measured with a stainless-steel ruler and rejected if less than 5 cm. Samples suffering from washout or unequal bite were also rejected.

To collect the sub-sample, a scoop was inserted vertically into the sediment as far as the grab base and rotated to create a core-like plug. A minimum of 100 ml of sediment was retained for the sub-sample. Any large/conspicuous (> 2 cm) live marine fauna were removed from the PSA sub sample, but shell debris were left. All PSA sample containers were labelled internally and externally. The samples were stored in a freezer.

#### 6.1.2 Infauna sample

The grab was emptied and washed into a fish box with seawater and a photograph was taken. The volume of the sample was measured and recorded to the nearest 0.5 L. A minimum size of 4 L was preferred, however the sample with the greatest volume was kept if a 4 L sample was not acquired after three attempts.

The infauna sample was passed through a 1 mm sieve. A photograph was taken of everything retained on the sieve. The sieve was then decanted into a sample pot, the mesh picked through with forceps, and the sample fixed in buffered 4% Formaldehyde solution. All sample pots were labelled internally and externally.



**Figure 8.** 0.1 m<sup>2</sup> Day grab used on the COR0924 mNCEA survey. Chain was added for extra weight in absence of lead.

## 6.2 Towed Camera systems

A camera sledge frame and drop frame camera were used on COR0924. Both frames were mounted with the same camera system and ~24 hours were required to swap camera systems between the two frames.

For both camera frames, video and still imagery was recorded using a Cathx R300 camera, with the image illuminated using 4 lamps, and scaling provided by two red point lasers. Lense: F2.0, 17.2 mm.

Video was recorded at 30 fps in a .avi format. Five JPEG screenshots were collected from the video feed every second.

### 6.2.1 Camera Sledge

The Cathx R300 camera was mounted on the sledge frame (Figure 9) at a 45 degree angle with the centre of the lens at a height of 750 mm, when measured from the deck.

Lasers were set at 862 mm to create a “gate” that can be used to more accurately record densities of objects that pass between the laser points.

The camera sledge was deployed from the stern of RV *Corystes* and towed along the seabed at a target speed of 0.8–1 knot for 15 minutes. A USBL positioning system was used to record an accurate position of the sledge.

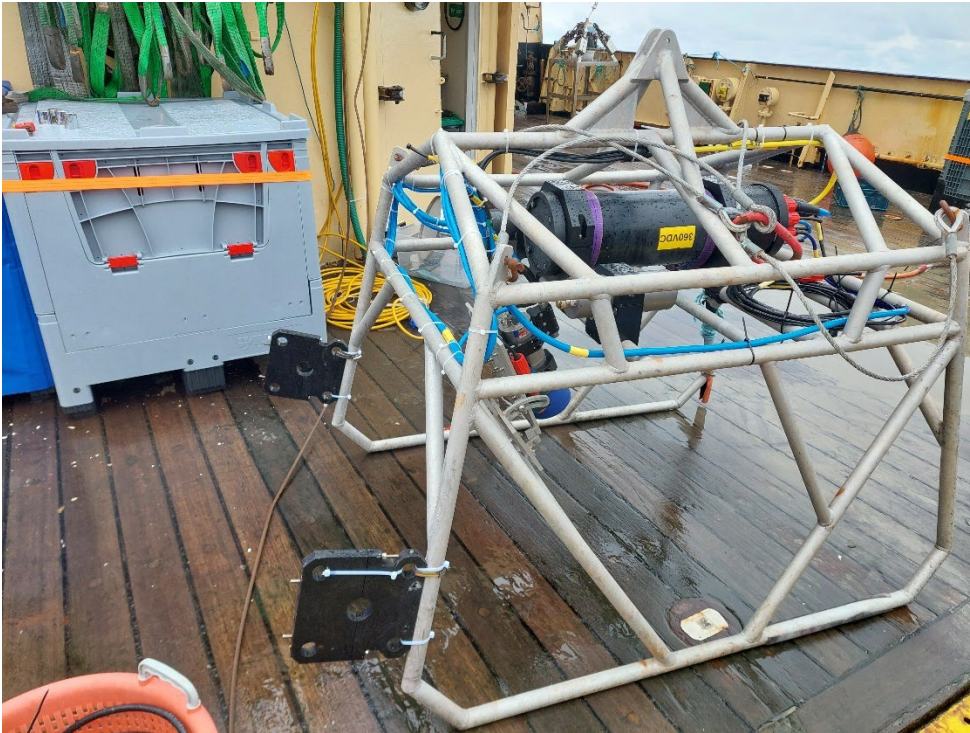


**Figure 9.** Camera sledge frame used on COR0924 mNCEA survey.

### 6.2.2 Drop frame camera

The Cathx R300 camera was mounted on the drop frame (Figure 10) at a 65.5 degree angle with the centre of the lens at a height of 465 mm, when measured from the deck. Lasers were set at 200 mm.

The drop frame camera was deployed from the side of RV *Corystes* and towed along the seabed at a target speed of 0.8–1 knot for 15 minutes. No USBL positioning was available for the drop frame, and the position of the camera is assumed to be closer to the position of the vessel for the deployment of this equipment.



**Figure 10.** Drop Camera frame used on COR0924 mNCEA survey.

### **6.3 Baited Remote Underwater Video (BRUV)**

Two types of stereo BRUV were used during the survey, a benthic BRUV (Figure 11), and a pelagic BRUV (Figure 12).



**Figure 11.** Benthic BRUV used in COR0924 mNCEA Survey.



**Figure 12.** Pelagic BRUV used in COR0924 mNCEA Survey.

Both systems were designed by Fjordstrong and consisted of a bar mounted with two GoPro and two lamp housings and had previously been calibrated by Fjordstrong in order that accurate measurements could be taken from the stereo imagery. Both systems also had an attachment for a bait canister which was filled with approximately 1.5 kg of roughly chopped mackerel. For the benthic BRUV the bar is mounted on a frame designed to sit on the seabed. For the pelagic BRUV the bar was mounted on a lightweight frame that is designed to be suspended in the water column (as a target depth of 20 m for this survey).

GoPro Hero 9 cameras were used for this survey. The camera settings used are shown in Table 3.

**Table 3.** Table detailing recommended camera settings. Taken from Fjordstrong BRUV deployment guide.

Setting	Value
Resolution	1,440
Aspect Ratio	4:3
FPS	30
Lens	Wide
HyperSmooth	Off
Zoom	1.0x
Bit Rate	Standard
Shutter	Auto

Setting	Value
EV Comp	0
White Balance	4,500K
ISO Min	100
ISO Max	1,600
Sharpness	High
Colour	GoPro
RAW Audio	Off
Wind Reduction	Off

### 6.3.1 Deployment

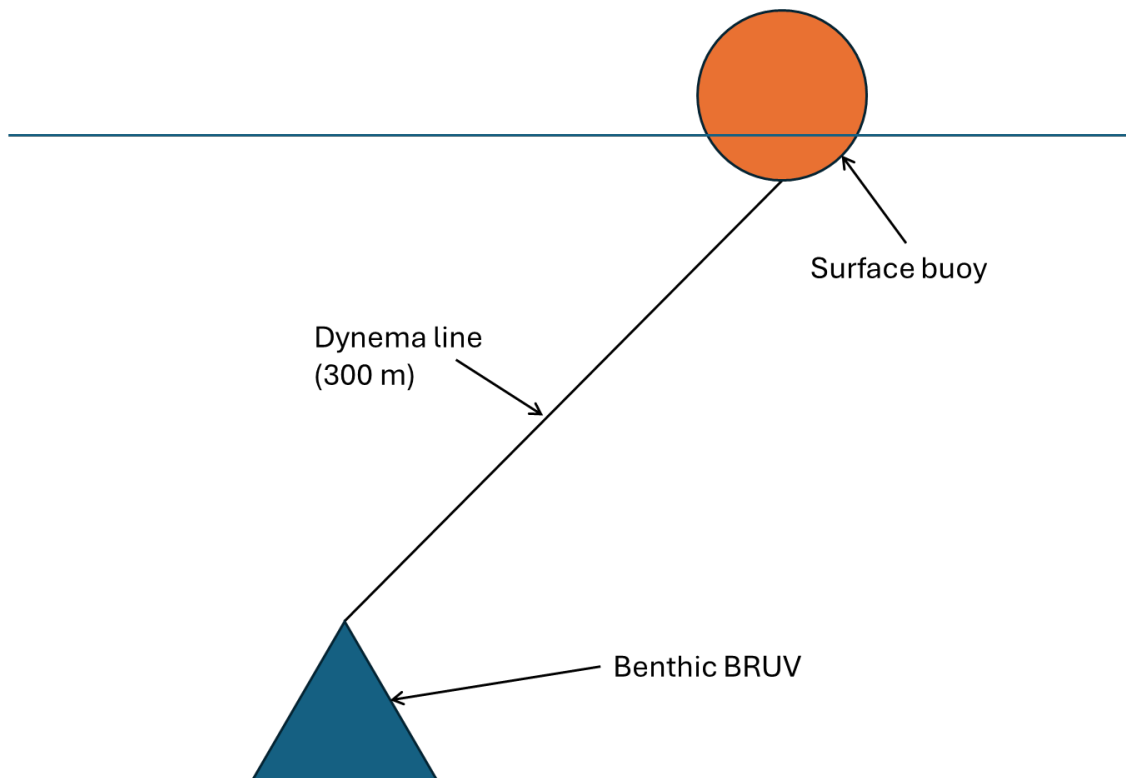
The Fjordstong SOP was adapted for use on the RV *Corystes*.

Three 100 m lengths of dynema were linked together by splicing an eye into the end of each line and attaching it to a shackle. The resulting 300 m of dynema line were spooled onto a winch drum.

Before a benthic BRUV was lost on 01/10/2024, the dynema had been linked together using a bowline knot (as specified in the SOP). However, after the loss of the BRUV, practices were reviewed and the decision was made to splice an eye into the end of each length of dynema.

For future deployments, this could be improved by splicing a thimble into the eye to reduce rubbing between the shackle and dynema.

For benthic deployments in water depths of around 150 m, the benthic BRUV was shackled to the end of the dynema line and lowered to the seabed using a winch. The remaining line was paid out, and a surface buoy was attached for easier location and recovery of the BRUV (Figure 13).

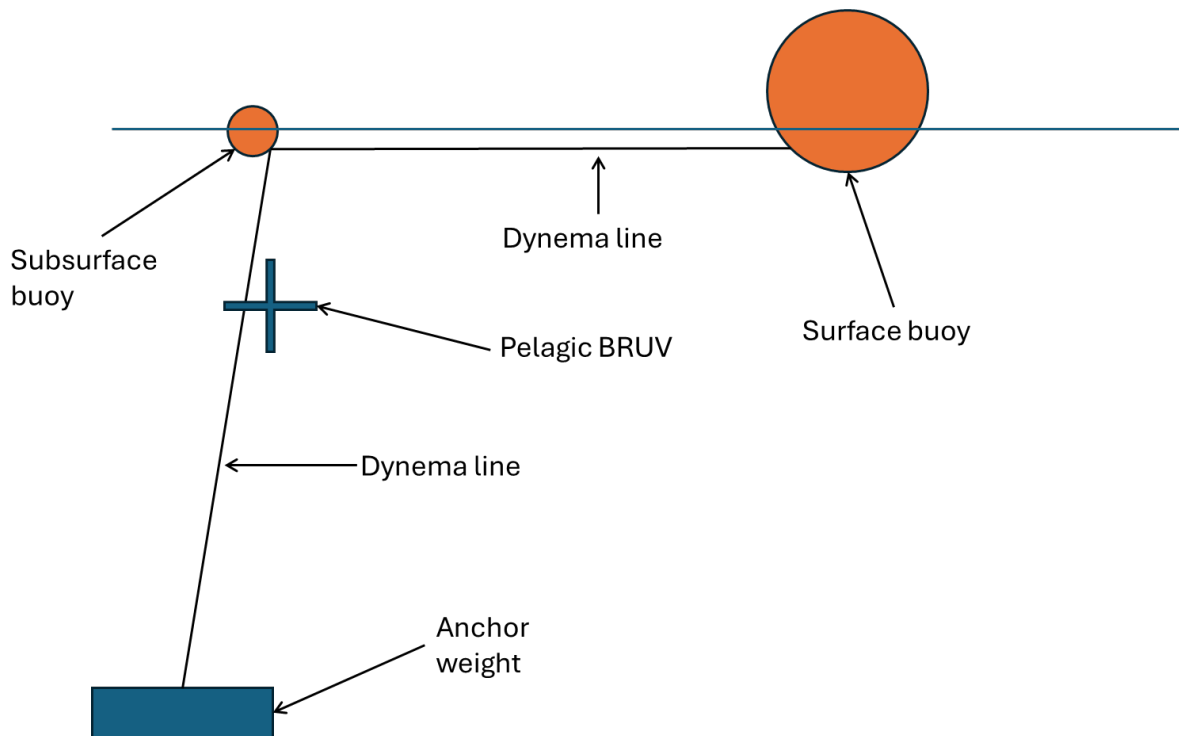


**Figure 13.** Diagram of Benthic BRUV deployment in approximately 150 m of water.

For pelagic deployments, the aim was to have the BRUV suspended approximately 20 m below the surface.

To achieve this, a loop was tied into the second length of dynema every 20 m. this resulted in a loop at 120 m, 140 m, 160 m, and 180 m. 45 kg of chain was used as an anchor weight then the pelagic BRUV was clipped into a loop approximately 20 m shallower than the water depth. 20 m of line above the BRUV, the next loop had a 4 L sub surface buoy clipped in. The remainder of the line was paid out, and a surface buoy was attached for easier location and recovery of the BRUV (Figure 14).

For example, station SR032\_S154 was in 140 m of water. The BRUV was clipped into the loop at 120 m, and the sub surface buoy was clipped into the loop at 140 m.



**Figure 14.** Diagram of Pelagic BRUV deployment.

This method can be improved upon. At station COR0924\_SR\_SR032\_S154\_A1, the video recorded by the pelagic BRUV shows that it sank to the seabed before slowly floating up. This was possibly due to strong currents pinning the BRUV and sub surface buoy to the seabed while the line was still being paid out. Once the surface float was attached, and pushed by the wind, it straightened the line out and lifted the BRUV off the seabed. It is not possible to know at what depth the BRUV was during the deployment. One way to improve this process would be to experiment with greater capacity sub surface buoys, and to attach a depth logger to the pelagic BRUV so that the actual deployment depth can be recorded. Shorter links of dynema may also be useful so that the total amount of line used can be more easily adjusted.

### 6.3.2 Recovery

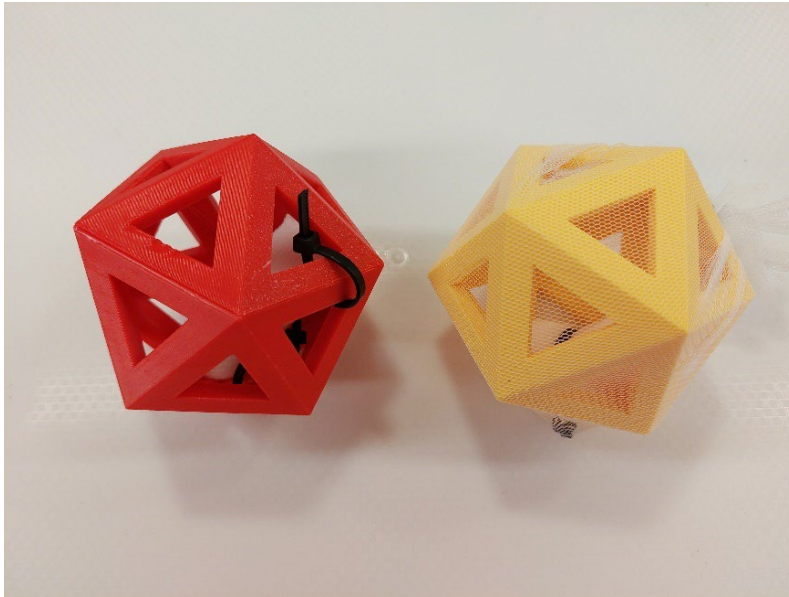
Recovery of the BRUV was similar for both types of deployment, RV *Corystes* backed up to the buoy, and it was grappled from the aft of the vessel, the winch was connected and the buoy removed. The BRUV was then winched in. As RV *Corystes* needed to reverse into the wind for this manoeuvre, it was important to consider wind speeds before deploying the BRUV as adverse weather conditions would make recovery difficult.

## 6.4 eDNA sampling

Three environmental DNA (eDNA) sampling methods were used during the survey in various sampling locations (Figure 6). The use of metaprobes (perforated spheres filled with gauze rolls) were tested offshore by attaching the metaprobes to the camera sledge and drop camera during camera tows. For a collaborative project with Natural England, eDNA was also collected by towing metaprobes behind the vessel and collecting water samples from Niskin bottles primarily to detect marine mammals.

### 6.4.1 Near seabed metaprobes

Fifty-eight metaprobes were attached to the camera sledge and drop camera in total. This included 34 metaprobes attached to the camera sledge in deployments at Site A (south of St Kilda), 16 metaprobes attached to the camera sledge at South Rigg MPA, and eight metaprobes attached to the drop camera at Site B (Stanton Banks MPA). The cameras were towed for approximately 30 minutes (15 minutes for towing plus time for descent and ascent) at a speed of 0.7–1.2 knots over a distance of several hundred metres. Half of the metaprobes were deployed with mesh wrapped around each one to determine whether mesh could reduce the metaprobes clogging with sediment and affecting results (Figure 15). Each piece of gauze was then stored in 50 ml of 99% ethanol in a freezer.



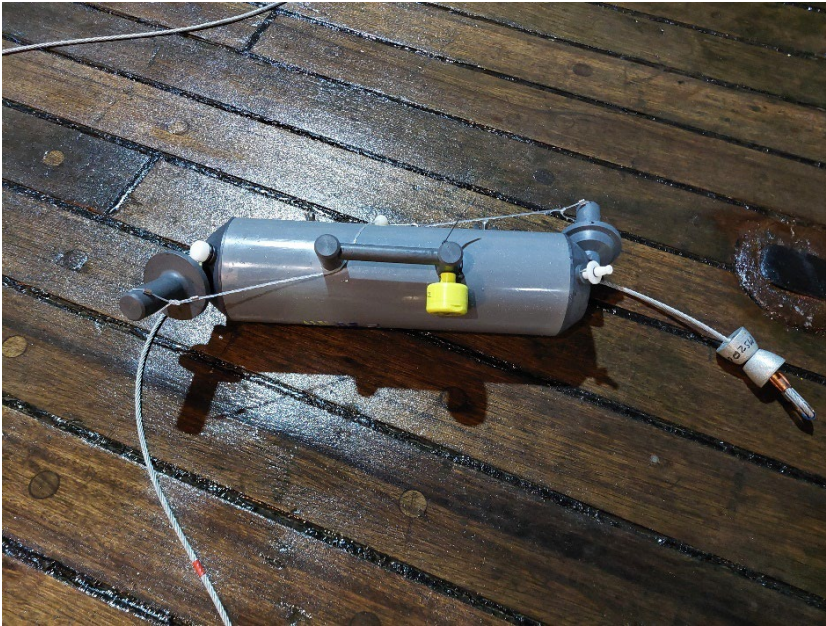
**Figure 15.** Near seabed metaprobes, without mesh (left) with mesh (right).

### 6.4.2 Marine mammal metaprobes

For the collaborative project with Natural England, 15 metaprobes were towed for a minimum of 8 km (1–2 hours) at a speed of approximately 9 knots. Initial tows were for 2 hours as per the original protocol. However, this was amended to a minimum of 8 km, approximately 1 hour, to allow greater chance of collecting the required number of samples. Each piece of gauze hosted within the metaprobe was then stored in 50 ml of 99% ethanol in a cool box.

### 6.4.3 Niskin water bottle samples

Niskin bottles (Figure 16) were used to collect approximately 4.5 litres of water in 15 locations, with three replicates per station (i.e. 45 samples in total, plus controls). The water was filtered through 0.45 µm Sterivex filters and preserved with 1.2–1.5 ml of DNA/RNA.



**Figure 16.** Niskin bottle used to collect water samples for eDNA analysis.

## 6.5 Marine mammal observations

The survey provided an opportunity to trial a new method of operating marine mammal distance sampling, integrated into a multidisciplinary survey. Scientists on board were of mixed specialisms; therefore, it was necessary to be adaptable and consider ways to ensure staff were able to deliver on all aspects of the planned sampling. Training on distance sampling protocol was provided to all relevant staff in advance of the survey, with additional training on board. Science staff were then rotated across three survey roles to carry out marine mammal distance sampling observer survey transects, developing experience further ‘on the job’.

Marine mammal distance sampling is a widely applied technique to enable estimates of absolute abundance. It has three key assumptions:

- Objects on the line or point are detected with certainty.
- Objects are detected at their initial location.
- Measurements are exact.

The aim was to carry out three days of marine mammal transects, alongside other trials of marine mammal data collection noted in this report. The primary target area was the data-poor shelf edge near St Kilda. However, due to weather and Ministry of Defence operations, we had to relocate further south therefore the transects were completed during transit and in the Irish Sea. Further operational impacts resulted in a one-day window for the dedicated transects, coinciding with poor weather conditions which were not forecasted: sea state 6–7 and heavy rain. This was sub-optimal to collect good quality data, however, for the purposes of the multidisciplinary trials, it was still a positive outcome in terms of understanding how this could be integrated onto a similar platform in future.

The survey teams were made up of three science staff, rotating across port side observer (Figure 17), starboard side observer, and a recorder. These roles were rotated every half an hour, with both observers covering a 100-degree forward-facing search area. The recorder noted down effort and sightings information. The data collected during observer effort was

provided alongside the SVDS (see below) to support validation and review of the SVDS capabilities.



**Figure 17.** Survey scientist conducting marine mammal observations from the port side of the bridge deck.

## 6.6 Thermal imaging cameras

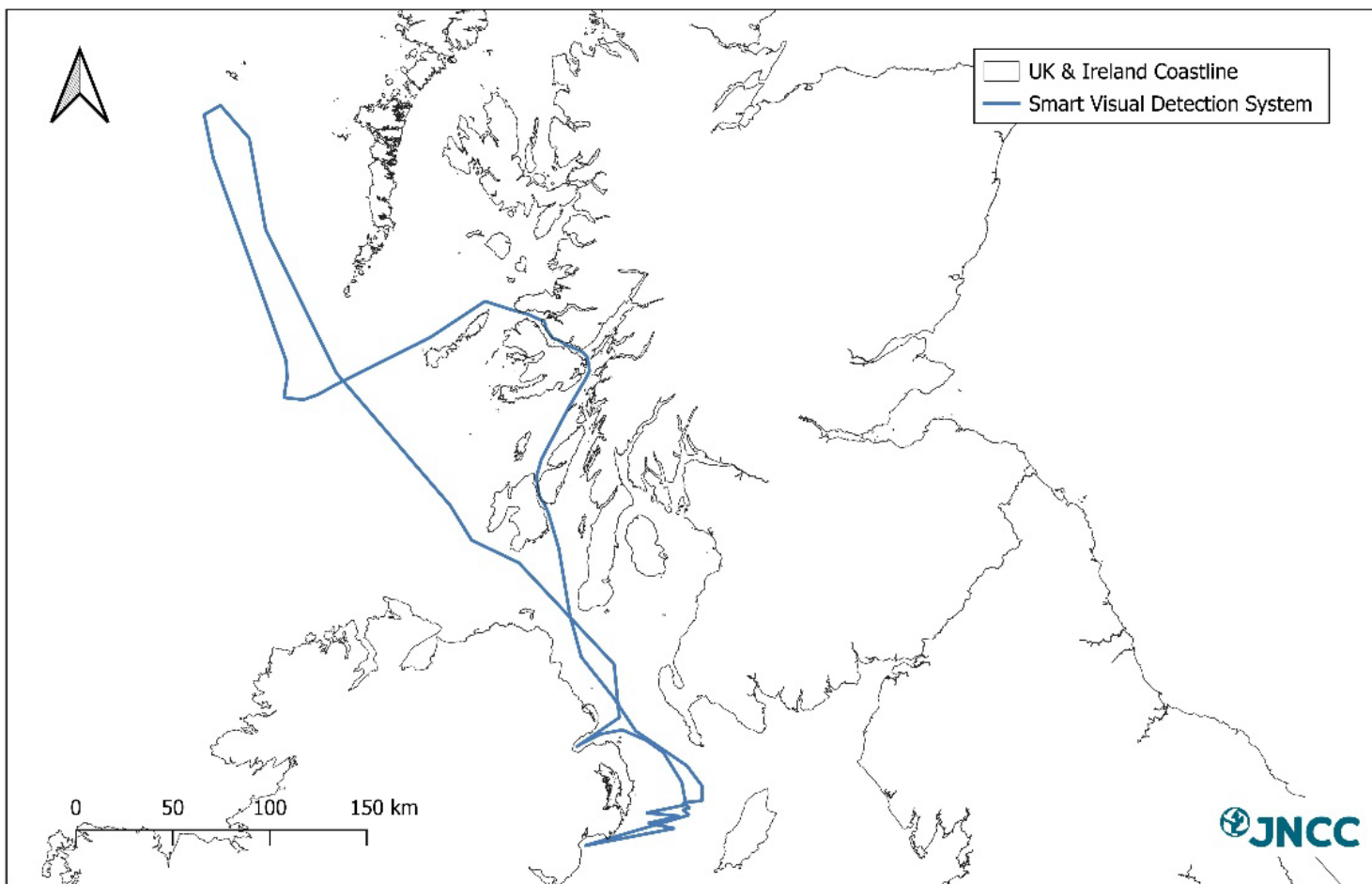
The Seiche Smart Visual Detection System (SVDS) is a dual high-definition (HD) and Long Wavelength Infrared (LWIR) camera that can be deployed on vessels to detect marine mammals and other marine megafauna. The camera has integrated artificial intelligence to assist in detecting marine megafauna, and analysis of video footage can reveal information on species, diversity, abundance and behaviour.

Seiche camera technicians deployed two cameras on the RV *Corystes*, attaching them to the railings on deck in front of the bridge (Figure 18). To extend coverage, the housing of each camera was also mounted onto a Pan/Tilt Unit. To support the operation of the system and to allow for adequate data capture, a computer control station and Network Attached Storage system (NAS) was also supplied.



**Figure 18.** SVDS camera positioning.

The two cameras were set to auto-scan the same area as the observers to mimic a similar search pattern and coverage. The cameras recorded HD and LWIR video footage throughout the duration of the survey (Figure 19). The cameras were then recovered by Seiche camera technicians upon the vessel docking in Belfast.



@JNCC 2025 Not to be used for navigation.

**Figure 19.** SVDS in operation throughout the mNCEA survey (25 September – 11 October) with the vessel track.

## 6.7 Multibeam

RV *Corystes* is equipped with a Kongsberg EM2040 Multibeam Echosounder. Bathymetry and backscatter data was acquired using KM Seafloor Information Systems Version 5.12.3 software. The details of the multibeam settings used during COR0924 are shown in Table 4.

**Table 4.** Multibeam settings.

Settings	Value
Frequency	300 kHz
Beam Angle	0.7° Tx by 0.7° RX
Ping Rate	Max ping rate 50Hz
Beam Spacing Mode	Ultra-High Density Beam Spacing
Angular Coverage	65° Port and Starboard
Vessel Speed	6 Knots

Positioning was achieved using a Seapath 380 r Dual frequency Differential Global Navigation Satellite System (DGNSS) Real-time kinematic (RTK) and a Seatex Motion Gyro Compass (MGC).

Sound velocity profiles (SVP) were collected approximately at the start of the multibeam survey then every five lines during the multibeam survey using a Valeport Swift SVP.

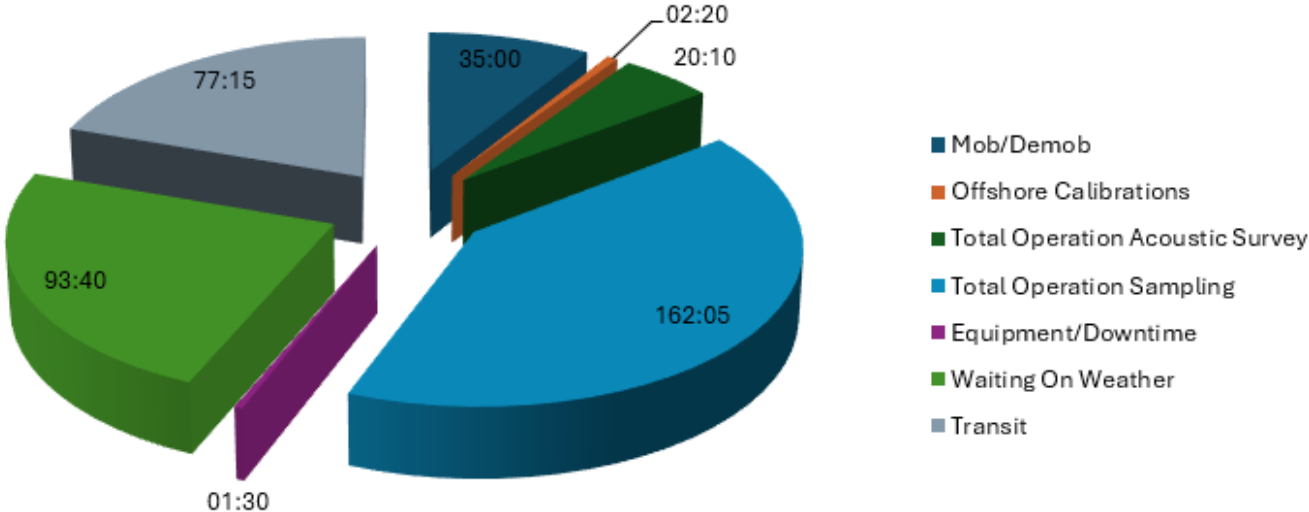
## 7 References

Noble-James, T., Jesus, A. & McBreen, F. (2018) Monitoring guidance for marine benthic habitats (Revised 2018). *JNCC Report 598*. JNCC, Peterborough, ISSN 0963-8091.  
<https://jncc.gov.uk/resources/9ade4be8-63dd-4bbc-afd0-aefe71af0849>

Mason, C. (2016) NMBAQC's Best Practice Guidance Particle Size Analysis (PSA) for Supporting Biological Analysis. Available from :  
<https://www.nmbaqcs.org/media/qiybf5sd/best-practice-guidance.pdf#9> (Accessed 20 March 2026)

# Appendix 1. Breakdown of survey operation time

The total time spent on different survey activities is shown in Figure 20.



**Figure 20.** Pie chart showing the proportion of time spent on different activities during the COR0924 survey. Each segment is also labelled with the amount of time (HH:MM) spent on the activity.

## Appendix 2. Survey metadata

Summary table format, full electronic database/spreadsheet (xls/mdb) to be submitted with cruise report.

### Day Grab: St Kilda (Site A)

**Table 5.** Table listing station event ID, Latitude and longitude of Day grab stations sampled on COR0924 at St Kilda Site A.

Sample Event ID	Sample Latitude	Sample Longitude	Sample Accepted?
COR0924_SSK_NC006_S001_A1	57.362762	-8.545292	Yes
COR0924_SSK_NC007_S002_A1	57.360988	-8.492467	No
COR0924_SSK_NC007_S002_A2	57.362695	-8.492897	No
COR0924_SSK_NC007_S002_A3	57.362313	-8.495358	PSA only
COR0924_SSK_NC008_S003_A1	57.362888	-8.439752	PSA only
COR0924_SSK_NC008_S003_A2	57.362713	-8.442110	PSA only
COR0924_SSK_NC035_S004_A1	57.437700	-8.523488	Yes
COR0924_SSK_NC036_S005_A1	57.437812	-8.467747	No
COR0924_SSK_NC036_S005_A2	57.438368	-8.465343	PSA only
COR0924_SSK_NC036_S005_A3	57.439373	-8.459625	No
COR0924_SSK_NC036_S005_A4	57.437500	-8.469627	No
COR0924_SSK_NC036_S005_A5	57.437847	-8.468037	PSA only
COR0924_SSK_NC034_S006_A1	57.437143	-8.575250	No
COR0924_SSK_NC034_S006_A2	57.437380	-8.572270	No
COR0924_SSK_NC034_S006_A3	57.437527	-8.569753	No
COR0924_SSK_NC034_S006_A4	57.437818	-8.567005	No
COR0924_SSK_NC034_S006_A5	57.437623	-8.581722	No
COR0924_SSK_NC043_S007_A1	57.463262	-8.605913	No

<b>Sample Event ID</b>	<b>Sample Latitude</b>	<b>Sample Longitude</b>	<b>Sample Accepted?</b>
COR0924 _SSK_NC043_S007_A2	57.463623	-8.603178	No
COR0924 _SSK_NC043_S007_A3	57.463632	-8.600772	No
COR0924 _SSK_NC043_S007_A4	57.463903	-8.598387	No
COR0924 _SSK_NC102_S008_A1	57.615162	-8.489277	Yes
COR0924 _SSK_NC101_S009_A1	57.613993	-8.549853	No
COR0924 _SSK_NC101_S009_A2	57.615478	-8.547607	Yes
COR0924 _SSK_NC100_S010_A1	57.614713	-8.600460	No
COR0924 _SSK_NC100_S010_A2	57.616830	-8.596868	No
COR0924 _SSK_NC100_S010_A3	57.611612	-8.601885	No
COR0924 _SSK_NC100_S010_A4	57.612657	-8.599702	No
COR0924 _SSK_NC099_S011_A1	57.613445	-8.655213	No
COR0924 _SSK_NC099_S011_A2	57.615173	-8.651730	No
COR0924 _SSK_NC099_S011_A3	57.615638	-8.652685	No
COR0924 _SSK_NC098_S012_A1	57.612710	-8.712178	No
COR0924 _SSK_NC098_S012_A2	57.614320	-8.708730	No
COR0924 _SSK_NC098_S012_A3	57.616070	-8.704917	No
COR0924 _SSK_NC098_S012_A4	57.617497	-8.701860	No
COR0924 _SSK_NC097_S013_A1	57.614963	-8.762930	Yes
COR0924 _SSK_NC096_S014_A1	57.612970	-8.815623	No
COR0924 _SSK_NC096_S014_A2	57.614832	-8.813090	No
COR0924 _SSK_NC096_S014_A3	57.617233	-8.808902	Yes
COR0924 _SSK_NC100_S022_A1	57.613417	8.598733	Yes

Sample Event ID	Sample Latitude	Sample Longitude	Sample Accepted?
COR0924 _SSK_NC082_S024_A1	57.564167	8.546700	No
COR0924 _SSK_NC082_S024_A2	57.550183	8.546850	No
COR0924 _SSK_NC082_S024_A3	57.561550	8.545967	Yes
COR0924 _SSK_NC080_S026_A1	57.560510	-8.652242	No
COR0924 _SSK_NC080_S026_A2	57.562580	-8.652367	No
COR0924 _SSK_NC080_S026_A3	57.564633	-8.652892	No
COR0924 _SSK_NC078_S028_A1	57.560965	-8.764418	No
COR0924 _SSK_NC078_S028_A2	57.563122	-8.765643	No
COR0924 _SSK_NC078_S028_A3	57.564903	-8.766472	No

## Day Grab: Stanton Banks SAC

**Table 6.** Table listing station event ID, Latitude and longitude of Day grab stations sampled on COR0924 at Stanton Banks SAC.

Sample Event ID	Sample Latitude	Sample Longitude	Sample Accepted?
COR0924 _SB_SB047_S029_A1	56.339358	-8.060165	Yes
COR0924 _SB_SB048_S030_A1	56.334873	-8.018578	Yes
COR0924 _SB_SB039_S031_A1	56.319640	-8.041412	Yes
COR0924 _SB_SB038_S032_A1	56.323127	-8.070810	Yes
COR0924 _SB_SB046_S033_A1	56.337508	-8.090573	Yes
COR0924 _SB_SB053_S034_A1	56.358015	-8.113345	No
COR0924 _SB_SB053_S034_A2	56.357673	-8.115237	Yes
COR0924 _SB_SB054_S035_A1	56.356467	-8.071725	Yes
COR0924 _SB_SB055_S036_A1	56.357308	-8.036157	Yes

<b>Sample Event ID</b>	<b>Sample Latitude</b>	<b>Sample Longitude</b>	<b>Sample Accepted?</b>
COR0924 _SB_SB056_S037_A1	56.356230	-7.999238	Yes
COR0924 _SB_SB040_S038_A1	56.321610	-8.001852	Yes
COR0924 _SB_SB032_S039_A1	56.304380	-8.020732	Yes
COR0924 _SB_SB031_S040_A1	56.305427	-8.057595	Yes
COR0924 _SB_SB030_S041_A1	56.305433	-8.093197	Yes
COR0924 _SB_SB021_S042_A1	56.288043	-8.108853	Yes
COR0924 _SB_SB022_S043_A1	56.287825	-8.075288	Yes
COR0924 _SB_SB014_S044_A1	56.269937	-8.091773	Yes
COR0924 _SB_SB013_S045_A1	56.270083	-8.127600	Yes
COR0924 _SB_SB012_S046_A1	56.270567	-8.164353	Yes
COR0924 _SB_SB001_S047_A1	56.254013	-8.251712	Yes
COR0924 _SB_SB002_S048_A1	56.254302	-8.217848	Yes
COR0924 _SB_SB003_S049_A1	56.253835	-8.182545	No
COR0924 _SB_SB003_S049_A2	56.251870	-8.183330	Yes
COR0924 _SB_SB004_S050_A1	56.254062	-8.148115	Yes
COR0924 _SB_SB005_S051_A1	56.254302	-8.111863	No
COR0924 _SB_SB005_S051_A2	56.252770	-8.113385	Yes
COR0924 _SB_SB006_S052_A1	56.255417	-8.074282	No
COR0924 _SB_SB006_S052_A2	56.253685	-8.075523	Yes
COR0924 _SB_SB007_S053_A1	56.254140	-8.039613	Yes
COR0924 _SB_SB051_S062_A1	56.357605	-8.178923	No
COR0924 _SB_SB051_S062_A2	56.356302	-8.179093	Yes

Sample Event ID	Sample Latitude	Sample Longitude	Sample Accepted?
COR0924 _SB_SB052_S063_A1	56.360202	-8.142222	Yes
COR0924 _SB_SB045_S064_A1	56.341992	-8.126662	Yes
COR0924 _SB_SB037_S065_A1	56.320442	-8.108363	Yes
COR0924 _SB_SB029_S066_A1	56.305207	-8.125347	Yes
COR0924 _SB_SB020_S067_A1	56.289797	-8.145403	Yes
COR0924 _SB_SB019_S068_A1	56.291362	-8.183442	Yes
COR0924 _SB_SB011_S069_A1	56.272322	-8.200242	Yes
COR0924 _SB_SB033_S070_A1	56.325005	-8.252448	No
COR0924 _SB_SB033_S071_A2	56.322508	-8.255292	PSA only
COR0924 _SB_SB033_S072_A3	56.324098	-8.246807	No
COR0924 _SB_SB041_S073_A1	56.341375	-8.265330	PSA only
COR0924 _SB_SB041_S073_A2	56.337235	-8.269987	Yes
COR0924 _SB_SB050_S074_A1	56.358610	-8.210037	No
COR0924 _SB_SB050_S074_A2	56.357390	-8.212438	No
COR0924 _SB_SB049_S075_A1	56.359062	-8.252877	Yes
COR0924 _SB_SB057_S076_A1	56.377453	-8.268598	Yes
COR0924 _SB_SB058_S077_A1	56.375333	-8.228812	Yes
COR0924 _SB_SB059_S078_A1	56.374138	-8.196363	Yes
COR0924 _SB_SB060_S080_A1	56.374355	-8.159710	Yes
COR0924 _SB_SB068_S081_A1	56.392600	-8.142535	Yes
COR0924 _SB_SB066_S082_A1	56.391920	-8.217942	Yes
COR0924 _SB_SB061_S083_A1	56.374430	-8.124252	No

<b>Sample Event ID</b>	<b>Sample Latitude</b>	<b>Sample Longitude</b>	<b>Sample Accepted?</b>
COR0924 _SB_SB061_S083_A2	56.374060	-8.124972	No
COR0924 _SB_SB061_S083_A3	56.373750	-8.125628	No
COR0924 _SB_SB062_S085_A1	56.375242	-8.089547	Yes
COR0924 _SB_SB063_S086_A1	56.373832	-8.055288	Yes
COR0924 _SB_SB064_S087_A1	56.373187	-8.020027	Yes
COR0924 _SB_SB072_S088_A1	56.390672	-8.000598	Yes
COR0924 _SB_SB080_S089_A1	56.408550	-8.019177	Yes
COR0924 _SB_SB088_S090_A1	56.427375	-7.998432	Yes
COR0924 _SB_SB096_S091_A1	56.443548	-8.017313	Yes
COR0924 _SB_SB087_S092_A1	56.424342	-8.037580	Yes
COR0924 _SB_SB095_S093_A1	56.443778	-8.053978	Yes
COR0924 _SB_SB086_S094_A1	56.425890	-8.073478	Yes
COR0924 _SB_SB082_S095_A1	56.428752	-8.216602	Yes
COR0924 _SB_SB081_S096_A1	56.426475	-8.250620	Yes
COR0924 _SB_SB073_S097_A1	56.408887	-8.266358	Yes
COR0924 _SB_SB074_S098_A1	56.408332	-8.231482	Yes
COR0924 _SB_SB042_S099_A1	56.340232	-8.234593	PSA only
COR0924 _SB_SB042_S099_A2	56.340185	-8.241363	PSA only
COR0924 _SB_SB042_S099_A3	56.340975	-8.229582	No
COR0924 _SB_SB068_S107_A1	56.388665	-8.142720	No
COR0924 _SB_SB068_S107_A2	56.390275	-8.143680	Yes
COR0924 _SB_SB060_S108_A1	56.371638	-8.161580	No

Sample Event ID	Sample Latitude	Sample Longitude	Sample Accepted?
COR0924 _SB_SB060_S108_A2	56.372830	-8.163602	No
COR0924 _SB_SB060_S108_A3	56.373947	-8.166017	Yes
COR0924 _SB_SB059_S109_A1	56.370927	-8.195417	No
COR0924 _SB_SB059_S109_A2	56.372377	-8.197730	No
COR0924 _SB_SB059_S109_A3	56.373645	-8.199912	PSA only
COR0924 _SB_SB051_S110_B1	56.354588	-8.179073	PSA only
COR0924 _SB_SB051_S110_B2	56.357233	-8.182995	No
COR0924 _SB_SB051_S110_B3	56.358902	-8.185002	No
COR0924 _SB_SB052_S111_B1	56.354782	-8.140995	No
COR0924 _SB_SB052_S111_B2	56.356017	-8.143877	No
COR0924 _SB_SB045_S112_B1	56.337332	-8.122868	No
COR0924 _SB_SB045_S112_B2	56.338938	-8.126548	No
COR0924 _SB_SB045_S112_B3	56.340523	-8.130218	No
COR0924 _SB_SB037_S113_B1	56.320527	-8.107043	No
COR0924 _SB_SB037_S113_B2	56.322878	-8.109897	No
COR0924 _SB_SB037_S113_B3	56.325303	-8.112753	No
COR0924 _SB_SB029_S114_B1	56.303798	-8.128398	Yes
COR0924 _SB_SB020_S115_B1	56.286603	-8.142540	No
COR0924 _SB_SB020_S115_B2	56.289005	-8.144707	No
COR0924 _SB_SB020_S115_B3	56.291678	-8.147065	No

## Day Grab: South Rigg MCZ

**Table 7.** Table listing station event ID, Latitude and longitude of Day grab stations sampled on COR0924 at South Rigg MCZ.

Sample Event ID	Sample Latitude	Sample Longitude	Sample Accepted?
COR0924 _SR_SR001_S116_A1	54.250552	-5.147850	Yes
COR0924 _SR_SR002_S117_A1	54.251833	-5.112795	Yes
COR0924 _SR_SR003_S118_A1	54.252067	-5.077762	Yes
COR0924 _SR_SR006_S119_A1	54.270783	-5.057758	Yes
COR0924 _SR_SR005_S120_A1	54.270033	-5.095040	Yes
COR0924 _SR_SR004_S121_A1	54.269818	-5.130142	Yes
COR0924 _SR_SR007_S122_A1	54.291412	-5.110262	No
COR0924 _SR_SR007_S122_A2	54.293043	-5.109913	No
COR0924 _SR_SR007_S122_A3	54.295035	-5.109595	No
COR0924 _SR_SR008_S123_A1	54.288132	-5.079448	No
COR0924 _SR_SR008_S123_A2	54.289887	-5.078570	No
COR0924 _SR_SR008_S123_A3	54.288905	-5.077950	No
COR0924 _SR_SR008_S123_A4	54.291417	-5.078045	Yes
COR0924 _SR_SR009_S124_A1	54.289563	-5.044787	Yes
COR0924 _SR_SR012_S125_A1	54.306792	-5.030543	No
COR0924 _SR_SR012_S125_A2	54.309493	-5.030677	Yes
COR0924 _SR_SR011_S126_A1	54.307725	-5.063157	Yes
COR0924 _SR_SR010_S127_A1	54.307120	-5.097242	Yes
COR0924 _SR_SR013_S128_A1	54.325607	-5.082472	Yes
COR0924 _SR_SR014_S129_A1	54.325493	-5.047038	Yes

<b>Sample Event ID</b>	<b>Sample Latitude</b>	<b>Sample Longitude</b>	<b>Sample Accepted?</b>
COR0924 _SR_SR015_S130_A1	54.324283	-5.011373	No
COR0924 _SR_SR015_S130_A2	54.326590	-5.012555	Yes
COR0924 _SR_SR018_S131_A1	54.343177	-4.995060	Yes
COR0924 _SR_SR017_S132_A1	54.342388	-5.030617	Yes
COR0924 _SR_SR016_S133_A1	54.341602	-5.066703	Yes
COR0924 _SR_SR019_S134_A1	54.358887	-5.047930	Yes
COR0924 _SR_SR020_S135_A1	54.358705	-5.009822	Yes
COR0924 _SR_SR021_S136_A1	54.358825	-4.971638	Yes
COR0924 _SR_SR023_S137_A1	54.378670	-4.995888	No
COR0924 _SR_SR023_S137_A2	54.379228	-4.994542	Yes
COR0924 _SR_SR024_S138_A1	54.377077	-4.960145	Yes
COR0924 _SR_SR025_S139_A1	54.379540	-4.923405	Yes
COR0924 _SR_SR030_S140_A1	54.395858	-4.910780	Yes
COR0924 _SR_SR029_S141_A1	54.396648	-4.946792	Yes
COR0924 _SR_SR028_S142_A1	54.396097	-4.986812	Yes
COR0924 _SR_SR032_S143_A1	54.416778	-5.000575	Yes
COR0924 _SR_SR034_S144_A1	54.416468	-4.934005	Yes
COR0924 _SR_SR035_S145_A1	54.414432	-4.894550	Yes
COR0924 _SR_SR040_S146_A1	54.433068	-4.913705	No
COR0924 _SR_SR040_S146_A2	54.434503	-4.912332	No
COR0924 _SR_SR040_S146_A3	54.435292	-4.911597	Yes
COR0924 _SR_SR039_S147_A1	54.432487	-4.949385	No

Sample Event ID	Sample Latitude	Sample Longitude	Sample Accepted?
COR0924 _SR_SR039_S147_A2	54.433795	-4.948808	Yes
COR0924 _SR_SR038_S148_A1	54.431242	-4.984517	Yes
COR0924 _SR_SR037_S149_A1	54.430622	-5.017720	Yes
COR0924 _SR_SR007_S180_A1	54.293040	-5.114460	Yes

### Camera sledge: St Kilda (Site A)

**Table 8.** Table listing station event ID, Latitude and longitude of Camera Sledge stations sampled on COR0924 at St Kilda (Site A) (highlighted cells show USBL coordinates as no ship coordinates were recorded).

Station Name	SOL / EOL	Ship Latitude	Ship Longitude
COR0924__SSK_NC098_S001	SOL	57.613232	-8.709555
COR0924__SSK_NC098_S001	EOL	57.611547	-8.712977
COR0924__SSK_NC096_S015	SOL	57.615397	-8.814553
COR0924__SSK_NC096_S015	EOL	57.613325	-8.814067
COR0924__SSK_NC116_S016	SOL	57.665927	-8.760375
COR0924__SSK_NC116_S016	EOL	57.663157	-8.762617
COR0924__SSK_NC136_S017	SOL	57.715388	-8.706597
COR0924__SSK_NC136_S017	EOL	57.712748	-8.709685
COR0924__SSK_NC118_S018	SOL	57.663450	-8.653525
COR0924__SSK_NC118_S018	EOL	57.660297	-8.652383
COR0924__SSK_NC120_S019	SOL	57.664195	-8.544495
COR0924__SSK_NC120_S019	EOL	57.661348	-8.542423
COR0924__SSK_NC 102_S020	SOL	57.614207	-8.492972
COR0924__SSK_NC 102_S020	EOL	57.611462	-8.490553
COR0924__SSK_NC 100_S021	SOL	57.617413	-8.600685
COR0924__SSK_NC100_S021	EOL	57.616454	-8.600295
COR0924__SSK_NC082_S023	SOL	57.567247	-8.547846
COR0924__SSK_NC082_S023	EOL	57.564764	-8.546122
COR0924__SSK_NC080_S025	SOL	57.566388	-8.653482
COR0924__SSK_NC080_S025	EOL	57.563295	-8.652545
COR0924__SSK_NC078_S027	SOL	57.565505	-8.762963
COR0924__SSK_NC078_S027	EOL	57.562528	-8.761343

## Camera sledge: South Rigg MCZ

**Table 9.** Table listing station event ID, Latitude and longitude of Camera Sledge stations sampled on COR0924 at South Rigg MCZ.

Station Name	SOL / EOL	Ship Latitude	Ship Longitude
COR0924_SR_SR037_S150	SOL	54.434048	-5.018378
COR0924_SR_SR037_S150	EOL	54.430595	-5.016013
COR0924_SR_SR038_S151	SOL	54.432632	-4.982508
COR0924_SR_SR038_S151	EOL	54.429367	-4.979727
COR0924_SR_SR039_S152	SOL	54.435300	-4.948490
COR0924_SR_SR039_S152	EOL	54.431710	-4.946498
COR0924_SR_SR040_S153	SOL	54.433483	-4.912132
COR0924_SR_SR040_S153	EOL	54.430518	-4.916143
COR0924_SR_SR035_S155	SOL	54.416703	-4.893157
COR0924_SR_SR035_S155	EOL	54.415848	-4.898865
COR0924_SR_SR032_S156	SOL	54.412688	-4.999945
COR0924_SR_SR032_S156	EOL	54.409920	-5.004127
COR0924_SR_SR028_S157	SOL	54.398302	-4.977923
COR0924_SR_SR028_S157	EOL	54.395458	-4.982653
COR0924_SR_SR029_S158	SOL	54.399152	-4.942805
COR0924_SR_SR029_S158	EOL	54.397308	-4.948097
COR0924_SR_SR034_S159	SOL	54.416052	-4.929007
COR0924_SR_SR034_S159	EOL	54.412062	-4.929857
COR0924_SR_SR030_S161	SOL	54.400227	-4.913073
COR0924_SR_SR030_S161	EOL	54.396882	-4.912378
COR0924_SR_SR025_S162	SOL	54.381418	-4.928655
COR0924_SR_SR025_S162	EOL	54.377713	-4.927992
COR0924_SR_SR024_S163	SOL	54.379880	-4.962523
COR0924_SR_SR024_S163	EOL	54.376015	-4.960163
COR0924_SR_SR023_S164	SOL	54.380052	-4.995450
COR0924_SR_SR023_S164	EOL	54.377645	-4.990108
COR0924_SR_SR021_S165	SOL	54.361712	-4.975488
COR0924_SR_SR021_S165	EOL	54.359358	-4.981007
COR0924_SR_SR020_S166	SOL	54.359400	-5.019470
COR0924_SR_SR020_S166	EOL	54.361573	-5.015762
COR0924_SR_SR019_S167	SOL	54.360200	-5.046607
COR0924_SR_SR019_S167	EOL	54.362407	-5.041473
COR0924_SR_SR016_S168	SOL	54.342082	-5.065217
COR0924_SR_SR016_S168	EOL	54.342918	-5.058790
COR0924_SR_SR017_S169	SOL	54.343713	-5.028940
COR0924_SR_SR017_S169	EOL	54.345112	-5.022590

Station Name	SOL / EOL	Ship Latitude	Ship Longitude
COR0924_SR_SR018_S170	SOL	54.343743	-4.995337
COR0924_SR_SR018_S170	EOL	54.344520	-4.988797
COR0924_SR_SR015_S171	SOL	54.326383	-5.013775
COR0924_SR_SR015_S171	EOL	54.327188	-5.007463
COR0924_SR_SR014_S172	SOL	54.325273	-5.050145
COR0924_SR_SR014_S172	EOL	54.325143	-5.043148
COR0924_SR_SR013_S173	SOL	54.325838	-5.085468
COR0924_SR_SR013_S173	EOL	54.325397	-5.079747
COR0924_SR_SR010_S174	SOL	54.307105	-5.098020
COR0924_SR_SR010_S174	EOL	54.306557	-5.091622
COR0924_SR_SR011_S175	SOL	54.307750	-5.065468
COR0924_SR_SR011_S175	EOL	54.307075	-5.059423
COR0924_SR_SR012_S176	SOL	54.308857	-5.032647
COR0924_SR_SR012_S176	EOL	54.307978	-5.026577
COR0924_SR_SR009_S177	SOL	54.289212	-5.045730
COR0924_SR_SR009_S177	EOL	54.292483	-5.043157
COR0924_SR_SR008_S178	SOL	54.289112	-5.081075
COR0924_SR_SR008_S178	EOL	54.291955	-5.075922
COR0924_SR_SR007_S179	SOL	54.288330	-5.114713
COR0924_SR_SR007_S179	EOL	54.291742	-5.114502
COR0924_SR_SR004_S181	SOL	54.271068	-5.130078
COR0924_SR_SR004_S181	EOL	54.275002	-5.129053
COR0924_SR_SR005_S182	SOL	54.272300	-5.093382
COR0924_SR_SR005_S182	EOL	54.276527	-5.094697
COR0924_SR_SR006_S183	SOL	54.273823	-5.057195
COR0924_SR_SR006_S183	EOL	54.278285	-5.056282
COR0924_SR_SR003_S184	SOL	54.253522	-5.076737
COR0924_SR_SR003_S184	EOL	54.256522	-5.074073
COR0924_SR_SR002_S185	SOL	54.254462	-5.112913
COR0924_SR_SR002_S185	EOL	54.258927	-5.113270
COR0924_SR_SR001_S186	SOL	54.251907	-5.147178
COR0924_SR_SR001_S186	EOL	54.256097	-5.146017
COR0924_SR_SR042_S187	SOL	54.234068	-5.163830
COR0924_SR_SR042_S187	EOL	54.238313	-5.164392
COR0924_SR_SR043_S188	SOL	54.236208	-5.128418
COR0924_SR_SR043_S188	EOL	54.240373	-5.130858
COR0924_SR_SR044_S189	SOL	54.234930	-5.093002
COR0924_SR_SR044_S189	EOL	54.238878	-5.095330
COR0924_SR_SR047_S190	SOL	54.219663	-5.112047

Station Name	SOL / EOL	Ship Latitude	Ship Longitude
COR0924_SR_SR047_S190	EOL	54.219552	-5.107473
COR0924_SR_SR046_S191	SOL	54.216685	-5.145388
COR0924_SR_SR046_S191	EOL	54.220722	-5.142870
COR0924_SR_SR045_S192	SOL	54.217215	-5.180325
COR0924_SR_SR045_S192	EOL	54.221160	-5.177330
COR0924_SR_SR048_S193	SOL	54.198418	-5.194967
COR0924_SR_SR048_S193	EOL	54.202092	-5.191715
COR0924_SR_SR049_S194	SOL	54.200140	-5.159608
COR0924_SR_SR049_S194	EOL	54.203847	-5.162357
COR0924_SR_SR050_S195	SOL	54.199995	-5.124407
COR0924_SR_SR050_S195	EOL	54.203888	-5.126728
COR0924_SR_SR051_S196	SOL	54.201533	-5.092968
COR0924_SR_SR051_S196	EOL	54.205480	-5.095878
COR0924_SR_SR056_S197	SOL	54.180388	-5.105492
COR0924_SR_SR056_S197	EOL	54.185085	-5.106688

## Drop Camera: Stanton Banks SAC

**Table 10.** Table listing station event ID, Latitude and longitude of drop camera stations sampled on COR092 at Stanton Banks SAC

Station Name	SOL / EOL	Ship Latitude	Ship Longitude	Hab code
COR0924_SB_SB011_S054	SOL	56.270100	-8.202255	A5.37
COR0924_SB_SB011_S054	EOL	56.266243	-8.205185	-
COR0924_SB_SB019_S055	SOL	56.289430	-8.178333	A5.37
COR0924_SB_SB019_S055	EOL	56.286387	-8.183830	-
COR0924_SB_SB020_S056	SOL	56.288423	-8.141852	A5.37
COR0924_SB_SB020_S056	EOL	56.284858	-8.145732	-
COR0924_SB_SB029_S057	SOL	56.305968	-8.125625	A5.37
COR0924_SB_SB029_S057	EOL	56.303140	-8.129468	-
COR0924_SB_SB037_S058	SOL	56.324722	-8.107110	A5.37
COR0924_SB_SB037_S058	EOL	56.322525	-8.110765	-
COR0924_SB_SB045_S059	SOL	56.341677	-8.123390	A5.27
COR0924_SB_SB045_S059	EOL	56.339910	-8.125925	-
COR0924_SB_SB052_S060	SOL	56.358562	-8.142377	A5.27
COR0924_SB_SB052_S060	EOL	56.356475	-8.144568	-
COR0924_SB_SB051_S061	SOL	56.356277	-8.180130	A5.27
COR0924_SB_SB051_S061	EOL	56.354060	-8.181332	-
COR0924_SB_SB097_S101	SOL	56.310157	-8.166813	A5.27
COR0924_SB_SB097_S101	EOL	56.315455	-8.170987	-

Station Name	SOL / EOL	Ship Latitude	Ship Longitude	Hab code
COR0924_SB_SB098_S102	SOL	56.309692	-8.163235	A5.27
COR0924_SB_SB098_S102	EOL	56.315177	-8.166555	-
COR0924_SB_SB099_S103	SOL	56.329947	-8.175113	A4.33
COR0924_SB_SB099_S103	EOL	56.334745	-8.177058	-
COR0924_SB_SB061_S104	SOL	56.372412	-8.126113	A5.27
COR0924_SB_SB061_S104	EOL	56.378222	-8.127717	-
COR0924_SB_SB079_S105	SOL	56.404733	-8.051177	A4.33
COR0924_SB_SB079_S105	EOL	56.409432	-8.052100	-
COR0924_SB_SB084_S106	SOL	56.425607	-8.141565	A4.33
COR0924_SB_SB084_S106	EOL	56.429505	-8.143015	-

### Baited Remote Underwater video (BRUV): Stanton Banks SAC

**Table 11.** Table listing station event ID, Latitude and longitude of Baited Remote Underwater Video (BRUV) stations sampled on COR0924 at Stanton Banks SAC.

Station Name	Ship Latitude	Ship Longitude	Deployment type
COR0924_SB_SB59_S079	56.372107	-8.199608	Benthic
COR0924_SB_SB61_S084	56.374803	-8.124648	Not recovered
COR0924_SB_SB047_S100	56.338608	-8.056190	Pelagic

### Baited Remote Underwater video (BRUV): South Rigg MCZ

**Table 12.** Table listing station event ID, Latitude and longitude of Baited Remote Underwater Video (BRUV) stations sampled on COR0924 at South Rigg MCZ.

Station Name	Ship Latitude	Ship Longitude	Deployment type
COR0924_SR_SR032_S154	54.411993	-4.998338	Pelagic
COR0924_SR_SR024_S160	54.379870	-4.963188	Benthic

## eDNA Metaprobes: St Kilda (Site A)

**Table 13.** Table listing station event ID, Latitude and longitude of stations where environmental DNA samples were taken on COR0924 at St Kilda (highlighted cells show USBL coordinates as no ship coordinates were recorded)

Station Name	SOL / EOL	Ship Latitude	Ship Longitude	Metaprobe
COR0924 _SSK_NC116_S016	SOL	57.665927	-8.760375	2 metaprobes (1 mesh, 1 w/o)
COR0924 _SSK_NC116_S016	EOL	57.663157	-8.762617	-
COR0924 _SSK_NC136_S017	SOL	57.715388	-8.706597	2 metaprobes (1 mesh, 1 w/o)
COR0924 _SSK_NC136_S017	EOL	57.712748	-8.709685	-
COR0924 _SSK_NC118_S018	SOL	57.663450	-8.653525	10 metaprobes with mesh
COR0924 _SSK_NC118_S018	EOL	57.660297	-8.652383	-
COR0924 _SSK_NC120_S019	SOL	57.664195	-8.544495	2 metaprobes (1 mesh, 1 w/o)
COR0924 _SSK_NC120_S019	EOL	57.661348	-8.542423	-
COR0924_SSK_NC 102_S020	SOL	57.614207	-8.492972	2 metaprobes (1 mesh, 1 w/o)
COR0924_SSK_NC 102_S020	EOL	57.611462	-8.490553	-
COR0924_SSK_NC 100_S021	SOL	57.617413	-8.600685	2 metaprobes (1 mesh, 1 w/o)
COR0924 _SSK_NC100_S021	EOL	57.616454	-8.600295	-
COR0924 _SSK_NC082_S023	SOL	57.567247	-8.547846	10 metaprobes with no mesh
COR0924 _SSK_NC082_S023	EOL	57.564764	-8.546122	-
COR0924 _SSK_NC080_S025	SOL	57.566388	-8.653482	2 metaprobes (1 mesh, 1 w/o)
COR0924 _SSK_NC080_S025	EOL	57.563295	-8.652545	-
COR0924 _SSK_NC078_S027	SOL	57.565505	-8.762963	2 metaprobes (1 mesh, 1 w/o)
COR0924 _SSK_NC078_S027	EOL	57.562528	-8.761343	-

## eDNA Metaprobes: Stanton Banks SAC

**Table 14.** Table listing station event ID, Latitude and longitude of stations where environmental DNA samples were taken on COR0924 at Stanton Banks SAC.

Station Name	SOL / EOL	Ship Latitude	Ship Longitude	Metaprobe
COR0924_SB_SB011_S054	SOL	56.270100	-8.202255	-
COR0924_SB_SB011_S054	EOL	56.266243	-8.205185	-
COR0924_SB_SB019_S055	SOL	56.289430	-8.178333	-
COR0924_SB_SB019_S055	EOL	56.286387	-8.183830	-
COR0924_SB_SB020_S056	SOL	56.288423	-8.141852	-
COR0924_SB_SB020_S056	EOL	56.284858	-8.145732	-
COR0924_SB_SB029_S057	SOL	56.305968	-8.125625	-
COR0924_SB_SB029_S057	EOL	56.303140	-8.129468	-
COR0924_SB_SB037_S058	SOL	56.324722	-8.107110	-
COR0924_SB_SB037_S058	EOL	56.322525	-8.110765	-
COR0924_SB_SB045_S059	SOL	56.341677	-8.123390	-
COR0924_SB_SB045_S059	EOL	56.339910	-8.125925	-
COR0924_SB_SB052_S060	SOL	56.358562	-8.142377	-
COR0924_SB_SB052_S060	EOL	56.356475	-8.144568	-
COR0924_SB_SB051_S061	SOL	56.356277	-8.180130	-
COR0924_SB_SB051_S061	EOL	56.354060	-8.181332	-
COR0924_SB_SB097_S101	SOL	56.310157	-8.166813	2 metaprobes (1 mesh, 1 w/o)
COR0924_SB_SB097_S101	EOL	56.315455	-8.170987	-
COR0924_SB_SB098_S102	SOL	56.309692	-8.163235	-
COR0924_SB_SB098_S102	EOL	56.315177	-8.166555	-
COR0924_SB_SB099_S103	SOL	56.329947	-8.175113	-
COR0924_SB_SB099_S103	EOL	56.334745	-8.177058	-
COR0924_SB_SB061_S104	SOL	56.372412	-8.126113	2 metaprobes (1 mesh, 1 w/o)
COR0924_SB_SB061_S104	EOL	56.378222	-8.127717	-
COR0924_SB_SB079_S105	SOL	56.404733	-8.051177	-
COR0924_SB_SB079_S105	EOL	56.409432	-8.052100	-
COR0924_SB_SB084_S106	SOL	56.425607	-8.141565	2 metaprobes (1 mesh, 1 w/o)
COR0924_SB_SB084_S106	EOL	56.429505	-8.143015	-

## eDNA Metaprobes: South Rigg MCZ

**Table 15.** Table listing station event ID, Latitude and longitude of stations where environmental DNA samples were taken on COR0924 at South Rigg MCZ.

Station Name	SOL / EOL	Ship Latitude	Ship Longitude	Metaprobe
COR0924 _SR_SR037_S150	SOL	54.434048	-5.018378	2 metaprobes (1 mesh, 1 w/o)
COR0924 _SR_SR037_S150	EOL	54.430595	-5.016013	-
COR0924 _SR_SR038_S151	SOL	54.432632	-4.982508	2 metaprobes {No mesh metaprobe erroneously redeployed also on S039} - Only mesh Metaprobe sent for analysis
COR0924 _SR_SR038_S151	EOL	54.429367	-4.979727	-
COR0924 _SR_SR039_S152	SOL	54.435300	-4.948490	2 metaprobes (No mesh metaprobe erroneously redeployed from S038 - Only mesh Metaprobe sent for analysis
COR0924 _SR_SR039_S152	EOL	54.431710	-4.946498	-
COR0924 _SR_SR040_S153	SOL	54.433483	-4.912132	2 metaprobes (1 mesh, 1 w/o)
COR0924 _SR_SR040_S153	EOL	54.430518	-4.916143	-
COR0924 _SR_SR032_S156	SOL	54.412688	-4.999945	2 metaprobes (1 mesh, 1 w/o)
COR0924 _SR_SR032_S156	EOL	54.409920	-5.004127	-
COR0924 _SR_SR028_S157	SOL	54.398302	-4.977923	2 metaprobes (1 mesh, 1 w/o),
COR0924 _SR_SR028_S157	EOL	54.395458	-4.982653	-
COR0924 _SR_SR029_S158	SOL	54.399152	-4.942805	2 metaprobes (1 mesh, 1 w/o),
COR0924 _SR_SR029_S158	EOL	54.397308	-4.948097	-

<b>Station Name</b>	<b>SOL / EOL</b>	<b>Ship Latitude</b>	<b>Ship Longitude</b>	<b>Metaprobe</b>
COR0924 _SR_SR034_S159	SOL	54.416052	-4.929007	2 metaprobes (1 mesh, 1 w/o)
COR0924 _SR_SR034_S159	EOL	54.412062	-4.929857	
COR0924 _SR_SR024_S163	SOL	54.379880	-4.962523	2 metaprobes (1 mesh, 1 w/o),
COR0924 _SR_SR024_S163	EOL	54.376015	-4.960163	-