



JNCC Report 834

**North-West Jones Bank Marine Protected Area and Surrounding Area,
September 2025 Survey Report (TC25023)**

Albrecht, J. & Hirschle, L.

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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

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Summary

The TC25023 survey of North-West of Jones Bank Marine Protected Area (MPA) and surrounding control sites was undertaken aboard RV *Tom Crean* between 9 and 24 September 2025.

The aim of the survey is to collect the first time point in a Before-After-Control-Impact study to investigate the effectiveness of proposed fisheries management measures at North-West of Jones Bank MPA.

Monitoring objectives include, collecting evidence to inform monitoring of the structure and function of sedimentary broad-scale habitat features; collecting evidence to inform monitoring of the supporting processes of sedimentary broad-scale habitat features; and research and development to inform future monitoring to compare different ways to collect environmental DNA.

Data from this survey will form part of a monitoring time series, and future monitoring and evidence gathering will be required to fully investigate and understand the long-term variability in any parameters measured.

The survey collected 126 infauna samples, 127 particle size analysis (PSA) samples, 18 contaminants samples, 43 towed video samples, and 28 BRUV deployments. In addition, eDNA samples were successfully collected using three approaches: sediment sampling, water sampling using Niskin bottles and CTD deployments, and metaprobes mounted on the camera sledge. Detailed analysis and interpretation of the collected data will be reported separately.

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1. Background and introduction

The survey at North-West of Jones Bank Marine Protected Area (MPA), and the surrounding area was carried out between 9 and 24 September 2025 on the Marine Institute of Ireland's Research Vessel (RV) *Tom Crean* (survey code TC25023). The survey was conducted by staff from the Joint Nature Conservation Committee (JNCC) and the Marine Institute of Ireland (hereafter referred to as the Marine Institute). This report describes the survey design and methods as well as the events of the survey and the data collected. Results of analyses of the data collected will be reported on separately.

1.1. Marine Management Organisation Fisheries Bylaws

As part of the Marine Management Organisations (MMO) responsibility to assess and manage the impact of fishing in offshore English MPAs, the MMO have concluded that the ongoing use of bottom towed fishing gear at North-West of Jones Bank MPA may result in a significant risk of hindering the achievement of the MPAs conservation objectives.

The MMO propose to implement a byelaw to prohibit the use of bottom towed gear on all the protected features of the MPA. The proposal would prohibit the use of bottom towed gear within the MPA and a 500m buffer area surrounding the MPA (MMO 2025).

At the time of writing, the proposed fisheries management is out to public consultation.

1.2. Marine North-West of Jones Bank MPA and surrounding area overview

North-West of Jones Bank MPA is a Marine Conservation Zone situated approximately 165 km offshore from the south-west of England. The site covers 399.14 km² of continental shelf, and ranges in depth from approximately 100 – 140 m (based on EMODnet Bathymetry 2020). It contributes one of the largest areas of Subtidal mud to the MPA network of all designated MCZs.

The seabed in North-West of Jones Bank MPA comprises a variety of broad-scale habitats such as subtidal sand, subtidal mixed sediments and subtidal coarse sediment. The area, however, predominantly consists of Subtidal mud and its component habitat Feature of Conservation Importance; Sea-pen and burrowing megafauna communities (Figure 1). This feature consists of stable plains of fine mud, which provide a suitable habitat for burrowing animals such as Norway lobster (*Nephrops norvegicus*) and sea-pens like the slender sea-pen (*Virgularia mirabilis*). All the broadscale habitats listed above as well as the FOCl, Sea-pen and burrowing megafauna communities are designated features of the MPA.

There have been two JNCC and Cefas partnership surveys to North-West of Jones Bank. There was an MCZ verification survey in 2012 and an MPA monitoring in 2017. The results of these surveys are published in Jones *et al.* (2015), Sotheran *et al.* (2016), and Callaway *et al.* (2020).

The Conservation Objective for the North-West of Jones Bank Marine Conservation Zone is that the protected features –

- so far as already in favourable condition, remain in such condition; and
- so far as not already in favourable condition, be brought into such condition, and remain in such condition.

The feature attributes, structure and function, extent and distribution, and supporting processes are described in the Supplementary Advice on Conservation Objectives (SACO, JNCC 2018) for each of the site features.

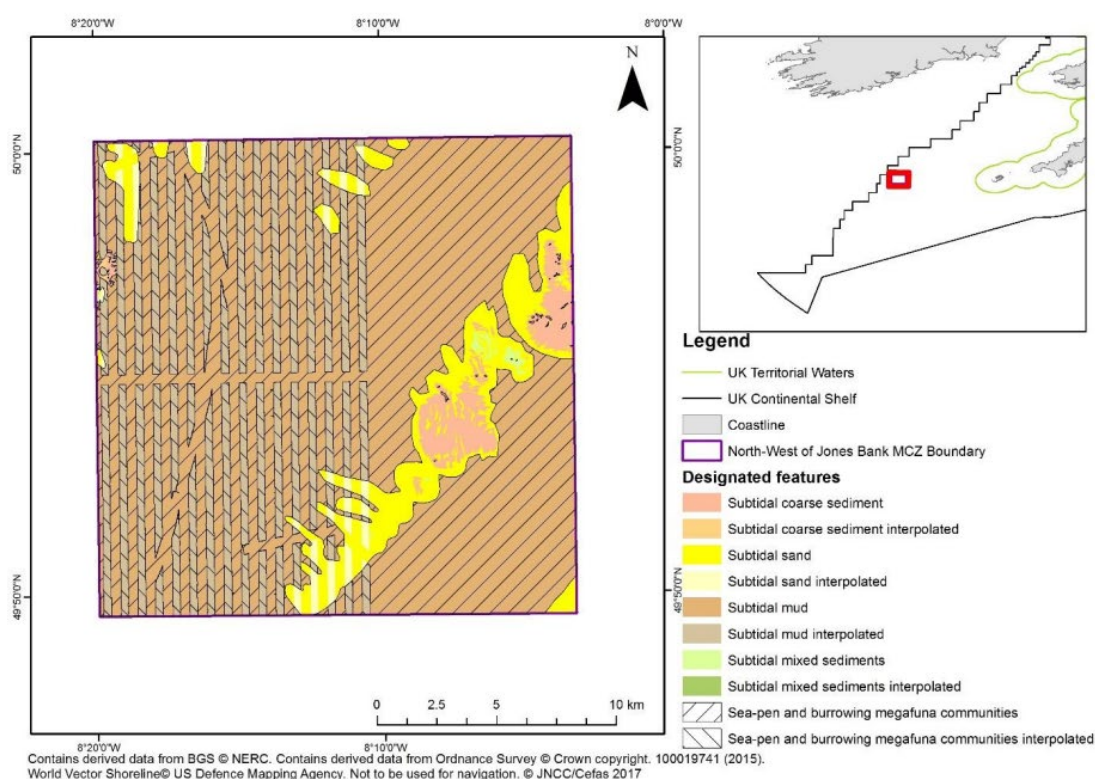
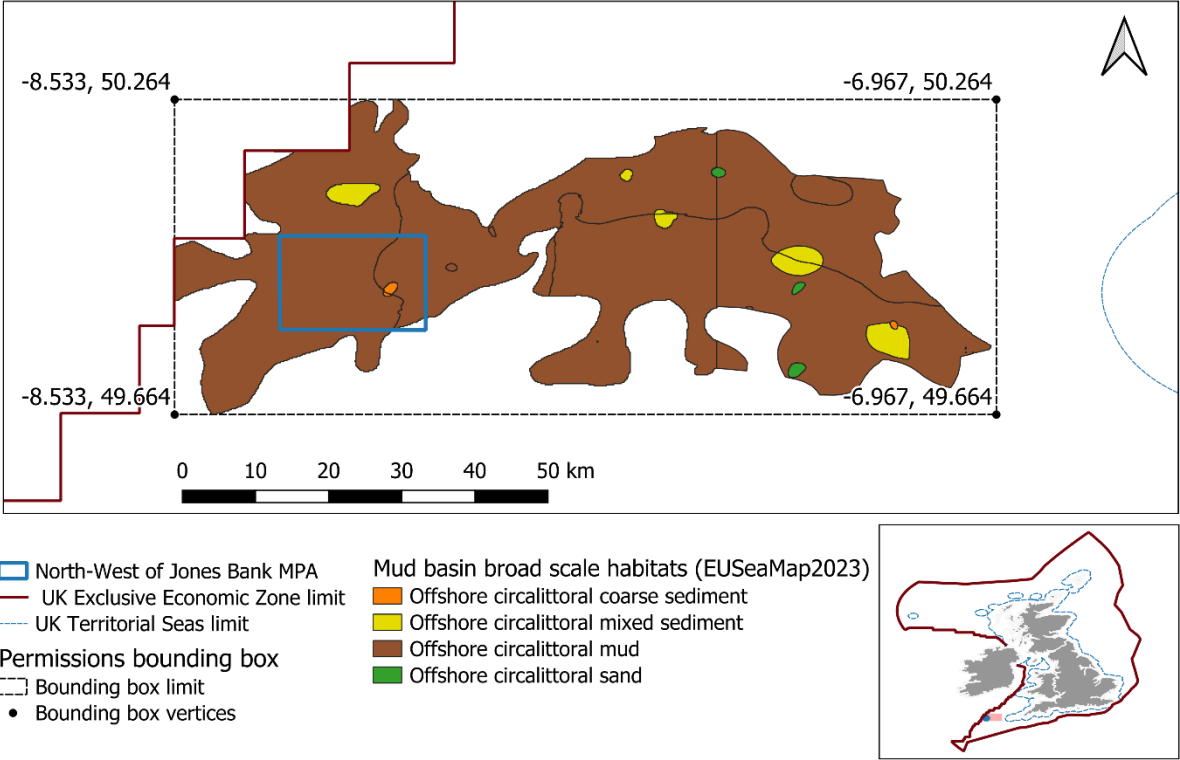


Figure 1. Map showing North-West of Jones Bank MPA and broad scale habitats and designated features identified from the 2017 survey of the MPA. Inset shows the location of the MPA in red with relation to the UK EEZ and mainland. After Eggett *et al.* (2018).

North-West of Jones Bank MPA covers part of a larger muddy basin within the Celtic Sea which begins approximately 30 km west of the Isles of Scilly and extends westward, beyond the limit of the UK EEZ. This whole area is within the Labadie, Jones and Cockburn Banks Nephrops Grounds (FU20-21). The area of Subtidal mud, which is equivalent to offshore circalittoral mud in the EUNIS habitat classification system used by EUSeaMap 2023, within the bounding box $-8.553, 49.664$ and $-6.967, 50.264$ is considered for suitable control sites for this survey (Figure 2).



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Figure 2. Extract from EUSeaMap 2023 showing the muddy basin which will forms the study area for the survey, and North-West of Jones Bank MPAs location within it.

2. Aims and objectives

The aim of this survey was to collect the first time point in a Before-After-Control-Impact study to investigate the effectiveness of proposed fisheries management measures at North-West of Jones Bank MPA.

Three monitoring objectives were developed to address this aim:

Monitoring Objective 1: Collect evidence to inform Type 3 (investigative) monitoring of the structure and function of sedimentary broad-scale habitat features at North-West of Jones Bank MPA.

Monitoring Objective 2: Collect evidence to inform Type 3 (investigative) monitoring of the supporting processes of sedimentary broad-scale habitat features of the North-West of Jones Bank MPA, and external control sites.

Monitoring Objective 3: Research and development to inform future monitoring to compare different ways to collect environmental DNA

Data from this survey will form part of a monitoring time series, and future monitoring and evidence gathering will be required to fully investigate and understand the long-term variability in any parameters measured. Future monitoring must collect comparable data to that collected by this survey though over time it is anticipated that there may be a phased change in the methods of monitoring as technology and practices are developed.

The monitoring objectives were used to create more specific survey objectives which also include contingency activities (Table 1).

Table 1. Prioritised survey objectives for survey TC25023, with reference to the monitoring objectives that they address, the equipment required to address them, and a summary of the extent to which they were progressed during the survey.

Survey Priority	Survey objective	Monitoring Objective	Equipment	Planned	Completed
1	Collect seabed imagery and eDNA samples from Priority 1 survey boxes inside NWJB	1, 2, 3	Camera sledge and metaprobes	12 (2 with metaprobes)	12 (2 with metaprobes)
2	Collect BRUV samples from Priority 1 survey boxes inside NWJB	1	BRUV	9	9
3	Collect Infauna and PSA samples from Priority 1 survey boxes inside NWJB	1	Day Grab	42	42

Survey Priority	Survey objective	Monitoring Objective	Equipment	Planned	Completed
4	Collect sediment samples for eDNA, contaminants & heavy metal from Priority 1 survey boxes inside NWJB	2, 3	Day Grab	6 contaminants 2 eDNA	6 contaminants 2 eDNA
5	Collect water samples for eDNA from Priority 1 survey boxes inside NWJB	2, 3	Niskin water bottle and CTD	2 stations	2 stations
6	Collect seabed imagery and eDNA samples from Priority 2 survey boxes outside NWJB	1, 2, 3	Camera sledge and metaprobes	16 (2 with metaprobes)	16 (2 with metaprobes)
7	Collect BRUV samples from Priority 2 survey boxes outside NWJB	1	BRUV	12	12
8	Collect Infauna and PSA samples from Priority 2 survey boxes outside NWJB	1	Day Grab	56	56
9	Collect sediment samples for eDNA and contaminants from Priority 2 survey boxes outside NWJB	2, 3	Day Grab	8 contaminants 2 eDNA	8 contaminants 2 eDNA
10	Collect water samples for eDNA from Priority 2 survey boxes outside NWJB	2, 3	Niskin water bottle and CTD	2 stations	2 stations

Survey Priority	Survey objective	Monitoring Objective	Equipment	Planned	Completed
11	Collect samples from Priority 3 boxes inside or outside NWJB	Contingency	Day grab, camera sledge, BRUV, Core, Niskin water bottle and CTD	No target specified	15 camera sledge 7 BRUV 28 PSA 27 infauna 4 contaminants
12	Collect samples from ground truthing stations or stations sampled in 2017 inside NWJB	Contingency	Day grab, camera sledge	No target specified	1

Please note the Survey Plan document, which details the rationale for undertaking the survey and for the planned survey design, is available on request from JNCC.

3. Survey design and methods

3.1. Sample numbers

Power analysis based on survey data collected in 2017 was used to determine the quantity of grabs and seabed video required for a sample. This was determined to be 14 Day grab samples for infauna and four 200 m video tows for epifauna and burrows.

Although BRUVs have not been used to sample North-West of Jones Bank MPA previously, three BRUVs were determined to be suitable based on previous experience using this equipment at other sites.

Heavy metal and contaminants samples were planned to investigate if there is any evidence for contamination in the study area, and whether this should be considered as a factor when monitoring change at the site. Two stations were randomly selected from each survey box for contaminants sampling.

eDNA samples were planned at four stations, two inside the MPA and two outside the MPA. the stations used were chosen at random inside North-West of Jones Bank MPA. Outside the MPA two options for sampling stations were chosen at random from each survey box, with the intention that only one of the control boxes would be used for eDNA sampling.

3.2. Survey boxes

Three Priority 1 survey boxes were plotted within North-West of Jones Bank MPA. each of these boxes contained an equidistant grid of 14 stations. Many of these stations had previously been sampled in 2017 (Eggett *et al.* 2018). Two new stations were added to the grid (NWIM001 & NWIM002) to have 14 stations per box. A fourth box was plotted in the same way however due to it being very close to the Priority 1 boxes, this was considered Priority 3 (Table 2; Figure 3).

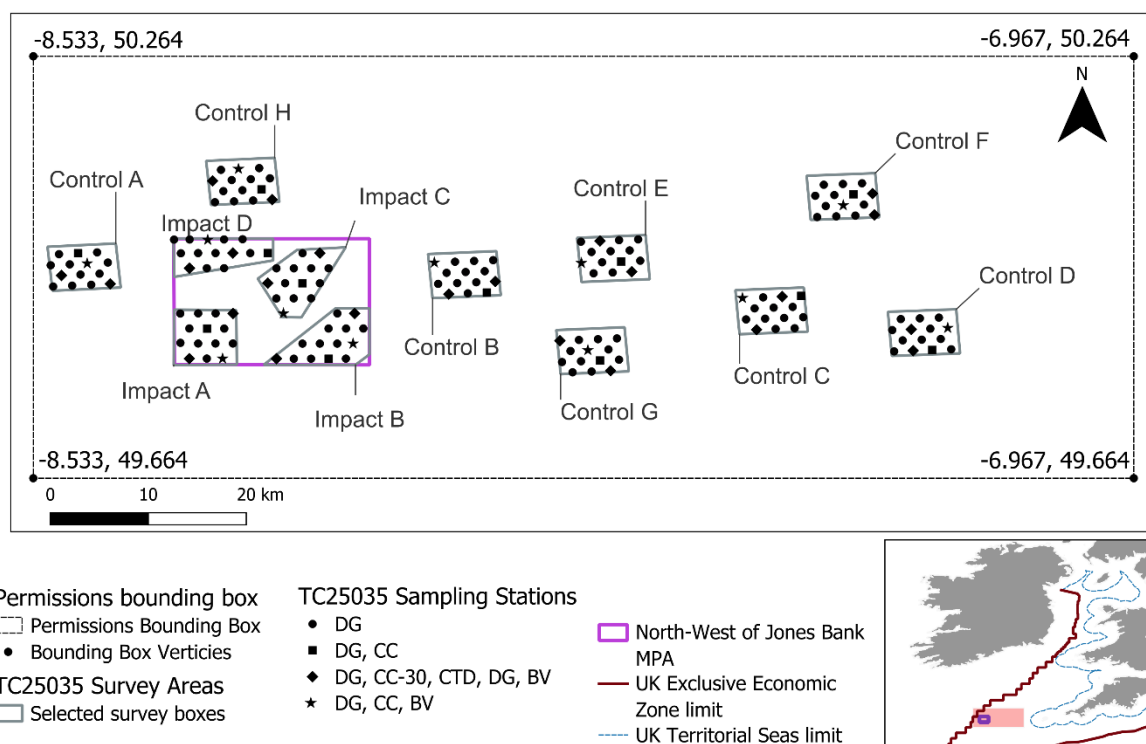
Four Priority 2 control boxes were also plotted outside the MPA. Each box was positioned to target subtidal mud habitats based on EUSeaMap2023, and to ensure all sampling stations were at least 500 m from telecoms cables that run through the study area.

Four Priority 3 control boxes were plotted in the same way, however it was expected that the substrate would be less similar to that of NWJB, therefore less likely to be suitable as a control site (Table 2; Figure 3).

Table 2. Prioritised list of survey boxes in North-West of Jones Bank MPA and the surrounding area.

Survey boxes	Priority	Location
Impact A	1	Inside MPA
Impact B	1	Inside MPA
Impact C	1	Inside MPA
Impact D	3	Inside MPA
Control A	2	Outside MPA
Control B	2	Outside MPA
Control C	2	Outside MPA
Control D	2	Outside MPA

Survey boxes	Priority	Location
Control E	3	Outside MPA
Control F	3	Outside MPA
Control G	3	Outside MPA
Control H	3	Outside MPA



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Figure 3. Sampling stations and boxes for impact boxes A-D and Control Boxes A-H, stations categorised by sampling gear combination. DG-Day grab, CC- Cathx Camera, CC-30- Cathx camera extended tow for metaprobles, BV- BRUV, CTD- rosette with Niskin bottles.

3.3. Methods

Table 3 shows the sampling equipment was used on the survey and the data type collected.

See Appendix 1 (Survey equipment and processing) for more details.

Table 3. Sampling equipment and data collected.

Sampling equipment	Data type collected
Towed camera sledge (subset mounted with metaprobles)	Video of seabed eDNA samples
BRUV	Video of demersal fish

Sampling equipment	Data type collected
0.1 m ² Day grab	Infauna sample PSA sample Heavy metal contaminants Organic eDNA samples
CTD rosette with Niskin water bottles	eDNA samples CTD profiles

3.4. Methods

The scientific survey team for the duration of the fieldwork included JNCC survey scientists, and a Marine Institute camera technician. Shift assignments are shown in Table 4.

Table 4. Roles and shift patterns.

Shift	Roles assigned
Cross-shifts (06:00 – 18:00)	JNCC SIC JNCC data manager Marine Institute technician
Night Shift (00:00 – 12:00)	JNCC survey scientist (x3)
Day Shift (12:00 – 24:00)	JNCC survey scientist (x2)

4. Survey narrative

The survey was carried out between 9 – 24 September 2025 on the RV Tom Crean (TC25023).

All times are UTC + 1 and to the nearest 15 minutes.

Tuesday 9 September - Crew and survey scientists had joined the vessel on the evening of the 8 September. Mobilisation continued on the 9 September. A toolbox talk with the crew and scientists was held at 11:00. The vessel sailed at 17:00 and began transit towards North-West of Jones Bank MPA. A muster drill was held during transit at 18:00.

Wednesday 10 September - The vessel arrived at the first station (Station code NWJB069) at 07:30. Station NWJB069 required a camera tow, and two Day grabs (one for PSA and infauna, and the other for heavy metal and organic contaminants). All samples were collected successfully. However, due to the deteriorating weather conditions, the decision was made to continue collecting camera sledge imagery to acquire as much as possible before conditions became unsuitable. Two camera stations were successfully sampled and the third was aborted due to poor visibility at the seabed.

From this point onwards only day grabs were collected.

By midnight two camera stations had been collected to address survey Objective 1, 18 grabs had been collected to address survey Objective 3, and three grabs had been collected to address survey Objective 4.

Thursday 11 September - Day grab sampling continued until 06:30, when weather conditions had deteriorated to a point where it was no longer safe to deploy the Day grab. Weather downtime continued for the remainder of the day.

In total 7 Day grabs were collected to address survey Objective 3, and one lower priority station (NWJB004) was sampled by mistake to address survey Objective 12. Weather downtime was used to undertake data management tasks. Having reviewed the camera sledge imagery collected previously, it was noted that one of the two videos collected for survey Objective 1 had poor visibility and if possible, should be repeated.

Friday 12 September - At 08:00 the weather had improved enough to restart Day grab sampling at North-West of Jones Bank MPA. By 17:45 all Day grabs required inside the Priority 1 survey boxes had been collected, completing survey Objectives 3 and 4.

After a short transit to control box B, work began on collecting Day grab samples outside the North-West of Jones Bank MPA. By midnight 9 infauna and PSA stations had been sampled to address survey Objective 8, and 1 heavy metal, organic contaminants and eDNA station had been sampled to address survey Objective 9.

Saturday 13 September – Day grab sampling at control box B continued until 03:30, when all stations had been sampled. In total, five Day grabs were collected for infauna and PSA, one for heavy metal and organic contaminants, and one for eDNA. All eDNA samples planned to be collected with the Day grab had now been acquired.

Transit began to control box A and the vessel arrived at the first station to continue Day grab sampling at 08:00. By 13:45 all 14 Day grabs for infauna and PSA had been collected as well as two Day grab samples for heavy metal and organic contaminants.

By this time the weather had improved enough to attempt camera sledge and BRUV sampling. Two stations inside North-West of Jones Bank MPA were successfully sampled to address survey Objectives 1 and 2. The BRUV was recovered at 19:40 and transit began back to Cork to avoid an incoming weather system.

Sunday 14 September – RV Tom Crean arrived in Cork at 10:45 and remained in port waiting for weather to improve at the study site for the rest of the day.

Monday 15 September – In port waiting on weather.

Tuesday 16 September – In port waiting on weather.

Wednesday 17 September – RV Tom Crean sailed from Cork at 10:00 and began transit to the study site.

Thursday 18 September – RV Tom Crean arrived at control box C at 00:15 and began the grab sampling survey there, followed immediately by box D. Grab sampling was paused at station COND051 to give the night shift an opportunity to complete a camera sledge and BRUV deployment while the camera technician was still on shift. By 14:15 all 24 Day grabs for infauna and PSA had been collected from box C and D, and four stations had been successfully sampled for heavy metal and organic contaminants. This completed survey Objectives 8 and 9 respectively.

Camera sledge and BRUV deployments started immediately, and RV Tom Crean worked back through box D and box C. By midnight all the camera sledge and BRUV stations had been completed in box D and one camera sledge and BRUV station had been completed in box C.

In total, 28 Day grabs had been collected for PSA and infauna, and four Day grabs had been collected for heavy metal and organic contaminants, completing survey Objectives 8 and 9. 6 camera sledge, and 4 BRUV deployments had been completed to address survey Objectives 6 and 7.

Friday 19 September – Camera sledge and BRUV sampling continued at control box C until all stations had been sampled at 07:00.

In control boxes outside the MPA, 2 camera sledge tows had been completed to address survey Objective 6, and 2 BRUV deployments had been completed to address survey Objective 7.

RV Tom Crean transited to North-West of Jones Bank MPA to sample stations using the camera sledge, BRUV, and CTD rosette with Niskin water bottles.

By midnight 6 camera sledge tows had been completed (2 including metaprobes) to address survey Objective 1 (this included a repeat of NWJB035), 6 BRUV deployments had been completed to address survey Objective 2 (including repeat NWJB003), and 2 CTD rosette deployments had been collected completing survey Objective 5.

Saturday 20 September – Camera sledge and BRUV sampling continued at North-West of Jones Bank MPA until all stations had been sampled at 09:00.

At this point three camera sledge and two BRUV deployments had been accomplished, completing survey Objectives 1 and 2 respectively.

RV Tom Crean transited to control box B to sample stations using the camera sledge, BRUV, and CTD rosette with Niskin water bottles. This was completed at 18:20 and by this time four camera sledge (two with metaprobes), three BRUV deployments, and two CTD rosette with Niskin water bottles had been accomplished to address survey Objectives 6, 7 and 10 respectively.

Control box A was now the highest priority area for work, requiring camera sledge and BRUV samples. However, with the forecast expected to deteriorate throughout the night to the point where this sampling would not be possible, the decision was made to target control boxes F and E first. Control box F and E were a lower priority, but they included grab stations that could be sampled until the weather had improved.

By midnight three camera, one BRUV, and one Infauna and PSA sample had been attempted at box F, contributing to survey Objective 11. Some camera stations were aborted due to rocks seen on the seabed including CONF081 where video recording was not started.

Sunday 21 September – Camera sledge sampling continued at box F until the final camera station had been sampled, then the Day grab was used to collect PSA, infauna, and heavy metal and organic contaminants samples. At one Day grab station (CONF081_S182) it was not possible to acquire a large enough sample for infauna after three attempts, however a PSA sub sample was retained from one of the attempts.

By 05:00 all sampling stations in box F had been attempted. In total, one camera tow, 13 PSA, 12 Infauna, and two heavy metal and organic contaminants samples had been collected to address survey Objective 11.

Transit began to control box E and a Day grab sample was successfully collected, however at the second station weather conditions made it difficult for the vessel to position and the decision was made at 09:00 to stop for weather downtime.

Weather downtime continued until 20:00, at this time day grab sampling resumed and a further 10 PSA and infauna, and one contaminants sample were collected to address survey Objective 11 before midnight.

Monday 22 September – Work continued at control box E, finishing the Day grab sampling and the camera sledge and BRUV sampling. In total four infauna and PSA, one heavy metal and organic contaminants, three BRUV, and four camera sledge samples were acquired at control box E to address survey Objective 11.

Transit to control box A began at 11:45.

At control box A four camera sledge samples were acquired. there were four BRUV deployments in control box A. This is because no imagery was saved on the GoPro camera at station CONA004. therefore, the decision was made to redeploy the BRUV at station CONA010 instead. Three BRUV videos were recorded from control box A. Survey Objectives 6 and 7 were now complete.

At 23:15 RV Tom Crean began transit to North-West of Jones Bank MPA to repeat stations with poor quality imagery.

Tuesday 23 September – Work began to repeat camera sledge and BRUV stations at North-West of Jones Bank MPA that had previously had poor quality imagery. By 08:30 stations NWJB005, NWJB030, NWJB033 and NWJB069 had been repeated with the BRUV and station NWJB001 had been repeated with the camera sledge.

At this point camera sledge and BRUV work began in impact box D (a Priority 3 box), inside North-West of Jones Bank MPA. by 16:45 four camera sledge stations and three BRUV stations had been sampled to address survey Objective 11.

RV Tom Crean then transited to control box H (another Priority 3 box), and by 19:30 three camera sledge stations had been sampled to address survey Objective 11.

RV Tom Crean began transiting back to Cork to end the survey.

Wednesday 24 September – RV Tom Crean arrived alongside at Horgan's Quay in Cork at 08:00 and demobilisation began.

Infauna and PSA samples were collected by a contractor and contaminants, and eDNA samples were collected by the Marine Institute, to be stored temporarily in Galloway.

Demobilisation was completed at 13:00, ending the survey.

For a summary of all time allocation during TC25023 operations see Appendix 2 (Survey timings). This shows the time breakdown between different operations of the survey, transit, and weather downtime through to sampling operations.

5. Data acquired

5.1. Infauna and sediment samples

In total, 126 Infauna and 127 PSA subsamples were collected from 0.1 m² Day grabs during the survey.

Inside North-West of Jones Bank MPA, 42 infauna and PSA samples were collected from three survey boxes (impact boxes A, B, and C) to address survey Objective 3. A lower priority station (NWJB004), previously sampled in 2017 was also visited by mistake. Therefore one Infauna and PSA sample was collected to address survey Objective 12 (Figure 4).

Outside the MPA, 56 infauna and PSA samples were collected from four Priority 3 control boxes (control boxes A, B, C, and D) to address survey Objective 8. 27 infauna and 28 PSA samples were collected from two Priority 4 control boxes (control boxes E and F) to address survey Objective 11. At station CONF081 it was not possible to acquire a grab sample with over 5 L of sediment after three attempts. Therefore, an infauna sample was not retained (Figure 5).

5.2. Contaminants samples

In total, 18 heavy metal and organic contaminants samples were collected from 0.1 m² Day grabs during the survey. Inside North-West of Jones Bank MPA, 6 were collected to address survey Objective 4 (Figure 4).

Outside the MPA, 8 heavy metal and organic contaminants samples were collected from four Priority 3 control boxes (A, B, C, and D) to address survey Objective 9. Four heavy metal and organic contaminants samples were collected from two Priority 4 control boxes (E and F) to address survey Objective 11 (Figure 5).

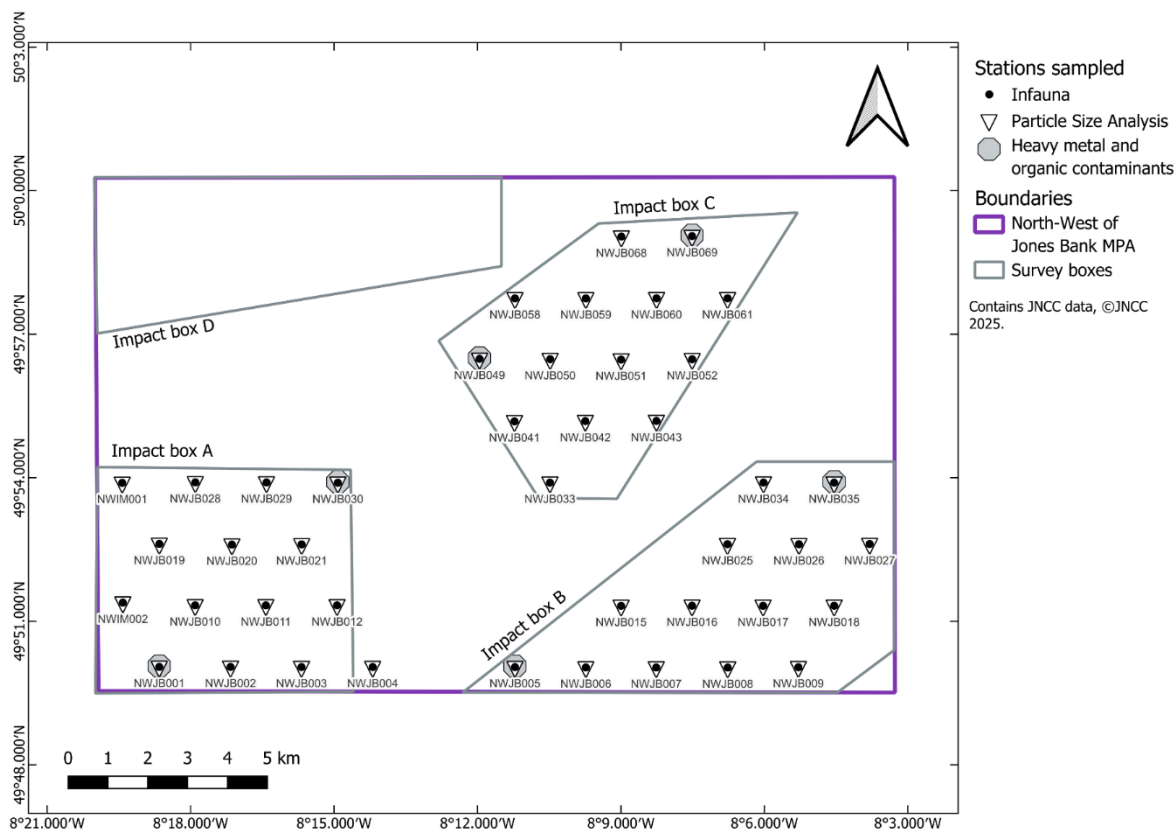


Figure 4. Infauna, PSA, heavy metal and organic contaminant samples collected from stations inside North-West of Jones Bank MPA using a 0.1 m² Day grab.

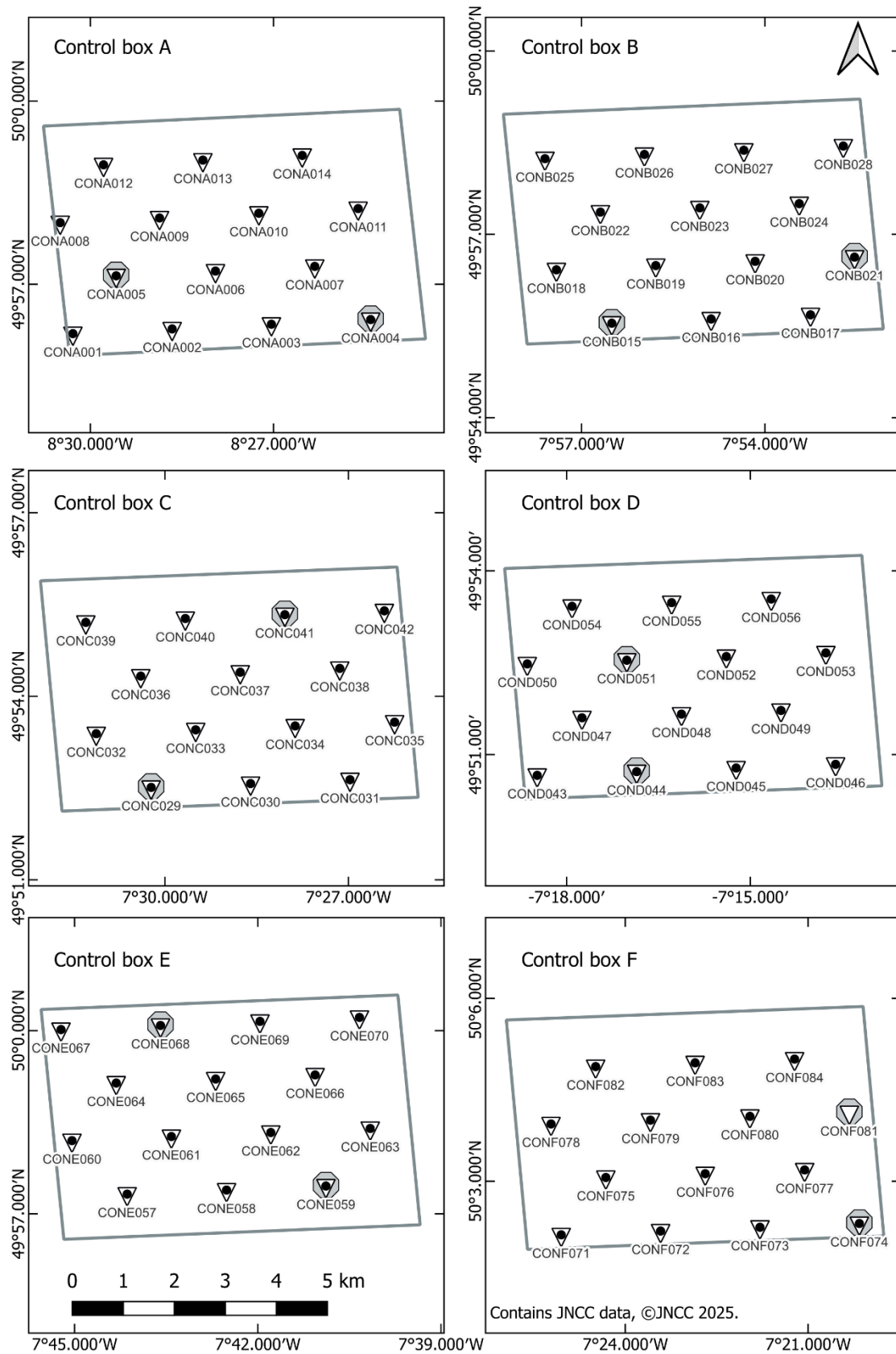


Figure 5. Infauna (black circles), PSA (white triangles), heavy metal and organic contaminant samples (grey octagons) collected from stations outside North-West of Jones Bank MPA using a 0.1 m² Day grab.

5.3. Seabed imagery samples

In total seabed imagery samples were collected from 43 stations using the camera sledge.

Inside North-West of Jones Bank MPA, 12 stations were sampled from three Priority 1 survey boxes (impact box A, B, and C) to address survey Objective 1. Four stations were sampled from four Priority 3 survey boxes (impact box D) to address survey Objective 11 (Figure 6).

Outside the MPA , 16 stations were sampled from four Priority 3 control boxes (control box A, B, C, and D) to address survey Objective 6. Eleven stations were sampled from three Priority 4 control boxes (control boxes E, F, and H) to address survey Objective 11 (Figure 7).

5.4. BRUV samples

In total BRUV systems were deployed at 28 stations. Note that not all deployments were successful and the final number of samples will be determined once the footage is fully reviewed.

Inside North-West of Jones Bank MPA, BRUVs were deployed at nine stations from three Priority 1 survey boxes (impact box A, B, and C) to address survey Objective 2. Three stations were sampled from four Priority 3 survey boxes (impact box D) to address survey Objective 11.

Outside the MPA , BRUVs were deployed at 12 stations from four Priority 2 control boxes (control box A, B, C, and D) to address survey Objective 7. Four stations were sampled from three Priority 3 control boxes (control boxes E, F, and H) to address survey Objective 11.

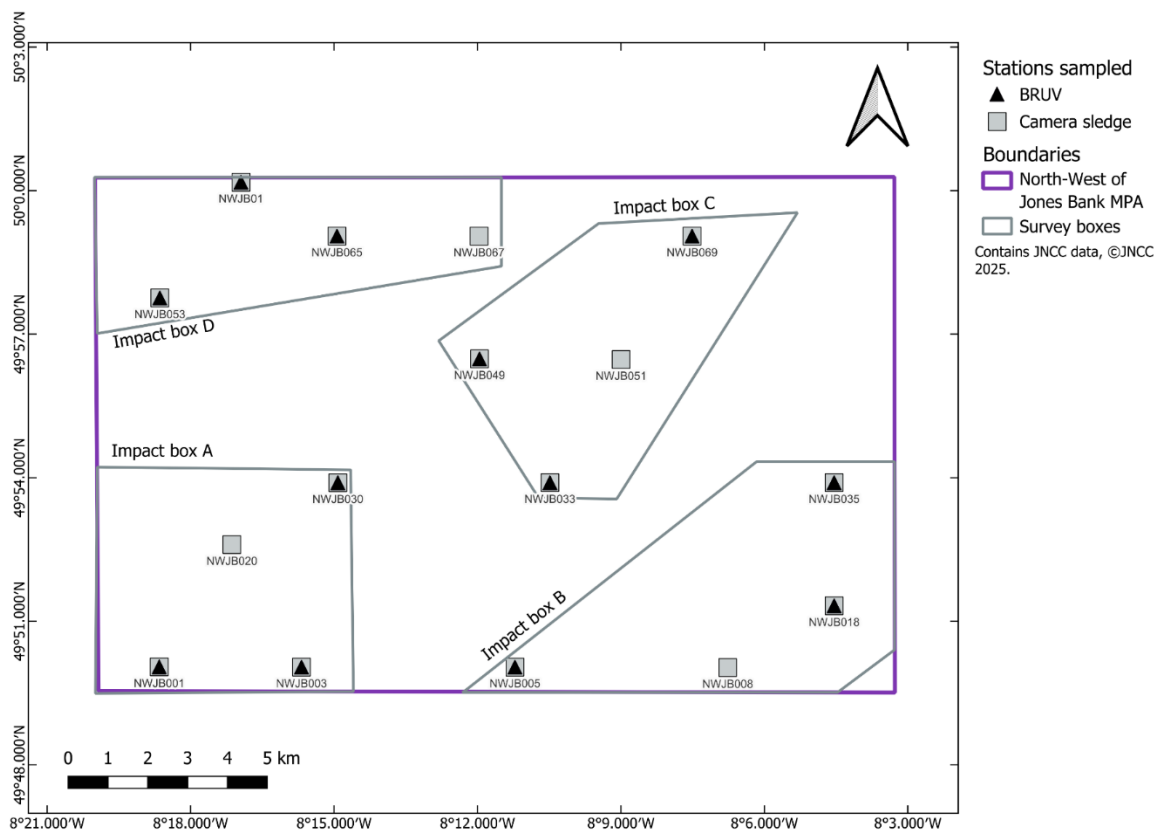


Figure 6. Camera sledge and BRUV samples collected from stations inside North-West of Jones Bank MPA.

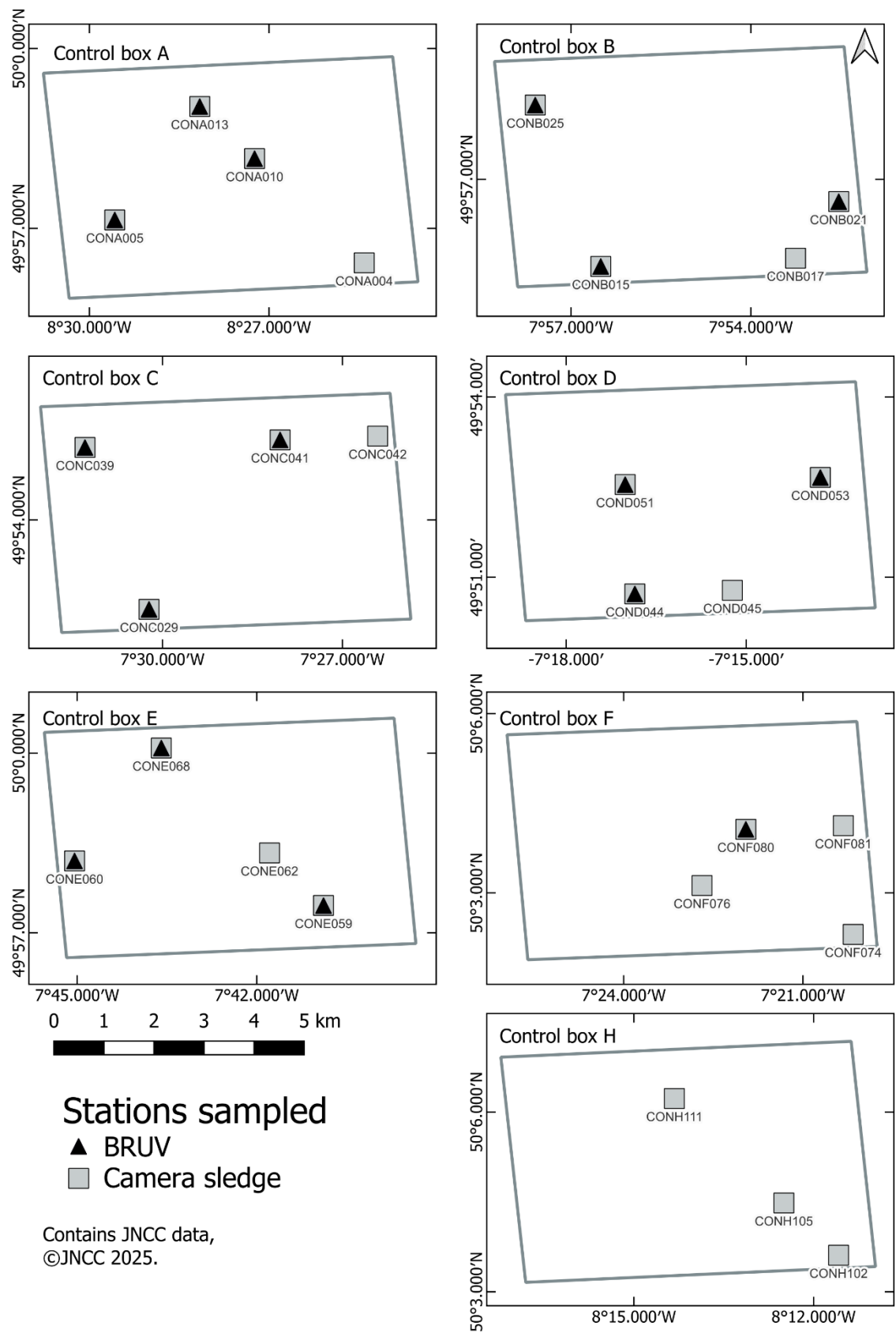


Figure 7. Camera sledge and BRUV samples collected from stations outside North-West of Jones Bank MPA.

5.5. eDNA samples

eDNA samples were collected using three methods: sediment sampling, deploying niskin bottles, and attaching metaprobes to a camera sledge. Each method was carried out at four stations: two stations inside North-West of Jones Bank MPA and two stations from control box B.

At each station, sediment samples were collected using a 0.1 m² Day grab (survey Objectives 4 and 9), with four 40 ml sediment subsamples collected from the same grab using a sterile syringe. Sediment samples were stored in falcon tubes in a -20°C freezer. At each station, four water samples were collected by mounting four Niskin water bottles onto a CTD rosette (survey Objectives 5 and 10), which was lowered to 3 m above the seafloor. Approximately 5 litres of water was filtered from each niskin bottle using a 'Geopump peristaltic pump' to filter the water through a sterivex filter (pore size 0.45 µm). The sterivex filters were stored in 99+% biomolecular grade ethanol at room temperature. Four metaprobes, containing one 2 x 6 cm roll of gauze each, were also mounted to the camera sledge frame at each station. If necessary, camera tows with metaprobes mounted were extended to ensure a total of 30 minutes at the seabed (in addition to descent and ascent time) (survey Objectives 1 and 6). The gauze was stored in a falcon tube with 99+% biomolecular grade ethanol at room temperature.

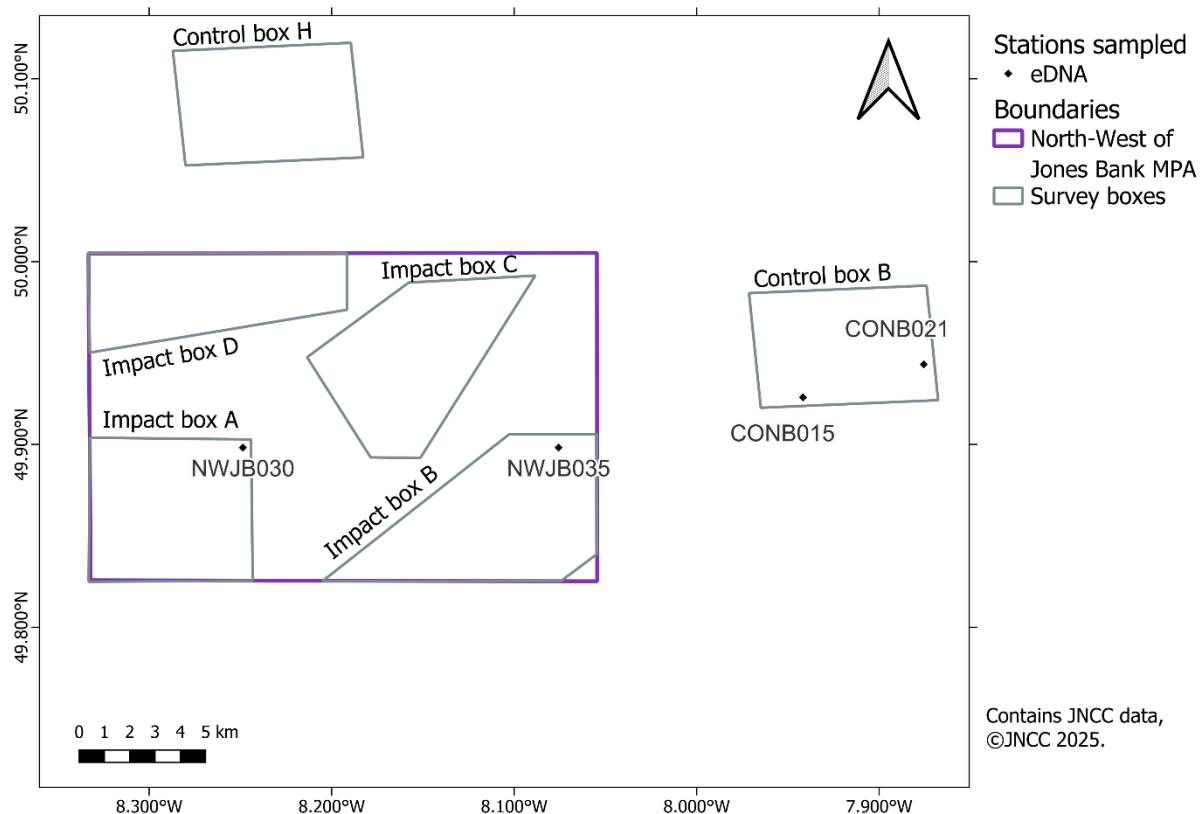


Figure 8. eDNA samples collected from stations inside and outside North-West of Jones Bank MPA.

For the list of survey station metadata see Appendix 3.

References

- Callaway, A., McIlwaine, P., McBreen, F. & Lawson, J. (2020) North-West of Jones Bank Marine Conservation Zone (MCZ) Monitoring Report 2016. *JNCC/Cefas Partnership Report 32*, JNCC, Peterborough, ISSN 2051-6711, Crown Copyright.
<https://jncc.gov.uk/resources/6e2455b2-4aa4-440a-8e3c-5ecfb36c705f>
- Eggett, A., McBreen, F., Griffiths, Y., van Rein, H., Last, E. & Callaway, A. (2018) CEND0917 Cruise Report: North-West of Jones Bank and The Canyons Marine Conservation Zones' Monitoring Survey <https://data.jncc.gov.uk/data/5c1f42fa-f6c9-4356-b5c0-ffdec255883a/JNCC-Cefas-21-FINAL-WEB.pdf>
- JNCC. (2018) Supplementary Advice on Conservation Objectives for North-West of Jones Bank Marine Conservation Zone. Accessed September 2025.
<https://data.jncc.gov.uk/data/3a2fe0e6-ac24-437b-b32e-7e96d96c9a91/NWJB-3-SACO-v1.0.pdf>
- Jones, A., Le Bas, T. & Wynn, R. (2015) North-West of Jones Bank rMCZ Post-survey Site Report.
<https://randd.defra.gov.uk/ProjectDetails?ProjectID=18983&FromSearch=Y&Publisher=1&SearchText=MB0129&SortString=ProjectCode&SortOrder=Asc&Paging=10#Description>
- Mason, C. (2016) NMBAQC's Best Practice Guidance. Particle Size Analysis (PSA) for Supporting Biological Analysis. National Marine Biological AQC Coordinating Committee, 84pp, first published 2011, updated March 2022.
- MMO. (2025) MMO Stage 3 Site Assessment: North-West of Jones Bank MPA (Draft).
https://assets.publishing.service.gov.uk/media/6760427f239b9237f091543a/North-West_of_Jones_Bank_MPA_Fisheries_Site_Assessment_-_Stage_3.pdf [Accessed September 2025]
- Noble-James, T., Jesus, A. & McBreen, F. (2018) Monitoring guidance for marine benthic habitats (Revised 2018). *JNCC Report 598*. JNCC, Peterborough, ISSN 0963-809.
<https://hub.jncc.gov.uk/assets/9ade4be8-63dd-4bbc-afd0-aefe71af0849>
- Sotheran, I., Welch, R., Benson, A. & Jones, L. (2016), Marine Conservation Zone Benthic Community Analysis, *JNCC Report 595*, JNCC, Peterborough, ISSN 0963-8091.
<https://jncc.gov.uk/resources/1093cb52-7bdb-456d-86b5-3fb96d19168f>

Appendix 1. Survey equipment and processing

Day grab sampling

A 0.1 m² Day grab (Figure 6) was used to collect Particle Size Analysis (PSA) and infauna samples, contaminants, and sediment samples for eDNA.

For all sample types, a Day grab was collected from each survey station, following guidance in Section 7.2 of the monitoring guidance for marine benthic habitats (Noble-James *et al.* 2018). 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.

Depending on what was planned for a sampling station, a grab was used to collect either:

- One infauna sample and one sediment sub-sample for PSA,
- one heavy metal and one organic contaminants sample,
- Or four eDNA sediment sub-samples.

PSA sub-sample

NMBAQC guidelines (Mason, 2016) were followed for acquiring a PSA sub-sample. It should be noted that separate grabs for PSA and infauna were not collected to maintain compatibility with previous surveys of North-West of Jones Bank MPA (Eggett *et al.* 2018; Callaway *et al.* 2020).

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 (greater than 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 -20 °C freezer.

Infauna sample

The grab was emptied and washed into a 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 5 L was required.

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 10% formalin solution. All sample pots were labelled internally and externally.

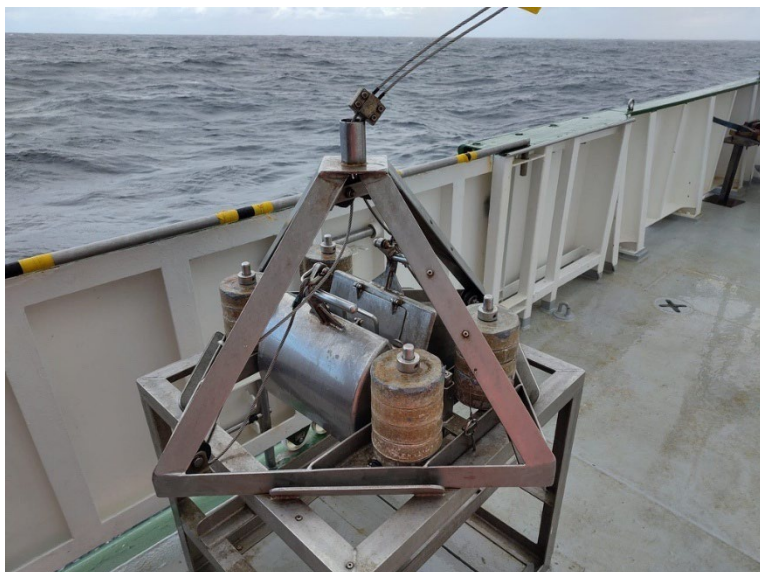


Figure 9. 0.1 m² Day grab used on the TC25023 survey of North-West of Jones Bank MPA.
Heavy metal and organic contaminants

Before each deployment, the Day grab, as well as any equipment used for sampling organic contaminants and organotins (rulers, scoops, and foil) were cleaned with Acetone to avoid cross contamination between deployments. The glass jars were pre-sterilised.

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 (cleaned with Acetone) and rejected if less than 7 cm in mud or 5 cm in hard packed sand.

Two samples were collected from each grab, one for organic contaminants and organotins and one for heavy metals.

To collect an organic contaminant and organotins sample, a stainless-steel scoop was used to collect approximately 200 g of sediment, avoiding the area where the stainless-steel ruler had been used. The sediment was stored in a glass jar. Tin foil was placed over the jar opening and the lid was secured over the foil. The samples were stored in a -20 °C freezer.

To collect a heavy metals sample, a plastic syringe was used to collect a 10 cm core from the grab. This was stored in a zip lock bag in a -20 °C freezer.

eDNA sediment sample

Before sampling, all equipment was sterilised by soaking in 10% bleach solution for 30 minutes, followed by soaking in 5% Lipsol solution for 5 minutes, then rinsed in distilled water and left to dry on a sterilised surface. Additional PPE (nitrile gloves, disposable apron, and safety goggles) were worn for the procedure. The inside of the day grab was wiped down with 10% bleach then sprayed with distilled water before deployment. When the grab was recovered, a photo was taken of the undisturbed sediment surface before extracting four cores using a sterilised, 50 ml, syringe. Each sub sample was transferred from the syringe to a falcon tube, sealed in a whirlpak and stored in a -20 °C freezer.

Two control samples were collected. One on the first and one on the last day of sediment sampling.

The process for collecting a control sample was as follows:

1. Wear gloves, apron and safety goggles.
2. Pour a small amount of sterile water over a new syringe and collect some of the water in a falcon tube. This is called an equipment 'rinsate blank' and it checks for potential contamination.
3. Open a pot of the sterile sand and take 40 ml out using the same syringe.
4. Deposit the sand into the same falcon tube.
5. Place the control sample in a whirlpak and then in the -20 °C freezer.

Camera sledge sampling

The Marine Institutes CathX camera sledge system was used to record video footage of the seabed. At some stations the camera sledge was mounted with eDNA metaprobes (Figure 10).



Figure 10. The Marine Institutes camera sledge system. eDNA metaprobes are attached to cross braces on the sledge runners.

Seabed video

Seabed video was recorded for a minimum target time of 15 minutes at each station, and a target speed of 1 knot. However, the target time was increased if there were sections of video with poor visibility or extra time was needed at the seabed for metaprobe soak time and decreased if a tow needed to end early due to rocks on the seabed. Point lasers were 760 mm apart and a USBL system (see section on GPS positions and corrections) was used for accurate position of the sledge track on the seabed.

eDNA metaprobe sample

At stations where eDNA was collected, four metaprobes were attached to the camera sledge frame using reusable zip ties. The metaprobes required 30 minutes at the seabed. The timer was started when the sledge reached the seabed and included the time required to settle the sledge before starting video recording. If the 15 minutes of video was collected before the 30 minutes of time on the seabed was up, the recording was extended to ensure the metaprobes had been towed near the seabed for the full 30 minutes.

The metaprobes, and zip ties were sterilised before each deployment by soaking in 10% bleach (90% distilled water) solution for 30 minutes, followed by soaking in 5% Lipsol (95% distilled water) solution for 5 minutes, then rinsed in distilled water and left to dry on a sterilised surface.

Metaprobes were constructed on a sterilised work surface (cleaned with 10% bleach solution), with a roll of sterilised gauze (5–6cm length, 1–2cm diameter) suspended with a zip tie in the centre.

After deployment metaprobe samples were processed on a sterilised work surface (cleaned with 10% bleach solution). Gauze was removed and stored in a 50 ml falcon tube, filled with ethanol. The falcon tube was then stored in a labelled whirl pack bag at room temperature.

Clean nitrile gloves and disposable aprons were worn at all stages when handling eDNA samples.

Two control samples were collected. One on the first and one on the last day of metaprobe sampling.

The process for collecting a control sample was as follows:

1. Wear gloves, apron and safety goggles.
2. Prepare a roll of sterilised gauze in the same way as for eDNA samples.
3. Store in falcon tube with ethanol, at room temperature.

Baited Remote Underwater Video (BRUV)

A Fjordstrong BRUV (Figure 11) was used, with stereo GoPro 9 Black cameras. Camera the camera settings used are shown in Table 5. The bait canister was filled with 1 -1.5 kg of mackerel and horse mackerel. BRUVs were loaded with 15 – 30 kg of weight and deployed from the starboard side gantry. Plenty of slack was provided to avoid moving the BRUV once on the bottom. A soak time of 60 minutes was used.



Figure 11. BRUV camera system used on the TC25023 survey of North-West of Jones Bank MPA.

Table 6. GoPro camera settings used on TC25023. From Fjordstrong BRUV standard operating procedure.

Setting	Value
Resolution	1440
Aspect Ratio	4:3
FPS	30
Lens	Wide
HyperSmooth	Off
Zoom	1.0x
Bit Rate	Standard
Shutter	Auto
EV Comp	0
White Balance	4500K
ISO Min	100
ISO Max	1600
Sharpness	High
Colour	GoPro
RAW Audio	Off
Wind Reduction	Off

eDNA water sample

Before sampling, all funnels and tubing used for the procedure were sterilised by soaking in 10% bleach solution for 30 minutes, followed by soaking in 5% Lipsol solution for 5 minutes, then rinsed in distilled water and left to dry on a sterilised surface. Work surfaces were cleaned with 10% bleach solution and clean nitrile gloves, and disposable aprons were worn at all stages when handling eDNA samples.

Niskin bottles were mounted on a CTD rosette (Figure 12). The bottles were fired at approximately 3 m above the seabed to collect a near bottom water sample. Four water samples were collected from each deployment. For each sample 5 L of water, collected from a Niskin, was passed through a sterivex filter using a peristaltic pump. The filter was filled with 1.2–1.5 ml of ethanol before being capped at both ends and stored in a labelled whirl pack bag at room temperature.

Two control samples were collected. One on the first and one on the last day of water sampling.

The process for collecting a control sample was as follows:

1. wear gloves, apron and safety goggles,
2. pump 0.5 L of distilled water through a sterivex filter,
3. fill the filter with 1.2 – 1.5 ml of ethanol,
4. cap the filter at both ends and store in a labelled whirl pack bag at room temperature.



Figure 12. CTD rosette and Niskin bottles used on the TC25023 survey of North-West of Jones Bank MPA.

GPS positions and corrections

GPS fixes were recorded manually from a screen displaying RV Tom Crean ships data and by taking a fix of the ships data using event logger. These systems recorded the Lat/Long position of the ships GPS antenna, time (UTC + 0), and depth from keel.

Positional data for the towed camera system was obtained using a Sonardyne Ranger 2 Ultra Short Baseline (USBL) system.

RV Tom Crean

Full details of the RV Tom Crean can be found on the Marine Institute of Ireland website:

<https://www.marine.ie/site-area/infrastructure-facilities/research-vessels/tom-crean>

For a breakdown of survey operations and time sampled during the survey see Appendix 2.

Appendix 2. Survey timings

Time spent on different activities during the survey is summarised in Table 6.

Table 6. Summary of the time sent on different survey activities during TC25023, in hours and as a percentage of total survey time.

Activity	Time spent (hh:mm)	Time spent (%)
Mob/Demob	17:00	4.56
Total Operation Sampling	191:55	51.45
Waiting On Weather	122:50	32.93
Transit	41:15	11.06

Appendix 3. Survey metadata

Day grab metadata

Sample ID	Latitude	Longitude	Date	Time	Sample type
TC25035_NWJB_NWJB069_S002_A1	49.986667	-8.1383333	10/09/2025	08:25:00	PSA and infauna
TC25035_NWJB_NWJB069_S003_A1	49.986667	-8.1383333	10/09/2025	09:14:00	Contaminants (glass pot) & Heavy metal (plastic bag)
TC25035_NWJB_NWJB009_S006_A1	49.83444437	-8.08854705	10/09/2025	12:19:00	PSA and infauna
TC25035_NWJB_NWJB008_S007_A1	49.8339541	-8.1121859	10/09/2025	13:03:00	PSA and infauna
TC25035_NWJB_NWJB007_S008_A1	49.8332988	-8.137410333	10/09/2025	13:53:00	PSA and infauna
TC25035_NWJB_NWJB006_S009_A1	49.83382693	-8.162559983	10/09/2025	14:27:00	PSA and infauna
TC25035_NWJB_NWJB005_S010_A1	49.83400228	-8.1865666	10/09/2025	15:05:00	Contaminants (glass pot) & Heavy metal (plastic bag)
TC25035_NWJB_NWJB005_S011_A1	49.8339796	-8.186450333	10/09/2025	15:14:00	PSA and infauna
TC25035_NWJB_NWJB004_S012_A1	49.83394733	-8.235976617	10/09/2025	16:00:00	none (failed attempt)
TC25035_NWJB_NWJB004_S012_A2	49.83394533	-8.235712933	10/09/2025	16:07:00	PSA and infauna
TC25035_NWJB_NWJB003_S013_A1	49.83400973	-8.261269217	10/09/2025	17:22:00	PSA and infauna
TC25035_NWJB_NWJB002_S014_A1	49.83396843	-8.286310133	10/09/2025	17:52:00	PSA and infauna
TC25035_NWJB_NWJB001_S015_A1	49.83440108	-8.311326383	10/09/2025	18:30:00	Contaminants (glass pot) & Heavy metal (plastic bag)
TC25035_NWJB_NWJB001_S016_A1	49.83413582	-8.310704183	10/09/2025	18:45:00	PSA and infauna
TC25035_NWIM_NWIM002_S017_A1	49.85713217	-8.326982967	10/09/2025	19:21:00	PSA and infauna
TC25035_NWJB_NWJB010_S018_A1	49.85558307	-8.298835533	10/09/2025	19:54:00	PSA and infauna
TC25035_NWJB_NWJB011_S019_A1	49.85585758	-8.274290933	10/09/2025	20:21:00	PSA and infauna
TC25035_NWJB_NWJB012_S020_A1	49.85468635	-8.249853783	10/09/2025	20:47:00	PSA and infauna
TC25035_NWJB_NWJB015_S021_A1	49.85327458	-8.152478783	10/09/2025	21:56:00	PSA and infauna
TC25035_NWJB_NWJB016_S022_A1	49.85456885	-8.127403433	10/09/2025	22:33:00	PSA and infauna

Sample ID	Latitude	Longitude	Date	Time	Sample type
TC25035_NWJB_NWJB017_S023_A1	49.85375423	-8.1008997	10/09/2025	23:05:00	PSA and infauna
TC25035_NWJB_NWJB018_S024_A1	49.85513343	-8.076228283	10/09/2025	23:30:00	PSA and infauna
TC25035_NWJB_NWJB027_S025_A1	49.87711337	-8.063129167	11/09/2025	00:01:00	PSA and infauna
TC25035_NWJB_NWJB026_S026_A1	49.87667	-8.08667	11/09/2025	01:28:00	PSA and infauna
TC25035_NWJB_NWJB025_S027_A1	49.87660825	-8.1120335	11/09/2025	01:05:00	PSA and infauna
TC25035_NWJB_NWJB021_S028_A1	49.87661925	-8.260962133	11/09/2025	03:10:00	PSA and infauna
TC25035_NWJB_NWJB020_S029_A1	49.87646162	-8.284641017	11/09/2025	03:39:00	PSA and infauna
TC25035_NWJB_NWJB019_S030_A1	49.87674672	-8.310622883	11/09/2025	04:10:00	none (failed attempt)
TC25035_NWJB_NWJB019_S030_A2	49.8766819	-8.31040165	11/09/2025	04:14:00	PSA and infauna
TC25035_NWIM_NWIM001_S031_A1	49.8979863	-8.32370025	11/09/2025	04:57:00	PSA and infauna
TC25035_NWJB_NWJB028_S032_A1	49.89898767	-8.300230633	11/09/2025	05:27:00	PSA and infauna
TC25035_NWJB_NWJB035_S033_A1	49.89977078	-8.073313017	12/09/2025	07:22:00	Contaminants (glass pot) & Heavy metal (plastic bag)
TC25035_NWJB_NWJB035_S034_A1	49.8998303	-8.07309365	12/09/2025	07:35:00	eDNA (4 sub-samples)
TC25035_NWJB_NWJB035_S035_A1	49.89983325	-8.073113167	12/09/2025	07:49:00	PSA and infauna
TC25035_NWJB_NWJB034_S036_A1	49.8980511	-8.098631383	12/09/2025	08:26:00	PSA and infauna
TC25035_NWJB_NWJB033_S037_A1	49.89785857	-8.173910233	12/09/2025	09:17:00	PSA and infauna
TC25035_NWJB_NWJB030_S038_A1	49.89741198	-8.246803767	12/09/2025	10:10:00	Contaminants (glass pot) & Heavy metal (plastic bag)
TC25035_NWJB_NWJB030_S039_A1	49.89736128	-8.246778217	12/09/2025	10:20:00	eDNA (4 sub-samples)
TC25035_NWJB_NWJB030_S040_A1	49.89538757	-8.246031333	12/09/2025	10:33:00	PSA and infauna
TC25035_NWJB_NWJB029_S041_A1	49.89812023	-8.272183217	12/09/2025	11:04:00	PSA and infauna
TC25035_NWJB_NWJB041_S042_A1	49.91954537	-8.186487383	12/09/2025	11:53:00	none (failed attempt)
TC25035_NWJB_NWJB041_S042_A2	49.91954815	-8.186561433	12/09/2025	11:58:00	PSA and infauna
TC25035_NWJB_NWJB042_S043_A1	49.91975312	-8.162714967	12/09/2025	12:23:00	none (failed attempt)

Sample ID	Latitude	Longitude	Date	Time	Sample type
TC25035_NWJB_NWJB042_S043_A2	49.91975893	-8.162661617	12/09/2025	12:30:00	PSA and infauna
TC25035_NWJB_NWJB043_S044_A1	49.9194925	-8.1394757	12/09/2025	12:58:00	PSA and infauna
TC25035_NWJB_NWJB052_S045_A1	49.94156093	-8.125106967	12/09/2025	13:24:00	PSA and infauna
TC25035_NWJB_NWJB051_S046_A1	49.9413	-8.14922	12/09/2025	14:03:00	PSA and infauna
TC25035_NWJB_NWJB050_S047_A1	49.9404	-8.17509	12/09/2025	14:27:00	PSA and infauna
TC25035_NWJB_NWJB049_S048_A1	49.9414	-8.1994	12/09/2025	14:51:00	Contaminants (glass pot) & Heavy metal (plastic bag)
TC25035_NWJB_NWJB049_S049_A1	49.9414	-8.19935	12/09/2025	14:58:00	PSA and infauna
TC25035_NWJB_NWJB058_S050_A1	49.9621	-8.18658	12/09/2025	15:26:00	none (failed attempt)
TC25035_NWJB_NWJB058_S050_A2	49.9621	-8.18657	12/09/2025	15:31:00	PSA and infauna
TC25035_NWJB_NWJB059_S051_A1	49.9626	-8.16258	12/09/2025	15:52:00	PSA and infauna
TC25035_NWJB_NWJB060_S052_A1	49.9628	-8.1378	12/09/2025	16:14:00	PSA and infauna
TC25035_NWJB_NWJB061_S053_A1	49.9624	-8.1135	12/09/2025	17:11:00	PSA and infauna
TC25035_NWJB_NWJB068_S054_A1	49.984	-8.14925	12/09/2025	17:45:00	PSA and infauna
TC25035_CONB_CONB025_S055_A1	49.9708	-7.96135	12/09/2025	18:50:00	none (failed attempt)
TC25035_CONB_CONB025_S055_A2	49.9708	-7.9615	12/09/2025	18:55:00	PSA and infauna
TC25035_CONB_CONB026_S056_A1	49.9721	-7.93351	12/09/2025	19:16:00	PSA and infauna
TC25035_CONB_CONB027_S057_A1	49.9742	-7.90535	12/09/2025	19:43:00	PSA and infauna
TC25035_CONB_CONB028_S058_A1	49.9731	-7.87887	12/09/2025	20:11:00	PSA and infauna
TC25035_CONB_CONB024_S059_A1	49.9586	-7.88902	12/09/2025	20:38:00	none (failed attempt)
TC25035_CONB_CONB024_S059_A2	49.9579	-7.88707	12/09/2025	20:47:00	PSA and infauna
TC25035_CONB_CONB023_S060_A1	49.9568	-7.91711	12/09/2025	21:19:00	none (failed attempt)
TC25035_CONB_CONB023_S060_A2	49.9558	-7.91607	12/09/2025	21:27:00	none (failed attempt)
TC25035_CONB_CONB023_S060_A3	49.9554	-7.91591	12/09/2025	21:31:00	none (failed attempt)
TC25035_CONB_CONB022_S061_A1	49.9552	-7.94461	12/09/2025	21:55:00	PSA and infauna

Sample ID	Latitude	Longitude	Date	Time	Sample type
TC25035_CONB_CONB018_S062_A1	49.9387	-7.95571	12/09/2025	22:22:00	PSA and infauna
TC25035_CONB_CONB019_S063_A1	49.942	-7.92886	12/09/2025	22:54:00	none (failed attempt)
TC25035_CONB_CONB019_S063_A2	49.942	-7.92897	12/09/2025	22:58:00	PSA and infauna
TC25035_CONB_CONB020_S064_A1	49.942	-7.90143	12/09/2025	23:21:00	PSA and infauna
TC25035_CONB_CONB021_S065_A1	49.9427	-7.87505	12/09/2025	23:45:00	Contaminants (glass pot) & Heavy metal (plastic bag)
TC25035_CONB_CONB021_S066_A1	49.9426	-7.875	12/09/2025	23:57:00	eDNA (4 sub-samples)
TC25035_CONB_CONB021_S067_A1	49.9426	-7.875	13/09/2025	00:09:00	PSA and infauna
TC25035_CONB_CONB017_S068_A1	49.9276	-7.8877	13/09/2025	00:36:00	PSA and infauna
TC25035_CONB_CONB016_S069_A1	49.9262	-7.91539	13/09/2025	01:04:00	PSA and infauna
TC25035_CONB_CONB015_S070_A1	49.9256	-7.94163	13/09/2025	01:28:00	Contaminants (glass pot) & Heavy metal (plastic bag)
TC25035_CONB_CONB015_S071_A1	49.9256	-7.9416	13/09/2025	01:38:00	eDNA (4 sub-samples)
TC25035_CONB_CONB015_S072_A1	49.9256	-7.94156	13/09/2025	01:49:00	PSA and infauna
TC25035_CONB_CONB023_S073_A1	49.9572	-7.9179	13/09/2025	02:20:00	PSA and infauna
TC25035_CONA_CONA014_S074_A1	49.9852	-8.44259	13/09/2025	07:01:00	none (failed attempt)
TC25035_CONA_CONA014_S074_A2	49.9851	-8.44264	13/09/2025	07:06:00	PSA and infauna
TC25035_CONA_CONA013_S075_A1	49.9842	-8.46872	13/09/2025	07:32:00	PSA and infauna
TC25035_CONA_CONA012_S076_A1	49.9831	-8.49498	13/09/2025	07:57:00	PSA and infauna
TC25035_CONA_CONA008_S077_A1	49.9667	-8.50866	13/09/2025	08:25:00	PSA and infauna
TC25035_CONA_CONA009_S078_A1	49.967	-8.48187	13/09/2025	08:52:00	PSA and infauna
TC25035_CONA_CONA010_S079_A1	49.9698	-8.45563	13/09/2025	09:20:00	PSA and infauna
TC25035_CONA_CONA011_S080_A1	49.9704	-8.4296	13/09/2025	09:39:00	PSA and infauna
TC25035_CONA_CONA007_S081_A1	49.9553	-8.43787	13/09/2025	10:07:00	PSA and infauna
TC25035_CONA_CONA006_S082_A1	49.9529	-8.46738	13/09/2025	10:29:00	PSA and infauna

Sample ID	Latitude	Longitude	Date	Time	Sample type
TC25035_CONA_CONA005_S083_A1	49.9519	-8.49342	13/09/2025	10:51:00	Contaminants (glass pot) & Heavy metal (plastic bag)
TC25035_CONA_CONA005_S084_A1	49.9518	-8.49339	13/09/2025	10:58:00	PSA and infauna
TC25035_CONA_CONA001_S085_A1	49.9363	-8.50435	13/09/2025	11:20:00	PSA and infauna
TC25035_CONA_CONA002_S086_A1	49.9377	-8.47808	13/09/2025	11:45:00	none (failed attempt)
TC25035_CONA_CONA002_S086_A2	49.9378	-8.47808	13/09/2025	11:51:00	PSA and infauna
TC25035_CONA_CONA003_S087_A1	49.9391	-8.45058	13/09/2025	12:11:00	PSA and infauna
TC25035_CONA_CONA004_S088_A1	49.94	-8.4233333	13/09/2025	12:33:00	Contaminants (glass pot) & Heavy metal (plastic bag)
TC25035_CONA_CONA004_S089_A1	49.9407	-8.42368	13/09/2025	12:39:00	none (failed attempt)
TC25035_CONA_CONA004_S089_A2	49.9407	-8.42372	13/09/2025	12:44:00	PSA and infauna
TC25035_CONC_CONC039_S094_A1	49.9189	-7.52164	17/09/2025	23:36:00	PSA and infauna
TC25035_CONC_CONC040_S095_A1	49.9212	-7.49432	17/09/2025	23:57:00	PSA and infauna
TC25035_CONC_CONC041_S096_A1	49.921667	-7.4666667	18/09/2025	00:16:00	Contaminants (glass pot) & Heavy metal (plastic bag)
TC25035_CONC_CONC041_S097_A1	49.922	-7.46684	18/09/2025	00:24:00	PSA and infauna
TC25035_CONC_CONC042_S098_A1	49.9232	-7.43988	18/09/2025	00:42:00	PSA and infauna
TC25035_CONC_CONC038_S099_A1	49.9076	-7.45231	18/09/2025	01:05:00	PSA and infauna
TC25035_CONC_CONC037_S100_A1	49.9068	-7.47925	18/09/2025	01:24:00	PSA and infauna
TC25035_CONC_CONC036_S101_A1	49.9057	-7.50654	18/09/2025	01:47:00	PSA and infauna
TC25035_CONC_CONC035_S102_A1	49.8928	-7.43642	18/09/2025	02:18:00	PSA and infauna
TC25035_CONC_CONC034_S103_A1	49.8917	-7.46471	18/09/2025	02:37:00	PSA and infauna
TC25035_CONC_CONC033_S104_A1	49.891	-7.49193	18/09/2025	02:56:00	PSA and infauna
TC25035_CONC_CONC032_S105_A1	49.89	-7.51837	18/09/2025	03:17:00	PSA and infauna
TC25035_CONC_CONC029_S106_A1	49.875	-7.50389	18/09/2025	03:40:00	Contaminants (glass pot) & Heavy metal (plastic bag)

Sample ID	Latitude	Longitude	Date	Time	Sample type
TC25035_CONC_CONC029_S107_A1	49.875	-7.5039	18/09/2025	03:46:00	PSA and infauna
TC25035_CONC_CONC030_S108_A1	49.8762	-7.47652	18/09/2025	04:04:00	PSA and infauna
TC25035_CONC_CONC031_S109_A1	49.8774	-7.45045	18/09/2025	04:25:00	PSA and infauna
TC25035_COND_COND054_S110_A1	49.8907	-7.29831	18/09/2025	05:30:00	PSA and infauna
TC25035_COND_COND055_S111_A1	49.8903	-7.27225	18/09/2025	05:55:00	PSA and infauna
TC25035_COND_COND056_S112_A1	49.8923	-7.24539	18/09/2025	06:17:00	PSA and infauna
TC25035_COND_COND053_S113_A1	49.8779	-7.22884	18/09/2025	07:03:00	PSA and infauna
TC25035_COND_COND052_S114_A1	49.8761	-7.25606	18/09/2025	07:23:00	PSA and infauna
TC25035_COND_COND051_S116_A1	49.8739	-7.28531	18/09/2025	08:37:00	Contaminants (glass pot) & Heavy metal (plastic bag)
TC25035_COND_COND051_S117_A1	49.8739	-7.28526	18/09/2025	08:43:00	PSA and infauna
TC25035_COND_COND050_S119_A1	49.8753	-7.30969	18/09/2025	10:27:00	PSA and infauna
TC25035_NWJB_COND047_S120_A1	49.8601	-7.29583	18/09/2025	10:45:00	PSA and infauna
TC25035_COND_COND048_S121_A1	49.8605	-7.26846	18/09/2025	11:01:00	PSA and infauna
TC25035_COND_COND049_S122_A1	49.8623	-7.24166	18/09/2025	11:23:00	PSA and infauna
TC25035_COND_COND046_S123_A1	49.8474	-7.22634	18/09/2025	11:43:00	-
TC25035_COND_COND046_S123_A2	49.8474	-7.22629	18/09/2025	11:47:00	PSA and infauna
TC25035_COND_COND045_S124_A1	49.8467	-7.25334	18/09/2025	12:09:00	PSA and infauna
TC25035_COND_COND044_S125_A1	49.846	-7.27973	18/09/2025	12:48:00	Contaminants (glass pot) & Heavy metal (plastic bag)
TC25035_COND_COND044_S126_A1	49.8461	-7.27971	18/09/2025	12:54:00	PSA and infauna
TC25035_COND_COND043_S127_A1	49.8444	-7.30732	18/09/2025	13:14:00	PSA and infauna
TC25035_CONF_CONF076_S172_A1	50.0496	-7.3785	20/09/2025	22:34:58	PSA and infauna
TC25035_CONF_CONF074_S174_A1	50.0419	-7.33448	20/09/2025	23:32:19	PSA and infauna
TC25035_CONF_CONF074_S175_A1	50.0419	-7.33446	20/09/2025	23:39:00	Contaminants (glass pot) & Heavy metal (plastic bag)

Sample ID	Latitude	Longitude	Date	Time	Sample type
TC25035_CONF_CONF073_S176_A1	50.0383	-7.36345	21/09/2025	00:05:00	PSA and infauna
TC25035_CONF_CONF072_S177_A1	50.0367	-7.39072	21/09/2025	00:25:00	PSA and infauna
TC25035_CONF_CONF071_S178_A1	50.0359	-7.41841	21/09/2025	00:48:00	failed attempt
TC25035_CONF_CONF071_S178_A2	50.0358	-7.4184	21/09/2025	00:55:00	PSA and infauna
TC25035_CONF_CONF075_S179_A1	50.0507	-7.4054	21/09/2025	01:15:00	PSA and infauna
TC25035_CONF_CONF077_S180_A1	50.0526	-7.35174	21/09/2025	01:43:00	PSA and infauna
TC25035_CONF_CONF081_S181_A1	50.0683	-7.33893	21/09/2025	02:09:00	Contaminants (glass pot) & Heavy metal (plastic bag)
TC25035_CONF_CONF081_S182_A1	50.0683	-7.33899	21/09/2025	02:17:00	PSA and infauna
TC25035_CONF_CONF081_S182_A2	50.0683	-7.33904	21/09/2025	02:21:00	PSA
TC25035_CONF_CONF081_S182_A3	50.0683	-7.33898	21/09/2025	02:28:00	Infauna - failed
TC25035_CONF_CONF080_S183_A1	50.0676	-7.3676	21/09/2025	02:53:00	PSA and infauna
TC25035_CONF_CONF084_S184_A1	50.0833	-7.35448	21/09/2025	03:20:00	PSA and infauna
TC25035_CONF_CONF083_S185_A1	50.0822	-7.38066	21/09/2025	03:44:00	PSA and infauna
TC25035_CONF_CONF082_S186_A1	50.0809	-7.40744	21/09/2025	04:07:00	PSA and infauna
TC25035_CONF_CONF079_S187_A1	50.0668	-7.39315	21/09/2025	04:03:00	PSA and infauna
TC25035_CONF_CONF078_S188_A1	50.0656	-7.4208	21/09/2025	04:55:00	PSA and infauna
TC25035_CONE_CONE070_S189_A1	50.0019	-7.67123	21/09/2025	07:14:00	PSA and infauna
TC25035_CONE_CONE069_S190_A1	50.0026	-7.69971	21/09/2025	19:00:00	PSA and infauna
TC25035_CONE_CONE068_S191_A1	50.0011	-7.72643	21/09/2025	19:33:00	Contaminants (glass pot) & Heavy metal (plastic bag)
TC25035_CONE_CONE068_S192_A1	50.001	-7.72653	21/09/2025	19:40:00	PSA and infauna
TC25035_CONE_CONE067_S193_A1	50.0013	-7.75439	21/09/2025	20:10:00	PSA and infauna
TC25035_CONE_CONE064_S194_A1	49.9869	-7.73864	21/09/2025	20:47:00	PSA and infauna
TC25035_CONE_CONE065_S195_A1	49.9869	-7.71407	21/09/2025	21:19:00	PSA and infauna

Sample ID	Latitude	Longitude	Date	Time	Sample type
TC25035_CONE_CONE066_S196_A1	49.9874	-7.68559	21/09/2025	21:48:00	PSA and infauna
TC25035_CONE_CONE063_S197_A1	49.973	-7.66908	21/09/2025	22:19:00	PSA and infauna
TC25035_CONE_CONE062_S198_A1	49.9712	-7.69722	21/09/2025	22:51:00	-
TC25035_CONE_CONE062_S198_A2	49.9712	-7.69718	21/09/2025	22:56:00	-
TC25035_CONE_CONE062_S198_A3	49.9712	-7.69715	21/09/2025	23:00:00	PSA and infauna
TC25035_CONE_CONE061_S199_A1	49.9709	-7.72399	21/09/2025	23:37:00	PSA and infauna
TC25035_CONE_CONE060_S200_A1	49.9695	-7.75267	22/09/2025	00:10:00	PSA and infauna
TC25035_CONE_CONE057_S201_A1	49.9554	-7.73665	22/09/2025	00:43:00	PSA and infauna
TC25035_CONE_CONE058_S202_A1	49.9557	-7.70969	22/09/2025	01:24:00	PSA and infauna
TC25035_CONE_CONE059_S203_A1	49.9572	-7.68135	22/09/2025	02:04:00	Contaminants (glass pot) & Heavy metal (plastic bag)
TC25035_CONE_CONE059_S204_A1	49.9572	-7.6813	22/09/2025	02:09:00	PSA and infauna - failed attempt
TC25035_CONE_CONE059_S204_A2	49.9572	-7.6813	22/09/2025	02:16:00	PSA and infauna

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Sample ID	Start Latitude	Start Longitude	End Latitude	End Longitude	Start Time	End Time	Date
TC25035_NWJB_NWJB069_S001_A1	49.9867	-8.13	49.9867	-8.135	07:54:12	08:09:12	10/09/2025
TC25035_NWJB_NWJB035_S004_A1	49.895	-8.07833	49.8917	-8.08667	10:19:22	10:34:27	10/09/2025
TC25035_NWJB_NWJB018_S005_A1	-	-	-	-	-	-	-
TC25035_NWJB_NWJB001_S090_A1	49.8333	-8.31333	49.8317	-8.32	14:07:16	14:22:45	13/09/2025
TC25035_NWJB_NWJB003_S092_A1	49.8333	-8.26167	49.8333	-8.26833	17:00:01	17:18:30	13/09/2025
TC25035_COND_COND051_S115_A1	49.875	-7.28167	49.87	-7.28833	07:55:25	08:16:10	18/09/2025
TC25035_COND_COND044_S128_A1	49.8517	-7.275	49.8467	-7.28	14:07:05	14:22:00	18/09/2025
TC25035_COND_COND045_S130_A1	49.8483	-7.255	49.8433	-7.25667	16:31:12	16:46:00	18/09/2025
TC25035_COND_COND053_S131_A1	49.8833	-7.22167	49.88	-7.22333	17:33:00	17:48:00	18/09/2025
TC25035_CONC_CONC029_S133_A1	49.8817	-7.5	49.8767	-7.50333	20:48:30	21:03:52	18/09/2025
TC25035_CONC_CONC042_S135_A1	49.9283	-7.44833	49.9233	-7.43667	23:19:01	23:34:00	18/09/2025
TC25035_CONC_CONC041_S136_A1	49.9267	-7.465	49.9233	-7.46667	00:13:00	00:25:00	19/09/2025
TC25035_CONC_CONC039_S138_A1	49.9183	-7.51833	49.9217	-7.52167	02:41:00	02:56:00	19/09/2025
TC25035_NWJB_NWJB033_S143_A1	49.905	-8.17167	49.9	-8.175	11:39:39	11:55:05	19/09/2025
TC25035_NWJB_NWJB030_S147_A1	49.9017	-8.24833	49.8983	-8.25167	15:34:34	15:49:34	19/09/2025
TC25035_NWJB_NWJB020_S148_A1	49.88	-8.28167	49.875	-8.285	17:04:10	17:19:12	19/09/2025
TC25035_NWJB_NWJB005_S151_A1	49.8367	-8.185	49.8317	-8.18833	21:02:57	21:18:04	19/09/2025
TC25035_NWJB_NWJB008_S152_A1	49.8383	-8.11167	49.8333	-8.11333	22:12:45	22:27:47	19/09/2025
TC25035_NWJB_NWJB018_S154_A1	49.86	-8.07333	49.855	-8.07667	00:42:00	00:57:00	20/09/2025
TC25035_NWJB_NWJB051_S155_A1	49.94	-8.14833	49.9433	-8.15333	02:57:42	03:12:48	20/09/2025
TC25035_NWJB_NWJB049_S156_A1	49.94	-8.19833	49.945	-8.20167	04:02:00	04:17:04	20/09/2025
TC25035_CONB_CONB025_S159_A1	49.9633	-7.96667	49.9683	-7.97167	08:34:04	08:51:00	20/09/2025
TC25035_CONB_CONB021_S160_A1	49.94	-7.875	49.9433	-7.88	09:57:05	10:13:00	20/09/2025

Sample ID	Start Latitude	Start Longitude	End Latitude	End Longitude	Start Time	End Time	Date
TC25035_CONB_CONB017_S163_A1	49.93	-7.88	49.9283	-7.88833	12:42:00	12:58:00	20/09/2025
TC25035_CONB_CONB015_S164_A1	49.9267	-7.93667	49.9267	-7.94333	13:34:00	13:50:00	20/09/2025
TC25035_CONF_CONF080_S168_A1	50.0633	-7.36667	50.0667	-7.36667	19:50:03	19:56:10	20/09/2025
TC25035_CONF_CONF081_S170_A1	-	-	-	-	-	-	-
TC25035_CONF_CONF076_S171_A1	-	-	-	-	-	-	-
TC25035_CONF_CONF074_S173_A1	50.0367	-7.33667	50.04	-7.33667	23:07:34	23:15:16	20/09/2025
TC25035_CONE_CONE059_S205_A1	49.955	-7.68333	49.9583	-7.68	02:54:52	03:10:16	22/09/2025
TC25035_CONE_CONE062_S207_A1	49.9717	-7.69667	49.9783	-7.69333	05:36:34	05:51:24	22/09/2025
TC25035_CONE_CONE060_S208_A1	49.9683	-7.75333	49.9717	-7.75	06:50:25	07:05:29	22/09/2025
TC25035_CONE_CONE068_S211_A1	50	-7.72667	50.005	-7.72167	10:25:33	10:41:24	22/09/2025
TC25035_CONA_CONA004_S212_A1	49.945	-8.42333	49.94	-8.42	13:52:30	14:07:30	22/09/2025
TC25035_CONA_CONA005_S214_A1	49.9517	-8.49333	49.9567	-8.49	16:15:01	16:30:15	22/09/2025
TC25035_CONA_CONA010_S216_A1	49.9683	-8.455	49.9717	-8.45167	18:24:45	18:39:45	22/09/2025
TC25035_CONA_CONA013_S219_A1	49.9833	-8.47167	49.9833	-8.465	21:54:20	22:09:20	22/09/2025
TC25035_NWJB_NWJB067_S225_A1	49.9783	-8.18833	49.985	-8.2	07:58:13	08:13:16	23/09/2025
TC25035_NWJB_NWJB065_S226_A1	49.9833	-8.25	49.9883	-8.25	09:04:40	09:19:42	23/09/2025
TC25035_NWJB_NWJB053_S228_A1	49.9617	-8.31667	49.9633	-8.31	11:50:05	12:05:05	23/09/2025
TC25035_NWJB_NWJB01_S230_A1	50.0083	-8.28	50.005	-8.28167	14:06:10	14:21:10	23/09/2025
TC25035_CONH_CONH102_S232_A1	50.0617	-8.19167	50.0583	-8.195	16:31:25	16:46:25	23/09/2025
TC25035_CONH_CONH105_S233_A1	50.074	-8.20333	50.0717	-8.21	17:20:58	17:36:04	23/09/2025
TC25035_CONH_CONH111_S234_A1	50.1017	-8.23667	50.105	-8.24167	18:07:03	18:22:03	23/09/2025

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Sample ID	Latitude	Longitude	Start Time	End Time	Date
TC25035_NWJB_NWJB001_S091_A1	49.8336	-8.31089	14:51:00	15:51:00	13/09/2025
TC25035_NWJB_NWJB003_S093_A1	49.8339	-8.26104	17:42:00	18:45:00	13/09/2025
TC25035_COND_COND051_S118_A1	49.8737	-7.28429	09:03:24	10:03:00	18/09/2025
TC25035_COND_COND044_S129_A1	49.8447	-7.28191	14:41:15	15:41:10	18/09/2025
TC25035_COND_COND053_S132_A1	49.8782	-7.2271	18:04:00	19:10:00	18/09/2025
TC25035_CONC_CONC029_S134_A1	49.8747	-7.50359	21:23:00	22:30:00	18/09/2025
TC25035_CONC_CONC041_S137_A1	49.9208	-7.46773	00:56:00	01:59:00	19/09/2025
TC25035_CONC_CONC039_S139_A1	49.92	-7.5216667	04:55:00	05:56:00	19/09/2025
TC25035_NWJB_NWJB035_S142_A1	49.896667	8.0783333	09:55:00	10:55:00	19/09/2025
TC25035_NWJB_NWJB033_S144_A1	49.8966	-8.17609	12:17:00	13:20:00	19/09/2025
TC25035_NWJB_NWJB030_S145_A1	49.8992	-8.24604	13:58:00	14:51:00	19/09/2025
TC25035_NWJB_NWJB003_S149_A2	49.8343	-8.26065	17:56:00	19:00:00	19/09/2025
TC25035_NWJB_NWJB005_S150_A1	49.833333	-8.1883333	19:32:00	20:34:00	19/09/2025
TC25035_NWJB_NWJB018_S153_A1	49.8542	-8.07928	23:01:00	00:08:00	19/09/2025
TC25035_NWJB_NWJB049_S157_A1	49.941667	-8.1983333	04:40:00	05:42:00	20/09/2025
TC25035_NWJB_NWJB069_S158_A1	49.985	-8.125	06:30:00	07:50:00	20/09/2025
TC25035_CONB_CONB021_S162_A1	49.944	-7.87937	11:04:00	12:05:00	20/09/2025
TC25035_CONB_CONB015_S166_A1	49.9265	-7.94263	14:37:00	15:37:00	20/09/2025
TC25035_CONB_CONB025_S167_A1	49.97	-7.96	16:12:00	17:13:00	20/09/2025
TC25035_CONF_CONF080_S169_A1	50.0677	-7.36419	20:18:00	21:19:00	20/09/2025
TC25035_CONE_CONE059_S206_A1	49.9587	-7.6808	03:58:00	04:58:00	22/09/2025
TC25035_CONE_CONE060_S209_A1	49.971	-7.74766	07:27:00	08:30:00	22/09/2025
TC25035_CONE_CONE068_S210_A1	50.001667	-7.7267	08:59:00	09:59:00	22/09/2025
TC25035_CONA_CONA004_S213_A1	49.937	-8.42751	14:32:00	15:32:00	22/09/2025
TC25035_CONA_CONA005_S215_A1	49.9545	-8.49327	16:49:00	17:49:00	22/09/2025
TC25035_CONA_CONA010_S217_A1	49.9701	-8.45304	18:59:00	19:59:00	22/09/2025
TC25035_CONA_CONA013_S218_A1	49.9813	-8.47333	20:28:00	21:29:00	22/09/2025

TC25035_NWJB_NWJB005_S221_A2	49.8338	-8.18904	01:01:00	02:02:00	23/09/2025
TC25035_NWJB_NWJB030_S222_A2	49.8988	-8.24996	02:51:00	03:51:00	23/09/2025
TC25035_NWJB_NWJB033_S223_A2	49.8984	-8.17521	04:31:00	05:31:00	23/09/2025
TC25035_NWJB_NWJB069_S224_A2	49.985	-8.12545	06:21:00	07:22:00	23/09/2025
TC25035_NWJB_NWJB065_S227_A1	49.9835	-8.24878	09:50:00	10:50:00	23/09/2025
TC25035_NWJB_NWJB053_S229_A1	49.9629	-8.30737	12:26:00	13:26:00	23/09/2025
TC25035_NWJB_NWJB01_S231_A1	50.0025	-8.28399	14:38:00	15:40:00	23/09/2025

CTD rosette metadata

Sample ID	Latitude	Longitude	Start Time	End Time	Date
TC25035_NWJB_NWJB035_S141_A1	49.8967	-8.07833	09:38:00	no recorded	19/09/2025
TC25035_NWJB_NWJB030_S146_A1	49.89929	-8.246121	15:11:38	15:16:32	19/09/2025
TC25035_CONB_CONB021_S161_A1	49.94469	-7.878008	10:52:00	no recorded	20/09/2025
TC25035_CONB_CONB015_S165_A1	49.9267	-7.94333	14:26:45	no recorded	20/09/2025