Cruise report ReViFES 64PE524
Noss Head *Modiolus modiolus* reef

30 September – 12 October, RV Pelagia

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1. Introduction

1.1. Project description

This cruise was carried out for the ReViFES project 'North Sea Reef Vitalization for Ecosystem Services (North Sea ReViFES)'. The ReViFES project started in 2020 and aims to investigate in how far reefs in the North Sea provide additional value to ecosystem biodiversity and functioning, including ecosystem services such as food provision, spill over of commercial species, carbon storage and increased food web complexity. To attain this, the project studies multiple types of reefs in the North Sea, including flat oysters (*Ostrea edulis*), mussel beds (*Mytilus edulis*), Ross worm (*Sabellaria spinulosa*), sand mason (*Lanice conchilega*), horse mussels (*Modiolus modiolus*) and geogenic reefs (rocks). The aim is to generalise observations across all these reef types and assess how reefs with high densities of flat oysters differ from the other types. The project aims to investigate reefs in the most undisturbed form possible, realising that any reefs in the North Sea will have been influenced by humans.

Knowledge from the project will help in the protection of the studied reefs, by making the benefits to humans visible as ecosystem services. Furthermore, it will aid in restoration of such reefs, allowing i.a. nature inclusive design of offshore wind farms where the project knowledge can be used to optimise the positive effects on reef forming species to restore local populations. Project knowledge directly flows to the partners, which include the WWF, the North Sea foundation, van Oord, the Dutch government, who actively work to restore biogenic reefs in the Dutch part of the North Sea.

The various aspects of the project are investigated by filming the seabed using a drop cam / towed video system, sediment grabs (box corer & Hamon grab), water samples, zooplankton traps, eDNA and the placement of cages to catch large species such as fish, crabs, whelks and lobsters.

The ReViFES carried out by a consortium of the Netherlands Institute of Sea Research, Wageningen University & Research, Waardenburg Ecology, TU Delft, van Oord, WWF, the North Sea Foundation, the Ministry of LNV, Ark, CIV den Oever, Natuur & Milieu, Roem van Yerseke, Sas Consultancy and is funded by NWO TTW Open Technology programme (project number 17671) with cofunding from the consortium partners.

1.2. Cruise research area

The research area is located around Noss Head, a headland extending into the North Sea (Figures 1&2). In the area of the Noss Head, a horse mussel (*Modiolus modiolus;* onwards called Modiolus) reef is present (Figure 3). This reef has the status of Marine protected area, and is named 'Noss Head nature conservation MPA'. Within the reef, high densities of Modiolus have been confirmed by tow video surveys (Hirst et al, 2012; Moore, 2019; Figure 4).

The Pelagia cruise focused on the southern part of the Modiolus reef and extended across the southern border of the reef on the surrounding mixed sand-gravel and bedrock seabed.

In figure 1-3 the research is indicated in the map. In figure 4-5 existing data of the modiolus reef, with planned transect lines are shown. In figure 7 the overall cruise track is given.

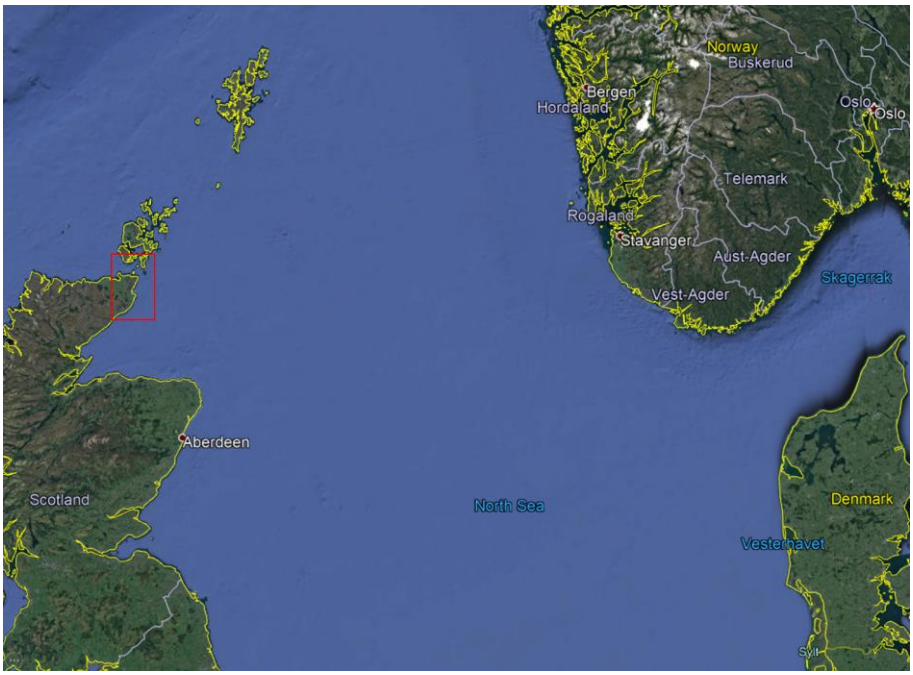

Figure 1: Research area (red box, indicating the area shown in Figure 2) in the wider North Sea context. Source: Google Earth.

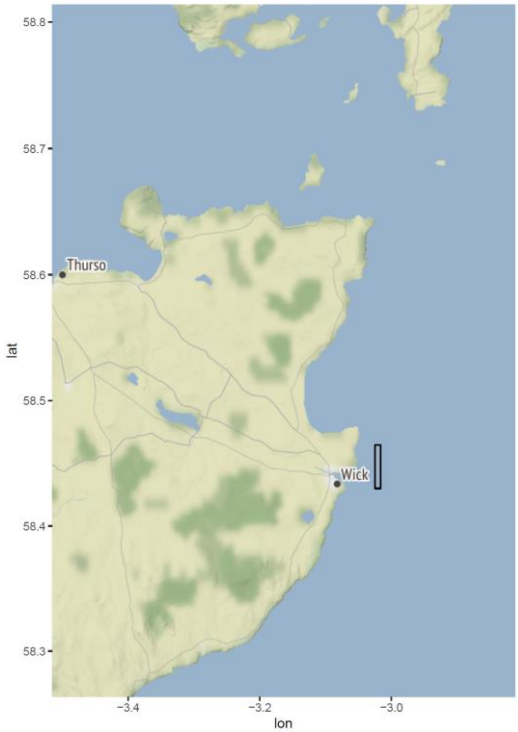

Figure 2: The research area (black box) in regional context off Noss Head (the coastal outcrop north of Wick).

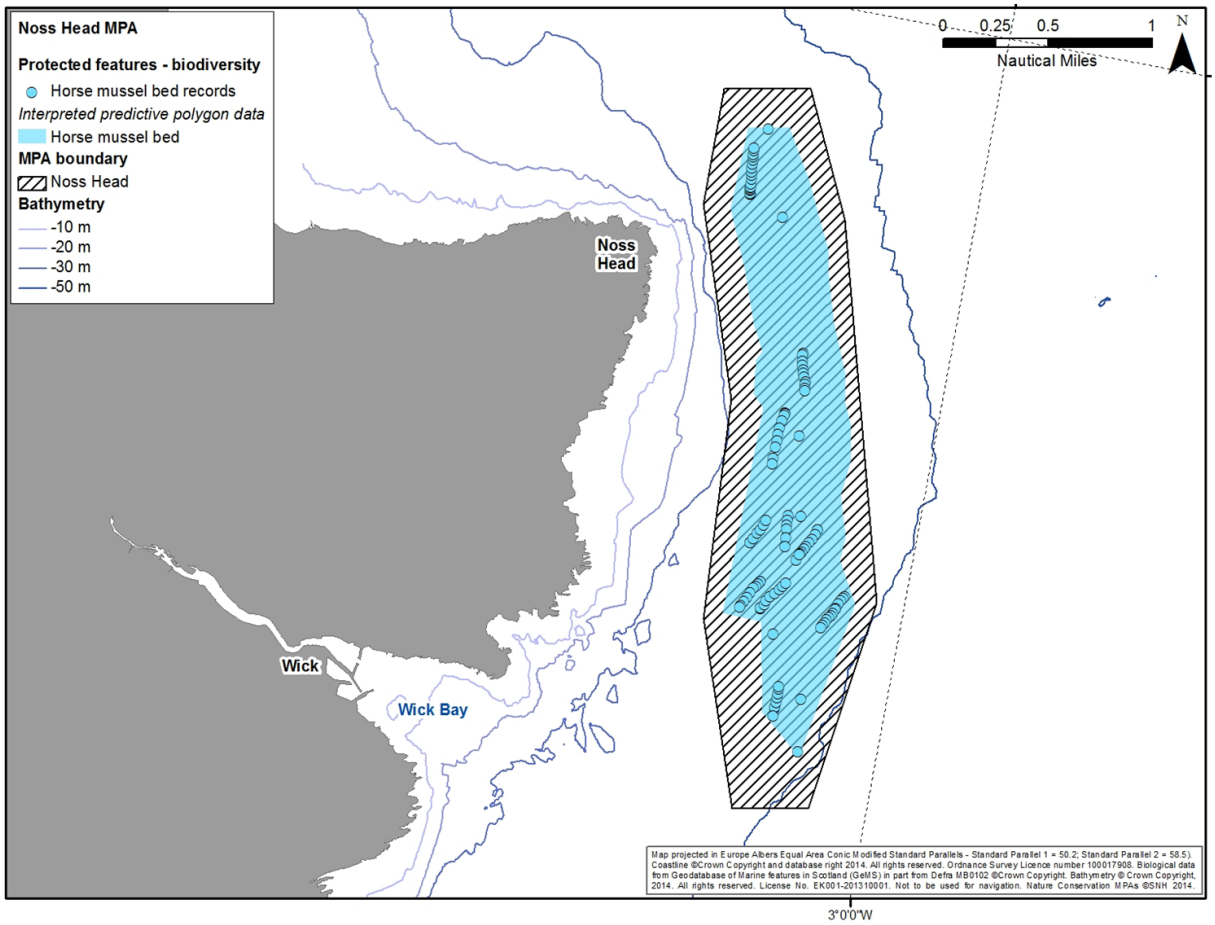

Figure 3: Estimated location of high Modiolus densities (blue area) with Modiolus records (dots), within the marine protected area (black polygon). Source: Scottish Natural Heritage (2014).

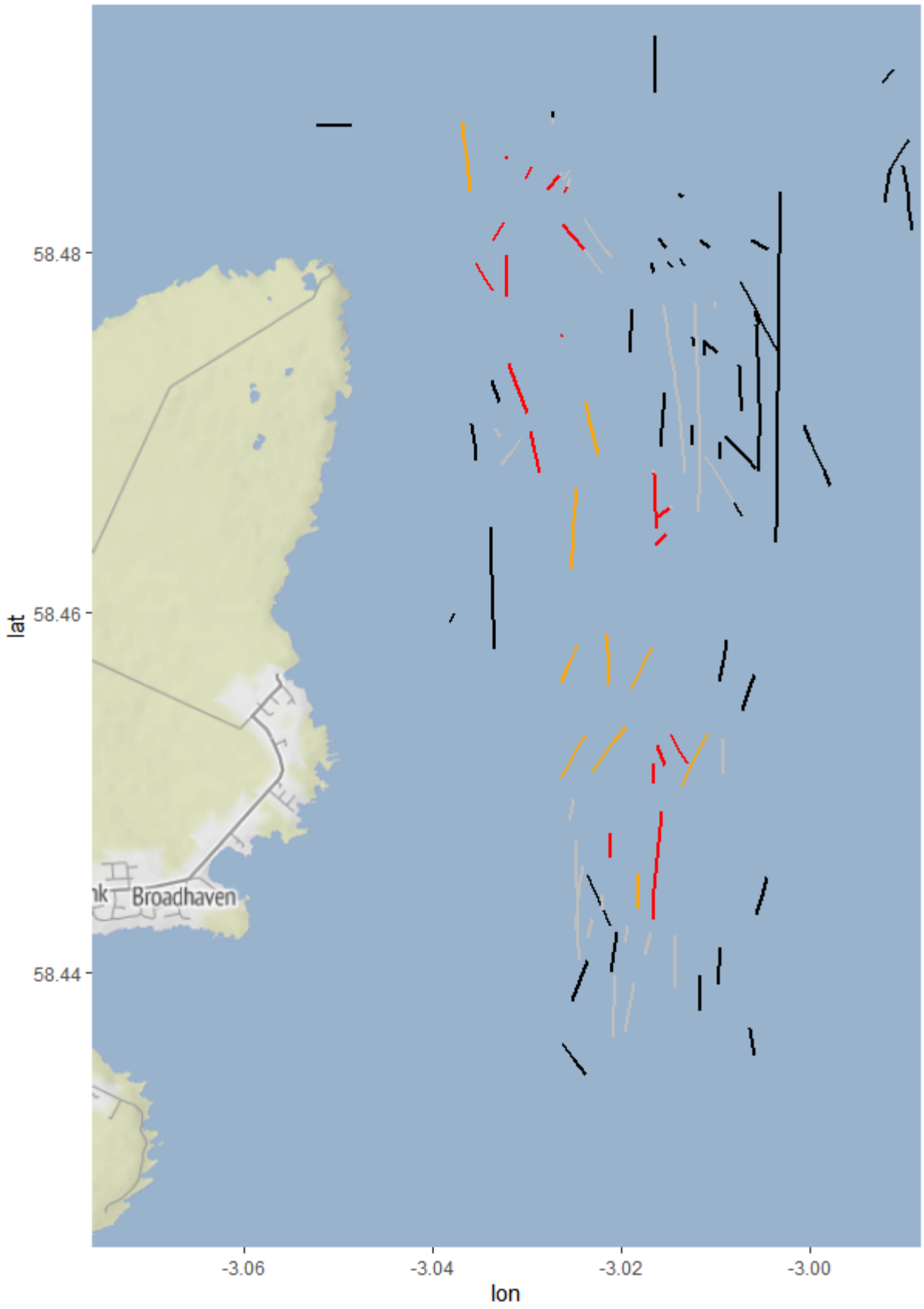

Figure 4: Data from previous research (Hirst et al, 2012; Moore, 2019) as black lines (no horse mussels [HM] observed), grey lines (some HM observed, low densities) and red and orange lines (HM beds observed in 2018 and 2012, respectively, marked as priority habitat).

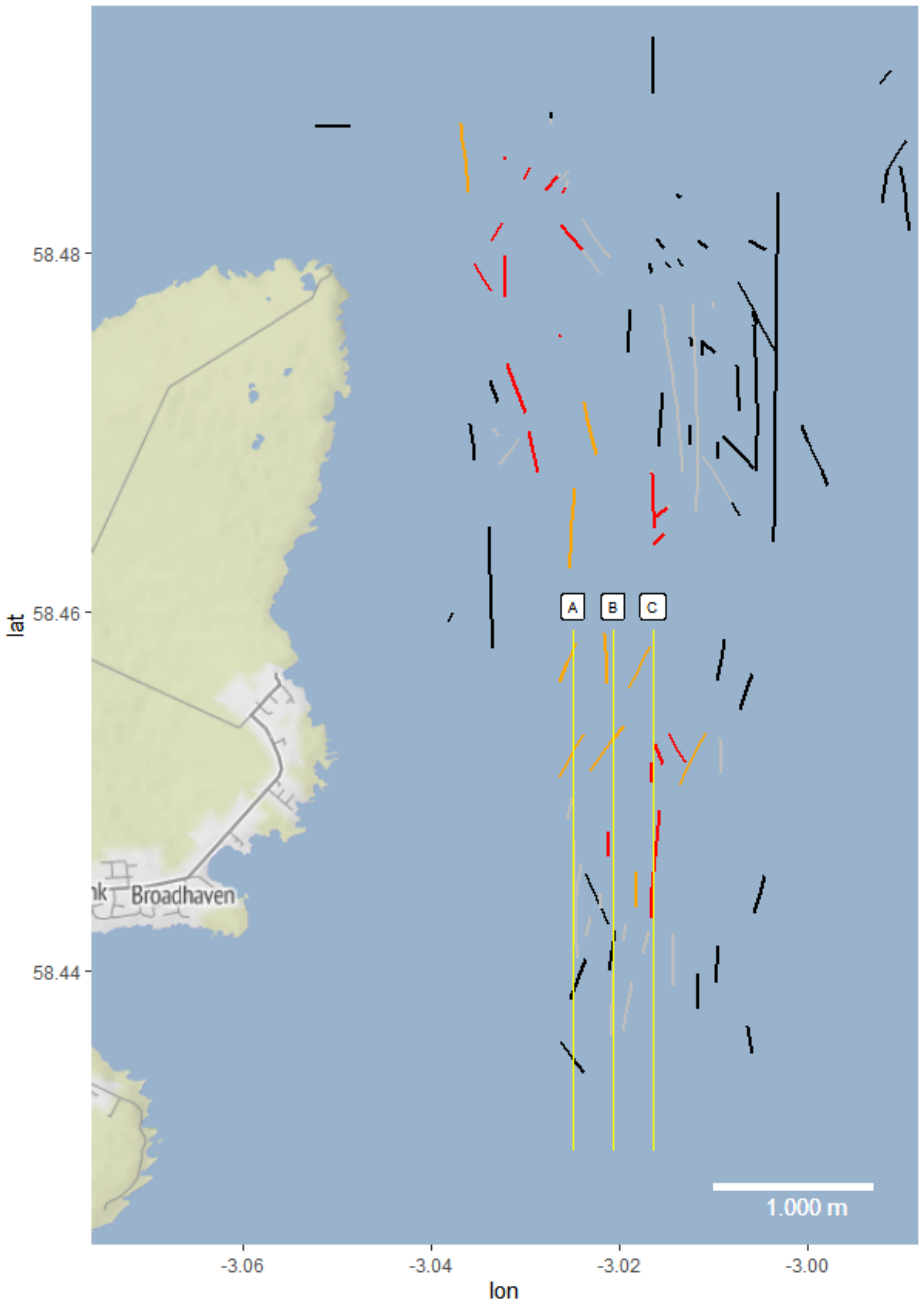

Figure 5 transects (yellow lines) as planned at the start of the cruise.

2. Verbal account of the activities

Station numbers reported are as stored in the Pelagia ShipsData system. It was decided to give each consecutive cast an increasing cast number, continuing the numbering within each station. Notation of samples is made easy as for example the cruise number followed by cast number enables reference to all details in the ShipsData logbook. During this cruise we had 141 unique sampling operations (casts) which are identified as 64PE524#001 to 64PE524#141 (appendix 2). The Pelagias ShipsData logging system logs in UTC during standard operations, but due to an unknown event the system was set to CET prior to departure of the cruise. This was noted after departure, and to avoid confusion, it was decided to keep logging ShipsData in CET for the remainder of the cruise. However, the ShipsData tables in this report were corrected to UTC again as several systems still logged in UTC. Unless stated otherwise, all times in this report are thus in UTC.

Day 1 – 30 September 2023.

We set sail shortly after breakfast and last deliveries and left the harbour of Texel at 09:30 local time (CET). Weather was winds with 3-4 bft and 1.2 meter waves. Transit time was used to prepare the laboratory setup and in particular the filtration stations for the next day.

Day 2 - 1 October 2023.

Weather was 4-5 bft with 1-1.5 meter waves. The transit continued throughout the day and night. The crew organised the cages and installed seal-entry preventers on the cage entrances. The rest of the team prepared the filtration systems as well as the CPICS and ISSIIS, which were mounted on the video hopper frame.

Day 3 – 2 October 2023.

Weather was 4-5 bft with 1-1.5 meter waves.

Underway 1 CTD sample was taken to collect water in the niskin bottles at station 5 km from the reef area. The vessel arrived at transect C at Noss Head at 09:30. The EK80 measurement pole was lowered but currents were too high so the pole was lifted out again. Video transects were performed in the southern part of the planned transects since in the northern part many buoys were present and initially it was not possible to safely manoeuvre between them with the combination of high currents and strong winds. However later in the day one transect was fully completed during flood tides, which were less strong and went with the winds.

Day 4 – 3 October 2023.

Weather was 5-6 bft with 1 meter waves. Wind from the west resulted in lower waves. Video work was performed all day, including additional shorter transects outside the area with most buoys present. In the evening an alternative station plan was developed with only stations at safe distances from the buoys. Based on the video a high density Modiolus area, medium density area and low-density area were defined, each holding 6 stations. The original north-south transects plan was abandoned as all the pre-defined transects approached buoys more than safely possible.

Day 5 – 4 October 2023.

Weather was 5-6 bft with 1-1.5 meter waves, again with winds from the west. In the morning the fish cages with baited camera were deployed. In the afternoon 6 CTD casts were completed, taking about 3.5 hours. In the evening the CPICS frame was towed along transects leading south-east. Note: the CPICS frame was logged in ShipsData and FISH.

Day 6 - 5 October 2023.

Weather was 3-4 bft with 0.8 meter waves.

In the morning the 8 cages were recovered. This took about 3.5 hours. Then the video box corer was prepared for the afternoon seabed sampling to start. The box corer was tried multiple times, starting at the high density modiolus reef. However, the knife did not properly penetrate the seabed and samples we not the right quality. Then the standard box corer was used to acquires samples (which has more momentum to penetrate the seabed). This did also not result in good samples and therefore the Hamon grab was used for all following samples. Not every station was successfully sampled, as in several cases,

the Hamon arrived at the surface with a rock stuck between the grab and the lid. These samples were all discarded except for cast ID 055, which was used for stable isotope sampling.

During the afternoon an error was detected in the shipsdata logging system. Table 2 should be used when linking shipsdata station_cast numbers to registered sample_cast numbers.

Table 2: correction table erroneous cast numbers

Date	Cast as logged sample order	Cast as logged in ShipsData	station name	sample type	status
05-Oct	50	50_1	mid_6	hamon biodiversity	good
05-Oct	51	50_2	low_6	hamon biodiversity	good
05-Oct	52	51_1	NA	NA	failed
05-Oct	53	52_1	NA	NA	failed
05-Oct	54	53_1	NA	NA	failed
05-Oct	55	53_2	low_5	hamon stable isotopes	good
05-Oct	56	54_1	NA	NA	failed
05-Oct	57	54_2	NA	NA	failed

Day 7 - 6 October 2023.

Weather was 7-8 bft with 2.5 meter waves in the morning. The planned CTD stations were postponed while waiting for improvement of the weather. The team continued to process the fauna collected the day before for stable isotope analysis. At the end of the afternoon the weather was workable again and CTD niskin samples were taken on stations with low and high modiolus densities.

Day 8 – 7 October 2023.

Weather was 3-4 bft with 1.2 meter waves. In the morning the cages were placed, taking about 5 hours, longer than normal as there we technical problems with the winch. In the afternoon Hamon grabs were taken. The low modiolus density area samples failed every time, likely as a result of rock bed. After 12 attempts on 3 different stations in the area, only a combined sample was used for collection of species for stable isotopes, no other samples were kept. Samples on the stations in medium and high density were taken very efficiently. In total, taking 23 samples took 2.5 hours. The remainder of the afternoon and evening, CPICS transects were sailed.

Day 9 – 8 October 2023.

Weather was 6-7 bft with 2 meter waves. In the morning the cages were recovered. This was challenging due to the high waves and took longer than in good weather. Some cages had net damage, because of the rope connection scraping the cage nests.

In the afternoon CTD niskin water samples were taken until end of the day.

Day 10 – 9 October 2023.

Weather was 2-3 bft with 1 meter waves. In the morning first Hamon grabs were taken at the last remaining station, followed by WP2 nets at 8 stations, 2 deployments each. At 12:30 this work was finished, and a long CPICS frame tow was carried out until 16:30. Then a group picture was taken. After that the last remaining CTD niskin water samples were taken and the sampling part of the cruise was finished, the vessel departed for the transit back to Texel.

Day 11 – 10 October 2023.

Transit to Texel continued. Due to poor weather, the vessel followed a route near the east coast of the UK. The team cleaned up the labs and cabins.

Day 12 – 11 October 2023.

Transit to Texel continued.

Day 13 – 12 October 2023.

The vessel arrived back in port at 08:30 local time and demobilisation of all equipment started. All scientific crew went home, and the cruise was finished.

Figure 7. Cruise track (black line) to the Noss Head study area (top left of the map).

3. Methods and some preliminary results

The main equipment used during this cruise was the HD video Hopper frame, CTD with niskins, "fish cages", WP-2 plankton net, CPICS and ISISS zooplankton scanners and the EK80.

3.1. Underwater drop cam video

Using the video hopper frame, video transects were performed on and around the Noss Head reef. During video recording, we logged habitat observations approximately every second. Meanwhile a gps mounted near the A frame from which the video frame was launched, also logged to position every second. Then the video transects were started using the NIOZ hopper frame. Speed at which the footage was taken was between 0.2 and 0.8 knots, ideal speed being about 0.4 knots.

On basis of the timestamp logged while recording the video observations, positions of different habitats were obtained by combining the timestamps of observation and position with an R script.

The video tracks are shown in figure 9.

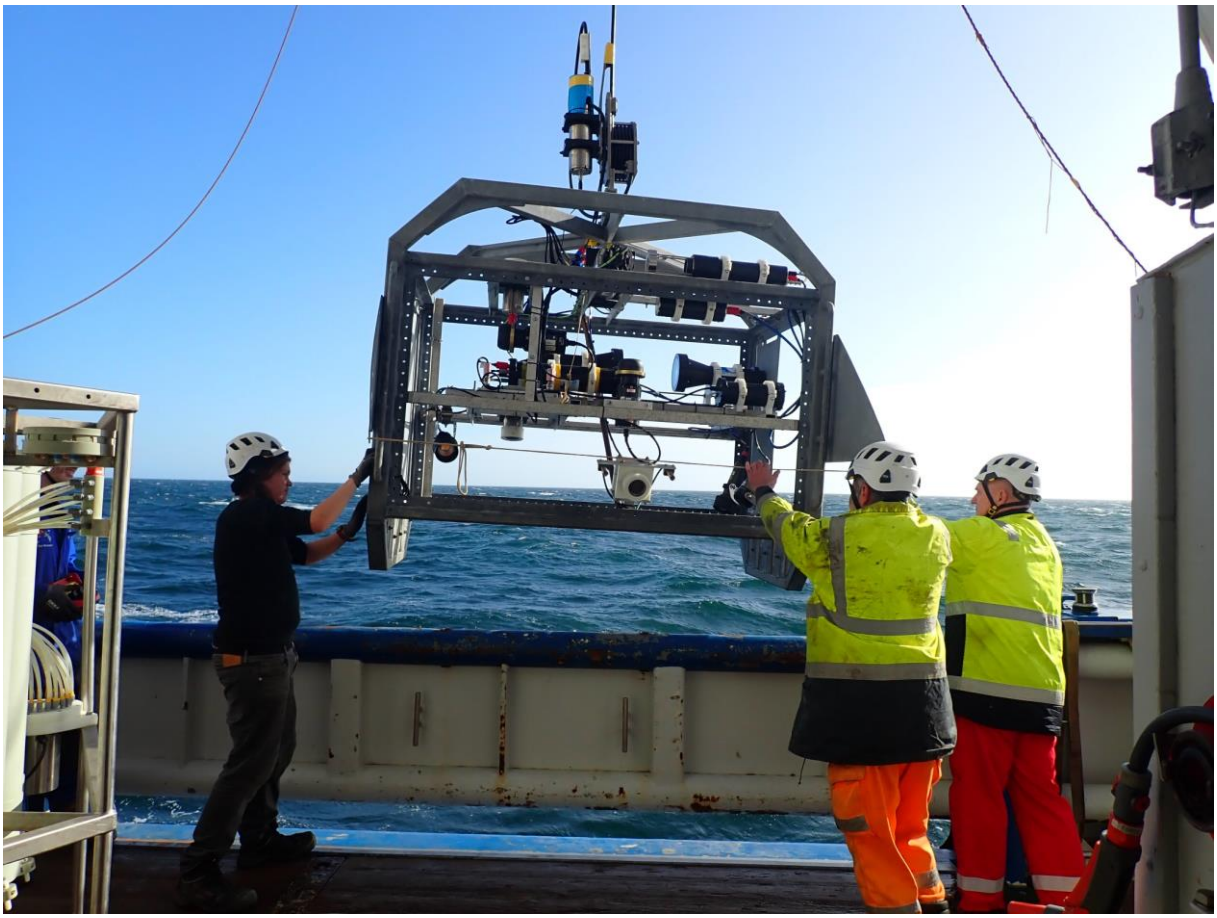

Figure 8: The video hopper frame with CPICS system is deployed by the Pelagia crew. Photo by Francesco Colona.

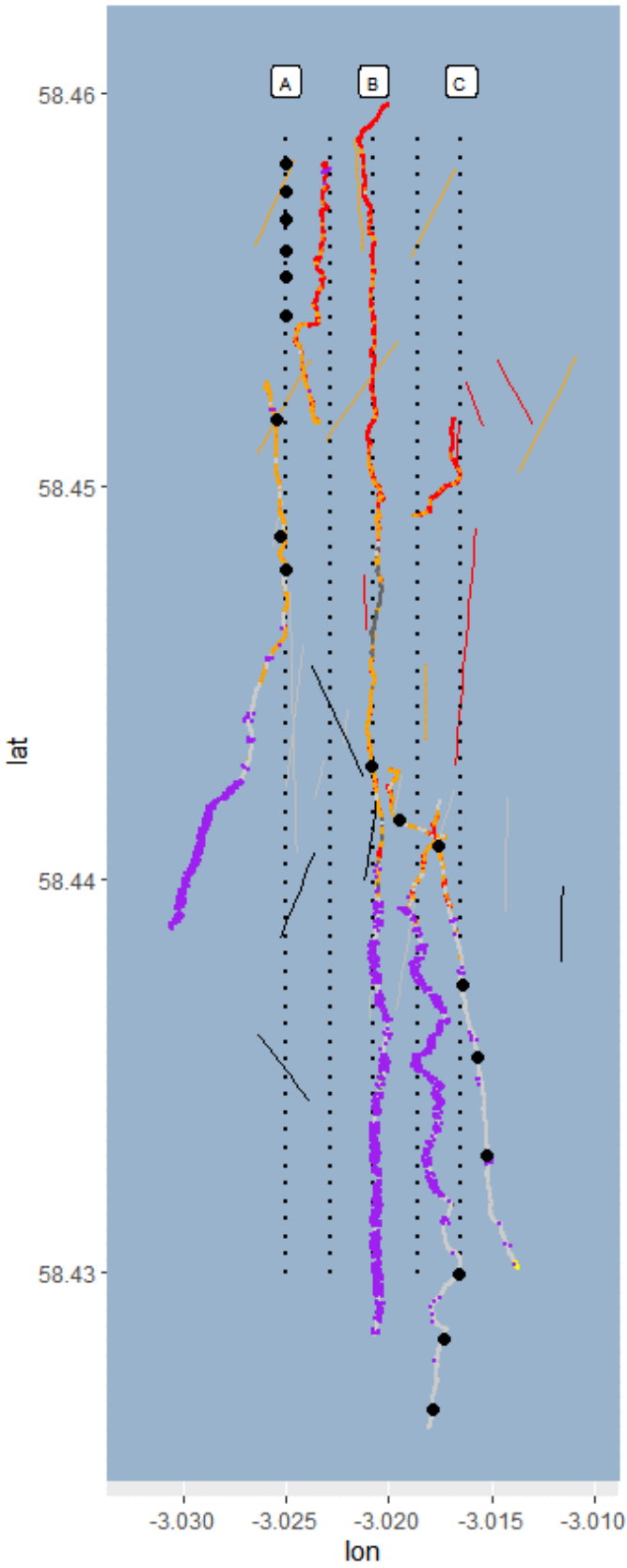

Figure 9. Video tracks around the Noss Head reef with seabed in sight and scored value (yellow: sand, orange: <50% modiolus, red: >50%modiolus, dark grey: course ground no small rocks, light grey: course ground with small rocks, purple: rocks >30 cm), with transect lines (small black dots) and sample stations (large black dots) and previous data (colours see figure 4).

Table 3: Number of observations per habitat type during video hopper survey.

Score	Habitat type	Total observations	Observed % of total
0	sand	72	0.3
1	<50% Modiolus	5823	22
2	>50% Modiolus	8092	31
3	Coarse ground without small rocks	637	2.4
4	Coarse ground with small rocks	6492	24.7
5	Rocks >30 cm max length	5168	19.6
	Total	26,287	100

3.2. Station selection

Based on the video results, stations were selected. The original plan was to follow the transect lines for this selection. However, whelk fishing gear was present in most of the research area and with the poor weather conditions in some of the days, a safe distance from the buoys attached to the whelk pots had to be kept. Therefore, instead of transects, zones of high, medium, and low Modiolus densities were selected. Within each zone, 6 stations were created. In the medium and low densities these stations were defined on video record locations. In the high-density locations, stations more to the west of the most north-western video transect were selected, as the video record locations were valued to be still too close to the reef. High modiolus densities on these stations was assessed using the video box corer system at the time of sampling. Table 4 shows the 6 stations with coordinates.

Table 4: stations with coordinates in decimal degrees north (lat) or east (lon) or degrees (lon.deg & lat.deg) with decimal minutes (lon.dec.min & lat.dec.min).

stationID	lat	lon	lon.deg	lon.dec.min	lat.deg	lat.dec.min
high_1	58.458	-3.025	-3	1.500	58	27.492
high_2	58.458	-3.025	-3	1.500	58	27.450
high_3	58.457	-3.025	-3	1.500	58	27.408
high_4	58.455	-3.025	-3	1.502	58	27.321
high_5	58.456	-3.025	-3	1.500	58	27.360
high_6	58.454	-3.025	-3	1.500	58	27.261
mid_1	58.452	-3.025	-3	1.528	58	27.101
mid_2	58.449	-3.025	-3	1.517	58	26.924
mid_3	58.448	-3.025	-3	1.499	58	26.873
mid_4	58.443	-3.021	-3	1.253	58	26.572
mid_5	58.441	-3.020	-3	1.171	58	26.489
mid_6	58.441	-3.018	-3	1.056	58	26.449
low_1	58.437	-3.016	-3	0.989	58	26.238
low_2	58.435	-3.016	-3	0.945	58	26.127
low_3	58.433	-3.015	-3	0.918	58	25.979
low_4	58.430	-3.017	-3	0.999	58	25.797
low_5	58.428	-3.017	-3	1.042	58	25.698
low_6	58.426	-3.018	-3	1.074	58	25.589

3.3. Fish cages

To collect data on the biodiversity, size, weights and collect tissue samples of mobile bottom fauna, fish cages were placed at the seafloor. Three types of cages or fykes were used. Large cages with a mesh size of 2×2 cm which were 150 × 150 × 75 cm. Medium sized cages of 60×40×30cm also with 2cm mesh and small fykes with a mesh of 0.5cm. All traps were baited with frozen mackerel.

The sets were deployed with the side A frame. Two Benthos glass spheres were used to keep the line upright. At the surface the position was marked by a float equipped with a radar reflector and a flashlight, followed with a series of hard plastic floats in a trail behind the first float. Each cage was deployed for ±24 hours.

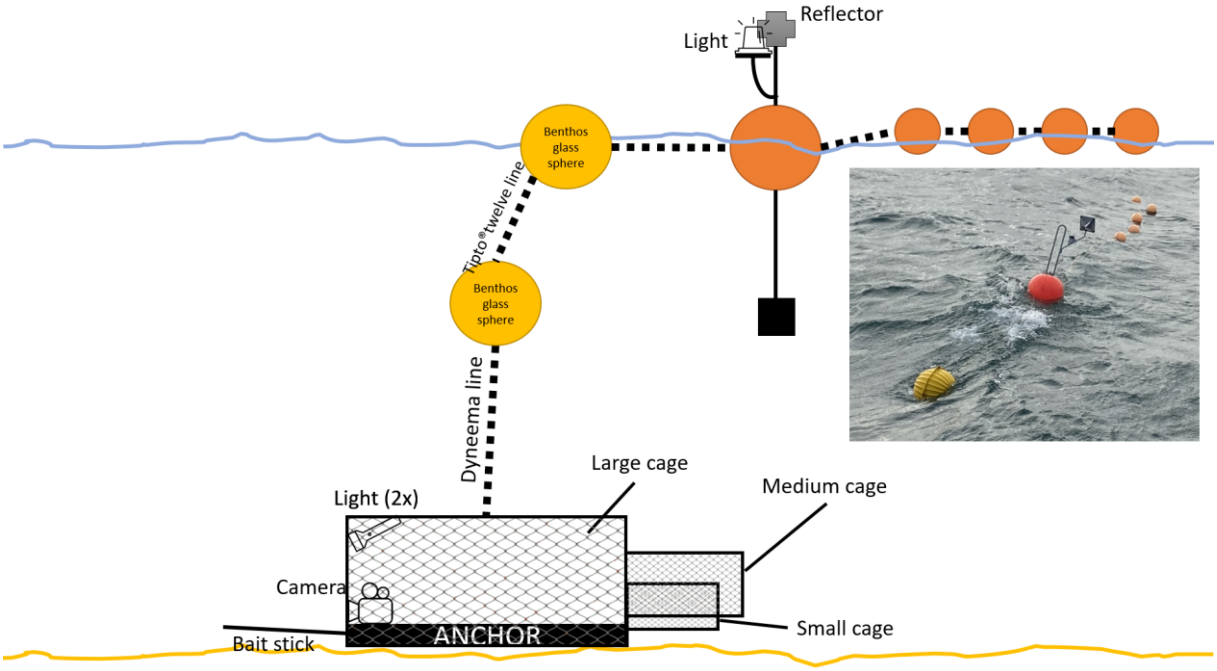

Figure 10: Schematic of the cage setup (not to scale). Inset photo: Benthos glass sphere visible in front (yellow), which is attached to the line towards the cage (not visible) and followed by the large orange float and 5 yellow hard plastic smaller floats. Photo by Joop Coolen.

Table 5: deployments of the cages with station ID and cast number (CastID)

Date	Method	StationID	CastID
04-Oct	cage placement	mid_1	013
04-Oct	cage placement	mid_2	014
04-Oct	cage placement	low_1	015
04-Oct	cage placement	low_2	016
04-Oct	cage placement	high_1	017
04-Oct	cage placement	high_2	018
04-Oct	cage placement	high_3	020
04-Oct	cage placement	high_4	021
07-Oct	cage placement	high_5	062
07-Oct	cage placement	high_6	063
07-Oct	cage placement	mid_4	067
07-Oct	cage placement	mid_5	066
07-Oct	cage placement	mid_6	064
07-Oct	cage placement	low_4	070

07-Oct	cage placement	low_5	069
07-Oct	cage placement	low_6	068

Figure 11: cage setup with small (left, white) and medium (right, green) cages attached to the large cage, with cage numbers (yellow labels). Photo by Joop Coolen.

Figure 12: Examples of species observed in the cage samples. Top left to bottom right: *Crossaster papposus*; *Myoxocephalus Scorpius*; *Cancer pagurus*; *Homarus gammarus*. Photos by Caterina Coral, Daniël van Berkel, Tan Tjui Yeuw.

3.4. Baited Remote Underwater Video (BRUV)

During deployment of the baited cages, a baited video system (BRUV) consisting of a gopro hero 7 and two LetonPower BB27-1/S high power 20.000 lm led video flood lights, baited with mackerel in a stocking on the end of a bamboo stick were added to the cages. The gopro was mounted on the bottom grating using a pipe clamp, which was placed inside the net, but the gopro was added to the clamp trough the net so the gopro lens was outside the net, while the profile of the camera remained safely inside the steel frame of the cage. The lights were mounted near the corners on the top part of the same cage side, placed inside the net on the top pipe of the cage, mounted with hose clamps around the lights handle bar and the cage pipe. The net was then fixed tightly in front of the lights glass to prevent shadow from the light shining trough the net. The lights were oriented in a downward angle of approximately 45°. Before deployment the lights were switched on with the lowest setting of white light. All camera's were given the same number as the cage number (1-8) so cameras can easily be matched to cage and station number.

Recharging the batteries (all together at the same time) after recovery took 8-10 hours. Copying all gopro footage (one gopro at the time) to an external hard drive took about 8 hours, including a backup copy on a second hard drive.

For deployments and stations, see the table of the fish cage deployments.

Figure 13: Gopro with bait stick (bottom centre) and LetonPower lights (top right and left) mounted on the cage, shortly before deployment. Photo by Joop Coolen.

3.5. Hamon grab and box corer

At every station, the seabed was sampled to collect samples for macrofauna biodiversity, biomass and abundance estimation. The initial plan was to do this with a box corer and then take multiple sub samples from the box. However, the seabed was too coarse to use a box corer, after 12 attempts, only a single usable core was collected. Therefore, the Hamon grab was used. Although the Hamon grab mixes the sediment so sub sample options are limited, it performed much better on coarse ground. To estimate the seabed surface sampled, the volume of each grab was measured. Then a sub sample for sediment composition and carbon content estimation was taken and frozen at -20°C. From two stations in high and low modiolus densities, an additional sample was taken for collection of tissue samples for stable isotope analysis. Two of these were obtained with the box corer, after which the Hamon grab was used.

Each sample was rinsed on a 5 mm and 1 mm mesh size sieve, during which all *Modiolus modiolus* specimens were collected. From all modiolus the length, width and height were measured directly. Then these were conserved separately. All biodiversity samples were stained with Bengal rose and conserved with borax buffered formaldehyde and stored for lab analysis.

Modiolus modiolus specimens from the failed box corers from casts 38, 40 and 43 were also measured and stored for further analysis, but most of these cores were not used any further as the sampled area was unknown as a result of the core scraping part of the seabed during sampling.

In addition, three to five larger mussels were collected from the high-density reef for fatty acid analysis. Soft tissues were separated, rinsed, labelled, and stored in the freezer.

Table 6: deployments of box corer or Hamon grab with station ID and cast number (CastID). Note the difference in CastID method, for which a correction table can be found in the daily log.

Date	Method	StationID	CastID
05-Oct	box coring	high_4	37

05-Oct	box coring	high_5	39
05-Oct	hamon grab	high_4	046
05-Oct	hamon grab	high_5	044
05-Oct	hamon grab	high_5	045
05-Oct	hamon grab	high_6	047
05-Oct	hamon grab	mid_4	048
05-Oct	hamon grab	mid_5	049
05-Oct	hamon grab	mid_6	50_1
05-Oct	hamon grab	low_5	53_2
05-Oct	hamon grab	low_6	50_2
07-Oct	hamon grab	high_1	094
07-Oct	hamon grab	high_2	091
07-Oct	hamon grab	high_2	093
07-Oct	hamon grab	high_3	088
07-Oct	hamon grab	high_3	089
07-Oct	hamon grab	mid_1	086
07-Oct	hamon grab	mid_2	084
07-Oct	hamon grab	mid_3	083
07-Oct	hamon grab	low_3	074
09-Oct	hamon grab	low_6	111
09-Oct	hamon grab	low_6	112
09-Oct	hamon grab	low_6	113
09-Oct	hamon grab	low_6	114
09-Oct	hamon grab	low_6	115
09-Oct	hamon grab	low_6	116
09-Oct	hamon grab	low_6	117
09-Oct	hamon grab	low_6	118

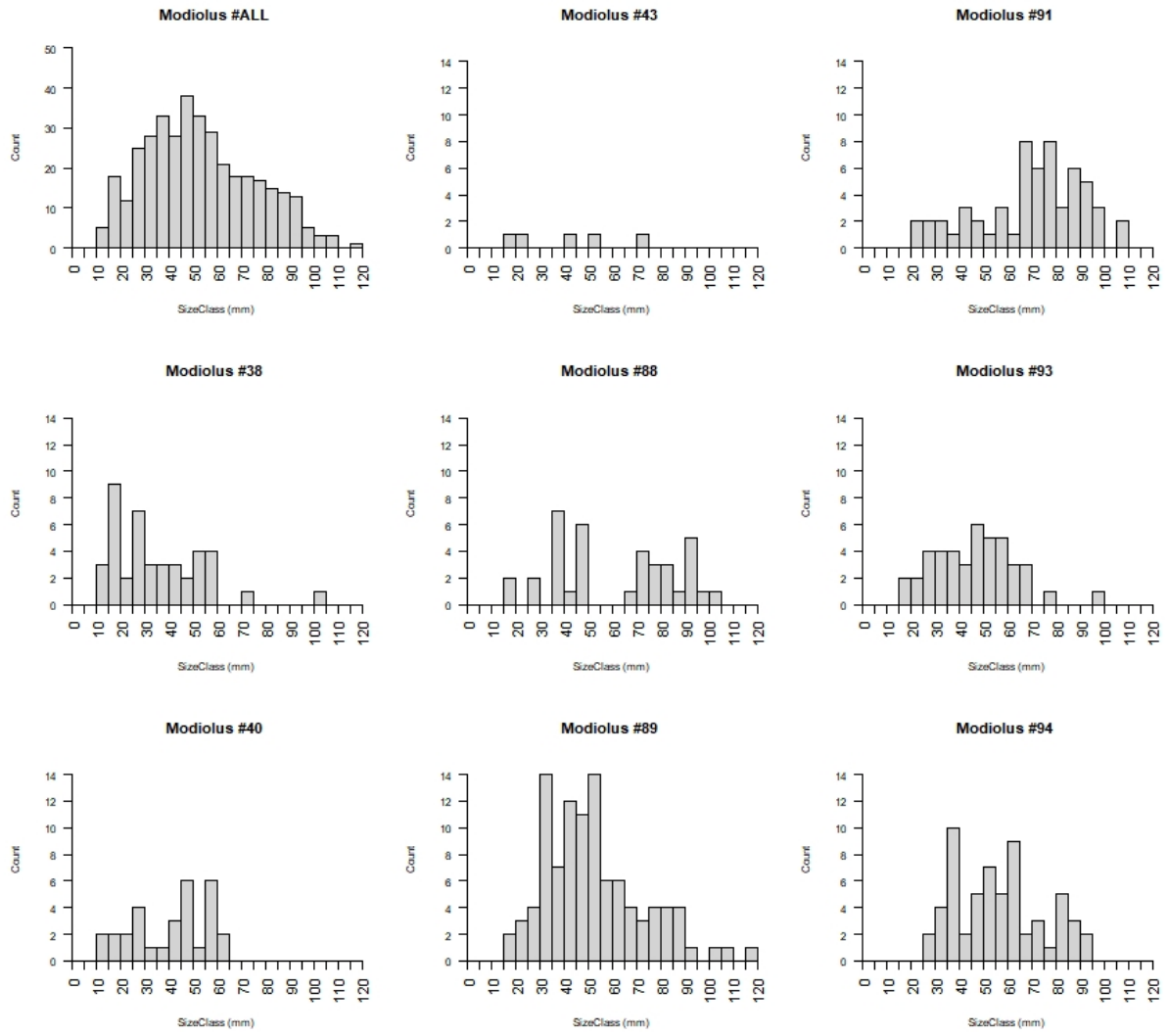

Figure 14: *Modiolus modiolus* sizes in different Box corer and Hamon grab samples (#**) and all observations combined (top left). Note samples 38,40,43 were only used for measuring Modiolus sizes.

Figure 15: Example of *Modiolus modiolus* individuals from a single Hamon grab sample, sorted to size. Photo by Rob Witbaard.

Figure 16: The single core which had penetrated the Modiolus reef and the seabed below it to an acceptable depth. Photo by Rob Witbaard.

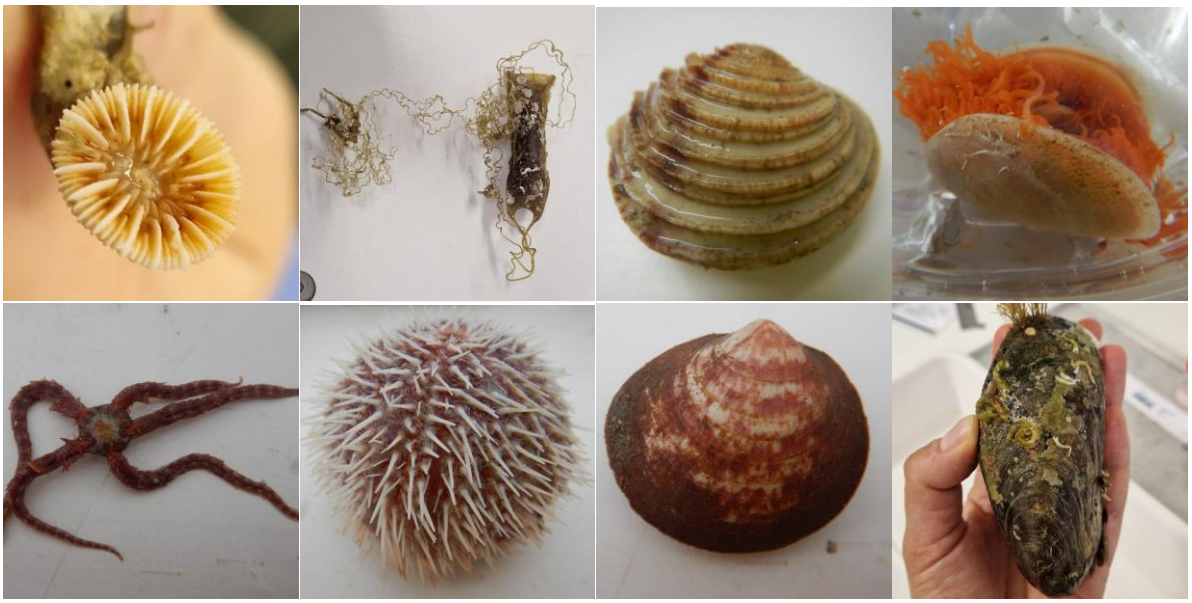

Figure 17: Examples of species observed in the seabed samples. Top left to bottom right: Caryophillia sp.; *Scyliorhinus stellaris egg case*; *Venus casina*; Limaria sp.;*Ophiotrix fragilis*; *Echinus acutus*; *Glycymeris glycymeris*; *Modiolus modiolus*. Photos by Rob Witbaard and Caterina Coral.

3.6. Water samples with CTD and niskin rosette

At every station as well as a station at 5 km distance from the reef, the CTD was deployed, and water was sampled using the niskin bottles. This water was then processed for different purposes.

Table 7: deployments of the CTD with niskin with station ID and cast number (CastID)

Date	Method	StationID	CastID
02-Oct	CTD	5km	002
04-Oct	CTD	mid_4	022
04-Oct	CTD	mid_5	023
04-Oct	CTD	mid_6	024
04-Oct	CTD	low_4	025
04-Oct	CTD	low_5	026
04-Oct	CTD	low_6	027
06-Oct	CTD	low_4	057
06-Oct	CTD	low_5	056
06-Oct	CTD	low_6	055
06-Oct	CTD	high_1	060
06-Oct	CTD	high_2	059
06-Oct	CTD	high_3	058
08-Oct	CTD	high_1	110
08-Oct	CTD	high_2	109
08-Oct	CTD	high_3	108
08-Oct	CTD	mid_4	107
08-Oct	CTD	mid_5	106
08-Oct	CTD	mid_6	105
09-Oct	CTD	mid_1	138
09-Oct	CTD	mid_2	137
09-Oct	CTD	mid_3	136
09-Oct	CTD	mid_1	141
09-Oct	CTD	mid_2	140
09-Oct	CTD	mid_3	139

3.6.1. Water sampling for SPM, Chlorophyll a and nutrients

At a selection of stations in every density cluster, a set of samples was taken from the niskin water:

1. **SPM (incl chlorophyll):** Approximately 2.5 l was filtered over a pre-weighted Whatman GF/F glass fibre filter using a vacuum pump as a measure of water turbidity as weight per volume.
2. **wPOM:** for food web analysis. Approximately 2.5 L was filtered over a pre-combusted Whatman GF/F glass fibre filter using a vacuum pump.
3. **Nutrient analysis** 2*5 ml was filtered via 0.2 um Acro disk filter, stored in two 5 ml pony vials filled to <80% of which 1 was frozen in -20ºC (for N and P analysis) and 1 was stored at 4ºC (for Si analysis).

3.6.2. Water sampling for eDNA

At station High 1,2,3 and Mid 1,2,3,4,5,6 and Low 4,5,6 water was collected on two independent instances with a current from the south or near slag tide. Each time, 3 niskin bottles near the seabed and near the water surface was collected. These samples were filtered for eDNA based identification of fish, elasmobranch and mammal species using amplicon based metabarcoding. Water from the niskins was collected in 2L containers using cloves to prevent contamination from human DNA. Every bottle was kept in a bleach bath for at least 10 minutes and was rinsed three times with tap water and three times rinsed with sample seawater before refilling. Water was processed using two pump set-ups that were used in parallel for either the bottom or the surface sample. During sample processing gloves were used at all times. Filter holders and bottles were kept in a bleach bath for at least 10 minutes and then extensively rinsed with fresh water from the tap (chloride containing). 2000 ml of water was filtered on a 1.2 uM cellulose nitrate filter and after filtering folded using chloride cleaned tweezers and stored in a 1.5 ml screw cap containing RNA/DNA shield. Samples were kept in the freezer at -20 degrees Celsius. The same sampling strategy was used for Genome skimming and RNA amplicon sequencing samples. For these methods, two out of six replicates of every habitat type (High, Medium and Low) were randomly chosen, and these samples were immediately snap frozen with liquid nitrogen and stored at -80 degrees Celsius.

3.6.3. Water sampling for phytoplankton lipids, nitrate isotopes and flow cytometry

At a selection of stations, a set of samples was taken from the niskin water:

1. **Phytoplankton lipids/fatty acid concentrations**. Seawater was collected in 4 L x 3 replicates from each depth and filtered on a 0.3 µm pre-combusted glass fibre using a vacuum pump and stored in a -80°C freezer.
2. **Nitrate isotope.** To get information on the stable isotope composition of nitrate, 50mL of seawater was collected from each depth in Nalgene bottles and stored in a -20°C freezer.
3. **Flow cytometry.** To obtain information on small phytoplankton composition (<50 µm, 3.5 ml seawater x 3 replicates from each depth were fixed with formaldehyde (18% wt/v) sol. buffered with hexamine (10% wt/v) for flow cytometry analyses. Those samples were flash frozen with liquid nitrogen and stored in a -80°C freezer.
4. **Microscopy**. For enumerating phytoplankton cell, 50mL of seawater will be collected from the surface and Fmax, fixed with a lugol solution and stored in a +4°C fridge.

3.7. Tissue sampling of invertebrates for whole genome sequencing

Tissue samples from invertebrate species were collected opportunistically during all cage recoveries and Hamon grabs. Species of interest were macrobenthos species that had no publicly available reference genome and are commonly found on or around (artificial) reefs. Taxonomic groups included, but were not limited to, anthozoans, bivalves, crustaceans, hydrozoans and polychaetes. Species rarely observed, but uncharacteristic for (artificial) reefs, were also collected in case no reference genome was publicly available. Tissue samples were collected using sterile tweezers and scalpels, aiming for a minimum of 200 mg wet weight per specimen. At least two tissue samples were taken from a single specimen whenever possible. Muscle tissue was isolated and collected whenever possible, but in case of smaller animals, body parts such as legs or claws, or even all soft tissue was collected. Tissue samples were stored in DNA/RNA shield to preserve the DNA as much as possible. As soon as possible after collection, collection tubes were snap frozen using liquid nitrogen and subsequently stored at -80 °C. The opportunistic sampling campaign yielded 30 tissue samples from 17 specimens and 10 species; *Balanus Balanus*, *Callinectes sapidus*, *Calliostoma zizyphinum*, *Cancer pagarus*, *Colus gracilis*, *Homarus gammarus*, *Liocarcinus holsatus*, *Liocarcinus vernalis*, *Modiolus modiolus* and *Pagurus bernhardus*.

3.8. Zooplankton net WP2

At a selection of stations, 2 zooplankton samples were be taken using a WP2 net with a mesh size of 200 microns, to exclude the phytoplankton fraction. The net was lowered to near the seabed and then pulled back to the surface (jo-jo style). Sample 1 was fixed in formalin 4% for identification. Content of sample 2 was split into two for SIA and fatty acid analysis (FA) using a plankton splitter and large individuals (gelatinous zooplankton, fish larvae) were retained in separate vials. The content of each portion was sieved over three sieves (1000, 500 and 250 um) and stored in capped vial (for SIA) or filtered onto GF/F and placed in petri dish (for FA). Those samples were stored frozen at -80.

Table 8: deployments of the WP2 net with station ID and cast number (CastID)

Date	Method	StationID	CastID
09-Oct	wp2	low_6	119
09-Oct	wp2	low_6	120
09-Oct	wp2	low_5	121
09-Oct	wp2	low_5	122
09-Oct	wp2	low_4	123
09-Oct	wp2	low_4	124
09-Oct	wp2	low_3	125
09-Oct	wp2	low_3	126
09-Oct	wp2	high_4	127
09-Oct	wp2	high_4	128
09-Oct	wp2	high_3	129
09-Oct	wp2	high_3	130
09-Oct	wp2	high_2	131
09-Oct	wp2	high_2	132
09-Oct	wp2	high_1	133
09-Oct	wp2	high_1	134

Figure 18: deployment (left) and emptying (right) of the WP2 net. Photos by Francesco Colona

3.9. CPICS & ISIIS scan

The CPICS is an underwater camera that produces darkfield colour images at 8 fps at ±10 L h^{-1} and ISIIS is a shadowgraph imager that takes grayscale images at up to 20 fps at ±150,000 L h^{-1} of deployment time. Each system can run autonomously for several hours on a battery package. The CPICS is optimal for imaging living and non-living particles of 100-1,000um and the ISIIS for living particles of 300 um - 2 cm.

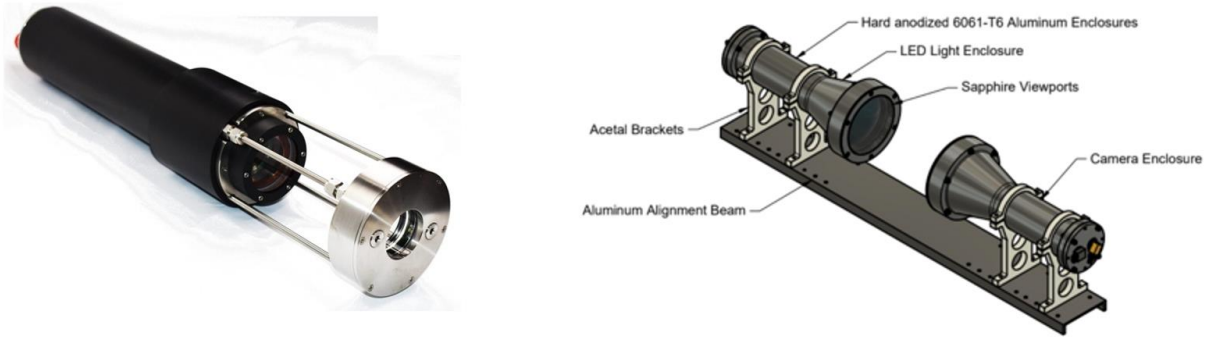

Figure 19: CPICS (left) and ISIIS (right) zooplankton scanners.

Both systems were mounted on the Hopper camera frame during video survey activities together with an RBR CTD that measures depth, temperature, salinity, turbidity, oxygen concentration and chlorophyll-a. In addition, the CPICS and ISIIS were deployed on a frame that allows for towing behind the vessel at

±2 knots. The towed frame was also mounted with a LISST-200X that measures temperature, depth and abundance of small particles in the water and with a SUNA Nitrate Sensor, as well with a real-time depth sensor. The frame was stabilised with a depressor.

Table 9: Transects with plankton frame.

Day	Start / end time (ship time)	Transect
4 October	17:50 – 19:50	Start at south of reef heading southwards along deeper area
7 October	16:58 – 17:34	Start at south of reef (deep) heading north along east of reef until shallow area north of reef
9 October	12:47 – 16:30	Start north of reef (shallow) along westside ending in deeper water southwards

The towed deployments were performed in the close vicinity of the reef area, such that both the near-reef area as well as the transition to either north or south of the reef were sampled in a single transect.

During a deployment, the vessel sailed against the current at a ground speed of 1 to 2 knots, with the exact speed depending on current velocity. The frame was continuously raised and lowered between surface and bottom (10m above the bottom as a safety margin) with a vertical speed of approximately 6 meters per minute. In this way, both the horizontal and vertical variation in the zooplankton composition can be analysed.

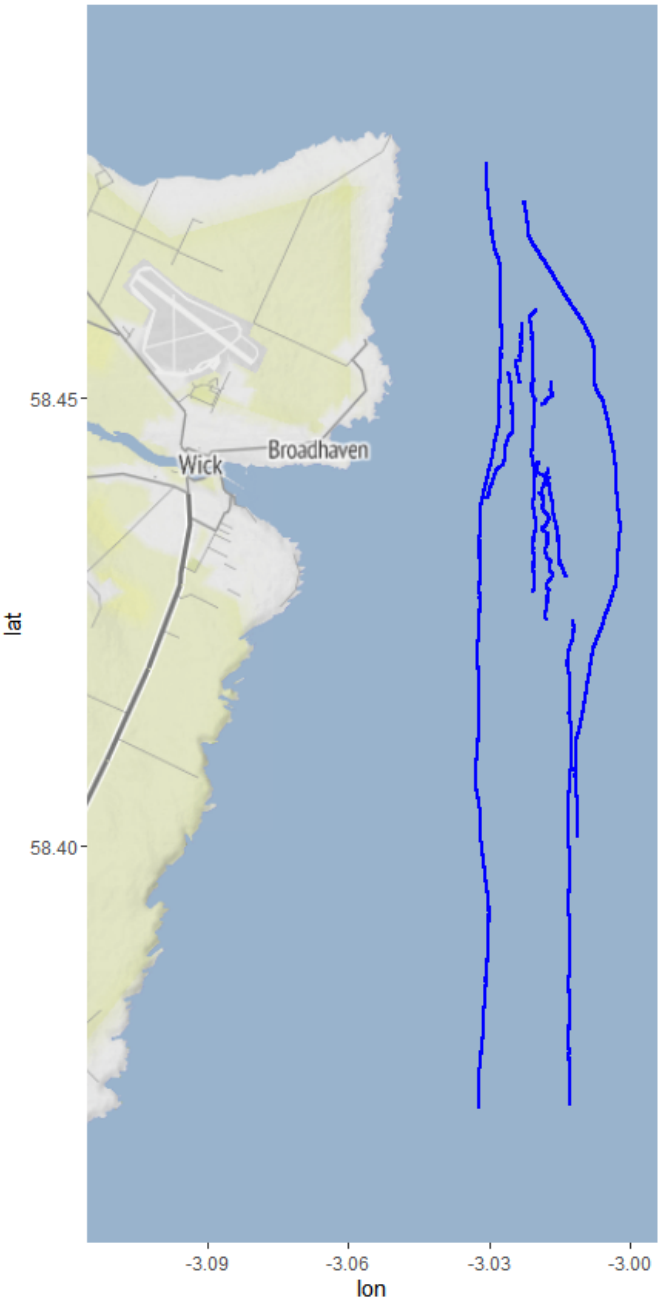

Figure 20: CPICS transects (blue lines.

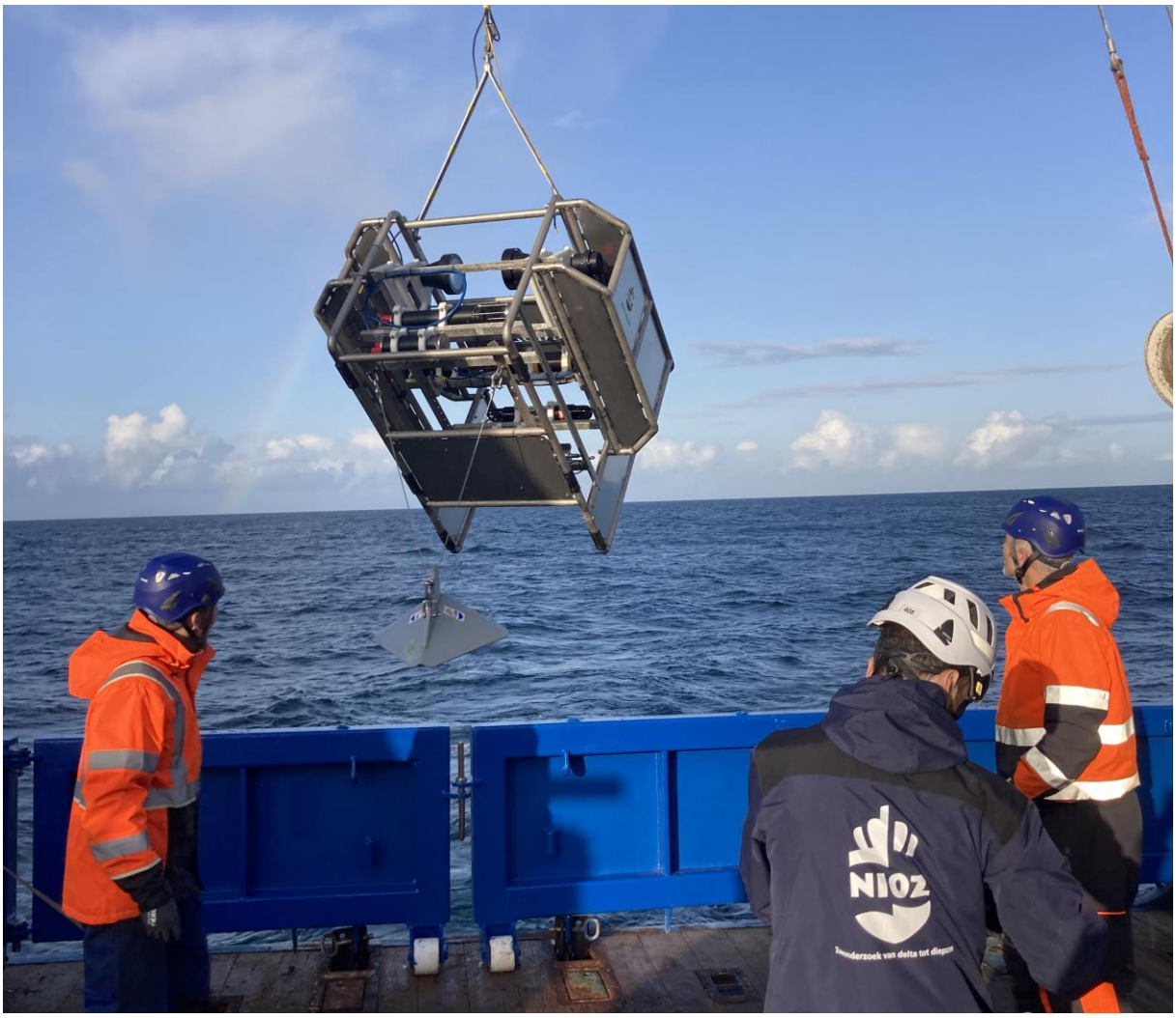

Figure 21: The frame is lowered overboard to start a transect.

3.10. EK80 Fish finder sonar

During part of the video transects and the CPICS transects, the water column was scanned using a Kongsberg Simrad EK80 fish finder sonar mounted on the measurement pole on the vessel. The data collected with the EK80 will later be used to assess the presence of fish and large plankton in the water column along the transects. To prevent disturbance of marine mammals, only the 200kHz frequency of the sonar was used.

Table 10: date, time, start and end positions of fish finder deployments.

Date	Starttime UTC	Endtime UTC	Start Lat.	Start Lon	End Lat.	End Lon
02/10/2023	08:02:55	08:29:02	58º 27.556’	03º 01.222’	58º 27.487’	03º 00.944’
03/10/2023	08:31:04	09:39:45	58º 27.105’	03º 01.011’	58º 27.225’	03º 01.560’
03/10/2023	12:00:34	12:36:52	58º 27.286’	03º 01.414’	58º 27.107’	03º 01.497’
04/10/2023	16:34:55	17:46:52	58º 22.286’	03º 00.769’	58º 22.259’	03º 00.764’
07/10/2023	15:06:24	17:34:59	58º 24.140’	03º 00.680’	58º 28.353’	03º 01.366’
09/10/2023	11:03:11	14:27:30	58º 28.128’	03º 01.771’	58º 22.322’	03º01.924’

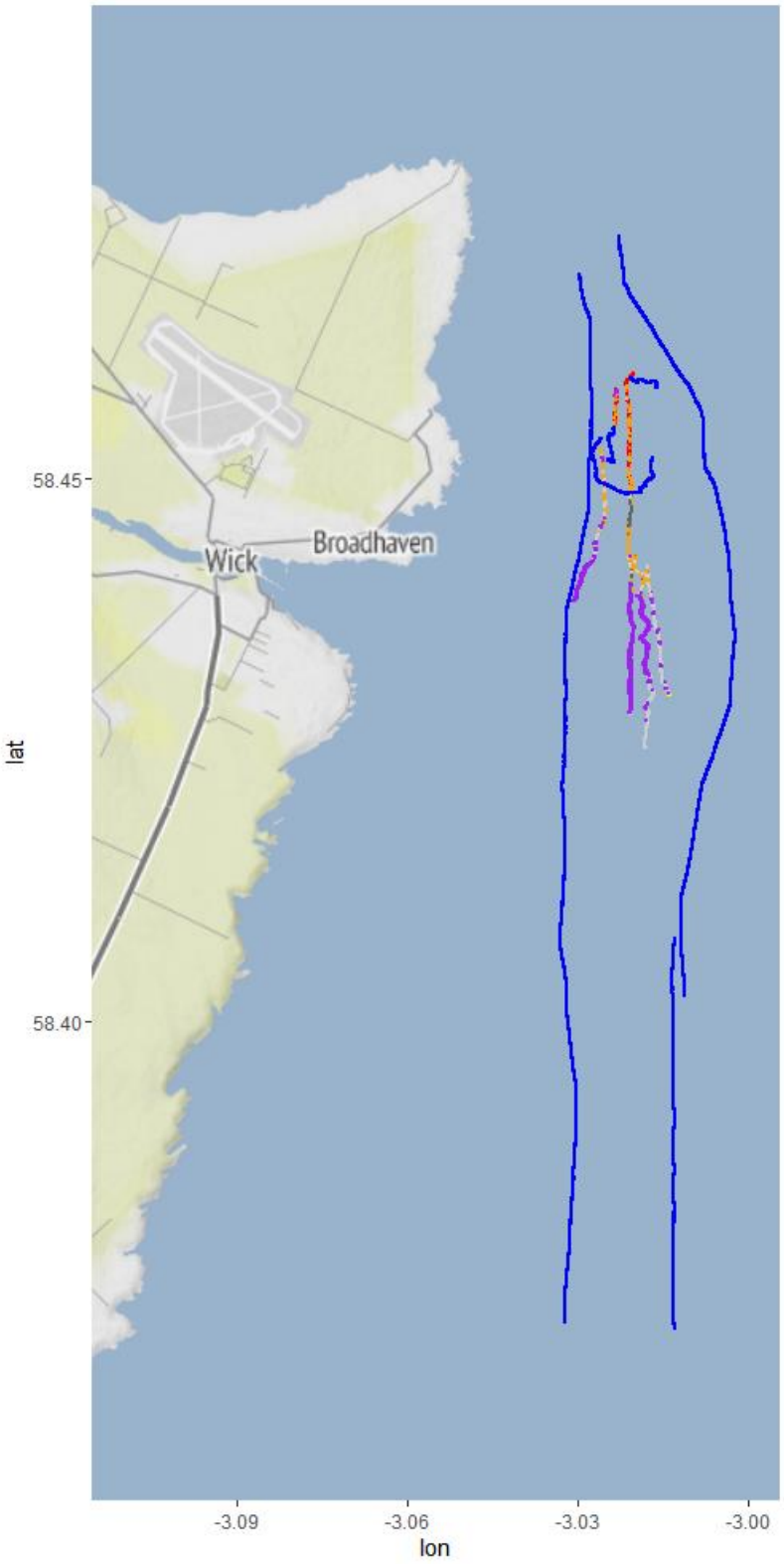

Figure 22: EK80 measurement track (blue lines), with seabed video data in background (colours see figure 9).

3.11. OceanVisions: How research infrastructures shape marine and ocean sciences

Francesco Colona is a social scientist from the Centre for Science and Technology Studies at Leiden University. Francesco leads the project OceanVisions (Project: 101062461 – HORIZON-MSCA) that investigates how the governance of ocean and marine science, as well as their research questions and concerns, are influenced by material research infrastructures such as research vessels or diving

technologies. Therefore, the project studies how practical considerations and the available observational techniques shape what is knowable and what is made visible about the ocean and the sea. OceanVisions is particularly interested in the production of and impact of visual data and images and how such data is used in parallel with other data production practices in ocean and marine sciences.

As a social scientist onboard R/V Pelagia, Francesco Colona performed participant observation during the research cruise Revifes. Participant observation is a research methodology where the researcher is immersed and participates in the day-to-day activities under study. It provides unique opportunities to understand how everyday practices of scientific research and how the role of research technologies and infrastructures inform what is possible to see and know about the ocean and the sea. The focus of his observations has been the research process and the use of observational and sampling techniques, and they eventually contribute to knowledge production about the ocean. The data production process during the participant observation followed three phases. During the observation periods, Francesco Colona collected short-hand notes to record the research process he was able to observe. After, these notes were dictated in a voice recorder, and only later transcribed and edited into fieldwork diary entries. Furthermore, throughout the observation periods Francesco Colona collected 6 GB of video footage and photographic material documenting the research process on board, and the use of sampling and research technologies by the science staff. Both fieldwork diary entries and photo-video material are saved per day and stored in the Leiden University cloud drive and on the researcher's laptop. They will be backed up on a hard drive upon docking.

To complement participant observation data, this project used interviews with research staff and informal conversations with scientists onboard. Interviews provide additional and more in-depth information about how decisions are made throughout the research process and how the research process itself is shaped by the available observational techniques. Francesco Colona conducted interviews with three research staff on board and multiple informal conversations during the observation periods with science staff. The interviews have been recorded with a digital dedicated voice recorder and will be transcribed in word files for analysis. The informal conversations have been summarized in the daily diary entries together with the observations' entries. The files (audio and word) of the interviews are stored in in the Leiden University cloud drive and on the researcher's laptop. They will be backed up on a hard drive upon docking.

Francesco Colona has obtained consent to perform participant observation onboard with the scientific staff and has obtained consent from the interviewees.

4. References

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5. Appendices

5.1. Appendix 1: All stations, with coordinates and date it was executed.

Date	Method	StationID	Latitude	Longitude	lat.deg	lat.dec.min	lon.deg	lon.dec.min	Depth (m)	CastID
02-Oct	CTD	5km	58.4077	-2.9408	58	24.462	-2	56.448	66.3	002
02-Oct	video transect	C south	58.4423	-3.0173	58	26.538	-3	1.038	51.3	005
02-Oct	video transect	B complete	58.4592	-3.0213	58	27.552	-3	1.278	44.4	006
03-Oct	video transect	A middle	58.4527	-3.0255	58	27.162	-3	1.53	43.9	007
03-Oct	video transect	BC centre	58.4518	-3.017	58	27.108	-3	1.02	46.9	008
03-Oct	video transect	A north	58.4583	-3.0232	58	27.498	-3	1.392	44.5	009
03-Oct	EK80 transect	A north	58.4542	-3.0235	58	27.252	-3	1.41	45.5	010
04-Oct	cage placement	mid_1	58.45168333	-3.025466667	58	27.1009998	-3	1.52800002	44.9	013
04-Oct	cage placement	mid_2	58.44873333	-3.025283333	58	26.9239998	-3	1.51699998	45.9	014
04-Oct	cage placement	low_1	58.4373	-3.016476	58	26.238	-3	0.98856	50.9	015
04-Oct	cage placement	low_2	58.43545	-3.01575	58	26.127	-3	0.945	54.0	016
04-Oct	cage placement	high_1	58.4582	-3.025	58	27.492	-3	1.5	42.4	017
04-Oct	cage placement	high_2	58.4575	-3.025	58	27.45	-3	1.5	42.9	018
04-Oct	cage placement	high_3	58.4568	-3.025	58	27.408	-3	1.5	43.8	020
04-Oct	cage placement	high_4	58.45535	-3.025033333	58	27.321	-3	1.502	43.5	021
04-Oct	CTD	mid_4	58.442861	-3.020885	58	26.57166	-3	1.2531	49.2	022
04-Oct	CTD	mid_5	58.441487	-3.019513	58	26.48922	-3	1.17078	49.1	023
04-Oct	CTD	mid_6	58.440823	-3.017595	58	26.44938	-3	1.0557	51.0	024
04-Oct	CTD	low_4	58.429953	-3.016657	58	25.79718	-3	0.99942	60.5	025
04-Oct	CTD	low_5	58.428302	-3.017367	58	25.69812	-3	1.04202	56.6	026
04-Oct	CTD	low_6	58.426475	-3.017896	58	25.5885	-3	1.07376	63.1	027
04-Oct	CPICS frame	NA	58.4252	-3.0125	58	25.512	-3	0.75	66.0	028
05-Oct	cage recovery	mid_1	58.45168333	-3.025466667	58	27.1009998	-3	1.52800002	44.9	029
05-Oct	cage recovery	mid_2	58.44873333	-3.025283333	58	26.9239998	-3	1.51699998	45.9	030
05-Oct	cage recovery	low_1	58.4373	-3.016476	58	26.238	-3	0.98856	50.9	031
05-Oct	cage recovery	low_2	58.43545	-3.01575	58	26.127	-3	0.945	54.0	032
05-Oct	cage recovery	high_1	58.4582	-3.025	58	27.492	-3	1.5	42.4	033

Date	Method	StationID	Latitude	Longitude	lat.deg	lat.dec.min	lon.deg	lon.dec.min	Depth (m)	CastID
05-Oct	cage recovery	high_2	58.4575	-3.025	58	27.45	-3	1.5	42.9	034
05-Oct	cage recovery	high_3	58.4568	-3.025	58	27.408	-3	1.5	43.8	035
05-Oct	cage recovery	high_4	58.45535	-3.025033333	58	27.321	-3	1.502	43.5	36
05-Oct	box coring	high_4	58.45535	-3.025033333	58	27.321	-3	1.502	43.8	37
05-Oct	box coring	high_5	58.456	-3.025	58	27.36	-3	1.5	44.1	39
05-Oct	hamon grab	high_4	58.45535	-3.025033333	58	27.321	-3	1.502	44.2	046
05-Oct	hamon grab	high_5	58.456	-3.025	58	27.36	-3	1.5	44.1	044
05-Oct	hamon grab	high_5	58.456	-3.025	58	27.36	-3	1.5	44.1	045
05-Oct	hamon grab	high_6	58.45435	-3.025	58	27.261	-3	1.5	44.7	047
05-Oct	hamon grab	mid_4	58.442861	-3.020885	58	26.57166	-3	1.2531	50.9	048
05-Oct	hamon grab	mid_5	58.441487	-3.019513	58	26.48922	-3	1.17078	49.1	049
05-Oct	hamon grab	mid_6	58.440823	-3.017595	58	26.44938	-3	1.0557	51.0	50_1
05-Oct	hamon grab	low_5	58.428302	-3.017367	58	25.69812	-3	1.04202	56.6	53_2
05-Oct	hamon grab	low_6	58.426475	-3.017896	58	25.5885	-3	1.07376	63.1	50_2
06-Oct	CTD	low_4	58.429953	-3.016657	58	25.79718	-3	0.99942	60.5	057
06-Oct	CTD	low_5	58.428302	-3.017367	58	25.69812	-3	1.04202	56.6	056
06-Oct	CTD	low_6	58.426475	-3.017896	58	25.5885	-3	1.07376	63.1	055
06-Oct	CTD	high_1	58.4582	-3.025	58	27.492	-3	1.5	42.4	060
06-Oct	CTD	high_2	58.4575	-3.025	58	27.45	-3	1.5	42.9	059
06-Oct	CTD	high_3	58.4568	-3.025	58	27.408	-3	1.5	43.8	058
07-Oct	cage placement	high_5	58.456	-3.025	58	27.36	-3	1.5	44.1	062
07-Oct	cage placement	high_6	58.45435	-3.025	58	27.261	-3	1.5	43.5	063
07-Oct	cage placement	mid_4	58.442861	-3.020885	58	26.57166	-3	1.2531	48.6	067
07-Oct	cage placement	mid_5	58.441487	-3.019513	58	26.48922	-3	1.17078	49.1	066
07-Oct	cage placement	mid_6	58.440823	-3.017595	58	26.44938	-3	1.0557	51.0	064
07-Oct	cage placement	low_4	58.429953	-3.016657	58	25.79718	-3	0.99942	60.5	070
07-Oct	cage placement	low_5	58.428302	-3.017367	58	25.69812	-3	1.04202	56.6	069
07-Oct	cage placement	low_6	58.426475	-3.017896	58	25.5885	-3	1.07376	63.1	068
07-Oct	hamon grab	high_1	58.4582	-3.025	58	27.492	-3	1.5	42.4	094
07-Oct	hamon grab	high_2	58.4575	-3.025	58	27.45	-3	1.5	42.9	091

Date	Method	StationID	Latitude	Longitude	lat.deg	lat.dec.min	lon.deg	lon.dec.min	Depth (m)	CastID
07-Oct	hamon grab	high_2	58.4575	-3.025	58	27.45	-3	1.5	42.9	093
07-Oct	hamon grab	high_3	58.4568	-3.025	58	27.408	-3	1.5	43.8	088
07-Oct	hamon grab	high_3	58.4568	-3.025	58	27.408	-3	1.5	43.8	089
07-Oct	hamon grab	mid_1	58.45168333	-3.025466667	58	27.1009998	-3	1.52800002	44.9	086
07-Oct	hamon grab	mid_2	58.44873333	-3.025283333	58	26.9239998	-3	1.51699998	45.9	084
07-Oct	hamon grab	mid_3	58.447891	-3.02498	58	26.87346	-3	1.4988	46.4	083
07-Oct	hamon grab	low_3	58.43298333	-3.0153	58	25.979	-3	0.918	57.3	074
07-Oct	CPICS frame	NA	58.4	-3.0113	58	24	-3	0.678	69.8	095
08-Oct	cage recovery	high_5	58.456	-3.025	58	27.36	-3	1.5	44.1	097
08-Oct	cage recovery	high_6	58.45435	-3.025	58	27.261	-3	1.5	44.1	098
08-Oct	cage recovery	mid_4	58.442861	-3.020885	58	26.57166	-3	1.2531	48.4	099
08-Oct	cage recovery	mid_5	58.441487	-3.019513	58	26.48922	-3	1.17078	49.1	100
08-Oct	cage recovery	mid_6	58.440823	-3.017595	58	26.44938	-3	1.0557	51.0	101
08-Oct	cage recovery	low_4	58.429953	-3.016657	58	25.79718	-3	0.99942	60.5	102
08-Oct	cage recovery	low_5	58.428302	-3.017367	58	25.69812	-3	1.04202	56.6	103
08-Oct	cage recovery	low_6	58.426475	-3.017896	58	25.5885	-3	1.07376	63.1	104
08-Oct	CTD	high_1	58.4582	-3.025	58	27.492	-3	1.5	42.4	110
08-Oct	CTD	high_2	58.4575	-3.025	58	27.45	-3	1.5	42.9	109
08-Oct	CTD	high_3	58.4568	-3.025	58	27.408	-3	1.5	43.8	108
08-Oct	CTD	mid_4	58.442861	-3.020885	58	26.57166	-3	1.2531	49.3	107
08-Oct	CTD	mid_5	58.441487	-3.019513	58	26.48922	-3	1.17078	49.1	106
08-Oct	CTD	mid_6	58.440823	-3.017595	58	26.44938	-3	1.0557	51.0	105
09-Oct	hamon grab	low_6	58.426475	-3.017896	58	25.5885	-3	1.07376	63.1	111
09-Oct	hamon grab	low_6	58.426475	-3.017896	58	25.5885	-3	1.07376	63.1	112
09-Oct	hamon grab	low_6	58.426475	-3.017896	58	25.5885	-3	1.07376	63.1	113
09-Oct	hamon grab	low_6	58.426475	-3.017896	58	25.5885	-3	1.07376	63.1	114
09-Oct	hamon grab	low_6	58.426475	-3.017896	58	25.5885	-3	1.07376	63.1	115
09-Oct	hamon grab	low_6	58.426475	-3.017896	58	25.5885	-3	1.07376	63.1	116
09-Oct	hamon grab	low_6	58.426475	-3.017896	58	25.5885	-3	1.07376	63.1	117
09-Oct	hamon grab	low_6	58.426475	-3.017896	58	25.5885	-3	1.07376	63.1	118

Date	Method	StationID	Latitude	Longitude	lat.deg	lat.dec.min	lon.deg	lon.dec.min	Depth (m)	CastID
09-Oct	wp2	low_6	58.426475	-3.017896	58	25.5885	-3	1.07376	63.1	119
09-Oct	wp2	low_6	58.426475	-3.017896	58	25.5885	-3	1.07376	63.1	120
09-Oct	wp2	low_5	58.428302	-3.017367	58	25.69812	-3	1.04202	56.6	121
09-Oct	wp2	low_5	58.428302	-3.017367	58	25.69812	-3	1.04202	56.6	122
09-Oct	wp2	low_4	58.429953	-3.016657	58	25.79718	-3	0.99942	60.5	123
09-Oct	wp2	low_4	58.429953	-3.016657	58	25.79718	-3	0.99942	60.5	124
09-Oct	wp2	low_3	58.43298333	-3.0153	58	25.979	-3	0.918	57.3	125
09-Oct	wp2	low_3	58.43298333	-3.0153	58	25.979	-3	0.918	57.3	126
09-Oct	wp2	high_4	58.45535	-3.025033333	58	27.321	-3	1.502	44.3	127
09-Oct	wp2	high_4	58.45535	-3.025033333	58	27.321	-3	1.502	44.3	128
09-Oct	wp2	high_3	58.4568	-3.025	58	27.408	-3	1.5	43.8	129
09-Oct	wp2	high_3	58.4568	-3.025	58	27.408	-3	1.5	43.8	130
09-Oct	wp2	high_2	58.4575	-3.025	58	27.45	-3	1.5	42.9	131
09-Oct	wp2	high_2	58.4575	-3.025	58	27.45	-3	1.5	42.9	132
09-Oct	wp2	high_1	58.4582	-3.025	58	27.492	-3	1.5	42.4	133
09-Oct	wp2	high_1	58.4582	-3.025	58	27.492	-3	1.5	42.4	134
09-Oct	CPICS frame	NA	58.476	-3.0303	58	28.56	-3	1.818	44.2	135
09-Oct	CTD	mid_1	58.45168333	-3.025466667	58	27.1009998	-3	1.52800002	44.9	138
09-Oct	CTD	mid_2	58.44873333	-3.025283333	58	26.9239998	-3	1.51699998	45.9	137
09-Oct	CTD	mid_3	58.447891	-3.02498	58	26.87346	-3	1.4988	47.0	136
09-Oct	CTD	mid_1	58.45168333	-3.025466667	58	27.1009998	-3	1.52800002	44.9	141
09-Oct	CTD	mid_2	58.44873333	-3.025283333	58	26.9239998	-3	1.51699998	45.9	140
09-Oct	CTD	mid_3	58.447891	-3.02498	58	26.87346	-3	1.4988	47.2	139

5.2. Appendix 2. Overview of all operations during cruise 64PE524. Time in UTC.

Note the correction of cast numbers in table 2.

Date UTC	Latitude	Longitude	Phase name	Device name	Action name	Operation Id	CastID
02/10/2023 06:33	58.4077	-2.9408	STATION 2	CTD with Samples	BEGIN	64PE524CTDBOT2	2_1
02/10/2023 06:38	58.4078	-2.9408	STATION 2	CTD with Samples	BOT	64PE524CTDBOT2	2_1
02/10/2023 06:54	58.4077	-2.9408	STATION 2	CTD with Samples	END	64PE524CTDBOT2	2_1
02/10/2023 08:04	58.4593	-3.0205	STATION 3	Hopper Camera	BEGIN	64PE524HOPCAM3	3_1
02/10/2023 08:12	58.4592	-3.0187	STATION 3	Hopper Camera	STOP	64PE524HOPCAM3	3_1
02/10/2023 09:41	58.4472	-3.0237	STATION 3	Hopper Camera	END	64PE524HOPCAM3	3_1
02/10/2023 10:18	58.4438	-3.0185	STATION 4	Hopper Camera	BEGIN	64PE524HOPCAM4	4_1
02/10/2023 10:31	58.4435	-3.0188	STATION 4	Hopper Camera	STOP	64PE524HOPCAM4	4_1
02/10/2023 10:31	58.4435	-3.0188	STATION 4	Hopper Camera	END	64PE524HOPCAM4	4_1
02/10/2023 11:24	58.4423	-3.0173	STATION 5	Hopper Camera	BEGIN	64PE524HOPCAM5	5_1
02/10/2023 12:51	58.4305	-3.0133	STATION 5	Hopper Camera	END	64PE524HOPCAM5	5_1
02/10/2023 13:45	58.4592	-3.0213	STATION 6	Hopper Camera	BEGIN	64PE524HOPCAM6	6_1
02/10/2023 13:45	58.4592	-3.0213	STATION 6	Hopper Camera	START	64PE524HOPCAM6	6_1
02/10/2023 17:26	58.4285	-3.0203	STATION 6	Hopper Camera	STOP	64PE524HOPCAM6	6_1
02/10/2023 17:27	58.4285	-3.0203	STATION 6	Hopper Camera	END	64PE524HOPCAM6	6_1
03/10/2023 06:20	58.4527	-3.0255	STATION 7	Hopper Camera	BEGIN	64PE524HOPCAM7	7_1
03/10/2023 06:26	58.4525	-3.0258	STATION 7	Hopper Camera	START	64PE524HOPCAM7	7_1
03/10/2023 08:00	58.4385	-3.0305	STATION 7	Hopper Camera	STOP	64PE524HOPCAM7	7_1
03/10/2023 08:06	58.4382	-3.0308	STATION 7	Hopper Camera	END	64PE524HOPCAM7	7_1
03/10/2023 08:31	58.4518	-3.017	STATION 8	Hopper Camera	BEGIN	64PE524HOPCAM8	8_1
03/10/2023 08:35	58.4515	-3.0168	STATION 8	Hopper Camera	START	64PE524HOPCAM8	8_1
03/10/2023 09:45	58.4538	-3.026	STATION 8	Hopper Camera	END	64PE524HOPCAM8	8_1
03/10/2023 11:25	58.4583	-3.0232	STATION 9	Hopper Camera	BEGIN	64PE524HOPCAM9	9_1
03/10/2023 12:06	58.4542	-3.0235	STATION 10	Fish finder	BEGIN	64PE524EK8010	10_1
03/10/2023 12:46	58.4518	-3.0257	STATION 10	Fish finder	END	64PE524EK8010	10_1
03/10/2023 12:46	58.4518	-3.0257	STATION 10	Hopper Camera	END	64PE524HOPCAM9	9_1
03/10/2023 13:48	58.4432	-3.02	STATION 11	Fish finder	BEGIN	64PE524EK8011	11_1
03/10/2023 13:58	58.4428	-3.0202	STATION 12	Hopper Camera	BEGIN	64PE524HOPCAM12	12_1

Date UTC	Latitude	Longitude	Phase name	Device name	Action name	Operation Id	CastID
03/10/2023 15:59	58.4248	-3.0175	STATION 12	Hopper Camera	STOP	64PE524HOPCAM12	12_1
03/10/2023 16:01	58.4247	-3.0173	STATION 12	Hopper Camera	END	64PE524HOPCAM12	12_1
03/10/2023 16:37	58.4208	-3.0242	STATION 12	Fish finder	END	64PE524EK8011	11_1
04/10/2023 06:43	58.452	-3.0253	STATION 13	Mooring	BEGIN	64PE524MOOR13	13_1
04/10/2023 06:54	58.4517	-3.0253	STATION 13	Mooring	DEP	64PE524MOOR13	13_1
04/10/2023 06:59	58.4515	-3.0248	STATION 13	Mooring	END	64PE524MOOR13	13_1
04/10/2023 07:15	58.4487	-3.0252	STATION 14	Mooring	BEGIN	64PE524MOOR14	14_1
04/10/2023 07:22	58.4487	-3.0252	STATION 14	Mooring	DEP	64PE524MOOR14	14_1
04/10/2023 07:25	58.4485	-3.0248	STATION 14	Mooring	END	64PE524MOOR14	14_1
04/10/2023 07:53	58.4373	-3.0165	STATION 15	Mooring	BEGIN	64PE524MOOR15	15_1
04/10/2023 07:59	58.4373	-3.0163	STATION 15	Mooring	DEP	64PE524MOOR15	15_1
04/10/2023 08:03	58.4372	-3.0158	STATION 15	Mooring	END	64PE524MOOR15	15_1
04/10/2023 08:20	58.4353	-3.0157	STATION 16	Mooring	BEGIN	64PE524MOOR16	16_1
04/10/2023 08:25	58.4353	-3.0157	STATION 16	Mooring	DEP	64PE524MOOR16	16_1
04/10/2023 08:28	58.4353	-3.0155	STATION 16	Mooring	END	64PE524MOOR16	16_1
04/10/2023 09:16	58.4582	-3.0252	STATION 17	Mooring	BEGIN	64PE524MOOR17	17_1
04/10/2023 09:21	58.4582	-3.025	STATION 17	Mooring	DEP	64PE524MOOR17	17_1
04/10/2023 09:26	58.4575	-3.0252	STATION 17	Mooring	END	64PE524MOOR17	17_1
04/10/2023 09:32	58.4575	-3.0248	STATION 18	Mooring	BEGIN	64PE524MOOR18	18_1
04/10/2023 09:38	58.4575	-3.025	STATION 18	Mooring	DEP	64PE524MOOR18	18_1
04/10/2023 09:42	58.457	-3.0253	STATION 18	Mooring	END	64PE524MOOR18	18_1
04/10/2023 09:54	58.4567	-3.025	STATION 20	Mooring	BEGIN	64PE524MOOR20	20_1
04/10/2023 09:59	58.4567	-3.025	STATION 20	Mooring	DEP	64PE524MOOR20	20_1
04/10/2023 10:03	58.4563	-3.025	STATION 20	Mooring	END	64PE524MOOR20	20_1
04/10/2023 10:19	58.4557	-3.0252	STATION 21	Mooring	BEGIN	64PE524MOOR21	21_1
04/10/2023 10:23	58.4557	-3.0252	STATION 21	Mooring	DEP	64PE524MOOR21	21_1
04/10/2023 10:26	58.4557	-3.0257	STATION 21	Mooring	END	64PE524MOOR21	21_1
04/10/2023 11:58	58.4427	-3.021	STATION 22	CTD with Samples	BEGIN	64PE524CTDBOT22	22_1
04/10/2023 12:15	58.4422	-3.0213	STATION 22	CTD with Samples	END	64PE524CTDBOT22	22_1
04/10/2023 12:34	58.4413	-3.0197	STATION 23	CTD with Samples	BEGIN	64PE524CTDBOT23	23_1

Date UTC	Latitude	Longitude	Phase name	Device name	Action name	Operation Id	CastID
04/10/2023 12:38	58.4413	-3.0198	STATION 23	CTD with Samples	BOT	64PE524CTDBOT23	23_1
04/10/2023 12:48	58.4413	-3.0197	STATION 23	CTD with Samples	END	64PE524CTDBOT23	23_1
04/10/2023 13:13	58.4405	-3.017	STATION 24	CTD with Samples	BEGIN	64PE524CTDBOT24	24_1
04/10/2023 13:21	58.4407	-3.0173	STATION 24	CTD with Samples	BOT	64PE524CTDBOT24	24_1
04/10/2023 13:28	58.4408	-3.0173	STATION 24	CTD with Samples	END	64PE524CTDBOT24	24_1
04/10/2023 13:51	58.4298	-3.0162	STATION 25	CTD with Samples	BEGIN	64PE524CTDBOT25	25_1
04/10/2023 13:59	58.4298	-3.0165	STATION 25	CTD with Samples	BOT	64PE524CTDBOT25	25_1
04/10/2023 14:06	58.4298	-3.0167	STATION 25	CTD with Samples	END	64PE524CTDBOT25	25_1
04/10/2023 14:28	58.4283	-3.0172	STATION 26	CTD with Samples	BEGIN	64PE524CTDBOT26	26_1
04/10/2023 14:36	58.4283	-3.0173	STATION 26	CTD with Samples	BOT	64PE524CTDBOT26	26_1
04/10/2023 14:51	58.428	-3.0168	STATION 26	CTD with Samples	END	64PE524CTDBOT26	26_1
04/10/2023 15:00	58.4267	-3.018	STATION 27	CTD with Samples	BEGIN	64PE524CTDBOT27	27_1
04/10/2023 15:04	58.4267	-3.0182	STATION 27	CTD with Samples	BOT	64PE524CTDBOT27	27_1
04/10/2023 15:16	58.4263	-3.0177	STATION 27	CTD with Samples	END	64PE524CTDBOT27	27_1
04/10/2023 15:54	58.4252	-3.0125	STATION 28	FISH	BEGIN	64PE524FISH28	28_1
04/10/2023 17:48	58.3715	-3.0128	STATION 28	FISH	END	64PE524FISH28	28_1
05/10/2023 06:02	58.454	-3.0235	STATION 29	Mooring	BEGIN	64PE524MOOR29	29_1
05/10/2023 06:10	58.452	-3.0253	STATION 29	Mooring	REC	64PE524MOOR29	29_1
05/10/2023 06:26	58.4522	-3.0253	STATION 29	Mooring	END	64PE524MOOR29	29_1
05/10/2023 06:41	58.449	-3.0248	STATION 30	Mooring	BEGIN	64PE524MOOR30	30_1
05/10/2023 06:42	58.449	-3.0248	STATION 30	Mooring	REC	64PE524MOOR30	30_1
05/10/2023 06:54	58.4487	-3.025	STATION 30	Mooring	END	64PE524MOOR30	30_1
05/10/2023 07:18	58.4378	-3.016	STATION 31	Mooring	BEGIN	64PE524MOOR31	31_1
05/10/2023 07:19	58.4377	-3.0162	STATION 31	Mooring	REC	64PE524MOOR31	31_1
05/10/2023 07:29	58.4373	-3.016	STATION 31	Mooring	END	64PE524MOOR31	31_1
05/10/2023 07:29	58.4373	-3.0158	STATION 32	Mooring	BEGIN	64PE524MOOR32	32_1
05/10/2023 07:40	58.4357	-3.0153	STATION 32	Mooring	REC	64PE524MOOR32	32_1
05/10/2023 07:50	58.4355	-3.0152	STATION 32	Mooring	END	64PE524MOOR32	32_1
05/10/2023 08:47	58.4575	-3.0247	STATION 33	Mooring	BEGIN	64PE524MOOR33	33_1
05/10/2023 08:48	58.4575	-3.0247	STATION 33	Mooring	REC	64PE524MOOR33	33_1

Date UTC	Latitude	Longitude	Phase name	Device name	Action name	Operation Id	CastID
05/10/2023 08:48	58.4575	-3.0247	STATION 33	Mooring	END	64PE524MOOR33	33_1
05/10/2023 08:48	58.4575	-3.0247	STATION 34	Mooring	BEGIN	64PE524MOOR34	34_1
05/10/2023 08:48	58.4575	-3.0247	STATION 34	Mooring	REC	64PE524MOOR34	34_1
05/10/2023 08:51	58.4572	-3.0243	STATION 34	Mooring	END	64PE524MOOR34	34_1
05/10/2023 08:59	58.4567	-3.025	STATION 35	Mooring	BEGIN	64PE524MOOR35	35_1
05/10/2023 09:05	58.4562	-3.0245	STATION 35	Mooring	REC	64PE524MOOR35	35_1
05/10/2023 09:20	58.4552	-3.025	STATION 36	Mooring	END	64PE524MOOR35	35_1
05/10/2023 11:14	58.4553	-3.0253	STATION 37	Boxcore d=300	BEGIN	64PE524BOX30037	37_1
05/10/2023 11:17	58.4553	-3.0252	STATION 37	Boxcore d=300	BOT	64PE524BOX30037	37_1
05/10/2023 11:36	58.4552	-3.0253	STATION 37	Boxcore d=300	END	64PE524BOX30037	37_1
05/10/2023 11:36	58.4552	-3.0253	STATION 38	Boxcore d=300	BEGIN	64PE524BOX30038	38_1
05/10/2023 11:38	58.4552	-3.0252	STATION 38	Boxcore d=300	BOT	64PE524BOX30038	38_1
05/10/2023 11:44	58.4555	-3.025	STATION 38	Boxcore d=300	END	64PE524BOX30038	38_1
05/10/2023 12:01	58.4558	-3.025	STATION 39	Boxcore d=300	BEGIN	64PE524BOX30039	39_1
05/10/2023 12:06	58.456	-3.025	STATION 39	Boxcore d=300	BOT	64PE524BOX30039	39_1
05/10/2023 12:11	58.4558	-3.0252	STATION 39	Boxcore d=300	END	64PE524BOX30039	39_1
05/10/2023 12:15	58.456	-3.0253	STATION 40	Boxcore d=300	BEGIN	64PE524BOX30040	40_1
05/10/2023 12:17	58.4558	-3.0252	STATION 40	Boxcore d=300	BOT	64PE524BOX30040	40_1
05/10/2023 12:26	58.4558	-3.025	STATION 40	Boxcore d=300	END	64PE524BOX30040	40_1
05/10/2023 12:31	58.4562	-3.0252	STATION 41	Boxcore d=300	BEGIN	64PE524BOX30041	41_1
05/10/2023 12:34	58.456	-3.0253	STATION 41	Boxcore d=300	BOT	64PE524BOX30041	41_1
05/10/2023 12:43	58.4553	-3.0255	STATION 41	Boxcore d=300	END	64PE524BOX30041	41_1
05/10/2023 13:36	58.4563	-3.0255	STATION 42	Boxcore d=300	BEGIN	64PE524BOX30042	42_1
05/10/2023 13:38	58.4562	-3.0255	STATION 42	Boxcore d=300	BOT	64PE524BOX30042	42_1
05/10/2023 13:41	58.4562	-3.0255	STATION 42	Boxcore d=300	END	64PE524BOX30042	42_1
05/10/2023 13:54	58.4562	-3.0253	STATION 43	Boxcore d=300	BEGIN	64PE524BOX30043	43_1
05/10/2023 13:54	58.4562	-3.0253	STATION 43	Boxcore d=300	BOT	64PE524BOX30043	43_1
05/10/2023 13:57	58.4562	-3.0255	STATION 43	Boxcore d=300	END	64PE524BOX30043	43_1
05/10/2023 14:14	58.4562	-3.0255	STATION 44	Hammon	BEGIN	64PE524Hammon44	44_1
05/10/2023 14:15	58.456	-3.0255	STATION 44	Hammon	BOT	64PE524Hammon44	44_1

Date UTC	Latitude	Longitude	Phase name	Device name	Action name	Operation Id	CastID
05/10/2023 14:15	58.456	-3.0255	STATION 44	Hammon	END	64PE524Hammon44	44_1
05/10/2023 14:17	58.4562	-3.0253	STATION 45	Hammon	BEGIN	64PE524Hammon45	45_1
05/10/2023 14:18	58.4562	-3.0255	STATION 45	Hammon	BOT	64PE524Hammon45	45_1
05/10/2023 14:21	58.456	-3.0255	STATION 45	Hammon	END	64PE524Hammon45	45_1
05/10/2023 14:35	58.4555	-3.0257	STATION 46	Hammon	BEGIN	64PE524Hammon46	46_1
05/10/2023 14:35	58.4553	-3.0258	STATION 46	Hammon	BOT	64PE524Hammon46	46_1
05/10/2023 14:39	58.4555	-3.0255	STATION 46	Hammon	END	64PE524Hammon46	46_1
05/10/2023 14:50	58.4543	-3.0253	STATION 47	Hammon	BEGIN	64PE524Hammon47	47_1
05/10/2023 14:52	58.4545	-3.0253	STATION 47	Hammon	BOT	64PE524Hammon47	47_1
05/10/2023 14:53	58.4545	-3.0253	STATION 47	Hammon	END	64PE524Hammon47	47_1
05/10/2023 15:25	58.443	-3.0208	STATION 48	Hammon	BEGIN	64PE524Hammon48	48_1
05/10/2023 15:27	58.4432	-3.0208	STATION 48	Hammon	BOT	64PE524Hammon48	48_1
05/10/2023 15:38	58.4418	-3.0195	STATION 48	Hammon	END	64PE524Hammon48	48_1
05/10/2023 15:38	58.4418	-3.0195	STATION 49	Hammon	BEGIN	64PE524Hammon49	49_1
05/10/2023 15:40	58.4418	-3.0195	STATION 49	Hammon	BOT	64PE524Hammon49	49_1
05/10/2023 15:43	58.4418	-3.0192	STATION 49	Hammon	END	64PE524Hammon49	49_1
05/10/2023 15:49	58.4408	-3.0178	STATION 50	Hammon	BEGIN	64PE524Hammon50	50_1
05/10/2023 15:50	58.441	-3.0178	STATION 50	Hammon	BOT	64PE524Hammon50	50_1
05/10/2023 15:53	58.4412	-3.0175	STATION 50	Hammon	END	64PE524Hammon50	50_1
05/10/2023 16:35	58.4267	-3.0178	STATION 50	Hammon	BEGIN	64PE524Hammon50	50_2
05/10/2023 16:38	58.4265	-3.0178	STATION 50	Hammon	BOT	64PE524Hammon50	50_2
05/10/2023 16:39	58.4265	-3.0177	STATION 50	Hammon	END	64PE524Hammon50	50_2
05/10/2023 16:51	58.43	-3.0168	STATION 51	Hammon	BEGIN	64PE524Hammon51	51_1
05/10/2023 17:06	58.43	-3.0173	STATION 51	Hammon	BOT	64PE524Hammon51	51_1
05/10/2023 17:09	58.43	-3.0168	STATION 51	Hammon	END	64PE524Hammon51	51_1
05/10/2023 17:11	58.4298	-3.0167	STATION 52	Hammon	BEGIN	64PE524Hammon52	52_1
05/10/2023 17:12	58.4298	-3.0165	STATION 52	Hammon	BOT	64PE524Hammon52	52_1
05/10/2023 17:16	58.4302	-3.0158	STATION 52	Hammon	END	64PE524Hammon52	52_1
05/10/2023 17:16	58.4302	-3.0158	STATION 53	Hammon	BEGIN	64PE524Hammon53	53_1
05/10/2023 17:18	58.4303	-3.0162	STATION 53	Hammon	BOT	64PE524Hammon53	53_1

Date UTC	Latitude	Longitude	Phase name	Device name	Action name	Operation Id	CastID
05/10/2023 17:23	58.4297	-3.0162	STATION 53	Hammon	END	64PE524Hammon53	53_1
05/10/2023 17:30	58.4285	-3.0175	STATION 54	Hammon	BOT	64PE524Hammon53	53_2
05/10/2023 17:33	58.4283	-3.0173	STATION 54	Hammon	END	64PE524Hammon53	53_2
05/10/2023 17:33	58.4283	-3.0173	STATION 54	Hammon	BEGIN	64PE524Hammon54	54_1
05/10/2023 17:35	58.4285	-3.0172	STATION 54	Hammon	BOT	64PE524Hammon54	54_1
05/10/2023 17:37	58.4285	-3.0172	STATION 54	Hammon	END	64PE524Hammon54	54_1
05/10/2023 17:40	58.4285	-3.0175	STATION 54	Hammon	BEGIN	64PE524Hammon54	54_2
05/10/2023 17:40	58.4285	-3.0175	STATION 54	Hammon	BOT	64PE524Hammon54	54_2
05/10/2023 17:43	58.4283	-3.0177	STATION 54	Hammon	END	64PE524Hammon54	54_2
06/10/2023 14:48	58.4267	-3.0178	STATION 55	CTD with Samples	BEGIN	64PE524CTDBOT55	55_1
06/10/2023 14:53	58.4263	-3.0183	STATION 55	CTD with Samples	BOT	64PE524CTDBOT55	55_1
06/10/2023 15:09	58.4285	-3.0182	STATION 55	CTD with Samples	END	64PE524CTDBOT55	55_1
06/10/2023 15:20	58.4287	-3.0177	STATION 56	CTD with Samples	BEGIN	64PE524CTDBOT56	56_1
06/10/2023 15:29	58.4283	-3.0175	STATION 56	CTD with Samples	BOT	64PE524CTDBOT56	56_1
06/10/2023 15:34	58.4285	-3.0178	STATION 56	CTD with Samples	END	64PE524CTDBOT56	56_1
06/10/2023 15:49	58.43	-3.0172	STATION 57	CTD with Samples	BEGIN	64PE524CTDBOT57	57_1
06/10/2023 15:55	58.43	-3.0168	STATION 57	CTD with Samples	BOT	64PE524CTDBOT57	57_1
06/10/2023 16:04	58.4302	-3.0162	STATION 57	CTD with Samples	END	64PE524CTDBOT57	57_1
06/10/2023 16:42	58.4567	-3.0253	STATION 58	CTD with Samples	BEGIN	64PE524CTDBOT58	58_1
06/10/2023 16:46	58.4567	-3.0253	STATION 58	CTD with Samples	BOT	64PE524CTDBOT58	58_1
06/10/2023 16:55	58.4563	-3.0248	STATION 58	CTD with Samples	END	64PE524CTDBOT58	58_1
06/10/2023 17:10	58.4575	-3.0252	STATION 59	CTD with Samples	BEGIN	64PE524CTDBOT59	59_1
06/10/2023 17:16	58.4575	-3.0253	STATION 59	CTD with Samples	BOT	64PE524CTDBOT59	59_1
06/10/2023 17:25	58.4573	-3.0255	STATION 59	CTD with Samples	END	64PE524CTDBOT59	59_1
06/10/2023 17:44	58.4582	-3.0257	STATION 60	CTD with Samples	BEGIN	64PE524CTDBOT60	60_1
06/10/2023 17:47	58.458	-3.0258	STATION 60	CTD with Samples	BOT	64PE524CTDBOT60	60_1
06/10/2023 17:57	58.4582	-3.0253	STATION 60	CTD with Samples	END	64PE524CTDBOT60	60_1
07/10/2023 06:48	58.456	-3.0252	STATION 62	Mooring	BEGIN	64PE524MOOR62	62_1
07/10/2023 06:55	58.4562	-3.0252	STATION 62	Mooring	DEP	64PE524MOOR62	62_1
07/10/2023 06:59	58.4563	-3.0257	STATION 62	Mooring	END	64PE524MOOR62	62_1

Date UTC	Latitude	Longitude	Phase name	Device name	Action name	Operation Id	CastID
07/10/2023 07:14	58.4545	-3.0252	STATION 63	Mooring	BEGIN	64PE524MOOR63	63_1
07/10/2023 07:21	58.4543	-3.0252	STATION 63	Mooring	DEP	64PE524MOOR63	63_1
07/10/2023 07:30	58.4547	-3.0273	STATION 63	Mooring	END	64PE524MOOR63	63_1
07/10/2023 07:58	58.4408	-3.0177	STATION 64	Mooring	BEGIN	64PE524MOOR64	64_1
07/10/2023 08:04	58.4408	-3.0178	STATION 64	Mooring	DEP	64PE524MOOR64	64_1
07/10/2023 08:10	58.4415	-3.0188	STATION 64	Mooring	END	64PE524MOOR64	64_1
07/10/2023 08:39	58.4415	-3.0197	STATION 66	Mooring	BEGIN	64PE524MOOR66	66_1
07/10/2023 08:45	58.4415	-3.0197	STATION 66	Mooring	DEP	64PE524MOOR66	66_1
07/10/2023 08:50	58.442	-3.02	STATION 66	Mooring	END	64PE524MOOR66	66_1
07/10/2023 09:00	58.443	-3.0212	STATION 67	Mooring	BEGIN	64PE524MOOR67	67_1
07/10/2023 09:07	58.443	-3.021	STATION 67	Mooring	DEP	64PE524MOOR67	67_1
07/10/2023 09:12	58.4435	-3.0208	STATION 67	Mooring	END	64PE524MOOR67	67_1
07/10/2023 09:37	58.4267	-3.018	STATION 68	Mooring	BEGIN	64PE524MOOR68	68_1
07/10/2023 09:44	58.4265	-3.0178	STATION 68	Mooring	DEP	64PE524MOOR68	68_1
07/10/2023 09:48	58.427	-3.0177	STATION 68	Mooring	END	64PE524MOOR68	68_1
07/10/2023 10:01	58.4283	-3.0175	STATION 69	Mooring	BEGIN	64PE524MOOR69	69_1
07/10/2023 10:17	58.4295	-3.0178	STATION 69	Mooring	DEP	64PE524MOOR69	69_1
07/10/2023 10:17	58.4297	-3.0178	STATION 69	Mooring	END	64PE524MOOR69	69_1
07/10/2023 11:23	58.4302	-3.0172	STATION 70	Mooring	BEGIN	64PE524MOOR70	70_1
07/10/2023 11:31	58.4305	-3.0172	STATION 70	Mooring	DEP	64PE524MOOR70	70_1
07/10/2023 11:31	58.4305	-3.0172	STATION 70	Mooring	END	64PE524MOOR70	70_1
07/10/2023 11:52	58.4332	-3.0157	STATION 71	Hammon	BEGIN	64PE524Hammon71	71_1
07/10/2023 11:54	58.4332	-3.0153	STATION 71	Hammon	BOT	64PE524Hammon71	71_1
07/10/2023 11:58	58.4332	-3.0162	STATION 71	Hammon	END	64PE524Hammon71	71_1
07/10/2023 11:59	58.4332	-3.0162	STATION 72	Hammon	BEGIN	64PE524Hammon72	72_1
07/10/2023 12:00	58.4333	-3.0162	STATION 72	Hammon	BOT	64PE524Hammon72	72_1
07/10/2023 12:03	58.4332	-3.0158	STATION 72	Hammon	END	64PE524Hammon72	72_1
07/10/2023 12:03	58.4332	-3.0158	STATION 73	Hammon	BEGIN	64PE524Hammon73	73_1
07/10/2023 12:05	58.433	-3.0162	STATION 73	Hammon	BOT	64PE524Hammon73	73_1
07/10/2023 12:08	58.4332	-3.0162	STATION 73	Hammon	END	64PE524Hammon73	73_1

Date UTC	Latitude	Longitude	Phase name	Device name	Action name	Operation Id	CastID
07/10/2023 12:08	58.4332	-3.0162	STATION 74	Hammon	BEGIN	64PE524Hammon74	74_1
07/10/2023 12:10	58.4332	-3.0162	STATION 74	Hammon	BOT	64PE524Hammon74	74_1
07/10/2023 12:13	58.4332	-3.016	STATION 74	Hammon	END	64PE524Hammon74	74_1
07/10/2023 12:13	58.4332	-3.016	STATION 75	Hammon	BEGIN	64PE524Hammon75	75_1
07/10/2023 12:18	58.4332	-3.0157	STATION 75	Hammon	BOT	64PE524Hammon75	75_1
07/10/2023 12:18	58.4332	-3.0157	STATION 75	Hammon	END	64PE524Hammon75	75_1
07/10/2023 12:18	58.4332	-3.0157	STATION 76	Hammon	BEGIN	64PE524Hammon76	76_1
07/10/2023 12:22	58.4328	-3.0163	STATION 76	Hammon	END	64PE524Hammon76	76_1
07/10/2023 12:27	58.4358	-3.0163	STATION 77	Hammon	BEGIN	64PE524Hammon77	77_1
07/10/2023 12:33	58.4357	-3.0168	STATION 77	Hammon	BOT	64PE524Hammon77	77_1
07/10/2023 12:33	58.4357	-3.0168	STATION 77	Hammon	END	64PE524Hammon77	77_1
07/10/2023 12:33	58.4357	-3.0168	STATION 78	Hammon	BEGIN	64PE524Hammon78	78_1
07/10/2023 12:34	58.4355	-3.0163	STATION 78	Hammon	BOT	64PE524Hammon78	78_1
07/10/2023 12:37	58.4355	-3.016	STATION 78	Hammon	BOT	64PE524Hammon78	78_1
07/10/2023 12:37	58.4355	-3.016	STATION 78	Hammon	END	64PE524Hammon78	78_1
07/10/2023 12:37	58.4355	-3.016	STATION 79	Hammon	BEGIN	64PE524Hammon79	79_1
07/10/2023 12:39	58.4355	-3.0163	STATION 79	Hammon	BOT	64PE524Hammon79	79_1
07/10/2023 12:41	58.4355	-3.0167	STATION 79	Hammon	END	64PE524Hammon79	79_1
07/10/2023 12:50	58.4373	-3.0168	STATION 80	Hammon	BEGIN	64PE524Hammon80	80_1
07/10/2023 12:51	58.4373	-3.0168	STATION 80	Hammon	BOT	64PE524Hammon80	80_1
07/10/2023 12:54	58.4373	-3.0165	STATION 80	Hammon	END	64PE524Hammon80	80_1
07/10/2023 12:54	58.4373	-3.0165	STATION 81	Hammon	BEGIN	64PE524Hammon81	81_1
07/10/2023 12:55	58.4373	-3.017	STATION 81	Hammon	BOT	64PE524Hammon81	81_1
07/10/2023 12:58	58.4373	-3.0173	STATION 81	Hammon	END	64PE524Hammon81	81_1
07/10/2023 12:58	58.4373	-3.0173	STATION 82	Hammon	BEGIN	64PE524Hammon82	82_1
07/10/2023 12:59	58.4373	-3.017	STATION 82	Hammon	BOT	64PE524Hammon82	82_1
07/10/2023 13:02	58.4375	-3.0163	STATION 82	Hammon	END	64PE524Hammon82	82_1
07/10/2023 13:14	58.448	-3.0258	STATION 83	Hammon	BEGIN	64PE524Hammon83	83_1
07/10/2023 13:15	58.4478	-3.0258	STATION 83	Hammon	BOT	64PE524Hammon83	83_1
07/10/2023 13:16	58.4477	-3.026	STATION 83	Hammon	END	64PE524Hammon83	83_1

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07/10/2023 13:20	58.4488	-3.0257	STATION 84	Hammon	BEGIN	64PE524Hammon84	84_1
07/10/2023 13:21	58.4488	-3.0257	STATION 84	Hammon	BOT	64PE524Hammon84	84_1
07/10/2023 13:23	58.4488	-3.0257	STATION 84	Hammon	END	64PE524Hammon84	84_1
07/10/2023 13:28	58.4517	-3.026	STATION 85	Hammon	BEGIN	64PE524Hammon85	85_1
07/10/2023 13:28	58.4517	-3.026	STATION 85	Hammon	BEGIN	64PE524Hammon85	85_2
07/10/2023 13:29	58.4517	-3.026	STATION 85	Hammon	END	64PE524Hammon85	85_2
07/10/2023 13:29	58.4517	-3.026	STATION 85	Hammon	END	64PE524Hammon85	85_1
07/10/2023 13:30	58.4517	-3.0258	STATION 86	Hammon	BEGIN	64PE524Hammon86	86_1
07/10/2023 13:32	58.4517	-3.0258	STATION 86	Hammon	BOT	64PE524Hammon86	86_1
07/10/2023 13:33	58.4518	-3.0258	STATION 86	Hammon	END	64PE524Hammon86	86_1
07/10/2023 13:40	58.4568	-3.0257	STATION 87	Hammon	BEGIN	64PE524Hammon87	87_1
07/10/2023 13:41	58.4568	-3.0257	STATION 87	Hammon	BOT	64PE524Hammon87	87_1
07/10/2023 13:42	58.4568	-3.0255	STATION 87	Hammon	END	64PE524Hammon87	87_1
07/10/2023 13:43	58.4568	-3.0255	STATION 88	Hammon	BEGIN	64PE524Hammon88	88_1
07/10/2023 13:43	58.4568	-3.0255	STATION 88	Hammon	BOT	64PE524Hammon88	88_1
07/10/2023 13:45	58.4568	-3.0253	STATION 88	Hammon	END	64PE524Hammon88	88_1
07/10/2023 13:46	58.4568	-3.0252	STATION 89	Hammon	BEGIN	64PE524Hammon89	89_1
07/10/2023 13:48	58.4568	-3.0253	STATION 89	Hammon	BOT	64PE524Hammon89	89_1
07/10/2023 13:49	58.457	-3.0255	STATION 89	Hammon	END	64PE524Hammon89	89_1
07/10/2023 13:52	58.4575	-3.0253	STATION 90	Hammon	BEGIN	64PE524Hammon90	90_1
07/10/2023 13:52	58.4575	-3.0253	STATION 90	Hammon	BOT	64PE524Hammon90	90_1
07/10/2023 13:54	58.4575	-3.0252	STATION 90	Hammon	END	64PE524Hammon90	90_1
07/10/2023 13:54	58.4575	-3.0252	STATION 91	Hammon	BEGIN	64PE524Hammon91	91_1
07/10/2023 13:56	58.4575	-3.0253	STATION 91	Hammon	BOT	64PE524Hammon91	91_1
07/10/2023 13:56	58.4575	-3.0253	STATION 91	Hammon	END	64PE524Hammon91	91_1
07/10/2023 14:02	58.4575	-3.0257	STATION 93	Hammon	BEGIN	64PE524Hammon93	93_1
07/10/2023 14:04	58.4575	-3.0255	STATION 93	Hammon	END	64PE524Hammon93	93_1
07/10/2023 14:11	58.4582	-3.0253	STATION 94	Hammon	BEGIN	64PE524Hammon94	94_1
07/10/2023 14:11	58.4582	-3.0253	STATION 94	Hammon	BOT	64PE524Hammon94	94_1
07/10/2023 14:11	58.4582	-3.0253	STATION 94	Hammon	END	64PE524Hammon94	94_1

Date UTC	Latitude	Longitude	Phase name	Device name	Action name	Operation Id	CastID
07/10/2023 15:03	58.4	-3.0113	STATION 95	CPICS	BEGIN	64PE524CPICS95	95_1
07/10/2023 15:04	58.4003	-3.0113	STATION 95	CPICS	START	64PE524CPICS95	95_1
07/10/2023 17:31	58.4717	-3.0227	STATION 95	CPICS	STOP	64PE524CPICS95	95_1
07/10/2023 17:36	58.4725	-3.0228	STATION 95	CPICS	END	64PE524CPICS95	95_1
08/10/2023 06:53	58.456	-3.0252	STATION 97	Mooring	BEGIN	64PE524MOOR97	97_1
08/10/2023 06:57	58.4562	-3.025	STATION 97	Mooring	REC	64PE524MOOR97	97_1
08/10/2023 07:05	58.4568	-3.0247	STATION 97	Mooring	END	64PE524MOOR97	97_1
08/10/2023 07:26	58.4543	-3.0253	STATION 98	Mooring	BEGIN	64PE524MOOR98	98_1
08/10/2023 07:30	58.4545	-3.0252	STATION 98	Mooring	REC	64PE524MOOR98	98_1
08/10/2023 07:35	58.4545	-3.0248	STATION 98	Mooring	END	64PE524MOOR98	98_1
08/10/2023 07:57	58.4443	-3.0245	STATION 99	Mooring	BEGIN	64PE524MOOR99	99_1
08/10/2023 08:17	58.443	-3.021	STATION 99	Mooring	REC	64PE524MOOR99	99_1
08/10/2023 08:23	58.4427	-3.0207	STATION 99	Mooring	END	64PE524MOOR99	99_1
08/10/2023 08:23	58.4427	-3.0207	STATION 100	Mooring	BEGIN	64PE524MOOR100	100_1
08/10/2023 08:32	58.4418	-3.02	STATION 100	Mooring	REC	64PE524MOOR100	100_1
08/10/2023 08:49	58.4417	-3.0187	STATION 100	Mooring	END	64PE524MOOR100	100_1
08/10/2023 08:49	58.4417	-3.0187	STATION 101	Mooring	BEGIN	64PE524MOOR101	101_1
08/10/2023 08:52	58.441	-3.0178	STATION 101	Mooring	REC	64PE524MOOR101	101_1
08/10/2023 09:03	58.4405	-3.0173	STATION 101	Mooring	END	64PE524MOOR101	101_1
08/10/2023 09:18	58.4315	-3.0187	STATION 102	Mooring	BEGIN	64PE524MOOR102	102_1
08/10/2023 09:25	58.4305	-3.0173	STATION 102	Mooring	REC	64PE524MOOR102	102_1
08/10/2023 09:45	58.4285	-3.0177	STATION 103	Mooring	BEGIN	64PE524MOOR103	103_1
08/10/2023 09:51	58.4283	-3.0177	STATION 103	Mooring	REC	64PE524MOOR103	103_1
08/10/2023 09:51	58.4283	-3.0177	STATION 103	Mooring	END	64PE524MOOR102	102_1
08/10/2023 09:57	58.428	-3.0175	STATION 103	Mooring	END	64PE524MOOR103	103_1
08/10/2023 11:07	58.4273	-3.0178	STATION 104	Mooring	BEGIN	64PE524MOOR104	104_1
08/10/2023 11:15	58.4268	-3.0177	STATION 104	Mooring	REC	64PE524MOOR104	104_1
08/10/2023 11:25	58.4268	-3.0172	STATION 104	Mooring	END	64PE524MOOR104	104_1
08/10/2023 14:45	58.441	-3.018	STATION 105	CTD with Samples	BEGIN	64PE524CTDBOT105	105_1
08/10/2023 14:49	58.4412	-3.0182	STATION 105	CTD with Samples	BOT	64PE524CTDBOT105	105_1

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08/10/2023 15:00	58.4408	-3.0185	STATION 105	CTD with Samples	END	64PE524CTDBOT105	105_1
08/10/2023 15:15	58.4417	-3.0202	STATION 106	CTD with Samples	BEGIN	64PE524CTDBOT106	106_1
08/10/2023 15:18	58.4415	-3.0198	STATION 106	CTD with Samples	BOT	64PE524CTDBOT106	106_1
08/10/2023 15:28	58.442	-3.02	STATION 106	CTD with Samples	END	64PE524CTDBOT106	106_1
08/10/2023 15:41	58.443	-3.0213	STATION 107	CTD with Samples	BEGIN	64PE524CTDBOT107	107_1
08/10/2023 15:45	58.4428	-3.0208	STATION 107	CTD with Samples	BOT	64PE524CTDBOT107	107_1
08/10/2023 15:54	58.443	-3.0212	STATION 107	CTD with Samples	END	64PE524CTDBOT107	107_1
08/10/2023 16:46	58.4568	-3.0253	STATION 108	CTD with Samples	BEGIN	64PE524CTDBOT108	108_1
08/10/2023 16:49	58.4568	-3.0253	STATION 108	CTD with Samples	BOT	64PE524CTDBOT108	108_1
08/10/2023 17:00	58.4565	-3.0247	STATION 108	CTD with Samples	END	64PE524CTDBOT108	108_1
08/10/2023 17:13	58.4577	-3.025	STATION 109	CTD with Samples	BEGIN	64PE524CTDBOT109	109_1
08/10/2023 17:20	58.4575	-3.025	STATION 109	CTD with Samples	BOT	64PE524CTDBOT109	109_1
08/10/2023 17:27	58.4577	-3.0252	STATION 109	CTD with Samples	END	64PE524CTDBOT109	109_1
08/10/2023 17:35	58.4582	-3.025	STATION 110	CTD with Samples	BEGIN	64PE524CTDBOT110	110_1
08/10/2023 17:38	58.4582	-3.0252	STATION 110	CTD with Samples	BOT	64PE524CTDBOT110	110_1
08/10/2023 17:49	58.4582	-3.0252	STATION 110	CTD with Samples	END	64PE524CTDBOT110	110_1
09/10/2023 06:11	58.4263	-3.0177	STATION 111	Hammon	BEGIN	64PE524Hammon111	111_1
09/10/2023 06:13	58.4263	-3.0177	STATION 111	Hammon	BOT	64PE524Hammon111	111_1
09/10/2023 06:16	58.4263	-3.0177	STATION 111	Hammon	END	64PE524Hammon111	111_1
09/10/2023 06:17	58.4263	-3.0177	STATION 112	Hammon	BEGIN	64PE524Hammon112	112_1
09/10/2023 06:18	58.4262	-3.0178	STATION 112	Hammon	BOT	64PE524Hammon112	112_1
09/10/2023 06:21	58.4263	-3.0178	STATION 112	Hammon	END	64PE524Hammon112	112_1
09/10/2023 06:22	58.4263	-3.018	STATION 113	Hammon	BEGIN	64PE524Hammon113	113_1
09/10/2023 06:23	58.4263	-3.0182	STATION 113	Hammon	BOT	64PE524Hammon113	113_1
09/10/2023 06:26	58.4265	-3.0183	STATION 113	Hammon	END	64PE524Hammon113	113_1
09/10/2023 06:26	58.4265	-3.0185	STATION 114	Hammon	BEGIN	64PE524Hammon114	114_1
09/10/2023 06:28	58.4265	-3.0183	STATION 114	Hammon	BOT	64PE524Hammon114	114_1
09/10/2023 06:31	58.4267	-3.0182	STATION 114	Hammon	END	64PE524Hammon114	114_1
09/10/2023 06:31	58.4267	-3.0182	STATION 115	Hammon	BEGIN	64PE524Hammon115	115_1
09/10/2023 06:32	58.4267	-3.0182	STATION 115	Hammon	BOT	64PE524Hammon115	115_1

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09/10/2023 06:35	58.4267	-3.0178	STATION 115	Hammon	END	64PE524Hammon115	115_1
09/10/2023 06:35	58.4267	-3.0178	STATION 116	Hammon	BEGIN	64PE524Hammon116	116_1
09/10/2023 06:37	58.4267	-3.0177	STATION 116	Hammon	BOT	64PE524Hammon116	116_1
09/10/2023 06:40	58.4267	-3.0173	STATION 116	Hammon	END	64PE524Hammon116	116_1
09/10/2023 06:40	58.4267	-3.0173	STATION 117	Hammon	BEGIN	64PE524Hammon117	117_1
09/10/2023 06:42	58.4267	-3.0172	STATION 117	Hammon	BOT	64PE524Hammon117	117_1
09/10/2023 06:45	58.4267	-3.0173	STATION 117	Hammon	END	64PE524Hammon117	117_1
09/10/2023 06:45	58.4265	-3.0173	STATION 118	Hammon	BEGIN	64PE524Hammon118	118_1
09/10/2023 06:46	58.4265	-3.0173	STATION 118	Hammon	BOT	64PE524Hammon118	118_1
09/10/2023 06:49	58.4265	-3.0173	STATION 118	Hammon	END	64PE524Hammon118	118_1
09/10/2023 07:11	58.4265	-3.0182	STATION 119	Plankton Net	BEGIN	64PE524PN119	119_1
09/10/2023 07:18	58.4263	-3.0183	STATION 119	Plankton Net	END	64PE524PN119	119_1
09/10/2023 07:20	58.4263	-3.0185	STATION 120	Plankton Net	BEGIN	64PE524PN120	120_1
09/10/2023 07:28	58.4265	-3.0185	STATION 120	Plankton Net	END	64PE524PN120	120_1
09/10/2023 07:38	58.4287	-3.0178	STATION 121	Plankton Net	BEGIN	64PE524PN121	121_1
09/10/2023 07:45	58.4285	-3.0178	STATION 121	Plankton Net	END	64PE524PN121	121_1
09/10/2023 07:52	58.4283	-3.0175	STATION 122	Plankton Net	BEGIN	64PE524PN122	122_1
09/10/2023 07:55	58.4285	-3.0175	STATION 122	Plankton Net	END	64PE524PN122	122_1
09/10/2023 08:06	58.4302	-3.0167	STATION 123	Plankton Net	BEGIN	64PE524PN123	123_1
09/10/2023 08:17	58.43	-3.0165	STATION 123	Plankton Net	END	64PE524PN123	123_1
09/10/2023 08:18	58.43	-3.0165	STATION 124	Plankton Net	BEGIN	64PE524PN124	124_1
09/10/2023 08:24	58.4302	-3.0163	STATION 124	Plankton Net	END	64PE524PN124	124_1
09/10/2023 08:38	58.4332	-3.0152	STATION 125	Plankton Net	BEGIN	64PE524PN125	125_1
09/10/2023 08:40	58.4332	-3.0152	STATION 125	Plankton Net	END	64PE524PN125	125_1
09/10/2023 08:41	58.4332	-3.0152	STATION 126	Plankton Net	BEGIN	64PE524PN126	126_1
09/10/2023 08:49	58.4332	-3.015	STATION 126	Plankton Net	END	64PE524PN126	126_1
09/10/2023 09:12	58.4553	-3.025	STATION 127	Plankton Net	BEGIN	64PE524PN127	127_1
09/10/2023 09:18	58.4555	-3.0248	STATION 127	Plankton Net	END	64PE524PN127	127_1
09/10/2023 09:22	58.4557	-3.0247	STATION 128	Plankton Net	BEGIN	64PE524PN128	128_1
09/10/2023 09:25	58.4555	-3.0245	STATION 128	Plankton Net	END	64PE524PN128	128_1

Date UTC	Latitude	Longitude	Phase name	Device name	Action name	Operation Id	CastID
09/10/2023 09:32	58.4572	-3.0248	STATION 129	Plankton Net	BEGIN	64PE524PN129	129_1
09/10/2023 09:38	58.4573	-3.0247	STATION 129	Plankton Net	END	64PE524PN129	129_1
09/10/2023 09:42	58.457	-3.025	STATION 130	Plankton Net	BEGIN	64PE524PN130	130_1
09/10/2023 09:50	58.4572	-3.0248	STATION 130	Plankton Net	END	64PE524PN130	130_1
09/10/2023 09:54	58.4577	-3.025	STATION 131	Plankton Net	BEGIN	64PE524PN131	131_1
09/10/2023 10:01	58.4577	-3.025	STATION 131	Plankton Net	END	64PE524PN131	131_1
09/10/2023 10:02	58.4577	-3.025	STATION 132	Plankton Net	BEGIN	64PE524PN132	132_1
09/10/2023 10:09	58.4577	-3.0248	STATION 132	Plankton Net	END	64PE524PN132	132_1
09/10/2023 10:15	58.4582	-3.0248	STATION 133	Plankton Net	BEGIN	64PE524PN133	133_1
09/10/2023 10:22	58.4583	-3.0253	STATION 133	Plankton Net	END	64PE524PN133	133_1
09/10/2023 10:46	58.476	-3.0298	STATION 135	CPICS	BEGIN	64PE524CPICS135	135_1
09/10/2023 10:49	58.476	-3.0303	STATION 135	CPICS	START	64PE524CPICS135	135_1
09/10/2023 14:30	58.3717	-3.032	STATION 135	CPICS	STOP	64PE524CPICS135	135_1
09/10/2023 14:30	58.3717	-3.032	STATION 135	CPICS	END	64PE524CPICS135	135_1
09/10/2023 15:34	58.4477	-3.025	STATION 136	CTD with Samples	BEGIN	64PE524CTDBOT136	136_1
09/10/2023 15:42	58.4478	-3.025	STATION 136	CTD with Samples	BOT	64PE524CTDBOT136	136_1
09/10/2023 15:44	58.448	-3.0248	STATION 136	CTD with Samples	END	64PE524CTDBOT136	136_1
09/10/2023 15:52	58.4487	-3.0252	STATION 137	CTD with Samples	BEGIN	64PE524CTDBOT137	137_1
09/10/2023 15:55	58.4487	-3.0252	STATION 137	CTD with Samples	BOT	64PE524CTDBOT137	137_1
09/10/2023 15:59	58.4488	-3.025	STATION 137	CTD with Samples	END	64PE524CTDBOT137	137_1
09/10/2023 16:33	58.4515	-3.0253	STATION 138	CTD with Samples	BEGIN	64PE524CTDBOT138	138_1
09/10/2023 16:38	58.4515	-3.0255	STATION 138	CTD with Samples	BOT	64PE524CTDBOT138	138_1
09/10/2023 16:42	58.4515	-3.0253	STATION 138	CTD with Samples	END	64PE524CTDBOT138	138_1
09/10/2023 16:51	58.448	-3.025	STATION 139	CTD with Samples	BEGIN	64PE524CTDBOT139	139_1
09/10/2023 16:58	58.4478	-3.025	STATION 139	CTD with Samples	BOT	64PE524CTDBOT139	139_1
09/10/2023 17:00	58.448	-3.0255	STATION 139	CTD with Samples	END	64PE524CTDBOT139	139_1
09/10/2023 17:09	58.4488	-3.0255	STATION 140	CTD with Samples	BEGIN	64PE524CTDBOT140	140_1
09/10/2023 17:14	58.4488	-3.0255	STATION 140	CTD with Samples	BOT	64PE524CTDBOT140	140_1
09/10/2023 17:18	58.4488	-3.0257	STATION 140	CTD with Samples	END	64PE524CTDBOT140	140_1
09/10/2023 17:24	58.4515	-3.0258	STATION 141	CTD with Samples	BEGIN	64PE524CTDBOT141	141_1

Date UTC	Latitude	Longitude	Phase name	Device name	Action name	Operation Id	CastID
09/10/2023 17:27	58.4517	-3.0258	STATION 141	CTD with Samples	BOT	64PE524CTDBOT141	141_1
09/10/2023 17:38	58.452	-3.0253	STATION 141	CTD with Samples	END	64PE524CTDBOT141	141_1

5.3. Appendix 3: Metadata eDNA samples

Date	Vessel position	Transect/station	Bottle ID	surface or bottom	Replica	eDNA Sample ID	Vol water filtered ML	Remarks	Current	fridge
02/10/2023	Cast02	5km ref	RNA	Bottom	1	9000	2000		?	-80
02/10/2023	Cast02	5km ref	RNA	Bottom	2	9001	2000		?	-80
02/10/2023	Cast02	5km ref	RNA	Bottom	3	9002	2000		?	-80
02/10/2023	Cast02	5km ref	Genome	Bottom	1	9003	2000		?	-80
02/10/2023	Cast02	5km ref	Genome	Bottom	2	9004	2000		?	-80
02/10/2023	Cast02	5km ref	Genome	Bottom	3	9005	2000		?	-80
02/10/2023	Cast02	5km ref	eDNA	Bottom	1	9006	2000		?	-20
02/10/2023	Cast02	5km ref	eDNA	Bottom	2	9007	2000		?	-20
02/10/2023	Cast02	5km ref	eDNA	Bottom	3	9008	2000		?	-20
02/10/2023	Cast02	5km ref	eDNA	Surface	1	9009	2000		?	-20
02/10/2023	Cast02	5km ref	eDNA	Surface	2	9010	2000		?	-20
02/10/2023	Cast02	5km ref	eDNA	Surface	3	9011	2000	Ribkwal	?	-20
04/10/2023	NA	CTRL	milliq	NA	1	9012	2000		NA	-20
04/10/2023	NA	CTRL	milliq	NA	2	9013	2000		NA	-20
04/10/2023	NA	CTRL	milliq	NA	3	9014	2000		NA	-20
04/10/2023	Cast22	mid4	eDNA	Surface	1	9015	2000		Z	-20
04/10/2023	Cast22	mid4	eDNA	Surface	2	9016	2000		Z	-20
04/10/2023	Cast22	mid4	eDNA	Surface	3	9017	2000		Z	-20
04/10/2023	Cast22	mid4	eDNA	Bottom	1	9018	2000		Z	-20
04/10/2023	Cast22	mid4	eDNA	Bottom	2	9019	2000		Z	-20
04/10/2023	Cast22	mid4	eDNA	Bottom	3	9020	2000		Z	-20
04/10/2023	Cast23	mid5	eDNA	Surface	1	9021	2000		Z	-20
04/10/2023	Cast23	mid5	eDNA	Surface	2	9022	2000		Z	-20
04/10/2023	Cast23	mid5	eDNA	Surface	3	9023	2000		Z	-20
04/10/2023	Cast23	mid5	eDNA	Bottom	1	9024	2000		Z	-20
04/10/2023	Cast23	mid5	eDNA	Bottom	2	9025	2000		Z	-20
04/10/2023	Cast23	mid5	eDNA	Bottom	3	9026	2000		Z	-20
04/10/2023	Cast24	mid6	eDNA	Surface	1	9027	2000		Z	-20

Date	Vessel position	Transect/station	Bottle ID	surface or bottom	Replica	eDNA Sample ID	Vol water filtered ML	Remarks	Current	fridge
04/10/2023	Cast24	mid6	eDNA	Surface	2	9028	2000		Z	-20
04/10/2023	Cast24	mid6	eDNA	Surface	3	9029	2000		Z	-20
04/10/2023	Cast24	mid6	RNA	Bottom	1	9030	2000		Z	-80
04/10/2023	Cast24	mid6	RNA	Bottom	2	9031	2000		Z	-80
04/10/2023	Cast24	mid6	RNA	Bottom	3	9032	2000		Z	-80
04/10/2023	Cast24	mid6	Genome	Bottom	1	9033	2000		Z	-80
04/10/2023	Cast24	mid6	Genome	Bottom	2	9034	2000		Z	-80
04/10/2023	Cast24	mid6	Genome	Bottom	3	9035	2000		Z	-80
04/10/2023	Cast24	mid6	eDNA	Bottom	1	9036	2000		Z	-20
04/10/2023	Cast24	mid6	eDNA	Bottom	2	9037	2000		Z	-20
04/10/2023	Cast24	mid6	eDNA	Bottom	3	9038	2000		Z	-20
04/10/2023	Cast25	low4	eDNA	Surface	1	9039	2000		Z	-20
04/10/2023	Cast25	low4	eDNA	Surface	2	9040	2000		Z	-20
04/10/2023	Cast25	low4	eDNA	Surface	3	9041	2000		Z	-20
04/10/2023	Cast25	low4	eDNA	Bottom	1	9042	2000		Z	-20
04/10/2023	Cast25	low4	eDNA	Bottom	2	9043	2000		Z	-20
04/10/2023	Cast25	low4	eDNA	Bottom	3	9044	2000		Z	-20
04/10/2023	Cast27	low6	RNA	Bottom	1	9045	2000		Z	-80
04/10/2023	Cast27	low6	RNA	Bottom	2	9046	2000		Z	-80
04/10/2023	Cast27	low6	RNA	Bottom	3	9047	2000		Z	-80
04/10/2023	Cast27	low6	Genome	Bottom	1	9048	2000		Z	-80
04/10/2023	Cast27	low6	Genome	Bottom	2	9049	2000		Z	-80
04/10/2023	Cast27	low6	Genome	Bottom	3	9050	2000		Z	-80
04/10/2023	Cast27	low6	eDNA	Bottom	1	9051	2000		Z	-20
04/10/2023	Cast27	low6	eDNA	Bottom	2	9052	2000		Z	-20
04/10/2023	Cast27	low6	eDNA	Bottom	3	9053	2000		Z	-20
04/10/2023	Cast27	low6	eDNA	Surface	1	9054	2000		Z	-20
04/10/2023	Cast27	low6	eDNA	Surface	2	9055	2000		Z	-20
04/10/2023	Cast27	low6	eDNA	Surface	3	9056	2000		Z	-20
04/10/2023	Cast26	low5	eDNA	Bottom	1	9057	2000		Z	-20

Date	Vessel position	Transect/station	Bottle ID	surface or bottom	Replica	eDNA Sample ID	Vol water filtered ML	Remarks	Current	fridge
04/10/2023	Cast26	low5	eDNA	Bottom	2	9058	2000		Z	-20
04/10/2023	Cast26	low5	eDNA	Bottom	3	9059	2000		Z	-20
04/10/2023	Cast26	low5	eDNA	Surface	1	9060	2000		Z	-20
04/10/2023	Cast26	low5	eDNA	Surface	2	9061	2000		Z	-20
04/10/2023	Cast26	low5	eDNA	Surface	3	9062	2000		Z	-20
06/10/2023	NA	CTRL	MQ	NA	1	9063	1000		Z	-20
06/10/2023	NA	CTRL	MQ	NA	2	9064	1000		Z	-20
06/10/2023	NA	CTRL	MQ	NA	3	9065	1000		Z	-20
06/10/2023	NA	CTRL	MQ_NIOZ_system	NA	1	9066	1000		Z	-20
06/10/2023	NA	CTRL	MQ_NIOZ_system	NA	2	9067	1000		Z	-20
06/10/2023	NA	CTRL	MQ_NIOZ_system	NA	3	9068	1000		Z	-20
06/10/2023	Cast55	low6	RNA	Bottom	1	9069	2000		Z	-80
06/10/2023	Cast55	low6	RNA	Bottom	2	9070	2000		Z	-80
06/10/2023	Cast55	low6	RNA	Bottom	3	9071	2000		Z	-80
06/10/2023	Cast55	low6	eDNA	Surface	1	9074	2000		Z	-20
06/10/2023	Cast55	low6	eDNA	Surface	2	9073	2000		Z	-20
06/10/2023	Cast55	low6	eDNA	Surface	3	9072	2000		Z	-20
06/10/2023	Cast55	low6	Genome	Bottom	1	9075	2000		Z	-80
06/10/2023	Cast55	low6	Genome	Bottom	2	9076	2000		Z	-80
06/10/2023	Cast55	low6	Genome	Bottom	3	9077	2000		Z	-80
06/10/2023	Cast55	low6	eDNA	Bottom	1	9078	2000		Z	-20
06/10/2023	Cast55	low6	eDNA	Bottom	2	9079	2000		Z	-20
06/10/2023	Cast55	low6	eDNA	Bottom	3	9080	2000		Z	-20
06/10/2023	Cast56	low5	eDNA	Bottom	1	9081	2000		Z	-20
06/10/2023	Cast56	low5	eDNA	Bottom	2	9082	2000		Z	-20
06/10/2023	Cast56	low5	eDNA	Bottom	3	9083	2000		Z	-20
06/10/2023	Cast56	low5	eDNA	Surface	1	9084	2000		Z	-20
06/10/2023	Cast56	low5	eDNA	Surface	2	9085	2000		Z	-20
06/10/2023	Cast56	low5	eDNA	Surface	3	9086	2000		Z	-20
06/10/2023	Cast57	low4	eDNA	Bottom	1	9087	2000		Z	-20

Date	Vessel position	Transect/station	Bottle ID	surface or bottom	Replica	eDNA Sample ID	Vol water filtered ML	Remarks	Current	fridge
06/10/2023	Cast57	low4	eDNA	Bottom	2	9088	2000		Z	-20
06/10/2023	Cast57	low4	eDNA	Bottom	3	9089	2000		Z	-20
06/10/2023	Cast58	high3	RNA	Bottom	1	9090	2000		Z	-80
06/10/2023	Cast58	high3	RNA	Bottom	2	9091	2000		Z	-80
06/10/2023	Cast58	high3	RNA	Bottom	3	9092	2000		Z	-80
06/10/2023	Cast58	high3	Genome	Bottom	1	9093	2000		Z	-80
06/10/2023	Cast58	high3	Genome	Bottom	2	9094	2000		Z	-80
06/10/2023	Cast58	high3	Genome	Bottom	3	9095	2000		Z	-80
06/10/2023	Cast58	high3	eDNA	Bottom	1	9096	2000		Z	-20
06/10/2023	Cast58	high3	eDNA	Bottom	2	9097	2000		Z	-20
06/10/2023	Cast58	high3	eDNA	Bottom	3	9098	2000		Z	-20
06/10/2023	Cast58	high3	eDNA	Surface	1	9099	2000		Z	-20
06/10/2023	Cast58	high3	eDNA	Surface	2	9100	2000		Z	-20
06/10/2023	Cast58	high3	eDNA	Surface	3	9101	2000		Z	-20
06/10/2023	Cast57	low4	eDNA	Surface	1	9102	2000		Z	-20
06/10/2023	Cast57	low4	eDNA	Surface	2	9103	2000		Z	-20
06/10/2023	Cast57	low4	eDNA	Surface	3	9104	2000		Z	-20
06/10/2023	Cast59	high2	eDNA	Surface	1	9105	2000		Z	-20
06/10/2023	Cast59	high2	eDNA	Surface	2	9106	2000		Z	-20
06/10/2023	Cast59	high2	eDNA	Surface	3	9107	2000		Z	-20
06/10/2023	Cast59	high2	eDNA	Bottom	1	9108	2000		Z	-20
06/10/2023	Cast59	high2	eDNA	Bottom	2	9109	2000		Z	-20
06/10/2023	Cast59	high2	eDNA	Bottom	3	9110	2000		Z	-20
06/10/2023	Cast60	high1	eDNA	Surface	1	9111	2000		kentering	-20
06/10/2023	Cast60	high1	eDNA	Surface	2	9112	2000		kentering	-20
06/10/2023	Cast60	high1	eDNA	Surface	3	9113	2000		kentering	-20
06/10/2023	Cast60	high1	eDNA	Bottom	1	9114	2000		kentering	-20
06/10/2023	Cast60	high1	eDNA	Bottom	2	9115	2000		kentering	-20
06/10/2023	Cast60	high1	eDNA	Bottom	3	9116	2000		kentering	-20
06/10/2023	NA	CTRL	NA	NA	1	9117	1000	CTRL after filtering	kentering	-20

Date	Vessel position	Transect/station	Bottle ID	surface or bottom	Replica	eDNA Sample ID	Vol water filtered ML	Remarks	Current	fridge
06/10/2023	NA	CTRL	NA	NA	2	9118	1000	CTRL after filtering	kentering	-20
06/10/2023	NA	CTRL	NA	NA	3	9119	1000	CTRL after filtering	kentering	-20
06/10/2023	NA	CTRL	NA	NA	1	9120	1000		kentering	-20
06/10/2023	NA	CTRL	NA	NA	2	9121	1000		kentering	-20
06/10/2023	NA	CTRL	NA	NA	3	9122	1000		kentering	-20
06/10/2023	Cast60	high1	Genome	Bottom	1	9123	10L		kentering	-80
06/10/2023	Cast60	high1	Genome	Bottom	2	9124	10L		kentering	-80
06/10/2023	Cast60	high1	Genome	Bottom	3	9125	10L		kentering	-80
08/10/2023	Cast105	mid6	RNA	Bottom	1	9126	2000		Z	-80
08/10/2023	Cast105	mid6	RNA	Bottom	2	9127	2000		Z	-80
08/10/2023	Cast105	mid6	RNA	Bottom	3	9128	2000		Z	-80
08/10/2023	Cast105	mid6	Genome	Bottom	1	9129	2000		Z	-80
08/10/2023	Cast105	mid6	Genome	Bottom	2	9130	2000		Z	-80
08/10/2023	Cast105	mid6	Genome	Bottom	3	9131	2000		Z	-80
08/10/2023	Cast105	mid6	eDNA	Bottom	1	9132	2000		Z	-20
08/10/2023	Cast105	mid6	eDNA	Bottom	2	9133	2000		Z	-20
08/10/2023	Cast105	mid6	eDNA	Bottom	3	9134	2000		Z	-20
08/10/2023	Cast105	mid6	eDNA	Surface	1	9135	2000		Z	-20
08/10/2023	Cast105	mid6	eDNA	Surface	2	9136	2000		Z	-20
08/10/2023	Cast105	mid6	eDNA	Surface	3	9137	2000		Z	-20
08/10/2023	Cast106	mid5	eDNA	Bottom	1	9138	2000		Z	-20
08/10/2023	Cast106	mid5	eDNA	Bottom	2	9139	2000		Z	-20
08/10/2023	Cast106	mid5	eDNA	Bottom	3	9140	2000		Z	-20
08/10/2023	Cast106	mid5	eDNA	Surface	1	9141	2000		Z	-20
08/10/2023	Cast106	mid5	eDNA	Surface	2	9142	2000		Z	-20
08/10/2023	Cast106	mid5	eDNA	Surface	3	9143	2000		Z	-20
08/10/2023	Cast107	mid4	eDNA	Surface	1	9144	2000		Z	-20
08/10/2023	Cast107	mid4	eDNA	Surface	2	9145	2000		Z	-20
08/10/2023	Cast107	mid4	eDNA	Surface	3	9146	2000		Z	-20
08/10/2023	Cast108	high3	RNA	Bottom	1	9147	2000		Z	-80

Date	Vessel position	Transect/station	Bottle ID	surface or bottom	Replica	eDNA Sample ID	Vol water filtered ML	Remarks	Current	fridge
08/10/2023	Cast108	high3	RNA	Bottom	2	9148	2000		Z	-80
08/10/2023	Cast108	high3	RNA	Bottom	3	9149	2000		Z	-80
08/10/2023	Cast108	high3	Genome	Bottom	1	9150	2000		Z	-80
08/10/2023	Cast108	high3	Genome	Bottom	2	9151	2000		Z	-80
08/10/2023	Cast108	high3	Genome	Bottom	3	9152	2000		Z	-80
08/10/2023	Cast108	high3	eDNA	Bottom	1	9153	2000		Z	-20
08/10/2023	Cast108	high3	eDNA	Bottom	2	9154	2000		Z	-20
08/10/2023	Cast108	high3	eDNA	Bottom	3	9155	2000		Z	-20
08/10/2023	Cast108	high3	eDNA	Surface	1	9156	2000		Z	-20
08/10/2023	Cast108	high3	eDNA	Surface	2	9157	2000		Z	-20
08/10/2023	Cast108	high3	eDNA	Surface	3	9158	2000		Z	-20
08/10/2023	Cast107	mid4	eDNA	Bottom	1	9159	2000		Z	-20
08/10/2023	Cast107	mid4	eDNA	Bottom	2	9160	2000		Z	-20
08/10/2023	Cast107	mid4	eDNA	Bottom	3	9161	2000		Z	-20
08/10/2023	Cast109	high2	eDNA	Bottom	1	9162	2000		Z	-20
08/10/2023	Cast109	high2	eDNA	Bottom	2	9163	2000		Z	-20
08/10/2023	Cast109	high2	eDNA	Bottom	3	9164	2000		Z	-20
08/10/2023	Cast109	high2	eDNA	Surface	1	9165	2000		Z	-20
08/10/2023	Cast109	high2	eDNA	Surface	2	9166	2000		Z	-20
08/10/2023	Cast109	high2	eDNA	Surface	3	9167	2000		Z	-20
08/10/2023	Cast110	high1	eDNA	Bottom	1	9168	2000		Z	-20
08/10/2023	Cast110	high1	eDNA	Bottom	2	9169	2000		Z	-20
08/10/2023	Cast110	high1	eDNA	Bottom	3	9170	2000		Z	-20
08/10/2023	Cast110	high1	eDNA	Surface	1	9171	2000		Z	-20
08/10/2023	Cast110	high1	eDNA	Surface	2	9172	2000		Z	-20
08/10/2023	Cast110	high1	eDNA	Surface	3	9173	2000		Z	-20
09/10/2023	NA	CTRL	eDNA	NA	1	9174	1000	NIOZ	NA	-20
09/10/2023	NA	CTRL	eDNA	NA	2	9175	1000	NIOZ	NA	-20
09/10/2023	NA	CTRL	eDNA	NA	3	9176	1000	NIOZ	NA	-20
09/10/2023	NA	CTRL	eDNA	NA	1	9177	1000		NA	-20

Date	Vessel position	Transect/station	Bottle ID	surface or bottom	Replica	eDNA Sample ID	Vol water filtered ML	Remarks	Current	fridge
09/10/2023	NA	CTRL	eDNA	NA	2	9178	1000		NA	-20
09/10/2023	NA	CTRL	eDNA	NA	3	9179	1000		NA	-20
09/10/2023	Cast136	mid3	RNA	Bottom	1	9180	2000		Kentering	-80
09/10/2023	Cast136	mid3	RNA	Bottom	2	9181	2000		Kentering	-80
09/10/2023	Cast136	mid3	RNA	Bottom	3	9182	2000		Kentering	-80
09/10/2023	Cast136	mid3	Genome	Bottom	1	9183	2000		Kentering	-80
09/10/2023	Cast136	mid3	Genome	Bottom	2	9184	2000		Kentering	-80
09/10/2023	Cast136	mid3	Genome	Bottom	3	9185	2000		Kentering	-80
09/10/2023	Cast136	mid3	eDNA	Bottom	1	9186	2000		Kentering	-20
09/10/2023	Cast136	mid3	eDNA	Bottom	2	9187	2000		Kentering	-20
09/10/2023	Cast136	mid3	eDNA	Bottom	3	9188	2000		Kentering	-20
09/10/2023	Cast136	mid3	eDNA	Bottom	1	9189	2000		Kentering	-20
09/10/2023	Cast136	mid3	eDNA	Surface	2	9190	2000		Kentering	-20
09/10/2023	Cast136	mid3	eDNA	Surface	3	9191	2000		Kentering	-20
09/10/2023	Cast139	mid3	RNA	Bottom	1	9192	2000		Z	-80
09/10/2023	Cast139	mid3	RNA	Bottom	2	9193	2000		Z	-80
09/10/2023	Cast139	mid3	RNA	Bottom	3	9194	2000		Z	-80
09/10/2023	Cast139	mid3	Genome	Bottom	1	9195	2000		Z	-80
09/10/2023	Cast139	mid3	Genome	Bottom	2	9196	2000		Z	-80
09/10/2023	Cast139	mid3	Genome	Bottom	3	9197	2000		Z	-80
09/10/2023	Cast139	mid3	eDNA	Bottom	1	9198	2000		Z	-20
09/10/2023	Cast139	mid3	eDNA	Bottom	2	9199	2000		Z	-20
09/10/2023	Cast139	mid3	eDNA	Bottom	3	9200	2000		Z	-20
09/10/2023	Cast139	mid3	eDNA	Bottom	1	9201	2000		Z	-20
09/10/2023	Cast139	mid3	eDNA	Surface	2	9202	2000		Z	-20
09/10/2023	Cast139	mid3	eDNA	Surface	3	9203	2000		Z	-20
09/10/2023	Cast137	mid2	eDNA	Bottom	1	9204	2000		Z	-20
09/10/2023	Cast137	mid2	eDNA	Bottom	2	9205	2000		Z	-20
09/10/2023	Cast137	mid2	eDNA	Bottom	3	9206	2000		Z	-20
09/10/2023	Cast137	mid2	eDNA	Surface	1	9207	2000		Z	-20

Date	Vessel position	Transect/station	Bottle ID	surface or bottom	Replica	eDNA Sample ID	Vol water filtered ML	Remarks	Current	fridge
09/10/2023	Cast137	mid2	eDNA	Surface	2	9208	2000		Z	-20
09/10/2023	Cast137	mid2	eDNA	Surface	3	9209	2000		Z	-20
09/10/2023	Cast138	mid1	eDNA	Bottom	1	9210	2000		Z	-20
09/10/2023	Cast138	mid1	eDNA	Bottom	2	9211	2000		Z	-20
09/10/2023	Cast138	mid1	eDNA	Bottom	3	9212	2000		Z	-20
09/10/2023	Cast138	mid1	eDNA	Surface	1	9213	2000		Z	-20
09/10/2023	Cast138	mid1	eDNA	Surface	2	9214	2000		Z	-20
09/10/2023	Cast138	mid1	eDNA	Surface	3	9215	2000		Z	-20
09/10/2023	Cast140	mid2	eDNA	Surface	1	9216	2000		Z	-20
09/10/2023	Cast140	mid2	eDNA	Surface	2	9217	2000		Z	-20
09/10/2023	Cast140	mid2	eDNA	Surface	3	9218	2000		Z	-20
09/10/2023	Cast141	mid1	eDNA	Bottom	1	9219	2000		Z	-20
09/10/2023	Cast141	mid1	eDNA	Bottom	2	9220	2000		Z	-20
09/10/2023	Cast141	mid1	eDNA	Bottom	3	9221	2000		Z	-20
09/10/2023	Cast141	mid1	eDNA	Surface	1	9222	2000		Z	-20
09/10/2023	Cast141	mid1	eDNA	Surface	2	9223	2000		Z	-20
09/10/2023	Cast141	mid1	eDNA	Surface	3	9224	2000		Z	-20
09/10/2023	Cast140	mid2	eDNA	Bottom	1	9225	2000		Z	-20
09/10/2023	Cast140	mid2	eDNA	Bottom	2	9226	2000		Z	-20
09/10/2023	Cast140	mid2	eDNA	Bottom	3	9227	2000		Z	-20

5.4. Appendix 4: Tissue samples metadata

Sample_ID	Specimen_ID	Scientific name	Tissue sampled	Date	Method	stationID	Cast
MAE_Noss_Head_Tissue_1	MAE_Noss_Head_Specimen_1	*Pagurus bernhardus*	Claw	05-Oct	Cage	mid_1	29
MAE_Noss_Head_Tissue_2	MAE_Noss_Head_Specimen_1	*Pagurus bernhardus*	Claw	05-Oct	Cage	mid_1	29
MAE_Noss_Head_Tissue_3	MAE_Noss_Head_Specimen_2	*Calliostoma zizyphinum*	Muscle/tissue	05-Oct	Cage	mid_1	29
MAE_Noss_Head_Tissue_4	MAE_Noss_Head_Specimen_2	*Calliostoma zizyphinum*	Muscle/tissue	05-Oct	Cage	mid_1	29
MAE_Noss_Head_Tissue_5	MAE_Noss_Head_Specimen_3	*Cancer pagurus*	Claw	05-Oct	Cage	mid_2	30
MAE_Noss_Head_Tissue_6	MAE_Noss_Head_Specimen_3	*Cancer pagurus*	Claw	05-Oct	Cage	mid_2	30
MAE_Noss_Head_Tissue_7	MAE_Noss_Head_Specimen_4	*Liocarcinus vernalis*	Claw	05-Oct	Cage	mid_2	30
MAE_Noss_Head_Tissue_8	MAE_Noss_Head_Specimen_4	*Liocarcinus vernalis*	Leg	05-Oct	Cage	mid_2	30
MAE_Noss_Head_Tissue_9	MAE_Noss_Head_Specimen_5	*Liocarcinus holsatus*	Leg	05-Oct	Cage	low_1	31
MAE_Noss_Head_Tissue_10	MAE_Noss_Head_Specimen_5	*Liocarcinus holsatus*	Claw	05-Oct	Cage	low_1	31
MAE_Noss_Head_Tissue_11	MAE_Noss_Head_Specimen_6	*Colus gracilis*	Muscle/tissue	05-Oct	Cage	low_1	31
MAE_Noss_Head_Tissue_12	MAE_Noss_Head_Specimen_6	*Colus gracilis*	Muscle/tissue	05-Oct	Cage	low_1	31
MAE_Noss_Head_Tissue_13	MAE_Noss_Head_Specimen_7	*Homarus gammarus*	Tendon/muscle	05-Oct	Cage	low_2	32
MAE_Noss_Head_Tissue_14	MAE_Noss_Head_Specimen_7	*Homarus gammarus*	Tendon/muscle	05-Oct	Cage	low_2	32
MAE_Noss_Head_Tissue_15	MAE_Noss_Head_Specimen_8	*Callinectes sapidus*	Leg	05-Oct	Cage	low_2	32
MAE_Noss_Head_Tissue_16	MAE_Noss_Head_Specimen_9	*Modiolus modiolus*	Muscle	05-Oct	Cage	high_1	33
MAE_Noss_Head_Tissue_17	MAE_Noss_Head_Specimen_9	*Modiolus modiolus*	Muscle	05-Oct	Cage	high_1	33
MAE_Noss_Head_Tissue_18	MAE_Noss_Head_Specimen_9	*Modiolus modiolus*	Muscle	05-Oct	Cage	high_1	33
MAE_Noss_Head_Tissue_19	MAE_Noss_Head_Specimen_10	*Modiolus modiolus*	Muscle	07-Oct	Hamon grab	high_1	94
MAE_Noss_Head_Tissue_20	MAE_Noss_Head_Specimen_10	*Modiolus modiolus*	Muscle	07-Oct	Hamon grab	high_1	94
MAE_Noss_Head_Tissue_21	MAE_Noss_Head_Specimen_10	*Modiolus modiolus*	Muscle	07-Oct	Hamon grab	high_1	94
MAE_Noss_Head_Tissue_22	MAE_Noss_Head_Specimen_11	*Balanus balanus*	All soft tissue	07-Oct	Hamon grab	high_1	94
MAE_Noss_Head_Tissue_23	MAE_Noss_Head_Specimen_12	*Balanus balanus*	All soft tissue	07-Oct	Hamon grab	high_1	94
MAE_Noss_Head_Tissue_24	MAE_Noss_Head_Specimen_13	*Cancer pagurus*	Leg	08-Oct	Cage	high_6	98
MAE_Noss_Head_Tissue_25	MAE_Noss_Head_Specimen_14	*Cancer pagurus*	Leg	08-Oct	Cage	high_6	98
MAE_Noss_Head_Tissue_26	MAE_Noss_Head_Specimen_15	*Pagurus bernhardus*	Leg	08-Oct	Cage	low_5	103
MAE_Noss_Head_Tissue_27	MAE_Noss_Head_Specimen_15	*Pagurus bernhardus*	Leg	08-Oct	Cage	low_5	103
MAE_Noss_Head_Tissue_28	MAE_Noss_Head_Specimen_16	*Liocarcinus vernalis*	Claw	08-Oct	Cage	low_4	102

Sample_ID	Specimen_ID	Scientific name	Tissue sampled	Date	Method	stationID	Cast
MAE_Noss_Head_Tissue_29	MAE_Noss_Head_Specimen_17	*Liocarcinus holsatus*	Claw	08-Oct	Cage	low_4	102
MAE_Noss_Head_Tissue_30	MAE_Noss_Head_Specimen_17	*Liocarcinus holsatus*	Claw	08-Oct	Cage	low_4	102

5.5. Appendix 5: Biodiversity samples from Hamon grabs

Note the correction of cast numbers in table 2.

Date	Cast number	Station	Sample ID	Type (grab or boxcore)	Penetration depth (cm)	Number of containers	Remarks
05/10/2023	45	HIGH 5	BC_9000	Grab	2.5	2	
05/10/2023	46	HIGH 4	BC_9001	Grab	10	4	
05/10/2023	47	HIGH 6	BC_9002	Grab	4	2	
05/10/2023	48	MID 4	BC_9003	Grab	9.5	5	
05/10/2023	49	MID 5	BC_9004	Grab	8.5	4	
05/10/2023	50	MID 6	BC_9005	Grab	11	3	
05/10/2023	51	LOW 6	BC_9006	Grab	6	4	
07/10/2023	72-73-74	LOW 3	SIA	Grab	2.5		
07/10/2023	83	MID 3	BC_9008	Grab	10.5	3	
07/10/2023	84	MID 2	BC_9009	Grab	3	3	
07/10/2023	86	MID 1	BC_9010	Grab	5	2	
07/10/2023	89	HIGH 3	BC_9011	Grab	6.5	3	
07/10/2023	88	HIGH 3	SIA	Grab	3		
07/10/2023	91	HIGH 2	BC_9012	Grab	7	1 + 1?	
07/10/2023	93	HIHG 2	SIA	Grab	2.5		
07/10/2023	94	HIGH 1	BC_9013	Grab	7	2	
09/10/2023	111	LOW 6_a	BC_9014	Grab	7	3	
09/10/2023	112	LOW 6_b	BC_9015	Grab	5	2	
09/10/2023	113	LOW 6_c	BC_9016	Grab	6	3	
09/10/2023	114	LOW 6_d	SIA	Grab	4		
09/10/2023	115	LOW 6_e	SIA	Grab	6		
09/10/2023	116	LOW 6_f	BC_9017	Grab	5.5	3	
09/10/2023	117	LOW 6_g	SIA	Grab	5.5		
09/10/2023	118	LOW 6_h	BC_9018	Grab	7	3	

5.6. Appendix 6: Cage deployment samples

Cage number	Date deployment	Time deploy	Cast number deploy	Date recovery	Time recovery	Cast number recovery	Station
1	04/10/2023	08:42	13	05/10/2023	08:19	29	MID 1
2	04/10/2023	09:15	14	05/10/2023	08:50	30	MID 2
3	04/10/2023	09:52	15	05/10/2023	09:27	31	LOW 1
4	04/10/2023	10:19	16	05/10/2023	09:46	32	LOW 2
5	04/10/2023	11:15	17	05/10/2023	10:33	33	HIGH 1
6	04/10/2023	11:31	18	05/10/2023	10:48	34	HIGH 2
7	04/10/2023	11:53	20	05/10/2023	11:02	35	HIGH 3
8	04/10/2023	12:17	21	05/10/2023	11:16	36	HIGH 4
8	07/10/2023	08:55	62	08/10/2023	09:00	97	HIGH 5
7	07/10/2023	09:14	63	08/10/2023	09:30	98	HIGH 6
6	07/10/2023	10:01	64	08/10/2023	11:00	101	MID 6
5	07/10/2023	10:40	66	08/10/2023	10:39	100	MID 5
4	07/10/2023	11:05	67	08/10/2023	10:16	99	MID 4
3	07/10/2023	11:40	68	08/10/2023	13:20	104	LOW 6
2	07/10/2023	12:05	69	08/10/2023	11:53	103	LOW 5
1	07/10/2023	13:30	70	08/10/2023	11:32	102	LOW 4

5.7. Appendix 7: Catch data from the cages

Date	Station	Cage number	Cage type	Species	Weight (g)	Length (mm)	Sex	Remarks
05/10/2023	MID 1	1.0	Large	Cancer pagurus	1004	175	M	
05/10/2023	MID 1	1.0	Large	Cancer pagurus	501	150	F	
05/10/2023	MID 1	1.0	Large	Ophiotrix fragilis	3.5	11.6		arm disc length
05/10/2023	MID 1	1.0	Large	Ophiotrix fragilis	1	3.6		arm disc length
05/10/2023	MID 1	1.1	Small	Pagurus prideaux	3	14.97		weight without shell, claw length, Adamsia paliata on the shell
05/10/2023	MID 1	1.0	Small	Crossaster papposus	11	71.17		arms to arms
05/10/2023	MID 1	1.0	Small	Pandalidae	0.5	44		
05/10/2023	MID 1	1.0	Small	Pandalidae	0.5	41.05		
05/10/2023	MID 1	1.0	Small	Pandalidae	0.5	36.15		
05/10/2023	MID 1	1.0	Small	Pagurus bernhardus	2	11.55		claw length
05/10/2023	MID 1	1.1	Medium	Pagurus bernhardus	2.5	10.96		with barnacles
05/10/2023	MID 1	1.1	Medium	Pagurus bernhardus	1.5	10.46		
05/10/2023	MID 1	1.1	Medium	Liocarcinus holsatus	10	37.24	F	
05/10/2023	MID 2	2.0	Large	Melanogrammus aeglefinus	161	26.5		
05/10/2023	MID 2	2.0	Large	Cancer pagurus	695.5	160	M	
05/10/2023	MID 2	2.0	Large	Buccinum undatum	71	89.85		
05/10/2023	MID 2	2.0	Large	Buccinum undatum	112.5	99.36		
05/10/2023	MID 2	2.0	Large	Calliostoma zizyphinum	3.5	23.04		
05/10/2023	MID 2	2.0	Large	Ophiotrix fragilis	2	10.65		
05/10/2023	MID 2	2.0	Large	Macropodia rostrata	0.5	18.71		
05/10/2023	MID 2	2.0	Large	Macropodia rostrata	0.5	10.37		
05/10/2023	MID 2	2.0	Large	Pagurus bernhardus	2	12.42		
05/10/2023	MID 2	2.0	Large	Pagurus bernhardus	1			no big claws
05/10/2023	MID 2	2.0	Large	Pandalidae	0.5	43.79		
05/10/2023	MID 2	2.0	Large	Pandalidae	0.5	39.55		
05/10/2023	MID 2	2.0	Large	Pandalidae	0.5	37.37		
05/10/2023	MID 2	2.1	Small	EMPTY				
05/10/2023	MID 2	2.2	Medium	Buccinum undatum	110	102.82		

Date	Station	Cage number	Cage type	Species	Weight (g)	Length (mm)	Sex	Remarks
05/10/2023	MID 2	2.2	Medium	Pagurus bernhardus	2.5	11.17		claw length
05/10/2023	LOW 1	3.0	Large	Asterias rubens	14	5.7		
05/10/2023	LOW 1	3.0	Large	Cancer pagurus	816.5	17.9	F	
05/10/2023	LOW 1	3.0	Large	Pagurus bernhardus	35	31.72		
05/10/2023	LOW 1	3.0	Large	Pagurus bernhardus	6.5	13.16		
05/10/2023	LOW 1	3.0	Large	Pagurus bernhardus	27.5	25.26		
05/10/2023	LOW 1	3.0	Large	Pagurus bernhardus	32.5	28.52		
05/10/2023	LOW 1	3.0	Large	Pagurus bernhardus	16	21.59		
05/10/2023	LOW 1	3.0	Large	Pagurus bernhardus	1.5	10.71		
05/10/2023	LOW 1	3.0	Large	Pagurus bernhardus	0.5	2.81		
05/10/2023	LOW 1	3.0	Large	Pagurus bernhardus	0.5	5.33		
05/10/2023	LOW 1	3.0	Large	Pagurus bernhardus	0.5	4.15		
05/10/2023	LOW 1	3.0	Large	Calliostoma zizyphinum	0.5	11.42		
05/10/2023	LOW 1	3.0	Large	Pandalidae	0.5	34.1		
05/10/2023	LOW 1	3.0	Large	Pandalidae	0.5	26.39		
05/10/2023	LOW 1	3.0	Large	Pandalidae	0.5	34.76		
05/10/2023	LOW 1	3.1	Small	Pagurus bernhardus	1	9.37		
05/10/2023	LOW 1	3.1	Small	Pagurus bernhardus	0.5	5.4		
05/10/2023	LOW 1	3.1	Small	Pagurus bernhardus	0.5	4.89		
05/10/2023	LOW 1	3.1	Small	Liocarcinus holsatus	1.5	18.1	M	
05/10/2023	LOW 1	3.1	Small	Macropodia rostrata	0.5	7.78		
05/10/2023	LOW 1	3.1	Small	Pandalidae	0.5	37.34		
05/10/2023	LOW 1	3.1	Small	Pandalidae	0.5	39.66		
05/10/2023	LOW 1	3.1	Small	Pandalidae	0.5	42.51		
05/10/2023	LOW 1	3.1	Small	Pandalidae	0.5	39.61		
05/10/2023	LOW 1	3.1	Small	Pandalidae	0.5	34.69		
05/10/2023	LOW 1	3.1	Small	Pandalidae	0.5	41.72		
05/10/2023	LOW 1	3.1	Small	Pandalidae	0.5	32.07		
05/10/2023	LOW 1	3.2	Medium	EMPTY				

Date	Station	Cage number	Cage type	Species	Weight (g)	Length (mm)	Sex	Remarks
05/10/2023	LOW 2	4.0	Large	Homarus gammarus	1039	33.5		
05/10/2023	LOW 2	4.0	Large	Macropodia rostrata	2.5	25.32		
05/10/2023	LOW 2	4.0	Large	Pagurus bernhardus	5.5	15.07		
05/10/2023	LOW 2	4.0	Large	Liocarcinus depurator	21.5	44.62		
05/10/2023	LOW 2	4.0	Large	Calliostoma zizyphinum	0.5	11.92		
05/10/2023	LOW 2	4.0	Large	Pagurus bernhardus	0.5	4.86		
05/10/2023	LOW 2	4.1	Small	Pandalidae	0.5	46.8		
05/10/2023	LOW 2	4.1	Small	Pandalidae	0.5	45.55		
05/10/2023	LOW 2	4.1	Small	Pandalidae	0.5	36.4		
05/10/2023	LOW 2	4.1	Small	Pandalidae	0.5	39.89		
05/10/2023	LOW 2	4.1	Small	Pandalidae	0.5	36.31		
05/10/2023	LOW 2	4.1	Small	Pandalidae	0.5	29.16		
05/10/2023	LOW 2	4.2	Medium	EMPTY				
05/10/2023	HIGH 1	5.0	Large	Cancer pagurus	601	169	F	
05/10/2023	HIGH 1	5.0	Large	Cancer pagurus	343	132	F	
05/10/2023	HIGH 1	5.0	Large	Pagurus bernhardus	3	13.23		
05/10/2023	HIGH 1	5.0	Large	Pagurus bernhardus	4.5	14.64		
05/10/2023	HIGH 1	5.0	Large	Pagurus bernhardus	13	19.94		
05/10/2023	HIGH 1	5.0	Large	Pagurus bernhardus	24	26.07		
05/10/2023	HIGH 1	5.0	Large	Pagurus bernhardus	17	19.73		
05/10/2023	HIGH 1	5.0	Large	Pagurus bernhardus	38	35.42		
05/10/2023	HIGH 1	5.0	Large	Pagurus bernhardus	25.5	25.09		
05/10/2023	HIGH 1	5.0	Large	Pagurus bernhardus	3	11.09		
05/10/2023	HIGH 1	5.0	Large	Pagurus bernhardus	25	25.17		
05/10/2023	HIGH 1	5.0	Large	Pagurus bernhardus	25	25.11		
05/10/2023	HIGH 1	5.0	Large	Pagurus bernhardus	9			no big claw
05/10/2023	HIGH 1	5.0	Large	Pagurus bernhardus	14	22.97		
05/10/2023	HIGH 1	5.0	Large	Pagurus bernhardus	13.5	21.94		
05/10/2023	HIGH 1	5.0	Large	Pagurus bernhardus	6.5	15.39		

Date	Station	Cage number	Cage type	Species	Weight (g)	Length (mm)	Sex	Remarks
05/10/2023	HIGH 1	5.0	Large	Pagurus bernhardus	13.5	22.24		
05/10/2023	HIGH 1	5.0	Large	Pagurus bernhardus	10	20.54		
05/10/2023	HIGH 1	5.0	Large	Pagurus bernhardus	6	14.43		
05/10/2023	HIGH 1	5.0	Large	Pagurus bernhardus	2	10.45		
05/10/2023	HIGH 1	5.0	Large	Pagurus bernhardus	12.5	21.36		
05/10/2023	HIGH 1	5.0	Large	Ophiotrix fragilis	3	14.05		disc size
05/10/2023	HIGH 1	5.0	Large	Buccinum undatum	34	74.88		
05/10/2023	HIGH 1	5.0	Large	Buccinum undatum	29.5	70.76		
05/10/2023	HIGH 1	5.0	Large	Buccinum undatum	56.5	84.52		
05/10/2023	HIGH 1	5.0	Large	Buccinum undatum	51	51.38		
05/10/2023	HIGH 1	5.0	Large	Buccinum undatum	25.5	67.16		
05/10/2023	HIGH 1	5.0	Large	Buccinum undatum	60.5	55.72		
05/10/2023	HIGH 1	5.0	Large	Buccinum undatum	10.5	49.79		
05/10/2023	HIGH 1	5.0	Large	Buccinum undatum	11.5	49.57		
05/10/2023	HIGH 1	5.0	Large	Buccinum undatum	6.5	44.58		
05/10/2023	HIGH 1	5.0	Large	Buccinum undatum	10.5	47.52		
05/10/2023	HIGH 1	5.0	Large	Buccinum undatum	2	25.25		
05/10/2023	HIGH 1	5.1	Small	Buccinum undatum	41.5	77.13		
05/10/2023	HIGH 1	5.1	Small	Ophiotrix fragilis	0.5	9.5		
05/10/2023	HIGH 1	5.1	Small	Pandalidae	0.5	47.45		
05/10/2023	HIGH 1	5.1	Small	Pagurus bernhardus	0.5	5.13		
05/10/2023	HIGH 1	5.2	Medium	Pagurus bernhardus	5	15.26		
05/10/2023	HIGH 1	5.2	Medium	Pagurus bernhardus	11.5	15.15		
05/10/2023	HIGH 1	5.2	Medium	Pagurus bernhardus	17.5	21.62		
05/10/2023	HIGH 1	5.2	Medium	Pagurus bernhardus	23	24.04		
05/10/2023	HIGH 1	5.2	Medium	Pagurus bernhardus	23	26.91		
05/10/2023	HIGH 1	5.2	Medium	Pagurus bernhardus	12.5	19.31		
05/10/2023	HIGH 1	5.2	Medium	Pagurus bernhardus	10.5	18.48		
05/10/2023	HIGH 1	5.2	Medium	Pagurus bernhardus	12	19.91		

Date	Station	Cage number	Cage type	Species	Weight (g)	Length (mm)	Sex	Remarks
05/10/2023	HIGH 1	5.2	Medium	Pagurus bernhardus	15	20.02		
05/10/2023	HIGH 1	5.2	Medium	Pagurus bernhardus	16.5	25.56		
05/10/2023	HIGH 1	5.2	Medium	Pagurus bernhardus	8	15.86		
05/10/2023	HIGH 1	5.2	Medium	Pagurus bernhardus	4	13.34		
05/10/2023	HIGH 1	5.2	Medium	Pagurus bernhardus	3.5	10.96		
05/10/2023	HIGH 1	5.2	Medium	Pagurus bernhardus	2	11.98		
05/10/2023	HIGH 1	5.2	Medium	Pagurus bernhardus	3.5	11.99		
05/10/2023	HIGH 1	5.2	Medium	Pagurus bernhardus	3	13.08		
05/10/2023	HIGH 1	5.2	Medium	Pagurus bernhardus	1.5	10.16		
05/10/2023	HIGH 1	5.2	Medium	Buccinum undatum	51	81.34		
05/10/2023	HIGH 1	5.2	Medium	Buccinum undatum	74	88.86		
05/10/2023	HIGH 1	5.2	Medium	Buccinum undatum	51	81.9		
05/10/2023	HIGH 1	5.2	Medium	Buccinum undatum	41	74.66		
05/10/2023	HIGH 2	6.0	Large	Pagurus bernhardus	27	28.26		
05/10/2023	HIGH 2	6.0	Large	Pagurus bernhardus	13	22.63		
05/10/2023	HIGH 2	6.0	Large	Pagurus bernhardus	7.5	18.12		
05/10/2023	HIGH 2	6.0	Large	Pagurus bernhardus	7.5	18.56		
05/10/2023	HIGH 2	6.0	Large	Pagurus bernhardus	4.5	15.87		
05/10/2023	HIGH 2	6.0	Large	Pagurus bernhardus	4.5	15.37		
05/10/2023	HIGH 2	6.0	Large	Pagurus bernhardus	8.5	17.92		
05/10/2023	HIGH 2	6.0	Large	Pagurus bernhardus	4	12.61		
05/10/2023	HIGH 2	6.0	Large	Pagurus bernhardus	3	12.6		
05/10/2023	HIGH 2	6.0	Large	Pagurus bernhardus	5	16.08		
05/10/2023	HIGH 2	6.0	Large	Pagurus bernhardus	2.5	12.9		
05/10/2023	HIGH 2	6.0	Large	Pagurus bernhardus	2	11.55		
05/10/2023	HIGH 2	6.0	Large	Macropodia rostrata	3	25.58		
05/10/2023	HIGH 2	6.0	Large	Buccinum undatum	50.5	84		
05/10/2023	HIGH 2	6.0	Large	Buccinum undatum	30.5	64.93		
05/10/2023	HIGH 2	6.0	Large	Buccinum undatum	32.5	66.92		

Date	Station	Cage number	Cage type	Species	Weight (g)	Length (mm)	Sex	Remarks
05/10/2023	HIGH 2	6.0	Large	Buccinum undatum	27.5	68.52		
05/10/2023	HIGH 2	6.0	Large	Buccinum undatum	27	67.47		
05/10/2023	HIGH 2	6.0	Large	Buccinum undatum	14.5	50.06		
05/10/2023	HIGH 2	6.0	Large	Buccinum undatum	5	36.34		
05/10/2023	HIGH 2	6.1	Small	Pagurus bernhardus	1.5	11.7		
05/10/2023	HIGH 2	6.1	Small	Pagurus bernhardus	3	12.43		
05/10/2023	HIGH 2	6.1	Small	Pagurus bernhardus	6	16.51		
05/10/2023	HIGH 2	6.1	Small	Pagurus bernhardus	12.5	17.62		
05/10/2023	HIGH 2	6.1	Small	Buccinum undatum	25	62.49		
05/10/2023	HIGH 2	6.1	Small	Buccinum undatum	49	79.62		
05/10/2023	HIGH 2	6.1	Small	Buccinum undatum	8.5	44.9		
05/10/2023	HIGH 2	6.1	Small	Buccinum undatum	7	39.69		
05/10/2023	HIGH 2	6.1	Small	Pandalidae	0.5	35.65		
05/10/2023	HIGH 2	6.1	Small	Pandalidae	0.5	49.17		
05/10/2023	HIGH 2	6.1	Small	Pandalidae	0.5	46.47		
05/10/2023	HIGH 2	6.1	Small	Pandalidae	0.5	44.33		
05/10/2023	HIGH 2	6.2	Medium	EMPTY				
05/10/2023	HIGH 3	7.0	Large	Cancer pagurus	372	145.86		
05/10/2023	HIGH 3	7.0	Large	Pagurus bernhardus	20.5	24.72		
05/10/2023	HIGH 3	7.0	Large	Pagurus bernhardus	34.5	35.5		
05/10/2023	HIGH 3	7.0	Large	Pagurus bernhardus	16.5	22.56		
05/10/2023	HIGH 3	7.0	Large	Ophiotrix fragilis	1.5	11.55		
05/10/2023	HIGH 3	7.0	Large	Ophiotrix fragilis	1	12.05		
05/10/2023	HIGH 3	7.0	Large	Macropodia rostrata	0.5	17.46		
05/10/2023	HIGH 3	7.0	Large	Buccinum undatum	0.5	15.75		
05/10/2023	HIGH 3	7.0	Large	Calliostoma zizyphinum	0.5	13.23		
05/10/2023	HIGH 3	7.0	Large	Calliostoma zizyphinum	1	15.18		
05/10/2023	HIGH 3	7.0	Large	Calliostoma zizyphinum	0.5	13.39		
05/10/2023	HIGH 3	7.0	Large	Pandalidae	0.5	40.33		

Date	Station	Cage number	Cage type	Species	Weight (g)	Length (mm)	Sex	Remarks
05/10/2023	HIGH 3	7.0	Large	Pandalidae	0.5	41.34		
05/10/2023	HIGH 3	7.1	Small	Buccinum undatum	32	68.28		
05/10/2023	HIGH 3	7.1	Small	Buccinum undatum	32.5	68.41		
05/10/2023	HIGH 3	7.1	Small	Pagurus bernhardus	3	9.83		
05/10/2023	HIGH 3	7.1	Small	Pagurus bernhardus	2	18.61		
05/10/2023	HIGH 3	7.2	Medium	EMPTY				
05/10/2023	HIGH 4	8.0	Large	Macropodia rostrata	2	27.28		Carapax length
05/10/2023	HIGH 4	8.0	Large	Hyas sp	0.5	12.72		Carapax length
05/10/2023	HIGH 4	8.0	Large	Pandalidae	0.5	42.14		
05/10/2023	HIGH 4	8.0	Large	Pandalidae	0.5	48.23		
05/10/2023	HIGH 4	8.0	Large	Pandalidae	0.5	37.93		
05/10/2023	HIGH 4	8.1	Small	Cancer pagurus	475.5	14.5		
05/10/2023	HIGH 4	8.1	Small	Pagurus bernhardus	15.5	21.74		
05/10/2023	HIGH 4	8.1	Small	Pagurus bernhardus	4	14.85		
05/10/2023	HIGH 4	8.1	Small	Pandalidae	0.5	44.07		
05/10/2023	HIGH 4	8.1	Small	Pandalidae	0.5	41.07		
05/10/2023	HIGH 4	8.1	Small	Pandalidae	0.5	40.38		
05/10/2023	HIGH 4	8.1	Small	Pandalidae	0.5	39.02		
05/10/2023	HIGH 4	8.1	Small	Pandalidae	0.5	37.92		
05/10/2023	HIGH 4	8.1	Small	Pandalidae	0.5	38.23		
05/10/2023	HIGH 4	8.2	Medium	Macropodia rostrata	0.5	11.52		carapax length
08/10/2023	LOW 4	1.0	Large	Cancer pagurus	612.5	158	M	
08/10/2023	LOW 4	1.1	Small	Pandalidae	0.5	40.67		
08/10/2023	LOW 4	1.1	Small	Macropodia rostrata	2.5	27.73		
08/10/2023	LOW 4	1.2	Medium	Melanogrammus aeglefinus	145.5	308		
08/10/2023	LOW 4	1.2	Medium	Pagurus bernhardus	2.5	12.14		
08/10/2023	LOW 5	2.0	Large	Cancer pagurus	810.5	165	M	
08/10/2023	LOW 5	2.0	Large	Cancer pagurus	1104	173	M	
08/10/2023	LOW 5	2.0	Large	Cancer pagurus	816.5	175	M	

Date	Station	Cage number	Cage type	Species	Weight (g)	Length (mm)	Sex	Remarks
08/10/2023	LOW 5	2.0	Large	Cancer pagurus	594	154	M	
08/10/2023	LOW 5	2.0	Large	Cancer pagurus	757.5	165	M	
08/10/2023	LOW 5	2.0	Large	Cancer pagurus	377	128	M	
08/10/2023	LOW 5	2.0	Large	Pagurus bernhardus	18	24.93		
08/10/2023	LOW 5	2.0	Large	Pagurus bernhardus	18	23.19		
08/10/2023	LOW 5	2.0	Large	Pagurus bernhardus	11	21.64		
08/10/2023	LOW 5	2.0	Large	Pagurus bernhardus	26	25.13		
08/10/2023	LOW 5	2.0	Large	Pagurus bernhardus	21	35.73		
08/10/2023	LOW 5	2.0	Large	Pagurus bernhardus	15	33.6		
08/10/2023	LOW 5	2.0	Large	Pagurus bernhardus	16.5	24.37		
08/10/2023	LOW 5	2.0	Large	Pagurus bernhardus	5	15.54		
08/10/2023	LOW 5	2.0	Large	Pagurus bernhardus	13.5	19.3		
08/10/2023	LOW 5	2.0	Large	Pagurus bernhardus	9.5	15.8		
08/10/2023	LOW 5	2.0	Large	Nereididae	1.5			Worm living within the shell of the previous pagurus
08/10/2023	LOW 5	2.0	Large	Pagurus bernhardus	5.5	14.96		
08/10/2023	LOW 5	2.0	Large	Pagurus bernhardus	5	16.79		
08/10/2023	LOW 5	2.0	Large	Pagurus bernhardus	5	14.37		
08/10/2023	LOW 5	2.1	Small	Asterias rubens	72	112.55		arm disc length
08/10/2023	LOW 5	2.1	Small	Macropodia rostrata		17.88		carapax length
08/10/2023	LOW 5	2.1	Small	Pagurus bernhardus	10.5	22.68		
08/10/2023	LOW 5	2.1	Small	Pagurus bernhardus	7.5	17.14		
08/10/2023	LOW 5	2.2	Medium	EMPTY				
08/10/2023	MID 6	3.0	Large	Pagurus bernhardus	16.5	24.6		
08/10/2023	MID 6	3.0	Large	Pagurus bernhardus	15.5	23.26		
08/10/2023	MID 6	3.0	Large	Pagurus bernhardus	13.5	21.4		
08/10/2023	MID 6	3.0	Large	Pagurus bernhardus	15.5	22.87		
08/10/2023	MID 6	3.0	Large	Pagurus bernhardus	13	22.87		
08/10/2023	MID 6	3.0	Large	Pagurus bernhardus	4	13.52		
08/10/2023	MID 6	3.0	Large	Pagurus bernhardus	6.5	16.19		

Date	Station	Cage number	Cage type	Species	Weight (g)	Length (mm)	Sex	Remarks
08/10/2023	MID 6	3.0	Large	Pagurus bernhardus	9	19.54		
08/10/2023	MID 6	3.0	Large	Pagurus bernhardus	11	20.56		
08/10/2023	MID 6	3.0	Large	Pagurus bernhardus	7	15.14		
08/10/2023	MID 6	3.0	Large	Pagurus bernhardus	3	12.81		
08/10/2023	MID 6	3.0	Large	Pagurus bernhardus	6	15.26		
08/10/2023	MID 6	3.0	Large	Pagurus bernhardus	3	13.5		
08/10/2023	MID 6	3.0	Large	Pagurus bernhardus	3.5	13.4		
08/10/2023	MID 6	3.0	Large	Nereididae	1			found on the previous pagurus
08/10/2023	MID 6	3.0	Large	Buccinum undatum	84.5	93.69		
08/10/2023	MID 6	3.0	Large	Colus gracilis	29	73.4		
08/10/2023	MID 6	3.0	Large	Macropodia rostrata	2	22.7		carapax length
08/10/2023	MID 6	3.1	Small	Buccinum undatum	60	87.08		
08/10/2023	MID 6	3.1	Small	Pagurus bernhardus	9	19.57		
08/10/2023	MID 6	3.1	Small	Pagurus bernhardus	1	9.05		
08/10/2023	MID 6	3.1	Small	Pagurus bernhardus	0.5	3.36		
08/10/2023	MID 6	3.1	Small	Pandalidae	0.5	37.01		
08/10/2023	MID 6	3.1	Small	Pandalidae	0.5	38.24		
08/10/2023	MID 6	3.1	Small	Pandalidae	0.5	40.01		
08/10/2023	MID 6	3.2	Medium	Pagurus bernhardus	17	21.31		
08/10/2023	MID 6	3.2	Medium	Pagurus bernhardus	15	21.28		
08/10/2023	MID 6	3.2	Medium	Macropodia rostrata	2.5	29.25		
08/10/2023	MID 4	4.0	Large	Cancer pagurus	677	16	M	
08/10/2023	MID 4	4.0	Large	Crossaster papposus	170	95.03		
08/10/2023	MID 4	4.0	Large	Buccinum undatum	191.5	114.82		
08/10/2023	MID 4	4.0	Large	Buccinum undatum	164	119.91		
08/10/2023	MID 4	4.0	Large	Buccinum undatum	134	104.7		
08/10/2023	MID 4	4.0	Large	Pagurus prideaux	5.5	17.96		
08/10/2023	MID 4	4.0	Large	Pagurus prideaux	8.5	20.07		
08/10/2023	MID 4	4.0	Large	Pagurus prideaux	11.5	20.37		

Date	Station	Cage number	Cage type	Species	Weight (g)	Length (mm)	Sex	Remarks
08/10/2023	MID 4	4.0	Large	Pagurus bernhardus	1			
08/10/2023	MID 4	4.0	Large	Pagurus bernhardus	1.5	11.58		
08/10/2023	MID 4	4.0	Large	Ophiotrix fragilis	3.5	17.4		
08/10/2023	MID 4	4.0	Large	Ophiocomina nigra	2.5	15.08		
08/10/2023	MID 4	4.0	Large	Aquipecten opercolaris	12.5	43.36		
08/10/2023	MID 4	4.0	Large	Paguridae	2	10.6		
08/10/2023	MID 4	4.1	Small	Ophiocomina nigra	1.5	13.28		arm disc length
08/10/2023	MID 4	4.1	Small	Paguridae	0.5	4.94		
08/10/2023	MID 4	4.1	Small	Pagurus bernhardus	0.5	4.5		
08/10/2023	MID 4	4.1	Small	Trixia sp	0.5	10.53		
08/10/2023	MID 4	4.1	Small	Pandalidae	0.5	37.04		
08/10/2023	MID 4	4.1	Small	Pandalidae	0.5	35.15		
08/10/2023	MID 4	4.1	Small	Pandalidae	0.5	39.38		
08/10/2023	MID 4	4.2	Medium	EMPTY				
08/10/2023	MID 5	5.0	Large	Melanogrammus aeglefinus	346.5	38.9		
08/10/2023	MID 5	5.0	Large	Cancer pagurus	750	18.3		
08/10/2023	MID 5	5.0	Large	Buccinum undatum	109.5	105.41		
08/10/2023	MID 5	5.0	Large	Pagurus bernhardus	9.5	20.32		
08/10/2023	MID 5	5.0	Large	Pagurus prideaux	10	19.74		
08/10/2023	MID 5	5.0	Large	Pagurus bernhardus	23	25.97		
08/10/2023	MID 5	5.0	Large	Paguridae	0.5			too small for measuring claw
08/10/2023	MID 5	5.1	Small	Pagurus prideaux	0.5	4.36		
08/10/2023	MID 5	5.2	Medium	EMPTY				
08/10/2023	MID 6	6.0	Large	Melanogrammus aeglefinus	162	162		
08/10/2023	MID 6	6.0	Large	Myxocephalus scorpios	87	181		
08/10/2023	MID 6	6.0	Large	Cancer pagurus	474.5	145.72	F	
08/10/2023	MID 6	6.0	Large	Pagurus bernhardus	20	25.81		
08/10/2023	MID 6	6.0	Large	Pagurus bernhardus	9	17.07		
08/10/2023	MID 6	6.0	Large	Pagurus bernhardus	39	32.66		

Date	Station	Cage number	Cage type	Species	Weight (g)	Length (mm)	Sex	Remarks
08/10/2023	MID 6	6.0	Large	Pagurus bernhardus	3.5	14.31		
08/10/2023	MID 6	6.0	Large	Pagurus bernhardus	4.5	14.98		
08/10/2023	MID 6	6.0	Large	Pagurus bernhardus	3	14.85		
08/10/2023	MID 6	6.0	Large	Pagurus bernhardus	3	10.87		
08/10/2023	MID 6	6.0	Large	Aquipecten opercolaris	9	39.18		
08/10/2023	MID 6	6.0	Large	Ophiocomina nigra	3	7.6		
08/10/2023	MID 6	6.0	Large	Ophiotrix fragilis	1.5	14.16		
08/10/2023	MID 6	6.0	Large	Ophiotrix fragilis	1.5	12.12		
08/10/2023	MID 6	6.0	Large	Ophiotrix fragilis	2.5	13.38		
08/10/2023	MID 6	6.0	Large	Ophiotrix fragilis	2.5	13.8		
08/10/2023	MID 6	6.0	Large	Ophiotrix fragilis	3.5	14.15		
08/10/2023	MID 6	6.0	Large	Ophiotrix fragilis	2	13.72		
08/10/2023	MID 6	6.0	Large	Ophiotrix fragilis	2	13.27		
08/10/2023	MID 6	6.0	Large	Ophiotrix fragilis	1.5	11.83		
08/10/2023	MID 6	6.0	Large	Ophiotrix fragilis	0.5	3.18		
08/10/2023	MID 6	6.0	Large	Ophiotrix fragilis	1.5	11.34		
08/10/2023	MID 6	6.0	Large	Ophiotrix fragilis	2.5	14.47		
08/10/2023	MID 6	6.0	Large	Ophiotrix fragilis	2.5	13.03		
08/10/2023	MID 6	6.0	Large	Ophiotrix fragilis	2	12.49		
08/10/2023	MID 6	6.0	Large	Ophiotrix fragilis	2	2.48		
08/10/2023	MID 6	6.0	Large	Ophiotrix fragilis	2	13.55		
08/10/2023	MID 6	6.0	Large	Ophiotrix fragilis	1	10.65		
08/10/2023	MID 6	6.0	Large	Ophiotrix fragilis	0.5	7.95		
08/10/2023	MID 6	6.0	Large	Ophiotrix fragilis	0.5	6.65		
08/10/2023	MID 6	6.1	Small	Pandalidae	0.5	40.77		
08/10/2023	MID 6	6.1	Small	Pagurus bernhardus	1	8.35		
08/10/2023	MID 6	6.2	Medium	Pagurus bernhardus	9	18.3		
08/10/2023	MID 6	6.2	Medium	Pagurus bernhardus	3.5	13.15		
08/10/2023	MID 6	6.2	Medium	Pagurus bernhardus	3	13.16		

Date	Station	Cage number	Cage type	Species	Weight (g)	Length (mm)	Sex	Remarks
08/10/2023	HIGH 6	7.0	Large	Cancer pagurus	502.5	151		
08/10/2023	HIGH 6	7.0	Large	Cancer pagurus	513	149		
08/10/2023	HIGH 6	7.0	Large	Pagurus bernhardus	23	26.99		
08/10/2023	HIGH 6	7.0	Large	Pagurus bernhardus	19.5	26.31		
08/10/2023	HIGH 6	7.0	Large	Pagurus bernhardus	16.5	26.18		
08/10/2023	HIGH 6	7.0	Large	Pagurus bernhardus	1.5	9.02		
08/10/2023	HIGH 6	7.0	Large	Pagurus bernhardus	1	8.65		
08/10/2023	HIGH 6	7.0	Large	Ophiotrix fragilis	3	16.46		arm disc length
08/10/2023	HIGH 6	7.0	Large	Calliostoma zizyphinum	1.5	15.39		
08/10/2023	HIGH 6	7.1	Small	EMPTY				
08/10/2023	HIGH 6	7.2	Medium	Pagurus bernhardus	1	8.14		
08/10/2023	HIGH 5	8.0	Large	Pagurus bernhardus	14.5	22.22		
08/10/2023	HIGH 5	8.0	Large	Pagurus bernhardus	10	18.63		
08/10/2023	HIGH 5	8.0	Large	Pagurus bernhardus	10	19.13		
08/10/2023	HIGH 5	8.0	Large	Pagurus bernhardus	9.5	20.45		
08/10/2023	HIGH 5	8.0	Large	Pagurus bernhardus	3	11.68		
08/10/2023	HIGH 5	8.0	Large	Pagurus bernhardus	4	12.76		
08/10/2023	HIGH 5	8.0	Large	Pagurus bernhardus	1.5	8.69		
08/10/2023	HIGH 5	8.0	Large	Pagurus bernhardus	3	12		
08/10/2023	HIGH 5	8.0	Large	Buccinum undatum	103.5	97.73		
08/10/2023	HIGH 5	8.0	Large	Buccinum undatum	0.5	12.29		
08/10/2023	HIGH 5	8.0	Large	Buccinum undatum	0.5	17.1		
08/10/2023	HIGH 5	8.0	Large	Hyas sp	3	23.85		carapax length
08/10/2023	HIGH 5	8.0	Large	Hyas sp	4.5	27.29		carapax length
08/10/2023	HIGH 5	8.0	Large	Ophiocomina nigra	2	14.17		
08/10/2023	HIGH 5	8.0	Large	Ophiocomina nigra	1.5	10.5		
08/10/2023	HIGH 5	8.0	Large	Calliostoma zizyphinum	1	14.75		
08/10/2023	HIGH 5	8.0	Large	Calliostoma zizyphinum	0.5	10.92		
08/10/2023	HIGH 5	8.0	Large	Calliostoma zizyphinum	0.5	12.4		

Date	Station	Cage number	Cage type	Species	Weight (g)	Length (mm)	Sex	Remarks
08/10/2023	HIGH 5	8.0	Large	Calliostoma zizyphinum	0.5	12.07		
08/10/2023	HIGH 5	8.0	Large	Calliostoma zizyphinum	0.5	9.75		
08/10/2023	HIGH 5	8.0	Large	Calliostoma zizyphinum	0.5	10.3		
08/10/2023	HIGH 5	8.0	Large	Calliostoma zizyphinum	1	13.59		
08/10/2023	HIGH 5	8.0	Large	Calliostoma zizyphinum	0.5	11.21		
08/10/2023	HIGH 5	8.0	Large	Myxocephalus scorpios	55	149		
08/10/2023	HIGH 5	8.1	Small	Pagurus bernhardus	5	13.18		
08/10/2023	HIGH 5	8.1	Small	Pagurus bernhardus	1	9.24		
08/10/2023	HIGH 5	8.1	Small	Pagurus bernhardus	10	44.29		
08/10/2023	HIGH 5	8.1	Small	Hyas sp	1.5	20.2		
08/10/2023	HIGH 5	8.1	Small	Munida sp	0.5	17.16		
08/10/2023	HIGH 5	8.1	Small	Pandalidae	1	42.61		
08/10/2023	HIGH 5	8.1	Small	Pandalidae	0.5	37.18		
08/10/2023	HIGH 5	8.2	Medium	Pagurus bernhardus	18.5	23.34		
08/10/2023	HIGH 5	8.2	Medium	Pagurus bernhardus	6.5			no big claw
08/10/2023	HIGH 5	8.2	Medium	Buccinum undatum	43	72.65		

5.8. Appendix 8: Stable isotope samples from all sources

Date	Cast number	Station	Sampling method	Sample ID	Species name	Bodypart in vial	Total length (mm)	Sex	Number individuals in vial	Remarks
05/10/2023	31	LOW1	Cage 3	SI_9017	Asterias rubens	leg	57		1	
05/10/2023	31	LOW1	Cage 3	SI_9018	Calliostoma zizyphinum	whole	11.42		1	without stomach
05/10/2023	31	LOW1	Cage 3	SI_9019	Pagurus bernhardus	claw	31.72		1	
05/10/2023	31	LOW1	Cage 3	SI_9020	Pagurus bernhardus	claw	13.16		1	
05/10/2023	31	LOW1	Cage 3	SI_9021	Pagurus bernhardus	claw	25.26		1	
05/10/2023	31	LOW1	Cage 3	SI_9022	Pagurus bernhardus	claw	28.52		1	
05/10/2023	31	LOW1	Cage 3	SI_9023	Pagurus bernhardus	claw	21.59		1	
05/10/2023	31	LOW1	Cage 3	SI_9024	Cancer pagurus	leg	179	F	1	
05/10/2023	31	LOW1	Cage 3	SI_9025	Colis gracilis				1	
05/10/2023	31	LOW1	Cage 3	SI_9026	Pandalidae	tail	34.1		1	decalcify
05/10/2023	31	LOW1	Cage 3	SI_9027	Pandalidae	tail	26.4		1	decalcify
05/10/2023	31	LOW1	Cage 3	SI_9028	Pandalidae	tail	34.8		1	decalcify
05/10/2023	31	LOW1	Cage 3	SI_9029	Pandalidae	tail	37.3		1	decalcify
05/10/2023	31	LOW1	Cage 3	SI_9030	Pandalidae	tail	39.7		1	decalcify
05/10/2023	31	LOW1	Cage 3	SI_9031	Macropodia rostrata	whole	7.78		1	whole with stomach and carapax
05/10/2023	31	LOW1	Cage 3	SI_9032	Liocarcinus holsatus	gills and flesh	18		1	
05/10/2023	32	LOW2	Cage 4	SI_9033	Hyas sp	whole	9.17		1	whole with stomach and carapax
05/10/2023	32	LOW2	Cage 4	SI_9034	Macropodia rostrata	whole	7.59		1	whole with stomach and carapax
05/10/2023	32	LOW2	Cage 4	SI_9035	Munida sp	arm	830		1	
05/10/2023	32	LOW2	Cage 4	SI_9036	Calliostoma zizyphinum	body	9.17		1	
05/10/2023	32	LOW2	Cage 4	SI_9037	Pagurus bernhardus	tail	15.07		1	
05/10/2023	32	LOW2	Cage 4	SI_9038	Calliostoma zizyphinum	body	11.9		1	
05/10/2023	32	LOW2	Cage 4	SI_9039	Homarus gammarus	leg	335		1	
05/10/2023	32	LOW2	Cage 4	SI_9040	Pagurus bernhardus	tail/body			1	decalcify
05/10/2023	32	LOW2	Cage 4	SI_9041	Macropodia rostrata	body	25.32		1	decalcify
05/10/2023	32	LOW2	Cage 4	SI_9042	Liocarcinus depurator	arm	44.62	F	1	
05/10/2023	32	LOW2	Cage 4	SI_9043	Pandalidae				1	decalcify

Date	Cast number	Station	Sampling method	Sample ID	Species name	Bodypart in vial	Total length (mm)	Sex	Number individuals in vial	Remarks
05/10/2023	32	LOW2	Cage 4	SI_9044	Pandalidae	tail			1	decalcify
05/10/2023	32	LOW2	Cage 4	SI_9045	Psammechinus acutus	gonads			1	
05/10/2023	32	LOW2	Cage 4	SI_9046	Pandalidae				1	decalcify
05/10/2023	32	LOW2	Cage 4	SI_9047	Pandalidae				1	decalcify
05/10/2023	32	LOW2	Cage 4	SI_9049	Pandalidae				1	decalcify
05/10/2023	33	HIGH1	Cage 5	SI_9048	Buccinum undatum	foot	83		1	
05/10/2023	33	HIGH1	Cage 5	SI_9050	Buccinum undatum	foot	70		1	
05/10/2023	33	HIGH1	Cage 5	SI_9051	Buccinum undatum	foot	87		1	
05/10/2023	33	HIGH1	Cage 5	SI_9052	Buccinum undatum	foot	75		1	
05/10/2023	33	HIGH1	Cage 5	SI_9053	Buccinum undatum	foot	75		1	
05/10/2023	33	HIGH1	Cage 5	SI_9054	Pandalidae	tail			1	decalcify
05/10/2023	33	HIGH1	Cage 5	SI_9055	Ophiotrix fragilis	legs	9.14		1	decalcify
05/10/2023	33	HIGH1	Cage 5	SI_9056	Cancer pagurus	leg	169	F	1	
05/10/2023	33	HIGH1	Cage 5	SI_9057	Ophiotrix fragilis	legs	14		1	decalcify
05/10/2023	33	HIGH1	Cage 5	SI_9059	Pagurus bernhardus	claw	42		1	
05/10/2023	33	HIGH1	Cage 5	SI_9058	Cancer pagurus	leg	132		1	
05/10/2023	33	HIGH1	Cage 5	SI_9061	Pagurus bernhardus	claw	31		1	
05/10/2023	33	HIGH1	Cage 5	SI_9060	Modiolus modiolus	muscle			1	
05/10/2023	33	HIGH1	Cage 5	SI_9062	Pagurus bernhardus	arm	18		1	
05/10/2023	33	HIGH1	Cage 5	SI_9063	Modiolus modiolus	muscle			1	
05/10/2023	33	HIGH1	Cage 5	SI_9064	Pagurus bernhardus	ta	14		1	
05/10/2023	33	HIGH1	Cage 5	SI_9065	Pagurus bernhardus	tail			1	
05/10/2023	33	HIGH1	Cage 5	SI_9066	Pagurus bernhardus	tail			1	
05/10/2023	34	HIGH2	Cage 6	SI_9067	Buccinum undatum	tail	870		1	
05/10/2023	34	HIGH2	Cage 6	SI_9068	Buccinum undatum	muscle	70		1	
05/10/2023	34	HIGH2	Cage 6	SI_9069	Buccinum undatum	muscle	64		1	
05/10/2023	34	HIGH2	Cage 6	SI_9070	Buccinum undatum	muscle	66		1	
05/10/2023	34	HIGH2	Cage 6	SI_9071	Buccinum undatum	muscle	38		1	
05/10/2023	34	HIGH2	Cage 6	SI_9072	Pandalidae	tail	40		1	decalcify

Date	Cast number	Station	Sampling method	Sample ID	Species name	Bodypart in vial	Total length (mm)	Sex	Number individuals in vial	Remarks
05/10/2023	34	HIGH2	Cage 6	SI_9073	Pandalidae	tail	28		1	decalcify
05/10/2023	34	HIGH2	Cage 6	SI_9074	Pandalidae	tail	43		1	decalcify
05/10/2023	34	HIGH2	Cage 6	SI_9078	Pandalidae	tail	34		1	decalcify
05/10/2023	34	HIGH2	Cage 6	SI_9079	Pagurus bernhardus	tail	26		1	
05/10/2023	34	HIGH2	Cage 6	SI_9080	Pagurus bernhardus	tail	17		1	
05/10/2023	34	HIGH2	Cage 6	SI_9081	Pagurus bernhardus	tail	16		1	
05/10/2023	34	HIGH2	Cage 6	SI_9082	Pagurus bernhardus	tail			1	
05/10/2023	34	HIGH2	Cage 6	SI_9083	Pagurus bernhardus	tail			1	
05/10/2023	34	HIGH2	Cage 6	SI_9084	Macropodia rostrata	whole			1	decalcify
05/10/2023	34	HIGH2	Cage 6	SI_9085	Calliostoma zizyphinum	flesh			1	
05/10/2023	34	HIGH2	Cage 6	SI_9086	Calliostoma zizyphinum	flesh			1	
05/10/2023	34	HIGH2	Cage 6	SI_9087	Psammechinus acutus	gonads	45		1	
05/10/2023	35	HIGH3	Cage 7	SI_9088	Pagurus bernhardus	body	22		1	
05/10/2023	35	HIGH3	Cage 7	SI_9089	Pagurus bernhardus	body	25		1	
05/10/2023	35	HIGH3	Cage 7	SI_9090	Pagurus bernhardus	body	28		1	
05/10/2023	35	HIGH3	Cage 7	SI_9091	Pagurus bernhardus	body	10		1	
05/10/2023	35	HIGH3	Cage 7	SI_9092	Pagurus bernhardus	body	81		1	
05/10/2023	35	HIGH3	Cage 7	SI_9093	Ophiotrix fragilis	legs			1	
05/10/2023	35	HIGH3	Cage 7	SI_9094	Ophiotrix fragilis	legs	13		1	
05/10/2023	35	HIGH3	Cage 7	SI_9097	Buccinum undatum	muscle	74		1	
05/10/2023	35	HIGH3	Cage 7	SI_9098	Buccinum undatum	muscle	68		1	
05/10/2023	35	HIGH3	Cage 7	SI_9099	Buccinum undatum	muscle	68		1	
05/10/2023	35	HIGH3	Cage 7	SI_9095	Ophiotrix fragilis	legs	9.9		1	
05/10/2023	35	HIGH3	Cage 7	SI_9096	Ophiotrix fragilis	lges	13		1	
05/10/2023	36	HIGH4	Cage 8	SI_9100	Pandalidae	tail			1	decalcify
05/10/2023	36	HIGH4	Cage 8	SI_9101	Pandalidae	tail			1	decalcify
05/10/2023	36	HIGH4	Cage 8	SI_9102	Pandalidae	tail			1	decalcify
05/10/2023	36	HIGH4	Cage 8	SI_9104	Pandalidae	tail			1	decalcify
05/10/2023	36	HIGH4	Cage 8	SI_9105	Pandalidae	tail			1	decalcify

Date	Cast number	Station	Sampling method	Sample ID	Species name	Bodypart in vial	Total length (mm)	Sex	Number individuals in vial	Remarks
05/10/2023	36	HIGH4	Cage 8	SI_9106	Hyas sp	whole			1	stomach is included, decalcify
05/10/2023	36	HIGH4	Cage 8	SI_9107	Hyas sp	whole			1	stomach is included, decalcify
05/10/2023	36	HIGH4	Cage 8	SI_9108	Cancer pagurus	leg			1	
05/10/2023	36	HIGH4	Cage 8	SI_9109	Macropodia rostrata	whole			1	whole with stomach and carapax
05/10/2023	36	HIGH4	Cage 8	SI_9110	Macropodia rostrata	flesh			1	only meat
05/10/2023	36	HIGH4	Cage 8	SI_9111	Macropodia rostrata	whole			1	whole with stomach and carapax
05/10/2023	36	HIGH4	Cage 8	SI_9112	Pagurus bernhardus	tail			1	
05/10/2023	38	HIGH6	Boxcore	SI_9114	Sediment surface				1	
05/10/2023	36	HIGH4	Cage 8	SI_9115	Pagurus bernhardus	claw	57.32		1	Species identification unsure
05/10/2023	35	HIGH3	Cage 7	SI_9116	Calliostoma zizyphinum	whole	14		1	
05/10/2023	35	HIGH3	Cage 7	SI_9117	Calliostoma zizyphinum	whole	14		1	
05/10/2023	35	HIGH3	Cage 7	SI_9118	Calliostoma zizyphinum	whole	13		1	
05/10/2023	35	HIGH3	Cage 7	SI_9119	Calliostoma zizyphinum	whole	12		1	
05/10/2023	35	HIGH3	Cage 7	SI_9120	Calliostoma zizyphinum	whole	14		1	
05/10/2023	35	HIGH3	Cage 7	SI_9121	Macropodia rostrata	body			1	decalcify
05/10/2023	35	HIGH3	Cage 7	SI_9122	Hyas sp	body	10		1	decalcify
05/10/2023	35	HIGH3	Cage 7	SI_9123	Buccinum undatum	body	3		1	
05/10/2023	35	HIGH3	Cage 7	SI_9124	Pandalidae	body			1	decalcify
05/10/2023	35	HIGH3	Cage 7	SI_9125	Pandalidae	body	39		1	decalcify
05/10/2023	53	LOW6	Hammon	SI_9182	Glycymeris glycymeris		23.51		1	
05/10/2023	53	LOW6	Hammon	SI_9183	Glycymeris glycymeris		17.3		1	
05/10/2023	53	LOW6	Hammon	SI_9184	Glycymeris glycymeris		14.61		1	
05/10/2023	53	LOW6	Hammon	SI_9185	Gobius sp	tail	25.25		1	tail, with bones
05/10/2023	53	LOW6	Hammon	SI_9186	Ebalia sp	whole	14.4		1	with stomach
05/10/2023	53	LOW6	Hammon	SI_9187	Ebalia sp	whole	12.61		1	
05/10/2023	53	LOW6	Hammon	SI_9188	Munida sp	whole	7.5		1	with stomach
05/10/2023	53	LOW6	Hammon	SI_9189	Munida sp	whole	4.5		1	with stomach
05/10/2023	53	LOW6	Hammon	SI_9190	Munida sp	whole	5.5		1	with stomach
05/10/2023	53	LOW6	Hammon	SI_9191	Munida sp	whole	5.5		1	with stomach

Date	Cast number	Station	Sampling method	Sample ID	Species name	Bodypart in vial	Total length (mm)	Sex	Number individuals in vial	Remarks
05/10/2023	53	LOW6	Hammon	SI_9192	Munida sp	whole	5.5		1	with stomach
05/10/2023	53	LOW6	Hammon	SI_9193	Astartes sp	whole	21.36		1	
05/10/2023	53	LOW6	Hammon	SI_9194	Astartes sp	muscle/foot	16.62		1	
05/10/2023	53	LOW6	Hammon	SI_9195	Venus casina	muscle/foot	22.17		1	
05/10/2023	53	LOW6	Hammon	SI_9196	Venus casina		16.24		1	
05/10/2023	53	LOW6	Hammon	SI_9197	Venus casina		10.98		1	
05/10/2023	53	LOW6	Hammon	SI_9198	Venus casina		9.43		1	
05/10/2023	53	LOW6	Hammon	SI_9199	Capitellidae				1	
05/10/2023	53	LOW6	Hammon	SI_9200	Polynoidae				1	
05/10/2023	53	LOW6	Hammon	SI_9201	Gammaridea				1	
05/10/2023	53	LOW6	Hammon	SI_9202	Gammaridea				1	
05/10/2023	53	LOW6	Hammon	SI_9203	Gammaridea				1	
05/10/2023	53	LOW6	Hammon	SI_9204	Bryozoa					
05/10/2023	53	LOW6	Hammon	SI_9205	Bryozoa					
05/10/2023	53	LOW6	Hammon	SI_9206	Leptochitonidae	full	9.82		1	with stomach and shell
05/10/2023	53	LOW6	Hammon	SI_9207	Leptochitonidae		8.32		1	
05/10/2023	53	LOW6	Hammon	SI_9208	Leptochitonidae				1	with stomach and shell
05/10/2023	53	LOW6	Hammon	SI_9209	Bryozoa					
05/10/2023	53	LOW6	Hammon	SI_9210	Hyas sp		6.72		1	no stomach
05/10/2023	53	LOW6	Hammon	SI_9211	Hyas sp		6.19		1	no stomach
05/10/2023	53	LOW6	Hammon	SI_9212	Hyas sp		4.75		1	whole
05/10/2023	53	LOW6	Hammon	SI_9213	Hyas sp		4.5		1	whole
05/10/2023	53	LOW6	Hammon	SI_9214	Hyas sp		4.7		1	whole
05/10/2023	53	LOW6	Hammon	SI_9215						Empty in the notes
05/10/2023	37	HIGH4	Boxcore	SI_9126	Ophiotrix fragilis	legs	13.74		1	
05/10/2023	37	HIGH4	Boxcore	SI_9127	Ophiotrix fragilis	legs	15.03		1	
05/10/2023	37	HIGH4	Boxcore	SI_9128	Ophiotrix fragilis	legs	14.28		1	
05/10/2023	37	HIGH4	Boxcore	SI_9129	Ophiotrix fragilis	legs	9.19		1	
05/10/2023	37	HIGH4	Boxcore	SI_9130	Ophiotrix fragilis	legs	9.06		1	

Date	Cast number	Station	Sampling method	Sample ID	Species name	Bodypart in vial	Total length (mm)	Sex	Number individuals in vial	Remarks
05/10/2023	37	HIGH4	Boxcore	SI_9131	Modiolus modiolus	muscle	53.25		1	
05/10/2023	37	HIGH4	Boxcore	SI_9132	Modiolus modiolus	muscle	50.99		1	
05/10/2023	37	HIGH4	Boxcore	SI_9133	Modiolus modiolus	muscle	49.52		1	
05/10/2023	37	HIGH4	Boxcore	SI_9134	Modiolus modiolus	muscle	47.13		1	
05/10/2023	37	HIGH4	Boxcore	SI_9135	Modiolus modiolus	muscle	45.99		1	
05/10/2023	37	HIGH4	Boxcore	SI_9136	Venus casina	foot	30.72		1	
05/10/2023	37	HIGH4	Boxcore	SI_9138	Venus casina	foot	19.52		1	
05/10/2023	37	HIGH4	Boxcore	SI_9139	Cancer pagurus	head	13.15		1	
05/10/2023	37	HIGH4	Boxcore	SI_9140	Timoclea ovata	foot			1	
05/10/2023	37	HIGH4	Boxcore	SI_9141	Gaidropsarus vulgaris		79.24		1	
05/10/2023	37	HIGH4	Boxcore	SI_9142	Polititapes sp	foot	40.43		1	
05/10/2023	37	HIGH4	Boxcore	SI_9143	Lumbrineridae				1	
05/10/2023	37	HIGH4	Boxcore	SI_9144	Munida sp juvenile	whole	5		2	with stomach and carapax
05/10/2023	37	HIGH4	Boxcore	SI_9145	Leptochitonidae	meat	4		2	
05/10/2023	37	HIGH4	Boxcore	SI_9146	Pisidia longicornis	whole	2		1	with stomach and carapax
05/10/2023	37	HIGH4	Boxcore	SI_9147	Thracia phaseolina	muscle	6		1	
05/10/2023	37	HIGH4	Boxcore	SI_9148	Buccinum undatum	body	11		1	
05/10/2023	39	HIGH5	Boxcore	SI_9149	Modiolus modiolus	muscle	34		1	
05/10/2023	39	HIGH5	Boxcore	SI_9150	Modiolus modiolus	muscle	40		1	
05/10/2023	39	HIGH5	Boxcore	SI_9151	Modiolus modiolus	muscle	56		1	
05/10/2023	39	HIGH5	Boxcore	SI_9152	Modiolus modiolus	muscle	52		1	
05/10/2023	39	HIGH5	Boxcore	SI_9153	Modiolus modiolus	muscle	13		1	
05/10/2023	39	HIGH5	Boxcore	SI_9154	Ophiotrix fragilis	legs	14		1	
05/10/2023	39	HIGH5	Boxcore	SI_9155	Ophiotrix fragilis	legs	14		1	
05/10/2023	39	HIGH5	Boxcore	SI_9156	Ophiotrix fragilis	legs	12		1	
05/10/2023	39	HIGH5	Boxcore	SI_9157	Ophiotrix fragilis	legs	13		1	
05/10/2023	39	HIGH5	Boxcore	SI_9158	Nephtys sp	whole			1	
05/10/2023	39	HIGH5	Boxcore	SI_9159	Munida sp	whole	5		1	
05/10/2023	39	HIGH5	Boxcore	SI_9160	Munida sp	whole	5		1	

Date	Cast number	Station	Sampling method	Sample ID	Species name	Bodypart in vial	Total length (mm)	Sex	Number individuals in vial	Remarks
05/10/2023	39	HIGH5	Boxcore	SI_9161	Munida sp	whole	5		1	
05/10/2023	39	HIGH5	Boxcore	SI_9162	Munida sp	whole	4		1	
05/10/2023	39	HIGH5	Boxcore	SI_9163	Munida sp	whole	3		1	
05/10/2023	39	HIGH5	Boxcore	SI_9165	Polynoidae	body			1	
05/10/2023	39	HIGH5	Boxcore	SI_9067	Polititapes rhomboides	foot	25		1	
05/10/2023	39	HIGH5	Boxcore	SI_9068	Ophiocomina nigra	legs	13		1	
05/10/2023	39	HIGH5	Boxcore	SI_9166	Venus casina		12		1	
05/10/2023	39	HIGH5	Boxcore	SI_9169	Cancer pagurus	whole	12		1	with stomach and carapax
05/10/2023	39	HIGH5	Boxcore	SI_9170	Hyas sp	whole	9		1	
05/10/2023	39	HIGH5	Boxcore	SI_9171	Trivia arctica	muscle	10		1	
05/10/2023	39	HIGH5	Boxcore	SI_9172	Ophiocomina nigra	legs	9		1	
05/10/2023	39	HIGH5	Boxcore	SI_9173	Pandalidae				1	
05/10/2023	39	HIGH5	Boxcore	SI_9174	Lumbrineridae				1	
05/10/2023	39	HIGH5	Boxcore	SI_9175	Lumbrineridae				1	
05/10/2023	39	HIGH5	Boxcore	SI_9176	Notomastus latericeus				1	
05/10/2023	39	HIGH5	Boxcore	SI_9177	Pagurus prideaux		8		1	
05/10/2023	39	HIGH5	Boxcore	SI_9178	Tritia sp		6		1	
05/10/2023	39	HIGH5	Boxcore	SI_9179	Tritia sp		12		1	
05/10/2023	39	HIGH5	Boxcore	SI_9180	Tritia sp		11		1	
05/10/2023	39	HIGH5	Boxcore	SI_9181	Gobius sp		33		1	
05/10/2023	39	HIGH5	Boxcore	SI_9216	Pagurus bernhardus				1	
05/10/2023	39	HIGH5	Boxcore	SI_9217	Pagurus bernhardus				1	
05/10/2023	39	HIGH5	Boxcore	SI_9218	Polititapes rhomboides		11.49		1	
07/10/2023	88	HIGH3	Hammon	SI_9219	Modiolus modiolus	muscle	11.49		1	
07/10/2023	88	HIGH3	Hammon	SI_9220	Modiolus modiolus	muscle	100		1	
07/10/2023	88	HIGH3	Hammon	SI_9221	Modiolus modiolus	muscle	102		1	
07/10/2023	88	HIGH3	Hammon	SI_9223	Modiolus modiolus	muscle	89		1	
07/10/2023	88	HIGH3	Hammon	SI_9225	Modiolus modiolus	muscle	91		1	
07/10/2023	88	HIGH3	Hammon	SI_9229	Modiolus modiolus	muscle	89.2		1	

Date	Cast number	Station	Sampling method	Sample ID	Species name	Bodypart in vial	Total length (mm)	Sex	Number individuals in vial	Remarks
07/10/2023	88	HIGH3	Hammon	SI_9233	Modiolus modiolus	muscle	39.2		1	
07/10/2023	88	HIGH3	Hammon	SI_9235	Modiolus modiolus	muscle	35.8		1	
07/10/2023	88	HIGH3	Hammon	SI_9236	Modiolus modiolus	muscle	38.5		1	
07/10/2023	88	HIGH3	Hammon	SI_9273	Modiolus modiolus	muscle	28.4		1	
07/10/2023	93	HIGH2	Hammon	SI_9302	Polynoidae		26		1	
07/10/2023	93	HIGH2	Hammon	SI_9304	Polynoidae				1	
07/10/2023	93	HIGH2	Hammon	SI_9305	Hyas sp	whole	14.7		1	
07/10/2023	93	HIGH2	Hammon	SI_9303	Ophiotrix fragilis	legs	8.89		1	
07/10/2023	93	HIGH2	Hammon	SI_9307	Glycymeris glycymeris	whole	12.36		1	
07/10/2023	93	HIGH2	Hammon	SI_9306	Ophiotrix fragilis	muscle	11.18		1	
07/10/2023	93	HIGH2	Hammon	SI_9308	Phyllodocidae	legs			1	
07/10/2023	93	HIGH2	Hammon	SI_9310	Venus casina	whole	11		1	
07/10/2023	93	HIGH2	Hammon	SI_9309	Ophiotrix fragilis	muscle	13		1	
07/10/2023	93	HIGH2	Hammon	SI_9312	Limaria sp	legs	12.15		1	
07/10/2023	93	HIGH2	Hammon	SI_9313	Limaria sp	muscle	11.26		1	
07/10/2023	93	HIGH2	Hammon	SI_9311	Ophiotrix fragilis	muscle	11.94		1	
07/10/2023	93	HIGH2	Hammon	SI_9314	Talochlamys pusio	legs	29.5		1	
07/10/2023	93	HIGH2	Hammon	SI_9316	Pisidia longicornis	muscle	9.32		1	
07/10/2023	93	HIGH2	Hammon	SI_9315	Munida sp	whole	3.7		1	with stomach
07/10/2023	93	HIGH2	Hammon	SI_9317	Munida sp	whole	6.1		1	with stomach
07/10/2023	93	HIGH2	Hammon	SI_9318	Munida sp	whole	5.04		1	with stomach
07/10/2023	93	HIGH2	Hammon	SI_9319	Munida sp	whole	3.59		1	with stomach
07/10/2023	93	HIGH2	Hammon	SI_9320	Pagurus bernhardus		< 5		1	
07/10/2023	93	HIGH2	Hammon	SI_9321	Pagurus bernhardus		< 5		1	
07/10/2023	93	HIGH2	Hammon	SI_9322	Pagurus bernhardus		< 5		1	
07/10/2023	93	HIGH2	Hammon	SI_9323	Pagurus bernhardus		< 5		1	
07/10/2023	93	HIGH2	Hammon	SI_9324	Pagurus bernhardus		5		1	
07/10/2023	72, 73, 74	LOW3	Hammon	SI_9224	Glycymeris glycymeris	foot	16.2		1	
07/10/2023	72, 73, 74	LOW3	Hammon	SI_9226	Paguroidea	whole			1	with stomach

Date	Cast number	Station	Sampling method	Sample ID	Species name	Bodypart in vial	Total length (mm)	Sex	Number individuals in vial	Remarks
07/10/2023	72, 73, 74	LOW3	Hammon	SI_9227	Macropodia rostrata	whole			1	with stomach
07/10/2023	72, 73, 74	LOW3	Hammon	SI_9228	Capulus ungaricus	whole	5.19		1	
07/10/2023	72, 73, 74	LOW3	Hammon	SI_9230	Nephtys sp	whole			1	
07/10/2023	72, 73, 74	LOW3	Hammon	SI_9231	Lumbrineridae	whole			1	without stomach
07/10/2023	72, 73, 74	LOW3	Hammon	SI_9232	Lumbrineridae	whole			1	without stomach
07/10/2023	72, 73, 74	LOW3	Hammon	SI_9234	Lumbrineridae	whole			1	without stomach
07/10/2023	72, 73, 74	LOW3	Hammon	SI_9261	Leptochitonidae		8.39		1	with stomach
07/10/2023	72, 73, 74	LOW3	Hammon	SI_9262	Leptochitonidae		7.2		1	
07/10/2023	72, 73, 74	LOW3	Hammon	SI_9263	Leptochitonidae		5.21		1	
07/10/2023	72, 73, 74	LOW3	Hammon	SI_9264	Leptochitonidae		4.9		1	
07/10/2023	72, 73, 74	LOW3	Hammon	SI_9265	Leptochitonidae		4.6		1	
07/10/2023	72, 73, 74	LOW3	Hammon	SI_9266	Ophiotrix fragilis		3		1	
07/10/2023	72, 73, 74	LOW3	Hammon	SI_9267	Gobius sp		17		1	
07/10/2023	72, 73, 74	LOW3	Hammon	SI_9268	Astarte sulcata		22.5		1	
07/10/2023	72, 73, 74	LOW3	Hammon	SI_9269	Astarte sulcata		22.5		1	
07/10/2023	72, 73, 74	LOW3	Hammon	SI_9270	Astarte sulcata		20.06		1	
07/10/2023	72, 73, 74	LOW3	Hammon	SI_9271	Astarte sulcata		20.7		1	
07/10/2023	72, 73, 74	LOW3	Hammon	SI_9272	Astarte sulcata		15.25		1	
07/10/2023	72, 73, 74	LOW3	Hammon	SI_9274	Munida sp		18.21		1	tail
07/10/2023	72, 73, 74	LOW3	Hammon	SI_9275	Munida sp		6.9		1	tail
07/10/2023	72, 73, 74	LOW3	Hammon	SI_9276	Munida sp		5.14		1	tail
07/10/2023	72, 73, 74	LOW3	Hammon	SI_9277	Munida sp		5		1	whole with stomach and carapaz
07/10/2023	72, 73, 74	LOW3	Hammon	SI_9279	Echinus acutus				1	
07/10/2023	93	HIGH2	Hammon	SI_9280	Modiolus modiolus	muscle	59.25		1	
07/10/2023	93	HIGH2	Hammon	SI_9281	Modiolus modiolus	muscle	63.86		1	
07/10/2023	93	HIGH2	Hammon	SI_9282	Modiolus modiolus	muscle	61.29		1	
07/10/2023	93	HIGH2	Hammon	SI_9283	Modiolus modiolus	muscle	41.3		1	
07/10/2023	93	HIGH2	Hammon	SI_9284	Modiolus modiolus	muscle	39.95		1	
07/10/2023	93	HIGH2	Hammon	SI_9285	Modiolus modiolus	muscle	66.59		1	

Date	Cast number	Station	Sampling method	Sample ID	Species name	Bodypart in vial	Total length (mm)	Sex	Number individuals in vial	Remarks
07/10/2023	93	HIGH2	Hammon	SI_9286	Modiolus modiolus	muscle	62.36		1	
07/10/2023	93	HIGH2	Hammon	SI_9287	Modiolus modiolus	muscle	51.53		1	
07/10/2023	93	HIGH2	Hammon	SI_9288	Modiolus modiolus	muscle	48.97		1	
07/10/2023	93	HIGH2	Hammon	SI_9289	Modiolus modiolus	muscle	40		1	
07/10/2023	93	HIGH2	Hammon	SI_9290	Polititapes rhomboides	foot	39.52		1	
07/10/2023	93	HIGH2	Hammon	SI_9291	Capulus ungaricus	muscle	23.85		1	
07/10/2023	93	HIGH2	Hammon	SI_9292	Ebalia sp		14.03		1	
07/10/2023	93	HIGH2	Hammon	SI_9293	Ophiocomina nigra	legs	10.1		1	
07/10/2023	93	HIGH2	Hammon	SI_9294	Ophiocomina nigra	legs	9.96		1	
07/10/2023	93	HIGH2	Hammon	SI_9295	Ophiocomina nigra	legs	12.7		1	
07/10/2023	93	HIGH2	Hammon	SI_9296	Ophiocomina nigra	legs	14.95		1	
07/10/2023	93	HIGH2	Hammon	SI_9297	Ophiocomina nigra	legs	13.86		1	
07/10/2023	93	HIGH2	Hammon	SI_9298	Timoclea ovata		9.85		1	
07/10/2023	93	HIGH2	Hammon	SI_9299	Timoclea ovata		11.35		1	
07/10/2023	93	HIGH2	Hammon	SI_9300	Golfingiidae				1	
07/10/2023	93	HIGH2	Hammon	SI_9301	Gobius sp	tail/muscle	34.51		1	
07/10/2023	93	HIGH2	Hammon	SI_9325	Pectinidae	foot	14.9		1	
07/10/2023	93	HIGH2	Hammon	SI_9326	Pectinidae	foot	9.74		1	
07/10/2023	93	HIGH2	Hammon	SI_9327	Pectinidae	foot	8.82		1	
07/10/2023	88	HIGH3	Hammon	SI_9328	Ophiotrix fragilis	legs	13.29		1	
07/10/2023	88	HIGH3	Hammon	SI_9329	Ophiotrix fragilis	legs	12.23		1	
07/10/2023	88	HIGH3	Hammon	SI_9330	Ophiotrix fragilis	legs	12.75		1	
07/10/2023	88	HIGH3	Hammon	SI_9331	Ophiotrix fragilis	legs	14.09		1	
07/10/2023	88	HIGH3	Hammon	SI_9332	Ophiotrix fragilis	legs	14.08		1	
07/10/2023	88	HIGH3	Hammon	SI_9333	Munida sp	body	7		1	decalcify
07/10/2023	88	HIGH3	Hammon	SI_9334	Munida sp	body	8.66		1	
07/10/2023	88	HIGH3	Hammon	SI_9335	Munida sp	meat	7.55		1	
07/10/2023	88	HIGH3	Hammon	SI_9336	Munida sp	whole	6.3		1	
07/10/2023	88	HIGH3	Hammon	SI_9337	Munida sp	whole	6.08		1	

Date	Cast number	Station	Sampling method	Sample ID	Species name	Bodypart in vial	Total length (mm)	Sex	Number individuals in vial	Remarks
07/10/2023	88	HIGH3	Hammon	SI_9338	Calliostoma zizyphinum	foot	16.32		1	
07/10/2023	88	HIGH3	Hammon	SI_9339	Calliostoma zizyphinum	foot	13.84		1	
07/10/2023	88	HIGH3	Hammon	SI_9340	Calliostoma zizyphinum	foot	12.92		1	
07/10/2023	88	HIGH3	Hammon	SI_9341	Calliostoma zizyphinum	foot	12.84		1	
07/10/2023	88	HIGH3	Hammon	SI_9343	Tritia sp	foot	13.05		1	
07/10/2023	88	HIGH3	Hammon	SI_9344	Tritia sp	foot	13		1	
07/10/2023	88	HIGH3	Hammon	SI_9345	Hiatella sp	foot	18.01		1	
07/10/2023	88	HIGH3	Hammon	SI_9346	Hiatella sp	foot	14.59		1	
07/10/2023	88	HIGH3	Hammon	SI_9347	Hiatella sp	foot	9.64		1	
07/10/2023	88	HIGH3	Hammon	SI_9348	Gaidropsarus vulgaris	tail	51.66		1	
07/10/2023	88	HIGH3	Hammon	SI_9349	Talochlamys pusio		37.87		1	
07/10/2023	88	HIGH3	Hammon	SI_9350	Thyasira flexuosa		19.25		1	
07/10/2023	88	HIGH3	Hammon	SI_9351	Ascidiacea				1	
07/10/2023	88	HIGH3	Hammon	SI_9352	Polynoidae	whole			1	maybe a little bit of the gut still in
07/10/2023	88	HIGH3	Hammon	SI_9353	Polynoidae	whole			1	
07/10/2023	88	HIGH3	Hammon	SI_9354	Polynoidae	whole			1	
07/10/2023	88	HIGH3	Hammon	SI_9355	Polynoidae	whole			1	
07/10/2023	88	HIGH3	Hammon	SI_9356	Polynoidae	whole			1	
07/10/2023	88	HIGH3	Hammon	SI_9357	Pisidia longicornis	whole	< 1 cm		1	
07/10/2023	88	HIGH3	Hammon	SI_9358	Pisidia longicornis	whole	< 1 cm		1	
07/10/2023	88	HIGH3	Hammon	SI_9359	Pisidia longicornis	whole	< 1 cm		1	
07/10/2023	88	HIGH3	Hammon	SI_9360	Pisidia longicornis	whole	< 1 cm		1	
07/10/2023	88	HIGH3	Hammon	SI_9361	Pisidia longicornis	whole	< 1 cm		1	
07/10/2023	88	HIGH3	Hammon	SI_9362	Heteranomia squamata	flesh	27.35		1	
07/10/2023	88	HIGH3	Hammon	SI_9363	Heteranomia squamata	flesh	25.63		1	
07/10/2023	88	HIGH3	Hammon	SI_9364	Heteranomia squamata	flesh	26.04		1	
07/10/2023	88	HIGH3	Hammon	SI_9365	Heteranomia squamata	flesh	22.52		1	
07/10/2023	88	HIGH3	Hammon	SI_9342	Leptochitonidae		< 5 mm		1	
07/10/2023	88	HIGH3	Hammon	SI_9366	Leptochitonidae		< 5 mm		1	

Date	Cast number	Station	Sampling method	Sample ID	Species name	Bodypart in vial	Total length (mm)	Sex	Number individuals in vial	Remarks
07/10/2023	88	HIGH3	Hammon	SI_9367	Leptochitonidae		< 5 mm		1	
07/10/2023	88	HIGH3	Hammon	SI_9368	Nucula sp	flesh	< 4 mm		1	
07/10/2023	88	HIGH3	Hammon	SI_9369	Nucula sp	flesh	< 5 mm		1	
07/10/2023	88	HIGH3	Hammon	SI_9370	Nucula sp	flesh	< 5 mm		1	
07/10/2023	88	HIGH3	Hammon	SI_9371	Psammechinus acutus		38.14		1	
07/10/2023	88	HIGH3	Hammon	SI_9372	Psammechinus acutus		39.95		1	
07/10/2023	88	HIGH3	Hammon	SI_9373	Xantho pilipes		16.14			
07/10/2023	88	HIGH3	Hammon	SI_9374	Xantho pilipes		11.39			
07/10/2023	88	HIGH3	Hammon	SI_9375	Xantho pilipes		7.72			
08/10/2023	97	HIGH5	Cage 8	SI_9378	Pagurus bernhardus	claw	28.22			
08/10/2023	97	HIGH5	Cage 8	SI_9376	Pagurus bernhardus	claw	18.63			
08/10/2023	97	HIGH5	Cage 8	SI_9377	Pagurus bernhardus	claw	19.13			
08/10/2023	97	HIGH5	Cage 8	SI_9378	Pagurus bernhardus	claw	20.45			
08/10/2023	97	HIGH5	Cage 8	SI_9379	Pagurus bernhardus	claw	11.68			
08/10/2023	97	HIGH5	Cage 8	SI_9380	Pandalidae	tail	42.6		decalcify	
08/10/2023	97	HIGH5	Cage 8	SI_9381	Pandalidae	tail	37.2		decalcify	
08/10/2023	97	HIGH5	Cage 8	SI_9387	Buccinum undatum	foot	103.5			
08/10/2023	97	HIGH5	Cage 8	SI_9388	Buccinum undatum	foot				
08/10/2023	97	HIGH5	Cage 8	SI_9391	Buccinum undatum	foot				
08/10/2023	97	HIGH5	Cage 8	SI_9392	Buccinum undatum	foot	44.59			
08/10/2023	97	HIGH5	Cage 8	SI_9395	Buccinum undatum	foot	72.65			
08/10/2023	97	HIGH5	Cage 8	SI_9382	Ophiotrix fragilis	legs	9.56			
08/10/2023	97	HIGH5	Cage 8	SI_9383	Hyas sp	flesh	23.85			
08/10/2023	97	HIGH5	Cage 8	SI_9384	Hyas sp	flesh	27.29			
08/10/2023	97	HIGH5	Cage 8	SI_9385	Hyas sp	flesh	20.2			
08/10/2023	97	HIGH5	Cage 8	SI_9386	Hyas sp	flesh	21.08			
08/10/2023	97	HIGH5	Cage 8	SI_9389	Calliostoma zizyphinum	foot	14.75			
08/10/2023	97	HIGH5	Cage 8	SI_9393	Calliostoma zizyphinum	foot	10.92			
08/10/2023	97	HIGH5	Cage 8	SI_9397	Calliostoma zizyphinum	foot	12.04			

Date	Cast number	Station	Sampling method	Sample ID	Species name	Bodypart in vial	Total length (mm)	Sex	Number individuals in vial	Remarks
08/10/2023	97	HIGH5	Cage 8	SI_9398	Calliostoma zizyphinum	foot	12.07			
08/10/2023	97	HIGH5	Cage 8	SI_9399	Calliostoma zizyphinum	foot	9.75			
08/10/2023	97	HIGH5	Cage 8	SI_9390	Myxocephalus scorpius	meat	149			
08/10/2023	97	HIGH5	Cage 8	SI_9394	Ophiocomina nigra	legs	14.17			
08/10/2023	97	HIGH5	Cage 8	SI_9346	Ophiocomina nigra	legs	10.5			
08/10/2023	97	HIGH5	Cage 8	SI_9400	Munida sp	meat	17.16		decalcify	
08/10/2023	98	HIGH6	Cage 7	SI_9401	Cancer pagurus	flesh	151	F		
08/10/2023	98	HIGH6	Cage 7	SI_9402	Cancer pagurus	flesh	149	F		
08/10/2023	98	HIGH6	Cage 7	SI_9403	Pagurus bernhardus	flesh	26.99			
08/10/2023	98	HIGH6	Cage 7	SI_9408	Pagurus bernhardus	flesh	26.31			
08/10/2023	98	HIGH6	Cage 7	SI_9409	Pagurus bernhardus	flesh	26.18			
08/10/2023	98	HIGH6	Cage 7	SI_9411	Pagurus bernhardus	body	9.02			
08/10/2023	98	HIGH6	Cage 7	SI_9412	Pagurus bernhardus	body	8.65			
08/10/2023	98	HIGH6	Cage 7	SI_9404	Calliostoma zizyphinum	foot	15.39			
08/10/2023	98	HIGH6	Cage 7	SI_9405	Calliostoma zizyphinum	foot	15.45			
08/10/2023	98	HIGH6	Cage 7	SI_9406	Calliostoma zizyphinum	foot	12.74			
08/10/2023	98	HIGH6	Cage 7	SI_9407	Calliostoma zizyphinum	foot	10.74			
08/10/2023	98	HIGH6	Cage 7	SI_9410	Ophiotrix fragilis	legs	16.46			
08/10/2023	102	LOW 4	Cage 1	SI_9413	Melanogrammus aeglefinus	flesh	308			
08/10/2023	102	LOW 4	Cage 1	SI_9416	Pagurus bernhardus	flesh	12.14			
08/10/2023	102	LOW 4	Cage 1	SI_9414	Cancer pagurus	flesh	158	M		
08/10/2023	102	LOW 4	Cage 1	SI_9415	Macropodia rostrata	flesh	27.73			
08/10/2023	102	LOW 4	Cage 1	SI_9417	Pandalidae	tail	40.67			
08/10/2023	103	LOW 5	Cage 2	SI_9418	Cancer pagurus	meat	165	M		
08/10/2023	103	LOW 5	Cage 2	SI_9419	Cancer pagurus	meat	173	M		
08/10/2023	103	LOW 5	Cage 2	SI_9420	Cancer pagurus	meat	175	M		
08/10/2023	103	LOW 5	Cage 2	SI_9421	Cancer pagurus	meat	165	M		
08/10/2023	103	LOW 5	Cage 2	SI_9423	Pagurus bernhardus	meat	24.93			
08/10/2023	103	LOW 5	Cage 2	SI_9424	Pagurus bernhardus	meat	23.19			

Date	Cast number	Station	Sampling method	Sample ID	Species name	Bodypart in vial	Total length (mm)	Sex	Number individuals in vial	Remarks
08/10/2023	103	LOW 5	Cage 2	SI_9429	Pagurus bernhardus	meat	21.64			
08/10/2023	103	LOW 5	Cage 2	SI_9428	Pagurus bernhardus	meat	25.13			
08/10/2023	103	LOW 5	Cage 2	SI_9430	Pagurus bernhardus	meat	35.73			
08/10/2023	103	LOW 5	Cage 2	SI_9427	Nereididae	whole			no stomach	
08/10/2023	103	LOW 5	Cage 2	SI_9425	Asterias rubens	arm	112			
08/10/2023	103	LOW 5	Cage 2	SI_9426	Macropodia rostrata	flesh	17.88		decalcify	
08/10/2023	101	MID 6	Cage 3	SI_9431	Pagurus bernhardus	flesh	24.6			
08/10/2023	101	MID 6	Cage 3	SI_9432	Pagurus bernhardus	flesh	23.26			
08/10/2023	101	MID 6	Cage 3	SI_9433	Pagurus bernhardus	flesh	21.4			
08/10/2023	101	MID 6	Cage 3	SI_9434	Pagurus bernhardus	flesh	22.87			
08/10/2023	101	MID 6	Cage 3	SI_9435	Pagurus bernhardus	flesh	22.87			
08/10/2023	101	MID 6	Cage 3	SI_9436	Buccinum undatum	foot	93.69			
08/10/2023	101	MID 6	Cage 3	SI_9437	Nereididae	whole				
08/10/2023	101	MID 6	Cage 3	SI_9438	Colis gracilis	foot	73.4			
08/10/2023	101	MID 6	Cage 3	SI_9439	Macropodia rostrata		22.7			
08/10/2023	101	MID 6	Cage 3	SI_9441	Buccinum undatum		87.08			
08/10/2023	101	MID 6	Cage 3	SI_9440	Pandalidae		37.01			
08/10/2023	101	MID 6	Cage 3	SI_9443	Pandalidae		38.24			
08/10/2023	101	MID 6	Cage 3	SI_9446	Pandalidae		40.01			
08/10/2023	101	MID 6	Cage 3	SI_9442	Buccinum undatum		85.14			
08/10/2023	101	MID 6	Cage 3	SI_9447	Liocarcinus vernalis		20.69			
08/10/2023	101	MID 6	Cage 3	SI_9445	Liocarcinus holsatus		23.01			
08/10/2023	101	MID 6	Cage 3	SI_9444	Macropodia rostrata	flesh	6.12			
09/10/2023	114	LOW6_d	Hammon	SI_9465	Venus casina	whole	4.42			
09/10/2023	114	LOW6_d	Hammon	SI_9466	Munida sp	whole	2.47		with stomach	
09/10/2023	114	LOW6_d	Hammon	SI_9467	Munida sp	whole	2.35			
09/10/2023	114	LOW6_d	Hammon	SI_9468	Munida sp	whole	1.89			
09/10/2023	114	LOW6_d	Hammon	SI_9469	Munida sp	whole				
09/10/2023	114	LOW6_d	Hammon	SI_9470	Lumbrineridae	whole	7.08			

Date	Cast number	Station	Sampling method	Sample ID	Species name	Bodypart in vial	Total length (mm)	Sex	Number individuals in vial	Remarks
09/10/2023	114	LOW6_d	Hammon	SI_9471	Asbjornsenia pygmaea	flesh	12.54			
09/10/2023	114	LOW6_d	Hammon	SI_9472	Thracia phaseolina	flesh	14.38			
09/10/2023	114	LOW6_d	Hammon	SI_9473	Glycymeris glycymeris	flesh	14.93			
09/10/2023	114	LOW6_d	Hammon	SI_9474	Glycymeris glycymeris	flesh	27.22			
09/10/2023	114	LOW6_d	Hammon	SI_9476	Glycymeris glycymeris	flesh	2.99			
09/10/2023	114	LOW6_d	Hammon	SI_9475	Munida sp	whole	33.45		with stomach	
09/10/2023	114	LOW6_d	Hammon	SI_9477	Glycymeris glycymeris	flesh				
09/10/2023	114	LOW6_d	Hammon	SI_9478	Capitellidae	whole				
09/10/2023	114	LOW6_d	Hammon	SI_9479	Heteranomia squamata	flesh				
09/10/2023	114	LOW6_d	Hammon	SI_9480	Heteranomia squamata	flesh				
09/10/2023	114	LOW6_d	Hammon	SI_9481	Liocarcinus pusillus	flesh	11.83		decalcify	
09/10/2023	115	LOW6_e	Hammon	SI_9482						Check vial, empty in the notes
09/10/2023	115	LOW6_e	Hammon	SI_9483	Munida sp	whole	3.71		with stomach	
09/10/2023	115	LOW6_e	Hammon	SI_9484	Munida sp	flesh	6.57			
09/10/2023	115	LOW6_e	Hammon	SI_9485	Munida sp	flesh	4.08			
09/10/2023	115	LOW6_e	Hammon	SI_9486	Munida sp	whole	2.73			
09/10/2023	115	LOW6_e	Hammon	SI_9487	Munida sp	whole	2.95			
09/10/2023	115	LOW6_e	Hammon	SI_9488	Glycymeris glycymeris	flesh	15.69			
09/10/2023	115	LOW6_e	Hammon	SI_9489	Glycymeris glycymeris	flesh	26.36			
09/10/2023	115	LOW6_e	Hammon	SI_9490	Glycymeris glycymeris	flesh	13.83			
09/10/2023	115	LOW6_e	Hammon	SI_9491	Glycymeris glycymeris	flesh	9.74			
09/10/2023	117	LOW6_g	Hammon	SI_9492	Glycymeris glycymeris	flesh	20.56			
09/10/2023	117	LOW6_g	Hammon	SI_9493	Glycymeris glycymeris	flesh	25.49			
09/10/2023	117	LOW6_g	Hammon	SI_9494	Glycymeris glycymeris	flesh	15.16			
09/10/2023	117	LOW6_g	Hammon	SI_9495	Glycymeris glycymeris	flesh	11.09			
09/10/2023	117	LOW6_g	Hammon	SI_9496	Polynoidae	whole			with gut	
09/10/2023	117	LOW6_g	Hammon	SI_9497	Glycera sp	whole				
09/10/2023	117	LOW6_g	Hammon	SI_9498	Nereididae	whole				
09/10/2023	117	LOW6_g	Hammon	SI_9499	Nephtys sp	body				

Date	Cast number	Station	Sampling method	Sample ID	Species name	Bodypart in vial	Total length (mm)	Sex	Number individuals in vial	Remarks
09/10/2023	117	LOW6_g	Hammon	SI_9500	Nemertea	whole			with gut	
09/10/2023	117	LOW6_g	Hammon	SI_9501	Capitellidae	whole			with gut	

5.9. Appendix 9: SPM, Chl_a water filtration samples

Date	Cast Number	Station	Bottle ID	Surface/Bottom	Volume SPM filtered (ml)	Weight SPM (mg)	SPM Sample ID	Volume ChlA filtered (ml)	ChlA Sample ID	Stable isotopes ID	Nutrient ID (N and P)	Nutrient ID (Si)	Replica Nutrient	Remarks
02/10/2023	2	5 km	7	bottom	2250	133.2	SPM_9000	3000	ChlA_9000		N_9001	N_9002	1	
02/10/2023	2	5 km	8	bottom	2250	133.3	SPM_9001	3000	ChlA_9001		N_9003	N_9004	2	
02/10/2023	2	5 km	9	bottom	2250	134.3	SPM_9002	3100	ChlA_9002		N_9005	N_9006	1	
02/10/2023	2	5 km	18	surface	3000	132.5	SPM_9003	3500	ChlA_9003		N_9007	N_9008	2	
02/10/2023	2	5 km	19	surface	3000	132.8	SPM_9004	3500	ChlA_9004		N_9009	N_9010	1	
02/10/2023	2	5 km	20	surface	3000	131.7	SPM_9005	3500	ChlA_9005		N_9011	N_9012	2	
04/10/2023	22	MID4	8	bottom	2500	132.4	SPM_9006	2500	ChlA_9006		N_9013	N_9014	1	
04/10/2023	22	MID4	9	bottom							N_9015	N_9016	2	
04/10/2023	22	MID4	18	surface	3250	132.3	SPM_9007	3250	ChlA_9007		N_9017	N_9018	1	
04/10/2023	22	MID4	20	surface							N_9019	N_9020	2	
04/10/2023	23	MID5	8	bottom	2500	132.4	SPM_9008	2500	ChlA_9008		N_9021	N_9022	1	
04/10/2023	23	MID5	9	bottom							N_9023	N_9024	2	
04/10/2023	23	MID5	18	surface	3000	132.2	SPM_9009	3000	ChlA_9009		N_9025	N_9026	1	
04/10/2023	23	MID5	20	surface							N_9027	N_9028	2	
04/10/2023	24	MID6	8	bottom	2500	132	SPM_9010	2500	ChlA_9010		N_9029	N_9030	1	
04/10/2023	24	MID6	9	bottom							N_9031	N_9032	2	
04/10/2023	24	MID6	18	surface	3000	131.1	SPM_9011	3000	ChlA_9011		N_9033	N_9034	1	
04/10/2023	24	MID6	20	surface							N_9035	N_9036	2	
04/10/2023	25	LOW4	7	bottom						SI_9005				
04/10/2023	25	LOW4	8	bottom	3000	131.7	SPM_9012	3000	ChlA_9012	SI_9002	N_9037	N_9038	1	
04/10/2023	25	LOW4	9	bottom						SI_9007	N_9039	N_9040	2	
04/10/2023	25	LOW4	10	bottom						SI_9008				
04/10/2023	25	LOW4	11	bottom						SI_9001				
04/10/2023	25	LOW4	16	surface						SI_9000				
04/10/2023	25	LOW4	17	surface						SI_9006				
04/10/2023	25	LOW4	18	surface	3000	131.1	SPM_9013	3000	ChlA_9013		N_9041	N_9042	1	
04/10/2023	25	LOW4	19	surface						SI_9003	N_9043	N_9044	2	
04/10/2023	25	LOW4	20	surface						SI_9004				

Date	Cast Number	Station	Bottle ID	Surface/Bottom	Volume SPM filtered (ml)	Weight SPM (mg)	SPM Sample ID	Volume ChlA filtered (ml)	ChlA Sample ID	Stable isotopes ID	Nutrient ID (N and P)	Nutrient ID (Si)	Replica Nutrient	Remarks
04/10/2023	27	LOW6	8	bottom	3000	133	SPM_9014	3000	ChlA_9014		N_9045	N_9046	1	
04/10/2023	27	LOW6	7	bottom						SI_9013				
04/10/2023	27	LOW6	9	bottom						SI_9015	N_9047	N_9048	2	
04/10/2023	27	LOW6	10	bottom						SI_9016				
04/10/2023	27	LOW6	11	bottom						SI_9009				
04/10/2023	27	LOW6	16	surface						SI_9010				
04/10/2023	27	LOW6	17	surface						SI_9014				
04/10/2023	27	LOW6	18	surface	3000	133.2	SPM_9015	3000	ChlA_9015		N_9049	N_9050	1	
04/10/2023	27	LOW6	19	surface						SI_9012				
04/10/2023	27	LOW6	20	surface						SI_9011	N_9051	N_9052	2	
06/10/2023	55	LOW6	18	surface	3000	131.9	SPM_9016	3000	ChlA_9016		N_9053	N_9054	1	after storm and opposite current direction
06/10/2023	55	LOW6	8	bottom	3000	132.9	SPM_9017	3000	ChlA_9017		N_9055	N_9056	1	
06/10/2023	56	LOW5	8	bottom	3000	133.4	SPM_9018	3000	ChlA_9018		N_9057	N_9058	1	
06/10/2023	56	LOW5	18	surface	3000	131.3	SPM_9019	3000	ChlA_9019		N_9059	N_9060	1	
06/10/2023	56	LOW5	16	surface						SI_9237				
06/10/2023	56	LOW5	11	bottom						SI_9238				
06/10/2023	56	LOW5	17	surface						SI_9239				
06/10/2023	56	LOW5	9	bottom						SI_9240				
06/10/2023	56	LOW5	10	bottom						SI_9241				
06/10/2023	56	LOW5	7	bottom						SI_9242				
06/10/2023	56	LOW5	19	surface						SI_9243				
06/10/2023	56	LOW5	20	surface						SI_9244				
06/10/2023	59	HIGH2	8	bottom	3000	127.3	SPM_9020	3000	ChlA_2090		N_9061	N_9062	1	
06/10/2023	59	HIGH2	18	surface	3000	132.5	SPM_9021	3000	ChlA_9021		N_9063	N_9064	1	
06/10/2023	59	HIGH2	7	bottom						SI_9251	N_9065	N_9066	2	
06/10/2023	59	HIGH2	17	surface						SI_9252	N_9067	N_9068	2	
06/10/2023	59	HIGH2	11	bottom						SI_9245				
06/10/2023	59	HIGH2	16	surface						SI_9246				

Date	Cast Number	Station	Bottle ID	Surface/Bottom	Volume SPM filtered (ml)	Weight SPM (mg)	SPM Sample ID	Volume ChlA filtered (ml)	ChlA Sample ID	Stable isotopes ID	Nutrient ID (N and P)	Nutrient ID (Si)	Replica Nutrient	Remarks
06/10/2023	59	HIGH2	10	bottom						SI_9247				
06/10/2023	59	HIGH2	19	surface						SI_9248				
06/10/2023	59	HIGH2	9	bottom						SI_9249				
06/10/2023	59	HIGH2	20	surface						SI_9250				
06/10/2023	60	HIGH1	8	bottom	3000	134.2	SPM_9022	3000	ChlA_9022		N_9069	N_9070	1	
06/10/2023	60	HIGH1	18	surface	3000	131.9	SPM_9023	3000	ChlA_9023		N_9071	N_9072	1	
06/10/2023	60	HIGH1	7	bottom						SI_9256	N_9073	N_9074	2	
06/10/2023	60	HIGH1	17	surface						SI_9257	N_9075	N_9076	2	
06/10/2023	60	HIGH1	19	surface						SI_9253				
06/10/2023	60	HIGH1	9	bottom						SI_9254				
06/10/2023	60	HIGH1	20	surface						SI_9255				
06/10/2023	60	HIGH1	10	bottom						SI_9258				
06/10/2023	60	HIGH1	11	bottom						SI_9259				
06/10/2023	60	HIGH1	16	surface						SI_9260				
08/10/2023	106	MID5	8	bottom							N_9081	N_9080		
08/10/2023	106	MID5	11	bottom	3000	132.9	SPM_9024	3000	ChlA_9024		N_9085	N_9084		
08/10/2023	106	MID5	18	surface							N_9083	N_9082		
08/10/2023	106	MID5	16	surface	3000		SPM_9025	3000	ChlA_9025		N_9087	N_9086		
08/10/2023	108	HIGH3	18	surface						SI_9449	N_9089	N_9088		
08/10/2023	108	HIGH3	11	bottom	3000	131.1	SPM_9026	3000	ChlA_9026					
08/10/2023	108	HIGH3	8	bottom						SI_9457	N_9091	N_9090		
08/10/2023	108	HIGH3	16	surface	3000	133.6	SPM_9027	3000	ChlA_9027					
08/10/2023	108	HIGH3	9	bottom						SI_9453	N_9093	N_9092		
08/10/2023	108	HIGH3	19	surface						SI_9450	N_9095	N_9094		
08/10/2023	108	HIGH3	17	surface						SI_9448				
08/10/2023	108	HIGH3	20	surface						SI_9451				
08/10/2023	108	HIGH3	7	bottom						SI_9452				
08/10/2023	108	HIGH3	10	bottom						SI_9545				

Date	Cast Number	Station	Bottle ID	Surface/Bottom	Volume SPM filtered (ml)	Weight SPM (mg)	SPM Sample ID	Volume ChlA filtered (ml)	ChlA Sample ID	Stable isotopes ID	Nutrient ID (N and P)	Nutrient ID (Si)	Replica Nutrient	Remarks
08/10/2023	110	HIGH1	8	bottom							N_9097	N_9096		
08/10/2023	110	HIGH1	18	surface							N_9099	N_9098		
08/10/2023	110	HIGH1	9	bottom						SI_9460	N_9101	N_9100		
08/10/2023	110	HIGH1	19	surface						SI_9459	N_9101	N_9102		
08/10/2023	110	HIGH1	17	surface						SI_9458				
08/10/2023	110	HIGH1	20	surface						SI_9461				
08/10/2023	110	HIGH1	7	bottom						SI_9462				
08/10/2023	110	HIGH1	11	surface						SI_9463				
08/10/2023	110	HIGH1	16	surface						SI_9455				
08/10/2023	110	HIGH1	10	bottom						SI_9464				

5.10. Appendix 10: Fatty acid samples water, Hamon grab and WP2

Cast#	Station#	Depth m	Rosette#	Analyses	Water sampled ml	Sample #	Notes	Notes	Notes
2	on the wat	0	16	NO3 Isotope	50	44	No Fmax		
2	on the wat	0	16	Lugol	100	11	No Fmax		
2	on the wat	0	16	Flow Cytometry	5	12	No Fmax		
2	on the wat	0	16	Flow Cytometry	5	18	No Fmax		
2	on the wat	0	16	Flow Cytometry	5	28	No Fmax		
2	on the wat	0	16	FA phytoplankton	4000	135	No Fmax		label added a posteriori (only had black marker label)
2	on the wat	0	16	FA phytoplankton	4000	136	No Fmax		label added a posteriori (only had black marker label)
2	on the wat	0	16	FA phytoplankton	4000	137	No Fmax		label added a posteriori (only had black marker label)
2	on the wat	Fmax	11	NO3 Isotope	50	48	No Fmax	DEPTH MISSING!!!	
2	on the wat	Fmax	11	Flow Cytometry	5	22	No Fmax	DEPTH MISSING!!!	
2	on the wat	Fmax	11	Flow Cytometry	5	24	No Fmax	DEPTH MISSING!!!	
2	on the wat	Fmax	11	Flow Cytometry	5	27	No Fmax	DEPTH MISSING!!!	
2	on the wat	Fmax	11	FA phytoplankton	4000	138	No Fmax	DEPTH MISSING!!!	label added a posteriori (only had black marker label)
2	on the wat	Fmax	11	FA phytoplankton	4000	139	No Fmax	DEPTH MISSING!!!	label added a posteriori (only had black marker label)
2	on the wat	Fmax	11	FA phytoplankton	4000	140	No Fmax	DEPTH MISSING!!!	label added a posteriori (only had black marker label)
2	on the wat	Bottom	4	NO3 Isotope	50	45	No Fmax		
2	on the wat	Bottom	4	Flow Cytometry	5	13	No Fmax		
2	on the wat	Bottom	4	Flow Cytometry	5	31	No Fmax		
2	on the wat	Bottom	4	Flow Cytometry	5	26	No Fmax		
2	on the wat	Bottom	4	FA phytoplankton	4000	141	No Fmax		label added a posteriori (only had black marker label)
2	on the wat	Bottom	4	FA phytoplankton	4000	142	No Fmax		label added a posteriori (only had black marker label)
2	on the wat	Bottom	4	FA phytoplankton	4000	143	No Fmax		label added a posteriori (only had black marker label)
22	mid-4	0	15	NO3 Isotope	50	40	No Fmax		

Cast#	Station#	Depth m	Rosette#	Analyses	Water sampled ml	Sample #	Notes	Notes	Notes
22	mid-4	0	15	Lugol	100	2	No Fmax		
22	mid-4	0	15	Flow Cytometry	5	23	No Fmax		
22	mid-4	0	15	Flow Cytometry	5	5	No Fmax		
22	mid-4	0	15	Flow Cytometry	5	30	No Fmax		
22	mid-4	0	15	FA phytoplankton	2000	117	No Fmax		label added a posteriori (only had black marker label)
22	mid-4	0	15	FA phytoplankton	2000	118	No Fmax		label added a posteriori (only had black marker label)
22	mid-4	0	15	FA phytoplankton	2000	119	No Fmax		label added a posteriori (only had black marker label)
22	mid-4	Bottom	6	NO3 Isotope	50	31	No Fmax		
22	mid-4	Bottom	6	Flow Cytometry	5	8	No Fmax		
22	mid-4	Bottom	6	Flow Cytometry	5	15	No Fmax		
22	mid-4	Bottom	6	Flow Cytometry	5	19	No Fmax		
22	mid-4	Bottom	6	FA phytoplankton	2800	120	No Fmax		label added a posteriori (only had black marker label)
22	mid-4	Bottom	6	FA phytoplankton	2800	121	No Fmax		label added a posteriori (only had black marker label)
22	mid-4	Bottom	6	FA phytoplankton	2800	122	No Fmax		label added a posteriori (only had black marker label)
23	mid-5	0	13	NO3 Isotope	50	30	No Fmax		
23	mid-5	0	13	Lugol	100	10	No Fmax		
23	mid-5	0	13	Flow Cytometry	5	2	No Fmax		
23	mid-5	0	13	Flow Cytometry	5	14	No Fmax		
23	mid-5	0	13	Flow Cytometry	5	20	No Fmax		
23	mid-5	0	13	FA phytoplankton	2000	111	No Fmax		label added a posteriori (only had black marker label)
23	mid-5	0	13	FA phytoplankton	2000	112	No Fmax		label added a posteriori (only had black marker label)
23	mid-5	0	13	FA phytoplankton	2000	113	No Fmax		label added a posteriori (only had black marker label)
23	mid-5	Bottom	4	NO3 Isotope	50	46	No Fmax		
23	mid-5	Bottom	4	Flow Cytometry	5	21	No Fmax		
23	mid-5	Bottom	4	Flow Cytometry	5	51	No Fmax		
23	mid-5	Bottom	4	Flow Cytometry	5	53	No Fmax		
23	mid-5	Bottom	4	FA phytoplankton	2000	114	No Fmax		label added a posteriori (only had black marker label)

Cast#	Station#	Depth m	Rosette#	Analyses	Water sampled ml	Sample #	Notes	Notes	Notes
23	mid-5	Bottom	4	FA phytoplankton	2000	115	No Fmax		label added a posteriori (only had black marker label)
23	mid-5	Bottom	4	FA phytoplankton	2000	116	No Fmax		label added a posteriori (only had black marker label)
25	low-4	0	15	NO3 Isotope	50	39	No Fmax		
25	low-4	0	15	Lugol	100	7	No Fmax		
25	low-4	0	15	Flow Cytometry	5	7	No Fmax		
25	low-4	0	15	Flow Cytometry	5	9	No Fmax		
25	low-4	0	15	Flow Cytometry	5	11	No Fmax		
25	low-4	0	15	FA phytoplankton	2000	129	No Fmax		label added a posteriori (only had black marker label)
25	low-4	0	15	FA phytoplankton	2000	130	No Fmax		label added a posteriori (only had black marker label)
25	low-4	0	15	FA phytoplankton	2000	131	No Fmax		label added a posteriori (only had black marker label)
25	low-4	Bottom	4	NO3 Isotope	50	38	No Fmax		
25	low-4	Bottom	4	Flow Cytometry	5	4	No Fmax		
25	low-4	Bottom	4	Flow Cytometry	5	6	No Fmax		
25	low-4	Bottom	4	Flow Cytometry	5	44	No Fmax		
25	low-4	Bottom	4	FA phytoplankton	2000	132	No Fmax		label added a posteriori (only had black marker label)
25	low-4	Bottom	4	FA phytoplankton	2000	133	No Fmax		label added a posteriori (only had black marker label)
25	low-4	Bottom	4	FA phytoplankton	2000	134	No Fmax		label added a posteriori (only had black marker label)
27	low-6	0	14	NO3 Isotope	50	41	No Fmax		
27	low-6	0	14	Lugol	100	3	No Fmax		
27	low-6	0	14	Flow Cytometry	5	10	No Fmax		
27	low-6	0	14	Flow Cytometry	5	16	No Fmax		
27	low-6	0	14	Flow Cytometry	5	29	No Fmax		
27	low-6	0	14	FA phytoplankton	2000	123	No Fmax		label added a posteriori (only had black marker label)
27	low-6	0	14	FA phytoplankton	2000	124	No Fmax		label added a posteriori (only had black marker label)
27	low-6	0	14	FA phytoplankton	2000	125	No Fmax		label added a posteriori (only had black marker label)
27	low-6	Bottom	5	NO3 Isotope	50	37	No Fmax		
27	low-6	Bottom	5	Flow Cytometry	5	3	No Fmax		
27	low-6	Bottom	5	Flow Cytometry	5	17	No Fmax		
27	low-6	Bottom	5	Flow Cytometry	5	25	No Fmax		

Cast#	Station#	Depth m	Rosette#	Analyses	Water sampled ml	Sample #	Notes	Notes	Notes
27	low-6	Bottom	5	FA phytoplankton	2000	126	No Fmax		label added a posteriori (only had black marker label)
27	low-6	Bottom	5	FA phytoplankton	2000	127	No Fmax		label added a posteriori (only had black marker label)
27	low-6	Bottom	5	FA phytoplankton	2000	128	No Fmax		label added a posteriori (only had black marker label)
55	low-6	0	15	NO3 Isotope	50	19	No Fmax		
55	low-6	0	15	Lugol	100	9	No Fmax		
55	low-6	0	15	Flow Cytometry	5	38	No Fmax		
55	low-6	0	15	Flow Cytometry	5	45	No Fmax		
55	low-6	0	15	Flow Cytometry	5	49	No Fmax		
55	low-6	0	15	FA phytoplankton	2000	88	No Fmax		
55	low-6	0	15	FA phytoplankton	2000	87	No Fmax		
55	low-6	0	15	FA phytoplankton	2000	90	No Fmax		
55	low-6	Bottom	6	NO3 Isotope	50	22	No Fmax		
55	low-6	Bottom	6	Flow Cytometry	5	33	No Fmax		
55	low-6	Bottom	6	Flow Cytometry	5	42	No Fmax		
55	low-6	Bottom	6	Flow Cytometry	5	54	No Fmax		
55	low-6	Bottom	6	FA phytoplankton	2000	89	No Fmax		
55	low-6	Bottom	6	FA phytoplankton	2000	92	No Fmax		
55	low-6	Bottom	6	FA phytoplankton	2000	91	No Fmax		
56	low-5	0	13	NO3 Isotope	50	18	No Fmax		
56	low-5	0	13	Lugol	100	13	No Fmax		
56	low-5	0	13	Flow Cytometry	5	40	No Fmax		
56	low-5	0	13	Flow Cytometry	5	59	No Fmax		
56	low-5	0	13	Flow Cytometry	5	55	No Fmax		
56	low-5	0	13	FA phytoplankton	2000	95	No Fmax		
56	low-5	0	13	FA phytoplankton	2000	94	No Fmax		
56	low-5	0	13	FA phytoplankton	2000	93	No Fmax		
56	low-5	Bottom	6	NO3 Isotope	50	24	No Fmax		
56	low-5	Bottom	6	Flow Cytometry	5	60	No Fmax		
56	low-5	Bottom	6	Flow Cytometry	5	58	No Fmax		

Cast#	Station#	Depth m	Rosette#	Analyses	Water sampled ml	Sample #	Notes	Notes	Notes
56	low-5	Bottom	6	Flow Cytometry	5	52	No Fmax		
56	low-5	Bottom	6	FA phytoplankton	2000	99	No Fmax		
56	low-5	Bottom	6	FA phytoplankton	2000	101	No Fmax		
56	low-5	Bottom	6	FA phytoplankton	2000	100	No Fmax		
58	high-3	0	15	NO3 Isotope	50	11	No Fmax		
58	high-3	0	15	Lugol	100	5	No Fmax		
58	high-3	0	15	Flow Cytometry	5	34	No Fmax		
58	high-3	0	15	Flow Cytometry	5	36	No Fmax		
58	high-3	0	15	Flow Cytometry	5	32	No Fmax		
58	high-3	0	15	FA phytoplankton	2000	97	No Fmax		
58	high-3	0	15	FA phytoplankton	2000	96	No Fmax		
58	high-3	0	15	FA phytoplankton	2000	102	No Fmax		
58	high-3	Bottom	6	NO3 Isotope	50	7	No Fmax		
58	high-3	Bottom	6	Flow Cytometry	5	56	No Fmax		
58	high-3	Bottom	6	Flow Cytometry	5	43	No Fmax		
58	high-3	Bottom	6	Flow Cytometry	5	46	No Fmax		
58	high-3	Bottom	6	FA phytoplankton	2000	110	No Fmax		
58	high-3	Bottom	6	FA phytoplankton	2000	109	No Fmax		
58	high-3	Bottom	6	FA phytoplankton	2000	98	No Fmax		
59	high-2	0	15	NO3 Isotope	50	14	No Fmax		
59	high-2	0	15	Lugol	100	12	No Fmax		
59	high-2	0	15	Flow Cytometry	5	50	No Fmax		
59	high-2	0	15	Flow Cytometry	5	47	No Fmax		
59	high-2	0	15	Flow Cytometry	5	57	No Fmax		
59	high-2	0	15	FA phytoplankton	2000	108	No Fmax		
59	high-2	0	15	FA phytoplankton	2000	107	No Fmax		
59	high-2	0	15	FA phytoplankton	2000	106	No Fmax		
59	high-2	Bottom	5	NO3 Isotope	50	17	No Fmax		
59	high-2	Bottom	5	Flow Cytometry	5	35	No Fmax		

Cast#	Station#	Depth m	Rosette#	Analyses	Water sampled ml	Sample #	Notes	Notes	Notes
59	high-2	Bottom	5	Flow Cytometry	5	37	No Fmax		
59	high-2	Bottom	5	Flow Cytometry	5	39	No Fmax		
59	high-2	Bottom	5	FA phytoplankton	2000	105	No Fmax		
59	high-2	Bottom	5	FA phytoplankton	2000	104	No Fmax		
59	high-2	Bottom	5	FA phytoplankton	2000	103	No Fmax		
105	mid-6	0	13	NO3 Isotope	50	32	No Fmax		
105	mid-6	0	13	Lugol	100	21	No Fmax		
105	mid-6	0	13	Flow Cytometry	5	70	No Fmax		
105	mid-6	0	13	Flow Cytometry	5	62	No Fmax		
105	mid-6	0	13	Flow Cytometry	5	87	No Fmax		
105	mid-6	0	13	FA phytoplankton	2000	74	No Fmax		
105	mid-6	0	13	FA phytoplankton	2000	65	No Fmax		
105	mid-6	0	13	FA phytoplankton	2000	64	No Fmax		
105	mid-6	Bottom	6	NO3 Isotope	50	33	No Fmax		
105	mid-6	Bottom	6	Flow Cytometry	5	66	No Fmax		
105	mid-6	Bottom	6	Flow Cytometry	5	61	No Fmax		
105	mid-6	Bottom	6	Flow Cytometry	5	78	No Fmax		
105	mid-6	Bottom	6	FA phytoplankton	2000	63	No Fmax		
105	mid-6	Bottom	6	FA phytoplankton	2000	80	No Fmax		
105	mid-6	Bottom	6	FA phytoplankton	2000	67	No Fmax		
107	mid-4	0	13	NO3 Isotope	50	35	No Fmax		
107	mid-4	0	13	Lugol	100	20	No Fmax		
107	mid-4	0	13	Flow Cytometry	5	74	No Fmax		
107	mid-4	0	13	Flow Cytometry	5	63	No Fmax		
107	mid-4	0	13	Flow Cytometry	5	88	No Fmax		
107	mid-4	0	13	FA phytoplankton	2000	68	No Fmax		
107	mid-4	0	13	FA phytoplankton	2000	66	No Fmax		
107	mid-4	0	13	FA phytoplankton	2000	85	No Fmax		
107	mid-4	Bottom	5	NO3 Isotope	50	34	No Fmax		

Cast#	Station#	Depth m	Rosette#	Analyses	Water sampled ml	Sample #	Notes	Notes	Notes
107	mid-4	Bottom	5	Flow Cytometry	5	71	No Fmax		
107	mid-4	Bottom	5	Flow Cytometry	5	85	No Fmax		
107	mid-4	Bottom	5	Flow Cytometry	5	81	No Fmax		
107	mid-4	Bottom	5	FA phytoplankton	2000	76	No Fmax		
107	mid-4	Bottom	5	FA phytoplankton	2000	77	No Fmax		
107	mid-4	Bottom	5	FA phytoplankton	2000	84	No Fmax		
108	high-3	0	14	NO3 Isotope	50	36	No Fmax		
108	high-3	0	14	Lugol	100	14	No Fmax		
108	high-3	0	14	Flow Cytometry	5	69	No Fmax		
108	high-3	0	14	Flow Cytometry	5	77	No Fmax		
108	high-3	0	14	Flow Cytometry	5	64	No Fmax		
108	high-3	0	14	FA phytoplankton	2000	69	No Fmax		
108	high-3	0	14	FA phytoplankton	2000	71	No Fmax		
108	high-3	0	14	FA phytoplankton	2000	70	No Fmax		
108	high-3	Bottom	4	NO3 Isotope	50	34	No Fmax		
108	high-3	Bottom	4	Flow Cytometry	5	84	No Fmax		
108	high-3	Bottom	4	Flow Cytometry	5	79	No Fmax		
108	high-3	Bottom	4	Flow Cytometry	5	75	No Fmax		
108	high-3	Bottom	4	FA phytoplankton	2000	73	No Fmax		
108	high-3	Bottom	4	FA phytoplankton	2000	72	No Fmax		
108	high-3	Bottom	4	FA phytoplankton	2000	75	No Fmax		
110	high-1	0	16	NO3 Isotope	50	47	No Fmax		
110	high-1	0	16	Lugol	100	4	No Fmax		
110	high-1	0	16	Flow Cytometry	5	82	No Fmax		
110	high-1	0	16	Flow Cytometry	5	80	No Fmax		
110	high-1	0	16	Flow Cytometry	5	73	No Fmax		
110	high-1	0	16	FA phytoplankton	2000	79	No Fmax		
110	high-1	0	16	FA phytoplankton	2000	78	No Fmax		
110	high-1	0	16	FA phytoplankton	2000	83	No Fmax		

Cast#	Station#	Depth m	Rosette#	Analyses	Water sampled ml	Sample #	Notes	Notes	Notes
110	high-1	Bottom	4	NO3 Isotope	50	42	No Fmax		
110	high-1	Bottom	4	Flow Cytometry	5	89	No Fmax		
110	high-1	Bottom	4	Flow Cytometry	5	72	No Fmax		
110	high-1	Bottom	4	Flow Cytometry	5	83	No Fmax		
110	high-1	Bottom	4	FA phytoplankton	2000	82	No Fmax		
110	high-1	Bottom	4	FA phytoplankton	2000	81	No Fmax		
110	high-1	Bottom	4	FA phytoplankton	2000	86	No Fmax		

5.11. Appendix 11: WP2 net biodiversity samples

Date	Cast number	Station	Sample ID	Stat flowmeter	End flowmeter	Sample type	Remarks
	119	LOW 6	BIO - Pieter	85746	86038	BIO - Pieter	
	120	LOW 6	WP2_9000	86038	86398	SIA - FA	
	121	LOW 5	BIO - Pieter	86398	86795	BIO - Pieter	
	122	LOW 5	WP2_9001	86795	87122	SIA - FA	
	123	LOW 4	BIO - Pieter	87122	87405	BIO - Pieter	
	124	LOW 4	WP2_9002	87405	87609	SIA - FA	
	125	LOW 3	BIO - Pieter	87609	87845	BIO - Pieter	
	126	LOW 3	WP2_9003	87845	88180	SIA - FA	
	127	HIGH 4	BIO - Pieter	88180	88405	BIO - Pieter	
	128	HIGH 4	WP2_9004	88405	88617	SIA - FA	
	129	HIGH 3	BIO - Pieter	88617	88826	BIO - Pieter	
	130	HIGH 3	WP2_9005	88826	89050	SIA - FA	
	131	HIGH 2	BIO - Pieter	89050	89232	BIO - Pieter	
	132	HIGH 2	WP2_9006	89232	89447	SIA - FA	
	133	HIGH 1	BIO - Pieter	89447	89611	BIO - Pieter	
	134	HIGH 1	WP2_9007	89611	89806	SIA - FA	