Not to be cited without prior reference to Marine Scotland, Marine Laboratory, Aberdeen

RV *Corystes*

Survey 0823H

PROGRAMME

2-23 May 2023

Transit start: Belfast, 02 May 2023
Loading: Aberdeen, 05 May 2023
Half landing: Aberdeen, 11 May 2023
Unloading: Clydebank, 21 May 2023
Transit end: Belfast, 23 May 2023

In setting the survey programme and specific objectives, etc. the Scientist-in-Charge needs to be aware of the restrictions on working hours and the need to build in adequate rest days and rest breaks as set out in Marine Scotland's Working Time Policy (Notice 34/03). In addition, the Scientist-in-Charge must formally review the risk assessments for the survey with staff on-board before work is commenced.

In the interest of efficient data management it is now mandatory to return the survey report, to I Gibb and the Survey Summary Report (old ROSCOP form) to M Geldart, within four weeks of a survey ending. In the case of the Survey Summary Report a nil return is required, if appropriate

Out-turn days per scientific project: 7 days RE01V; 10 days ST05B

Gear (PELAgIO part)

Sea-Bird CTDs, rosette, mooring frames for three moorings, one thermistor chain, echosounders, ADCPs and other relevant mooring instrumentation (acoustic releases, lines, surface marker, deck units, hydrophones, etc.), water filtering equipment, chemistry sampling equipment.

Gear (Hydro part)

Sea-Bird CTDs, rosette, mooring frames, anchor chain and 40" buoys, ADCPs and other current meters and oceanographic instrumentation (e.g. SBE37s), water filtering equipment, plankton nets, chemistry sampling equipment, weeHoloCam.

Objectives (PELAgIO section)

1. Test the SBE911 and CTD carousel at a suitable deeper location on the way to the Firth of Forth. Potentially, somewhere around 57° 1.044' N 01° 47.77 W. **Not attempted due to delayed departure.**

2. Deploy UHI mooring (seabed frame with ADCP and echosounder; two pop-up acoustic releases) just outside a 500 m distance of an offshore wind turbine in the Seagreen Offshore Wind Farm (OWF)**. Achieved**

3. Deploy NOC mooring (seabed frame with ADCP, ground line, clump weight and thermistor chain to surface buoyancy) and MSS mooring (AL200 trawlproof frame with ADCP) at a distance of ca. 3 km from OWF, east of the UHI mooring. **Achieved**

4. Carry out a CTD survey with water sampling along a 30 km rectangle offshore from the mooring locations, stopping every 2 km along the way to perform a CTD deployment and, on selected stations, water sampling from the carousel bottles**. Achieved**

5. Carry out phytoplankton sampling at a subset of the CTD stations, taking samples from the carousel water bottles. **Not attempted (visitor's task)**

6. Run the underway TSG (taking calibration samples for salinity and chlorophyll at selected stations) if available. **Achieved – MSS's TSG used but no fluorescence sensor so no chlorophyll samples required**

7. Run the underway EK60 echosounder along the CTD survey track. **Achieved**

8. Perform a seabird survey during daylight hours along the CTD survey track. **Achieved**

9. Perform glider CTD calibration casts at selected locations along the CTD survey track. **Achieved**

10. Carry out sampling at the Stonehaven ecosystem monitoring station if time allows on the way back to Aberdeen. **Not required**

Objectives (Hydro section)

1. Goldeneye station standard sampling (Priority 1). **Achieved**

2. Perform hydrographic sampling along the JONSIS long term monitoring section in the northern North Sea (Priority 1). **Achieved**

3. Recover and re-deploy two ADCPs (NWSD and NWSE: one RDI Longranger and one Nortek Signature 100, respectively, with SBE37 T and C sensors; Seaguard RCM to be added to NWSD mooring) on single string moorings at positions on Fair Isle – Munken (FIM) section (Priority 1). **Not achieved due to weather conditions**

4. Perform hydrographic sampling along the long term monitoring Faroe-Shetland Channel Fair Isle – Munken (FIM) section in UK EEZ (Priority 1). **Not achieved due to weather conditions**

5. Carry out a line of CTD stations in Loch Ewe between the mouth of the loch and the metocean buoy position (Priority 1). **Achieved**

6. Deploy a mooring consisting of two Seaguards and two SBE37+DOs, with a surface marker and bottom acoustic release in Loch Ewe (Priority 1). **Achieved**

7. Collect main section of Loch Ewe data buoy from a mooring point set up by Jane Grant (Priority 1). **Achieved**

8. Run the thermosalinograph throughout the survey, if available (Priority 1). **Achieved**

9. Additional sampling: 1) Take zooplankton net samples in the Loch Ewe CTD transect; 2) Deploy the weeHoloCam at all Loch Ewe CTD transect. **Achieved**

Extra work listed below will be performed if time allows, Priority 2 and 3 tasks are not listed in order of importance and the sequence will be determined depending on time/location/weather:

10. If time allows, carry out a grid of CTD stations in Loch Ewe (Priority 2). **Achieved**

11. If weather/time permits conduct CTD sections on the west coast, from the coastline up to the edge of the continental shelf ("Shelf" sections) (Priority 2). **Not achieved due to weather conditions**

12. If weather/time permits conduct CTD sections in the Minch (for sheltering from bad Atlantic weather, Priority 3). **Achieved**

13. If weather/time permits conduct CTD stations following the Ellet line transect (Priority 3). **Not attempted due to weather conditions.**

14. [Not on the programme] Repeat Loch Broom stations with extended outer loch coverage **Achieved**

15. [Not on the programme] Recover the south of Arran (Clyde) metocean buoy. **Achieved**

16. [Not on the programme] Carry out a grid of CTD stations in the Clyde. **Achieved**

Narrative

PELAgIO section

On sailing from Aberdeen *Corystes* made passage towards the Seagreen OWF in the Firth of Forth. It was decided not to stop along the way to test the CTD and carousel water sampler on the main CTD at a suitable deeper location due to the delay in leaving Aberdeen caused by fog. On arrival at the proximity of the Seagreen OWF, *Corystes* deployed the UHI mooring just outside a 500 m radius of an operational wind turbine, followed by the MSS and NOC moorings further east, in that order, in the morning of 6 May. Once the mooring operations were completed, *Corystes* undertook a rectangular seabird, CTD and acoustic survey of an area 30 km long and ca. 3.4 km wide on a pre-determined NE-SW bearing. CTD stations 2 km apart were visited during the night (20-06 h) and, during daylight hours, concurrent bird observations and EK60 acoustic data collection were carried out continuously. During the first three nights, CTD stations were sampled along the northern edge of the rectangle, and on the two last nights the southern edge was selected (bird and acoustic observations were carried out along the whole perimeter). At one point, *Corystes* sampled a CTD station close to the two autonomous underwater vehicles (Slocum buoyancy gliders) operating in the area, to carry out cross-calibrations of their instruments. *Corystes* completed this survey and returned to Aberdeen to offload visitors and their equipment and upload personnel arriving for the second leg of the survey on 11 May.

Hydro section

North Sea:

On sailing from Aberdeen *Corystes* made passage to R4 mooring location and a mooring was successfully deployed. *Corystes* then proceeded to the Goldeneye oil field to collect baseline water samples for any potential future Carbon Capture & Storage (CCS) monitoring. The target sampling position was 58° 0.3' N 0° 21.96' W (which is inside the oil field). *Corystes* then made way to mooring location R5 and successfully deployed another mooring in the early hours of 12 May.

On completion of the sampling, *Corystes* sailed to the easternmost station of the JONSIS section to carry out sampling with the CTD and carousel water sampler. On completion of the

JONSIS section *Corystes* would have made way to the Faroe Shetland Channel but it was decided to head for the west coast due to unsuitable conditions in the Faroe Shetland Channel. *Corystes* can only operate within swell conditions under 2.5 m due to method of CTD deployment.

West coast:

Corystes arrived in the mouth of Loch Ewe at approximately 18 hours on 13 May. A CTD transect from the former metocean buoy position to the mouth of the loch (including water and chemistry sampling, and weeHoloCam deployments) was carried out overnight. A single string mooring consisting of two Seaguards and two SBE37S with DO (top and bottom of the water column) with a surface float was deployed to temporarily replace the Loch Ewe metocean buoy. After the mooring deployment on 14 May, *Corystes* collected the main section of the damaged metocean buoy, which was towed to the vicinity of *Corystes* by a local contractor. After that, *Corystes* carried out a spatial grid of CTD stations in Loch Ewe. Once the work in Loch Ewe was completed, *Corystes* sailed to start a sampling grid in the Minch, in the hope that a weather window would open to allow the mooring and hydrographic work planned for the Faroe Shetland Channel to be carried out.

Continued working on North Minch grid over 15 and 16 May. Continued with water sampling to get a good coverage of oxygen, salinity and chlorophyll calibration samples. Regular assessments of potential weather window and a dash to FSC with the captain. North Minch stations finished afternoon of 16 May, but FSC weather window not appearing, so steamed to Loch Broom to redo stations there as in 2022, extra stations were added in the outer loch and finished in the early morning of 17 May. After a final weather forecast assessment, the weather window for FSC was deemed closed so *Corystes* headed south to start the south Minch stations and started these mid-afternoon on 17 May. However, in the early hours of 18 May, something (most likely a creel) got tangled round the prop and we had to head for Mallaig to get a dive team to investigate, which was a success but took out a large chunk of the day ~15 hours, mostly due to waiting to get into Mallaig. The job to remove the rope around the propeller took ~5 minutes.

The decision was made to end the hydro cruise in the Clyde to give us the option of retrieving the Clyde metocean buoy. So after organising recovery logistics with the help of MPV *Hirta* and shoreside, *Corystes* steamed to the Clyde buoy. Successful recovery on 19 May, even with the absence of a pick-up pendant, but the lifting strop attached by *Hirta* was vital. Thankful for calm weather and an experienced deck crew.

Corystes then started the Clyde grid stations and continued working until 19:00 on 20th May. *Corystes* made way up the Clyde from 06:00 am and docked at Clydebank on morning of 21 May and unloaded onto artic and into vans and hire cars, no pick up was available. Personnel drove back to the Marine Laboratory in hire cars and van, arrived at the lab mid-afternoon and unloaded laptops. A few scientists returned to the lab on Monday 22 May to finish unloading the van, samples and equipment, finished by 12:00.

PELAgIO Mooring Positions (Deploy)

UHI mooring	56° 32.74’ N	1° 30.39’ W (steel frame)
MSS mooring	56° 33.95’ N	1° 28.07’ W (AL200)
NOC mooring	56° 32.11’ N	1° 27.95’ W (steel frame with groundline and thermistor chain)

Renewables Mooring positions (Deploy)

4	77	57° 28.9900'N	000° 54.1277'W	Peterhead 50
5	113	58° 11.9207'N	001° 06.1813'W	Bosies Bank

Loch Ewe Mooring Position (Deploy)

LEWE 57° 50.982" N 05° 39.010" W (single string with surface float, IxSea acoustic release and two Seaguards and two SBE37DOs)

Clyde Buoy Mooring (Recover)

Clyde Buoy	55.376	-5.1252	Hydrosphere Mobilis DB 2000, 2 tonne sinker

Scientific Procedures

Deployment of hydrographic equipment was carried out with the CTD wire whilst the vessel was on station. The lack of DP resulted in some drift on stations. The stern A frame was used for the deployment of ADCP moorings in a trawl-resistant frame (AL-200s), short single-string moorings using an acoustic release to release the frames once they are on/close to the seabed and steel ADCP frames. Recovery of the Loch Ewe data buoy was conducted using a suitable crane on the starboard side, following discussion with the ship's crew. Recovery of the Clyde buoy was conducted using the aft A frame, following discussion with the ship's crew.

Plankton net samples and weeHoloCam deployments were carried out using a wire on the same A frame as the CTD.

Reduced TA/DIC sampling occurred, focusing on Goldeneye and the Loch Ewe transect. Chlorophyll samples were stored frozen in the freezer in the dry lab. Nutrient samples were stored frozen in the fish-free empty freezer in the dry lab. Oxygen samples were stored in the wet lab. The thermosalinograph was run throughout the survey but there was no fluorometer, as we did not have the cable connection or a way to splice the data into the data stream.

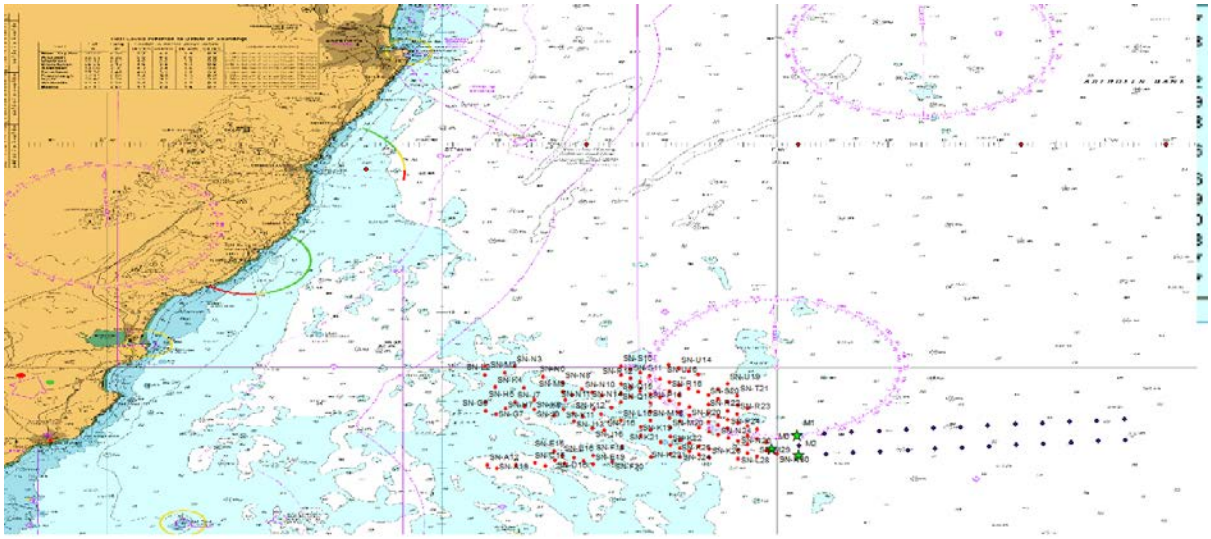
Normal contacts were maintained with the laboratory.

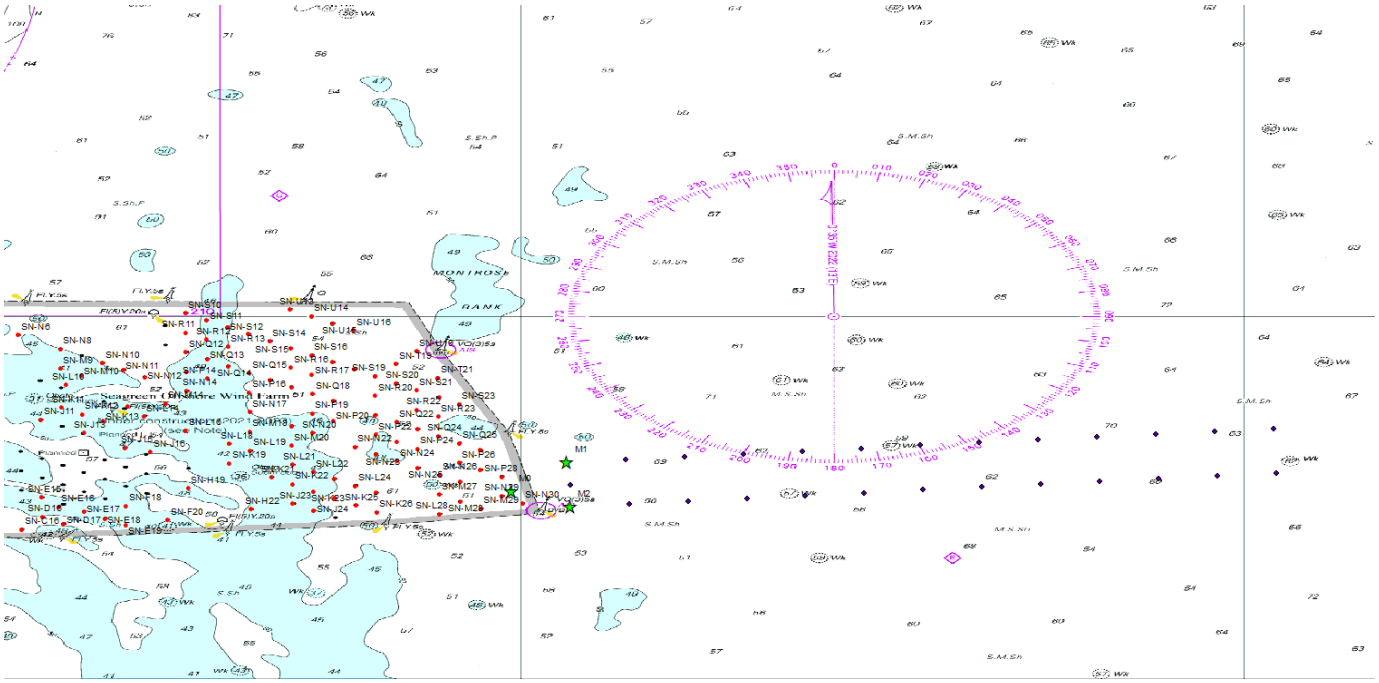
Sampling

Overall, 237 hydrographic stations were completed. 163 nutrient samples were collected (one per sampled depth), as well as 231 chlorophyll (one per sampled depth), 254 oxygen samples (triplicates per sampled depth, duplicates at Loch Ewe), 24 TA/DICs (duplicates at each depth) and 233 salinity calibration samples (duplicates at each sampled depth) (including 45 single samples for TSG calibration). Nine integrated water column bongo net samples for zooplankton were collected. The weeHoloCam collected 85 minutes of images from nine dips.

Submitted:
A Gallego and H. Smith
Date: 05 June 2023

Approved: Bill Turrell
Date: 12 June 2023





Charts showing key activities on 0823H (PELAgIO part) - Seagreen OWF turbines are shown as red dots, mooring locations as green stars, and CTD survey positions as black dots.

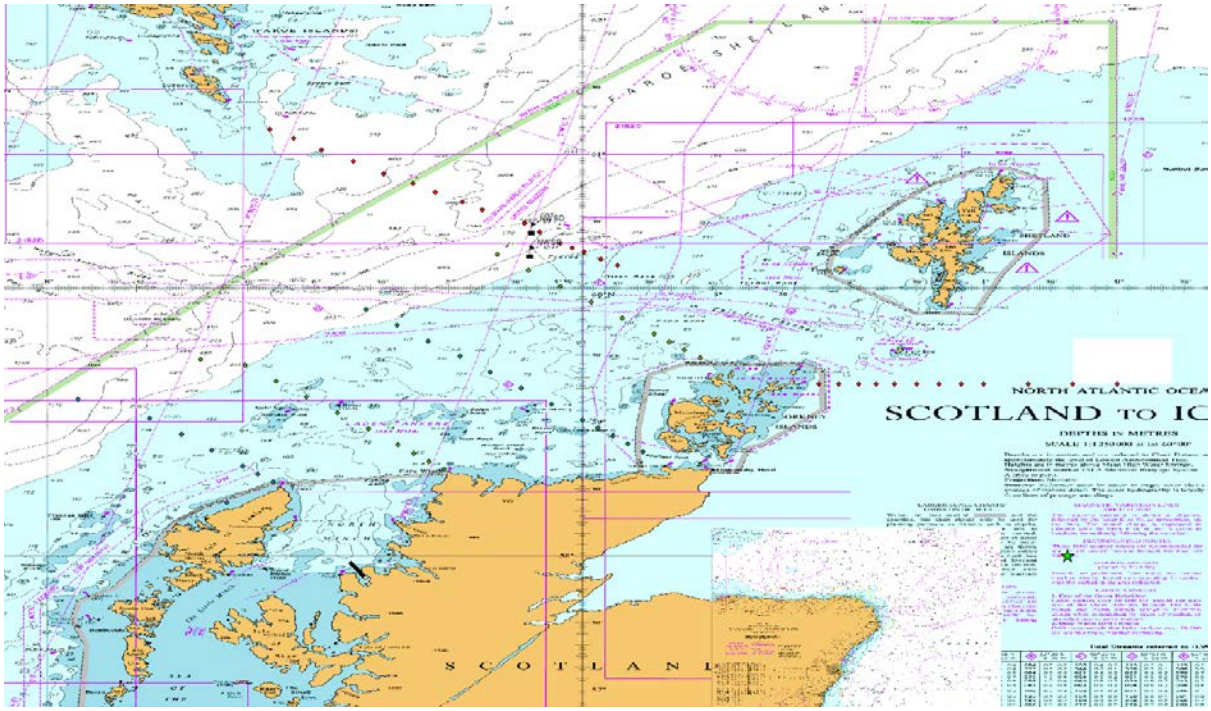


Chart showing key activities on 0823H (Hydro part) - Priority hydrographic lines are shown as red dots, lower priority lines as green dots, moorings for turnaround are black flags. Loch Ewe transect is black dots and Goldeneye station a green star.

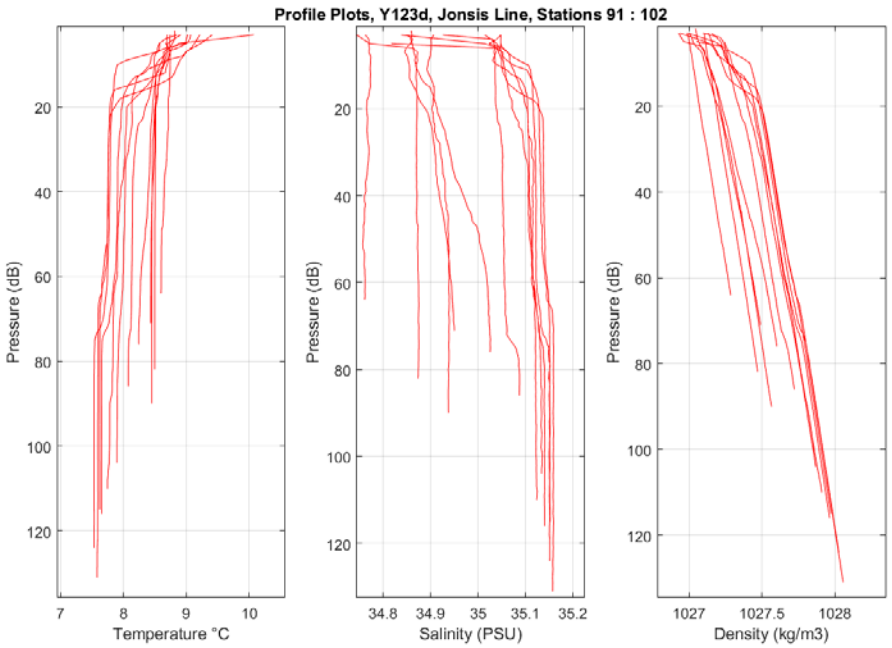
Table 1: PELAgIO CTD stations

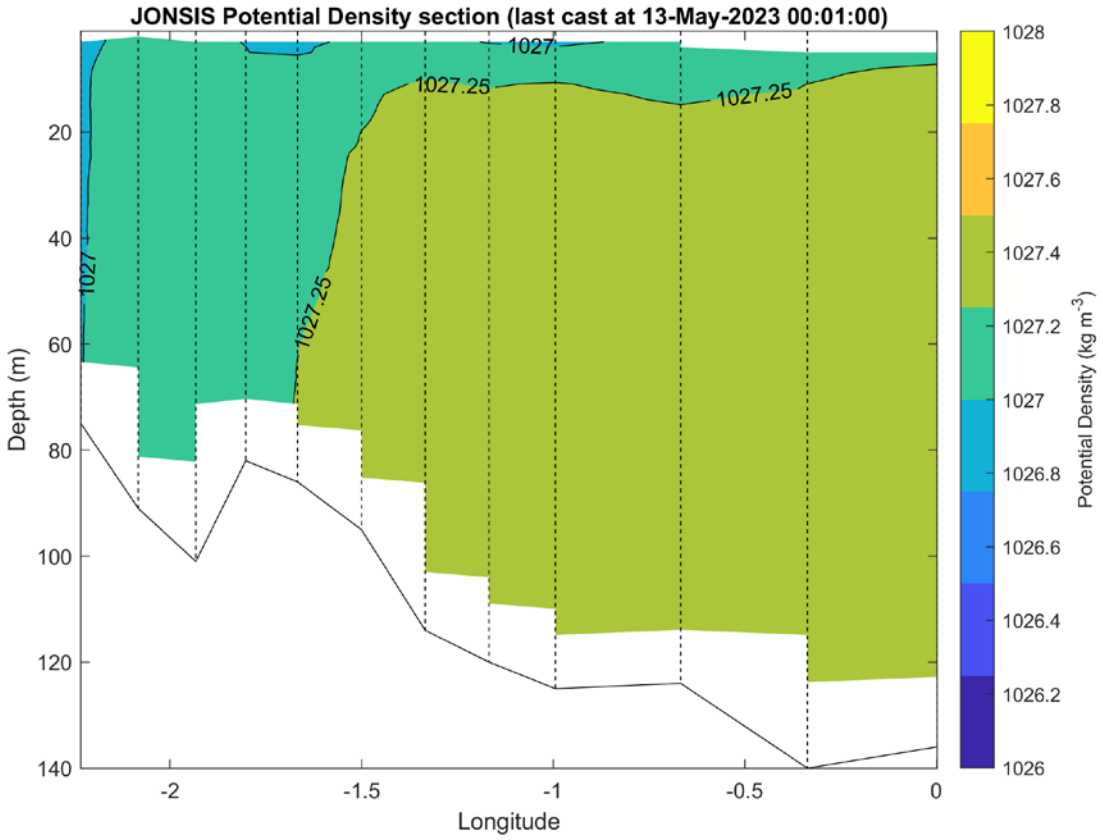
	stn	lat deg	lat min	N/S	lon deg	lon min	E/W	
1	**T1_00**	**56**	**32.11**	**N**	**1**	**27.95**	**W**	**M2**
2	T1_01	56	32.23	N	1	25.51	W	
3	T1_02	56	32.35	N	1	23.07	W	
4	T1_03	56	32.47	N	1	20.63	W	
5	T1_04	56	32.58	N	1	18.19	W	
6	T1_05	56	32.7	N	1	15.75	W	
7	T1_06	56	32.82	N	1	13.31	W	
8	T1_07	56	32.94	N	1	10.87	W	
9	T1_08	56	33.05	N	1	8.43	W	
10	T1_09	56	33.17	N	1	6	W	
11	T1_10	56	33.29	N	1	3.56	W	
12	T1_11	56	33.41	N	1	1.11	W	
13	T1_12	56	33.52	N	0	58.67	W	
14	T3_12	56	35.37	N	0	58.78	W	
15	T3_11	56	35.25	N	1	1.22	W	
16	T3_10	56	35.13	N	1	3.66	W	
17	T3_09	56	35.01	N	1	6.1	W	
18	T3_08	56	34.9	N	1	8.54	W	
19	T3_07	56	34.78	N	1	10.99	W	
20	T3_06	56	34.66	N	1	13.43	W	
21	T3_05	56	34.54	N	1	15.87	W	
22	T3_04	56	34.42	N	1	18.31	W	
23	T3_03	56	34.31	N	1	20.75	W	
24	T3_02	56	34.19	N	1	23.19	W	
25	T3_01	56	34.07	N	1	25.63	W	
26	**T3_00**	**56**	**33.95**	**N**	**1**	**28.07**	**W**	**M1**
27	T4_01	56	33.03	N	1	27.95	W	

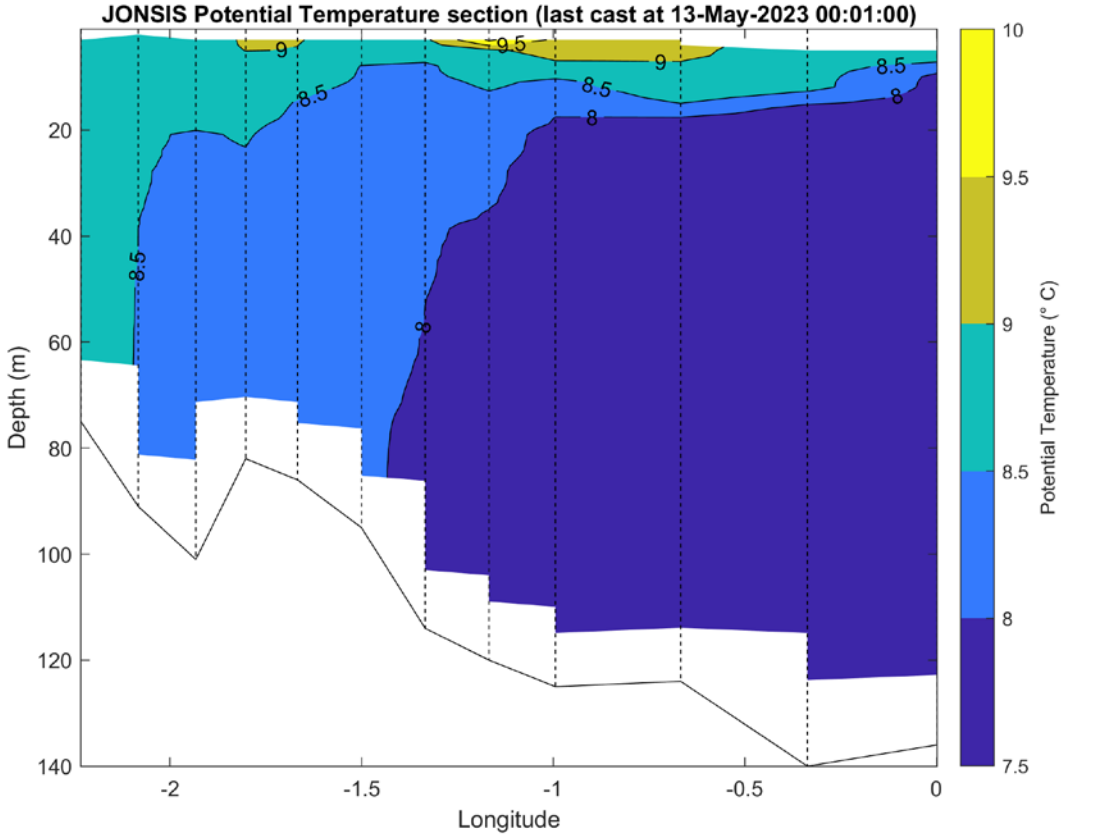
Table 2: Jonsis

#	Name	Latitude	Longitude	Depth	Spacing
01	JO 1	59° 17.00' N	02° 14.00' W	75 m	
02	JO 1A	59° 17.00' N	02° 5.00' W	90 m	4.59 nm
03	JO 2	59° 17.00' N	01° 56.00' W	100 m	4.59 nm
04	JO 3	59° 17.00' N	01° 48.00' W	80 m	4.08 nm
05	JO 4	59° 17.00' N	01° 40.00' W	90 m	4.08 nm
06	JO 5	59° 17.00' N	01° 30.00' W	95 m	5.10 nm
07	JO 6	59° 17.00' N	01° 20.00' W	110 m	5.10 nm
08	JO 6A	59° 17.00' N	01° 10.00' W	120 m	5.10 nm
09	JO 7	59° 17.00' N	01° 0.00' W	125 m	5.10 nm
10	JO 8	59° 17.00' N	00° 40.00' W	120 m	10.20 nm
11	JO 9	59° 17.00' N	00° 20.00' W	140 m	10.20 nm
12	JO10	59° 17.00' N	00° 0.00' W	135 m	10.20 nm
			Totals	1180 m	68.36 nm

Priority Stations are JO-01, JO-03 and JO-06a, JO-10




JONSIS Potential Density section (last cast at 13-May-2023 00:01:00)
Depth (m)
Longitude
Potential Density (kg m-3)
1027
1027.25
1028
1027.8
1027.6
1027.4
1027.2
1027
1026.8
1026.6
1026.4
1026.2
1026


JONSIS Potential Temperature section (last cast at 13-May-2023 00:01:00)
Depth (m)
Longitude
Potential Temperature (° C)
9
9.5
8.5
8
10
9.5
9
8.5
8
7.5

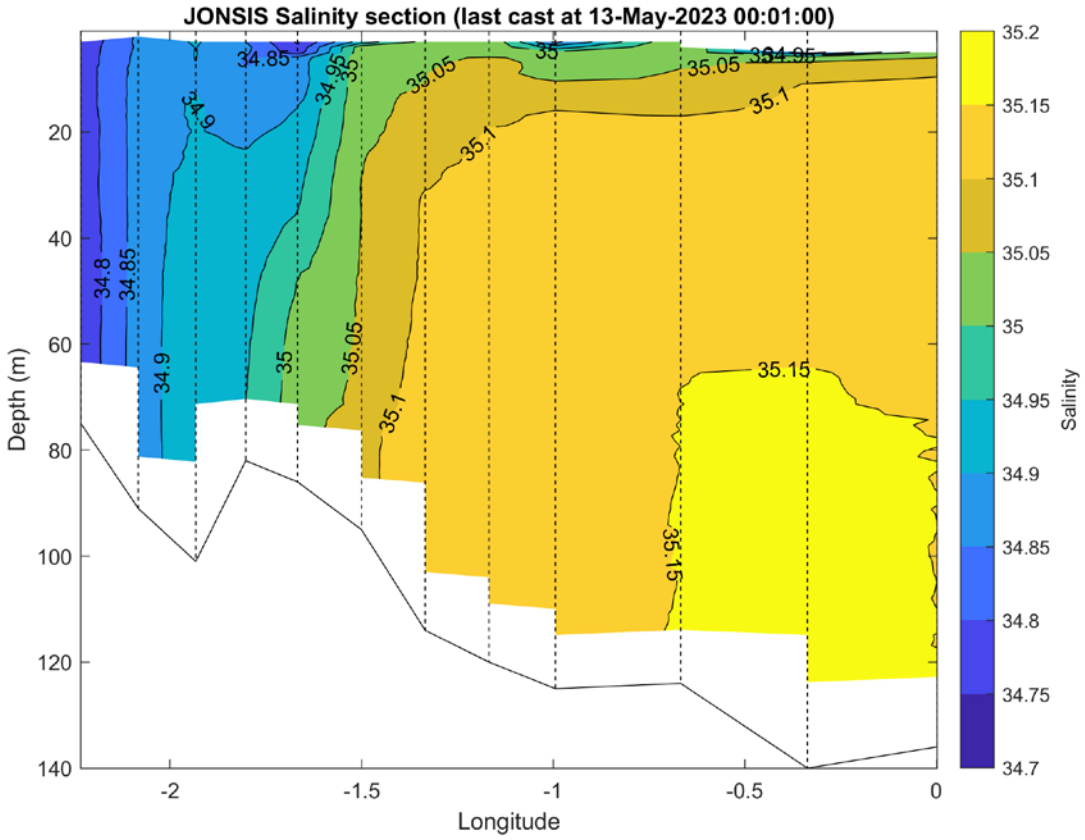

JONSIS Salinity section (last cast at 13-May-2023 00:01:00)
Depth (m)
Longitude
Salinity
20
40
60
80
100
120
140
-2
-1.5
-1
-0.5
0
35.2
35.15
35.1
35.05
35
34.95
34.9
34.85
34.8
34.75
34.7

Table 3: Loch Ewe Transect

stn	lat		lon			Sounding (m)	distance
0	57	50.982	5	39.010	W	46	
1	57	52.104	5	39.674	W	32	1
2	57	53.061	5	40.245	W	37	1
3	57	53.977	5	41.118	W	55	1
4	57	54.893	5	41.992	W	62	1
5	57	55.810	5	42.865	W	82	1
6	57	56.726	5	43.739	W	104	1
7	57	57.642	5	44.612	W	95	1
8	57	58.559	5	45.486	W	123	1
						640	**8**

Position of pCO2 mooring (to avoid):
57° 51.123 N, 5° 39.370 W

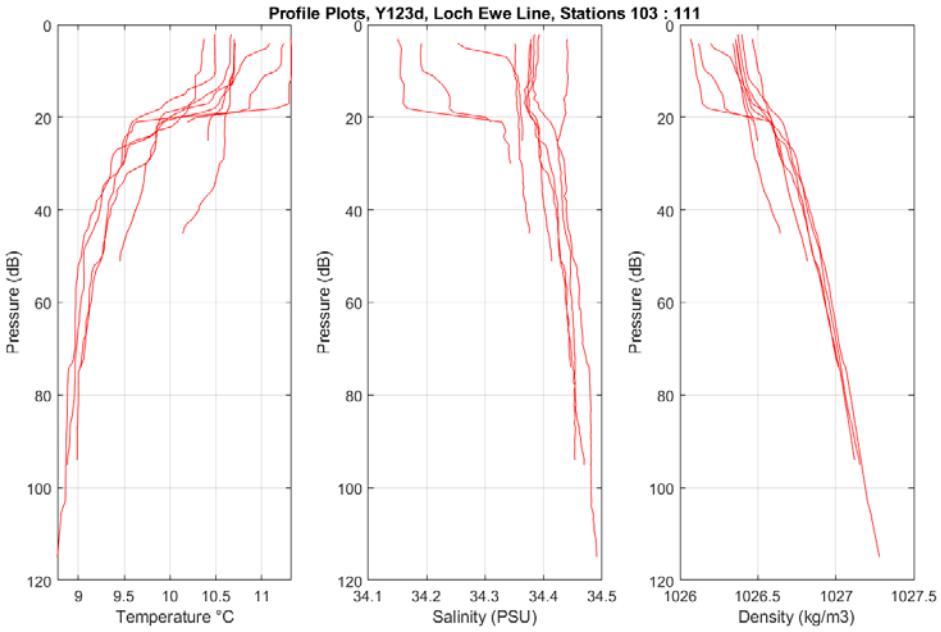


Table 4: Loch Ewe Grid

#	Name	Latitude			Longitude			Sounding
1	LE grid-01	57	50.68	N	05	36.77	W	18 m
2	LE grid-02	57	51.00	N	05	37.48	W	26 m
3	LE grid-03	57	50.87	N	05	38.79	W	42 m
4	LE grid-04	57	51.05	N	05	39.65	W	45 m
5	LE grid-05	57	50.71	N	05	39.81	W	37 m
6	LE grid-06	57	50.43	N	05	39.26	W	47 m
7	LE grid-07	57	49.76	N	05	38.79	W	45 m
8	LE grid-08	57	49.13	N	05	38.64	W	54 m
9	LE grid-09	57	48.56	N	05	38.43	W	31 m
10	LE grid-10	57	47.78	N	05	38.35	W	45 m
11	LE grid-11	57	47.38	N	05	38.82	W	29m
12	LE grid-12	57	47.75	N	05	37.63	W	42 m
13	LE grid-13	57	47.98	N	05	36.89	W	50 m
14	LE grid-14	57	48.14	N	05	36.26	W	45 m
15	LE grid-15	57	48.6	N	05	36.32	W	42 m
16	LE grid-16	57	48.53	N	05	37.33	W	63 m
17	LE grid-17	57	49.09	N	05	37.97	W	35 m
18	LE grid-18	57	49.07	N	05	35.50	W	

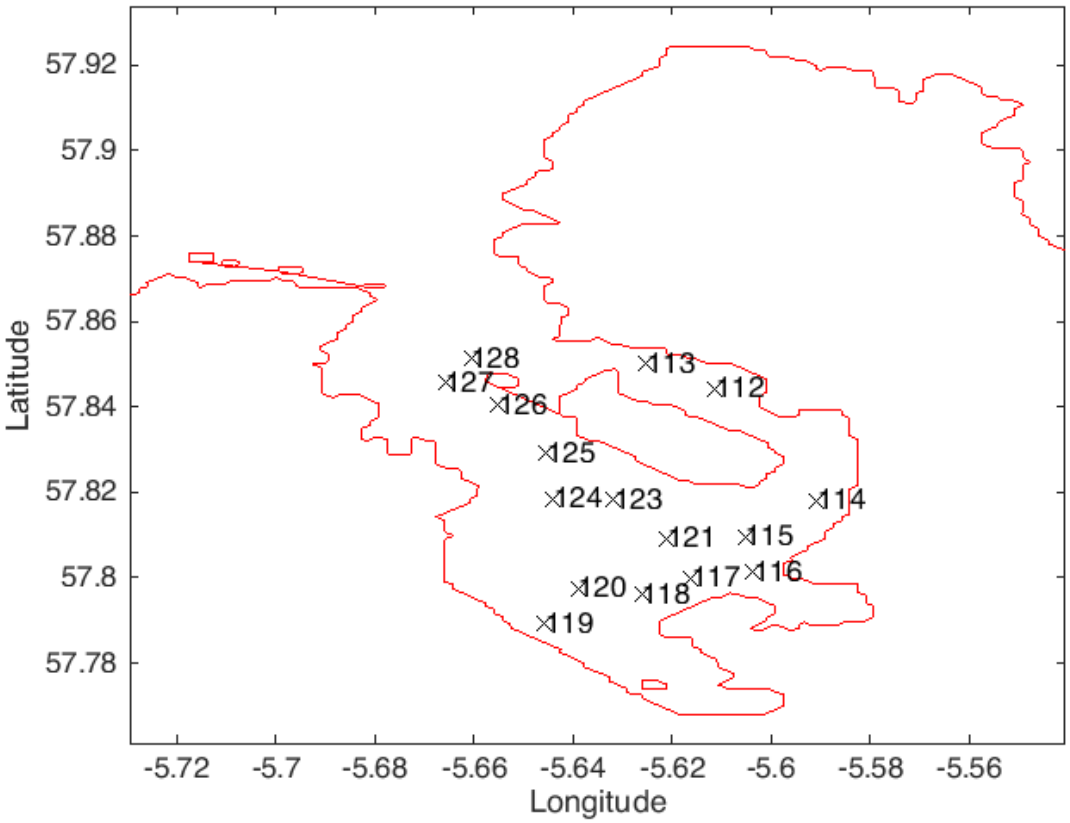
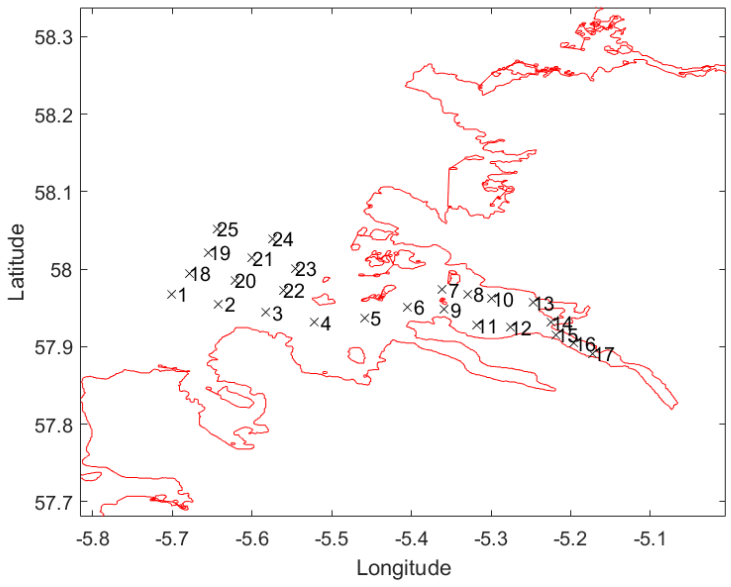
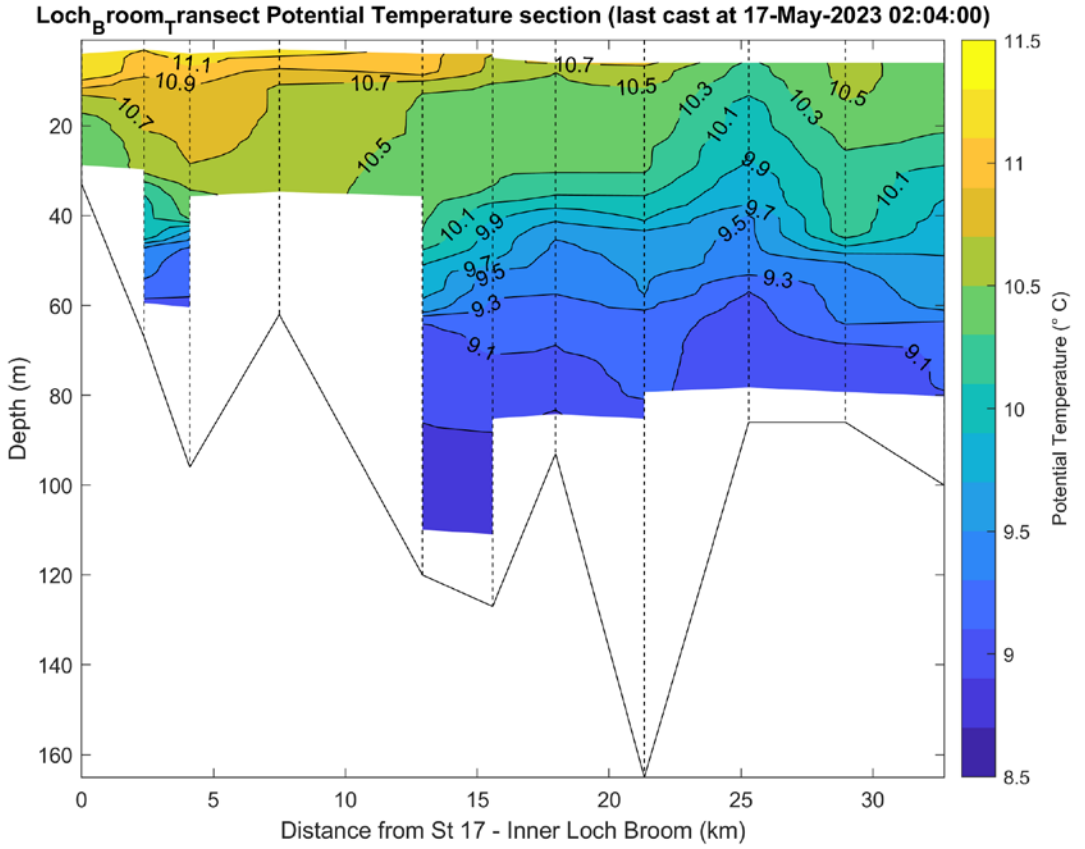
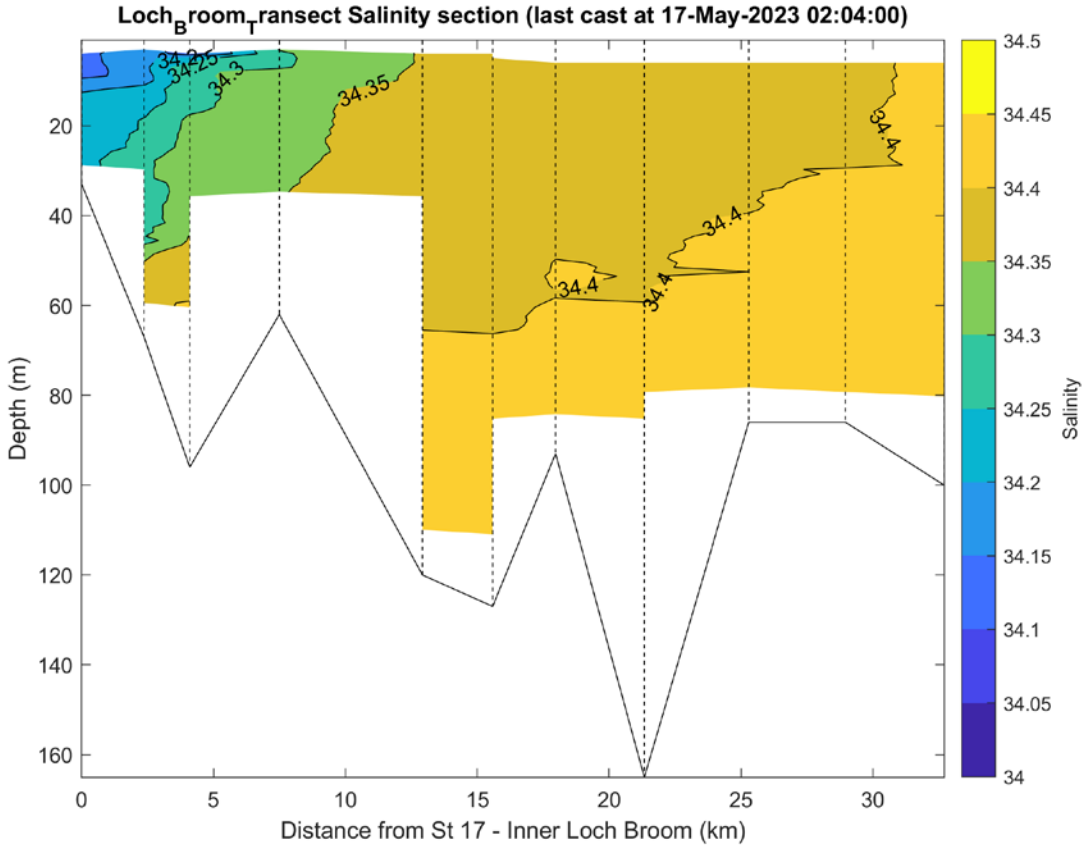


Table 5: Loch Broom Stations

#	name	lag.deg.	lat.min.		lon.deg.	lon.min.		Sounding (m)
1	LBroom-01	57	58.075	N	05	42.055	W	98
2	LBroom-02	57	57.325	N	05	38.521	W	94
3	LBroom-03	57	56.64	N	05	34.951	W	85
4	LBroom-04	57	55.869	N	05	31.28	W	100
5	LBroom-05	57	56.227	N	05	27.525	W	97
6	LBroom-06	57	57.084	N	05	24.292	W	127
7	LBroom-07	57	58.406	N	05	21.68	W	50
8	LBroom-08	57	58.058	N	05	19.785	W	68
9	LBroom-09	57	56.877	N	05	21.519	W	120
10	LBroom-10	57	57.735	N	05	17.948	W	41
11	LBroom-11	57	55.644	N	05	19.102	W	113
12	LBroom-12	57	55.522	N	05	16.549	W	62
13	LBroom-13	57	57.407	N	05	14.864	W	53
14	LBroom-14	57	55.908	N	05	13.479	W	60
15	LBroom-15	57	54.92	N	05	13.11	W	96
16	LBroom-16	57	54.279	N	05	11.77	W	67
17	LBroom-17	57	53.483	N	05	10.328	W	33
18	LBroom-18	57	59.70	N	05	40.72	W	100
19	LBroom-19	58	01.30	N	05	39.29	W	98
20	LBroom-20	57	59.14	N	05	37.29	W	101
21	LBroom-21	58	00.88	N	05	35.99	W	120
22	LBroom-22	57	58.39	N	05	33.63	W	94
23	LBroom-23	58	00.08	N	05	32.73	W	94
24	LBroom-24	58	02.35	N	05	34.45	W	126
25	LBroom-25	58	03.14	N	05	38.65	W	88




Loch_B room_T ransect Potential Temperature section (last cast at 17-May-2023 02:04:00)
Depth (m)
Distance from St 17 - Inner Loch Broom (km)
Potential Temperature (° C)


Loch_B room_T ransect Salinity section (last cast at 17-May-2023 02:04:00)
Depth (m)
Distance from St 17 - Inner Loch Broom (km)
Salinity

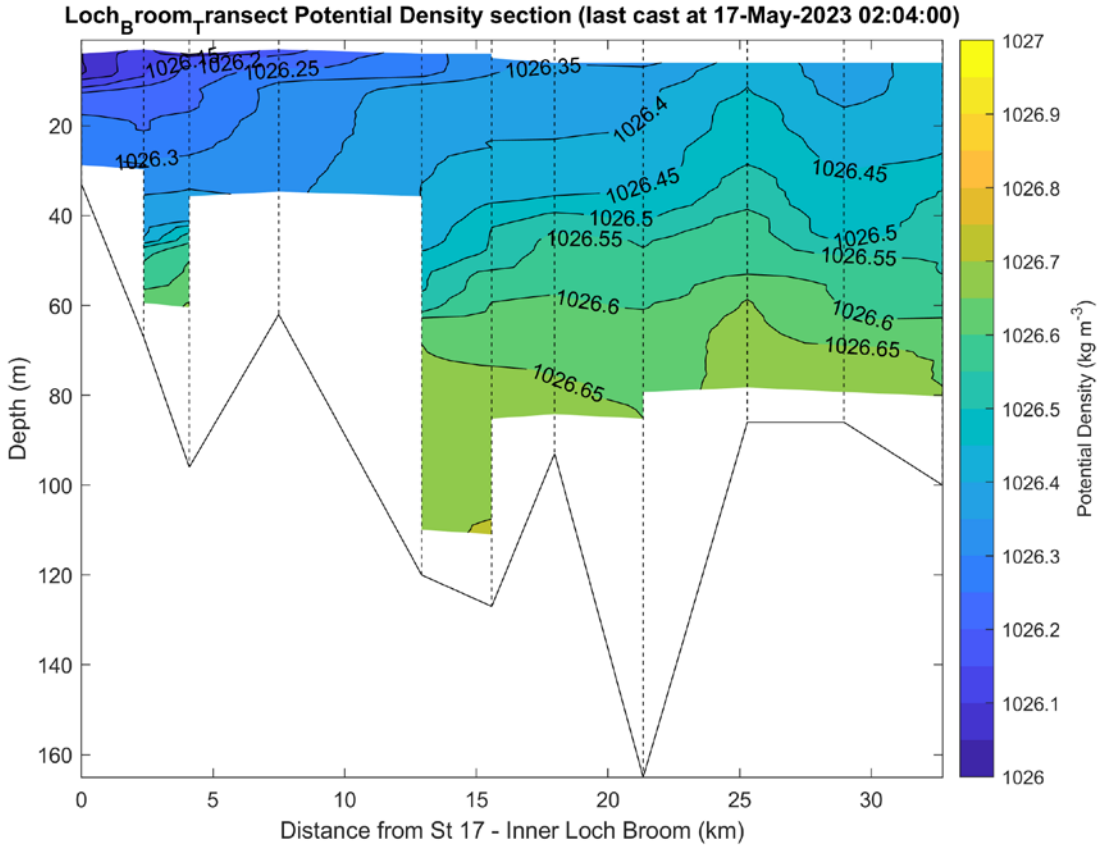
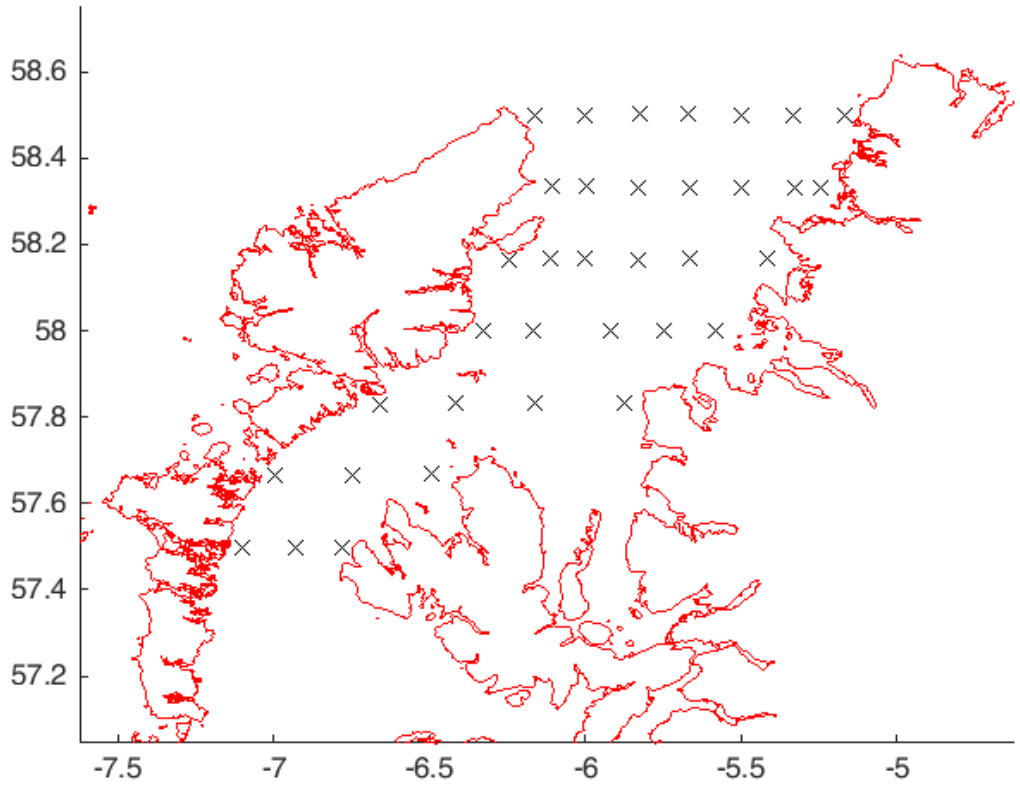

Loch$_B$room$_T$ransect Potential Density section (last cast at 17-May-2023 02:04:00)
Depth (m)
Distance from St 17 - Inner Loch Broom (km)
Potential Density (kg m^{-3})
1026.15
1026.2
1026.25
1026.3
1026.35
1026.4
1026.45
1026.5
1026.55
1026.6
1026.65
0
5
10
15
20
25
30
20
40
60
80
100
120
140
160
1027
1026.9
1026.8
1026.7
1026.6
1026.5
1026.4
1026.3
1026.2
1026.1
1026

Table 6: North Minch Stations

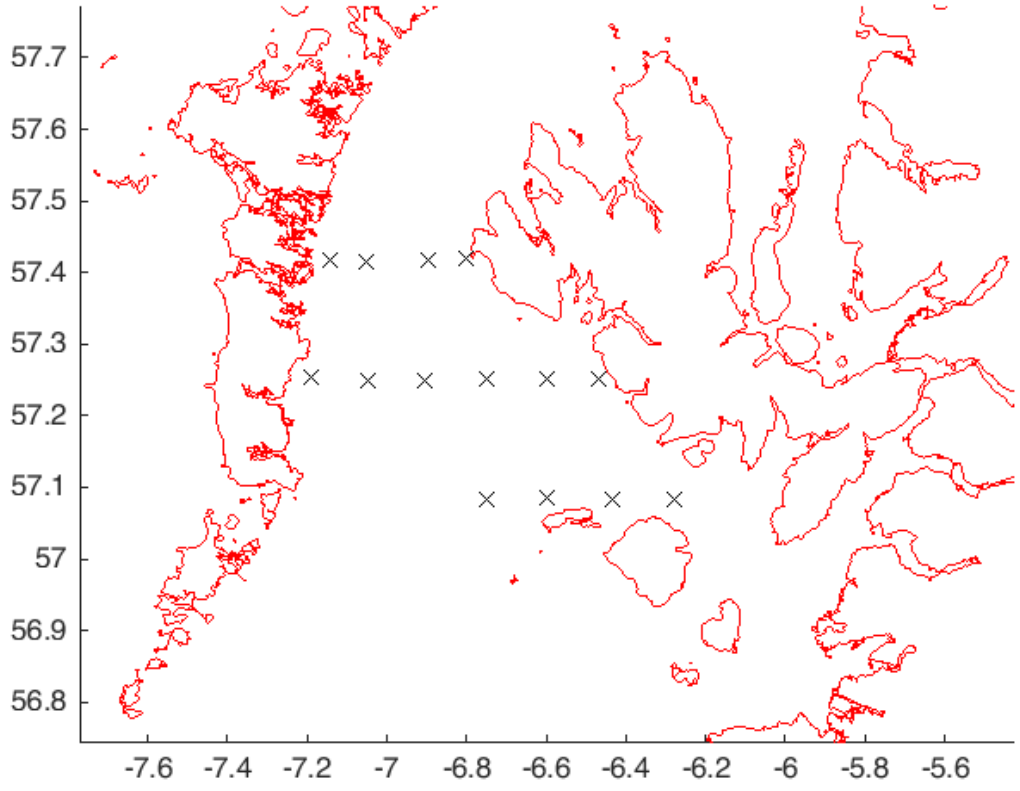
order	name	lat			lon			Sounding (m)
2	NMG_3	57	30.000	N	6	47.000	W	140
3	NMG_2	57	30.000	N	6	56.000	W	193
4	NMG_1	57	30.000	N	7	6.000	W	92
5	NMF_1	57	40.000	N	7	0.000	W	132
6	NMF_2	57	40.000	N	6	45.000	W	158
7	NMF_3	57	40.000	N	6	30.000	W	97
8	NME_4	57	50.000	N	5	52.000	W	77
9	NME_3	57	50.000	N	6	10.000	W	128
10	NME_2	57	50.000	N	6	25.000	W	86
11	NME_1	57	50.000	N	6	40.000	W	162
12	NMD_1	58	0.000	N	6	20.000	W	155
13	NMD_2	58	0.000	N	6	10.000	W	57
14	NMD_3	58	0.000	N	5	55.000	W	97
15	NMD_4	58	0.000	N	5	45.000	W	136
16	NMD_5	58	0.000	N	5	35.000	W	102
17	NMC_6	58	10.000	N	5	25.000	W	91
18	NMC_5	58	10.000	N	5	40.000	W	113
19	NMC_4	58	10.000	N	5	50.000	W	93
20	NMC_3	58	10.000	N	6	0.000	W	118
21	NMC_2	58	10.000	N	6	7.000	W	130
22	NMC_1	58	10.000	N	6	15.000	W	38
23	NMB_1	58	20.000	N	6	7.000	W	58
24	NMB_2	58	20.000	N	6	0.000	W	119
25	NMB_3	58	20.000	N	5	50.000	W	106
26	NMB_4	58	20.000	N	5	40.000	W	109
27	NMB_5	58	20.000	N	5	30.000	W	93
28	NMB_6	58	20.000	N	5	20.000	W	142
29	NMB_7	58	20.000	N	5	15.000	W	125
30	NMA_7	58	30.000	N	5	10.000	W	49
31	NMA_6	58	30.000	N	5	20.000	W	56
32	NMA_5	58	30.000	N	5	30.000	W	109
33	NMA_4	58	30.000	N	5	40.000	W	130
34	NMA_3	58	30.000	N	5	50.000	W	108
35	NMA_2	58	30.000	N	6	0.000	W	95
36	NMA_1	58	30.000	N	6	10.000	W	62



Location of North Minch Stations sampled by *Corystes*

Table 7: South Minch Stations

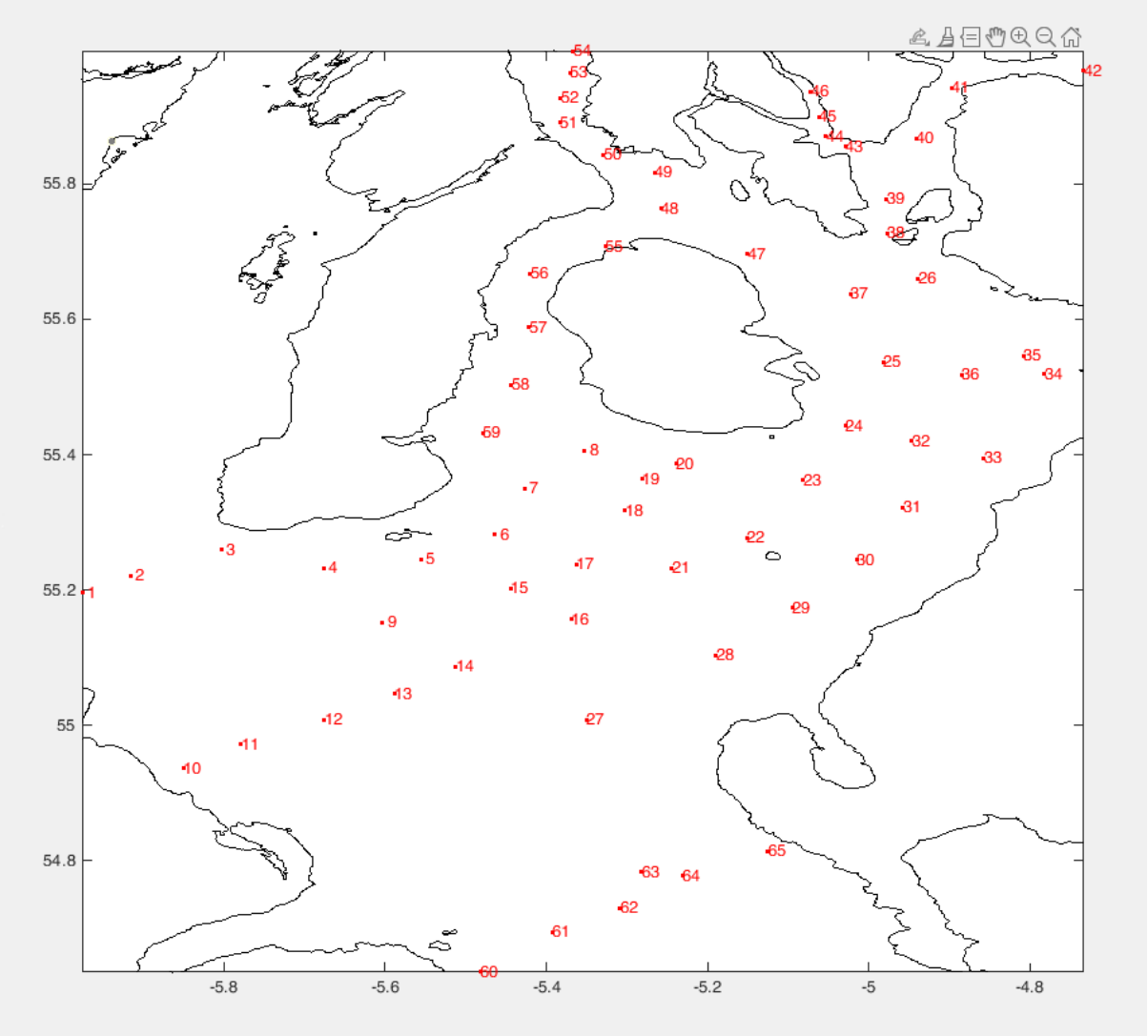
order	name	lat			lon			Sounding (m)
1	SMG_04	57	25.000	N	6	48.000	W	82
2	SMG_03	57	25.000	N	6	54.000	W	143
3	SMG_02	57	25.000	N	7	3.000	W	132
4	SMG_01	57	25.000	N	7	9.000	W	84
5	SMF_01	57	15.000	N	7	12.000	W	63
6	SMF_02	57	15.000	N	7	3.000	W	137
7	SMF_03	57	15.000	N	6	54.000	W	90
8	SMF_04	57	15.000	N	6	45.000	W	83
9	SMF_05	57	15.000	N	6	36.000	W	61
10	SMF_06	57	15.000	N	6	27.000	W	43
11	SME_07	57	5.000	N	6	17.000	W	134
12	SME_06	57	5.000	N	6	26.000	W	143
13	SME_05	57	5.000	N	6	36.000	W	39
14	SME_04	57	5.000	N	6	45.000	W	136



Location of South Minch Stations sampled by *Corystes*

Table 8: Clyde Stations

Station order	Clyde Station ID	Lat		Long		Sounding (m)
1	20	55	23.22	-5	14.35	56
2	19	55	21.84	-5	16.9	57
3	18	55	19.08	-5	18.17	51
4	6	55	16.92	-5	27.85	43
5	4	55	13.98	-5	40.57	92
6	3	55	15.54	-5	48.19	126
7	2	55	13.26	-5	54.97	132
8	1	55	11.76	-5	58.57	134
9	10	54	56.22	-5	51.02	53
10	11	54	58.32	-5	46.75	86
11	12	55	0.48	-5	40.55	149
12	13	55	2.82	-5	35.32	141
13	9	55	9.12	-5	36.22	120
14	14	55	5.22	-5	30.75	120
15	27	55	0.54	-5	21.02	131
16	16	55	9.42	-5	22.16	67
17	28	55	6.24	-5	11.36	53
18	21	55	13.98	-5	14.66	49
19	22	55	16.62	-5	9.102	50
20	30	55	14.64	-5	0.9	43
21	31	55	19.32	-4	57.45	62
22	23	55	21.72	-5	4.902	62
23	24	55	26.52	-5	1.764	118
24	32	55	25.2	-4	56.81	68
25	33	55	23.7	-4	51.47	58
26	34	55	31.14	-4	46.93	51
27	36	55	31.14	-4	53.1	81
28	25	55	32.22	-4	58.91	102
29	37	55	38.28	-5	1.368	175
30	26	55	39.66	-4	56.35	75
31	47	55	41.82	-5	9.036	159
32	48	55	45.84	-5	15.468	129
33	49	55	49.02	-5	15.966	160
34	39	55	46.68	-4	58.69	82



Location of Clyde stations (note, not all were sampled)