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

MRV Scotia

Survey 0422S

PROGRAMME

*14-27 April 2022

Ports

Loading: Aberdeen, 08 April 2022
Sailing: Aberdeen, 14 April 2022 (TBC post vessel repair)
Unloading: Aberdeen, 27 April 2022

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 (Lab 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 Iain Gibb and the Survey Summary Report (old ROSCOP form) to Matt Geldart, within four weeks of a survey ending. In the case of the Survey Summary Report a nil return is required, if appropriate.

Estimated Days per Project: 14 days, MONKRV - 20702

Fishing Gear: Anglerfish Trawl BT 195

Objectives

1. To undertake the Scottish Irish Anglerfish Megrim Industry Science Survey (SIAMISS). An internationally co-ordinated demersal trawling survey of Anglerfish (*Lophius piscatorius* and *Lophius budegassa),* Megrim (*Lepidorhombus wiffiagonis)* and Four-Spot Megrim (*Lepidorhombus boscii*) at Rockall (ICES area VIb) West of Scotland (ICES area VIa) and the North Sea (ICES area IVa).

2. To collect species distribution, length frequency and biological data of Anglerfish (*Lophius piscatorius* and *Lophius budegassa),* Megrim (*Lepidorhombus wiffiagonis)*, Four-Spot Megrim (*Lepidorhombus boscii*) Cod (*Gadus morhua*), Blue Skate (*Dipturus batis)* and Flapper Skate (*Dipturus intermedius*).

3. To collect additional species distribution, length frequency and biological data in connection with the EU Data Collection Framework (DCF).

4. Collect and quantify all marine litter encountered on the survey as part of our MSFD responsibilities.

5. To obtain temperature at depth data from the trawl using a DST.

6. Examine catch for presence of Non-Indigenous Species (NIS).

Procedures

General

The (Scottish Irish Anglerfish Megrim Industry Science Survey (SIAMISS) trawl survey follows a set of protocols drawn up by an industry science survey planning group made up of Marine Scotland and Marine Institute scientists and fishing industry representatives. These protocols share much in common with the sampling regimes described in the Marine Scotland standing instructions for demersal trawl surveys and the Manual of the IBTS North Eastern Atlantic Surveys. *Series of ICES Survey Protocols SISP 15. 92 pp.* *http://doi.org/10.17895/ices.pub.3519*. Fish house protocols and survey risk assessments with SARS-Cov-2 mitigation measures will be applicable.

Loading of all trawl gear will take place on the 08-11 of April with rigging and testing being completed on 11 April. The trawl, supplied by Jackson Trawls, already rigged to the ground gear, will require a crane to load. Loading of the scientific gear will take place on 8 April. *Scotia* is provisionally due to sail on the morning of 14 April, pending completion of thrust bearing repairs and a sea trial. Once safety drills have been completed, *Scotia* will proceed to NE of Aberdeen where the first predefined station doubling as a shakedown trawl will be completed in order to check the net configuration, equipment functionality and the SCANMAR units. Due to the expansive survey area, the route taken to complete the survey will be weather dependent. An operational daily survey plan will be formulated by the SIC subsequent to meetings with both the Fishing Master and Captain.

Trawling

This is a semi-random-stratified survey design with trawl stations being distributed within 21 predefined strata that cover ICES areas IVa, VIa and VIb (See Figures 1-3.). Fishing operations will be conducted 24 hours a day with scientific staff working on 12 hour shift patterns. A total of 88 primary stations and 176 alternative stations have been generated for the *Scotia* (Tables 2 and 3 respectively).

The aim is for primary stations to be undertaken on suitable ground as near as to the specified station position, with the midpoint of the tow intersecting with the position. If not possible, then the tow will be conducted within a 5 nm radius. If this is not possible then the nearest suitable alternative station located within the same stratum will be used.

One trawl of 60 minutes duration will be made at each sampling station unless circumstances dictate. Trawling operations will occur in waters up to a maximum depth of 1000M. The SCANMAR system will be used to monitor wing spread, door spread and distance covered during each haul. The EK60 is the primary scientific echosounder onboard *Scotia* and will be utilised throughout the survey. Bottom contact data from each trawl will also be collected using the NOAA bottom contact sensor which will be mounted on a bar in the centre of the ground-gear.

Trawls will not be conducted in highly-sensitive marine protected areas on the advice of JNCC and NatureScot. The nearest suitable alternative station in the same stratum shall be chosen instead.

*Please note this survey is seven days shorter than scheduled due to the thrust bearing repair work.

Fish Sampling

Catches will be worked up according to the protocols for Marine Scotland Anglerfish surveys which are similar in principle to the protocols as described in the Manual of the IBTS North Eastern Atlantic Surveys. *Series of ICES Survey Protocols SISP 15. 92 pp. http://doi.org/10.17895/ices.pub.3519*. In addition to the routine sampling, biological data and samples will be collected for selected target species and other external projects.

The entire catch will be examined for species catch weight and length frequency when possible with biological data collected from the species detailed in table 1.

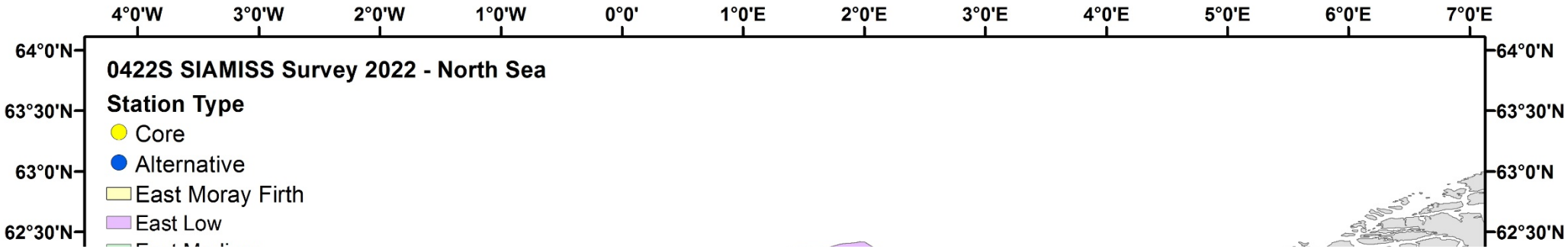
Post Survey

All scientific staff and equipment will be unloaded on 27th April 2022.

Normal contacts will be maintained with the Laboratory.

Submitted:
R Gillespie-Mules
15 March 2022

Approved:
I Gibb
07 April 2022



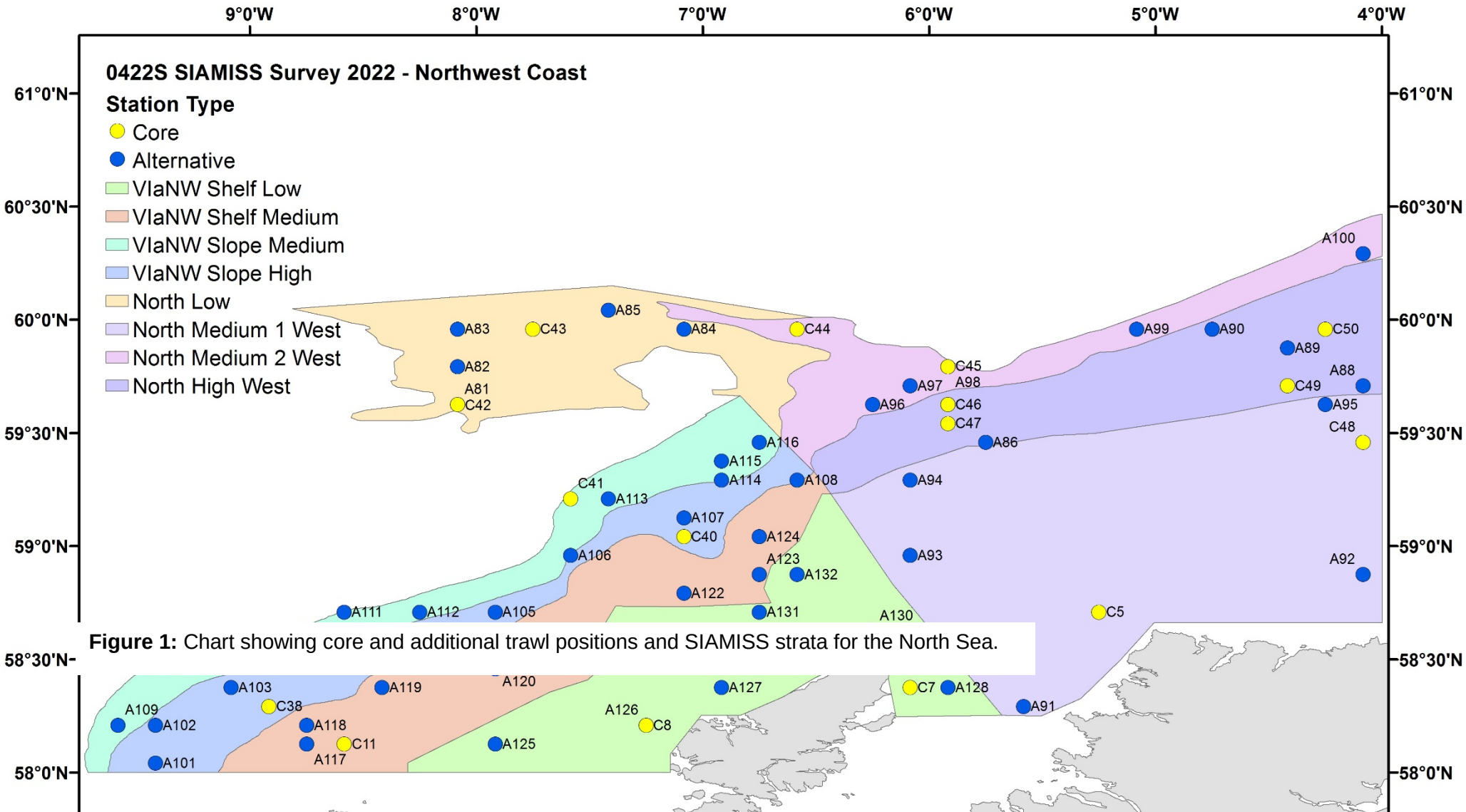


Figure 1: Chart showing core and additional trawl positions and SIAMISS strata for the North Sea.

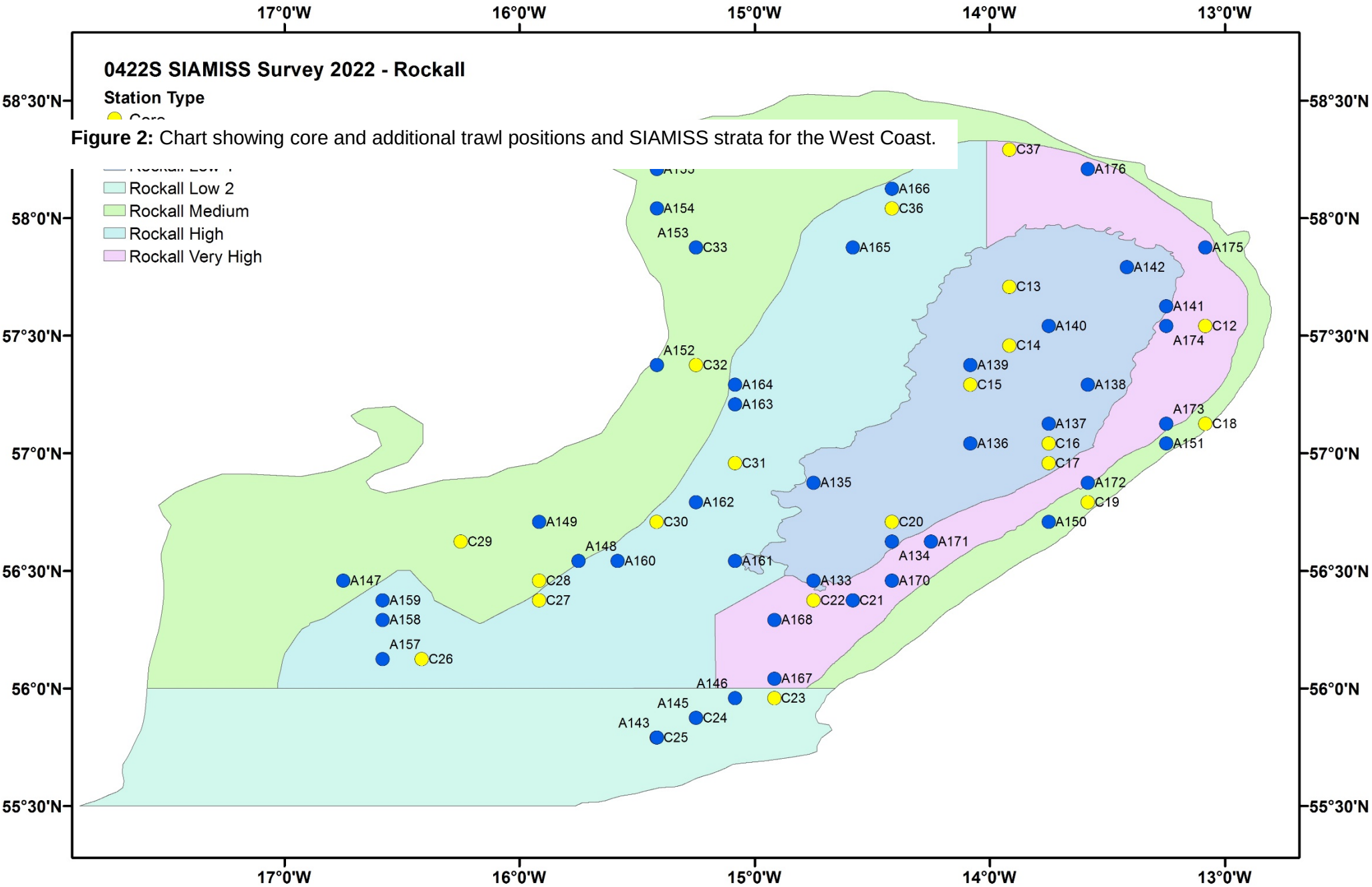


Figure 2: Chart showing core and additional trawl positions and SIAMISS strata for the West Coast.

Figure 3: Chart showing core and additional trawl positions and SIAMISS strata for Rockall.

Table 1: Biological sampling targets for 0422S.

0422S Biological Sampling Targets	
Species	**Target**
L. piscatorius (ANG)	All
L. budegassa (BAN)	All
L. wiffiagonis (MEG)	1/cm
L. boscii (FME)	1/cm
G. morhua (COD)	1/2cm
A. radiata (STY)	1/cm
All other skates and rays	All

Table 2: Primary trawl positions for 0422S.

0422S Primary (Core) Trawl Stations						
Station Number	**Stratum**	**Depth**	**Lat (DDM)**	**Long (DDM)**	**Lat (DD)**	**Long (DD)**
C1	East.M	0-200	57 47.5N	002 35W	57.7917	-2.5833
C2	East.MF	NA	57 42.5N	002 55W	57.7083	-2.9167
C3	East.MF	NA	58 12.5N	003 25W	58.2083	-3.4167
C4	North.M1.E	0-140	58 52.5N	003 45W	58.875	-3.75
C5	North.M1.W	0-140	58 42.5N	005 15W	58.7083	-5.25
C6	VIaNW.Shelf.L	0-140	58 37.5N	006 5W	58.625	-6.0833
C7	VIaNW.Shelf.L	0-140	58 22.5N	006 5W	58.375	-6.0833
C8	VIaNW.Shelf.L	0-140	58 12.5N	007 15W	58.2083	-7.25
C9	VIaNW.Shelf.M	140-200	58 32.5N	007 45W	58.5417	-7.75
C10	VIaNW.Slope.H	200-500	58 32.5N	008 15W	58.5417	-8.25
C11	VIaNW.Shelf.M	140-200	58 7.5N	008 35W	58.125	-8.5833
C13	Rockall.L1	0-200	57 42.5N	013 55W	57.7083	-13.9167
C14	Rockall.L1	0-200	57 27.5N	013 55W	57.4583	-13.9167
C15	Rockall.L1	0-200	57 17.5N	014 5W	57.2917	-14.0833
C16	Rockall.L1	0-200	57 2.5N	013 45W	57.0417	-13.75
C17	Rockall.L1	0-200	56 57.5N	013 45W	56.9583	-13.75
C18	Rockall.M	500-1000	57 7.5N	013 5W	57.125	-13.0833
C19	Rockall.M	500-1000	56 47.5N	013 35W	56.7917	-13.5833
C20	Rockall.L1	0-200	56 42.5N	014 25W	56.7083	-14.4167
C21	Rockall.VH	200-500	56 22.5N	014 35W	56.375	-14.5833
C22	Rockall.VH	200-500	56 22.5N	014 45W	56.375	-14.75
C23	Rockall.L2	500-1000	55 57.5N	014 55W	55.9583	-14.9167
C24	Rockall.L2	500-1000	55 52.5N	015 15W	55.875	-15.25
C25	Rockall.L2	500-1000	55 47.5N	015 25W	55.7917	-15.4167
C26	Rockall.H	200-500	56 7.5N	016 25W	56.125	-16.4167
C27	Rockall.H	200-500	56 22.5N	015 55W	56.375	-15.9167

Station Number	Stratum	Depth	Lat (DDM)	Long (DDM)	Lat (DD)	Long (DD)
C28	Rockall.M	500-1000	56 27.5N	015 55W	56.4583	-15.9167
C29	Rockall.M	500-1000	56 37.5N	016 15W	56.625	-16.25
C30	Rockall.H	200-500	56 42.5N	015 25W	56.7083	-15.4167
C31	Rockall.H	200-500	56 57.5N	015 5W	56.9583	-15.0833
C32	Rockall.M	500-1000	57 22.5N	015 15W	57.375	-15.25
C33	Rockall.M	500-1000	57 52.5N	015 15W	57.875	-15.25
C34	Rockall.M	500-1000	58 17.5N	015 15W	58.2917	-15.25
C35	Rockall.M	500-1000	58 22.5N	015 15W	58.375	-15.25
C36	Rockall.H	200-500	58 2.5N	014 25W	58.0417	-14.4167
C37	Rockall.VH	200-500	58 17.5N	013 55W	58.2917	-13.9167
C38	VIaNW.Slope.H	200-500	58 17.5N	008 55W	58.2917	-8.9167
C39	VIaNW.Slope.M	500-1000	58 37.5N	008 45W	58.625	-8.75
C40	VIaNW.Slope.H	200-500	59 2.5N	007 5W	59.0417	-7.0833
C41	VIaNW.Slope.M	500-1000	59 12.5N	007 35W	59.2083	-7.5833
C42	North.L	500-1000	59 37.5N	008 5W	59.625	-8.0833
C43	North.L	500-1000	59 57.5N	007 45W	59.9583	-7.75
C44	North.M2.W	200-500	59 57.5N	006 35W	59.9583	-6.5833
C45	North.M2.W	200-500	59 47.5N	005 55W	59.7917	-5.9167
C46	North.H.W	140-200	59 37.5N	005 55W	59.625	-5.9167
C47	North.H.W	140-200	59 32.5N	005 55W	59.5417	-5.9167
C48	North.M1.W	0-140	59 27.5N	004 5W	59.4583	-4.0833
C49	North.H.W	140-200	59 42.5N	004 25W	59.7083	-4.4167
C50	North.H.W	140-200	59 57.5N	004 15W	59.9583	-4.25
C51	North.H.E	140-200	59 52.5N	003 55W	59.875	-3.9167
C52	North.M2.E	200-500	60 32.5N	003 35W	60.5417	-3.5833
C53	North.H.E	140-200	60 32.5N	002 45W	60.5417	-2.75
C54	North.M1.E	0-140	59 32.5N	002 15W	59.5417	-2.25
C55	North.M1.E	0-140	59 42.5N	002 5W	59.7083	-2.0833
C56	North.M1.E	0-140	60 12.5N	001 55W	60.2083	-1.9167
C57	North.M2.E	200-500	61 7.5N	002 5W	61.125	-2.0833
C58	North.H.E	140-200	61 12.5N	001 5W	61.2083	-1.0833
C59	East.M	0-200	61 7.5N	000 45W	61.125	-0.75
C60	East.L	200-500	62 2.5N	000 15E	62.0417	0.25
C61	East.L	200-500	62 12.5N	001 15E	62.2083	1.25
C62	East.L	200-500	61 42.5N	000 55E	61.7083	0.9167
C63	East.M	0-200	61 22.5N	001 25E	61.375	1.4167
C64	East.M	0-200	60 57.5N	001 25E	60.9583	1.4167
C65	East.L	200-500	61 17.5N	003 5E	61.2917	3.0833
C66	East.L	200-500	60 37.5N	003 25E	60.625	3.4167
C67	East.L	200-500	60 27.5N	003 15E	60.4583	3.25

Station Number	Stratum	Depth	Lat (DDM)	Long (DDM)	Lat (DD)	Long (DD)
C68	East.M	0-200	60 7.5N	003 5E	60.125	3.0833
C69	East.M	0-200	60 32.5N	001 55E	60.5417	1.9167
C70	East.M	0-200	60 22.5N	001 5E	60.375	1.0833
C71	East.M	0-200	59 47.5N	001 35E	59.7917	1.5833
C72	East.M	0-200	59 32.5N	001 55E	59.5417	1.9167
C73	East.M	0-200	59 22.5N	001 45E	59.375	1.75
C74	East.M	0-200	59 12.5N	002 35E	59.2083	2.5833
C75	East.M	0-200	59 42.5N	002 35E	59.7083	2.5833
C76	East.L	200-500	59 42.5N	003 25E	59.7083	3.4167
C77	East4	200-500	59 37.5N	004 25E	59.625	4.4167
C78	East4	200-500	59 7.5N	004 5E	59.125	4.0833
C79	East4	200-500	58 22.5N	004 35E	58.375	4.5833
C80	East3	0-200	57 57.5N	004 15E	57.9583	4.25
C81	East3	0-200	58 22.5N	003 5E	58.375	3.0833
C82	East.M	0-200	59 2.5N	001 45E	59.0417	1.75
C83	East.M	0-200	58 52.5N	000 35E	58.875	0.5833
C84	East.M	0-200	58 22.5N	000 45E	58.375	0.75
C85	East3	0-200	57 37.5N	000 15E	57.625	0.25
C86	East.M	0-200	57 57.5N	000 45W	57.9583	-0.75
C87	East.M	0-200	58 17.5N	001 55W	58.2917	-1.9167
C88	East.M	0-200	58 42.5N	002 25W	58.7083	-2.4167

Table 3: Alternative trawl positions for 0422S

0422S Alternative Trawl Stations						
Station Number	**Stratum**	**Depth**	**Lat (DDM)**	**Long (DDM)**	**Lat (DD)**	**Long (DD)**
A1	East.M	0-200	57 47.5N	002 5W	57.79167	-2.08333
A2	East.M	0-200	57 57.5N	001 45W	57.95833	-1.75
A3	East.M	0-200	57 57.5N	000 25W	57.95833	-0.41667
A4	East.M	0-200	58 2.5N	001 25E	58.04167	1.416667
A5	East.M	0-200	58 17.5N	001 45W	58.29167	-1.75
A6	East.M	0-200	58 22.5N	001 25E	58.375	1.416667
A7	East.M	0-200	58 32.5N	000 45E	58.54167	0.75
A8	East.M	0-200	58 37.5N	000 5E	58.625	0.083333
A9	East.M	0-200	58 42.5N	001 55E	58.70833	1.916667
A10	East.M	0-200	58 52.5N	001 25E	58.875	1.416667
A11	East.M	0-200	58 57.5N	002 35E	58.95833	2.583333
A12	East.M	0-200	59 2.5N	002 5E	59.04167	2.083333
A13	East.M	0-200	59 12.5N	001 5E	59.20833	1.083333
A14	East.M	0-200	59 17.5N	000 45W	59.29167	-0.75
A15	East.M	0-200	59 22.5N	001 15E	59.375	1.25

Station Number	Stratum	Depth	Lat (DDM)	Long (DDM)	Lat (DD)	Long (DD)
A16	East.M	0-200	59 27.5N	001 25E	59.45833	1.416667
A17	East.M	0-200	59 32.5N	000 15E	59.54167	0.25
A18	East.M	0-200	59 42.5N	001 45E	59.70833	1.75
A19	East.M	0-200	59 47.5N	001 5E	59.79167	1.083333
A20	East.M	0-200	59 57.5N	000 15W	59.95833	-0.25
A21	East.M	0-200	60 2.5N	002 55E	60.04167	2.916667
A22	East.M	0-200	60 17.5N	000 45E	60.29167	0.75
A23	East.M	0-200	60 22.5N	002 35E	60.375	2.583333
A24	East.M	0-200	60 32.5N	000 15E	60.54167	0.25
A25	East.M	0-200	60 37.5N	000 5E	60.625	0.083333
A26	East.M	0-200	60 52.5N	000 25E	60.875	0.416667
A27	East.M	0-200	60 57.5N	001 15E	60.95833	1.25
A28	East.M	0-200	61 2.5N	002 25E	61.04167	2.416667
A29	East.M	0-200	61 22.5N	000 45E	61.375	0.75
A30	East.M	0-200	61 32.5N	001 25E	61.54167	1.416667
A31	East.L	200-500	59 37.5N	003 55E	59.625	3.916667
A32	East.L	200-500	60 12.5N	003 45E	60.20833	3.75
A33	East.L	200-500	60 27.5N	003 45E	60.45833	3.75
A34	East.L	200-500	60 42.5N	003 55E	60.70833	3.916667
A35	East.L	200-500	61 7.5N	002 35E	61.125	2.583333
A36	East.L	200-500	61 37.5N	001 45E	61.625	1.75
A37	East.L	200-500	61 47.5N	000 55E	61.79167	0.916667
A38	East.L	200-500	61 52.5N	000 5W	61.875	-0.08333
A39	East.L	200-500	61 57.5N	000 55E	61.95833	0.916667
A40	East.L	200-500	62 7.5N	002 25E	62.125	2.416667
A41	East3	0-200	57 32.5N	004 55E	57.54167	4.916667
A42	East3	0-200	57 37.5N	004 45E	57.625	4.75
A43	East3	0-200	57 42.5N	001 35E	57.70833	1.583333
A44	East3	0-200	57 47.5N	003 25E	57.79167	3.416667
A45	East3	0-200	58 2.5N	002 55E	58.04167	2.916667
A46	East3	0-200	58 2.5N	004 5E	58.04167	4.083333
A47	East3	0-200	58 12.5N	004 45E	58.20833	4.75
A48	East3	0-200	58 22.5N	002 55E	58.375	2.916667
A49	East3	0-200	58 42.5N	003 55E	58.70833	3.916667
A50	East3	0-200	58 57.5N	003 15E	58.95833	3.25
A51	East4	200-500	58 17.5N	004 55E	58.29167	4.916667
A52	East4	200-500	58 32.5N	004 45E	58.54167	4.75
A53	East4	200-500	58 37.5N	004 35E	58.625	4.583333
A54	East4	200-500	58 47.5N	004 5E	58.79167	4.083333
A55	East4	200-500	58 52.5N	004 45E	58.875	4.75
A56	East4	200-500	59 2.5N	003 55E	59.04167	3.916667
A57	East4	200-500	59 7.5N	004 25E	59.125	4.416667
A58	East4	200-500	59 17.5N	003 45E	59.29167	3.75
A59	East4	200-500	59 22.5N	003 35E	59.375	3.583333

Station Number	Stratum	Depth	Lat (DDM)	Long (DDM)	Lat (DD)	Long (DD)
A60	East4	200-500	59 32.5N	004 25E	59.54167	4.416667
A61	East.MF	NA	57 47.5N	003 45W	57.79167	-3.75
A62	East.MF	NA	57 52.5N	003 35W	57.875	-3.58333
A63	East.MF	NA	57 57.5N	003 25W	57.95833	-3.41667
A64	East.MF	NA	58 2.5N	003 35W	58.04167	-3.58333
A65	East.MF	NA	58 22.5N	003 5W	58.375	-3.08333
A66	North.H.E	140-200	60 7.5N	003 55W	60.125	-3.91667
A67	North.H.E	140-200	60 17.5N	002 25W	60.29167	-2.41667
A68	North.H.E	140-200	60 37.5N	002 35W	60.625	-2.58333
A69	North.H.E	140-200	60 42.5N	002 15W	60.70833	-2.25
A70	North.H.E	140-200	61 17.5N	001 5W	61.29167	-1.08333
A71	North.M1.E	0-140	58 47.5N	003 35W	58.79167	-3.58333
A72	North.M1.E	0-140	59 27.5N	003 15W	59.45833	-3.25
A73	North.M1.E	0-140	59 42.5N	003 25W	59.70833	-3.41667
A74	North.M1.E	0-140	59 52.5N	002 15W	59.875	-2.25
A75	North.M1.E	0-140	60 37.5N	001 45W	60.625	-1.75
A76	North.M2.E	200-500	60 27.5N	003 25W	60.45833	-3.41667
A77	North.M2.E	200-500	60 37.5N	003 5W	60.625	-3.08333
A78	North.M2.E	200-500	61 12.5N	001 35W	61.20833	-1.58333
A79	North.M2.E	200-500	61 22.5N	001 15W	61.375	-1.25
A80	North.M2.E	200-500	61 47.5N	000 25W	61.79167	-0.41667
A81	North.L	500-1000	59 37.5N	008 5W	59.625	-8.08333
A82	North.L	500-1000	59 47.5N	008 5W	59.79167	-8.08333
A83	North.L	500-1000	59 57.5N	008 5W	59.95833	-8.08333
A84	North.L	500-1000	59 57.5N	007 5W	59.95833	-7.08333
A85	North.L	500-1000	60 2.5N	007 25W	60.04167	-7.41667
A86	North.H.W	140-200	59 27.5N	005 45W	59.45833	-5.75
A87	North.H.W	140-200	59 37.5N	005 55W	59.625	-5.91667
A88	North.H.W	140-200	59 42.5N	004 5W	59.70833	-4.08333
A89	North.H.W	140-200	59 52.5N	004 25W	59.875	-4.41667
A90	North.H.W	140-200	59 57.5N	004 45W	59.95833	-4.75
A91	North.M1.W	0-140	58 17.5N	005 35W	58.29167	-5.58333
A92	North.M1.W	0-140	58 52.5N	004 5W	58.875	-4.08333
A93	North.M1.W	0-140	58 57.5N	006 5W	58.95833	-6.08333
A94	North.M1.W	0-140	59 17.5N	006 5W	59.29167	-6.08333
A95	North.M1.W	0-140	59 37.5N	004 15W	59.625	-4.25
A96	North.M2.W	200-500	59 37.5N	006 15W	59.625	-6.25
A97	North.M2.W	200-500	59 42.5N	006 5W	59.70833	-6.08333
A98	North.M2.W	200-500	59 47.5N	005 55W	59.79167	-5.91667
A99	North.M2.W	200-500	59 57.5N	005 5W	59.95833	-5.08333
A100	North.M2.W	200-500	60 17.5N	004 5W	60.29167	-4.08333
A101	VIaNW.Slope.H	200-500	58 2.5N	009 25W	58.04167	-9.41667
A102	VIaNW.Slope.H	200-500	58 12.5N	009 25W	58.20833	-9.41667
A103	VIaNW.Slope.H	200-500	58 22.5N	009 5W	58.375	-9.08333

Station Number	Stratum	Depth	Lat (DDM)	Long (DDM)	Lat (DD)	Long (DD)
A104	VIaNW.Slope.H	200-500	58 32.5N	008 35W	58.54167	-8.58333
A105	VIaNW.Slope.H	200-500	58 42.5N	007 55W	58.70833	-7.91667
A106	VIaNW.Slope.H	200-500	58 57.5N	007 35W	58.95833	-7.58333
A107	VIaNW.Slope.H	200-500	59 7.5N	007 5W	59.125	-7.08333
A108	VIaNW.Slope.H	200-500	59 17.5N	006 35W	59.29167	-6.58333
A109	VIaNW.Slope.M	500-1000	58 12.5N	009 35W	58.20833	-9.58333
A110	VIaNW.Slope.M	500-1000	58 32.5N	009 5W	58.54167	-9.08333
A111	VIaNW.Slope.M	500-1000	58 42.5N	008 35W	58.70833	-8.58333
A112	VIaNW.Slope.M	500-1000	58 42.5N	008 15W	58.70833	-8.25
A113	VIaNW.Slope.M	500-1000	59 12.5N	007 25W	59.20833	-7.41667
A114	VIaNW.Slope.M	500-1000	59 17.5N	006 55W	59.29167	-6.91667
A115	VIaNW.Slope.M	500-1000	59 22.5N	006 55W	59.375	-6.91667
A116	VIaNW.Slope.M	500-1000	59 27.5N	006 45W	59.45833	-6.75
A117	VIaNW.Shelf.M	140-200	58 7.5N	008 45W	58.125	-8.75
A118	VIaNW.Shelf.M	140-200	58 12.5N	008 45W	58.20833	-8.75
A119	VIaNW.Shelf.M	140-200	58 22.5N	008 25W	58.375	-8.41667
A120	VIaNW.Shelf.M	140-200	58 27.5N	007 55W	58.45833	-7.91667
A121	VIaNW.Shelf.M	140-200	58 32.5N	007 55W	58.54167	-7.91667
A122	VIaNW.Shelf.M	140-200	58 47.5N	007 5W	58.79167	-7.08333
A123	VIaNW.Shelf.M	140-200	58 52.5N	006 45W	58.875	-6.75
A124	VIaNW.Shelf.M	140-200	59 2.5N	006 45W	59.04167	-6.75
A125	VIaNW.Shelf.L	0-140	58 7.5N	007 55W	58.125	-7.91667
A126	VIaNW.Shelf.L	0-140	58 12.5N	007 15W	58.20833	-7.25
A127	VIaNW.Shelf.L	0-140	58 22.5N	006 55W	58.375	-6.91667
A128	VIaNW.Shelf.L	0-140	58 22.5N	005 55W	58.375	-5.91667
A129	VIaNW.Shelf.L	0-140	58 32.5N	006 45W	58.54167	-6.75
A130	VIaNW.Shelf.L	0-140	58 37.5N	006 15W	58.625	-6.25
A131	VIaNW.Shelf.L	0-140	58 42.5N	006 45W	58.70833	-6.75
A132	VIaNW.Shelf.L	0-140	58 52.5N	006 35W	58.875	-6.58333
A133	Rockall.L1	0-200	56 27.5N	014 45W	56.45833	-14.75
A134	Rockall.L1	0-200	56 37.5N	014 25W	56.625	-14.4167
A135	Rockall.L1	0-200	56 52.5N	014 45W	56.875	-14.75
A136	Rockall.L1	0-200	57 2.5N	014 5W	57.04167	-14.0833
A137	Rockall.L1	0-200	57 7.5N	013 45W	57.125	-13.75
A138	Rockall.L1	0-200	57 17.5N	013 35W	57.29167	-13.5833
A139	Rockall.L1	0-200	57 22.5N	014 5W	57.375	-14.0833
A140	Rockall.L1	0-200	57 32.5N	013 45W	57.54167	-13.75
A141	Rockall.L1	0-200	57 37.5N	013 15W	57.625	-13.25
A142	Rockall.L1	0-200	57 47.5N	013 25W	57.79167	-13.4167
A143	Rockall.L2	500-1000	55 47.5N	015 25W	55.79167	-15.4167
A144	Rockall.L2	500-1000	55 52.5N	015 15W	55.875	-15.25
A145	Rockall.L2	500-1000	55 52.5N	015 15W	55.875	-15.25
A146	Rockall.L2	500-1000	55 57.5N	015 5W	55.95833	-15.0833
A147	Rockall.M	500-1000	56 27.5N	016 45W	56.45833	-16.75

Station Number	Stratum	Depth	Lat (DDM)	Long (DDM)	Lat (DD)	Long (DD)
A148	Rockall.M	500-1000	56 32.5N	015 45W	56.54167	-15.75
A149	Rockall.M	500-1000	56 42.5N	015 55W	56.70833	-15.9167
A150	Rockall.M	500-1000	56 42.5N	013 45W	56.70833	-13.75
A151	Rockall.M	500-1000	57 2.5N	013 15W	57.04167	-13.25
A152	Rockall.M	500-1000	57 22.5N	015 25W	57.375	-15.4167
A153	Rockall.M	500-1000	57 52.5N	015 15W	57.875	-15.25
A154	Rockall.M	500-1000	58 2.5N	015 25W	58.04167	-15.4167
A155	Rockall.M	500-1000	58 12.5N	015 25W	58.20833	-15.4167
A156	Rockall.M	500-1000	58 22.5N	014 25W	58.375	-14.4167
A157	Rockall.H	200-500	56 7.5N	016 35W	56.125	-16.5833
A158	Rockall.H	200-500	56 17.5N	016 35W	56.29167	-16.5833
A159	Rockall.H	200-500	56 22.5N	016 35W	56.375	-16.5833
A160	Rockall.H	200-500	56 32.5N	015 35W	56.54167	-15.5833
A161	Rockall.H	200-500	56 32.5N	015 5W	56.54167	-15.0833
A162	Rockall.H	200-500	56 47.5N	015 15W	56.79167	-15.25
A163	Rockall.H	200-500	57 12.5N	015 5W	57.20833	-15.0833
A164	Rockall.H	200-500	57 17.5N	015 5W	57.29167	-15.0833
A165	Rockall.H	200-500	57 52.5N	014 35W	57.875	-14.5833
A166	Rockall.H	200-500	58 7.5N	014 25W	58.125	-14.4167
A167	Rockall.VH	200-500	56 2.5N	014 55W	56.04167	-14.9167
A168	Rockall.VH	200-500	56 17.5N	014 55W	56.29167	-14.9167
A169	Rockall.VH	200-500	56 22.5N	014 35W	56.375	-14.5833
A170	Rockall.VH	200-500	56 27.5N	014 25W	56.45833	-14.4167
A171	Rockall.VH	200-500	56 37.5N	014 15W	56.625	-14.25
A172	Rockall.VH	200-500	56 52.5N	013 35W	56.875	-13.5833
A173	Rockall.VH	200-500	57 7.5N	013 15W	57.125	-13.25
A174	Rockall.VH	200-500	57 32.5N	013 15W	57.54167	-13.25
A175	Rockall.VH	200-500	57 52.5N	013 5W	57.875	-13.0833
A176	Rockall.VH	200-500	58 12.5N	013 35W	58.20833	-13.5833