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MFV Audacious

Survey 0723H

Demersal Vessel Charter SIAMISS Survey

## **PROGRAMME**

10-23 May 2023

### **Ports**

**Loading:** Ullapool, 10 May 2023

**Unloading:** Ullapool (TBC) 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 (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 within eight weeks of a survey ending and the Survey Summary Report (old ROSCOP form) to Matt Geldart within four weeks. 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 (Supplied by Jackson Trawls)

### **Objectives**

1. To undertake the Scottish Irish Anglerfish Megrin Industry Science Survey (SIAMISS). An internationally co-ordinated demersal trawling survey of Anglerfish (*Lophius piscatorius* and *Lophius budegassa*), Megrin (*Lepidorhombus wiffiagonis*) and Four-Spot Megrin (*Lepidorhombus boscii*) in the Scottish North West Shelf and Rockall Bank (ICES area VIa and VIb).
2. To collect species distribution, length frequency and biological data of Anglerfish (*Lophius piscatorius* and *Lophius budegassa*), Megrin (*Lepidorhombus wiffiagonis*), Four-Spot Megrin (*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/samples in connection with the UK Workplan, the EU Multi Annual Plan and by request.

## Procedures

### General

The (Scottish Irish Anglerfish Megrin 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 SOPs 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>.

MFV *Audacious* has been charter for the purposes of this survey. The trawl and scientific equipment will remain onboard from the previous charter 0623H. Staff will join the vessel at Ullapool on 10 May and *Audacious* will sail on 10 May following completion of safety drills. The vessel will proceed northwest 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.

The route taken to complete the survey will be weather dependent and formulated close to survey departure. After completing the survey *Audacious* will make for Ullapool or another port (TBC) for landing of catch and unloading of equipment. An operational daily survey plan will be formulated by the SIC subsequent to meetings with the vessel Master.

### Trawling

This is a semi-random-stratified survey design with trawl stations being distributed within predefined strata that cover the Scottish Northwest area and Rockall Bank (Figures 1 and 2). Access to NEAFC (including Rockall Haddock Box) and Irish waters are required to cover the survey area comprehensively. Trawling operations will occur in waters up to a maximum depth of 1000m. The positions of a total of 36 primary stations and 81 secondary (alternative) stations have been randomly generated for the survey (Tables 2 and 3).

Fishing operations will be conducted 18 hours a day with scientific staff working throughout whilst ensuring adequate WTR rest breaks.

The aim is for the 36 primary stations to be undertaken on suitable ground as near as possible to the specified station position, with ideally the midpoint of the tow intersecting with the position. If not possible, then the tow will be conducted within a 5 nm radius of the position. If this is not possible then the nearest suitable alternative station located within the same stratum will be used. Depending on survey progress, additional effort will be conducted in each strata utilising alternative stations to ensure maximum resolution in each of the survey strata where possible.

One trawl of 60 minutes duration will be made at each sampling station unless circumstances dictate otherwise. The SCANMAR system will be used to monitor wing spread, door spread and distance covered during each haul. The vessel's navigation outputs and echo sounder 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 in the centre of the ground-gear.

Though random generation of positions are likely to put trawl positions within protected areas that lie partly or fully within the boundaries of the strata, trawls will not be conducted in highly sensitive protected areas. The nearest suitable alternative station in the same stratum shall be chosen if the trawl cannot be conducted within a 5nm buffer from the position outside a highly sensitive protected area.

## **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>. The sampling methodology will follow the SIAMISS Fish Sampling V1.0 SOP. In addition to the routine sampling, biological data and samples will be collected for selected ad-hoc species if time allows. 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**

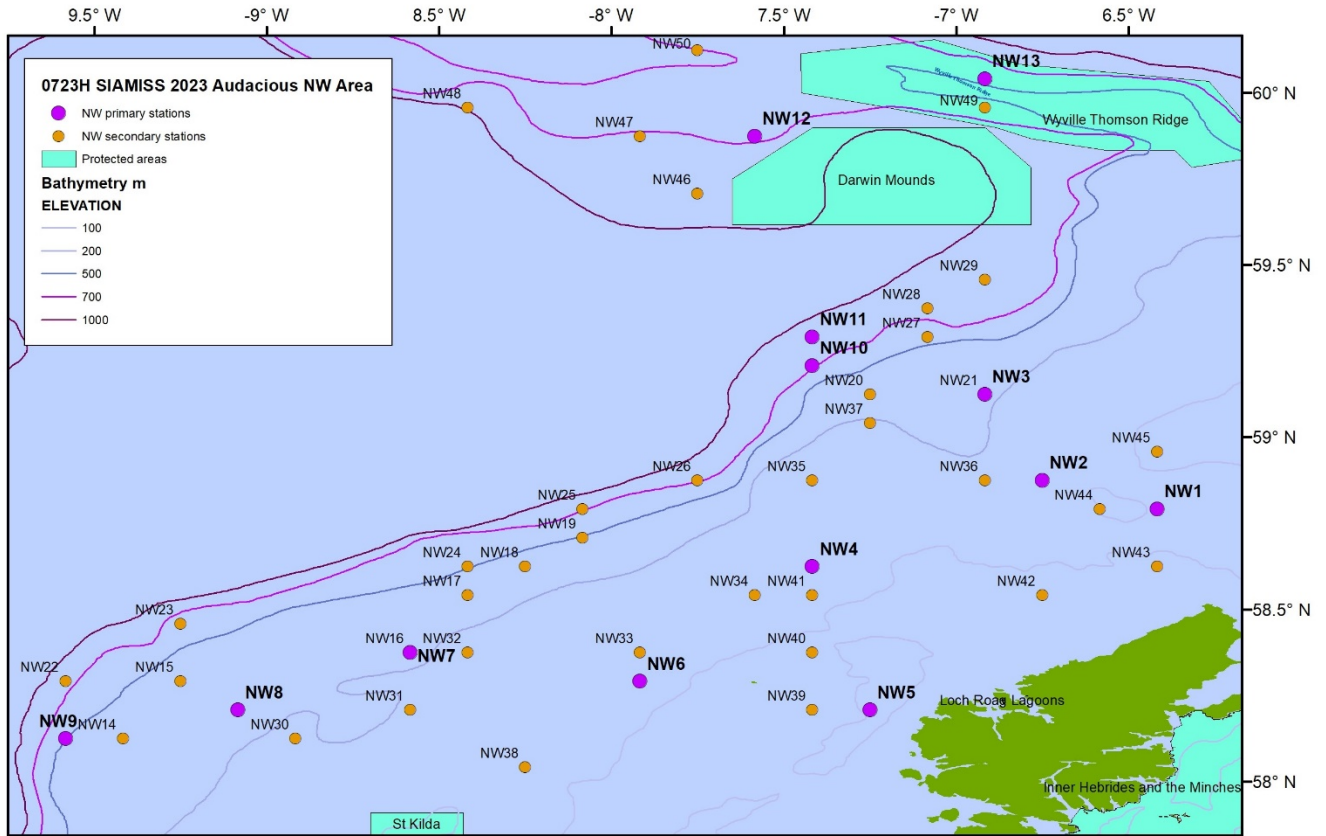
All scientific staff and equipment will depart the vessel on 23 May 2023.

Normal contacts will be maintained with the Laboratory.

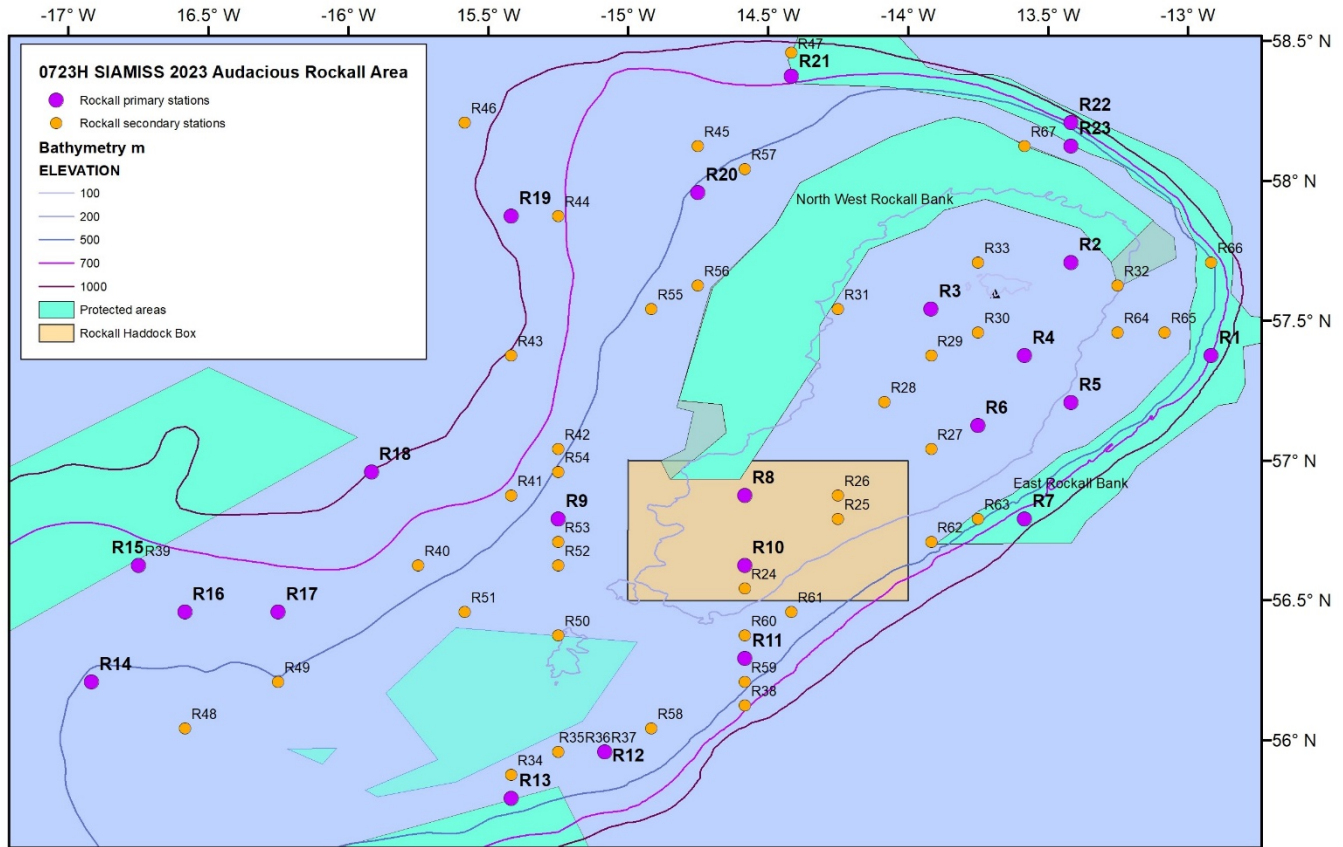
Submitted:

J Drewery  
03 May 2023

Approved:  
I Gibb  
11 May 2023



**Figure 1:** Chart showing the primary and secondary trawl positions generated in the Scottish Northwest area for 0723H.



**Figure 2:** Chart showing the primary and secondary trawl positions generated on Rockall Bank for 0723H.

**Table 1:** Biological sampling targets for 0723H. (\* Individual weight, gutted weight, sex, maturity and age; \*\* Individual weight, gutted weight, sex and maturity; \*\*\* Individual weight, sex and maturity – males only)

| <b>0723H Biological Sampling Targets</b> |                                     |
|--|-------------------------------------|
| <b>Species</b>                           | <b>Target</b>                       |
| <i>L. piscatorius</i> (ANG) *            | All                                 |
| <i>L. budegassa</i> (BAN) *              | All                                 |
| <i>L. wiffiagonis</i> (MEG) **           | 1 / cm                              |
| <i>L. boschii</i> (FME) **               | 1 / cm                              |
| <i>G. morhua</i> (COD) *                 | 1 / cm                              |
| <i>A. radiata</i> (STY) ***              | 1 / cm                              |
| All other skates and rays<br>***         | All - except<br>CRA, SPY and<br>TRA |

**Table 2:** Primary trawl positions for 0723H.

| Area      | Stratum    | Type    | Station | Depth Range | Lat (DDM) | Lon (DDM) | Lat (DD) | Lon (DD) |
|-----------|------------|---------|---------|-------------|-----------|-----------|----------|----------|
| Rockall   | Rockall.M  | Primary | R1      | 500-1000    | 57 22.5N  | 12 55.0E  | 57.3750  | -12.9167 |
| Rockall   | Rockall.L1 | Primary | R2      | 0-200       | 57 42.5N  | 13 25.0E  | 57.7083  | -13.4167 |
| Rockall   | Rockall.L1 | Primary | R3      | 0-200       | 57 32.5N  | 13 55.0E  | 57.5417  | -13.9167 |
| Rockall   | Rockall.L1 | Primary | R4      | 0-200       | 57 22.5N  | 13 35.0E  | 57.3750  | -13.5833 |
| Rockall   | Rockall.VH | Primary | R5      | 200-500     | 57 12.5N  | 13 25.0E  | 57.2083  | -13.4167 |
| Rockall   | Rockall.L1 | Primary | R6      | 0-200       | 57 07.5N  | 13 45.0E  | 57.1250  | -13.7500 |
| Rockall   | Rockall.M  | Primary | R7      | 500-1000    | 56 47.5N  | 13 35.0E  | 56.7917  | -13.5833 |
| Rockall   | Rockall.L1 | Primary | R8      | 0-200       | 56 52.5N  | 14 35.0E  | 56.8750  | -14.5833 |
| Rockall   | Rockall.H  | Primary | R9      | 200-500     | 56 47.5N  | 15 15.0E  | 56.7917  | -15.2500 |
| Rockall   | Rockall.L1 | Primary | R10     | 0-200       | 56 37.5N  | 14 35.0E  | 56.6250  | -14.5833 |
| Rockall   | Rockall.VH | Primary | R11     | 200-500     | 56 17.5N  | 14 35.0E  | 56.2917  | -14.5833 |
| Rockall   | Rockall.L2 | Primary | R12     | 500-1000    | 55 57.5N  | 15 05.0E  | 55.9583  | -15.0833 |
| Rockall   | Rockall.L2 | Primary | R13     | 500-1000    | 55 47.5N  | 15 25.0E  | 55.7917  | -15.4167 |
| Rockall   | Rockall.H  | Primary | R14     | 200-500     | 56 12.5N  | 16 55.0E  | 56.2083  | -16.9167 |
| Rockall   | Rockall.M  | Primary | R15     | 500-1000    | 56 37.5N  | 16 45.0E  | 56.6250  | -16.7500 |
| Rockall   | Rockall.H  | Primary | R16     | 200-500     | 56 27.5N  | 16 35.0E  | 56.4583  | -16.5833 |
| Rockall   | Rockall.M  | Primary | R17     | 500-1000    | 56 27.5N  | 16 15.0E  | 56.4583  | -16.2500 |
| Rockall   | Rockall.M  | Primary | R18     | 500-1000    | 56 57.5N  | 15 55.0E  | 56.9583  | -15.9167 |
| Rockall   | Rockall.M  | Primary | R19     | 500-1000    | 57 52.5N  | 15 25.0E  | 57.8750  | -15.4167 |
| Rockall   | Rockall.H  | Primary | R20     | 200-500     | 57 57.5N  | 14 45.0E  | 57.9583  | -14.7500 |
| Rockall   | Rockall.M  | Primary | R21     | 500-1000    | 58 22.5N  | 14 25.0E  | 58.3750  | -14.4167 |
| Rockall   | Rockall.M  | Primary | R22     | 500-1000    | 58 12.5N  | 13 25.0E  | 58.2083  | -13.4167 |
| Rockall   | Rockall.VH | Primary | R23     | 200-500     | 58 07.5N  | 13 25.0E  | 58.1250  | -13.4167 |
| Northwest | NW.Shelf.L | Primary | NW1     | 0-140       | 58 47.5N  | 06 25.0E  | 58.7917  | -6.4167  |
| Northwest | NW.Shelf.M | Primary | NW2     | 140-200     | 58 52.5N  | 06 45.0E  | 58.8750  | -6.7500  |
| Northwest | NW.Slope.H | Primary | NW3     | 200-500     | 59 07.5N  | 06 55.0E  | 59.1250  | -6.9167  |
| Northwest | NW.Shelf.L | Primary | NW4     | 0-140       | 58 37.5N  | 07 25.0E  | 58.6250  | -7.4167  |
| Northwest | NW.Shelf.L | Primary | NW5     | 0-140       | 58 12.5N  | 07 15.0E  | 58.2083  | -7.2500  |
| Northwest | NW.Shelf.M | Primary | NW6     | 140-200     | 58 17.5N  | 07 55.0E  | 58.2917  | -7.9167  |
| Northwest | NW.Slope.H | Primary | NW7     | 200-500     | 58 22.5N  | 08 35.0E  | 58.3750  | -8.5833  |
| Northwest | NW.Slope.H | Primary | NW8     | 200-500     | 58 12.5N  | 09 05.0E  | 58.2083  | -9.0833  |
| Northwest | NW.Slope.M | Primary | NW9     | 500-1000    | 58 07.5N  | 09 35.0E  | 58.1250  | -9.5833  |
| Northwest | NW.Slope.M | Primary | NW10    | 500-1000    | 59 12.5N  | 07 25.0E  | 59.2083  | -7.4167  |
| Northwest | NW.Slope.M | Primary | NW11    | 500-1000    | 59 17.5N  | 07 25.0E  | 59.2917  | -7.4167  |
| Northwest | North.L    | Primary | NW12    | 500-1000    | 59 52.5N  | 07 35.0E  | 59.8750  | -7.5833  |
| Northwest | North.L    | Primary | NW13    | 500-1000    | 60 02.5N  | 06 55.0E  | 60.0417  | -6.9167  |

**Table 3:** Secondary trawl positions for 0723H.

| Area    | Stratum    | Type      | Station | Depth Range | Lat (DDM) | Lon (DDM) | Lat (DD) | Lon (DD) |
|---------|------------|-----------|---------|-------------|-----------|-----------|----------|----------|
| Rockall | Rockall.L1 | Secondary | R24     | 0-200       | 56 32.5N  | 14 35.0E  | 56.5417  | -14.5833 |
| Rockall | Rockall.L1 | Secondary | R25     | 0-200       | 56 47.5N  | 14 15.0E  | 56.7917  | -14.2500 |
| Rockall | Rockall.L1 | Secondary | R26     | 0-200       | 56 52.5N  | 14 15.0E  | 56.8750  | -14.2500 |
| Rockall | Rockall.L1 | Secondary | R27     | 0-200       | 57 02.5N  | 13 55.0E  | 57.0417  | -13.9167 |
| Rockall | Rockall.L1 | Secondary | R28     | 0-200       | 57 12.5N  | 14 05.0E  | 57.2083  | -14.0833 |
| Rockall | Rockall.L1 | Secondary | R29     | 0-200       | 57 22.5N  | 13 55.0E  | 57.3750  | -13.9167 |
| Rockall | Rockall.L1 | Secondary | R30     | 0-200       | 57 27.5N  | 13 45.0E  | 57.4583  | -13.7500 |
| Rockall | Rockall.L1 | Secondary | R31     | 0-200       | 57 32.5N  | 14 15.0E  | 57.5417  | -14.2500 |
| Rockall | Rockall.L1 | Secondary | R32     | 0-200       | 57 37.5N  | 13 15.0E  | 57.6250  | -13.2500 |
| Rockall | Rockall.L1 | Secondary | R33     | 0-200       | 57 42.5N  | 13 45.0E  | 57.7083  | -13.7500 |
| Rockall | Rockall.L2 | Secondary | R34     | 500-1000    | 55 52.5N  | 15 25.0E  | 55.8750  | -15.4167 |
| Rockall | Rockall.L2 | Secondary | R35     | 500-1000    | 55 57.5N  | 15 15.0E  | 55.9583  | -15.2500 |
| Rockall | Rockall.L2 | Secondary | R36     | 500-1000    | 55 57.5N  | 15 05.0E  | 55.9583  | -15.0833 |
| Rockall | Rockall.L2 | Secondary | R37     | 500-1000    | 55 57.5N  | 15 05.0E  | 55.9583  | -15.0833 |
| Rockall | Rockall.M  | Secondary | R38     | 500-1000    | 56 07.5N  | 14 35.0E  | 56.1250  | -14.5833 |
| Rockall | Rockall.M  | Secondary | R39     | 500-1000    | 56 37.5N  | 16 45.0E  | 56.6250  | -16.7500 |
| Rockall | Rockall.M  | Secondary | R40     | 500-1000    | 56 37.5N  | 15 45.0E  | 56.6250  | -15.7500 |
| Rockall | Rockall.M  | Secondary | R41     | 500-1000    | 56 52.5N  | 15 25.0E  | 56.8750  | -15.4167 |
| Rockall | Rockall.M  | Secondary | R42     | 500-1000    | 57 02.5N  | 15 15.0E  | 57.0417  | -15.2500 |
| Rockall | Rockall.M  | Secondary | R43     | 500-1000    | 57 22.5N  | 15 25.0E  | 57.3750  | -15.4167 |
| Rockall | Rockall.M  | Secondary | R44     | 500-1000    | 57 52.5N  | 15 15.0E  | 57.8750  | -15.2500 |
| Rockall | Rockall.M  | Secondary | R45     | 500-1000    | 58 07.5N  | 14 45.0E  | 58.1250  | -14.7500 |
| Rockall | Rockall.M  | Secondary | R46     | 500-1000    | 58 12.5N  | 15 35.0E  | 58.2083  | -15.5833 |
| Rockall | Rockall.M  | Secondary | R47     | 500-1000    | 58 27.5N  | 14 25.0E  | 58.4583  | -14.4167 |
| Rockall | Rockall.H  | Secondary | R48     | 200-500     | 56 02.5N  | 16 35.0E  | 56.0417  | -16.5833 |
| Rockall | Rockall.H  | Secondary | R49     | 200-500     | 56 12.5N  | 16 15.0E  | 56.2083  | -16.2500 |
| Rockall | Rockall.H  | Secondary | R50     | 200-500     | 56 22.5N  | 15 15.0E  | 56.3750  | -15.2500 |
| Rockall | Rockall.H  | Secondary | R51     | 200-500     | 56 27.5N  | 15 35.0E  | 56.4583  | -15.5833 |
| Rockall | Rockall.H  | Secondary | R52     | 200-500     | 56 37.5N  | 15 15.0E  | 56.6250  | -15.2500 |
| Rockall | Rockall.H  | Secondary | R53     | 200-500     | 56 42.5N  | 15 15.0E  | 56.7083  | -15.2500 |
| Rockall | Rockall.H  | Secondary | R54     | 200-500     | 56 57.5N  | 15 15.0E  | 56.9583  | -15.2500 |
| Rockall | Rockall.H  | Secondary | R55     | 200-500     | 57 32.5N  | 14 55.0E  | 57.5417  | -14.9167 |
| Rockall | Rockall.H  | Secondary | R56     | 200-500     | 57 37.5N  | 14 45.0E  | 57.6250  | -14.7500 |
| Rockall | Rockall.H  | Secondary | R57     | 200-500     | 58 02.5N  | 14 35.0E  | 58.0417  | -14.5833 |
| Rockall | Rockall.VH | Secondary | R58     | 200-500     | 56 02.5N  | 14 55.0E  | 56.0417  | -14.9167 |
| Rockall | Rockall.VH | Secondary | R59     | 200-500     | 56 12.5N  | 14 35.0E  | 56.2083  | -14.5833 |
| Rockall | Rockall.VH | Secondary | R60     | 200-500     | 56 22.5N  | 14 35.0E  | 56.3750  | -14.5833 |
| Rockall | Rockall.VH | Secondary | R61     | 200-500     | 56 27.5N  | 14 25.0E  | 56.4583  | -14.4167 |
| Rockall | Rockall.VH | Secondary | R62     | 200-500     | 56 42.5N  | 13 55.0E  | 56.7083  | -13.9167 |
| Rockall | Rockall.VH | Secondary | R63     | 200-500     | 56 47.5N  | 13 45.0E  | 56.7917  | -13.7500 |
| Rockall | Rockall.VH | Secondary | R64     | 200-500     | 57 27.5N  | 13 15.0E  | 57.4583  | -13.2500 |
| Rockall | Rockall.VH | Secondary | R65     | 200-500     | 57 27.5N  | 13 05.0E  | 57.4583  | -13.0833 |

|           |            |           |      |          |          |          |         |          |
|-----------|------------|-----------|------|----------|----------|----------|---------|----------|
| ockall    | Rockall.VH | Secondary | R66  | 200-500  | 57 42.5N | 12 55.0E | 57.7083 | -12.9167 |
| Rockall   | Rockall.VH | Secondary | R67  | 200-500  | 58 07.5N | 13 35.0E | 58.1250 | -13.5833 |
| Northwest | NW.Slope.H | Secondary | NW14 | 200-500  | 58 07.5N | 09 25.0E | 58.1250 | -9.4167  |
| Northwest | NW.Slope.H | Secondary | NW15 | 200-500  | 58 17.5N | 09 15.0E | 58.2917 | -9.2500  |
| Northwest | NW.Slope.H | Secondary | NW16 | 200-500  | 58 22.5N | 08 35.0E | 58.3750 | -8.5833  |
| Northwest | NW.Slope.H | Secondary | NW17 | 200-500  | 58 32.5N | 08 25.0E | 58.5417 | -8.4167  |
| Northwest | NW.Slope.H | Secondary | NW18 | 200-500  | 58 37.5N | 08 15.0E | 58.6250 | -8.2500  |
| Northwest | NW.Slope.H | Secondary | NW19 | 200-500  | 58 42.5N | 08 05.0E | 58.7083 | -8.0833  |
| Northwest | NW.Slope.H | Secondary | NW20 | 200-500  | 59 07.5N | 07 15.0E | 59.1250 | -7.2500  |
| Northwest | NW.Slope.H | Secondary | NW21 | 200-500  | 59 07.5N | 06 55.0E | 59.1250 | -6.9167  |
| Northwest | NW.Slope.M | Secondary | NW22 | 500-1000 | 58 17.5N | 09 35.0E | 58.2917 | -9.5833  |
| Northwest | NW.Slope.M | Secondary | NW23 | 500-1000 | 58 27.5N | 09 15.0E | 58.4583 | -9.2500  |
| Northwest | NW.Slope.M | Secondary | NW24 | 500-1000 | 58 37.5N | 08 25.0E | 58.6250 | -8.4167  |
| Northwest | NW.Slope.M | Secondary | NW25 | 500-1000 | 58 47.5N | 08 05.0E | 58.7917 | -8.0833  |
| Northwest | NW.Slope.M | Secondary | NW26 | 500-1000 | 58 52.5N | 07 45.0E | 58.8750 | -7.7500  |
| Northwest | NW.Slope.M | Secondary | NW27 | 500-1000 | 59 17.5N | 07 05.0E | 59.2917 | -7.0833  |
| Northwest | NW.Slope.M | Secondary | NW28 | 500-1000 | 59 22.5N | 07 05.0E | 59.3750 | -7.0833  |
| Northwest | NW.Slope.M | Secondary | NW29 | 500-1000 | 59 27.5N | 06 55.0E | 59.4583 | -6.9167  |
| Northwest | NW.Shelf.M | Secondary | NW30 | 140-200  | 58 07.5N | 08 55.0E | 58.1250 | -8.9167  |
| Northwest | NW.Shelf.M | Secondary | NW31 | 140-200  | 58 12.5N | 08 35.0E | 58.2083 | -8.5833  |
| Northwest | NW.Shelf.M | Secondary | NW32 | 140-200  | 58 22.5N | 08 25.0E | 58.3750 | -8.4167  |
| Northwest | NW.Shelf.M | Secondary | NW33 | 140-200  | 58 22.5N | 07 55.0E | 58.3750 | -7.9167  |
| Northwest | NW.Shelf.M | Secondary | NW34 | 140-200  | 58 32.5N | 07 35.0E | 58.5417 | -7.5833  |
| Northwest | NW.Shelf.M | Secondary | NW35 | 140-200  | 58 52.5N | 07 25.0E | 58.8750 | -7.4167  |
| Northwest | NW.Shelf.M | Secondary | NW36 | 140-200  | 58 52.5N | 06 55.0E | 58.8750 | -6.9167  |
| Northwest | NW.Shelf.M | Secondary | NW37 | 140-200  | 59 02.5N | 07 15.0E | 59.0417 | -7.2500  |
| Northwest | NW.Shelf.L | Secondary | NW38 | 0-140    | 58 02.5N | 08 15.0E | 58.0417 | -8.2500  |
| Northwest | NW.Shelf.L | Secondary | NW39 | 0-140    | 58 12.5N | 07 25.0E | 58.2083 | -7.4167  |
| Northwest | NW.Shelf.L | Secondary | NW40 | 0-140    | 58 22.5N | 07 25.0E | 58.3750 | -7.4167  |
| Northwest | NW.Shelf.L | Secondary | NW41 | 0-140    | 58 32.5N | 07 25.0E | 58.5417 | -7.4167  |
| Northwest | NW.Shelf.L | Secondary | NW42 | 0-140    | 58 32.5N | 06 45.0E | 58.5417 | -6.7500  |
| Northwest | NW.Shelf.L | Secondary | NW43 | 0-140    | 58 37.5N | 06 25.0E | 58.6250 | -6.4167  |
| Northwest | NW.Shelf.L | Secondary | NW44 | 0-140    | 58 47.5N | 06 35.0E | 58.7917 | -6.5833  |
| Northwest | NW.Shelf.L | Secondary | NW45 | 0-140    | 58 57.5N | 06 25.0E | 58.9583 | -6.4167  |
| Northwest | North.L    | Secondary | NW46 | 500-1000 | 59 42.5N | 07 45.0E | 59.7083 | -7.7500  |
| Northwest | North.L    | Secondary | NW47 | 500-1000 | 59 52.5N | 07 55.0E | 59.8750 | -7.9167  |
| Northwest | North.L    | Secondary | NW48 | 500-1000 | 59 57.5N | 08 25.0E | 59.9583 | -8.4167  |
| Northwest | North.L    | Secondary | NW49 | 500-1000 | 59 57.5N | 06 55.0E | 59.9583 | -6.9167  |
| Northwest | North.L    | Secondary | NW50 | 500-1000 | 60 07.5N | 07 45.0E | 60.1250 | -7.7500  |