

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

FRV *Scotia*

Cruise 0412S

## PROGRAMME

10 April – 5 May 2012

### Ports

**Loading:** Aberdeen, 5– 9 April (depending on vessel refit)

**Sailing:** Aberdeen 10 April 2012

**Half Landing:** Ullapool (date flexible)

**Unloading:** Aberdeen, 5 May 2012

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

### Personnel

C.G.Davis		(SIC)
R Kynoch		
J.Drewery		
P.MacDonald		(North Atlantic Fisheries College)
F.Neat	(pt1)	
N.Collie	(pt1)	
M.Stewart	(pt1)	
G.Jones	(pt1)	
ANO (A4 FAA)	(pt1)	
F.McIntyre	(pt1)	(Aberdeen University)
B.R.Sanchez	(pt1)	(Aberdeen University)
ANO SFF	(pt1)	(Scottish Fishermens Federation)
R.Catarino	(pt2)	
D.Bruce	(pt2)	
A.Edridge	(pt2)	
ANO (A4 SFS)	(pt2)	
ANO (A4 FAA)	(pt2)	
ANO SFF	(pt2)	(Scottish Fishermens Federation)

**Out-turn days:** 26 days, SU02ND

### Fishing Gear

Anglerfish Trawl BT 195; Morgere Ovalfoil OF12 trawl doors.

## **Other gear**

Seatronics TV chariot.

## **Objectives**

1. To undertake a nationally co-ordinated demersal trawling survey of anglerfish on the Rockall Plateau.
2. To undertake counts of anglerfish and determine coral density using the Seatronics TV chariot.
3. To undertake counts of anglerfish (using the Seatronics TV chariot) in areas regarded as unsuitable for towing the fishing trawl.
4. To obtain temperature and salinity profiles at each trawling station.

## **Procedures**

This is a nationally co-ordinated trawl survey to estimate the abundance and distribution of anglerfish. The survey follows a set of protocols drawn up by an industry / science survey planning group made up of Marine Scotland scientists and fishing representatives and we welcome the participation of Scottish Fishermens Federation (SFF) representatives on this particular survey. These protocols share much in common with the sampling regimes described in Marine Scotland's standing instructions for demersal trawl surveys.

The cruise track and sampling locations will be delivered to the Captain and Fishing Master prior to departure. An approximate map of the sampling area giving the locations of all of the co-ordinated surveys is appended as Figure 1. Trawling in Irish waters will take place as necessary.

Part 1 of the survey will cover the Rockall and southern section of the 'West' sea areas, with part 2 assigned to covering the North Sea grounds.

A half landing will take place in Ullapool after part 1 of the survey has been completed. A significant staff exchange will take place at this time and the opportunity may also be taken to unload the Seatronics TV chariot and associated equipment.

## **Trawling**

One haul of 60 minutes duration will be made at each sampling station; trawling operations will occur in waters up to a maximum of 1000 m. Daily start times for survey stations undertaken on part one at the Rockall sea area will be at approximately 0700 and continue until approximately 1900. Fishing operations on part 2 of this survey, on grounds to the west of Scotland and the North sea, will require 24 hrs fishing capability with scientific staff being split into two 12 hour watch periods. The Scanmar system will be used to monitor wing spread, door spread and distance covered during each haul. A bottom contact sensor will be mounted on the footrope to record the distance of the trawl off the seabed.

Catches will be worked up according to the protocols for the anglerfish surveys which are similar in principle to Marine Scotland's standing instructions.

## **TV operation**

The Seatronics TV chariot will be deployed to check for the presence of coral on trawl sampling sites where coral may be present (as defined by WGDEC potential closed areas). In the event that coral are present, trawling sites will be moved by approximately one nautical mile and the ground will be inspected again. Outside of these times, and in due consideration of staff working hours, the TV sled will be deployed between the hours of 1900 and 0700 each night, weather permitting, at sites where coral and or hard ground occurs and at sites where trawl samples will be or have been taken. The objective in these deployments will be to count anglerfish and to determine coral density. In these cases, the chariot will sample for a time as required by the operators. The vessel must be at the location of the next new trawl station at 0600 the following morning.

On travelling to and from the survey area, the Seatronics TV chariot will be deployed to undertake counts of anglerfish on grounds deemed unsuitable for fishing. These positions will be conveyed to the vessel prior to sailing but will be in the regions of NW Scotland and west of The Hebrides.

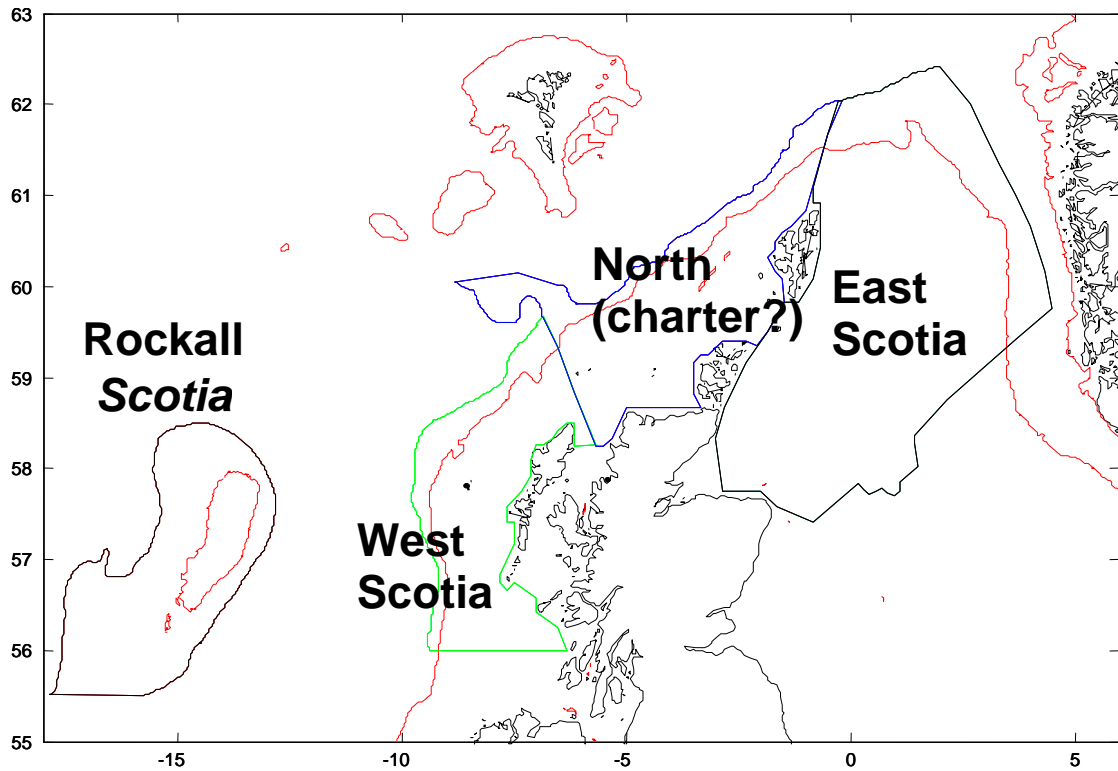
## **Hydrography & Acoustics**

A CTD will be deployed on the trawl at each station. The ships thermosalinograph will be operated throughout the cruise. The ships EK60 scientific echosounder will be operated throughout the cruise to investigate the relationship between ground type and anglerfish distribution.

Normal contacts will be maintained with the Laboratory. The other vessel (charter) on the survey will be contacted each day at approximately 1800hrs by medium frequency radio.

Submitted:  
C.G.Davis  
5 March 2012

Approved:  
I Gibb  
10 March 2012



**Figure 1:** Map of the Northern Shelf of the North East Atlantic with the areas to be surveyed by the vessels (in italics) in the forthcoming anglerfish survey. (The red lines indicate the approximate position of the 200 m depth contour). Details of stations assigned to the Rockall, North Sea and the southern section of the 'West' area will be conveyed to the vessel prior to sailing.

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FRV Scotia

Cruise 0412S

10 April – 05 May 2012

**PROGRAMME AMENDMENT**

Please see the updated scientific staffing list below for survey 0412S.

C G Davis	(SIC)	
R Kynoch		
J Drewery		
P MacDonald		(North Atlantic Fisheries College)
F Neat	(Part 1)	
N Collie	(Part 1)	
M Stewart	(Part 1)	
G Jones	(Part 1)	
M Leys	(Part 1)	
F McIntyre	(Part 1)	(Aberdeen University)
B R Sanchez	(Part 1)	(Aberdeen University)
W Gatt	(Part 1)	(Scottish Fishermens Federation)
M Gault	(Part 2)	
J Mills	(Part 2)	
A Edridge	(Part 2)	
O J Goudie	(Part 2)	
R Cairns	(Part 2)	
M Lovie	(Part 2)	(Scottish Fishermens Federation)

*I Gibb*  
07 April 2012