Department of Agriculture for Northern Ireland
Agriculture and Environmental Science Division

Cruise Report: LF4299 Douglas Bank Herring Survey
Vessel: RV *Lough Foyle*
Dates & area: 17-20 October 1999 in the Irish Sea (north); ICES div. VIIa

Personnel:	Mark Dickey-Collas	DANI	SIC/SSO
	W McCurdy	DANI	SSO
	John Peel	DANI	ASO
	Michael McAliskey	DANI	SO
	H Gerritsen	QUB	RA

Objectives:

1. To carry out an acoustic survey of Douglas Bank and North of the Isle of man for herring.
2. To estimate the abundance and distribution of larval herring (at yolk-sac stage) north of the Isle of Man.

Cruise narrative

Sunday 17 October 1999
All scientific crew were onboard by 21:00.

Monday 18 October 1999
The ship sailed for Douglas Bank in strong easterly winds. The equipment was tested and prepared for use. The winds strengthened throughout the day and the survey was postponed for safety reasons (winds gusting >45 miles per hour). The ship sheltered at anchor off Whitehaven.

Tuesday 19 October 1999
The winds failed to decline through the night. At 15:00 the vessel left the anchorage to continue the survey. The sea state had improved slightly. The box north of the Isle of Man was surveyed using the EK500 and the data were stored using Echoview. The winds increased again.

Wednesday 20 October 1999
The acoustic survey of north of the Isle of Man was completed by 03:30. The plankton sampling gear was rigged for use. However the sea state worsened and the survey was postponed with the expectation of an improvement in the weather. However by 10:30, the weather forecast predicted a worsening in the winds and sea

state which would continue throughout the rest of the week. So the survey was terminated and the ship returned to Belfast.

Thursday 21 October 1999
The ship was unloaded.

Methods

The acoustic survey was carried out using the methods and settings described in the cruise report of LF3699. A zigzag grid of 10 transects was carried out over the box north of the Isle of Man. The ends of the transects were 2.5 nautical miles apart.

Results

No plankton survey or acoustic survey of Douglas Bank took place. The acoustic survey of North of the Isle of Man (Figure 1) showed no shoals of herring, sprat or other fish like targets in the region.

Acknowledgments

Poor weather dominated the cruise. Work on the *Lough Foyle* in rough seas is not pleasant, and the officers, crew and scientists onboard must be commended for their hard work and determination. The failure of the cruise to fulfil both objectives was entirely due to the weather and sea state. All onboard the vessel must be thanked for their efforts.

Signed

SIC: Mark Coelas Date: 21/10/99.

Master: Date:

Aquatics: Date: 21/10/99.

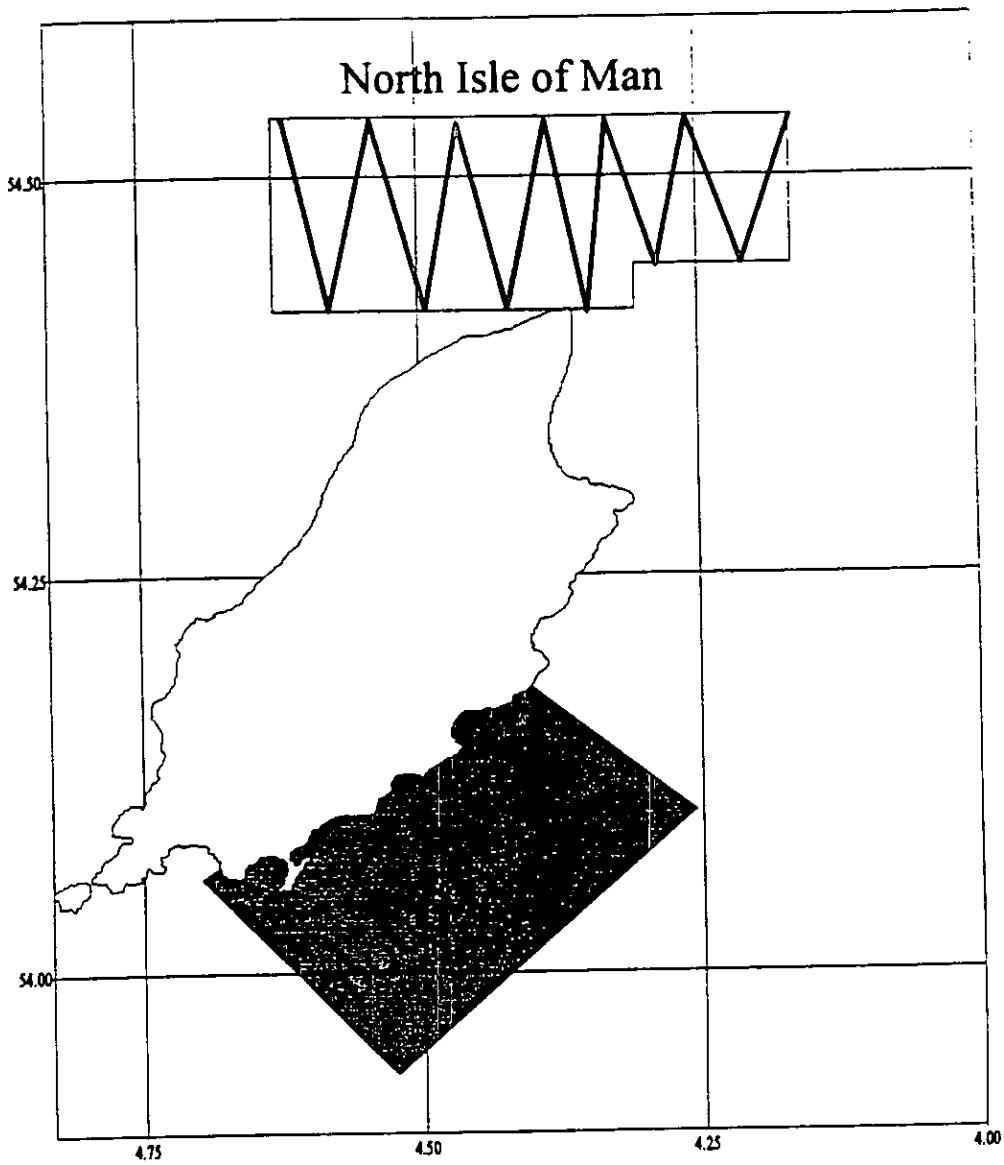

Figure 1. Areas for surveys and trnasects
North of the Isle of Man.

Appendix 1

Specifications of *R.V Lough Foyle*

Vessel type:	Steel hulled Marine Research Vessel (Fisheries Research and Oceanography).		
Vessel Class:	DTp. Class VII, BV 13/3/E		
Classification Society:	Bureau Veritas		
Port of Registry:	Belfast.		
Operational Areas:	1. Irish Sea. 2. Celtic Sea (MSA summer only). 3. North Coast of Ireland (MSA summer only). 4. West of Ireland to 12 °W (MSA summer only). 5. West of Scotland to 12 °W (MSA summer only).		
Main Dimensions:	Length OA	43.50 m	
	Length BP	40.2 m	
	Breadth	9.40 m	
	Freeboard to working deck	2.00 m	
	Draft	4.60 m	(Draft to allow for hull Mounted transducer)
Capacities:	Gross tonnage	546 GRT	
	Useful DWT (payload)		
	Winter	79 tonnes	
	Summer	103.7 tonnes	
	Fuel	51 m^3	
	Fresh water	58 m^3	
	Ballast water	64 m^3	
	Fish freezer/ refrigerators	8 m^3	
Range:	Cruising range	2800 nautical miles	
	Cruising speed	10.0 knots	
	Maximum speed	14.0 knots	
	Nominal Endurance	12 days	
	Average fuel consumption	3.0 tonnes per day at 10 knots	
Accommodation:	Officers	7 persons	
	Other crew	7 persons	
	Scientists	8 persons, (4 single and 2 double cabins)	

Energy Sources:	Main engine	MAK 1200 hp at 900 rpm
	Shaft alternator:	380 V AC 150 kVA 3 phase 50 Hz)
	Propeller	Lipps Controllable pitch, (dia. 2.55 m, max.rpm = 233).
	Bow thruster	White Gill azimuthing unit, 2.5 tonnes thrust
	Baudoin	380 V AC 150 kVA 3 phase 50 Hz
		(power source for low speed drive motor)
	Dorman	420 V AC 380 kVA 3 phase 50 Hz
	Lister	240 V AC 25 kVA 1 phase 60 Hz
	Lister	115.V AC 5 kVA 1 phase 60 Hz
Anchors:	Two bow anchors, cable 160 m	
.Navigation:	Compasses	Plath magnetic
		Arkas 41B magnetic
		SG Brown SGB1000 gyro
	Autopilots	Decca 450M
		Decca 450G
	Logs	Electromagnetic
		Walker E4
	Track Plotter	Sodena V.4.16
		Shipmate RS 2000 track plotter
	DGPS	Two x Raccal Decca LMX 412
	GPS	Raython Raystar 920
		Furuno GP/30
	Radars	Racal-Decca Bridgemaster II 250 ARPA
		Furuno FR 1501 DA
Communications:	Call sign	GYAR
	Radiotelephones	Sailor 144C VHF
	VHF	Sailor 144
		Furuno FM 7000
		Handic 0600 VHF scanning receiver
	Telex	Sait XH 5112T autotelex
		(over Skanti TRP 8250S R/T)
	Hand-held radios	Three ICOM M12 VHF radios
	Weatherfax	Navtex Locata 2
	Cellular telephone	Combined Cellnet/Eircell and fax
	GMDSS	Furuno Marine VHF Model FM-8500 (R/T)
		Furuno MF/HF DSC Terminal Model DSC-6/6a
		Furuno SSB Radio Telephone Model F5-1562
		Three Icom Model 1500 GMDSS "Portables"
	Safety Equipment:	Two SARTS
		One EPIRB
		Crewguard/Crewfinder Personal EPIRB system
Sounders:	Koden CVS 820C 50 / 200 KHz	
	Atlas 33 KHz with model 322 video display	
Sonar:	Furuno CSH 50	
Net Monitors:	Scanmar system 400 red	
	Furuno CN-8	

Trawling Equipment: Two trawl winches, 850 m x 18 mm warps SWL 8 tonnes
Net drum (3 m^3) SWL 2 tonnes

Other Winches: Oceanographic towing 1000 m conducting cable, SWL 2 tonnes
Oceanographic 1000 m conducting cable, SWL 0.5 tonne,
3000 m steel wire, SWL 0.5 tonne

Stern Gantry: Clearance above deck 6 m Outboard extension 3 m SWL 7 tonnes

Crane: Atlas 200.1 A4 - 20 tonnes at 1 metre

Scientific Equipment:
RDI Acoustic Current Doppler Profiler
Electromagnetic log
Simrad EK 500 scientific sounder
Furuno sonar remote display for CSH 50
Marel HF marine weighing balance 60 Kg ± 10 g
Marel HF marine weighing balance 12 Kg ± 5 g
Marel HF marine weighing balance 4 Kg ± 1 g
Marel HF marine weighing balance 1 Kg ± 0.1 g

Scientific Overside Equipment:
Oceanographic moored equipment arrays
Gulf VII high speed plankton samplers
MIK nets
RMT nets
Hydro-Bios MPS II multi plankton sampler
Rosette water sampler, 12 x 5 l PWS bottles
Chelsea Instruments S/N SA240 florimeter
Hydro-Bios ABM CTD (c/w flowmeter & oxygen probe)
Seabird CTD
Box corer
Barnes & Wallace mini-corer
Benthic camera sled
Day Grab
Naturalists dredge
Long harness dredge
Anchor dredge
Rockhopper trawl nets
Demersal fish trawl nets
Pelagic fish trawl nets
Nephrops trawl nets
Scallop dredges

Laboratory Areas:
Oceanographic wet lab.: 6.5 m^2
Wet/dry fish and oceanography lab.: 23.5 m^2
Chemistry lab.: 6.7 m^2
Constant temperature lab.: 6.4 m^2
Acoustic/oceanographic control lab.: 15.0 m^2
Communications room: 6.7 m^2

Entertainment Equipment:
Two Television receivers with Bell Rota aerial
Exercise bicycle