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

FRV *Scotia*

Cruise 0899S

REPORT

13-29 May 1999

Start port: Aberdeen

End port: Aberdeen

Half landing: Lerwick, 21-22 May

Personnel

Alistair McIntosh	B2	(In charge)
John Pirie	B3	
Leslie Campbell	B1	
Colin Moffat	C1	13-21 May
Nicola Shepherd	B2	13-21 May
Nigel Brown	A3	13-21 May
Colin Megginson	B1	21-29 May
Eric Dalgarno	A3	21-29 May (from FRV <i>Clupea</i>)
Gill Packer	A1	21-29 May

Fishing Gear

Granton 48' Trawl (BT 101) (or "monk" trawl) with tickler chains; 3 m Beam Trawl

Objectives

1. Offshore oil development and production effects on hydrocarbon loadings in fish, shellfish and sediment. (13.5 days)
2. Piper Alpha - third post toppling survey. (2 days)
3. *Braer* oil spill effects on *Nephrops* in the Burra Haaf with reference to a control site. (0.5 day)
4. *Braer* oil spill effects on hydrocarbon loadings in sediments south east Fair Isle. (0.5 day)
5. *Braer* oil spill effects on biochemical measurements and histopathology in fish at the Little Halibut Bank. (0.5 day)
6. Collection of various samples, including squid, monkfish, juvenile haddock, *Buccinum* and hermit crabs for MSc and PhD student projects.

Results

All objectives of the cruise were met. From a total of 55 bottom trawls covering 46 ICES squares in the North Sea and northwest Atlantic samples were collected in relation to offshore oil development and production effects on hydrocarbon loadings in fish, shellfish and sediment.

A total of 256 samples were collected for sensory assessment; over 500 muscle and liver tissue samples were taken for PAH chemistry; fish and shellfish for PCB and radio-nucleotide analysis; over 600 samples were cryo-preserved for hepatic mixed function oxidase activity; over 50 pooled bile samples for PAH metabolite determination; 128 individual grab samples and seven core samples for total hydrocarbon determination; pooled samples of three different sediment types for use as reference material; in addition, samples including squid, monkfish, juvenile haddock, hermit crabs and *Buccinum* were collected for MSc and PhD student projects.

A McIntosh
1 July 1999

Seen in draft: Captain David Hodge