

P17/15

Not to be cited without prior reference to the Laboratory

FRV Scotia

Cruise 0691S Part 3

PROGRAMME

21 June-2 July 1991

Personnel

R Stagg	PSO (in charge)
A McIntosh	HSO
J Rusin	SO
S Forsyth	ASO
N Ramsay	PhD
G Begg	PhD
F McKendrick	Con
U Langer	(Visitor)
H E Larsen	(Visitor)
B E Grøsvik	(Visitor)
A N Other	(Visitor) (prov)

Fishing Gear

BT101 - Aberdeen 48' trawl with small mesh outer cod-end and tickler chains; BT 161 - 3 m beam trawl; fish traps.

Objectives

1. To intercalibrate methods used to measure the induction of detoxification enzymes (EROD) between the Scottish, German and Norwegian laboratories participating in the NSTF monitoring masterplan.
2. To measure a suite of biochemical parameters in fish and crustacea sensitive to contaminants at a selection of sites in the northern North Sea particularly in relation to the activity of the oil industry.
3. To investigate the relationship between the incidence of fish disease, especially liver tumours, and the induction of biochemical response in dab.

Procedures

Scotia will depart from Aberdeen at 1200 hours on 21 June and make passage for Rattray Head where fishing by trawl will commence. Fish will be caught by trawl at various stations along transect from Rattray Head into the Skagerrak/Kattegat and from the Skaggerak to the East Shetland Basin. Some samples will be taken within 500 m of the Arbroath/Montrose oil platforms by using strings of fish traps.

Small numbers of fish will be kept alive in tanks on the ship in running sea water for short periods.

A map and a list of the sampling stations is attached.

In General

Liquid nitrogen will be carried on board and appropriate notices posted. Normal contacts with the Laboratory will be maintained.

Drs Larsen and Grøsvik will arrive in Aberdeen at 2120 on 20 June and will join Scotia that night. Dr Langer's time of arrival is still unknown.

D N MacLennan

28 May 1991

- 180 (in charge) H. Storr
- 180 A. Hestnes
- 80 J. Hestnes
- 80 S. Foye
- 80 N. Rørvik
- 80 G. Borg
- Con T. Mørkved
- (Visitor) U. Lager
- (Visitor) H. E. Larsen
- (Visitor) E. E. Grøsvik
- (Visitor) A. N. Othar

Fishing Gear

RT101 - Aberdeen 48' crew with steep outer cod-end and tickler boards; RT 101 - 3 in beam trawl; 3 traps.

Objectives

1. To intercalibrate methods used to measure the induction of detoxification enzymes (EPOD) between the Scottish, German and Norwegian laboratories participating in the NTP monitoring programme.
2. To measure a suite of biochemical parameters in fish and crustaceans sensitive to contaminants at a selection of sites in the Scottish fishery in relation to the activity of the oil industry.
3. To investigate the relationship between the level of fish disease, especially liver tumours, and the induction of biochemical responses in fish.

Procedures

Scotia will depart from Aberdeen at 1200 hours on 21 June and make passage for Rattay Head where fishing by trawl will commence. Fish will be caught by various stations along transect from Rattay Head to the Skagerrak (Kattavik) from the Skagerrak to the Bear Head and then to the Skagerrak. Fish will be kept in 500 m of the Arbroath, Angus oil platform operating in the area.

PROPOSED TRAWL SITES - SCOTIA 6/91

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|-----|-----------------|--|
| 1. | 57°35'N 01°30'W | Rattray Head |
| 2. | 57°25'N 01°25'E | Arbroath/Montrose oilfield (3 trawls) |
| 3. | 57°20'N 03°00'E | (South of) Middle Bank |
| 4. | 57°40'N 05°30'E | Eigersundbank |
| 5. | 57°40'N 09°40'E | off Hirtshals (stn 18) |
| 6. | 57°03'N 07°40'E | off Klitmoller (stn 14) |
| 7. | 57°10'N 12°02'E | East Kattegat |
| 8. | 58°45'N 03°20'E | Klondyke Bank |
| 9. | 60°30'N 02°30'E | Viking Bank |
| 10. | 60°57'N 01°35'E | East Shetland Basin - between Ninian and Brent |
| 11. | 61°15'N 01°20'E | East Shetland Basin - between Dunlin and Cormorant |
| 12. | 61°35'N 01°00'E | East Shetland Basin - southwest of Magnus |

Proposed Trawl Sites - Scotia 6/5

