

R1/4

9
6ER76

Cruise Report
FRS 'Explorer'
10th July - 29th July 1976

Objectives

1. To carry out the Faroe pre-recruit demersal fish and environmental survey.
2. To work the Fair Isle-Munken hydrographic line on both the outward and the return from the Faroe Plateau.
3. To work the JONIS line at the end of the cruise.

Narrative

After delays by an engine fault and crew problems 'Explorer' left Aberdeen late p.m. Saturday 10th July.

The Fair Isle-Munken hydrographic line was completed at 2100 hrs on 12th July.

The trawling survey commenced at Faroe Bank and continued until a call was made at Torshavn at 1630 hrs Sunday 18th July until 1000 hrs on the 20th July. Unfortunately a crew member was injured on deck and was detained in hospital. A visit was made to the Fisheries Laboratory and lemon sole scale reading was discussed, a party was also shown over the rainbow trout farm.

The trawl survey was continued but a return to Torshavn was necessary for repairs to the deep freeze facility on 22nd July. Although the electronic measuring board had been used under sea going conditions during the survey the opportunity was taken to measure fish in simulated market conditions whilst in port. The injured seaman was shipped for further treatment in the U.K. When 'Explorer' left at 1700 hrs on the 23rd July the trawl survey was resumed and completed by the 25th July.

The Munken-Fair Isle hydrographic section commenced at 0830 hrs 26th July and was completed at 0800 hrs 27th July. Work commenced on the JONIS line at 1405 hrs 27th July and under worsening conditions was successfully completed at 0500 hrs 28th July.

'Explorer' docked at Aberdeen at 0200 hrs 29th July 1976.

Results

Trawling. All stations of the trawling survey were completed using a 48' Aberdeen trawl and small mesh cover. Forty three hauls were made including two repeats of foul hauls. The fitting of an artificial hide on the small mesh cover this year overcame the problem of shells cutting the nets.

Fishing yielded a variety of the major commercial species and the results are presented as numbers per sub-area per 10 hrs fishing in Table 1. However a comparison with last year's survey shows a marked drop in haddock on Faroe Bank 47.2% down in total numbers and 42% in the range of $\leq 23\text{cm}$. On the Faroe plateau the percentage is 22.5% down for the total numbers and 43% for the $\leq 23\text{cm}$ range.

Although saithe caught on the Faroe Bank was similar to last year there was a drop of 64% on the plateau. Cod however, was 43% up in total numbers on Faroe Bank and also 16.7% up on the plateau. The industrial species are shown in Table 2, although blue whiting M. poutassou were caught in many of the hauls the greatest catches were obtained at the deeper water stations. Norway pout, T. esmarkii was most abundant in sub-area 'C' while Silver smelt, A. silus was more in evidence in all areas than last year. Large samples covering the full ranges were deep frozen. Shellfish catches Table 3 were confined almost wholly to Queens Chlamys opercularis, samples of which were frozen for sex and maturity studies.

Hydrography. The Fair Isle-Munken line was completed before and at the end of the Faroe trawl survey. The JOINSIS line was worked at the end of the cruise. All samples were taken as programmed.

Pollution. Samples were collected for heavy metal analysis from the largest specimens obtained of various species of fish. In addition 10 cod from Faroe Bank and 10 cod from the Faroe plateau of the 1972 year class and 20 plaice of the 1968 year class were collected from the Faroe plateau. No plaice were obtained on Faroe Bank. All samples were deep frozen.

Endocrinology. Samples of blood serum were taken from halibut, plaice, lemon sole, common dab and long rough dab. The individuals were sexed, maturity staged and otoliths or scales taken. Sixty nine samples in all were taken.

S D E Devlin
23.8.76

Seen in draft and signed by Capt F Orr

TABLE 1

Numbers of major commercial species caught per 10 hours fishing by Faroe routine trawling survey areas.

Species	Area A	B	C	D	E	F	G	H
Cod	210	72	505	1003	224	1072	629	350
Haddock	4727	2114	1958	11530	6946	2592	4521	2960
Saithe	100	390	337	7	10	103	43	370
Whiting	-	48	70	636	328	125	202	-
Halibut	5	4	5	67	12	17	19	30
L. sole	55	22	152	2457	724	1007	1263	90
Plaice	-	-	2	-	54	40	167	-
Angler	17	2	10	40	24	2	61	20

TABLE 2

Numbers of industrial species caught per 10 hours fishing by Faroe routine trawling survey areas.

Species	Area A	B	C	D	E	F	G	H
<i>A. silus</i>	5076	402	2610	690	1304	42	2872	830
<i>M. poutassou</i>	1095	2228	1950	33	896	7	840	5720
<i>T. esmarkii</i>	2517	9660	26076	17236	12260	20530	7162	8990

TABLE 3

Numbers of shellfish caught per 10 hours fishing by Faroe routine trawling survey areas.

Species	Area A	B	C	D	E	F	G	H
<i>C. opercularis</i>	50	6	1918	-	440	537	2586	-

