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CRUISE REPORT

FRS "SCOTIA"

11-24 December 1970

Part I

OBJECTIVE

To maintain the permanent current meter moorings off the east coast.

NARRATIVE

"Scotia" sailed from Aberdeen at 1200 hrs on 12 December and proceeded to the outer mooring where the rig was lifted. It was found that the instrument wire had been cut, resulting in the loss of the sub-surface float and the two current-meters. This mooring was not relaid. After anchoring in Aberdeen Bay overnight, "Scotia" proceeded to the inner mooring where the current meter rig was successfully lifted and relaid. "Scotia" arrived back in Aberdeen at 1300 hrs on 13 December.

Part II

OBJECTIVES

1. To experiment further with methods for capturing roundfish in good condition.
2. To tag roundfish.
3. To bring live fish back to the aquarium.

NARRATIVE

Gear for the second part of the cruise was loaded on the afternoon of 13 December, and the trawl boards and warps were replaced on the morning of the 14th. The ship sailed at 14.30 hrs on 14 December and proceeded to a predetermined position on the Ling Bank where two days were spent fishing and tagging haddock. By late evening the weather had deteriorated, making further work impossible, and the ship made for shelter in Stavanger. The ship arrived there late on the evening of the 17th and sailed again at 0900 hrs on the 19th. Weather conditions were still poor however, and, with strong NW winds blowing, further work on Ling Bank proved impossible. The ship therefore continued towards the Aberdeenshire coast, where sufficient shelter was obtained to enable a further 2 days work to be carried out on the 21 and 22 December. The ship then docked at Aberdeen on the morning of 23 December.

RESULTS

Three arrangements of the extension piece and codend were tried to investigate their effect on the condition of the roundfish caught. A total of 20 hauls, mostly of half hour's duration were carried out, 10 on Ling Bank and 10 off Collieston. In all cases, the codend was brought to the surface at normal hauling rates. The results from 4 hauls were rejected as being invalid for one reason or another and a summary of the results for the 16 valid hauls is presented in Table 1. This shows the average numbers of haddock, cod, and whiting caught per haul, the individuals of each species being classified as "floaters" or "swimmers". Also shown, are the percentages of swimmers and the percentages of taggable haddock and cod, out of the totals caught.

The results are consistent in showing that Rig 3 yielded a smaller percentage of swimmers in the case of 1+ haddock, older haddock, cod and whiting.

For cod and "older" haddock, Rig 2 yielded higher percentages of swimmers, but Rig 1 yielded a higher percentage of taggable haddock.

For 1+ haddock, Rig 1 yielded a much higher percentage of swimmers on Ling Bank than either it, or Rig 2 did off Collieston. It is not yet possible to determine what effect the size of catch had on these results. The relatively high percentage of 1+ haddock classed as "swimmers", on Ling Bank, may have been a consequence of the smaller catches there, rather than of the type of rig used.

During the cruise, 439 haddock were tagged, and approximately 100 haddock of various sizes were brought back for experimental work in the aquarium.

R JONES

E W HENDERSON

7 January 1971

Table 1

Showing the average numbers of fish caught per haul classified according to external condition and the percentages classified as "swimmers" and "taggable".

Species	Rig	Ground	Depth m	No. of valid hauls	Average numbers of fish per haul			% ⁽¹⁾ Swimmers	% ⁽¹⁾ Taggable
					Floaters	Swimmers	Total		
1+ haddock	1	Ling Bank	80	7	21	31	52	60	No tagging attempted
	1	Off Collieston	70	1	216	73	289	25	
	2	"	"	5	134	65	199	33	
	3	"	"	3	124	47	171	27	
Older haddock	1	Ling Bank	80	7	39	42	81	51	39
	1	Off Collieston	70	1	37	36	73	49	33
	2	"	"	5	49	55	104	53	29
	3	"	"	3	57	36	93	39	16
Cod	1	Off Collieston	70	1	10	5	15	33	33
	2	"	"	5	14	9	23	39	39
	3	"	"	3	19	7	26	27	27
Whiting	1	Off Collieston	70	1	44	1	45	2	No tagging attempted
	2	"	"	5	42	7	49	14	
	3	"	"	3	53.7	0.3	54	21	

(1) Percentages of the total numbers caught in each case.