

M/3

5

Charter Vessel 'Aries' BCK 126

Report

14-26 November 1982

Objectives

To compare the catches of two Eoria Fish/Prawn trawls, one rigged as standard the other rigged with a separating panel 75 cm above the groundline with the view of reducing the by-catch of undersized gadoids in a Nephrops fishery.

Narrative

Adverse weather made it impossible to carry out the tests in the proposed areas of the "Skate Hole" some 70 miles off Buckie. The 'Aries' was confined to the Moray Firth grounds and operated from Buckie during the whole period.

Only one day was completely lost when the fleet was confined to the harbour due to the weather conditions being too severe for fishing.

With the harbour at Buckie being closed from 8 am to 8 pm each day for alterations the catches of fish were landed when convenient for the programme of work being carried out.

Results

The catches of Nephrops were rather poor for all vessels working in the Moray Firth but good catches of whiting were encountered in some areas. This gave us the opportunity of studying their behaviour to the two level trawl whilst working on a mid bottom and during day and night.

From the results of the two level trawl with the separator set at 75 cm no noticeable difference was observed between day and night fishing for any of the species. The majority of the haddock and whiting separated off into the top codend whereas the total catch of skate, angler, cod, flats and Nephrops was found in the bottom one.

Table I shows the catches by percentage and number for both haddock and whiting from the two levels of the trawl and the percentage of those undersized.

Table II shows only the catch by number of both haddock and whiting from the standard trawl and again the percentage of those undersized.

In the two level trawl (Table I) a greater proportion of both haddock and whiting were caught in the top codend, which includes a large number of undersized fish.

In the standard trawl (Table II) the total catch was similar to both the two level trawl and to catches of the other vessels fishing in the area, except the codend contained a mixture of all Nephrops, rubbish and occasionally mud and the roundfish which were badly damaged by being soft and scaled. Those caught in the top codend of the two level trawl were firm and not scaled.

These observations stimulate the question should a two level trawl be introduced to the industry? Retaining the standard codend on the lower part of the net but increasing the codend mesh size in the top part from where a large proportion of the immature fish would be immediately released and survive while the commercial sized roundfish would be retained in better "undamaged" condition.

J Main

16 December 1982

Table I Two Level Separating Panel Trawl

Haul	TOP CODEND				BOTTOM CODEND				WHITING % caught	Number caught	% Under sized	
	HADDOCK % caught	Number caught	WHITING % Under sized	% caught	Number caught	% Under sized	HADDOCK % caught	Number caught				% Under sized
1	100	28	50	86	1169	58	0	0	0	14	189	41
2	789	60	22	60	663	4	21	16	33	40	441	54
3	100	80	30	66	904	4	0	0	0	34	465	58
4	91	315	57	89	8145	60	9	30	66	11	1000	51
5	100	70	0	93	6895	45	0	0	0	7	525	51
6	50	60	33	64	1280	48	50	60	50	36	730	79
7	71	300	80	70	3105	58	29	120	75	30	1305	87

Table II Standard Boris Fish/Prawn Trawl

Haul	HADDOCK		WHITING	
	Number caught	% Undersized	Number caught	% Undersized
1	345	91	2610	94
2	330	82	5970	72
3	0	0	6680	37
4	120	66	5600	33
5	350	20	5740	36
6	280	36	2340	38
7	240	38	4200	51