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Charter fishing vessel *Aalskere* K373

Charter Cruise 1795H

8-14 April 1995

REPORT

Personnel

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Objective

To measure the effect on codend selectivity of fishing season. This is the first of three trips to cover periods when the fish are in poorest and best condition. Target species are haddock and whiting using a 100 mm mesh codend with 100 open meshes on its circumference.

Out-turn days per project: 7 days C521

Narrative

The vessel owners gave permission to begin setting up RCTV equipment and fishing gear on 7 April outwith the charter period. Setup continued on 8 April. Sea duties commenced on 9 April off the east side of the Orkney Islands and continued until 11 April when weather conditions in addition to a damaged trawl and small mesh cover necessitated a return to Kirkwall where the vessel lay during 12 April for repairs to gear and continuing bad weather. Work resumed on 13 April to the east of Orkney. The cruise ended at Scrabster on 14 April when staff returned to Aberdeen.

Results

Fish maturity and girth measurements: The ICES four stage maturity scale was used to identify haddock and whiting maturity. The majority of haddock from which girth measurements were taken were maturity stage 4 (spent) and whiting were maturity stage 2 (maturing). Haddock will therefore be the main species to compare with the catches from the two further cruises in this series. A total of 843 girth measurements were taken for haddock and whiting and these are being analysed in the Laboratory.

Selection parameters: A total of 10 hauls were obtained from which parameters could be calculated. The selection parameters for haddock per haul are given in Table 1. Between-haul-variation was taken into account to establish a single result which is given below.

50 % length (cm)	Selection		No of fish in SR	
	factor	range (cm)	large mesh	small mesh
28.5	2.88	6.0	2,668	2,717

Note: SR = selection range between the 25 and 75% retention lengths.
Cod-end catches were not more than 423 kg.
The average cod-end mesh size taken from 304 meshes picked at random and using a ICES measuring gauge set at 4 kgs tension was 98.8 mm.

Further analysis is being performed at the Laboratory to investigate possible effects of weed in the catch on some of the hauls.

Underwater television observations: The RCTV was deployed for short periods during three hauls. The small mesh cover with its internal 3 m diameter hoop and external 1.8 m hoop was correctly rigged and held the small mesh cover netting well away from the codend netting (ie, up to an estimated 1 m space was observed between cod-end and cover with catches up to a maximum of 423 kgs in cod-end and 2,285 kgs in cover).

Handling the small mesh cover: Wind (force 6 gusting 7) pushed the cover against ships gear whilst handling prior to taking fish aboard. Damage to the cover may result but did not occur on this occasion. Crewmen may be in danger of contact with the floats, chain and hoop, to their injury in windy conditions although this did not happen on this cruise. The method is not recommended in windy conditions. Large cod-end catches may be difficult to unload. The procedure of suspending the cover from the power block requires a block with extension capable of a 12 m vertical drop to the sea surface. This is to enable the fish to fall down into the lifter section beneath the lifting becket so that they can be lifted aboard.

Table 1

Haddock

Haul no	50% length (cm)	Selection curve parameters	
		a	b
1	23.8	-13.9	0.6
2	26.0	-13.4	0.53
3	28.5	-8.9	0.32
4	27.0	-14.5	0.55
5	27.6	-15.4	0.57
6	32.0	-8.2	0.26
7	26.1	-12.8	0.50
8	27.4	-11.9	0.44
9	30.0	-11.0	0.38
10	28.8	-8.8	0.31

J H B Robertson
5 June 1995