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CRUISE REPORT

FRV MARA

1-25 MAY 1972

NARRATIVE

The objective of this cruise was to complete the series of otterboard trials which had started earlier in the year on Mara (7-24 March). The Mark 1m pelagic trawl was again fished but on this occasion with curved rectangular boards, 'V' boards and polyvalent boards. A few hauls with Suberkruub boards were included to check previous results and to provide a link between the two sections of the trials. This was considered necessary as the trials were to be conducted partly in Loch Ness where the fresh water and tide-free conditions would influence the final results.

The ship was based at Fort Augustus for the first 2 weeks of the cruise. The shelter afforded by the loch and the ability to have the gear in the water within 15 min. of leaving the pier permitted maximum use to be made of the cruise time. This location should be considered for future instrumented trials of a pelagic nature.

Mara left Loch Ness on 12 May and made passage to the Clyde to be at the disposal of the WFA scientists who embarked at Ardrrossan on 17 May. The purpose of this part of the cruise was to obtain Dover soles which were required for the fish farming experiments being undertaken at Hunterston. Mara fished at night, in an area south-east of Ailsa Craig in which Dover soles were expected to be present.

Mara resumed the trawl board instrumented trials off Ardrrossan on 22 May and continued till the 24th when adverse weather conditions terminated the trials.

RESULTS

Twenty-four 3-hour hauls were completed during the cruise. As during the previous otterboard trials, the warp aft was kept constant throughout, and the engine révs varied. It was unfortunate that not all the necessary instruments were available during the cruise due to a gear section commitment on Clupea. This was partly overcome by adapting the Kelvin Hughes transducer to measure board spreads but its use for this purpose meant forfeiture of headline height measurements and the net distance off bottom.

A table of preliminary results is attached to this report. The complete analyses of both otterboard trial cruises will be combined to produce a final comprehensive report.

The search for Dover soles on behalf of the WFA proved rather disappointing in that only 18 pairs were caught.

A CORRIGALL
25 October 1972

PRELIMINARY TABLE OF RESULTS

(Constant data - warp aft 75 fm)

1-25 May 1972

Speed knots	Net Opening fm			Net Spread fm			Board Spread fm			Board Depth fm			Total Gear Drag cwt			Net Drag cwt			Total Gear H.P.			Board Spreading Force cwt			Board Drag cwt		
	P	C	V	P	C	V	P	C	V	P	C	V	P	C	V	P	C	V	P	C	V	P	C	V	P	C	V
2	7.5	8.8	7.25	-	5	5	12.6	5	9	32	41	31	17.2	15.2	15	12.4	10	8.5	17.9	25.5	23.8	1.8	0.8	1.2	1.9	1.6	0.4
2.5	6.6	7.9	6.75	-	-	5.7	14.8	9.5	10	20	34	26	24.8	23.5	21.2	18.6	14	13	28.9	35	34.5	2.9	1.6	1.6	3.4	2.66	1.4
3	6.05	6.95	6.25	-	-	6.5	16.8	14.4	10.7	12	27.8	21.5	35.6	32.5	29	25	20.5	20	51	46.7	45.2	4	2.4	2	5.8	4.25	3
3.5	5.75	6	5.8	-	5.3	7.7	18.6	20	11.5	7.4	21	17	49	42.8	37	31	28.2	29	69	63.5	55	5.18	4.5	2.6	8.3	7.24	5.6
4	5.6	5.1	5.5	-	-	8.3	20	25	12.4	4.4	14.5	12	62.4	53.1	44	38	37	38	89.5	75.5	65	6.15	7.3	3.2	10.8	10.73	8.2

P - POLYVALENT C - CAMBERED V - VEE