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Not to be cited without prior reference to the Marine Laboratory, Aberdeen

FRV *Clupea*

Cruise 0399C

REPORT

22 February - 4 March 1999

Personnel

F G O'Neill	B2
R J Kynoch	B1
P J Barkel	B1
N S Collie	B1
S McKay	A3
N Ward	(SFIA)

Out-turn days to project: 11 days - IAB1

Objectives

i) To investigate cod-end dynamics and in particular to examine the relationship between cod-end pulsing, vessel motion, sea state, towing speed and catch size.

ii) To investigate the dependence of cod-end selectivity on year-class.

Narrative

Scientific staff joined the *Clupea* on 22 February. The remainder of the equipment was loaded and the Laboratories set up. Departure from Fraserburgh was delayed until 24 February due to bad weather. The trawl was shot on a number of fishing grounds in the Moray Firth and the cameras, the RCTV and other instrumentation were tested. Owing to the small catches the *Clupea* steamed to Orkney on 25 February.

Over the course of the following five days the trawl (BT 158) with a rockhopper ground gear was fished east of Copinsay with deck tension meters, load cells, depth meters, net log, Scanmar instrumentation and mini TVs attached. Accelerometers on board the *Clupea* measured vessel motion. When weather permitted the RCTV was deployed to observe and record the cod-end motion.

Owing to the small catch sizes the dependence of cod-end selectivity on year-class was not investigated.

During the cruise two days were lost to bad weather, 12 hauls were carried out and although catches remained small observations of cod-end motion were recorded for a range of sea states (force 1 to 7). Initial analysis suggests that there is a strong correlation between the frequency of vessel motion and that of cod-end pulsing.

J Morrison
25 March 1999