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## Cruise Report

FRS Clupea

5 - 30 May 1975

Narrative

Clupea sailed from Aberdeen on Tuesday 6 May, arrangements having been made to rendezvous with the laboratory diving team at the Lossiemouth test area on Wednesday 7.

At first some difficulty was experienced in shooting the gear with the result that only the North Sea trawl had been instrumented and observed by Friday 9 May. This necessitated the ship remaining in the Buckie area over the weekend so as to continue a similar trials period with the IMR Boltrope trawl.

On completion of the trials, Clupea proceeded on the 13th to the Shetland fishing grounds, but owing to adverse weather conditions it was not possible to commence fishing till Friday 16. Four hauls were made before the ship had to go to Lerwick for the weekend break and the opportunity was taken to pick up a WFA observer.

Returning to the Balta area only 2 hauls were possible before gale force winds precluded further work and Clupea had again to seek shelter. It was indicative of the weather that 17 other vessels shared the same anchorage over this period.

Work was recommenced on Friday 23rd but was interrupted by the weekend in Lerwick when the WFA observer was landed and Mr R S Prior of the Boston Deep Sea Fishing Co embarked.

Fishing was again conducted in the Balta area on Monday 26 but after a few hauls which showed that the fishing had deteriorated, it was decided to move ground.

A Corrigall and Mr R S Prior were dropped at Lerwick on the morning of the 27 and Clupea moved to the Turbot Bank area. Six hauls were completed before the ship docked at Aberdeen on the 29th.

Daily Log

<u>Date</u>	<u>Disposition</u>	<u>Comments</u>
6	Aberdeen-Buckie	
7	Moray Firth	Gear observation and instrumentation trials - North Sea trawl
8	" "	" "
9	" "	" "
10 & 11	Buckie	
12	"	Changed trawl - sailed on evening tide
13	Moray Firth	Gear trials - IMR trawl
14	Steamed north to Shetland	Trial haul in evening - weather deteriorating

## Daily Log

<u>Date</u>	<u>Disposition</u>	<u>Comments</u>
15	At anchor	Northerly gales
16	Balta area	Comparative fishing - IMR trawl; 4 hauls
17 & 18	Lerwick	
19	Baltic area	Comparative fishing - North Sea trawl; 2 hauls
20	At anchor	Northerly gales
21	"	" "
22	"	" "
23	Balta area	Comparative fishing - IMR trawl; 4 hauls
24 & 25	Lerwick	
26	Balta area	Comparative fishing - North Sea trawl; 4 hauls
27	Steamed south to Turbot Bank	
28	Turbot Bank area	Comparative fishing - North Sea trawl; 6 hauls
29	Aberdeen	Unloaded gear

## Instrumented Trials

Although the overall size of the North Sea trawl had been considerably reduced for this experiment, the headline height remained comparatively high at 17'. The spread between the wing ends remained at 51' which is similar to the standard Granton Trawl.

The IMR Bolt rope trawl which was being observed for the first time had a headline of 12'. Unfortunately due to an instrument failure it was not possible to record wing end spread, but from the Divers observations it appeared to be similar to the North Sea trawl.

The crutch lines on the IMR trawl were too tight causing distortion of the netting and pockets to be formed on the lower wings. Typical of the two panel design were the areas of strain at the top quarters partially closing the meshes from there to the back of the square. The cross belly line also required adjustment to allow the belly freedom to flow.

At a recorded speed of three knots the net drag of the North Sea trawl (2.7 tons) is practically the same as the IMR Bolt rope trawl.

## Comparative Fishing

Eight hauls were made with the IMR trawl and six with the North Sea trawl on the Balta grounds. At no time was the ship able to trawl on 2 consecutive days and because of a considerable fluctuation in the fish population over the period it was impossible to get an adequate catch comparison.

It would appear that large concentrations of fish moved onto the grounds following the

period of the gales, when catches of 28 buckets (2 hour haul) and 38 buckets (half hour haul) were taken, but within two or three days catch-rates diminished rapidly, ( 5 - 8 buckets for a 2 hour haul).

Catch rates were from time to time compared with commercial vessels in the area, which also experienced similar changes in catch rate. The experience was similar at Turbot Bank where six hauls were made with the North Sea trawl. Catches compared favourably with the commercial vessels, apart from one haul when the catch with North Sea trawl was considerably larger.

A Corrigall  
14.7.75

Seen in draft - A Mair