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3SR68

CRUISE REPORT

F.R.S. "SCOTIA"

24th April - 8th May 1968

Narrative

The SCOTIA, which should have sailed on the 17th April, was delayed for a week due to repairs to her boiler. Part of this time was also taken up by safety tests carried out on the boiler by the Board of Trade.

On the 23rd April SCOTIA's programme had to be altered to allow her to pay a visit to Skagen in the north of Jutland, to collect one of our instrumented buoys which had been picked up by a Danish fishing vessel.

SCOTIA finally sailed from Aberdeen at 2345 hrs on the 24th April, and to make sure of reaching Skagen by the 29th April, she steamed straight to 1°E before commencing work on stations.

Trawl and plankton stations were worked to 4°E, where purely environmental stations were worked across the Skaggerak.

SCOTIA put into Skagen at 1045 on the 29th April, where the transfer of the buoys was arranged and carried out.

SCOTIA sailed that evening at 2300 hrs for a grid of environmental stations along the west coast of Norway. Only six of the stations were worked before the weather deteriorated. From then onwards, work was very sporadic in the barely workable weather conditions.

Work was finally abandoned early on the 5th May and SCOTIA docked in Aberdeen the same morning at 0730 hrs.

Trawling

Eleven one hour trawls were made. The dominant species caught were 1967 year class haddock.

Only a few cod were tagged and a small number were examined for nematode infestation.

Parasitology

Normal whiting eyes, and eyes infested with Gilquinia squali were brought back for sectioning.

Specimens of G. squali at various stages of development were removed from whiting eyes and stored in the deep freeze. Serum from infested and uninfested whiting was also stored in a like manner and returned to the laboratory for immunological tests.

About 50 specimens of the trematode Dictyocotyle coeliaca removed from Raja radiata were stored in sea water in a refrigerator, in an attempt to keep them alive for experimental work to be carried out by Dr. Williams.

Four samples of T. esmarkii, preserved in formalin, were kept for gill parasite examinations.

Only a few Nephrops stations were sampled, but of those, only one, station 15, provided a significant number of Nephrops. No berried females were found.

Plankton/Productivity

The plankton survey, like the trawl survey, was very much curtailed and patchy, due to lack of time and bad weather. From a rough analysis of the samples taken, Calanus increased in numbers towards the Norwegian coast and became very numerous in the Skaggerak.

Euphausiid furcilia appeared in moderate numbers west of 3°E. Thysanoessa sp. was found over most of the area sampled. Spiratella retroversa appeared to be confined to the central region of the North Sea.

Chlorophyll and carbon samples were taken at all stations and temperatures recorded on the thermograph. Bathythermograph records were also obtained.

Echo Sounding

Useful records were obtained only for about five days at the start of the survey.

Dahn Work

The SCOTIA sailed on Friday 7th May at 0830 hrs and later that day laid four current meters from two moorings at positions $3\frac{1}{4}$ and $7\frac{1}{4}$ miles NxE of Rosehearty.

SCOTIA remained in their vicinity until 0300 hrs on the 8th May, when she made for Leith. The scientists aboard were put ashore at Aberdeen by pilot cutter.

N.T. NICOLL
14th May, 1968