MINISTRY OF AGRICULTURE, FISHERIES AND FOOD FISHERIES LABORATORY, LOWESTOFT, SUFFOLK, ENGLAND 化化学 化化学 机基础合理机 1972 RESEARCH VESSEL PROGRAMME SS 3 1 1 REPORT: RV CIROLANA: CRUISE 2 (PROVISIONAL: Not to be quoted without prior reference to the author) altura con a la concerta de la concerta agrava a compaña A C Burd bar W.G. Parnell makeurs and winging of the second and second second in a state of the second . Anne set P Winslade T W Boon TW, Boon and Example of the second se - S 85. Dr M Gee Dr. M. Moore,) NERC - E 121 on Mr. A Oscan Frank and the star quantum and the star starts and the starts of the st A SHET I THERE A PARTIC AND A MARKED AND A MARK DURATION Left Grimsby 1900 h 3 February A AL

Arrived Crimsby 0700. h 16 February is a start of the second is the seco

All times are Greenwich Mean Time

LOCALITY

North Sea

ATMS

1. To participate in the ICES Young Herring Survey

2. To make bottom temperature and salinity observations as required by the ICES hydrographer

3. To monitor chlorophyll using a fluorometer for under way sampling

4. To collect herring of the 1969 year class for Dr Portman.

NARRATIVE

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CIROLANA proceeded to a position off the River Tees where a trial of the system for handling the kites on the Dutch Herring trawl was made. This proved successful and trawling commenced in the first survey area. During the cruise the gear was fished easily in all sea and wind conditions up to near gale strengths.

Radio contact was maintained with Anton Dorhn, Tridens and Explorer and a daily exchange made.

CIROLANA entered Esbjerg on the evening of 12 February and Mr Burd left the ship next morning to attend the ICES Liaison Committee meeting in Copenhagen. On leaving Esbjerg on the morning of 13 February CIROLANA completed the outstanding stations. CIROLANA made an attempt to collect a special sample of fish for Dr Portman off the River Tees but this was abandoned after extensive damage to a Dutch Herring trawl and a Granton trawl had been sustained.

CIROLANA docked in Grimsby at 0700 h on 16 February.

RESULTS -

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Aim 1: From the results of all ships taking part in the survey it would appear that the 1969 year class is still fairly abundant. Areas of high abundance of young herring were found in the south eastern North Sea and in the north western area off the English coast.

> Young haddock appeared abundantly in the northern North Sea and some good catches of whiting were made off the English north east coast.

- Hydrographic observations were made at trawl stations and the Aim 2: surface thermograph was used throughout the cruise.
- Very low levels of chlorophyll Λ were recorded over the whole Aim 3: area surveyed. A special survey near the Scheldt estuary also gave low readings in the Dutch coastal area.
- Material was collected and frozen for Dr Portman. Aim 4:

Miscellaneous: Dr Gee examined all herring samples for parasites. Dr Moore made a collection of parasites from haddock and other gadoids and elasmobranchs. and the state of the

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A C Burd 22 February 1972

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