

MINISTRY OF AGRICULTURE, FISHERIES AND FOOD
FISHERIES LABORATORY, LOWESTOFT, SUFFOLK, ENGLAND

1972 RESEARCH VESSEL PROGRAMME

REPORT: RV CIROLANA: CRUISE 8

(PROVISIONAL: Not to be quoted without prior reference to the author)

STAFF

R W Blacker
J C Pope
M R Vince
J A Bedwell
M W Easey
M Macdonald
J Dann
J C Rigg
P Richards (Luton College of Technology)
D Andrew (IMER Marine Parasitology Division)
E S A H Khallaf (FAD)

DURATION

21 November-18 December

LOCALITY

West Greenland

AIMS

1. To survey the fish stocks off West Greenland as part of the ICNAF co-ordinated Groundfish Survey Programme.
2. To make hydrographic observations at selected stations to facilitate the interpretation of the fishing results.
3. To collect material for the study of the distribution of nematodes in cod.
 - To collect Pycnogonida for studies of their structure.
5. To recover JONSIS Stations B and C and to re-lay B.
6. To collect large live cod for the Easdale target strength experiment.

NARRATIVE

CIROLANA left Grimsby at 0454 h 21 November. JONSIS Station A was passed on the way to Station B. There was no sign of the buoy at Station B, but deteriorating weather would have prevented any attempt to recover the meters there, and no attempt could be made to recover Station C. Course was then set for Greenland via the Portland Firth. The passage was stormy and nearly two days were spent dodging Force 9-10 winds southeast of Cape Fraewell. Cape Farewell was eventually reached at 1600 h 28 November when the gale force wind became northerly and the land gave a slight lee, but no fishing was possible because of the 40 knot wind and a very heavy swell. During the night the ship steamed slowly for Nanortalik Bank where one trawl haul was made on the morning of the 29th. After dodging for

the rest of the day another haul was made there about midnight on 29th. Most of the 30th was spent dodging towards Malinefjeld where two trawl hauls were made on 1 December when the wind moderated. A hydrographic section was completed off Cape Desolation between 1930 h 1 December and 0135 h 2 December. During the next three days trawl hauls were made on No Name, Danas, and Fyllas Banks. Hydrographic sections were made across No Name Bank and Danas Bank and three deep hydrographic stations were worked off Fyllas Bank while RV ANTON DOHRN completed the inshore stations of this section. On completion of these stations at 0332 h 5 December, course was set for Godthaab to rendezvous with the RV ANTON DOHRN. While in Godthaab progress with the survey and the plans for the remainder of the cruise were discussed with Dr Messtorff and other scientists in the ANTON DOHRN. They had fished and made hydrographic observations on the banks north of Godthaab, finding cold conditions everywhere and few cod. CIROLANA left Godthaab at 1600 h 6 December having been delayed several hours while a crew member received hospital treatment. Later that day two trawl hauls were made on Banana Bank. On the 7th Fyllas Bank was fished again. On the 8th one haul was made on Fiskenaes Bank before course was set for Nanortalik Bank. Fine weather on 9th and 10 December allowed CIROLANA and ANTON DOHRN to fish together on Nanortalik Bank and on grounds close to Cape Farewell. ANTON DOHRN completed her programme late on 10 December with the inner stations of the Cape Farewell hydrographic section, while CIROLANA waited to complete the three deep stations of this section during daylight on the 11th. While these stations were being done the wind increased to 35 knots and it became obvious that no further work would be possible in the area. Course was then set for Faroe Bank which was reached late on the 14th with a Force 8 southerly wind blowing. The wind moderated during the night, but four trawl hauls produced only three live cod. One haul was made off Sulisker in the early hours of the 16th, but this only produced a few small cod. Another haul off Kinnairds Head yielded only one more live cod. These few fish did not warrant entry into Aberdeen, so course was set for JONSIS Station B, which was laid at 1400 h, 17 December. CIROLANA anchored in the Humber at 2040 h, 17 December and docked at Grimsby at 0239 h 18 December.

RESULTS

Aim 1: Trawl hauls were made on each of the fishable banks from Cape Farewell in the south to Banana Bank in the north. Thanks to Skipper Argumont's knowledge of the grounds only two hauls were invalidated by gear damage. The weight and numbers of each species were recorded for each haul. Length distributions and stratified otolith samples were obtained for the cod catches from each bank, and length distributions of other species were also recorded. Cod catches were light in most areas except at Cape Farewell where 84 baskets per hour were caught in one haul very close to the Cape. The best hauls elsewhere were 30 baskets in one haul on No Name Bank and 25 baskets of cod and 10 baskets of redfish caught on the edge of Fyllas Bank. The only other fish caught in any quantity were long rough dabs and catfish of various species. On most of the banks the fishing area is limited by rough ground, and no attempt was made to fish stratified depths. The RV ANTON DOHRN fished one or two places in deeper water than CIROLANA fished and the positions of these may be useful on future surveys.

When the two ships fished together the catches were reasonably comparable.

During the working period the whole area from Cape Farewell northwards was remarkably free of ice although near the Cape there were sufficient 'berg bits' and 'growlers' (not always detectable with radar) to make steaming at night hazardous.

Aim 2: Hydrographic sections were completed off Cape Farewell, Cape Desolation, No Name Bank, Danas Bank and Fyllas Bank. The work on two of them was shared with RV ANTON DOHRN and the results will be exchanged later.

Bottom temperatures were taken at all trawl stations. In most areas where cod was caught the bottom temperature was more than 3°C, but the greatest quantity of cod was caught near Cape Farewell where the temperature was near 0°C. The fish there were feeding heavily on capelin and Polar cod.

Aim 3: Samples of cod from all the banks were examined for nematodes and additional samples were deep frozen for examination at Lowestoft.

Aim 4: Numerous specimens of Chaetognathon, Collasendeis and Nymphon spp were obtained. Many were prepared for electron microscopy and others were brought back alive.

Aim 5: JONSIS Stations B and C could not be recovered on the outward passage, but Station B was successfully laid on 17 December.

Aim 6: No fish were obtained for the Easdale experiment.

Miscellaneous: Meteorological observations were made at synoptic hours during most of the cruise, and XBT casts were made at synoptic hours during the passage to and from Cape Farewell.

Samples of oceanic water were collected from Faroe Bank for Dr Reynolds.

R W Blacker
29 December 1972

SEEN IN DRAFT Finn
 G W Argumont

INITIALLED AJL

DISTRIBUTION

Basic List
R W Blacker
J C Pope
M R Vince
J A Bedwell
M W Easy
M Macdonald
J Dann
J C Rigg
P Richards
D Andrew
E S A H Khallaf
Dr Messtorff (Bremerhaven)