

F.R.S. "SCOTIA". - August, 1951.FAROE - ICELAND CRUISE.

The Cruise lasted from 14th of August to 5th September and all work was completed with the exception of six stations near Faroe Bank and one to the N.W. of Lousy Bank, which had to be abandoned because of weather conditions. Contact was made with the "CLUPEA" in the Moray Firth on September 4th and the two ships worked in co-operation to test the working of the pelagic trawl.

HYDROGRAPHY:

Surface temperatures were 7° to the S.E. and 11° to the S.W. of Iceland but there was a tongue of warm water 13° between Harris and Lousy Bank. On the whole the surface temperatures between Faroe and the Butt of Lewis were 1° lower in August, 1951, than in September 1950, while those between Iceland and the Hebrides were 1 or 2° higher. The great body of oceanic water from 100m. down to 800m. had a temperature between 8 and 9° and except for a negative temperature of -0.48° N.E. of the Wyville-Thomson Ridge deep water bottom temperatures were never below 2.2°. Phosphate depleted layers extended only to about 30m. depth, with average values of 0.3 μ gm. atoms P-Po₄/L. Below 100m. values of 1.0 μ to 1.3 μ were obtained. The Faroese costal waters had a high value (for the surface) of 0.8 μ . The oxygen content was usually between 5.9 and 6.1 cc/L at the surface to 6.3 cc/L near the bottom except for coastal areas where figures up to 6.6 cc/L were recorded.

PLANKTON:

Phytoplankton was rich west of Faroe and off the S.E. coast of Iceland where the dominant species were Nitzschia seriata and Chaetoceros sociale but was less abundant over the deep water. Dinoflagellates, especially Ceratium tripos were abundant on the Iceland Plateau and continental shelf generally and the radiolarian Acanthometron pellucidum common over deep water.

Calanus finmarchicus was very abundant in the colder areas, and was rich in oil content. On the Icelandic plateau, however, where the temperature was about 12°C, Calanus was very poor in oil content. Meganyctiphanes was present in a large proportion of the catches though never in very great numbers and Euchaeta was dominant in the deeper collections. The oceanic hauls contained a large bulk of a varied assortment of species including Sagitta maxima, S. lyra, S. planctonis, Eukrohnia hamata and E. fowleri. Deep sea fish (such as Cyclothone), medusae, pteropods, the ostracod Gigantocypris mulleri, bathypelagic copepods and mysids. The surface samples often contained bits of seaweed with attached Lepas and commensal Idothea. The samples have not yet been examined in detail, but so far no abundance of salps or doliolids has been observed, but large quantities of Limacina were taken, especially on the line between Iceland and Scotland.

TRAWLING:

Good catches of haddock on the Iceland Plateau showed that the growth rate varied according to the area of catch. The greatest growth rate sampled was North of the Westmann Is. and the least in Faxa Bay. The Sebastes caught belonged to three very distinct size groups with modes at 12, 22 and 44 cms. Fair samples of Lemon Sole, Megrin and Witch were dealt with and a few small Halibut were taken in Faxa Bay. Herring were only rarely found.

Trawl /

Trawl hauls in Scottish areas were rather small but reasonable samples of the haddock and whiting populations were taken.

ECHO-TRACES.

Echo-Traces were brought back to the laboratory for a discussion on their interpretation.

Samples of Euphausiids for Vitamin 'A' content were preserved in accordance with Dr. Fisher's instructions.

J.H. FRASER.

14th September, 1951.

CIRCULATION:

Mr. W. Russell	Dr. B. Havinga	Dr. J. H. Fraser
Capt. C.H. Champness	Dr. A.R. Molander	Dr. A. Ritchie
Mr. M. Graham	Dr. H. Thomsen	Dr. B. B. Parrish
Dr. C. E. Lucas	Prof. Gilis	Capt. E.A. Bruce
Dr. J. N. Carruthers	Mr. F. S. Russell	Capt. G.B. McLaren
Dr. A. Taning.	Mr. E. Ford	Mr. E. Wilson
The Secy., I.C.E.S.	Mr. K. M. Rae	Mr. R.B. Burns
Dr. F. Devold	Dr. G. Reay	Mr. J. Sinclair
Mr. R. S. Wimpenny	Dr. H. Wood	Mr. R.E. Sharma
M. P. Desbrosses	Dr. J. B. Tait	Spare 5.