

North Sea Area Sub-Committee

NORTH SEA AREA

PROVISIONAL SCOTTISH PROGRAMME - 1954.

The broad lines of the programme for 1954 will resemble these of 1953. They are as follow, but more detailed cruise programmes will be issued from time to time as previously, after the details and priorities of the main programme have been settled.

I. HYDROGRAPHY:

1. Compilation of hydrographic "standards".
2. Continued investigations of the hydrography of the Northern North Sea and its approaches, in relation to the fisheries of the North East Atlantic.
3. Ad hoc investigations relative to plankton, herring, and other fish and herring and haddock broods, etc.
4. Productivity investigations, nutrient variations, organic constituents, etc.

II. PLANKTON:

1. Studies of the plankton in relation to its environment and in particular the adult and young fish populations (dry weight, fat and chlorophyll content estimations, planktonic "indicators" and the fish broods, etc.)
2. Continued ecological investigations of the North East Atlantic with the plankton recorder by the team of workers at Leith (Scottish Marine Biological Association), and herring fishery/plankton relationships in conjunction with the Marine Laboratory, Aberdeen.

III. HERRING:

1. Continued sampling of the herring catches on the Scottish grounds, and further afield.
2. Investigation of the different "stocks" and their populations, in relation to forecasting and fishing intensity, particularly on the North East coast.
3. Study of the broods in relation to their environment (light, temperature, plankton, etc.)
4. Cross fertilisation and rearing of herring larvae under different conditions.
5. Vertical distribution and movements, particularly in relation to thermocline and other environmental factors.
6. Horizontal movements by different methods of tagging, in the light of earlier comparative tagging experiments.
7. Location and surveying by means of echometer (vertical and horizontal), along with investigations of the significance of the "traces" of herring and other fish, etc. - underwater photography.
8. Experimental fishing by different methods, including investigations of the abundance of various "small" herring stocks.

IV. DEMERSAL FISH:

Programmes of research into haddock, whiting, lemon sole, plaice and halibut biology (and statistics), etc. will be continued and developed along the lines outlined in previous programmes - young broods, growth, mortality, fishing rates, movements (random and otherwise), other habits, conservation investigations, etc.

V. LOBSTERS AND BOTTOM INVESTIGATIONS:

1. Studies of the lobster stocks, methods of fishing, movements, trans-plantation, "ponding".
2. Investigation of invertebrate populations on the sea-bed; to include lamellibranch populations in relation to the plankton investigations of the team at Leith and of the Department; bottom populations in relation to the food of fish on the same ground; fish growth (and quality) relative to available food, etc.

VI. GEAR INVESTIGATIONS:

1. Continued investigations into methods of fishing with different gears (including echometer and underwater photography - by frogmen and surface-controlled camera); with special reference to the reactions of fish to the gear, the escape of fish and the interaction between the gear and water flow, etc.
 2. Analysis of the modes of action of different parts of the gear.
 3. Electric fishing experiments.
 4. Effects of fishing gear on the sea-bed.
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