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The Scheme of the International Investigations of Fish-Reproduction and Distribution of the Young at the Earlier Stages of Their Development in the Northwestern Atlantic

Fishing in the Northwestern Atlantic gives at present over two million tons of fish and has been carried on by the vessels of twelve countries. In spite of such a considerable development of fishing there are resources not fully used in this area. At the same time there are reasons to apprehend unpractical development of the fisheries of some species.

The present knowledge about the life history of the main commercial fishes of this area are quite insufficient, especially in relation to their reproduction and distribution. The investigations conducted since 1914-1915 threw light only partially on the above subjects, although workers of Canada, Denmark, USA and recently of the USSR were participating in this work. It is necessary to coordinate work on the international basis to draw a single picture of fish-reproduction and distribution and using these data as a basis for rational fishery development.

The investigations on fish-reproduction and their distribution would be conducted mainly towards studying of valuable and common species: cod, haddock, redfish, halibut, flounder, capelin, hake, herring and others. But it is necessary to take into consideration data on ichthyofauna in the whole.

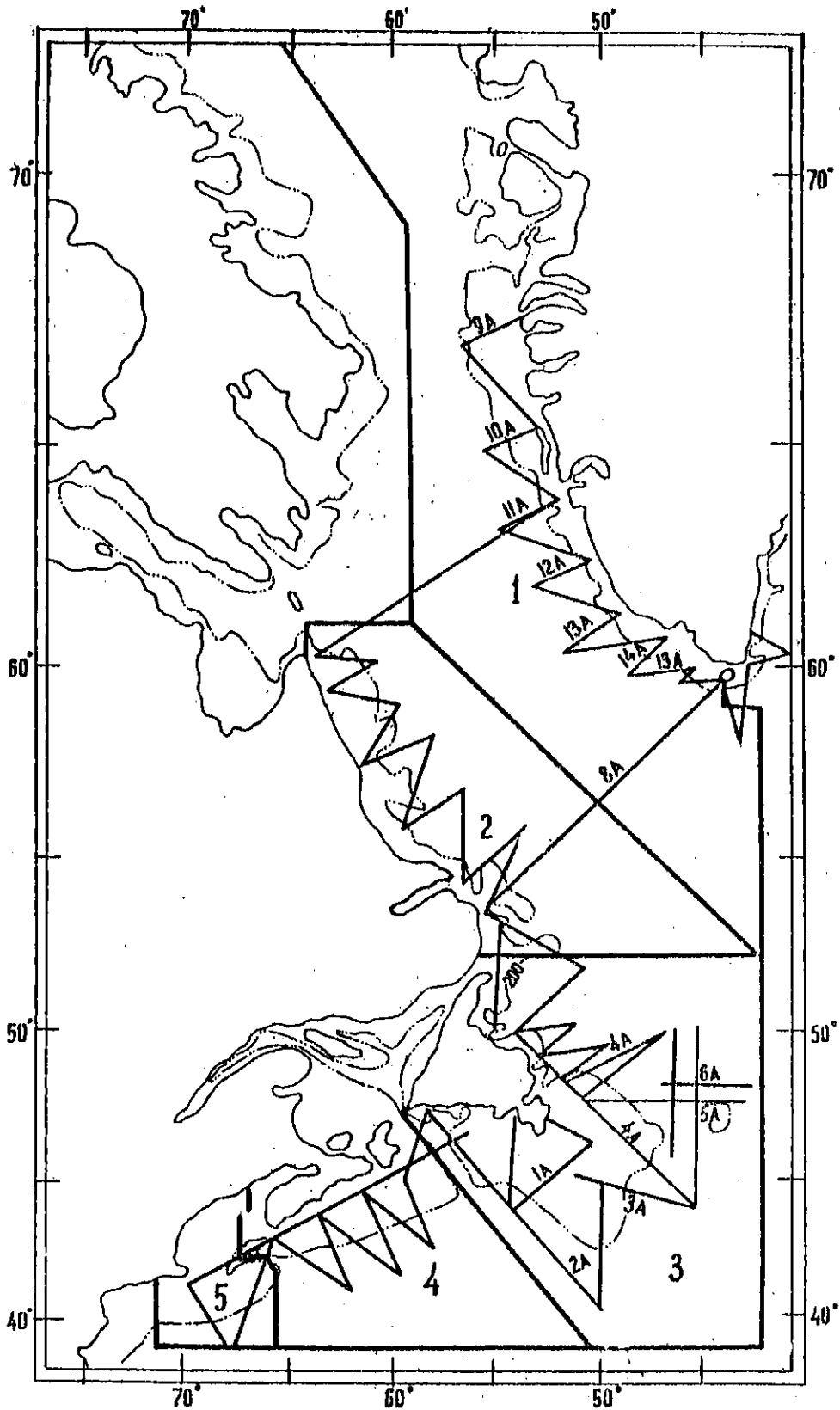
The main tasks of these investigations are: 1. Determination of regions, terms and conditions of fish-reproduction and quantitative assessment of spawning schools. 2. The ways of larvae drift and conditions of larvae survival. 3. Quantitative calculation of larvae and the young.

It seems necessary to conduct work along all the sections beginning from early spring (February-September) intensifying the work especially during the peak spawning period of the main species (since the end of March till June).

Collection of material would be made along the sections based on underwater configuration and current direction (the scheme of the outlined sections being enclosed). Pelagic eggs and larvae of fish (ichthyoplankton) are being collected with the use of the standard methods, one of which is vertical to 200 m, the other one is horizontal ten minutes trawling on each station with quantitative calculation of eggs and larvae under 1 sq. m. of the sea surface, in 1 cubic m. and per one catch by any gear. For this purpose are used: plankton nets with openings of 0.5 sq. m. and 1 sq. m. made of bolter of 14 meshes in one centimetre; ring trawl nets with opening of 2 sq. m. made of synthetic material with mesh size of 0.7 mm, 1.1 mm, 3 mm, and 5 mm; plankton sampler.

The work is conducted by 7-8 research vessels of the countries concerned. The USSR intends to allot 2 research vessels registered in Murmansk or Kaliningrad.

Participating countries coordinate particular working programs and exchange their information on the activities done. Results of the work are discussed at the joint meetings.



The scheme of oceanic investigations of fish-reproduction and the distribution of the young at the earlier stages of their development in the Northwestern Atlantic.