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*Biology.*—(a) The distribution of the eggs and larvæ of the most important food-fishes, mainly cod, haddock, pollock, mackerel, and herrings. This material will make it possible to outline the areas where these fish spawn, and may thus be caught during their spawning time.

(b) The distribution of the most important animals, which serve as food for these fishes, especially the Schizopoda. These investigations may be especially important after the spawning time is over, and the fishes (herrings), are feeding on or outside the spawning banks.

For the combined studies of all material, it seemed important to arrange three series of cruises:—

1. The first, in May, when herring and other fish are spawning, and when the winter conditions still may be found in the sea.

2. The second, in June, when the larvæ of these fish are to be found in the water. As the eggs of herrings are laid on the bottom, they cannot be fished by tow-nets. But in June, when the larvæ escape from the eggs the time will be especially valuable for the location of the spawning grounds of the herring (by means of catching the young larvæ). It will then be possible to determine the first influence of the summer season in the sea.

3. The third series of cruises, at the end of July or in August, when the distribution of young fish (herring, cod., etc.) can be studied, and when the summer conditions of the sea are fully advanced in the different water-layers.

It seems important that each of these series of cruises should follow approximately the same course, as this will facilitate comparison between successive periods, during the season. It is further important to arrange the courses so that the most important banks (spawning grounds) and layers of water can be included, and come under observation. The ideal arrangement of the cruises would seem to be:—

1. A line of stations from Esecumenac point (New Brunswick) over the great bank of the gulf of St. Lawrence to the bank east of Anticosti.

2. A line from there across the northern channel to Matashwan bank.

3. From the Matashwan bank to the Bay of Islands (Newfoundland).

4. From St. George's bay (Newfoundland) across the great channel between Newfoundland and Capè Breton, passing cape St. Lawrence and continuing to Pictou island.

5. From Country Harbour, Nova Scotia, over Sable Island bank to the continental slope.

6. From there over the Banquereau, the bank St. Pierre towards Miquelon and St. Pierre islands.

7. From these islands over the Greer bank to the Great bank.

8. From Great bank to the southeastern corner of Newfoundland.

• Along each of these lines, stations should be determined with a distance of about 20 miles between each station. The average time for the work on a station may approximately be established at from one to one and a half hours. An investigation along these lines would give three cross-sections of the outflowing waters of the St. Lawrence, and of the Atlantic water flowing into the gulf, and provide full opportunities for definitely determining the old questions of the connection between the polar water (coming southwards along the coast of Newfoundland) and the Atlantic and the gulf of St. Lawrence water.

The investigation would further give important information regarding the spawning areas of the most important fishes, inside and outside the gulf of St. Lawrence, and determine hydrographical and biological conditions in this great fishing area. This contemplated plan will, in any case, in its main lines be the basis for