

Mr. ANDERSON: I just wondered what happens in small areas where the lampreys have cleaned out the fish. Do the lampreys all die? In the area with which I am familiar the lampreys have taken every species of sport fish; trout, whitefish, small and large mouth black bass, perch and pickerel.

Mr. McQUILLAN: Is the lamprey eel prevalent on the Pacific coast?

Mr. CLARK: Mr. Chairman, there are lamprey in the seas on both coasts, but the sea is so huge there is not the concentration that there is in the lakes.

Mr. MURPHY: Dr. Sprules, is the commission spending any money in regard to this problem in Lake Michigan?

Dr. SPRULES: Mr. Chairman, there are many—let us say several—of the electric barriers established on the major lamprey spawning streams in Lake Michigan. Many of these were planned and under construction at the time of the commission's formation.

Mr. MURPHY: You do not know how much money out of the commission's allotment was spent in regard to Lake Michigan.

Dr. SPRULES: I do not know, Mr. Chairman.

Mr. MURPHY: Mr. Clark, how many streams did you say there were emptying into Lake Huron, including Georgian bay?

Mr. CLARK: I think the figure I quoted, Mr. Chairman, was 117.

Mr. MURPHY: You are speaking now of Lake Huron?

Mr. CLARK: Yes, sir.

Mr. MURPHY: Has any survey been made in regard to the cost of establishing electric barriers in each one of them?

Mr. CLARK: I do not think an actual survey has been made of the cost of constructing electric barriers in these streams. The streams themselves have been surveyed in an effort to determine whether or not they are lamprey spawning streams.

Mr. CARTER: I would like to change the subject.

I wonder whether, while we are discussing this international commission, if the minister could bring us up to date with respect to the results of the conference held in Geneva last fall having regard to international agreements and certain conservation methods of fish resources in our territorial waters?

Mr. MURPHY: Mr. Chairman, I think we should complete this phase of the item before we go on to something else.

I wonder if Dr. Sprules could tell the committee a little more about the probable success of the use of the chemicals of which you spoke earlier. I think this would be of great interest to the members of this committee.

In view of the experiments that you have made up to date, can you say how much more time it will take before we have a chemical that will destroy the lamprey in the spawning beds?

Dr. SPRULES: There are two chemicals at the present time which have been rather extensively used in field tryouts. One is the chemical to which you referred, and the other is a chemical very closely related to it. I will not burden the committee with the chemical terminology of these, they are quite lengthy.

These are phenols and he was to be very, very careful with the use of phenols in water.

These two chemicals can be applied at such low concentrations and still kill lamprey that there is, to all intents and purposes, no kill of other species of fish, and very, very limited, or insignificant kill of any other aquatic organisms. These chemicals in the concentration in which we use them are specific to lamprey. They are so completely effective that I should say that if all the rivers could be fully treated with a proper concentration from the headwaters to the estuaries there would be very few if any lamprey left in the streams that were treated.