

8 GEORGE V, A. 1918

until the spawning time comes around. It happened that the Superintendent of Fisheries was in the Maritime Provinces when this information was received, and I had him instructed to visit the pond and look into the matter.

There were on Tuesday of this week somewhat over 2,400 salmon in the pond, between 300 and 400 of which were affected. The disease takes the form of a fungus. The first indication is the removal of the scales from the back of the neck. They are evidently eaten off. Then a white fungus develops, which rapidly spreads down the head to the eyes and makes the fish blind. It subsequently appears on different parts of the body and on the extremities of the fins and tail. The fish diseased were beginning to die, which indicates that they will not last more than a week or ten days after they become affected.

An examination of the pond revealed no reason for any unhealthful conditions. Neither did there seem to be anything through which the water was flowing before it reached the pond to cause it to be unhealthful. Some fish that were in the towing pontoons which had recently been taken from the fishermen's nets to be placed in the pond, were examined, and on a few of them the first stage of the disease above referred to was in evidence.

As it seemed possible that the scales might have been removed from the fish striking the top of the pontoons, one of the fishermen's nets was visited and when lifted there were three salmon and a grilse in it. Two of the salmon were large females weighing about fifteen pounds, and they were perfectly healthy, but the third, a small male weighing 5 or 6 pounds, was apparently affected, as the scales were eaten away from the back of the head and he had an unhealthy appearance.

It would appear from the above that an epidemic has broken out amongst the fish in the river, and in view of the importance of the matter it is desirable that a capable bacteriologist should be immediately sent to the pond to thoroughly investigate the whole matter. I may add that this pond has been in operation for many years and in no instance in the past has any such trouble been experienced. The tide enters the pond, and at each high tide the water is slightly brackish.

I shall be obliged if you will give the matter immediate consideration and wire me whether the Biological Board can at once arrange to send a properly qualified man to investigate the matter. If it cannot, it may be possible for the Department to arrange with that of Agriculture to send an officer from the laboratory at the Experimental Farm here.

N.B.—Since writing the above a report has just been received from the officer in charge of the Port Arthur hatchery, in which he states that a disease, apparently of a similar nature, has broken out amongst salmon trout in the Nipigon river. This is the first time that the department has heard of any such disease there.

A few days later I received a statement from Dr. Huntsman, the main points of which are contained in his report on this outbreak of salmon disease, now being published.

On the arrival of the specimens of fish sent by Dr. Huntsman, they were immediately examined. They arrived in good condition, packed in ice, and were opened in the usual way. After examination of the organs and the flesh near the affected spots or where the fungus was growing, pieces of the various organs were excised with a sterile knife, and cut open with a second sterile knife, and a portion of the pulp, etc., of the organ removed by means of a sterile platinum loop. In a few cases pieces of the organs were taken out, seized with the forceps and scorched in the flame, and then cut open with a sterile knife and a portion removed to sterile petri dishes. In all cases the material was mixed with beef peptone salt-water agar, and from the various