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REPORTS OF THE SEVERAL OFFICERS IN CHARGE OF THE FISH-BREEDING ESTABLISHMENTS IN THE DOMINION OF CANADA FOR THE YEAR 1879.

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SANDWICH HATCHERY.

SANDWICH, December 31st, 1879.

The Honorable J. C. POPE,  
Minister of Marine and Fisheries,  
Ottawa.

SIR,—I now beg to submit for your favorable consideration the following report in relation to the Sandwich whitefish hatchery.

Last year I stated that some fifteen millions of eggs were put in the hatching cans.

The fry commenced to hatch on the 10th of March, and shortly after this date the first lot was let loose in the river. From the 21st of March, young fry were turned out every day (more or less) up to April the 12th, when the last lot was distributed. The majority of the fry were taken from the reception tank in large cans and carried to the river, and then taken in a boat out to the channel bank and let go.

A great many persons not acquainted with fish culture have been writing that the eggs of the whitefish hatch too early in the hatchery, and that the temperature of the water in the breeding room is much higher than that in the river, where the fish deposit their eggs naturally. Some think the hatching should be kept back a few weeks longer by putting ice in the tanks. Most people know that the Detroit River is full of ice all winter, and therefore, it is impossible to keep the water colder in the house than it is in the river. As I kept a correct account of the temperature of the water, both in the river and the breeding room, during the months of March and April. I send the figures herewith, and it will be found that the temperature was exactly the same with the water in the hatching cans in the house and in the Detroit River, from March the 1st to April 6th, which was the last day of hatching out of the young whitefish. The thermometer gave in both places the same figures every day, the average throughout the time being 33 and 34 degrees. Therefore, you will see that as the temperature of the water in the breeding cans and the river was the same, there could be no difference in the time of hatching out the eggs in either place.

The summer was spent in keeping everything about the place in good order, and in getting things in readiness for this season's operations.

Your Department had some understanding with Colonel Rankin about getting a supply of eggs from his fishery for this hatchery, and, I must say that he did everything in his power to assist us in the undertaking. We were not so successful in getting a large supply of eggs from his fishery as we expected. We got in all twelve millions of eggs from Bois Blanc fishery. There was only one-third of the fish caught this season that there was last year, and what eggs we did get from there all went bad (with the exception of two millions) in about three days after they were laid down. I notified Mr. Wilmot of what had happened and he came up to find out what the difficulty was. He visited the Michigan State hatchery in order to learn all he could about the loss of eggs, and found they had only about one third of the eggs they usually got, the rest having all turned bad. Mr. Wilmot also visited the Ohio State hatchery at Toledo, and found the same difficulty there, that they had lost nearly all of theirs, about 27,000,000 out of 30,000,000 that they had gathered. After sustaining this big loss at our own hatchery, and the men had returned from the spawning grounds and no more fish were being caught, we had almost given up hopes of getting any more eggs. It happened that