

distributed from Canada, which had a tendency to depreciate what had been done in fish culture, not only in Europe, but in the United States. It has been said that fish culture was only an experiment, and had not been attended with commercial success; he, however, wished to say that it was in no sense an experiment, but that in the United States and in Canada it had been a decided success, and was so recognized by everyone. It was not likely that the American Congress or Canadian Government would, for a period of twelve years, keep on making annual appropriations for fish culture if they were not satisfied that it was not only a success from a scientific standpoint, but a success from a commercial point of view. In the United States the general government had appropriated up to 1883 more than a \$1,000,000, and the individual states a sum almost as great. Up to 1798 large numbers of salmon were caught in the Connecticut River, but until 1870 the fish disappeared entirely from the river; and until 1875 no salmon whatever were seen in the river. In 1875, however, the salmon began to appear and this was the direct result of the planting of a large number of young fry in that river some years previously. Then again, in the case of the Sacramento River in California, where about two million young fish were planted yearly, the catch had increased in five years from five million pounds to fifteen million pounds, and in 1881 there were more fish than could be utilized by all the canning establishments on the river. He would not proceed with the multiplication of examples, but would refer to the fact that the fish in the Detroit River, where the United States and Canada had established hatcheries, had been increased, and the supply immensely improved \* \* \* \* \* Shad, which four or five years before were selling for \$1.00 a pair, and beyond the reach of the poor people, became so cheap and common that they could be bought for 25 cents a pair, which was entirely the result of fish culture.

"Prof. Baird was not an enthusiast, but a man possessing the widest general knowledge of natural laws, whose sound judgment and experience had enabled him to take up the work of fish culture, and carry it on, on an immense scale in the United States. People were sometimes dissatisfied because fish were sometimes planted in streams, and nothing was heard of them afterwards; but it was the theory of the Commission and of the Government that it was a proper thing to make experiments, and if they happened to be unsuccessful there was so much ground eliminated over which it was unnecessary to go again. He thought the experiments which had been successful, ought to be allowed to balance those which had not. Experiments in fish culture in Europe, especially in Holland and Germany, had yielded exceedingly promising results \* \* \* \* \*

"It seemed to him that the Canadian Department of Marine and Fisheries was one of the most valuable organizations in the world, and that their system of gathering statistics was one which other countries ought to study with a great deal of care. In the United States they had nothing of the kind \* \* \* \* \* Another matter which he looked upon with admiration was the great progress Canada had made in fish culture during the past number of years, and more especially under the direction of Mr. Wilmot, who was one of the pioneers of fish culture in America."

#### CONCLUSION.

In concluding this report upon fish cultural operations as carried on during the past year under the authority of your Department of Fisheries, in the Government of Canada, it is gratifying for me as your superintendent of the work, to state that the several hatchery establishments with their apparatus, and general appliances are in a good working condition; that the out-put of young fish from them during the past season has been very large, and their distribution in the many waters of the country has been performed with safety and satisfaction; and that the present crop of eggs now undergoing incubation in the several hatcheries present a healthy and vigorous appearance. This state of affairs, together with the numerous evidences of success which have been voluntarily given by many parties engaged in the fishing