

SUMMARY OF PROCEEDINGS AT EACH OF THE HATCHERIES IN THE DOMINION DURING 1888.

In the following condensation of the transactions at the several fish hatcheries in Canada during the past year, a statement of the number of fry put out from each, and the quantity of eggs collected in 1888 will be given, together with brief statements regarding the conditions, wants and results obtained from their operation, with other remarks.

Details in full will, however, be found more particularly described in the individual reports of the several officers in charge of each hatchery, in the Appendices of the general Report.

Fraser River Hatchery, British Columbia. This nursery hatched and put out 5,807,000 salmon fry native to the Pacific Coast. They consisted of the "Nerka," and "Chouicha" species. The former is the most important in the Fraser River, and generally known as the "Saw-quai." The latter also frequent the Fraser, but not so numerously as the "Nerka," the chouicha is the largest, and is known as the "Quinnat," or King Salmon. By far the greater number raised at the Fraser River Hatchery is the "Saw-quai" or red salmon of commerce. From the unavoidable necessity for employing unskilled men to handle and impregnate the eggs, many of the ova collected in the fall of 1887, were not fertilized and turned bad on the trays.

The hatching period on the Pacific Coast is much earlier than on the Atlantic side. At the Fraser River Hatchery, a large proportion of the fry hatch in January, whilst in the Atlantic Province nurseries the fry are not produced until April and May and in some instances June is reached before the young fish emerge from the eggs; the period of incubation being wholly dependent upon temperature accounts for the earlier hatching on the Pacific side. There has been put out of the Fraser River Hatchery during its four years existence, about 14,600,000 fry. They have been planted in rivers selected upon the judgment of the resident officer in charge of that institution. It is now ascertained from certain certificates attached to this report that some saw-quai salmon are now found in the rivers of Vancouver Island, where they were planted from this hatchery, but in which this species were never known before.

The quantity of ova laid down last fall is considerably less than the previous year. They amount to 4,921,000 as compared with about double that number in 1887. Unusually heavy freshets in the rivers interfered with the capture of parent fish and consequent diminution in the number of eggs. Of the number of spawning fish captured, only about one-fourth were females, and some of these had shed portions of their eggs before being caught. A great difficulty is experienced in conveying the eggs to the hatchery from where they are taken far up river in remote places.

Mr. Mowat, the officer in charge, quotes the first appearance of shad in the Fraser River this year and that some were taken there in the salmon nets. Last year information was given that these fish were around Vancouver Island. This indicates the migration of these fish up the coast northward from where they were first planted as fry in the Sacramento River, by the United States Fish Commission, by whom the young shad were brought across the continent from the Eastern States of the Union. An appeal is made that on account of this successful transportation and acclimatization of shad to the Pacific coast, the Canadian Department of Fisheries should in like manner undertake the planting of quantities of young shad in the rivers of British Columbia, and thus give additional importance to the fisheries of that Province. A request is renewed this year to have the whitefish also introduced into some of the inland lakes of British Columbia, which it is stated are well adapted for them.

The hatchery is said to be in good repair, the only immediate requirement is a new flume to conduct the water into the building, the old one has become decayed and leaky.