

were destroyed in vast numbers), was by means of torch-light and spear, late in September and in October, in the various rivers and creeks into which they entered at this period of the year for spawning purposes. In this way, and at this time thousands upon thousands of these gravid salmon were annually killed by the settlers and other inhabitants, who always made it a point to secure their winter's supply of fish in this manner. The law then allowing them to be taken in the streams as late as the month of October.

By this unnatural mode of killing the salmon, regularly and systematically carried on since the first settlement of the country, these valuable fish became almost exterminated, so nearly was it the case that, during some years previous to 1868, scarcely any of them could be found in the tributary streams of Lake Ontario; but since that period, and since the introduction of the artificial method of re-producing them at the Newcastle Hatchery large numbers have been found entering not only the Newcastle Creek, but also many other rivers and streams emptying into Lake Ontario; considerable numbers have also been captured in the Lake during the early summer months by the very limited use of a few of the same old trap-nets formerly used.

In 1876-77 several hundreds of these salmon were thus netted during the months of June and July along the shore of the lake, immediately fronting the outlet of the stream upon which the Newcastle Salmon Nursery is established; and it was held by the fishermen engaged in the work that, in comparing the means adopted, and the few nets used in capturing these salmon, the numbers taken in these years were almost, if not, quite equal to the catch of former times, when these fish were considered most plentiful in Lake Ontario.

As previously stated, artificial fish-culture in Canada first began from experiments with the eggs of the salmon procured in a small stream in Ontario. From this small nucleus the present extensive operations in fish-culture throughout the whole Dominion have taken their growth. From it has been brought about the annual distribution of the many *millions* of the most important fishes of Ontario, namely, *salmon-trout* and *whitefish*, all of which could not otherwise have been brought into existence, as the ova would have been cast away as offal. From it has also sprung the *seven extensive salmon-breeding establishments* in the Provinces of Quebec, New Brunswick, Nova Scotia and Prince Edward Island. The commercial benefits arising from such of these which have been in operation for the past two years are already showing most gratifying results.

From these facts, then, it may not be unreasonably held that, in the original conception, together with the practical benefits which have already resulted from the enterprise of salmon-culture at Newcastle, in Ontario, even admitting (on the supposition only) that an extensive salmon-fishery may not yet have been established in Lake Ontario, both the Government and the people of this country will have been more than amply recompensed for the outlay invested in the encouragement and maintenance of this wealth producing industry.

It is a well-established fact that, although myriads of salmon are known to inhabit certain areas of the ocean, they are seldom or ever taken in the open sea. They are only captured on their inward migration to the rivers along the coast, and in the estuaries of their native streams. On some portions of the Atlantic coast where large rivers empty into the sea, these migrations take place principally during June and July; at the estuaries of these the salmon are sometimes netted in great numbers, but at other periods of the year they are not found either in these estuaries or along the adjacent coasts.

At other places in the Maritime Provinces where the rivers are found to be small in size, the migrations of the salmon up them does not take place till late in September and October, and in some localities as late as November. During the rest of the year they are not found at those points on the coast; they are roaming, no doubt, on their feeding grounds in the sea. By their instinctive nature, those which were bred in the shallow streams will not approach the shore till their native rivers have become sufficiently enlarged by the autumn rains for them to pass up