## REMARKS ON PERIODICAL FLUCTUATIONS OF THE SALMON FISHERY.

To explain away the phenomenal risings and fallings off in our fisheries would entail an impossible task, for with the united wisdom of the most eminent scientists and naturalists not only of the present day but of former times, no satisfactory clue has been given or true basis established by which the habits of many of the fishes that frequent our waters are thoroughly known. More especially does this want of knowledege apply to the present great question at issue, of the extraordinary absence of the usual number of salmon from our rivers and estuaries during the past two years.

I shall now briefly address myself to some of the objections urged against fish culture, and answer allegations having reference also to artificial fish-breeding and its effect. It is stated, for example, that the salmon fishery of the Province of New Brunswick is threatened with speedy exhaustion; let us see why: There has been a falling off in the last two catches, but that does not necessarily imply speedy exhaustion, for the marked and mysterious falling off in the salmon fishery at certain periods, and its subsequent revival is by no means a novel occurrence; but in the memory of many who have watched the salmon fishery in the estuaries and rivers throughout the whole of the Gulf of St. Lawrence they have seen, say this year, showing an abundant catch and the following year a falling off of over 50 per cent. Even in British Columbia and at other points on the Pacific coast, where salmon frequent the rivers in millions as compared with thousands on our Atlantic side, certain periodical changes in the "salmon runs" have also been noticed,

Pressure of business upon my hands has prevented me from giving this phenomenon the attention I would wish, but I nevertheless have given the matter some consideration, and herewith submit data to corroborate the opinions I entertain. I take a few figures from the returns of the net and fly fishing in the Province of Quebec as contained in the Departmental Report for 1880. I would have preferred extracting from the New Brunswick Reports if the tables had been arranged with more fullness. But the Quebec tables, which were found more comprehensive (showing the returns in most cases many years back), will apply in principle alike to all the Maritime Provinces.

These returns cover the period in most instances from 1870 to 1880, and it will be noticed as a remarkable fact that the "falling off" year has been, in the second instance, five years from the first, the years referred to being 1875 and 1880. In nearly the whole of the fishing stations enumerated a direct "drop down" of almost one-half has taken place from the catch of the previous years of 1874 and 1879, and a similar "rise up" again in the catch of 1876, which is the one following the "short year" of 1875. The following are the tables alluded to:—

## ANNUAL REPORT OF 1880.

PROVINCE OF QUEBEC.

YIELD of salmon net fisheries.

Saguenay Division.	
	ber of Salmon.
1870	3,275
1871	3,462
1872	3,312
1873	
1874	
1875	
1876	2,830
1877	
1878	
1879	
1880	