

## REPORT ON RIVER CONDITION IN NOVA SCOTIA

IN CONNECTION WITH THE FISHERIES IN THAT PROVINCE by Fred H. O. Veith, Esq.

An officer appointed to inspect upon the condition of the rivers in Nova Scotia in 1881 and 1882.

20th September I procured a horse and wagon and drove today over the head of the East River St. Mary's. The place here is called the Garden of Eden, 22 miles from New Glasgow. I visited the Moose and Garden Rivers, and went some distance up them both. On the former, about 1 1/4 miles from the point where it enters the Garden Lake is situated an old mill, owned by a Mr. Sutherland, in the dam belonging to which a pass about 12 feet wide has been cut, affording an ample passage. The river above the place, for 6 miles, and below it to the lake, is remarkably clean, unpolluted water. The bottom is all that can be desired for salmon spawning grounds, being composed of white sand and fine gravel. I have never, during my inspection through the Province, seen any better. The bed of the lake is of similar formation, and the water so clear the bottom may be seen at the depth of many feet. The Garden River, the other tributary, though not carrying such a volume of water, is also an excellent salmon-breeding stream, and I have no doubt that these and the Garden Lake, were formerly the nurseries of the east branch of the St. Mary's River for salmon and gasperaux, before Cameron's mill-dam (of which I shall write further on) had cut them off. Indeed, it is known that gasperaux penetrated up the Garden River into Burra's Lake, 6 miles from its junction with Moose River. Into Burra's Lake flow three good sized streams, and the lake itself has a bottom similar to that of the Garden Lake already described. From the junction of the Moose and Garden Rivers to the Garden lake is about 1 mile, and they, together from that point, form a good-sized stream. The lake itself is about 2 miles in length and 3/4 of a mile in breadth, and from its course, joining the West River at Glenelg, in Guysboro County, and flowing onwards through it, into the Atlantic, compose the main river of St. Mary's, the third of importance in the whole Province of Nova Scotia.

21st September I drove down the East River below the lake, until I reached Alexander Cameron's mill, with its dam, about 7 feet in height. I saw, on the west side, the remains of a ladder, built on the old principle, running down stream. It is broken up badly, the side and many of the buckets being out, and it appears never to have been repaired since it was erected. I was unable to measure it correctly, but I should say it was, originally, about 50 feet in length. Several people came to me, and stated most positively, that since the erection of the dam and ladder, neither gasperaux nor salmon have been seen above. That, before this stoppage existed, there was an abundance of both - a statement readily to be believed - as below this place, for 40 miles to the sea,

there is no obstacle whatever. I descended the river for 3 miles, to the only other dam upon it, viz., Thomas Cameron's. A different mode for securing the water to drive the mill is adopted here, the dam being situated 1/8 of a mile from the mill itself, a channel having been cut through

the land to take the water to the main wheel. I have stated above that there is no obstruction below Alex Cameron's and I am right in doing so, for this dam is so low (being only 2 feet or 1 1/2 in time of freshets). Salmon would think nothing of it; and on the east side, there is a passage, 3 or 4 feet in width, to admit gaspereaux. There is no difficulty here whatever.

Both the Warden MacKenzie, and others residing near, tell me that salmon have abandoned this river altogether. None have been seen for years, in fact, since the 7 foot dam was built across. That fish do forsake a river after repeated unsuccessful efforts to surmount a formidable barrier is unquestionable. We have instances, in the La Have and in other rivers in the Province, and I find that as far back as 1868, the Commissioners of Fisheries, in the Annual Report for the States of Maine, New Hampshire, Vermont, Massachusetts and Connecticut, mention the following facts:

"Salmon, owing to an obstruction, have quitted the Natashquan, and have entered the neighbouring Kegaska, where they were recognized by their superior size." (The Indians on the Gold River first noticed the large La Have salmon entering their river), and again, from the same report, it is stated: "When the Merrimac was closed by the Lawrence dam, the alewives, finding their path barred at that point, faced about, descended the river, coasted along shore to the Ipswich River, and to the astonishment the inhabitants, suddenly filled that stream almost solid."

At Cameron's mill-dam, the first year the ladder was placed there, gaspereaux came up as usual, in vast numbers, and were seen circling round, vainly endeavouring to find an entrance. McKenzie, the Warden, asked the owner at the time, as the fish would not take to the ladder, to open a sluice which was placed in the dam and allow them to get up, but this was refused by the miller, as he had done - as he stated - all he was called upon to do in furnishing the ladder. Since then, year by year, their numbers have been perceptibly fewer, until last season, none were seen. I would respectfully ask that attention be given to this river during the ensuing spring and summer, and would recommend as follows: That a new patent ladder be placed at Cameron's as soon as practicable, in the early part of the next summer, and that in the interim the miller be compelled to keep the sluice open for an hour or two each afternoon or evening during the time in May when gaspereaux ordinarily visited the river, to permit any straggling gaspereaux that might, perhaps, make another attempt here to pass through; and farther, that Mr. Wilmot be directed to place, in the Moose River, at least 10,000 young salmon.

MacKenzie, the Warden, has intimated to me his willingness to take his tram over to the station at New Glasgow, and carry the cans of fry to this locality, free of all expense.

As the habit, at both mills, has been to throw all refuse into the river, I pointed out to the Warden the illegality of the act, which he appeared to be unaware of.