

REPORT
UPON THE
FISHERIES
OF
THE BAY OF FUNDY,

BY
M. H. PERLEY, ESQUIRE,
HER MAJESTY'S EMIGRATION OFFICER AT SAINT JOHN, NEW BRUNSWICK.



*Laid before the House of Assembly by command of His Excellency the Lieutenant
Governor, and ordered to be printed,*

15th March, 1851.

FREDERICTON:

J. SIMPSON, PRINTER TO THE QUEEN'S MOST EXCELLENT MAJESTY.

1851.

GOVERNMENT EMIGRATION OFFICE,

Saint John, N. B., 12th March, 1851.

SIR,—In obedience to the command of His Excellency the Lieutenant Governor, communicated in your letter of 6th July last, that I should examine and report upon the Fisheries of the Bay of Fundy, so soon as my duties as Emigration Officer would permit, I commenced the performance of that duty on the 20th of August, accompanied by George Hayward Perley, my second son.

The Island of Grand Manan was visited, in a hooker of 16 tons, belonging to Deer Island, which I hired for the trip. Campo Bello, West Isles, and the shores in that vicinity, were examined in boats of all sizes, adapted for visiting the several localities. The upper part of the Bay of Fundy, (including Cumberland Bay and the Basin of Mines,) was examined in the Sloop Cutter "Juno," which I engaged and fitted out for that service. The South Shore of Nova Scotia was examined by land, the season being too far advanced, and the weather too stormy, to admit of its being visited in the Cutter, without great delay.

I have now the honor to present the accompanying Report, which embodies the information obtained while engaged in performing the duty assigned me, together with some other information in relation to the Fisheries generally, the Markets for Fish in Foreign Countries, the American Bounty system, and the destruction of Fish on spawning grounds.

With this Report, I have also the honor to present, a Catalogue [in part] of the Fishes of New Brunswick and Nova Scotia; in which an attempt has been made to classify the Fishes of these Colonies, according to the system of Baron

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Cuvier, in their several orders, families, and genera. In the descriptions of the various species, I have embodied observations made during a long series of years; and with a very few exceptions, I have described such fish only, as I have myself seen and handled.

This incomplete Catalogue is offered with the hope, that it may lead to further inquiry, and a more perfect knowledge of the habits, haunts, and seasons of the Fishes of our waters; not merely as matter of interest to the scientific inquirer, but as being of much value to the practical fisherman, who by better information, may be greatly benefited in his calling.

Before entering upon the duty entrusted to me, I made application to His Excellency Sir John Harvey, Lieutenant Governor of Nova Scotia, for permission to pursue my inquiries on the Nova Scotia side of the Bay, and a copy of the Commission under Seal, which His Excellency was pleased to transmit me, is annexed to this Report.

A copy of the Circular Letter of Inquiry which I caused to be printed and circulated, is also annexed to this Report, with some of the replies thereto.

I beg to direct especial attention to the Letter No. 6, in the Appendix, from the Hon. John E. Fairbanks, of Halifax, which contains information and suggestions possessing much interest.

The Hon. the Commissioners of British Fisheries, besides noticing my Report of last year in their Annual Report to Parliament, very kindly forwarded to me a complete set of their Parliamentary Reports, and of the Imperial Acts in relation to the British Fisheries, all which have been of the greatest service. I have also to express my obligation to their Secretary, the Hon. Bouverie Francis Primrose, for his prompt attention in forwarding the prices of Fish in Scotland during the last five years; and for valuable information respecting the Markets for Fish in Europe, drawn from his admirable Report to the Board of Trade on that important subject.

The directions for taking and curing Herrings, and for curing Cod and Hake, issued by the Board of British Fisheries, having been approved by His Excellency the Lieutenant Governor, one thousand copies thereof were reprinted, and distributed by me among the fishermen in the several localities visited, by many of whom these directions were greatly approved, and highly appreciated.

At every place visited, my mission appeared to give much satisfaction. The greatest kindness was everywhere shown to myself and my son, and very many persons were at great pains to render us assistance. The hospitality invariably extended to us, and the facilities which were cheerfully granted on both sides of the Bay, demand my most sincere acknowledgements.

I have the honor to be, Sir,

Your very obedient servant,

M. H. PERLEY.

The Hon. John R. Partelow, Provincial Secretary.

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neither sanctioned their construction, neither did it forbid their being placed there. The weirs had been standing in West Quoddy passage, this gentleman said, for several years without let or hindrance; and as the law was silent on the subject, the proprietors conceived they had obtained what they called "negative approval."

In the channel between Lubec and Eastport, very large and fine Scallops were formerly found, and in all probability they may be found there still. Major General H. A. S. Dearborn, U.S.A., now Mayor of Roxbury, in a letter to the writer says:

"I was at Eastport in 1819, and obtained very large and excellent Scallops—*pecten*—but differing from *pecten concentricus*, on the Coast of Massachusetts, being four times as large; many of them were six inches in diameter. I used a dredge-net, and procured them, between Eastport and the western end of Campo Bello, in mid-channel, where the water was six to nine fathoms in depth."

The dredge-net might again be employed in this, as well as other localities in the Bay of Fundy, with advantage; it would perhaps bring to light some varieties of fish not generally known at present, especially of Flat fish, resembling Plaice and Sole, which are believed to exist in the Bay. With regard to Scallops, it may be stated, that they are frequently taken, in considerable quantities, and of the large size mentioned by General Dearborn, at Macc's Bay, north-west of Point Lepreau, where extensive beds of this peculiar shell-fish are known to exist. Of late, the edible portion of these large Scallops has been put up by a noted preserving establishment at New York, and sold in glass bottles at a high price, as an unusual luxury. They are much esteemed, and sell readily; so this branch of business is open to the people of New Brunswick, who have a large supply of the Scallop, easily accessible.

THE FISHERIES OF THE RIVER SAINT CROIX.

As several complaints were made to the writer of the state of the fisheries in the tide-way of the St. Croix, near St. Stephen and Mill Town, these places were visited in September last.

The River St. Croix being the boundary between the British Colonies and the United States, the jurisdiction of New Brunswick only extends to the centre of the channel of the river; the remaining portion is under the control of the State of Maine. The fisheries on the American side of the River, are subject

to the supervision of the Fishery Committee of the Town of Calais, whose duties are nearly similar to those of Overseers of the fisheries in New Brunswick.

The lower dam on the St. Croix is in the tide-way, between St. Stephen and Milltown; at a place formerly called the Middle Landing; it is a high solid dam from bank to bank; and upon it there are a number of mills—it is called the Union Mill Dam. Above the back-water occasioned by the Union Dam, are the Salmon Falls; the St. Croix is here very narrow, and there is considerable fall over a rugged ledge of rocks. Piers for a railway bridge were being placed in the river at these falls, upon which, it is said, a factory is to be erected. Next above the Salmon Falls, are the extensive mills and dams at Milltown, almost filling the River for some distance. At the American town of Baring, five miles above St. Stephen, there is a third dam on the river, extending from side to side. There is a square opening in this dam, intended for sluicing logs when the river is low—this is termed a “fish-way,”—for which, however, it is said not to answer. About six miles above Baring, at Sprague’s Falls, there is a solid dam across the river, called the “driving dam;” in that there is no provision whatever for the passage of fish.

On examining the Union Mill Dam, it was found that there was no fish-way. There is a sort of “roll” on the top of the dam, over which the waste water passes, and it was said that fish *could* get over at high-water; if so, it is most probable that Salmon only could effect the passage—if other fish do get over, it must be with great difficulty and very rarely.

At Milltown, owing to the peculiar formation of the ledges on which the various dams are placed, there is a narrow channel, up which fish may pass, if it is kept free from obstructions. This channel was found closely jammed with logs, and the water being low, no fish, even of the smallest size, could pass. It was stated by the millmen at this place, that when the water is high in the Spring, at the usual time for the passage of fish, the fish-way is constantly filled with edgings, rinds, and rubbish, from the mills above, so that it rarely happens a fish can get through.

Mr. Edward Sydney Dyer, who resides at Calais, stated that his father’s residence was near the Salmon Falls; he was born there, and resided beside those Falls until after he attained to manhood. About thirty years since, Salmon, Shad, and Gaspercaux, were exceedingly abundant in the St. Croix; the average catch at the Salmon Falls was 200 Salmon per day,

for three months in each season. The Gaspereau came in such quantities, that it was supposed they never could be destroyed; and the numbers of Shad were almost incredible.

Up to 1825, the dams on the river were provided with fish-ways, and while these were maintained, the fisheries of the river did not diminish; but in that year, the Union Dam, (the lowermost,) was built without a fish-way, and the fisheries instantly fell off, continuing to diminish ever since, and now they can scarcely be said to exist. In 1846, the Union Dam was swept away by a great flood, and fish got up the River; for two years after, there was very good fishing, but the rebuilding of the dam again put a stop to it.

Ninian Lyndsay, Esquire, of Saint Stephen, one of the Overseers of the Fishery for that Parish, described the quantities of fish which formerly ascended the Saint Croix, as something almost miraculous. The fishing in the River was good until a short time after the Union Dam was built; since which it has fallen off amazingly. Gaspereau have become very scarce indeed, although formerly thousands of barrels were taken in the River. No Shad are now caught above the tide, and but few below. Before 1825, Shad were taken at the Salmon Falls, by a large dip-net, attached to a long swinging pole, like a well-pole. The net was heavily leaded to make it sink in the swift water; it was then swung round, and it was not at all uncommon to take two or three barrels of Shad at a single dip of the net. Mr. Lyndsay mentioned, that some years since he knew a man who stood on a jam of logs, below the Salmon Falls, with a dip-net, and who, in a single day, caught 118 Salmon! The whole catch of Salmon, in the Saint Croix, during the past season, according to Mr. Lyndsay's estimate, would not exceed 200 fish, and a proportion of these were Salmon out of season, lingering below the Union Dam, and endeavouring to ascend.

In Mr. Lyndsay's opinion, sufficient fish-ways might be placed in each of the dams on this River, without injury to the Mills or water-power, if the Mill proprietors could be compelled to construct such fish-ways, and keep them free from obstructions. This, he said, was admitted by the Mill owners; but the law was not sufficiently stringent in its provisions to enable the Overseers to compel the opening of the fish-ways, for which more summary and efficient powers were required. It was also stated by Mr. Lyndsay, that the Fishery Committee of Calais, had expressed their readiness and anxiety to co-operate with the Overseers of Fisheries in Saint Stephen, in

measures for opening the River, and preserving its valuable Fisheries.

An interview was also had at Saint Stephen with William Porter, Esquire, another Overseer of the Fishery there, whose statements were similar to those of Mr. Lyndsay. Subsequently, those Gentlemen addressed a letter to the writer, which is here given in full :—

SAINT STEPHEN, 6th December, 1850.

Sir,—We have received your Circular Letter of 12th August relative to the Fisheries, and in reply beg to state, that from the first settlement of this country up to the year 1825, there was annually a great abundance of Salmon, Shad, and Gaspereau, in the Saint Croix; in fact, so plentiful were the latter, that vessels from Rhode Island, of 100 to 150 tons burthen, followed the fishing business on this River, and were never known to leave without full cargoes. They had establishments on the American side of the River, where they salted the Gaspereau in vats, and repacked them in barrels, for the West India market. There were also several seines belonging to the inhabitants, which were worked in the tide-way of the River, the owners of which put up, annually, from 1500 to 2500 barrels of Gaspereau for exportation, besides a sufficiency for country use.

At the same time, Shad were taken in great quantities; very frequently, more than one hundred would be caught in a small net, in a single night. These fish were also caught in large numbers, at the Salmon Falls, by dip-nets, where also Salmon were taken in abundance.

We have known a lad, fifteen years of age, take 500 Salmon during one season; and we have known one man with a dip-net, at the Salmon Falls, take 90 to 100 Salmon, two days in succession. Up to 1826, these Salmon were sold at four to five Cents per pound; their average weight was about ten pounds each. After the Union Mill-dam was built in 1825, the Fisheries fell off very soon; and continued to diminish until 1846, when that dam was partly swept away. Then the Salmon again got up the River, in considerable numbers, so that in 1848, to the joy and surprise of the inhabitants, they were quite numerous; but the rebuilding of the dam once more stopped them, and they have since diminished both in size and numbers. Very few indeed now get up the River, and we therefore advise, that an Act be passed, at the next Session of the Legislature, giving the power of getting at offenders in a

more summary manner, as it never will do to lose so great a source of wealth, when it can be so readily preserved.

The Grant from the Crown, of the premises on which the Union Dam is built, is subject to conditions, with reference to the passage of fish, which have not been complied with, and it has thereby become forfeited. It is to be hoped, that after your Report is presented, the Attorney General will take steps to enforce the conditions of the Grant, or else to revest the premises in the Crown.

Respectfully yours, &c.

WM. PORTER,
N. LYNDSEY.

To M. H. Perley, Esquire.

The premises on which the Union Dam stands, were granted to Abner Hill, of Saint Stephen, by letters patent, dated 16th December, 1824, which contain very special provisions. There is a recital, that Abner Hill, the grantee, had presented a petition, setting forth that there is a good site for erecting Mills in the River Saint Croix, opposite the dwelling house of Robert Hitchings, at a place commonly called the Middle Landing, which is nearly midway between the Saltwater Falls, so called, and the Falls below the Mills at Mill Town, called the Fishing Falls, and praying a grant of the premises; that the petition had been referred to the Justices of the Peace in the County of Charlotte, to report if there was any objection to its prayer; and that the Justices, in Sessions, had recommended that it should be complied with. The premises described in Mr. Hill's petition are then granted to him under several restrictions and conditions; the undisturbed right of fishing in the River is expressly reserved to His Majesty, and all his subjects. Among other conditions of the Grant, is the following:—

“ Provided also, and this Grant is upon condition, that the said Abner Hill, his heirs and assigns, shall and will cause a good and sufficient fish-way to be made in each and every Mill-dam, which may be erected and constructed, in the said River, on the said premises; and that the same fish-way, or fish-ways, shall always be maintained and kept in such a state of reparation, so that the passage of the fish to and from the Sea may not be impeded by such dam or dams; and also upon this further condition, that a free passage shall always be left for the floating down of ton timber, logs, and other lumber, from the upper parts of the said River, by all and every of Our

subjects. And it is Our will and pleasure, and We do hereby expressly ordain and declare, that in case the said Abner Hill, his heirs and assigns, shall not, or do not, fulfil and perform the said several conditions, in every part thereof, according to the true intent and meaning of the same, then this Grant shall be void, and of no effect, and the land and premises hereby intended to be granted, shall revert to, and revest in Us, Our Heirs and Successors."

In the face of so special a condition, it is really surprising, that the proprietors of the Union Mill-dam should so long have been permitted to evade its fulfilment, to the very great damage, and almost the destruction, of the Fisheries of the Saint Croix. A *Scire Facias* on the part of the Crown, to enquire as to their compliance with the provisions of the Grant, would no doubt quicken the perceptions of the proprietors, as to the necessity of fulfilling those conditions, truly and fairly. Upon the proprietors of the Union Dam must rest much of the blame, for the damage that has been done by obstructing the free passage of fish; although there is no doubt, that the dams higher up in the River, have contributed their share toward the general injury, for which there is such just ground of complaint.

When the Union Dam was visited on the 4th September, there were two Salmon nets set, in open daylight, just below the waste-way; they were both on the British side of the River. One of the nets was a very long one, and the two were so arranged, that it was almost impossible for a Salmon to reach the dam; but, as if to prevent even that possibility, there was also a net on the American side. Not far below the dam, a party of Passamaquoddy Indians were encamped, for the purpose of spearing Salmon by torch light; the fish not captured, were turned back by the nets, and then fell a prey to the Indians. At this late period of the year, the Salmon were, of course, out of season, quite black, and almost worthless. If this state of things is permitted to exist during another season, the last remnant of the once valuable and extensive Fisheries of the Saint Croix will be wholly extinguished.

The two great Branches of the Saint Croix, with their numerous tributaries, and the large Lakes at the head of each Branch, present every variety of River, Lake, and Stream, adapted to the breeding and feeding of fish. When this is considered, it is not at all surprising, that such great and

almost incredible bodies of Salmon, Shad, and Gaspereaux, as are described by every old resident, should have passed through the narrow gorges of the Lower Saint Croix, in their annual migrations from the Sea. The wide-spread extent and the magnitude of the inland waters connected with the Saint Croix, are so well adapted to the propagation of fish on a large scale, and are such favorite places of resort for all that can reach the ancient haunts of the various species, that it will be highly discreditable to allow the extinction of the Fisheries of this River, now threatened with total annihilation.

FROM POINT LEPREAU TO THE HARBOUR OF SAINT JOHN.

There are several harbours, and inlets, along this line of coast; but owing to its rocky and rugged character, the settlements are limited, and the inhabitants are not numerous. There are no regular fishing establishments; the settlers, in connection with the cultivation of the soil, follow fishing, chiefly with the view of supplying the market at Saint John with fresh fish.

The principal fisheries are those for Cod and Herrings; small Haddock are also taken during the Summer, but Hake and Pollack are comparatively rare. Along the coast from Point Lepreau up to Negro Head, just below the entrance to Saint John, Cod are taken with the long-line (or bultow) from Christmas until the first of June; the best fishing is in April and May—after that, the Cod follow the English Herrings (*clupea elongata*) up the Bay. The long lines, or bultows, with 350 to 600 hooks, are set at the distance of one to two miles from the shore, in about 18 fathoms water. The hooks are on snoods, 3 feet in length, which are placed 7 feet apart on the "back," or long line.

In the Autumn, when the Herrings again appear along this shore, Cod are taken with hand-lines, on the "slacks" of the tide. In November last, fine Cod averaging about 30 to the quintal, were taken by hand-line fishing, between Musquash and Lepreau. At that time, very fine Herrings had made their appearance, requiring nets with 2½ inch mesh; these continued to increase in numbers until January,—and while this Report is being written, they are taken daily in considerable quantities. The appearance of large bodies of Herring so close to the shore, during the depth of Winter, is an unusual circumstance; in general, they do not approach this coast until