GASPÉ OF YESTERDAY

SALMON HATCHERIES

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RECALLING PIONEERS IN THE ARTIFICIAL BREEDING OF ATLANTIC SALMON AND THE ESTABLISHMENT OF THE EARLY SALMON HATCHERIES ON THE RIVERS RESTIGOUCHE AND DARTMOUTH IN GASPESIA.

Ken Annett.

SALMON HATCHERIES
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By the early decades of the 19th century the immense stock of Atlantic salmon, an annual resource of the Gaspesian rivers from time immemorial, was beginning to show signs of depletion. As early as the year 1807 it was declared illegal for any person to set any nets or haul any seine above the first rapids in the River Restigouche or above the first rapids in the Great River Cascapedia. By the 1820's the alarm of interested citizens at other practices prejudicial to the salmon fishery, both in Gaspesia and on the North Shore of the Gulf of St.Lawrence, led the Quebec Legislature to set up a Committee of Inquiry. Testimony given before this committee revealed the tragic impact of illegal and ruthless exploitation of the salmon fishery for commercial gain. Salmon returning to Gaspesian rivers to spawn were being diverted into the nets of ruthless fishermen by the blocking off of the river channels. Large numbers of salmon were being illegally speared at night by torch-light. The very spawning grounds of the salmon in the upper reaches of the rivers were being raided.

In its Report to the Legislature the Committee stated, in part:

"Your committee are of the opinion, that from the evidence presented, the state of the fisheries, and of the trade in fish from this Province, may be sufficiently understood to enable the House to form a just idea of the importance of the subject to your committee, and of the urgency of Legislative interference to rescue from impending ruin a neglected, though most profitable branch of Provincial trade...

...Your committee report and recommend as follows, viz :

1. That the Bill for regulating the fisheries in the Inferior District of Gaspé, be amended, containing regulations to prevent the wasteful and unnecessary destruction of fish,

Though the Quebec Legislature did act promptly in passing the Fisheries Act of 1824, the Inferior District of Gaspé was so remote from the seat of government that little effective control over the continuing exploitation of the salmon fishery was taken until the appointment, in 1852, of Dr. Pierre Fortin as Magistrate and Overseer of the Fisheries in the Lower River and Gulf of St.Lawrence. The story of his remarkable and effective work has been reviewed in another article of this GASPÉ OF YESTERDAY series.

While the Government was seeking ways and means to limit and control the exploitation of the salmon stocks, efforts were underway to promote the artificial breeding of salmon so as to replenish the declining stocks. France seems to have led the way in such experimentation, followed closely by Britain. The United States adopted the work in this field and even in distant Australia salmon ova were brought from Scotland and bred with success. In Quebec, indeed in Canada, the pioneer experimentation with the artificial breeding of salmon was the work of Richard Nettle of Quebec City.

Born in England in 1812, Richard Nettle was an ardent angler for salmon in British rivers from his youth. He joined the Royal Navy and first came to Canada on H.M.S. HASTINGS, which brought Lord Durham and his suite to Quebec. Evidently impressed by the Old Capital, Richard Nettle returned to Canada in 1842, settled in Quebec City, and found employment as a school teacher. In his leisure time he fished salmon in the local streams, such as the River St.Charles, which,at that time, was a fine salmon river.

As an enthusiastic salmon fisherman, Richard Nettle became acquainted with Quebec's eminent authority on salmon, the Rev. Dr. Adamson, Chaplain of the Legislative Council of United Canada. Dr. Adamson's admirable paper, "THE DECREASE, RESTORATION AND PRESERVATION OF SALMON IN CANADA", read before the Canadian Institute in 1856, was embodied in Richard Nettle's book, "THE SALMON FISHERIES OF THE ST.LAWRENCE", published in 1857.

In 1875, Richard Nettle was appointed by the Canadian Government as the Superintendent of Fisheries. In the same year he established, in a house adjacent to his office near the corner of St.Ursule ans St.John Streets in Old Quebec, the first, experimental salmon hatchery in Canada. For this project he had the personal interest and authorization of the Prime Minister, Sir Etienne Taché. Spawning boxes were installed and prepared carefully with sand and gravel to simulate, as far as possible, the spawning bed of a stream. Water from the Quebec City aqueduct was made to flow over the boxes from a fall of a foot or so to provide the aeration so essential to the development of the ova. He obtained his first salmon ova and milt from salmon taken at Les Ecureuils on the Jacques Cartier River. With the curiosity and patience of the true researcher, Nettle succeeded in proving the practicability of hatching young salmon from ova under such artificial conditions. In so doing he opened the way to the establishment of salmon hatcheries that, in time, would be found across Canada.

The experimental success of Richard Nettle was followed up by Samuel Wilmot of Ontario, who,in 1866, established the first, large-scale salmon hatchery on Wilmot's Creek near Newcastle. In the Fall of that year, Wilmot obtained fifteen salmon, male and female, as his first parent fish. As news of his project became known, he was subject to ridicule and hounded to the point that irate fishermen broke into his hatchery and destroyed eleven of his fifteen fish. Undeterred, he managed to obtain 15,000 ova from the four salmon that survived and had the great satisfaction of watching the ova develop, in time, into lively parr. The following year he obtained 50,000 ova and as the success of his hatchery became known, he obtained financial help from the Government from 1868 onwards.

Four years later, in 1872, A.B.Wilmot of Newcastle travelled to Gaspesia

to explore the possibility of establishing a salmon hatchery on the River Restigouche . The detailed account of his experiences were recorded in his 1872 Report to the Minister of Marine and Fisheries.

Reaching Dalhousie, N.B., on the Gulf steamer from Gaspé, Wilmot took the stage road up the Restigouche. At Matapedia he met with John Mowat, the District Fishery Officer, of whom he recorded that:

"...a more intelligent, efficient and trustworthy man could not have been selected...."

He was made welcome at the Mowat home, "DEE SIDE", on the Restigouche where he discussed with his host possible sites for the proposed salmon hatchery. Not far from the Mowat home was a fine, mountain stream, Robertson's Brook that seemed to be an ideal location. However, before making a decision, Wilmot proceeded to travel up the Restigouche and its Kedgwick and Matapedia tributary streams to check out other possible sites. His travels took him up the Kedgwick to Tom's Brook and up the Matapedia to the Forks. As no site superior to Robertson's Brook was seen, he chose it as the location for the hatchery. He described it as a pretty, limpid stream with a constant flow of water throughout the year. Its high banks would make it easy to construct the required dam and pools. Its location, some nine miles from the Matapedia settlement, with its post office and telegraph office and projected station of the Intercolonial Railway, was an added factor in favour of the Robertson's Brook site.

John Mowat was authorized to purchase the necessary land and rights at Robertson's Brook - the accounts show that he did so for $50.00. He was also to be responsible for the building of the hatchery - to be sixty feet long, twenty-four feet wide, framed with heavy timber and insulated against the cold of winter. The whole project was completed for about $1000.00

By the year 1873 the pioneer, Gaspesian salmon hatchery at Restigouche was in operation with John Mowat reporting 300,000 salmon ova collected.

The year following his work on the Restigouche, A.B.Wilmot returned to Gaspesia and reported, subsequently, on the selection of a site in Gaspé Bay for the construction of another salmon hatchery on the North-West Arm of the Bay at L'Anse aux Cousins.

Before deciding on a site, Wilmot thoroughly explored the Dartmouth River and its tributary streams. He noted that the natural spawning grounds of the salmon were up-stream from the Falls which had been a barrier to the parent fish. The previous summer John Eden had succeeded in causing a portion of this obstruction at the Falls to be blasted off. At the foot of the Dartmouth rapids, Wilmot noted an inlet or arm of the river that he felt could be made into a retaining pond for the reception of parent salmon by building an inexpensive dam across its mouth.

The site chosen for the location of the salmon hatchery was the Mill Brook which formed the natural boundary of the properties of William Annett and Henry Davis at L'Anse aux Cousins. The land and brook rights were purchased for $60.00 and a number of local men employed in building a dam near the mouth of the brook and in the construction of the hatchery - a 1½ story building sixty feet long and twenty-four feet wide. The cedar frame, of timber a foot square was obtained from stock of the Marine Department stored on Peninsula Point. The space between the outer and inner walls of the building was filled with sawdust as insulation against the cold of winter. The completed building with its fifty-six breeding boxes had the immediate capacity for a million salmon ova and had room for future expansion. The completed cost was about $1500.00.

Interesting as it might be to recall, in detail, the pioneer operations of the Restigouche and L'Anse aux Cousins salmon hatcheries, this account will conclude with extracts from a letter of Philip Vibert, Junior, Fisheries Overseer, Gaspe Division, written from Gaspe Basin, 31 Dec.,1875,

to the Minister of Marine and Fisheries:

"... According to your instructions I took charge of the building (the L'Anse aux Cousins hatchery) on January 1st., last with 200,000 salmon ova.

Great difficulty and inconvenience was experienced on account of the dam leaking all the winter, and in fact it was feared at one time that all the spawn would have perished. Notwithstanding these diddiculties and predictions to the contrary, 110,000 young fry were hatched out and placed in the Dartmouth, St.John & Mal baie Rivers. Freshets prevented my depositing any at Grand Pabos, as was intended...

I had thirty parent salmon in pond on the River Dartmouth and owing to a very heavy rain in August, the gravel underneath the lower dam was undermined and the fish escaped. I only caught eleven salmon at Mal baie, out of these four died in pond and among the seven remaining there were only two female fish. From these I obtained 20,000 spawn, which I carried to Gaspe by carriage in a tin bucket with water...

I would suggest that next summer thirty or forty fish be purchased from the fisheries at Anse au Cousin and carried by means of box barrow, filled with water, to the pond in rear of the fish-house - this pond is now about 100 feet square - as by placing them there none could escape. If they matured well, a second pond might be built below the dam, and by this arrangement nearly 100 salmon could be kept...

In accordance with your instructions I had a new dam built last summer, it is made of round cedar and good cedar spiling. The earth was dug down to the solid rock and bark rhinds placed all along, and I hope it will last many years unless affected by frost, which I do not think will be the case...

I considered it advisable to teach Mr.Henry Davis the spawning this autumn so that next year he can assist me; besides if there are parent fish in different places, a second person is necessary, as all may mature at the same time. Mr.Davis is a trustworthy person and takes much interest in this work.

The spawn now in this building are looking well, considering the rough state of the roads over which they came (from Mal baie) and so far the loss has been small; it must also be remembered that much inconvenience and cold is endured by performing spawning operations in the open air, and in order to do this work properly, a reception house is necessary. There is only one room in the upper part of this establishment and I hope the remainder will be finished next year.

I have the honor to be, Sir

Your most obedient servant

Philip Vibert, Jun.

Fishery Overseer, Gaspe Division

GASPÉ MEN WHOSE NAMES APPEAR IN THE ACCOUNTS OF THE L'ANSE AUX COUSINS SALMON HATCHERY DURING ITS CONSTRUCTION AND EARLY OPERATION

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ALEXANDER, J.
ANNETT, Felix
ANNETT, George
BAKER, Wm.
BECHERVAISE, John
BOND, S.
CARTER, A.T.
CASS, Harvey
CASS, John
CASS, Jos.
COFFIN, A.
COFFIN, Benj.
COFFIN, Felix
COFFIN, James
COFFIN, J.B.
COFFIN, J.W.
COFFIN, Robert
COFFIN, Wm.
COFFIN, W.J.
COLLAS, Elias
COLLAS, John
COLLAS & SLOUS
DAVIS, John
DAVIS Henry
DAVIS, Wm. C.
DAVIS, John Jr.
EDEN, John
EDEN, Jos.
EDEN, Wm.
EDEN, Jos.Jr.
FINGLETON, W.
JOCK, P.
LOWDNES BROS.
LE BOUTILLIER, John
LECOUVÉ, J.
MILLER, N.
MILLER, P.
MILLER, Thomas
MORGAN, David
Mc CALLUM, Thomas
McKENZIE, N.
MOSHER, Wm.
PATTERSON, Henry
PATTERSON, Daniel
PATTERSON, G.
PATTERSON, Jos.
PATTERSON, Wm.
PHINNEY, J.H.
RABBI, David
RUSSEL, Wm.
ST.CROIX, A.
ST.CROIX, James
ST.CROIX, Wm.
VIBERT, Philip