

LD 800, An Act To Prevent Passage of Alewives through the Grand Falls Dam on
the St. Croix River
Public Hearing before the Joint Marine Resources Committee
April 27, 2015

Senator Baker, Representative Kumiega, members of the Marine Resources Committee, I am Edward Bassett, a resident of Pleasant Point, a Passamaquoddy Tribal member. I work in the Tribe's Environmental Department. Much of my work is to help with restoration of the St Croix watershed which lies in the heart of the tribal Homeland.

This is the second time I have come before you to explain the importance of river herring. Two years ago State leaders agreed that the St Croix alewife are important and they passed a law to open the river for the alewife. That was a very good decision and many were so happy and proud of you because there was renewed hope that the long time damaged river and its related bay ecosystem would finally begin to recover some of its past magnificence, much of which has been needlessly lost.

Thousands of years ago my Passamaquoddy ancestors chose this watershed because it was able to sustain the people from its rich natural bounty, especially from the abundance of food fish.

In fact, in 1887 your Commissioner of Fisheries, Charles G. Atkins confirmed the abundance of the St Croix fishery. He wrote:

“The St Croix is remarkable, even among the rivers of Maine, for the great extent of the lake surface among its tributaries. These lakes afford breeding ground for great numbers of alewives....but the fact of their existence in great numbers in the river shows they must have passed the only serious obstacle to their ascent, the natural fall at Salmon Falls near the head of tide and found their breeding ground in the upper waters.”

The historical record clearly shows that the St Croix was once one of the richest fishing sites in the Northeast. As a keystone species the alewives are the key to unlocking the productivity of this unique ecosystem. The alewife are the “fish that feeds all.” It is well documented that countless species of plants, fish and other animals and humans benefit from alewife. If nature is given a chance the alewives can help bring fertility back to the whole river, bay region and Gulf of Maine. Yes even the inland headwaters will benefit as well. And will provide commercial opportunities to people.

The historical record of the St. Croix River and her fishery is plain to see. The facts are clear. **THE ALEWIFE ARE INDIGENOUS TO THE ENTIRE ST. CROIX WATERSHED!**

I pray that you do not close the St. Croix to such an important keystone fish. Do not break the food chain.

These fish have helped countless generations of Native Americans as well as Non-Natives to survive. Now it is time for us to repay that debt back to them and help them survive. After all these fish can only bring positive benefit wherever they go.

The rest of my testimony will be for the written record showing other historical references that alewife were native to the St Croix watershed and that there were no natural barriers preventing their ability to swim up to the headwater lakes to spawn. I have a 1902 survey of the St Croix River bottom that shows there were no steep waterfalls preventing alewife from passing up river. The only true barriers have been the ones that man has made like dams without fishways. And the barriers we now have to confront today in the form of stories and tales re-writing history by opponents of alewife passage.

Additional Historical Information below

Archaeological fact:

3 to 4 thousand years ago, before the construction of dams, the alewives travelled inland to the headwaters of the St. Croix River. Calcified bones of alewife were found in an archaeological dig site in unearthened fire hearths at Mud Lake Stream, above Spednic Lake. In 2007 Dr. Arthur Spiess, Senior Archeologist for the Maine Historic Preservation Commission stated in his letter to Mr. Lewis Flagg that

“the Mud Lake Stream site provided evidence of alewife above the head of tide on the St Croix 3000 years ago”.

In 2012, Dr. Spiess took another look at the bone specimens found and he confirmed that these bones were sea run river herring.

Other Historical Documents:

1792, Patrick Campbell, surveying the St. Croix for Scottish settlers, recorded that Salmon Falls (in Calais) were a “*mere rapids*” where salmon and alewives were taken in nets.

1820's the Passamaquoddy tribe petitioned the State to stop the destruction of the St. Croix's fish runs and to protect the fish and wildlife in the main river and its branches.

1822 a petition was sent to the State of Maine by Joseph Whitney and others. This petition was typical of many that the residents of Calais and Baring sent. It stated:

*"We the undersigned, citizens of said state, respectfully represent that previous to existing obstructions, by mills and mill dams, on the St Croix or Schoodic River, great quantities of Salmon, Shad, and Alewives annually passed up and returned down said river to the great benefit and advantage of the community generally; and in an especial manner of the new settlements in the eastern part of the state. Said obstructions have rendered it almost impossible for the Shad and Alewives to pass above the town of Calais; **whereas they used to pass from eighty to an hundred miles above;** and they are now almost totally excluded from said River.*

1851 Moses Perley wrote in his Fisheries report that Edward Dyer a resident near Salmon Falls, Calais Maine stated that:

"Salmon, Shad and Gaspereau, were exceedingly abundant in the St Croix and the Gaspereau came in such quantities, that it was supposed they never could be destroyed".

In the same 1851 report Perley stated that one of the Overseers of Fisheries, Ninian Lyndsay Esquire, of St Stephen, New Brunswick described the:

"quantities of fish which formerly ascended the St Croix, as something almost miraculous..... Gaspereau have become very scarce indeed, although formerly thousands of barrels were taken in the river"

In the same 1851 report Perley wrote that both Lyndsay and Porter wrote a letter to him that stated:

"from the first settlement of this country up to the year 1825, there were annually a great abundance of salmon shad and gaspereau, in the St Croix; in fact so plentiful were the latter, that vessels from Rhode Island, of 100 and 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."

It has been estimated that 120 alewife fill a bushel making a barrel of alewife equal to 3 bushels.

In the same 1851 report Perley, sounding the alarm about the likely collapse of the once magnificent fishery due to poor fish passage management, he ended his comments about the St Croix...

"It is not surprising, that such great and almost incredible bodies of Salmon, Shad and Gaspereau, as are described by every old resident, should have passed through the narrow gorges of the lower St Croix, in their annual migrations from the sea. The wide-spread extent and the magnitude of the inland waters connected with the St. 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 the river, now threatened with total annihilation."

1867 the first report of the Commissioners of Fisheries of the state of Maine stated that:

"The St Croix was formerly very productive of salmon, shad, and alewives"

1870 the 4th report of the Commissioners of Fisheries of the state of Maine wrote about alewife in the St Croix at the new Union Mills Dam fishway in Calais.....

"the alewives came, they readily found the entrance to the fishway, and passed up through it in great numbers.....each of the seven pools which the fishway contains was so full of alewives that a stick could not be drawn through the water because of them"

In the same 1870 report the Commissioner wrote.....

"Above Baring there are no obstructions in the river until we reach Vanceboro, on the East or boundary branch.....at Vanceboro... In June or July last a man fishing for suckers with a small dip-net just below this dam, dipped up an alewife. It is thus certain that these fish reached this point the very first year of the existence of a fishway at Union Dam: and would have entered Chepedneck lake had there been at the time a fishway at Vanceboro."

1887, Charles Atkins similarly reported on the early Fisheries of Maine. He noted that:

"The St Croix is remarkable, even among the rivers of Maine, for the great extent of the lake surface among its tributaries. These lakes afford breeding ground for great numbers of alewives....but the fact of their existence in great numbers in the river shows they must have passed the only serious obstacle to their ascent, the natural fall at Salmon Falls near the head of tide and found their breeding ground in the upper waters."

1902, before the dams were built at Woodland and Grand Falls a detailed technical survey was conducted of the main stem of the St Croix from Woodland to Grand Falls. This survey was done by D. F. Maxwell. He produced a 25 foot long graph that accurately details the profile and elevations of the St Croix River bed as it was in 1902. This survey clearly shows the pitch or angle of the river at every falls prior to the building of the dams on the St Croix. There were no high or steep waterfalls on the river. This is clear evidence that the river was indeed passable for alewives prior to dam construction at Woodland and Grand Falls.

1923, Testimony before the International Joint Commission. Mr. Whidden, born 1848 said that the Gaspereaux still come to the St Croix river.

1915 shortly after the Grand Falls dam was built, the international joint commission met in Calais, Maine. The subject of the natural falls at the location of Grand Falls came up for discussion. In his sworn testimony to the commission the Assistant engineer of the St Croix paper company, Mr. P. T. Whittier, stated that the natural bed of the stream at Grand Falls

“are gradual; they are rapids and they extend over a considerable length of the river.”

This documentation clearly shows that the falls in the main stem of the river are long and gradual and that these falls were actually white water rapids with a very low percent of incline, slope or grade.

The falls or rapids on the St Croix River were easily navigated by all the anadromous fish including the alewives. Grand Falls was called grand because of its length, not its height.

In fact prior to the dams, grand falls was the longest falls in the river, the upper pitch was 1200 feet long with a drop of 15.5 feet and the lower pitch was 600 feet long with a drop of 10 feet. There are no, nor have there ever been any steep inclines or steep waterfalls at Grand Falls. Before the dams the alewives were easily able to swim many miles well beyond the Grand Falls location.

When you examine the facts you will reach one natural and reasonable conclusion; the alewives have been a vital part of the entire St Croix River and Passamaquoddy Bay ecosystem, for thousands of years.

Thank You
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