2021

Little Spring Brook Hatchery -- Monumental Task

Eric Hendrickson

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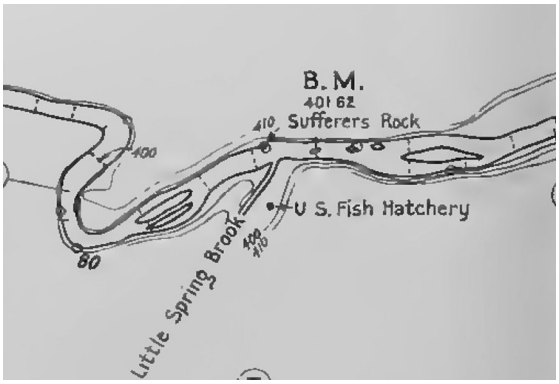
On August 24, 2016, President Barack Obama used the Antiquities Art of declare 87,563 acres of mountains, forest and rivers as Katahdin Woods and Waters National Monument. The monument is located in northern Penobscot County, Maine. This includes a large section of the upper East Branch of the Penobscot River known as a significant piece of the extraordinary natural and cultural landscape. The extraordinary significance of the Penobscot East Branch River system has long been recognized. A 1977 Department of the Interior study determined that the East Branch of the Penobscot River, including the Wassataquoik Stream, qualified for inclusion in the National Wild and Scenic River System based on it's "outstanding value as a nationally significant resource."

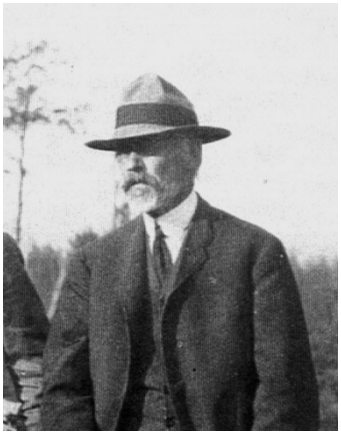
President Obama's proclamation discussed how the removal and retrofitting of downstream dams would enhance the integrity of the Penobscot river system and provide opportunities for scientific study of the effects of the restoration on upstream areas within Katahdin Woods and Waters National Monument. It will also allow federally endangered Atlantic Salmon (Salmo salar) to return to the upper reaches of the river known in Penobscot language as "Wassetegwewech," or "the place where they spear fish."

By the 1890s the upper East Branch of the Penobscot River was developing as an area of wilderness salmon sport fishery. In 1903, as a report from the Bureau of Fisheries declared the Penobscot River as the most important salmon river in New England with fish being taken primarily by weir, gill nets and trap nets.



The location of the rock and hatchery on the 1908 survey map of the river

Within the monument, the East Branch of the Penobscot once played an important role in the Atlantic Salmon fisheries. A man named Charles Atkins played a pivotal role in the hatchery development on the river. The hatchery's location was at the mouth of Little Spring Brook across the river from Sufferers Rock, which is a ledge outcrop about 14.05 miles down-stream from Grand Lake Dam. You can still find an aluminum marker with an elevation of 402 feet as it was part of a 1908 water survey of the Penobscot watershed done by the USGS looking for possible locations for dams[1]. Charles Atkins was a New Englander, born in New Sharon, Maine on January 19, 1841, attended Bowdoin College and was considered to be a truly visionary fisheries biologist of his time.



Charles Atkins

[1] Smith, G.O. 1912. Water Resources of the Penobscot River Basin Maine. Water Supply Paper 279. United Sates Geological Survey, Washington DC.

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He and Nathan Foster were the first Maine Fisheries Commissioners. In their first report on January 1868 stated that "the salmon is suffering from neglect and persecution.[2]" The US Congress followed the states' lead, creating the US Commission on Fish and Fisheries on February 9, 1871, this was the precursor to the U. S. Fish and Wildlife Service.[3] Spencer Baird was appointed its first commissioner, and among his first directives were to conduct studies on the decline of coastal and inland food fishes and methods of fish culture. Baird turned to Charles Atkins for his expertise, and directed him to locate a suitable site in Maine to raise Atlantic salmon.

In 1871 Atkins opened the Craig Brook Hatchery which is still operating today. Atlantic salmon eggs were taken only from the Penobscot River, from 1871-75, and then again 1879-1919. In addition to the hatchery at Craig Brook, the federal government opened Maine hatcheries at Bucksport in 1872, Sebec Lake in 1873, Grand Lake Stream in 1875, Green Lake in Dedham in 1892, Upper Penobscot in 1903 and the Salem Feeding Station in 1941[4].

Atkins opened the Upper Penobscot Auxiliary Station (Little Spring Brook Hatchery) in fall of 1903, and it operated until spring of 1916[5]. Eggs were collected by fishermen in the lower Penobscot River. At the Craig Brook Hatchery, people used the dry method of fertilization for the eggs. The hatchery operated each year from October or November through May or June. Eyed eggs from Craig Brook were taken by train to Sherman where they were transfer to another train taking them to Patten, then by wagon for eight miles to the Charles McDonalds Camps, now called Bowlin Camps on the river. There, the eggs were taken by wagon across the ford and several miles downriver to the Little Spring Brook facility – where they would stay until the eggs hatched into fry. After yolk sacs were absorbed, in May and June, all of the fry were released into the East Branch because the facility did not have at ability to produce food or feed the fish so they were released as soon as the egg sack was gone. The fry were carried downriver by using buckets in canoes or in buckets by wagon using the East Branch Tote Road.

Only known photo of the hatchery from 1904

Records show that the vast majority of salmon stocked in the Penobscot drainage each year from 1904-1916 were produced at the Little Spring Brook facility. During that period, 25 million fry were released into the Penobscot River system. The facility was closed in 1916 for unknown reasons, it may have been weather, floods, fire or disease that closed the facility but we will never know for sure. After 1919 things went downhill quickly for the salmon population in the East Branch of the Penobscot River. In 1919, salmon eggs from Canada began to be used because of "uncooperative" Penobscot River commercial fishermen were no longer will to sell fish eggs.

[2] https://usfwsnortheast.wordpress.com/2014/11/17/charles-atkins-a-pioneer-in-fisheries-conservation/
[3] https://www.mainememory.net/sitebuilder/site/1428/page/2092/display
[4] https://usfwsnortheast.wordpress.com/2014/11/17/charles-atkins-a-pioneer-in-fisheries-conservation/
[5] DeWolf, B. 2014. East of Katahdin: Ecological Survey of the East Branch Properties of Elliotsville Plantation, Inc., Penobscot County. Unpublished document.

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Penobscot salmon runs and the fishery continued to decline in the 1920's and '30's after Canadian eggs replaced Penobscot River eggs until it was almost non-existent.[6]

Efforts are currently being renewed, thanks to a multiparty public-private project, to reconnect the Penobscot River with the sea and continue to work toward resrtoring a self-sustaining population of sea-run Atlantic salmon to the excellent clear water spawning and nursery habitat of the East Branch of the Penobscot River and its tributaries. Perhaps, the recent efforts were inspired in part by those early conservation efforts, but we will never know.

Obama's declaration of Katahdin Woods and Waters National Monument will protect the watershed while providing an opportunity for scientific research on the effects of the restoration on the upper river area. In time, the return of the federally endangered Atlantic salmon will complement the exceptional cold water native brook trout fishery that already exist within the monument.

	Annual Totals - Entire Penobscot River Drainage			Upper East Branch Locations	% Annual Totals	LSB Hatchery
Year	no. fry stocked	no. fingerlings stocked	total stocked	fry only from LSB Hatchery	from LSB	operated
1904	2,566,720	369,000	2,935,720	2,566,720	87	
1905	727,460	289,100	1,016,560	727,462	72	11/15 - 5/25
1906	1,897,610	79,200	1,976,810	1,897,607	96	
1907	2,156,850	39,830	2,196,680	2,156,852	98	10/10 - 6/9
1908	2,079,510	30,000	2,109,510	2,059,514	98	11/26 - 5/25
1909	647,790	24,430	672,220	647,790	96	10/15 - 6/30
1910	1,217,370	232,910	1,450,280	1,217,370	84	10/13 - 6/1
1911	2,854,080	0	2,854,080	2,854,080	100	
1912	1,820,350	0	1,820,350	1,820,349	100	May?
1913	3,492,460	0	3,492,460	3,482,464	100	Mar - May?
1914	2,546,290	0	2,546,290	2,331,783	92	Mar - May?
1915	1,804,310	0	1,804,310	1,804,313	100	Jan & Jun?
1916	1,709,810	0	1,709,810	1,709,815	100	Apr - May?
Total	25,520,610	1,064,470		25,276,119		
avg. no./yr	1,963,124			1,944,317	99!	

This table is the result of the years it was used as a hatchery.
(Personal Communication with Paul Johnson)

[6] Reports of the Commissioner of Fisheries (Bureau of Fisheries) to the Secretary of Commerce and Labor for the Years ending June 30, 1903 through June 30, 1917 (published by the U.S. Government Printing Office)