Atlantic Salmon, Pacific Bound: Initiative, Defiance, Courage, and Indian Tribes in Environmental Law

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ATLANTIC SALMON, PACIFIC BOUND: INITIATIVE, DEFIANCE, COURAGE, AND INDIAN TRIBES IN ENVIRONMENTAL LAW

William H. Rodgers, Jr.*

I. INTRODUCTION

It is an honor to deliver this lecture at the University of Maine School of Law, as the Edward S. Godfrey Visiting Professor of Law.1 My visit here has been filled with wonder and excitement. My new colleagues have been splendidly supportive, and the students a delight to work with. I would like to give a special word of thanks to Dean Colleen Khoury who has done much to welcome this stranger into the mysteries of Maine; and to Dean Edward S. Godfrey, who has been a special inspiration to me as he has to literally every graduate of the law school here in Maine.

I want to address my remarks to the students of this law school who will face a great deal of unfinished legal business on the topics of salmon, Indian tribes, and environmental law. Elsewhere, I have derived what I describe as the five virtues of effective action (genius, high-leveraging, symbolism, optimism, courage).2 People of achievement, lawyers or otherwise, are familiar with these virtues and display them in many creative forms. Next, I will peer through this lens of effective action at some key moments in the history of Atlantic-Pacific Salmon Interactions. This coming together has been a process of colonization, east to west, as Maine sent its people, ideas, technology, and laws to the Pacific Northwest. Many of these initiatives landed on the Indian tribes of the region whose cultural

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1. This article is an adaptation of a speech given at the University of Maine School of Law in the Spring of 2002.
and legal connections to the great salmon are legendary.3 Many were resisted, modified, rejected. Tribal responses to the colonists’ salmon dreams have filled the law books with stories of justice and injustice.4

The grave charge against the virtues of effective action is that they are “gray” virtues—equally serviceable to fashioners of the malign as well as the instigators of the benign.5 It is unarguably true that in the last one-hundred fifty years, the combination of human actions, many of them creative, novel, and highly “effective,” have driven natural stocks of salmon (Atlantic and Pacific) to the brink of extinction.6 This sad reality invites comment on a short list of environmental lawsuits that have “salmon” and “Maine” in the captions. I am happy to bequeath to my students at the University of Maine the responsibility for saving the legacies at issue in these cases.

II. VIRTUES OF SIGNIFICANT ACHIEVEMENT

People who get things done in a big way display one or several of these “virtues of significant achievement:”

• Genius ("Thinking outside the Box")
• High-Leveraging ("Much from Little")7
• Use of Symbolism ("aids in recruitment")
• Optimism (related to "self-deception")
• Courage ("there must be danger and hardship to overcome, real danger and hardship, publicly discernible, properly appreciated")8

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5. Rodgers, supra note 2, at ________.


Let me next map these virtues of significant achievement onto an:

## III. HISTORICAL CHRONOLOGY OF ATLANTIC-PACIFIC SALMON INTERACTIONS

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Virtue</th>
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<tr>
<td>1852</td>
<td>William Hume travels from Augusta to the Sacramento River, carrying home-made gillnet.</td>
<td>Optimism</td>
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<tr>
<td>1871</td>
<td>Livingston Stone establishes first hatchery on the McCloud River (California).</td>
<td>Optimism</td>
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<tr>
<td>1887</td>
<td>R.D. Hume enters the Klamath estuary on a fishing expedition in violation of injunction and brandishing a Henry Express rifle.</td>
<td>High-leveraging</td>
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<td>1893</td>
<td>R.D. Hume writes inspirational tract on saving the Pacific salmon.</td>
<td>Genius, Symbolism, Optimism</td>
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<tr>
<td>1905</td>
<td>Yakama Chief (White Swan) wins his fishing case in the U.S. Supreme Court.</td>
<td>Courage</td>
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<tr>
<td>1911</td>
<td>R.D. Hume invents horse-seine.</td>
<td>Genius</td>
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<tr>
<td>1927</td>
<td>Fish-wheels banned in Oregon.</td>
<td>High-leveraging</td>
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<tr>
<td>1932</td>
<td>Levi van Pelt (Umatilla Indian) shot at Celilo.</td>
<td>Courage</td>
</tr>
<tr>
<td>1957</td>
<td>Celilo Falls flooded by Dalles Dam.</td>
<td>Courage</td>
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<tr>
<td>1973</td>
<td>Supreme Court says hatchery fish might be exempted from treaty.</td>
<td>High-leveraging</td>
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<tr>
<td>1980s</td>
<td>Fish-farming with Atlantic salmon comes to the Northwest.</td>
<td>Optimism</td>
</tr>
<tr>
<td>1991</td>
<td>Dr. Robin Waples invents Evolutionary Significant Unit (ESU) under the Endangered Species Act.</td>
<td>Genius</td>
</tr>
<tr>
<td>2000</td>
<td>Genetically-modified salmon now being reared and raised.</td>
<td>Optimism</td>
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<tr>
<td>2001</td>
<td>Court rules that natural/hatchery runs cannot be separated for ESA analysis.</td>
<td>High-leveraging</td>
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IV. THE MAINERS AND THE INDIANS

In the briefest of outline, exploitation of the salmon fisheries of the Pacific Northwest was pioneered by displaced Mainers.9 Disappointed with prospects at home, chagrined by the downturn in fisheries there, the four Hume brothers made their way to the great fisheries of the Columbia River. All four of the Hume brothers are celebrated as "innovators" in the classical work of Courtland Smith on the Salmon Fishers of the Columbia.10 All were salmon packers, canners, and business people. Best known was R.D. Hume who: introduced the Howe soldering machine, horse seining, the Halder Seamer, and the double-bowed steam launch, and, with John West, made the first automatic can filler in 1882. R.D. was also the first to successfully operate a hatchery. He did this in 1877 when he moved from the Columbia to the Rogue River in Southern Oregon . . . However, the most important of R.D. Hume's innovations was locating overseas markets. These included Australia, New Zealand, Latin America, the Far East, and, most significantly, England, where he demonstrated that salmon could provide cheap and nourishing food to workers in England's Midland industrial areas.11

George Hume, says Smith: was an innovator in business organization. Recognizing the need for capital, he secured a partnership with the wealthy Francis Cutting of San Francisco and opened a cannery at Astoria in 1875. He built two of the early canneries in Alaska and was one of the founders and a director of the Alaska Packers Association, which combined the canning interests in Alaska . . . The Alaska Packers Association was used as a model in forming the Columbia River Packers Association, and the British Columbia Packers Association.12

Joseph Hume, Smith continues, "was known for the quality of his products. His Star Brand was packed with only the largest salmon, caught within sight of his cannery."13 William Hume, on the other hand, was known through the area for being the first to market each season.14

The Humes left Maine and went to the Pacific Northwest to escape environmental ravages. Writing in 1893, toward the end of a long career, R.D. Hume expressed regret that the salmon had been systematically and

9. R.D. Hume, for example, was born in Waterville, Maine in 1830. William Hume Biography available at http://homepages.rootsweb.com (last visited Nov. 20, 2002).
11. Id. at 19.
12. Id.
13. Id.
14. Id.
progressively destroyed on the Kennebec River, in his home town of Augusta, the victims of polluting cities, gas and dye works, sawmills and saw dust, fish traps, dams and failed fish ladders.\textsuperscript{15} Hume asked, "What were the conditions of the various streams when the salmon supply was most plentiful?" This was a question "easily answered: There is no question but that salmon were most plentiful before civilization had begun its work, and when dams, traps and other obstructions and hydraulic mines were unknown, when the sources of the river were unsettled and undefiled by the sewerage of the cities, the forests at the headwaters still untouched by man, and the country yet in its natural state."\textsuperscript{16} These conditions were not met — on the Kennebec where he was raised, on the Sacramento where he first started his canning business (within eleven years after the introduction of hydraulic mining in 1853 the river was "practically rendered useless for commercial purposes as a salmon stream"),\textsuperscript{17} and on the Klamath where the fish were once so plentiful horses declined to ford the stream "on account of the river being alive with finny tribe" but were now "practically extinct" because of the mining (the river otherwise was in a "primitive state" because it was saved for the Indians).\textsuperscript{18} And even on the fantastic Columbia a "fearful decrease in the past nine years had been experienced since the record catch of 1883, and from both packers and fishermen comes the cry that, "although the demand for the article is good, they are unable to make living profits from the prosecution of the business."\textsuperscript{19}

Another constant in the entry of the easterners into the western salmon fisheries was conflict with the Indian tribes who claimed ownership of the fisheries. The point is made in an apocryphal way by the story of the Mainer, William Hume, traveling from Augusta to the Sacramento River, with his home-made gillnet.\textsuperscript{20} This technology had to be a misfit (the size of the mesh must match the size of the fish), and it is unlikely that an 1852-vintage gillnet suitable for the Kennebec River would work in the Sacramento — it would be too small and would round up nontarget species. With the gillnets, of course, came gillnetters, gillnetter fleets, gillnetter unions, gillnetter properties called "drifts" in the middle of the river, and inevitable conflicts with the Indian fishermen who were there first.\textsuperscript{21}

\begin{thebibliography}{9}
\bibitem{15} R.D. Hume, The Salmon of the Pacific Coast 17–19 (1893).
\bibitem{16} Id. at 17.
\bibitem{17} Id. at 19.
\bibitem{18} Id.
\bibitem{19} Id. at 20.
\bibitem{20} Alan Lufkin, Historical Highlights, in California's Salmon and Steelhead: The Struggle to Restore an Imperiled Resource 5, 8 (Alan Lufkin ed., 1991).
\bibitem{21} Id. at 37–43.
\end{thebibliography}
R.D. Hume’s utter brashness and high-leveraging brought him into direct conflict with the Indians. In 1883, Ronnie Pierce reports, Hume “applied unsuccessfully” to the federal government to fish in the estuary of the Klamath River. Denied, he turned to self-help. Pierce continues, in 1887, “defying the governmental injunction, he brazenly entered the estuary with a small steamer outfitted to catch salmon, claiming that he was not on the land of the [Indian] reservation but on navigable waters open to all. Brandishing a large-bore Henry Express rifle, he quickly won the first argument with the local military sergeant. Soon he brought in a large barge outfitted to salt fish and house his non-Indian crew.” Not unexpectedly, the Indians “soon were in direct competition and conflict with Hume’s fishermen;” they asked for government help in evicting Hume, but in a typical you-do-it, not-me standoff between the U.S. attorney’s office, the Army, and the Office of Indian affairs, the government managed to lose the case (in fact, no government lawyer appeared). Thus was planted a seed of legal doubt with a ruling by the court that the Klamath River Reservation no longer existed because it had been abandoned in 1862. I have not investigated whether Hume’s escapade on the Klamath did lasting damage to the reservation boundaries but it would not be the first time the Indians lost out seriously to a legal farce.

Another triumph of eastern technology moving west was the appearance in 1871 of the first salmon hatchery on the west coast. This hatchery was the work of Livingston Stone, Deputy United States Fish Commissioner, formerly proprietor of the Cold Spring Trout Ponds in New Hampshire. The goal was to secure eggs and fish that could be shipped to the east coast to rebuild the stocks depleted by the encroachments of civilization. Stone was the right man for the job. He was determined, with a passion for work. He could deal with people. He was a man of righteous zeal—a retired Unitarian clergyman who sought outdoor activity for the benefit of his health. His hatchery work was good for body and soul.

22. Id. at 43.
23. Id.
24. Id.
Stone put his salmon breeding station on the McCloud River in northern California. The McCloud flows into the Pit and thence to the Sacramento. Within two weeks after his arrival on the McCloud, Stone and his two assistants built a house, a flume for their water supply, and a series of hatchery troughs. On September 15, 1871, the first salmon were taken from the river. Stone named his hatchery "Baird" in honor of the first commissioner of fisheries. (The Dep’t of Commerce recently published a puff piece on Baird’s Legacy extolling the virtues of the National Marine Fisheries Service.)

Stone’s hatchery was truly prophetic. It left a legacy of regret. It exploited stocks now teetering on the edge of extinction. It did nothing to help the fisheries on the Sacramento or anywhere else. It did much to encourage the belief that hatchery techniques could be made to work. It drew Stone into ugly property contests with nearby seiners—a Mr. Leshinsky and his son, residents of Shasta—marked by a lawsuit and the intervention of a contingent of federal soldiers.

The hatchery made secure by the U.S. Army could not be made helpful to Indians. Stone was surprised to discover the Indians on the McCloud were strongly protective of their fish. “Even now they are not slow to say to the white stranger, ‘These are my lands,’ and ‘These are my salmon,’” Stone reported. But “the ‘stern consequences’ of conflict with the whites have taught them to abstain from any ‘violent vindication’ of their rights.” A beneficiary of this restraint, Stone was generous in his praise of the Natives: “I would trust the McCloud Indians with anything.” He saw the fusion of the interests of the Natives and their fish with a clarity that escaped many of his contemporaries. “The presence of the Indians,” Stone

29. Id. at 54.
34. Id. at 178.
said, "as far as it implies the absence of the whites, is the greatest protection of the supply of the Sacramento salmon." 35

Stone dismissed the Indians' technology as wrong-headed, flawed, and mistakenly benign. "The Indian trap," he said, "consists of a fence of stakes or bushes, built out into the river, at a fall or rapid, in the form of a letter V, having the angle downstream, and a basket-trap at the angle." This method proved "perfectly worthless . . . for catching healthy fish . . . as this contrivance catches only the exhausted fish that are going down the river, and none of the good fish that are coming up." 36 What this discerning man could not see, of course, was an effective conservation practice. The Indians took weaker fish already spawned and bypassed the stronger that represented future production. Stone dismissed the practice because he was in the business of taking fish out of the river. The Indians were in the business of keeping fish in the river.

V. THE TECHNOLOGY AND THE INDIANS

In his 1893 inspirational tract on saving the salmon, R.D. Hume found it convenient to separate his beliefs from his practice with regard to fisheries technology. In principle, Hume wished to save the salmon and saw hatcheries as a way to do it. The man was a century ahead of his time in recognizing that hatcheries should seek to duplicate nature rather than displace it. He said, "I firmly believe that like conditions must be had in order to bring about like results, and that to transplant salmon successfully they must be placed in rivers where the natural conditions are similar to that from which they had been taken." 37

In his practice, however, Hume was fully in accord with his own self-interest and with his reputation as a "pygmy monopolist" 38 and "King of the Rogue." 39 He put his Gold Beach Hatchery on the Rogue River but three-fourths of a mile from the ocean where he could capture all the benefits. This caused him endless logistical nightmares. Why? Because he had violated his own dictum about seeking to duplicate nature. His hatchery was located "hundreds of miles below the natural spawning beds of the earliest spring Chinook salmon, which adds greatly to our difficulties, as

35. Id. at 179.
36. Id. at 172.
39. Id. at 200.
when the salmon have just entered from the sea they are very delicate, not bearing any rough handling, besides retaining in ponds for such a length of time as is required for them to ripen, calls for constant watchfulness in order to keep up a steady water supply.  

These hatchery innovations have forever haunted fisheries' allocations. In 1973, the U.S. Supreme Court stunned the Northwest treaty tribes by strongly suggesting that hatcheries were strictly a product of the white man's labor and investment, producing fish that would be exempt from the treaties. The Supreme Court thus created a clear incentive for states to destroy the natural stocks and replace them with hatchery fish that need not be shared with Indians. In the twelve years it took to correct this dreadful decision, the natural salmon stocks were well on their way to extinction.

More recently, the hatchery/natural fish distinction has come to the fore in management decisions under the Endangered Species Act.

The grandest of technological conflicts on the Columbia were the Indian challenges to the fishwheels. These "creaky mechanical harvesters," Wilkinson and Conner explain, could take a stationary or mobile form. They worked like slow-moving Ferris wheels, turning in the current three to five revolutions a minute, and scooping up the fish at every turn. In the right channel and the proper depth, they were fantastically efficient. They would work at night and deny escapement to the fish that preferred the cover of darkness. They could work indiscriminately and overcome the lapses and lags of the customary fishermen. They could work before the runs, at the height of the runs, and right after them—thus capturing precursors and stragglers that otherwise would survive intensive fisheries.

They could work regardless of need and despite waste. Even amateurs like the Winans could run their wheels to the tune of thirty tons per day.

40. R.D. HUME, The Art of Salmon Culture: Propagating the Fish, in HUME, supra note 37, at 52.
45. Winans Record on Appeal at 56–57 (Testimony of Charlie Dick) (30 tons a day with 4 wheels). Contrast id. at 179 (Testimony of F.A. Seufert) (Winans' wheel gets no more than 3–4 tons a day; witness denies 10 tons per day). The references are drawn from United States v. Winans, 198 U.S. 371 (1905), Record on Appeal at 91 (Microcard Edition, University of Washington Gallagher Law Library) [hereinafter Winans Record on Appeal].
The industry had its own mythology of excess—three tons of fish in ten minutes, scows sunk, beams and structures crushed by the weight of the catch. Wheels could catch more fish in twenty-four hours than a gill-netter could take in four years.

The fishwheelers left a legacy of regret—banned from the river by angry voters. The most famous fishwheel of all—Seufert’s No. 5—was sacrificed in a fit of avarice by one of the Seufert boys. It was blown up at the mouth on the faulty theory that making the channel twice as wide would double the number of fish entering the wheel.

Successful Indian fishing spots became the targets of fishwheel location. Old F.A. Seufert used to choose his wheel sites by finding spots where he could reach the fish with dip-nets: “If you couldn’t catch a salmon in your dipnet, you knew it would be a waste of time and money to build a wheel there.” It was simple—add a wheel, subtract several dipnet sites. The wheels were put in place by blasting and smashing the very footholds the Indians could stand on. “Winans took that rock and blast it to nothing,” said an Indian named Winneer, “and put a wheel in.”

With displacement imminent, the Indians needed a theory to resist it. That theory was provided by Wahelook or White Swan, a Yakama chief who personally had come up against the fences of Columbia River settlers. His non-Indian name was Joe Stwire (Stwire means “white swan”). White Swan was a Klickitat, married to a Wisham. There is a town on the Yakama reservation named after him.

46. Compare United States v. Brookfield Fisheries, 274 F. Supp. 712, 715 (D. Or. Aug. 23, 1938) (Fee, J.) with Francis Seufert, Wheels of Fortune 19 (1980) (“Because the wheel was on one end, scows were easily sunk); Ivan J. Donaldson & Frederick K. Cramer, Fishwheels of the Columbia 11 (1972) (10,000 salmon in 24 hours).


48. Seufert, supra note 44, at 18; Donaldson & Cramer, supra note 46, at 91 (No. 5 eventually was stopped by court order on July 1, 1927. It burned to the ground on Oct. 24, 1956).

49. Seufert, supra note 46, at 25.

50. Winans Record on Appeal at 69 (Winans says: “All this river is mine”). On Winans’ destruction of the fishing spots, see id. at 47 (“Q. Why is that a good fishing ground and who do those fish wheels interfere with; the Indians fishing there? A. There was a standing rock there—fishing ground—and that was all blasted out, and is now a fish wheel instead of a standing place.”). See also United States v. Brookfield Fisheries, 24 F. Supp. 712, 714 (D. Ore. 1933) (the “monumental pillar” of the Indian site at Hasslo has itself “become converted by blasting into a flat mound,” its fragments piled in wooden cribs).


White Swan was the lead plaintiff in the case known to historians as *United States v. Winans*, decided by the U.S. Supreme Court in 1905. The Supreme Court agreed with White Swan that the treaties of the 1850s reserved to the Indians the right to take fish and that this reservation could be enforced against encroachers such as the fishwheel operators.\(^{54}\)

It took great courage to bring this case and see it through to conclusion. There was, in William Ian Miller’s words, “danger and hardship to overcome, real danger and hardship, publicly discernible, properly appreciated.”\(^{55}\) The circumstances were best captured perhaps by the testimony of T-wash-pam, an old Indian woman, who recorded the violence explicit in these divestitures:

Q. Explain just the circumstances of tearing down your house.

A. I was there at my house setting down not knowing anything, I couldn’t tell how many years, pretty soon a man come there and he says to me, ‘If you don’t get out of here I will tear your house down.’ I did not believe him, that he would do it; pretty soon he put a lasso on our house, I got scared and cried, and put a little barrel on my back and took that and went away crying; he said, ‘If you go to make any more trouble around here, I will put you in jail.’ I said, ‘All right you can take me;’ that is all I said to him; what little things I had I was picking up and taking away; I was crying.\(^{56}\)

No houses, no access, no fish. For some, there was no hope:

Q. Have you suffered any for food since this fishery has been fenced in?
A. There are lots of time I wished to get something to eat, such as salmon. Now I have given up all hopes, and have made up my mind I am going to starve myself to death.

Q. How many Indians are situated that way?
A. Four of us; we can’t hardly help ourselves, except we depend on fish.

Q. How many others are in the same condition?

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53. 198 U.S. 371 (1905).
54. Id.
55. MILLER, supra note 8, at 282.
56. Winans Record on Appeal at 105.
A. There are a great many that is around here; I don’t know how many. They all feel very bad about not getting any salmon, and they think they are going to starve themselves to death.\textsuperscript{57}

The most revealing incident of technological conflict on the Columbia was when the horse seine, invented by R.D. Hume, came up against a very creative Yakama Indian, by the name of George Olney. Olney was thoroughly bold and quite fearless. He was full of the “initiative” mentioned in the title of the article. A federal judge in 1911, Frank H. Rudkin, describes how Olney turned the tables on the salmon-canning czar of the mid-Columbia, Frank Seufert:

\begin{quote}
[The Defendant Olney] purchased a seine of like character to that used by the complainant [500 or 600 feet in length] and repaired to the fishing ground theretofore occupied by the complainant [Seufert], with a large force of men and teams, anchored his seine to the deadman planted by the complainant, and proceeded to fish the stream in the method theretofore pursued by the complainant, driving his teams over the complainant’s shore lands and occupying them for that purpose.\textsuperscript{58}
\end{quote}

In 1911, the Hon. Frank H. Rudkin was not quite ready to allow an Indian to capture the benefits of a technology invented by R.D. Hume.

The judge wanted Olney to be a full-blooded Indian; but he was flawed by his white ancestry. Olney, said the judge, “was not seeking to enjoy the primitive rights of his ancestors.” He “belongs to another generation and in part to another race.”\textsuperscript{59}

The judge wanted Olney to be poor; but he was tainted by prosperity—a condition, moreover brought by the “bounty of the government.”\textsuperscript{60}

The judge wanted Olney to be desperate and fishing for subsistence. But he was spoiled by success and striving to join the modern economy. The judge found him fallen from grace and fishing for “market and cannery.”\textsuperscript{61}

The judge wanted Olney to be back on the rocks fishing with a spear. So he put him there. Judge Rudkin ruled that technological advances such as fish-wheels and horse-seines could not be operated “in common.” He said that the white operator must have “exclusive possession.” He declared

\begin{footnotes}
\item[57] Id. at 104–05.
\item[58] Seufert v. Olney, 193 F. 200, 201 (E.D. Wash. 1911).
\item[59] Id. at 203.
\item[60] Id.
\item[61] Id. at 203–204.
\end{footnotes}
that state-licensed fish-wheels and horse-seines could not be "subservient" to Indian rights.62 This reasoning would bar Indian advancement into the common fisheries and invite displacement from their established ones.

VI. HABITAT LOSS AND THE INDIANS

The courage that White Swan displayed was repeated often on the Columbia. One of the major cases filed in the 1930s to vindicate Indian treaty fishing was inspired by a shooting at Celilo Falls—with the Umatilla Indian Levi VanPelt the unfortunate victim.63 VanPelt was daring and defiant. He was shot for his impudence. Getting shot was his way to get the legal process rolling; and indeed, a suit against Downes to enforce tribal fishing rights was an "immediate aftermath" of the shooting.64

The example I choose to emphasize, because it is still with us as a relevant legal issue, is the loss of the last great Indian fishing grounds at Celilo Falls, flooded by waters rising behind The Dalles Dam. The Indians opposed this encroachment with imagination and fervor.65 They also did so with utter defiance, described by Miller as actions taken by determined people with:

no fear of pain, no fear of censure. Such people unnerve those who observe them. They are not so much loathed as held in a kind of awe, much as the berserk is held in awe. . . . Nothing touches them. They are a nightmare vision of incorrigibility or cluelessness, of unrelenting determination to carry out their intentions against a universe whose claims they either do not understand or do not acknowledge. They give us the heebie-jeebies in their preternatural imperviousness to social and moral claims and even to threats of physical pain. They are unreachable in a way that even the courageous person who doesn't scare easily is not.66

This defiance is a powerful currency—not easily bought off, dissuaded, or circumvented. The Northwest Indians' defiance over the loss of Celilo

62. Id.
63. Downes Employee Shoots Indian in Celilo Fish Dispute, DAILY CHRONICLE (The Dalles, OR), Sept. 17, 1931, at 1.
64. Id. at 2.
65. ALEX SALUSKIN, CHAIRMAN, YAKIMA TRIBAL COUNCIL, Statement of the Yakima Indians in Defense of Their Vested Fishing and Property Rights, THE DALLES DAM—HISTORICAL EVIDENCE AND STATEMENT OF INDIAN DEFENSE (National Archives, Pacific Northwest Region, Record Group No. 75, B1A, Box 127, File #115) (1953).
66. MILLER, supra note 8, at 80.
Falls did not carry the day in the 1950s. Defiance, however, never rests or forgets, and is the first to rise in a campaign of restoration. The Dalles Dam will never be safe so long as it hides the secrets of Celilo Falls.

VII. FISH-FARMING AND THE INDIANS

The last set of east-west interactions I wish to underscore is the current binge of salmon fish-farming that has simultaneously come to both Maine and to the Pacific Northwest. This economic development is driven by the imperatives of effective action, such as plenty of genius, optimism, and high-leveraging is operative here. These changes demonstrate convincingly that individual triumphs can yield suboptimal social outcomes.

This salmon-ranching movement is very likely using wrong stocks in the wrong places (where is it written that this farming must be done at sea?), in the wrong ways (escaping fish and pollution from these enterprises are unimpeded), under nonsustainable conditions that pose unacceptable threats to native salmon stocks. Viewed graphically, salmon ranching is not a pretty business:

This fish-farming obliges me to bequeath to my students in Maine five substantial environmental issues that I have every confidence they will solve in their lifetimes—

- Defining an Effective Role for the Indian Tribes in Salmon Protection.

Indian tribes are the obvious voice for protecting natural salmon stocks and for urging enlightened water pollution policies. In Maine, there is a mean-spirited campaign by polluting pulp mills to saturate the tribes with public disclosure requests and to cripple their water pollution enforcement

67. For example, in the Northwest fast-growing Atlantic salmon are preferred to the native Pacific salmon. See David W. Ellis & Assoc., Net Loss: The Salmon Netcage Industry in British Columbia 9-10 (1996) (British Columbia farmers prefer Atlantic salmon because of high survival under intensive culture, high conversion rate, high market price with a well established market).


Environmental Impacts

Atlantic salmon eggs from Europe

Fish from South America

Loss of local species

Drugs

Mortalities

Exotic diseases to local fish

Escapes

Fish sewage containing disease pathogens
Net Loss of Protein for Human Consumption in 1995

Fish taken from Pacific Ocean off South America
provided:

118,000 tonnes of fish

To produce 32,000 tonnes of farmed salmon
which produced:

Sewage equivalent to that generated by 500,000 people
capacities. This campaign is an obvious pre-emptive strike to head off the federal EPA from taking actions (nondelegation to the state in Indian country or tribal treatment-as-state) that would be displeasing to industry. The failure of both state\textsuperscript{72} and federal\textsuperscript{73} courts to correct this situation is not acceptable.

- **Applying Effective Point-Source Regulation to the Salmon Farms.**

  The capacity to regulate salmon pens as National Pollutant Discharge Elimination System (NPDES) point sources has existed under the Clean Water Act since the Muskie Amendments of 1972. That this has not happened in Maine for the better part of thirty years is absolutely staggering.\textsuperscript{74} Farm-raised salmon is described as a $100 million industry in the state, rivaling milk and potato production.\textsuperscript{75} That this industry could be established in Maine, grow enormously and pollute profusely, without the obvious Clean Water Act permitting, is no feather in the cap of state or federal water pollution managers. Understand also that “zero discharge” is a very plausible outcome under the various best-technology standards of the Clean Water Act. Such an outcome here would move the facilities out of the sea; this sitting debate should have happened in Maine.

- **Developing Effective Regulation of Nonindigenous Species.**

  A serious offense of the salmon ranchers is that the raw material they prefer is alien to the environments in which they operate. The escape of 100,000 salmon from Atlantic Salmon of Maine when 120-mph winds wrecked a steel cage in December of 2000 is the worst possible way for this issue to arise in Maine.\textsuperscript{76} An incident of this sort easily could be treated as an unpermitted discharge of pollutants under the Clean Water Act.\textsuperscript{77} As

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\textsuperscript{71} Murray Carpenter, *Sovereignty in Jeopardy: There’s a reason the paper companies really want those water quality documents from the Penobscots, and it’s important enough to involve the Supreme Court*, PORTLAND PHOENIX (Portland, ME), Nov. 9, 2001, at 1.

\textsuperscript{72} Great Northern Paper, Inc. v. Penobscot Nation, 770 A.2d 574 (Me. 2001), cert. denied, 122 S.Ct. 543.

\textsuperscript{73} Penobscot Nation v. Georgia-Pacific Corp., 254 F.3d 317 (1st Cir. 2001) (applying res judicata to a decision of the Maine Supreme Judicial Court).

\textsuperscript{74} For the current situation, see the opinion of Magistrate Kravchuk in U.S. Public Interest Research Group v. Heritage Salmon Inc., 2001 WL 987441 (D. Me. Aug. 28, 2001).

\textsuperscript{75} Bart Jansen, *Swift Aid Sought on Salmon Virus*, PORTLAND PRESS HERALD, Nov. 4, 2001 at 1B.

\textsuperscript{76} \textit{Id.} at 7B.

\textsuperscript{77} United States Public Interest Research Group v. Atlantic Salmon of Maine, LLC,
with regulation of the salmon pens, the federal EPA has been supine on the question of using the Clean Water Act in any general strategy to combat releases of nonindigenous species. The agency is now being sued—and almost certainly will lose—on the question of whether releases of ballast water are within the regulatory reach of the Clean Water Act.\textsuperscript{78}

Nonindigenous species present acute challenges to modern pollution regimes. These species often work on long lag times, the delay between the introduction of a nonindigenous species and its spread over a wider area.\textsuperscript{79} They are resistant to the usual planning strategies. They arrive on the scene in response to a vast range of human emotions (spite, whimsy, curiosity, hubris, greed).\textsuperscript{80} They can cause irreparable damage. They are regrettably "collateral" to powerful streams of human endeavor, such as transportation, trade, agriculture, research and medicine.\textsuperscript{81}

George W. Cox points out:

Many of the introductions to the eastern seaboard in the 1700's and 1800's have proven to be ecological time bombs, species that have only recently begun to exert serious ecological impacts. This means that the fact that an early colonist has not appeared to be especially troublesome does not mean that it will not become a problem exotic. Purple loosestrife is a prime example. It remained a minor invader for 130 or more years after it had been introduced to North America.\textsuperscript{82}

- Improving the Role of the Endangered Species Act in Protecting Maine's Salmon

The early returns in Maine on the Endangered Species Act and salmon do not look promising. One sees evidence of the usual scorched-earth

\textsuperscript{215} F. Supp. 2d 239 (D. Me. June 17, 2002). Offshore salmon net pens are “point sources” whereas escaping fish and other substances are “pollutants.” \textit{Id.}

\textsuperscript{78} Interview with Prof. Craig N. Johnston, Lewis & Clark Northwestern School of Law (Dec. 11, 2002).


\textsuperscript{80} See generally KIM TODD, \textit{TINKERING WITH EDEN: A NATURAL HISTORY OF EXOTICS IN AMERICA} (2001).

\textsuperscript{81} See generally \textit{id.}

\textsuperscript{82} GEORGE W. COX, \textit{ALIEN SPECIES IN NORTH AMERICA AND HAWAII: IMPACTS ON NATURAL ECOSYSTEMS} 50 (1999).
approach to the listings. Interested parties deny that natural stocks of salmon exist in Maine, deny the National Marine Fisheries Service (NMFS) choice of an evolutionary significant unit (ESU) for listing, deny that the fish are “threatened” or “endangered,” and most emphatically deny that the ESA should impede life as usual in Maine. These issues take time to work themselves out, of course. There are no glaring right answers. But this is a future that will be written with law.

- **Restoring Habitat Necessary for Salmon**

One of the biggest environmental stories in Maine in recent times is the removal of the Edwards Dam on the Kennebec River. Maine’s environmental future will disclose hundreds of similar events. I certainly hope

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85. See also Maine People’s Alliance v. Holtrachem Mfg. Co., 211 F. Supp. 2d 237, (D. Me. July 29, 2002). In this case, an RCRA citizen suit seeks an injunction to require a scientific study of mercury contamination downriver of plant site; risk of injury sufficient to require operator to fund this study and to undertake any feasible remediation measures. Id.

86. Tom Bell, A Paddle on the Presumpscot, MAINE SUNDAY TELEGRAM (Portland, Me.), Aug. 26, 2001, at 1. The environmental history of this river includes the efforts of the Abenaki and Penacook Indian tribes, led by Chief Polin, to secure a fish passage, for fish such as salmon, shad, and alewives, at the dams (the first dam was built in Falmouth in 1732). Id. Although the governor of Massachusetts “agreed fishways should be built, his orders were unenforceable on the Maine frontier.” Id. Polin responded by raiding settlements along the river where he was killed in battle on May 14, 1756. Id. Today’s fishway battles are now contested before the Federal Energy Regulatory Commission, a wretched administrative outpost as removed from its duties to nature as were the Maine frontiersmen in the 1750s. See Expired dam licenses seen as opportunity, MAINE SUNDAY TELEGRAM (Portland, Me.), Aug. 26, 2001 at 7A. Five of the Presumpscot River dams are now at issue in FERC relicensing proceedings; all five licenses are held by Sappi Fine Paper Co. and dam opponents seek removal of three of the smallest: at Saccarapa, Mallison Falls and Little Falls, and seek fish passage at two larger dams, Gambo Dam and Dundee Dam; “No state agencies have asked for the removal of any of the dams. However, the state Atlantic Salmon Commission and the Department of Marine Resources are seeking passage at the dams for salmon and other sea-run fish once passage is provided at the Cumberland
that the future of this beautiful state has ample salmon habitat within it. Perhaps the next generation of Hume brothers will not be moved to go elsewhere to secure their salmon futures.

Mills Dam in Westbrook” *Id.* (emphasis added). The first obstruction upstream, the Smelt Hill Dam, is scheduled for voluntary removal in the summer of 2002. *Id.* The Cumberland Mills Dam, set for voluntary removal after the Smelt Hill Dam, is not regulated by FERC because it does not produce electricity. *Id.* However, it can still be subject to a fish passage order by the Department of Inland Fisheries & Wildlife. *Id.* The opening of a fish passage at the first two dams would open a 16-mile stretch of the river. *Id.* However, timid state agencies are the norm on these relicensing issues (any reallocation will have winners and losers), leaving citizen groups the task of fighting for the fish in the cold corridors of FERC.