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OCTOBER 2000

ENVIRONMENT

Saving Salmon, or Seattle?

The Northwest is obsessed with the fate of salmon -- except that, as is often true, the battle is really over how people want to live

by James Fallows

IN mid-July, *USA Today* broke the biggest political news of the year for the Pacific Northwest: the Clinton Administration was about to reveal its plan to save the endangered wild salmon of the region, and the plan would *not* include partly removing, or breaching, four dams on the lower Snake River, in the southeastern corner of Washington State. For the past several years these dams have been the object of mounting controversy among environmentalists, industrial groups,

farmers, and politicians. The Administration said that for at least the next five years a variety of other recovery measures would be given a try.

The Administration made the announcement because federal court rulings required it to take a stand on the dams, but in so doing it also solved a political problem for Al Gore. The environmental groups that were Gore's natural allies had been pushing him hard for a commitment to breach the dams -- that is, to leave the concrete portions in place but remove the adjacent earthworks to create a channel. But such a pledge would have hurt Gore with voters in the arid eastern parts of Washington and Oregon, where the dams provide irrigation and other benefits, and would invite Republican attacks on him as an environmental extremist. At first Gore kept his distance from the proposed five-year delay, but soon he embraced it as "a solid foundation for restoring the salmon while strengthening the economy of the Pacific Northwest."

The benefits to Gore were so obvious that the Republicans' main complaint was how much the Clinton plan helped him. "Make no mistake -- it's a delay to give Vice President Al Gore cover until after the election," Senator Slade Gorton, of Washington, a Republican and a strong supporter of the dams, said as soon as the moratorium was announced. Republicans could complain about little else: at face value the plan made sense. The

Discuss this article in the **Politics & Society** conference of Post & Riposte.

More on **politics and society** in *The Atlantic Monthly* and *Atlantic Unbound*.

More on the environment in *The Atlantic Monthly*.

From the archives:

"The Trouble With Dams," by Robert S. Devine (August 1995)
Some 100,000 dams regulate America's rivers and creeks, often at the expense of ecosystems -- and of taxpayers, who are subsidizing handouts to a large number of

farmers, floodplain occupants, hydro-electricity users, and river-transportation interests.

"Empowering Species," by Charles C. Mann and Mark L. Plummer (February 1995)
The best way to save endangered species may be to help them pay their own way.

"The Butterfly Problem," by Charles C. Mann and Mark L. Plummer (January 1992)
Because the government doesn't have the means to preserve endangered species, let alone a coherent plan, its decisions are haphazard -- and private landowners often find themselves paying for the

Administration was saying that it would try less drastic steps to help salmon before resorting to the most costly, least readily reversed measures.

The plan seemed anything but sensible to the coalition of groups that had been demanding immediate breaching of the dams: "We are shocked and disappointed by the lack of vision," Mark Van Putten, the president of the National Wildlife Federation, said when news of the impending decision was leaked. Representatives of Friends of the Earth, American Rivers, Defenders of Wildlife, and other conservation groups added their disapproval of the plan when it was officially confirmed, a week later. Chris Zimmer, of Save Our Wild Salmon, a coalition of environmental and fishing groups, said his organization was "deeply disappointed" by the delay. Rob Masonis, of American Rivers, told me, "Our paramount concern is the displacement of dam removal as the principal recovery tool." In late August the Seattle City Council endorsed getting rid of the dams. On the other side, representatives of the Bonneville Power Administration -- which distributes and sells electricity from the four disputed dams -- and of the big power-consuming industries in the region said they were concerned that the standards for "sufficient" salmon recovery would be subjective enough to make whatever happens in the next five years seem a "failure" and therefore would dictate dam breaching as the next step.

preservation of species they've never heard of.

Elsewhere on the Web
Links to related material on other Web sites.

Colombia Basin Research
A compendium of scientific studies posted by the School of Aquatic and Fishery Sciences at the University of Washington.

Columbia & Snake Rivers Campaign
"The Campaign is dedicated to bringing back Northwest salmon and steelhead by partially dismantling 4 federal dams in the Columbia Basin." News updates and information about how to take action.

American Rivers
"A national

James Buchal, a lawyer in Portland, Oregon, and the author of a skeptical point-by-point response to anti-dam arguments, called *The Great Salmon Hoax* (1998), also predicted that the dams would face very high "flow requirements" -- obligations to draw down their reservoirs by releasing water over the spillways, in an attempt to simulate fast-flowing streams. These, he said, would reduce their power-generating potential so significantly that "they will make dam removal the cheap way out."

In some political interactions -- coming up with a tax bill, for example -- a balance of complaints may indicate that something like the right result has been reached. But in other disputes -- say, land claims in the Middle East -- grievance from all sides means that the dispute is likely to persist. The salmon controversy, I fear, will be like the Middle East.

In Washington and Oregon this year's salmon runs have been the strongest in many years. The perverse reality is that the main threat to the anti-dam movement is the possibility that salmon runs will continue to recover over the next five years. The anti-dam forces say this can't happen, because the dams are the real problem, and if the salmon stock does somehow recover, it will be an anomaly, like one cold summer in the midst of a global warming trend -- or, more to the point, like this year's huge returns of salmon up and down the Northwest coast. Nonetheless, the anti-dam movement now

organization dedicated to protecting and restoring America's river systems and to fostering a river stewardship ethic." Arguments against the Snake River dams and information about how to take action.

Northwest Power Planning Council
"Striking a balance for fish, wildlife and energy in the Columbia River Basin." News and information about the Columbia and Snake Rivers salmon question, and arguments in favor of the dams.

Buchal.com
A site hosted by James T. Buchal, a complex civil litigation specialist, who successfully defended the

has a short-term stake in whatever is bad for the fish. Last year Washington voters considered a ballot initiative that would have banned gill-netting for salmon -- a destructive and undiscriminating means of fishing. In my naiveté as a newcomer to the region (I had lived there less than a year at the time), I assumed that if salmon were endangered, catching fewer of them would be helpful, so I voted for the initiative. But many environmental groups stood shoulder to shoulder with commercial fishermen in criticizing the initiative, arguing that it would divert attention and political pressure from the "real problem" -- the dams. The initiative lost. Such odd alliances and "intensify the contradictions" thinking have only become more likely because of the Administration's new plan.

THERE'S a deeper problem, too -- or so I thought as I ended an eighteen-month residence in Seattle, last summer. The standoff over fish and dams reflects other tensions generated by the region's rapid growth and spectacular wealth. Seattle thinks of itself as more unspoiled, closer to nature, and less materialistic and overbuilt than southern California -- the local synonym for hell. It considers itself more laid-back and unpretentious than San Francisco, more racially tolerant than any city on the East Coast, less class-bound than other cities of its size.

One can see the basis for all these views.

Federal Columbia Power System against litigation by American Rivers. Features arguments in defense of the dams, suggested reading, and related resources.

Visualizing Salmon Nation
Color-coded maps offering an overview of the status of salmon in the Northwest and the regional extent of dam development. Posted by Ecotrust, "a nonprofit organization dedicated to building a conservation economy along North America's rain forest coast."

Tidepool: Salmon
Updates about the status of Northwest salmon and salmon-related policy, and links

The natural setting is spectacular, and people are always heading out to hike or go kayaking. Informality prevails. I wore a necktie maybe half a dozen times while I lived there. The city is a haven for mixed-race couples; I believe the local claims that Seattle has a higher proportion of black-white married couples than any other major city. The parks, marinas, bicycle trails, and lakefront swimming zones are abundant, well maintained, and accessible. Poor people in Brooklyn might open a fire hydrant to cool down; poor people in Seattle are never more than a mile or two from a nice beach. If the climate were not so dark and rainy (every day I didn't wear a tie, I wore a Polartec vest), everyone would want to live here.

At the same time, one can see the ways in which this reality is under assault -- largely because of tech wealth. Years ago, when Boeing and Weyerhaeuser were the biggest local employers, a little bungalow on Lake Washington was a realistic ambition for the average working family. Now thousands of tech millionaires, plus a few billionaires, have bid waterfront property out of reach of the average or even the professional family. Self-pitying Seattle news reports notwithstanding, freeway congestion is not as bad as in New York or Los Angeles, but there is a high concentration of construction vehicles on Seattle's roads, because malls, subdivisions, and office developments are being thrown up nonstop. People with money often buy extra homes, so fancy

to salmon management and educational resources. Posted by Tidepool, a news service for those working "to create a conservation based economy."

Save Our Wild Salmon
"A coalition of Northwest conservation organizations and commercial and recreational fishing associations united to protect and restore wild salmon and steelhead throughout the Pacific Northwest." Offers news, suggested reading, related links, and contact information for elected officials.

Wild Salmon Project
Information about the Sierra Club's efforts to protect wild salmon in the

weekend retreats have sprung up in Seattle's hinterland, from the San Juan Islands to the Olympic Peninsula to the Methow Valley, in the Cascades.

All this activity necessarily puts a strain on the forests, meadows, waterfronts, and mountain streams that are part of the Northwest's historical identity. And this brings us back to the salmon debate.

EVERY party to the dispute seems to be talking about the same thing: protecting salmon, which require particular river conditions in order to spawn. But in reality people are using similar terms to describe at least three different goals: protecting the fish themselves, in the sense that giant pandas or rhinos or blue whales are protected against threats to their existence as a species; maintaining fisheries, whose purpose is to allow fishermen to catch and people to eat the fish; and preserving the wild natural environment in which the fish spawn. Two hundred years ago, before a substantial white population had settled in the region and before the rise of industrial-scale fishing and industrial manipulation of the environment, there was no need to distinguish any of these goals from the others. Many Northwest tribes took a heavy but sustainable toll on the salmon runs, in an unspoiled river environment. But now the logical steps for achieving the three goals diverge significantly -- and there is little honest discussion about which goal

Pacific Northwest.

National Marine Fisheries Service, Northwest Regional Office "We conserve, protect, and manage Pacific salmon, groundfish, halibut and marine mammals and their habitats under the Endangered Species Act (ESA) and other laws." News and information pertaining to fishing regulations in the Pacific Northwest.

should take precedence.

Officially, everyone is primarily concerned with protecting populations of fish that might otherwise become extinct. Seventeen types of Northwest salmon are "listed" under the Endangered Species Act, which contains a variety of absolute prohibitions against any measures that might harm a protected type. Legally, salmon's situation is more complicated than that of many other species. The problem is the tension between the ESA and a different set of guarantees: long-standing treaties between the U.S. government and Northwest tribes, granting them rights in perpetuity to take salmon from their traditional fishing grounds. In principle, no one knows which guarantee would win out, because there has never been a court case directly pitting ESA protections against treaty fishing rights. In practice, the conflict has been finessed by yearly negotiations over how many fish the tribes can take. This has in turn justified continued nontribal fishing, because many of the treaties hold that the tribes will "share" the fish of certain rivers with other fishermen.

There is a biological complication, too: in this case what the ESA is protecting is not exactly a species, in the normal sense of the term. A "species" usually means all animals that can interbreed. By this definition there are only six species of Pacific salmon -- Chinook, sockeye, coho, chum, pink, and cherry (the Atlantic salmon is a separate

species) -- none of which is threatened with extinction. Salmon of all but one of these species abound in Alaska, and hatcheries are capable of producing millions of the fish to keep the species alive. But for salmon the ESA has been applied not to entire species but to "distinct population segments" or "evolutionarily significant units." These are, essentially, populations of Chinook, sockeye, coho, or other salmon that spawn in particular geographic areas -- streams, lakes, watersheds. If the salmon runs returning to a specific stream diminish, then that "unit" is listed and must be protected.

Continued...

(The online version of this article appears in two parts. Click here to go to part two.)

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The usual argument in favor of this fine-grained approach to preservation is that it maximizes the genetic diversity of the entire salmon population: Chinook that spawn in June in the Columbia River are different from Chinook that spawn in September in the Snake River. The usual counterargument is that any population of salmon, with their tremendous fecundity, contains enormous genetic potential, and salmon have proved themselves highly adaptable, rather than fragile, in the past. A small proportion of salmon seem predisposed to return to a different stream from the one where they were spawned, promoting spread of the species. A hundred years ago, for example, there were no native Chinook populations in the rivers of New Zealand. Several loads of Chinook eggs from a single run on the Sacramento River were shipped there, and now at least five of New Zealand's river systems have established "self-sustaining" runs, with different spawning schedules and visible differences among fish that all descended from the same stock. Moreover, because hatcheries have been running full tilt in the Pacific Northwest for more than a century,

it is difficult to imagine that many "pure" wild runs, with no hatchery genetic material in their lineage, remain. Nonetheless, the unit interpretation prevails, with the Twilight Zone implication that special listed fish swim in the ocean and in the rivers among their more numerous unprotected fellows, and it's often impossible to tell the two apart. Some, but not all, hatchery fish have their fins clipped in a way that identifies them after they've been caught. So an oceangoing trawler that hauls up a fish with unclipped fins may have caught a wild Chinook -- or it may have snared just another hatchery fish. No one can tell, and in either case the fish is dead.

If the objective really were to do whatever is necessary -- but only what is necessary -- to ensure the survival of each salmon run, then the logical path would be clear. Some important variables that affect the salmon's welfare are beyond direct human control. There is increasing evidence that changes in ocean conditions, especially fluctuations in ocean temperature through roughly twenty-year cycles, have an enormous impact on salmon stocks. When the northern Pacific gets warmer, as it has for most of the past decade, salmon runs generally get smaller and the fish move northward, toward Alaskan rivers. When the Pacific gets cooler, as it seems to have done in the past year, stocks recover and the fish move south. As of this writing, Alaskan rivers have had smaller runs this year than in any other year of the past decade; more Chinook

returned this spring to the Columbia River, between Oregon and Washington, than have done so since 1938.

Among the variables people can directly control, the most obvious is the rate at which salmon are fished. Step one in a campaign to preserve most other endangered wildlife is to stop destroying it on purpose. This has proved crucial for fish: many major stocks have been fished to the point of exhaustion and have then begun to recover after fishing limits or moratoriums were slapped on. Cod, herring, shad, swordfish, striped bass, various crabs and clams, and many other forms of marine life have been through the depletion part of the cycle; shad and striped bass have begun to rebound.

Northwest salmon populations have been through the cycle several times in the past century. Industrial-scale fishing boomed 150 years ago, when advances in canning technology made it feasible to ship Pacific salmon around the world. By the end of the nineteenth century, salmon runs were collapsing throughout the Northwest. From then on, hatcheries propped up the salmon populations. Through the past century salmon runs on rivers from Oregon to Alaska have risen and fallen largely in response to changes in fishing technology and other aspects of "harvest pressure." A chart of salmon runs in rivers along the Pacific coast over the past century would show curves mainly rising and falling in

sync. "Mainstem coho," which spawn in the downstream reaches of the Columbia and do not encounter even one dam, follow these patterns.

All of this suggests that factors affecting the salmon population as a whole, such as changes in sea conditions and advances in fishing technology, are at least as urgent as stream-by-stream changes and the impact of dams. This is a conclusion that anti-dam groups vehemently dispute. "To say that the problem is not the dams just because there are problems in undammed rivers is to deal with the subject at such a simplistic level that it makes all argument moot," Rob Masonis, of American Rivers, told me. "You have to look habitat by habitat and stock by stock."

Still, emergency steps for any other endangered species probably start with controls on commercial harvesting -- think of the crackdown on traffic in rhino horns and ocelot hides. Harvest limits have been the first step for other fish. A separate topic of debate centers on pressure on salmon from other species: seals and sea lions, which though now abundant are still legally protected, may well eat as many salmon as fishermen take. The world's largest colony of Caspian terns, which established itself in the 1980s on a man-made island in the Columbia estuary, also eats significant quantities of young fish. When pressed, anti-dam advocates will agree that controls on fishing, or even management of predator

species, could be involved in an action agenda. Indeed, all parties to the dispute agree that any recovery scheme must include the "4 *H*s": improving *habitat,* so that the adult fish have places to lay their eggs; managing *hatcheries,* so that their progeny don't crowd out vulnerable wild fish; monitoring the impact of *hydropower,* which means the dams; and limiting *harvest*.

The difference is priority and emphasis. In their press releases, working papers, and even off-the-cuff comments, representatives of the anti-dam groups say, with consistency and a tone of utter certainty, "the science is telling us" and "the scientists say" that the dams are so overwhelmingly at fault that talking about anything else is a waste of time. Even a few months' immersion in the issue, however, makes plain that "the science" is quite a bit sketchier and more contradictory than that.

Because the science is disputed, a strategy truly aimed at saving fish would try the fastest, cheapest, and most easily reversible remedies first. By anyone's reckoning, removing dams would come near the bottom of the list. The breaching process would be slow,

AUTHOR'S NOTE (Web-only)
For those interested in looking further, the best compendium of scientific studies is at Columbia Basin Research. Arguments against the dams can be found at Columbia & Snake Rivers Campaign and American Rivers;

expensive, riddled with side effects, and essentially irreversible. The anti-dam groups partly accept this logic, in that they talk about removing the four smallest and least economically valuable dams on the Columbia-Snake river system -- but not four big dams on the lower Columbia, through which the salmon must also pass, or the gargantuan Grand Coulee, on the upper Columbia, which totally blocks upstream salmon passage but which also is one of the three largest power-generating facilities in the world. Yet despite their acceptance of cost-benefit logic in regard to these more imposing dams, the anti-dam groups are absolutist about the four dams they think they have a chance to remove.

arguments on the other side, at Northwest Power Planning Council and Buchal.com.

THE real agenda underlying the salmon debate becomes clear only in light of unresolved questions about development and preservation in the high-tech Northwest. The Endangered Species Act is concerned with protecting the fish and nothing more, but for most people in the region, the ideal is to eat the fish and have them, too. An important part of the region's self-image is tied up not just with eating salmon but with the idea that they're waiting to be caught. It is a land of limitless abundance that everyone fears is being lost.

An episode on the Fourth of July illustrated this attitude. The house where my wife and I lived in Seattle had a dramatic view of Lake Washington. On the Fourth we awoke to see it covered with hundreds of small craft. The front page of *The Seattle Times* carried the explanation: for the first time in four years a sockeye-fishing season had just been opened on the lake.

The background of the story was testament to the adaptive vigor of salmon, and implicitly another strike against the idea that dams are the real problem. Before Seattle was heavily developed, Lake Washington supported a large population of lake-spawning "kokanee" salmon, and perhaps a smaller population of sockeye salmon, which unlike the kokanee must make their way to the ocean to mature. Around the time of World War I locks and other construction projects, which lowered the lake's level, blocked access to the sea for whatever sockeye were then in the lake. In the 1930s sockeye eggs were transplanted into the lake, and the salmon established a run that made its way to and from the sea via the Ballard Locks. The size of the run rose and fell, apparently for natural reasons, but in 1988 a local fishing writer named Brad O'Connor discovered that sockeye would bite a bare, unbaited hook. The daily limits at the time were as high as six fish a day per angler. Fishing increased; the sockeye population went down. In most years fishing was banned, and the population recovered, to this year's

robust level. All this occurred with no change in locks, dams, or habitat.

The opening of this summer's season was greeted with V-J Day-style glee in the local press; this was the Northwest lifestyle everyone wanted to bring back. Yet there was, so to speak, a catch. A spokesman for the National Marine Fisheries Service was quoted in the paper as saying that a number of "listed" Chinook salmon were out in the lake with the sockeye, and anglers "may in fact catch some"; if they did, they would just "have to release them safely back into the water." Anyone who has seen this done knows how euphemistic that "safely" is. If the goal really were only species preservation, no fishing that might accidentally harm an endangered fish would be allowed. But if the goal -- or at least an additional goal -- is preserving the fishing lifestyle, then the effect on the Chinook is an acceptable cost. The surest route to "paving the river with salmon," in a favored regional phrase, would be to maximize hatchery operations, use technical means to increase the survival of young salmon en route to the sea (for instance, putting them in tanks and sending the tanks downriver by barge), shoo off the Caspian terns and sea lions, and not worry so much about what happens to the endangered runs.

Pursuit of this vision is complicated by the ESA and also by the debate's underlying -- and usually unspoken -- agenda. That is the desire to limit the development of pristine

territory, and to return rivers where possible to their unspoiled, pre-dammed condition -- not necessarily for the sake of the salmon. Arguments about dams increasingly turn on the phrase "normative river," which means a river in as close to its original condition as possible. Couching the argument like this is a way of obviating scientific disagreements over what approach will produce the most salmon. Dams are the antithesis of normative rivers, and therefore must go.

If you've seen the difference between dammed and undammed rivers, it's hard to dismiss the normative-rivers plea. In late June I spent a day flying over the eight dams that lower Snake River salmon must traverse -- the four big ones on the Columbia and the four objects of controversy on the lower Snake -- and then circled up to central Washington to view the Grand Coulee. I spent half the time marveling at the ambition that created the structures, and the other half appalled at how radically the natural landscape had been transformed. The debate about whether this transformation should be undone is worth carrying out on its own terms -- not on the backs of the fish.

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