Dam Removal

It's about rebirth, not destruction.

By Ted Williams

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Today the notion that dams are not sacred monuments to be preserved for all time is universally accepted by state and federal agencies. As yet, however, there is no such acceptance by the general public, a fact that should alarm all thinking Americans regardless of how they feel about fish and wildlife. A dam's average life expectancy is 50 years, and a quarter of America's 76,000 dams defined by the Corps of Engineers as "large-" or "high-hazard" (in which failure is apt to kill people) are more than 50 years old. By 2020 the figure will be 80 percent.

Impoundments behind large dams, most of which are unlikely to be removed in the foreseeable future, can stratify and take on the ecological features of genuine lakes. But most impoundments are mongrels, possessing neither riverine nor lacustrine characteristics; and while they may support organisms that evolved in both environments, they support neither well. For example, in Wisconsin--which leads the nation in dam removal—anglers caught smallmouth and largemouth bass in the impoundments above the four dams on the Baraboo River, but the fishing was pretty lousy.

When the last of these dams was removed in February 2001 (making the Baraboo the longest river freed by dam busting in the nation), both bass species, as well as catfish, walleye and sauger, surged back in numbers that astonished even state biologists. Crews from the Wisconsin Department of Natural Resources had shocked 11 fish species above the Waterworks and LaValle dams, the dominant one being carp. Eighteen months after the dams were taken out the crews shocked 24 species above the remains of the Waterworks dam and 26 species above the remains of LaValle, and in both cases the dominant species was smallmouth bass. Before the demise of the Waterworks dam the crews had shocked three smallmouths; 18 months after removal they shocked 87. Recovery has barely gotten underway and already the unshackled Baraboo's smallmouths are drawing national attention. Although smallmouths may thrive in lakes and large reservoirs, they do best in rivers because that's where they evolved. Largemouths evolved in still water; but they're doing far better in the free Baraboo than they were in the impoundments because they're no longer suppressed by carp.

Of course, there would be no recovery of Baraboo gamefish without recovery of the complex ecosystem of which they are part. In the tepid, eutrophic impoundments midges, sludge worms and bloodworms had dominated benthic fauna. Now caddisflies and mayflies dominate cool, oxygenated riffles newly cleansed of sediment. With the species sought by anglers have come lake sturgeon, paddlefish, darters and the giant native sucker called bigmouth buffalo—all moving freely, breeding in restored habitat, feeding gamefish with their eggs and fry. And with all the fish have come mussels which, as larvae, migrate through the system by temporarily attaching to fins and gills.

Today the energy flow of the freed Baraboo is increasing geometrically from Hillsboro to the Wisconsin River, through 120 miles of mainstem and up into hundreds of tributaries veining the slopes of the 650-square-mile basin, out and up into meadow, muskeg, forest and sky--to the muskrats that eat the mussels, the owls, weasels, bobcats and wild canids that eat the muskrats, to the otters, eagles, ospreys, herons, kingfishers, turtles and snakes that eat the fish, to the salamanders, frogs, bats and woods warblers that eat the clouds of aquatic insects. Dam removal is about life, not death, rebirth not destruction.

The Prairie River, which in 1944 produced Wisconsin's record inland brook trout of nine pounds, 15 ounces, was arguably the best trout stream in the state. Now, released from its four dams, it's fast regaining its former status. The Prairie Dells dam, nine miles from the river's confluence with the upper Wisconsin, had been rebuilt for hydro power in 1904 when it was already 24 years old. But power generation never happened because the engineer had stuck a decimal point in the wrong place. Once the dam was finished there was no

reason to waste perfectly good turbines on it, so for 87 years it did nothing except collect sediment, block fish and otherwise unravel the rich, river-based food chain.

In 1991, when the dam was taken out, the 2.6-mile-long impoundment regurgitated 20,000 cubic yards of muck, discoloring the river for miles. Dam defenders shrieked; environmentalists cringed. But three seasons of snowmelt flushed the system clean. Brook trout reproduction jumped 30 fold, and the state quit stocking hatchery fish.

Pennsylvania has done nearly as well as Wisconsin. When the state Fish and Boat Commission removed a dam on Lititz Run, water temperature dropped 12 degrees in 24 hours. Lititz Run is a tributary of the Conestoga River which had been a limestone trout stream before dams turned it into a series of stagnant, methane-belching sumps. Now, with the removal of 20 dams in the system, water quality has improved to the point that the state can stock hatchery trout, and the goal of re-establishing self-sustaining populations is no longer a pipe dream. Already American shad, moving up from the Susquehanna for the first time in a century, have reproduced.

The benefits of dam removal had been no secret before all the good work in Wisconsin and Pennsylvania, but the lessons went unheeded by a large segment of the public. Restoration of the Baraboo was plenty contentious. Pennsylvania had an easier time on the Conestoga, although the Fish and Boat Commission's Scott Carney wishes the state had more angler support. "The biggest challenge we face is trying to restore stocks like shad that haven't been fished in anyone's memory," he told me. "Getting anglers excited about fishing for something they have no experience with and trying to justify taking out an impoundment they've fished their whole lives can be challenging."

Local resistance was downright nasty during restoration of the Prairie River. The last dam to go was the 21-foot-high, 675-foot-long Ward Dam at Merrill, built in 1905. It had been producing \$34,000 worth of electricity per year and costing the owner, International Paper, \$50,000 a year to operate. Moreover, it was riddled with cracks, and test borings into the concrete produced pure powder for the first 16 inches. DNR proclaimed it a safety hazard and ordered International Paper to either rebuild it or tear it down.

From May 1998, when International Paper applied for a removal permit, until drawdown in September 1999, locals mounted nine legal challenges. Then, after drawdown got underway, they temporarily halted work with more legal challenges. There were bomb threats, including one from a fellow who vowed to blow up International Paper's buildings, by which act he would have done away with the impoundment he was trying to save because the buildings were part of the dam complex. DNR crews who supervised the project were harassed and threatened. Dam defenders festooned the town with black crepe paper and "Save the Lake" signs. They proclaimed that the exposed mud flats would release volcano-like plumes of blastomycosis (an often fatal fungal lung disease endemic to wetlands of northern Wisconsin). When a local doctor publicly testified that this was nonsense and that the bottom of the impoundment was probably the only blasto-free habitat in the watershed, his practice was boycotted. For standing alone among his neighbors in defense of his home water, the River Alliance of Wisconsin proposed to honor him with an award; but he declined it because he didn't want any more bad publicity.

The state council of Trout Unlimited fought hard for removal of the Ward Dam, but such was the local intimidation factor that TU's Merrill chapter refused to take a position. Even the Friends of the Prairie River, which exists for no other reason than to restore the river's health, stayed out of the controversy. The homeowners around the impoundment were eager to have anyone and everyone (except themselves) spend \$2 million to rebuild the dam, and this in a town that had just defeated a referendum to rebuild the library. The day the dam came out International Paper got 17 phone calls from townspeople who confided that the company had performed a grand public service but that they'd been afraid to voice their support for fear of reprisals.

I don't mean to be a scold, or to imply that there isn't lots of dam removal that's going easily and well. But with the exception of Trout Unlimited and a few other enlightened angling groups, America's sportsmen have been sitting on the bench. More disheartening is the fact that when sportsmen do get involved, they're often on the wrong side. Seeking information on the removal of the Condit dam on Washington State's White Salmon River, I contacted officers of the 70-member White Salmon River Steelheaders. To my astonishment I learned that what the group is working to preserve is, of all things, the dam. The 125-foot-high Condit dam, built in 1913, is thought to be the tallest dam slated for demolition in the nation. Six years ago the Federal Energy Regulatory Commission imposed \$30 million in license conditions, including fish passage, on the owner--PacifiCorp. Since the dam produces a mere nine megawatts of electricity and its removal would cost only \$17.5 million, Moe Howard could have made that business decision. Removal of this, the only dam on the White Salmon River, will open up 65 miles of mainstem and tributary habitat for desperately depleted Columbia River salmonids. The Washington Department of Fish and Wildlife estimates that removal will reestablish runs of about 700 adult steelhead, 4,000 spring chinooks, 1,100 fall chinooks, and 2,000 cohos. Babbitt called the project "the Northwest's epicenter of hope." How could any sane, sober steelheader possibly be opposed?

In separate interviews the president of the White Salmon River Steelheaders (Jim Anderson) and a board member who used to be president (Gary Lawson) went on and on about the importance of protecting, not wild steelhead, but the stocked, introgressed trout dumped into the impoundment by PacifiCorp as mitigation for its impassable dam. They called it a "family" fishery but offered no cogent explanation as to why families can't fish for wild salmonids, migratory or otherwise, or crappies or bluegills elsewhere, or, for that matter, stocked, introgressed trout in all the thousands of other places where they unfortunately are available.

I encountered the same disconnect in Oregon, where Portland General Electric wants to disappear its Marmot Dam on the Sandy River. The state stocks the river below the dam with hatchery steelhead and chinook salmon, then sorts returning adults, passing only wild ones. By reopening 100 miles of spawning and rearing habitat from the Pacific to the headwaters on Mt. Hood, Marmot's removal would ultimately produce more fish and fish of quality; but because no sorting would be possible, the present gravy train of fin-clipped, genetically impoverished hatchery stock would have to cease.

This makes perfect sense to sportsmen with what Aldo Leopold called an "ecological conscience," but not to the 250 businesses, organized guides and organized anglers in Oregon, Washington, Idaho and Alaska who call themselves the Northwest Sportfishing Industry Association. "We were blindsided by Trout Unlimited, American Rivers, Oregon Trout and the Native Fish Society," complains Director Liz Hamilton. "You can't convince someone that they need to put money away for college, which is the long-term stuff, when you're taking dinner off the table. I think Portland is trying to make a deal with the National Marine Fisheries Service so the feds can get a quick [endangered species] victory and the city can protect its water supply somewhere else. The deal was done behind closed doors; there was no public process."

Ignorance among sportsmen is no less rampant on the other side of the continent. In the last session of the Maine legislature, Downeast bass guides got a bill introduced to halt all dam removal. It failed, but sponsor Rep. Albion Goodwin (D-Pembroke) predicts future success. He has it straight from the guides that native alewives would wipe out alien smallmouths if they re-colonized the St. Croix drainage (this despite the fact that the two species happily coexist everywhere else they share habitat). In the 2000 session Goodwin succeeded with a bill to prohibit the state from allowing passage of alewives (along with everything else that negotiates the St. Croix) without a vote of the legislature. Most of Maine's lawmakers swallowed it all hook, line, boat and motor.

Goodwin in full cry is something to behold. "We have dams all over the state, and people are trying to tear them all out," he laments. "It's dangerous because you're gonna form up about 1,500 terrorists. You know what a terrorist cell is? It's a person who lives on a pond that pays taxes and has a little dock and a canoe, and he wakes up one morning and he lives on a brook that's a half a mile away. The director of Inland Fish and Wildlife cannot introduce alewives without a vote of the legislature. That's what I did with my bill. That includes the Marine Resources idiot, too. They're two commissioners from away—one from Arizona and

one from Virginia. I told the governor to hire a Maine person who knows the lakes and rivers, but he's from Virginia. What does he care? Fred Kircheis [director of the Maine Atlantic Salmon Commission] is running for cover 'cause I told him I was all done funding him. I'll shut him off, and he'll start running back to Minnesota. The goddamned Canadians wanted to raise alewives for fertilizer and bait. I told those sons of bitches to build a fishway on their side of the river. I sent 'em all packing: 'Get the hell out of Calais before I have you run out as terrorists.' And away they went a-running."

Such attitudes discourage, especially in a state that tore down the Edwards Dam on the Kennebec River, thereby providing the nation with one of its most spectacular river-restoration success stories. Now, 27 miles upstream, residents of Waterville are bringing lawn chairs to the Kennebec's banks to watch the aerial acrobatics of sturgeon and salmon. Now, 17 miles upstream, all 10 anadromous fish native to Maine are headbutting the 94-year-old Ft. Halifax Dam at the mouth of the Sebasticook River. Under conditions of the Ft. Halifax Dam's operating license the appearance of these fish requires the owner, Florida Power and Light, either to install fish passage or excise the dam. But bass fishermen are crusading to save the impoundment. Writes Maine guide James Gorman of Winslow (incorrectly): "All the meadows and farms you see in the Sebasticook Valley exist because the beavers kept the river dammed, which created natural impoundments allowing silt to settle, thus establishing top soil." Ken Fletcher of Save Our Sebasticook calls those who want to free the river that his outfit is pretending to save "an elite group of artificial-lure fishermen."

Last summer members of Save Our Sebasticook and other dam defenders went canoeing on the impoundment with staffers of the Natural Resources Council of Maine. "It was just clogged with algae," recalls the council's Laura Rose Day. "Yet these folks stretched their hands out wide in the sunshine and said: 'How could you ever want to change a river like this?'" Then, giving her the finger, one of them accused her of plotting to return all Maine's rivers to their "primitive state."

Forty miles east of Ft. Halifax, the proposed removal of the West Winterport Dam on Marsh Stream is eliciting similar reaction. The four-mile-long impoundment is depriving brook trout and Penobscot River salmon of important spawning and rearing habitat. Such a liability is this dam that the owner gave it to Facilitators Improving Salmonid Habitat (FISH)--a river-restoring group hatched by the Maine Council of the Atlantic Salmon Federation. Now Winterport is threatening to take it by eminent domain, a move that residents may find unappetizing because it would require the town to pay fair market value of \$50,000 and assume the far greater expenses of repair, maintenance of the thoroughly inadequate fishway and liability. Public hearings have been ugly. Herewith, the most representative expressions of dam logic mailed to FISH in defense of the dam: "Mother Nature needs to be left alone."

"The earth is all we have, and sometimes it's honestly much better to leave things as they are."

"You might as well personally take a bag of explosives and literally destroy every bass, pickerel, catfish, eel and the many turtles and accompanying fowl that use the waterway . . . bald eagles . . . Canadian geese, hawks and falcons, and the multitude of ducks and herons."

"A family of ducks have been back every year to lay and raise their young just above the dam."

Rodman Dam, a vestigial organ of the Cross Florida Barge Canal aborted by President Nixon in 1971, doesn't even have an alleged purpose. It just sits there, plugging up 16 miles of Florida's Ocklawaha River and blocking travel routes of bears, turkeys, bobcats, Florida panthers and countless other species that need to move between the St. Johns River Valley and the Green Swamp. To maintain Rodman Reservoir—a vile, six-foot-deep, 9,000-acre stew of herbicides and decaying and sprouting alien pond weeds—taxpayers must spend more than \$1 million a year. In "return" their shrimp, crabs and marine fish get deprived of vital nutrients, and their striped bass, shad, channel cats, eels, mullet and manatees get cut off from the sea.

Forty-six environmental groups organized as the Alliance to Restore Ocklawaha River want the dam out. Every Floridian with even rudimentary appreciation for natural ecosystems—even Governor Jeb Bush—wants the dam out. But last year Sen. Jim King (R-Jacksonville)—the majority leader who tools around the impoundment on a jetski—derailed the project. In this mischief his enabler was none other than a 1,700member largemouth-bass-fishing organization called Save Rodman Reservoir, Inc., which sponsors the annual "Save Rodman Bass Tournament" and gets free office space from the City of Palatka. President Ed Taylor who organizes for-profit bass tournaments when he's not working to "SAVE Rodman From Evil Destruction," as his card puts it—has told me and other reporters that Save Rodman Reservoir has the blessings and support of Operation Bass, Bass Anglers Sportsman Society, Ducks Unlimited of Florida and the Florida Bass Federation. But this is a half-truth; Operation Bass wants the dam out, and DU has no position.

In 1999 the Save Rodman Bass Tournament weighed in its all-time record poundage. That was the year one of the 174 competing bass boats, violating no rule, left the reservoir via the Buckman Lock and traveled down the river that Sidney Lanier, who negotiated it by steamer soon after the Civil War, called: "the sweetest water-lane in the world, a lane which runs for more than a hundred and fifty miles of pure delight betwixt hedgerows of oaks and cypresses and palms and bays and magnolias and mosses and manifold vine-growths." Twenty-seven miles down the Ocklawaha the two-man team caught 23.27 pounds of bass, swung their boat around and raced 27 miles back to the reservoir, arriving in time to win the tournament. Somehow that part of the story never made it into Save Rodman Reservoir's newsletter.