

NW tribes drive effort to save primitive fish

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In this photo taken July 8, 2011, shows a tribal member tossing a lamprey, at Willamette Falls, in Oregon City, Ore. As long as Indians have lived in the Northwest, they have looked to lamprey for food. (AP Photo/Rick Bowmer)

(AP) -- As long as American Indians have lived in the Pacific Northwest, they have looked to a jawless, eel-like fish for food.

Tribes once harvested the lamprey from rivers throughout the Columbia Basin, which stretches from the Oregon coast up into Canada. But with dozens of hydroelectric dams in the way, the fish has followed the path of the buffalo - from a food staple of a people to a curiosity.

Today, the tribes in the Northwest have just one place to go for them: a 40-foot waterfall on the Willamette River flanked by an abandoned paper mill and a power plant, and located about a dozen miles upstream from a Superfund site.

Unlike salmon, which have drawn billions of dollars in government funds to modify dams and restore habitat, the lamprey have gone largely ignored. It's the tribes that still eat them that are driving the effort to bring them back.

The greatest threat the fish now face is the dams, which "will probably lead to their demise," said Aaron Jackson, who heads the Confederated Tribes of the Umatilla Reservation efforts to restore lamprey.

"That's really sad," he said, of a fish that has survived hundreds of millions of years while other animals, such as dinosaurs, didn't. "That something this old would just wink out in my lifetime - that's unfathomable to me."

The lamprey, whose English name comes from the Latin for "rock sucker," uses its mouth to glom onto rocks and other fish.

Several years after hatching, they swim downstream to the ocean, where they suck onto the sides of whales, [sea lions](#) and fish, feeding as parasites. At full maturity, they swim back upriver to spawn and die.

Three days a week in July, Indians drive hundreds of miles from their reservations, wade through the green water and, with hands covered in white cotton gloves, pull the writhing gray fish from rocks and stuff them into burlap sacks to take home.

There, tribal elders will grill the oily, pungent fish, or cut them into links and roast them like hotdogs over open fires.

The tribes of the Northwest have had a special connection with the lamprey for thousands of years.

The seven gill slits on the side of its head marked them as a food designated for the region's tribes by the creator, corresponding to the seven drummers and seven songs of longhouse ceremonies, Jackson said.

But as more dams were built, the lamprey declined.

Biologists have estimated that 1 million were still crossing Bonneville Dam on the Columbia east of Portland in the 1970s, before accurate counts were taken. That dropped to 200,000 by 2003, and stands at about 20,000 now, said Bob Heinith, hydroelectric program coordinator for the Columbia River Inter-Tribal Fish Commission.

A petition to list them as an endangered species was turned down for lack of information.

The full gamut of reasons for the declining numbers is not well-understood, but the dams are clearly a big one. About half the fish that pass one dam fail to get over the next, until only a dozen make it to the Idaho border, Heinith said.

Fish ladders and screens designed for salmon are tough on lamprey. Pollution is, too. Studies on eels in Europe link high levels of industrial toxins, such as dioxin from paper mills, mercury from coal power plants, and pesticides, with low levels of reproductive success.

Based on an agreement with the tribes, the U.S. Army Corps of Engineers is working on ways to get lamprey over the dams without making it tougher for salmon, which can be tricky, said David Clugston, a biologist for the corps.

Adult lamprey, which grow to about 2 feet long and are as big around as a fat hotdog, have trouble with the fast water and sharp corners of fish ladders designed for salmon.

The young ones, the size of a nightcrawler, get stuck on screens designed to keep young salmon out of turbines.

So far there have been baby steps. Special lamprey ramps have been installed at Bonneville Dam, and fish ladders have been modified at two more.

The tribes are experimenting with capturing adult lamprey at dams and releasing them in tributaries, hoping they will re-establish populations of young lamprey that emit the pheromones the adults follow to spawning beds.

They are also talking to experts in Finland about building lamprey hatcheries.

With no dams between it and the ocean, Willamette Falls has become the last best place to harvest.

Tribes from the Umatilla, Warm Springs and Grande Ronde reservations in Oregon, the Yakama reservation in Washington and the Nez Perce reservation in Idaho drive there every July. The time is dependent on when Portland General Electric reduces the flow of water over the falls, diverting it into the dam's electricity-generating turbines and in the process making it easier to harvest the fish.

Tribal members leaned off the bows of boats, balanced on slippery rocks or dove into pools to grab the wriggling lamprey. Tribal elders who enjoy the strong fishy taste roast the oil-dripping flesh over small cook-fires amid reservation housing projects.

Chayenne Wahneta, 18, laughed with friends harvesting the fish, but has no intention of actually eating one. "I never tried them, and I don't want to," said Wahneta. "They look ugly."

Nez Perce elder Elmer Crow recalled harvesting lamprey from the Columbia as a child, and the satisfaction he felt helping to feed his family. "They are so full of nutrients and grease that the grease drops off into the fire," he said.

"When they're good and golden brown and nice, you pull 'em off and eat 'em. We had the first so-called American hotdog."

Crow, who is vice chairman of the Nez Perce Tribe's [fish](#) and wildlife committee, said restoring lamprey is a vital part of restoring salmon. "Life is a complete circle. Remember that," he said. "If you take something out, a few others go with it."

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