

THE MYSTERIOUS LAMPREY —

The strong, slippery eels played an important role in Tribal history, soon they could be gone.

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was followed by the act of ripping out the backbone, before cutting them up.

"I never could eat *skwakwah*," she continued, referring to the Chinuk name. "But no matter, I hear you can't catch them anymore."

That's a sentiment echoed often by other Tribal Elders, particularly for Leonard Vivette, who has secured a reputation as an eel man following his demonstration at the 2000 pow-wow. Vivette knows all the former eel holes and has gathered at all of them.

"In the Siletz River, at night, we'd take a light, gloves, and just pluck them right out of the water," said Vivette.

He also recalls gathering them at Rock Creek near Otis, and at 15 Mile Creek near The Dalles some 60 years ago. And at Willamette Falls one weekend, he remembers bringing back "a whole washtub of them."

Vivette pointed to the recent droughts throughout the Columbia Basin for the decline in lamprey. Lower river levels, he suspects, play a big role. But his suspicions, like those of others, are conjecture, and while likely valid, only hint at part of the problem.

"What happened to them," he said. "I just don't know."

Leon "Chips" Tom, who like Vivette grew up eating lamprey, suspects not enough has been done to address the problem.

"Hard to say if Fish & Wildlife has done something," he lamented. "But they don't run anymore."

Chips also used to scour the Siletz River decades ago during those summer months, hooking and grabbing lamprey.

"In those days everything was plentiful," he said. "And Siletz was one of the better fishing holes in Oregon."

Chips doesn't marvel at the disdain many have for the fish.

"Lots of people wouldn't know what it looked like wriggling on the bank, else they wouldn't eat it," he said.

But lamprey, for him, were a real treat.

"Eel, it tasted good, and had lots of protein," he added. "It was good for ya."

Chips is more right than he may know.

TODAY: Current Lamprey Facts

According to a 1995 survey of lampreys by the Bonneville Power Administration (BPA) the fish has a much higher caloric value per unit weight than most salmonids (steelhead, trout and salmon). Second, they are considerably rich in fats, much more than their salmon counterparts. In short, though available only for a small duration of the year, harvesting lamprey was highly economical given the

amount of work necessary to catch them (and it also explains why they were favorites of marine predators as well).

Ironically, the same fatty quality was the one difference that played a big role in lamprey being the second favorite fish. Like salmon, the flesh would be smoked and preserved for later, but the oily nature of the eel's flesh made the meat more susceptible to rancidity. Smoked and dried lamprey would never last through the winter.

Though many Natives continued to catch and devour the lamprey even during the early part of the 20th century, its desirability as a resource declined for a short while. Settlers at first dimly acknowledged the creatures. Fur trappers were known to favor ground lamprey meat as bait, but not until fish culturists arrived did the newcomers see the value of the fish. During the early 1900's Willamette Falls was a treasure trove.

Lamprey became paramount to many businessmen at the onset of the 1940's. The uses ranged from vitamin oil, food for livestock, oil for perfumes and fish meal. One wonders why the fish ever went out of style at all.

This of course brings us to the ultimate question: What happened?

Theories abound, and vary. The BPA survey holds that the construction of dams has hindered the passage of spawning lamprey, a situation grimly reminiscent of salmon. That has contributed to the deterioration of spawning and rearing grounds. The decline of traditional lamprey food sources such as salmonids could be sited, as well as numerous attempts to curb the population of "pests" through various means.

The final answer however will be that nobody really knows, which is why the ODFW decided to start issuing permits at Willamette Falls, since probably no other area in the Columbia Basin can boast the sheer volume of lamprey available like the spot near Oregon City. The season this year ran from June 16 to August 1 — half the normal time of the lamprey runs. By having harvesters report their catch, biologists can get a hint at the size of the population and finally gather a base of information through which to conduct studies.

Craig Foster, who works for the Oregon Fish and Wildlife Commission as the Willamette Falls Project Biologist, explained that since the lamprey has been the subject of so few studies, it has been largely overlooked and there are scarcely any useful facts from which to draw conclusions.

"I think we need to do more work on conservation awareness," he said. "Because we don't have nearly enough information."

And that information does not appear to be arriving easily, he ex-

"Now Coyote thought, When should salmon ever remain in the mountains, or eels (or) various such things? Ah, it should not be like that. Such things should be in the river. Whatever their (appropriate) month, then fish of various kinds will be there. Whatever the (right) month, their eels will be there...."

From the Clackamas tale
"Coyote and Coon went and stole"

plained, because no reliable method exists by which to make assumptions about the population. Harvesting reports from Willamette Falls, while useful, he said, are also inconsistent, since the spawning usually occurs in tributaries and streams.

Willamette Falls, he also speculates, could be one of the reasons studies of the fish are erratic. Looking at the numbers from the ODFW's survey on the lamprey harvest, where in the 1940's the reported take was monstrous (one year listed 397,000 pounds), figures in the 1990's are alarming (29,000 pounds in 1999). One could conclude some cataclysm unfolded. Some would point to the construction of the more concrete dams in the 1900's, and that would not be an entirely wrong assumption.

But there are also differences in the procurement techniques today, Foster said, mainly that in the 1940's traps were used, gathering lamprey by the dozen, while today the only legal methods are hand and hook. Thus, to assume that the dams are solely responsible would be slightly specious reasoning.

That said, however, Foster still acknowledged that there are "considerably less" lamprey than before, and ODFW should take the problem seriously.

"Lamprey are a good indicator of watershed health," he said. "And this is a good opportunity to learn more about them"

Unfortunately, a few years may pass before studies yield any results.

"Human development," he added. "Has definitely had more negative effect than positive over the last 100 years."

The term "human development" could refer equally to increasing encroachment into lamprey territory and sadly, outright attempts to kill the fish. The BPA survey noted that

arid parts of the Northwest, such as Eastern Oregon and Washington, feature irrigation, which alters stream flow, lowers river levels, even raises temperatures. Grazing and logging, likewise increase temperatures and increase the streams' sediment loads. Other industries, such as mining, refinery and radioactive waste discharge add to pollution. All these factors disrupt lamprey life.

Unknown to many, however, are the numerous fish poisoning operations conducted by the Oregon Fish Commission in attempts to control populations of non-game fish. In late 1967 and early in 1974, chemicals were released into a 90-mile stretch of the Umatilla River, boasting a 95 percent kill rate.

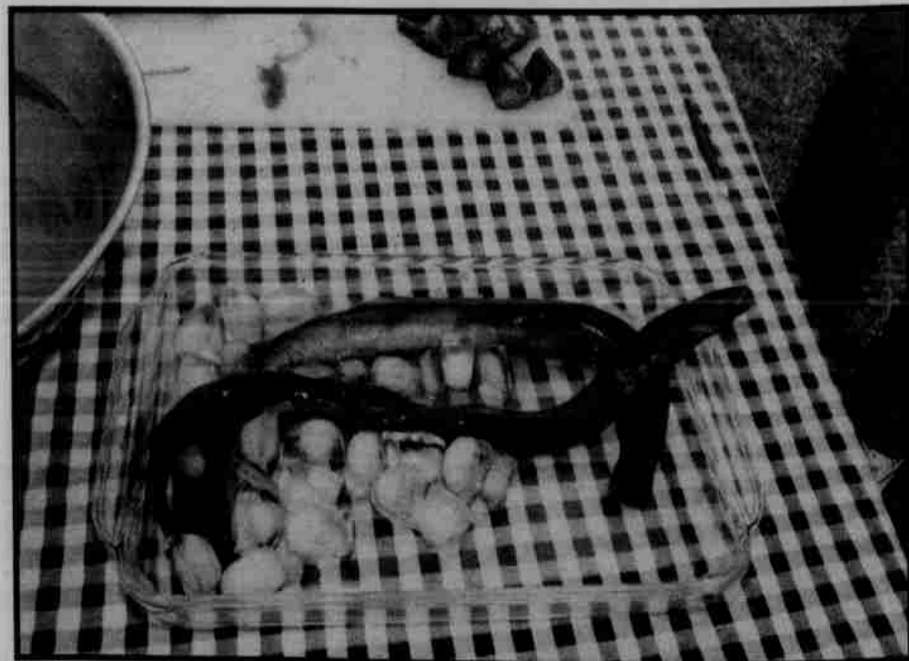
Even accidents have played a role. In 1990 a tractor-trailer rig spilled hydrochloric acid in the John Day River, killing roughly 10,000 young lamprey.

While it's unlikely that many people will hold vigils over lamprey deaths, the irony is that, echoing Foster's sentiments, as goes the lamprey, so goes many others. And in order to understand that, one needs to look at the life of the lamprey and more importantly its specific ecological niche in the Columbia River basin.

Like salmon, lamprey are in fact anadromous, meaning that they are born in freshwater, migrate out to sea and return years later as adults to spawn. Each spawning act will typically produce hundreds of eggs, which are then covered with sand and small rocks. Post-spawning adults usually die within five weeks.

Eggs hatch within three weeks of fertilization and the lamprey then enter into a larval stage that can extend up to seven years. Called ammocoetes, the larvae are born blind, sedentary and move after

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Eels On Ice — Tribal Elder Leonard Vivette and his daughter Leonette Galligher caught some lampreys and demonstrated how to clean, prepare and cook the eels at the Tribe's Annual 2000 Pow-wow last August.