



Yakama Nation Cultural Oral Interviews on Asum (Lamprey Eels): Summary and Review Part IV (2018)



[Cover Photo: Sean Goudy sharing and discussing some of the Pacific Lamprey Project outreach media with Mr. Rex Buck during Wanapum Archeology Days on October 29, 2018]

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Abstract

Within the past several years, the Yakama Nation Pacific Lamprey Project (YNPLP) has interviewed many tribal members, most of whom are tribal elders, to inquire questions related to Pacific Lamprey. We also interviewed some of the young and middle aged tribal members who have strong connections to lamprey related customs, traditional culture, and tribal elder family members. For many of the tribal elders, lamprey have been not only a key food source and medicine but also an integral piece of their culture and tradition, without which there is an indubitable “void” in their very existence.

Between March 2013 and March 2014, an oral interview was conducted with sixteen tribal members (all but two were recorded in full length videos), and 15 key questions were asked related to lamprey status, biology, ecology, culture, as well as human impact. Through this interview process, many insights and revelations were attained related to historical distribution, abundance, run timing, potential threats and impacts, and tradition associated with harvest, preparation, and consumption by Yakama Nation tribal members across the wide-ranging Ceded Lands.

Russel Jim and Elmer Shuster, the two interviewees for which a summary and review was completed in this report, provided unique and intriguing information related to lamprey customs and tradition within the Yakama Nation Ceded Lands. Mr. Jim and Mr. Shuster are Yakama elders born on the Yakama Reservation. They shared their tradition of eel harvest at Celilo Falls and Chief Island, Oregon City-Willamette Falls, Fivemile Creek, Fifteenmile Creek, Tenino to Eightmile Creek in the Dalles, and the John Day and Deschutes rivers. Within the Yakima River Basin, sites included Horn Rapids-Dam near Richland and Wanawish, Prosser Dam area known as Tup-Tut, Parker-Sunnyside dam, Wapato Dam, and Satus Creek. These areas and many other sites are considered Usual and Accustomed areas according to the YN Treaty of 1855.

The best years the two interviewees can recall for eel harvest was in the 1950s and early 1960s, during which many sacks of eels were harvested per season. However, since the middle 1980s, eel numbers appeared to have declined. Information related to biology, ecology, harvest and cooking methods and “Legends” were discussed. Agricultural development, habitat loss, irrigation/canals, dams (passage), water quality (temperature) and quantity (flow) were considered the primary factors contributing to the decline of Pacific Lamprey according to these two elders. Horseshoe Falls, another name for Celilo Falls, was part of an approximately nine-mile-long tribal fishery that included sites such as the Upper Dalles, the Lower Dalles, Three Mile Rapids, Five Mile Rapids, and Big Eddy. Especially, the construction of The Dalles Dam, which inundated The Celilo Falls – Wyam (Echo of falling water) Village area, took away a crucial harvest site and as a result many of the Yakama Nation tribal members were forced to move and travel longer distances to harvest eels.

Introduction

Cultural Importance of the Pacific Lamprey

The goal of the Yakama Nation (YN) is to restore natural production of Pacific lamprey to a level that will provide robust species abundance, significant ecologic contributions and meaningful harvests within the YN Ceded Lands and in the Usual and Accustomed areas. We strive to bridge the gap between Cultural significance and Western Science through traditional knowledge and understanding, utilizing tribal input, document historic distribution of adult lamprey from historical records, literature reviews and oral interviews and compare with known current distribution.

Historically, the Tribes and Bands that make up the Yakama Nation, the Fourteen Bands, (Palouse, Pisquose, Yakama, Wenatchapam, Klinquit, Oche Chotes, Kow way saye ee, Sk'in-pah, Kah-miltpah, Klickitat, Wish ham, See ap Cat, Li ay was, and Shyiks) have shared a commonality treating lampreys as a medicine, food source, and cultural icon. Since time immemorial, the Yakama Nation has lived along the Columbia River and its tributaries. They used the entire land base from the low lands to the upper tributaries of the snow-peaked Cascade Mountains - as far north as Canada, as far south as California, and as far east as Montana and Utah. Therefore, the description within the report does not limit all usual and accustomed areas of the Yakama people (Treaty of 1855 12 Stat. 951).

Once-abundant Pacific lamprey (*Entosphenus Tridentatus*) populations are severely depressed or believed to be extirpated in many of the mid- and upper Columbia and Snake River tributaries (Close et al. 1995; Jackson et al. 1996; Jackson et al). These fish are native to the Columbia River Basin, spawning hundreds of kilometers inland within the states of Washington, Oregon, and Idaho (Kan 1975; Hammond 1979; Hamilton et al. 2005). **Asum** (mostly associated within the Upper Columbia region) and **Ksuyas** (mostly associated within the Lower Columbia region dialect of the Rock Creek region in south central Washington area) are the traditional words that refer to Pacific Lamprey in **Sahaptin** (Plateau Penutian language spoken in a section of the northwestern plateau along Columbia River and its tributaries in southern Washington, northern Oregon, and southwestern Idaho, in the United States) and **Ichishkúin Sinwit** (traditional name of the language for many of the Yakama Nation tribes) languages.

Most tribal members grew up calling lampreys as “eels,” a tribal slang term for lamprey, and many did not understand the commonly used term for this species (i.e. lamprey). Families were often forced to send their children to Boarding Schools, where they were forbidden to speak their native language. For example, during the boarding school era (which were founded to eliminate traditional American Indian ways of life through forced assimilation) and even in public schools on the Yakama reservation, many tribal members were punished for speaking their language, so they could not say Sahaptin words. For this reason, they always call lamprey “eels.” The Yakama, Sahaptin, Ichishkúin name was taught to them as children; those memories of transition are what

we sought from interviews to find out baseline information from observations of the past. For many of the tribal elders, lamprey have been not only a key food source and medicine but also an integral piece of their culture and tradition, without which there is an indubitable “void” in their very existence.

The elder men in Yakama families taught the younger generation the appropriate way to harvest Asum, to hunt, gather, and perform ceremonies; ensuring traditional ways were carried on through future generations. When there is a lack of resource like Asum, the younger generations cannot learn from experiences to harvest and gather. The younger generations do not have this option anymore, and presently they can learn only by listening to elders about past life experiences. The vast majority of the Yakama Nation new generations are nowadays growing up with a complete disconnect from many of the traditional lamprey customs. This loss of resource presents a potential loss in culture inevitably, if we lose the Asum entirely. The lack of connections between tribal elders and their youths, and as a result the inheritance of customs and tradition associated with lamprey, are problems of great magnitude for the tribal communities. Many of these youths have never harvested, prepared, or eaten an Asum. Before these lamprey customs are completely forgotten and key information becomes lost forever, we thought it would be invaluable to preserve this treasure of information by interviewing as many of the tribal elders that can share stories related to lamprey tradition. We are building an oral history database to learn when the last times individual fishers felt there was abundant Pacific Lamprey locally in the Yakima basin and throughout the Columbia River basin. These observations help us understand historical distribution of “eels” with presence of adults or larvae, to harvesting, and its cultural importance.

Outreach activities play a vital role in informing and educating a diversity of audiences about the importance of lamprey to the YN tribes and stream ecology in general. Given the widely held misconceptions that stems from invasive sea lamprey in the Great Lakes, it is especially more important to clear those infamous stereotypes and inform audiences of their true roles in food chains as well as YN culture. We have targeted a wide range of audiences from early childhood to elders. We have connected greatly with many of the local school districts to expose and familiarize students with lamprey and the traditional point of view of YN through “Lamprey in the Classroom” and restoration activities, such as adult translocation projects.

The Pacific lamprey is an important part of the food web of north Pacific ecosystems, both as predator and prey. Lampreys are also a valuable food and cultural resource for Native Americans of the Pacific Northwest. Over the past three decades, the tribes of the Columbia River Basin have noticed drastic declines from the previous era. These trends are now well known and documented within most current literature about Pacific lamprey throughout their range. In the present day, remnant populations of Pacific lamprey still migrate up the Columbia River at a fraction of their historical numbers; daytime counts of adult Pacific lamprey at Bonneville Dam have declined from an estimated 1,000,000 in the 1960’s and 1970’s to lows of approximately 20,000 in 2009 and 2010 (CRITFC2011).

Studies on this disturbing downward trend of Pacific lamprey declines to date cite various contributors for the decline, including but not limited to hydroelectric / flood control dams, irrigation and municipal water diversions, degraded habitat, water quantity and quality (contamination), increased predation, targeted eradication through the use of rotenone, and host species abundance in the ocean (Close et al. 2005; CRITFC 2011; Luzier et al. 2011; Murauskas et al. 2013). The ecological consequences associated with the decline of these fish in both marine and freshwater environments are also largely unknown. Despite the implementation of various long-term actions intended to address large-scale limiting factors, adult returns remain low (CRITFC 2011a; Luzier et al. 2011; Ward et al. 2012). Pacific lamprey have been extirpated from many subbasins in the interior Columbia River Basin (Beamish and Northcote 1989; Close et al. 1995; Luzier et al. 2011).

For over 30 years the YN have felt that the ecological, economic, and cultural significance of Asum have been undervalued and there has always been a need to restore this important species. Depressed upriver lamprey runs have affected treaty-secured fishing opportunities by forcing the four Columbia River treaty tribes to gather this traditional food fish in relatively few lower Columbia River locations (Close et al. 1995; Claire 2004). Since many encampments historically were located near waterways, their subsistence was comprised in part of fish from these waters, and wild game throughout the subbasins. Due to man-made fabricated changes to the river system, many traditional gathering and fishing sites are no longer available or habitable. Many places throughout this tribal landscape are mentally symbolic in nature; an important attribute to understanding family backgrounds which were told through oral traditions. Oral traditions passed on creation stories from generations to foster respect towards living things in all natural resources. The importance of our **Ichishkūin Sinwit** understanding and communication in oral storytelling, our Elders often stress the hardships of the loss of speaking **Sahaptin**. When translated from our traditional language to English, the overall feelings, context, explanations and a larger part of the meanings are lost.

Families would share stories of their history, the landscapes, and the teaching of a relationship with the land and water. This shaped a Yakama way of life also known as the Unwritten laws. These traditional ways are laws passed down through generations of Yakama families. Yakama people still follow the traditions of their ancestors by carrying on their teachings driven by the unwritten laws throughout all stages of life. A renewal of the Yakama language enhances the teaching of the Yakama way of life. By understanding the language, people, and resources in this manner, we begin to see the unique relationship that is rarely documented by outside researchers.

The Tribal People have been interconnected with lampreys from time immemorial. Harvested lamprey were gathered and shared widely within their own family and extended families (especially elders and youth) and for feasts, ceremonies and funerals. It used to be eaten year round (especially during the winter), and tribal elders taught younger ones how to harvest, prepare, and cook lamprey. Because of this interdependence, we included Traditional Ecological Knowledge (TEK) component on Pacific lamprey from tribal elders, from fishermen and tribal families, whose

information was very useful in gaining baseline life history information. TEK helped more accurately identify eras when Pacific lampreys were abundant, where harvest took place, run timing at traditional fishing areas near rapids, crevices, and falls of rivers and streams. The Yakama relationship with Pacific lamprey is relatively undocumented. In an effort to better understand the Pacific Lamprey and its relation to the land and people, this investigation proposes to answer several research questions that would 1). Interview as many elders whom practiced traditions of past and of today, 2). Provide a clearer understanding of the facets for the declines of this Pacific lamprey throughout the Columbia River Basins, and 3). Incorporate oral history into its management strategies based upon Pacific Lamprey historical distribution and catch estimates.

Based on nine recent interviews, which provided critical information regarding lamprey harvest and usage within the Yakima Subbasin and Ceded Lands, Lamprey related customs, traditional culture, and tribal elder family members, we were able to gain a much better understanding of the historical importance of lamprey in terms of food, culture, and medicine for the Yakama Nation tribal peoples. The new questionnaire documents biography, harvest/abundance, biology, ecology, culture, human impacts, and wrap-ups section of open-ended set of questions and shared references by the interviewees were asked relative to other tribal elders, fishing sites, and fishing efforts. Each completed interview answered the same set of questions. 15 key questions were asked related to lamprey status, biology, ecology, culture, as well as human impact. Through this interview process, many insights and revelations were attained related to historical distribution, abundance, run timing, potential threats and impacts, and tradition associated with harvest, preparation, and consumption by Yakama Nation tribal members across the wide-ranging Ceded Lands.

The interviews also reflected the range and breadth of conflicting cultures of western society and traditions. We learned how mainstream culture has started taking so many of the Creator's gifts for granted. The Yakama Nation to this very day however, never forgets to thank the Creator in the seasonal feasts for the foods that we have traditionally survived on. Western society can come across as if they are the only source value of information or understanding. The Yakama fishers and families often see value of science but science does not see the value of traditions. With the inclusion and insight of tribal perspective and tradition, we are able to move ever closer to bridging the gap with western science. Plans are in place to continue to interview more tribal elders in the summer of 2018 before this invaluable information is forever lost.

Michael A. Buck is an Environmental Sciences major Heritage University undergraduate student and he has been working on continuing the tribal elder interviews related to eels and Traditional Ecological Knowledge (TEK). He is working on identifying Indigenous/Yakama (Native Ways of Knowing; **NWOK**) through acknowledgements of TEK of Pacific Lamprey Harvesting. Primary Research is conducted through Heritage University Environmental Science Department faculty supervisor Dr. Jessica Black in collaboration with the Yakama Nation Fisheries Pacific Lamprey Restoration Project. In his elder interview project, participants will be asked for personal perspectives and experiences with regard to Biography, Harvest &

Abundance, Biology, General Ecology, Cultural Significance and Human Impacts (Anthropogenic factors) on the traditional harvesting of Pacific Lampreys.

The purpose of this study is to transcribe and interpret video recorded interviews to obtain the most significant, culturally relevant (Yakama) knowledge of the threatened/endangered species Pacific Lamprey *entosphenus-tridentatus*. The benefits of the study are “The obtainment of the greater understanding of an under-represented traditional food of the Yakama People.” The TEK of the Yakama will be very valuable to the Columbia and Yakima Basin fisheries biologists and managers who are working to restore and conserve the lamprey species.

In the following section (“Interview Dialogue Review”), we provide highlights as well as key details for two of the interview sessions with Russel Jim and Elmer Shuster from March 6, 2014. We treasure the wisdom and wealth of knowledge that was shared with us in these interviews. Information related to biology, ecology, harvest, and associated culture, including cooking methods, and Legends were discussed. Agricultural development, habitat loss, irrigation/canals, dams (passage), water quality (temperature), water quantity (flow) are considered by these elders as the leading factors contributing to the decline of Pacific Lamprey.

Interview Dialogue Review

Interview Questions and Answers

for Tribal Elders on Eels (Pacific lamprey):

Russel Jim & Elmer Shuster

Although these two interviewees were interviewed individually in separate interview processes, their specific answers for specific questions were grouped together here for easier comparison. All answers written below are color coded by blue for Russel Jim (“j”) and green for Elmer Shuster (“s”) for easy recognition of each of their specific answers.

Biography

What year were you born?

(j) 1935 Toppenish, Wapato areas

(s) 1940 White Swan, Satus areas

What river or stream do you harvest eels in your life? Do you remember going to mid-Columbia or lower-Columbia or anywhere that you'd like to share?

(j) We fished at Sunnyside Dam, Parker Dam, Wapato and Sunnyside dam, Oregon City-Willamette River and Fifteenmile Creek. I used to catch eels in Celilo.

(s) When I was about ten years old I would start fishing, I went around to Celilo on the rocks. They called them rocks back then, just the islands. Different islands. We would go fishing, mostly at night for eels. We would also fish at Oregon City-Willamette falls, Tenino and then at The Dalles - 8 mile creek, Deshutes, Sunnyside dam, Wanapum, Horn Dam-Wanawish near Richland, and then at Prosser-Yakima Basin area.

Going back to that time, do you remember what types of gear you used to harvest eels? Did you use your hands, gaff, or dip nets, or do you remember how they used to harvest them back then?

(j) I remember my father used to lower me into the water over here during the summer time at the Sunnyside Dam and the water would be up to my waist and my father would then lower himself down and the water would go up to his knees and I would have the sack while he would have the flashlight. We would wade along there, along the dam. You would see rows and rows and rows of them going up. He would wiggle his flashlight, which meant this bunch here. So I'd go over and put the sack underneath. I'd put the sack under and he'd reach up as high as he could and just barely touch the water, those eels would drop. That's how sensitive they are and I would

have more than a half of a sack full. We would load up, climb back out and take them to the camp. At Celilo, You could take your net down there and just start from the lower end and work your way up. Scrape along the rocks and catch two or three. We'd have a little net and we'd dip them out there.

(s) We would catch them by hand and pick them out with the nets. Eels are really sensitive to noise, to smell. If they heard noise, they would just drop off and go down. You'd have to wait till they come back. We took chances, but the rocks weren't really that slippery. The water pressure was so great that the rocks were smooth, but if you put socks on you could slip. If you went barefoot you had better traction. We used to put the net underneath them and spit in the water. They would drop into the net and then you had to be fast to pull them up. They were so wiry and springy that they would zoom out of the net. When I started learning how to make an eel net, we started using just small twine. The eels were so strong they actually broke the net. We ended up using thicker twine and making the meshes smaller. During that time, I didn't know about using a tape measure and all that. We would make a net and it would take maybe a couple weeks to make a good one. My precious memory is in 1960. We was down in Deschutes and I weighed about 120 lbs. My family would tie a rope around my waist, and tie it like a basket. So there was no way to slip out, no way for one loop to break off, like a basket. They tied me up and pushed me over the side on the Deschutes River and give me a little sack. When the sack got something in there, they would pull the sack up and send another one down. I would stay down there 15 minutes at a time. Because they would get my scent just from the spray I think and the fish would let go and go in the water. They would pull me up. Then we would wait for a half an hour to forty five minutes and then drop me over again. We would get a couple sacks and then go home. We used to go down to 8- mile creek. We'd go underneath the railroad trestle and just wade around on the rocks there. I took my kids down there and showed them how to catch eels. I took my two daughters and I told them, "you guys stay up here". There was a cement footing and it was flat on top there. I'd throw the eels up there and they'd catch them and put them in a sack. The first time I did that, I caught both my daughters by surprise and the eels sucked them on the leg. "It's eating me, it's eating me!" They screamed. They didn't like it.

Harvest / Abundance

When do you think were the best years for lamprey harvest (specific year or range of years)?

(j) Seventy years ago

(s) no answer

What was the abundance like, if you were to describe it in words?

(j) Night time is when the eels would travel. They would go up in bunches, like in V's. There would be a whole bunch. You would see rows and rows and rows of them going up the falls.

(s) you could find them at all the fishing spots

How many lamprey did you (or your family) catch per day (or per week, season, etc.) when the harvest was good?

(j) Oh one-half to over a half a sack full, probably thirty or forty eels. Sometimes we'd go down fishing and our mother would tell us, "oh so and so wants some," you know some old lady relative. We'd go down there to get a half sack for them, too.

(s) Get a couple sacks and then go home. We never caught a whole bunch. Caught some to eat. Mainly for survival.

How many people would you say fished this area with you (in a day or over the season)? Did members from other tribes (Non-Yakama) also fish there

(j) At Parker-Sunnyside dam in the early summer was our fishing site. Sometimes, most of those who would go camp there were gambling playing either stick game or card games. They did it almost every weekend. They used to have feasts there a long time ago, fish feasts. A lot of people, especially non-Indians would come there just to eat the fish. They'd never be turned away. They'd just let them eat. They used to have salmon feast there then they stopped. Keep in mind when they stop having the feasts there because the fish stopped coming. Members from other tribes, not a lot (fishing) but there could have been. We didn't just sit there and watch. We got our eels and went back to the camp. I'm sure there were others. I'm sure you have non-Indians married to an Indian that would go there getting some salmon and eels.

(s) I have no idea. My fishing spots were down in Sunnyside on the off reservation site. Different families had different locations. If you were from that area and related to that family then it was ok for you to go there without question. If you weren't related to them, they would say "you don't belong here, you belong over there. Go over there and catch your fish". We were known to be Celilo kids. They would try to chase us away. We always had our own hoops. We would go there night time, fish off the rocks, or wade in the river, fish in the river. If we see a spot where there are eels, and most of the eels were on the face of the dam. We'd watch out, learn where they are, and then we can go get some. We never caught a whole bunch. Caught some to eat.

In the area that you harvested eels, when did Pacific lamprey appear to decrease significantly?

(j) It had to have been the seventy's when there was hardly any fish, which eventually led to the bolt decision. When one of my children, one is fifty-two now, when he was like 10-12-13, there were no eels. So, I am hoping, eventually, with your work, I can still go up and teach him how to catch eels.

(s) I seen eels up until about 1956 at parker and Sunnyside dam, but that's where they typically were.

When was the last time you (or someone you know) fished for eels?

(j) I was about fourteen when I last fished in Celilo. In the Yakima river I was about seventeen years old. Of course that doesn't mean there were some eels still there.

(s) After Celilo closed down in 55' I didn't go fishing. Then I got married. 65' I started getting back into fishing again. Up until my kids all grew up and moved away. Then after that I stopped doing all that again.

If lamprey were still abundant, would you go fishing for them?

(j) Of course

(s) yes

Biology

How long did the eel run (or harvest timing) last (range of months)? What about peak harvest timing (month)?

(j) In Celilo the eels were there early summer. At Sunnyside dam the eels were there in the summer time. I don't remember a season for eels but they were caught whenever they could find them. In the Yakima, the eel were there early spring or early summer. Probably April, May, June

(s) Up here in the Yakima Basin, it was like April and May when the salmon and the eels come up. It was like May down in the Celilo area all the way down to Tenino to 8 Mile Creek. At the Willamette the eels were there in July. You could always count on them being there when we went down there 4th of July.

Was there more than one season or run of eels per year? Dark vs. light eel, for instance. Were eels that were harvested back then different from the current eels in terms of color, size, etc.?

(j) Sunnyside Dam the eels expanded most of their fat, compared to Willamette river where the eels were big and fat

(s) There was a difference in size. It seemed like the eels that was up here were smaller. And I think it was because they were getting skinnier. They weren't as fat. The fattest eels were down in Oregon City. They were fat then. Eels around Celilo and those kind of places, the eels were good size. Some were big, but most of them were about that size. They were all tasty and they were all oily. The season was just during the spring floods when the water was high. Like I said,

I don't know how come they come so late in the Willamette River, but they did. Mostly everywhere else, the eels were there during the spring floods.

Did you ever see or hear of areas where eels spawned? (or any other life stages, such as larva and transformers) What about resident lamprey (Western brook lamprey)?

(j) No. At that time a thought never passed me, passed my mind, never paid much attention to that.

(j) I actually never dug around for them until I started working at the Sunnyside dam. I just happened to be one the first ones they hired. We were doing the outline and getting the ground ready for base work. That's when we came across the baby eels. It was below the dam where we were putting in the fish ladder. I never thought about them except for when I would see them in the mud but I never went looking for them either. It was kind of like I didn't even know where they went. I just know that we always seen them in the spring time.

Ecology

Were there any seasonal signs indicating run/harvest timing (stream conditions, flowers, fruits, roots, etc.)?

(j) The birds will tell you, old people can read the birds

(s) The animals would be where ever there was good fishing, that's where they were. Same with eagles. Eagles are the same way. And they all started disappearing when the salmon and eels started disappearing. We haven't seen the eagles for a long time. Fishing for the eels was always around April and May or somewhere in between depending on the flooding season and when the water always got really high.

Did you ever observe other animals feeding on eels? (blue heron, hawks, seals, bears, etc.)

(j) They didn't realize that sea lions and a whole bunch of other animals depended on the eels. Now that they are not there, sea lions go after the salmon as well as the sturgeon eats the salmon. Also eels.

(s) When they poisoned the rabbits. They poisoned the rabbits because the rabbits were getting in the alfalfa, wheat, things like that. The rabbits were all poisoned, then the coyotes disappeared. Eagle disappeared. The hawks disappeared. Everything started disappearing. A lot of insects came out.

Did you ever see, when those abundance of fish, any lamprey marks on their body?

(j) Yes, salmon with lamprey marks but as I understand, they didn't hook onto to many salmon but they hooked onto those fish in the sea.

(s) no answer

Culture

How was lamprey important to you (or your family) in terms of diet or medicine?

(j) It's just not going out and gathering the food and having a feast and not saying anything about it or having any thoughts about it. There must be a realization by the younger generation of what this food genuinely means to the body and heart and the life. It is no easy task to understand this, especially if you only speak English. So I'm hoping with those words, there will be some inspiration for the younger generation to learn our language. Once our language is gone, we're done. Then the Earth can't hear you if you only speak to it in English, you have to speak through the resources through foods and medicines. That includes, when you take a fish, take an eel, and realize the value that animal has to your body or heart your life, your genes. Contributes to your teliwal (Sahaptin) - your blood. It makes you strong when they are strong. You eat it as food, that's medicine. They used to catch the grease and if you had sores that wouldn't heal, you would put that on there.

(s) We used to have them every night, if we caught some eels, then we just put them on a stick, cook them like that. Same thing with fish. That was just surviving. It was mostly just surviving, you didn't do it because it was fun. You wanted to eat, you went out to get something.

How often did you eat them? How were the eels prepared after they were caught?

(j) I would eat them as often as I could and preferably we cooked them over on an open fire. Seventy years ago, at the demand of my mother, we had to have eels. She preferred the eels at Sunnyside Dam because on their way around to get there, they expanded most of their fat and they were in a condition that you administer to them. They were easier to dry. In two to three weeks they would drip and dry. Compared to where we get most of our eels now you know Oregon City or Willamette River or somewhere. They are big and fat and they could drip all summer and they would never really dry. One time, my mother was sick; she couldn't get out of bed. My dad had to do the cooking and people dropped off a half a sack of eels. And, oh boy, he didn't know how to clean them. So he took the guts out but he didn't take the green spine out of the back. And oh that's poisonous. And we all got sick (Laughs). My mother finally told him "Ah you didn't take that part out of it"; she showed him finally.

(s) I lived in Warm Springs then. This is in 1960. When I got there, we had no more grandma, no mom, no grandfather, so do you remember how they used to cut that? HHmm. And we slice it down and take that one and peel it apart, and we would slice it in the middle, put another one

down here, then make three, put two on the side, and one in between. Kind of got 3, like that, then 2, and 1. And then we would do the same thing on the other side. And then add some sticks and its ready. Then hang them up. Wait a week and let them dry out. You always had flies. So if the flies multiply, they kind of got after you. If too many maggots got into the fish or the eels, you kind of just let them go because you can get sick from eating that stuff. We tried making different kind of sheds. And then put a screen on them. Back then they just had that one kind of screen, that metal screen. There was no cloth screen. Yakima basin - We just put them on a stick, cook them, You had to know how to put the sticks, otherwise when it got cooked, it'll fall. You would have a fish full of ashes. You put them away. (storage) You dried them. You didn't can them, you dried them. There was never any worry about saving for 2 years. You usually ate it within the winter after the season.

Do you have any photos (or art work) of lamprey (or related to lamprey) that you don't mind sharing with us?

(j) I don't think so.

(s) no, When my grandma's place burned down back in about 74' all of the old things that she had in there was gone. She was the one that kept the pictures and stuff like that. All of that burned up. So I don't even have any pictures hardly.

Human Impact

Out of the following nine factors, which factor(s) do you think played the largest factor in lamprey decline in your area (of fishing)? 1. Passage (Adult / Juvenile), 2. Irrigations/Canals, 3. Habitat Loss, 4. Water Quantity, 5. Water Quality (Temperature, Toxicants, etc.), 6. Predation, 7. Disease, 8. Ocean Conditions, 9. Others.

(j) #2 Irrigations/Canals. Topenish and Wapato on Old Track Rd, there was two bridges there. When they would shut off one bridge or shut off one waterway for the bridge, I'd climb down there and look around under there. My older sister was up there and I found an eel about that long. I caught it. Took it up and showed it to her and she counted to seven and said, "Oh that's our food, let it go it will grow up somewhere." So my point is, they used to be in irrigation canals and irrigation ditches. #4 Water Quantity. Sunnyside dam, There used to be only trickles of water coming over the dam in the summer time because the farmers took most of the water. #5 Water Quality. At Fifteen mile creek (The Dalles), a lot of eels were caught there until the chemical spill a few years ago, killed everything. Hanford toxicants - I think there is a lot of relationship between the fact that ...here was the fish (drawing a graph to illustrate progression of declining numbers), and here was the 80s, 70s, 60s, and 50s. All of this has been the six or eight million whatever fish coming up the river. This declined for some reason happened but you have to realize that 1945 they released 325,000 curies of iodine131 into the air while making the atomic

bomb. 1946 76,000 and then when the releases weren't very much until it hit the Korean War when they start spiking again and preparing for the war they're naturally making more bombs and releasing more Crot (contamination) into the air and then it went on and on and on. A lot went into the river. At one point, 8,000 curies a day were going into the river. All of a sudden it all seemed to coincide with the decline in salmon and eels. It hit the seventy's and we went a long time here without any fish.

(s) The most contributing factor was agriculture Development. When they developed agriculture farmland areas, they kind of shipped away the wildlife habitat. When they started logging about the same time, they were developing the agricultural community. Then the water shed dried up. Satus Creek used to run year round. It never dried up like it does now. Now it turned perennial. It's that way now. I think that all of this is tied together. I think it's all because of Agricultural Development. The passage is gone. The Irrigation canals are there. Habitat loss. Water quantity, Water Quality. The temperature went down. The water gets so hot now you can boil eggs in it. When they started logging then that's when everything started drying up then. When they started developing the Satus area, and the rabbits got in the way, and the coyotes got in the way.

Wrap-Up

Do you know of any other information about eels that we have not discussed today? (lamprey stories / legends?)

(j) Well this is for the young people. They should know their history. Even though some say it's a legend, it happened. The time that was designated as to who was going to come into this river Inchi-wana, for what purpose. At the mouth of the Columbia there was like an electric wire across there and they would stop you and say "who are you?" "Why do you think you need to go up this river?" "Why do you need to live in it?" And they asked that to each animal. The sturgeon for instance, promised to help keep the river clean. And of course then the others spoke up as to what they would do and if he approved he would let them through. Things like the starfish, squid, jellyfish, and octopus, he'd stop and say "No you don't belong up here, you stay out there in the big water."

That's how the inhabitants then were allowed to come up. Even though sea lions and all those aren't supposed to be up in to that river, now they are and now there's an imbalance in there some place. We could have caused the imbalance but together with new comers probably caused that imbalance. The old people would call it "yushtick" - you sin, you sin somehow and that's how you must pay.

When the people were giants, time of the giant people. Asum was looking for a new place to dwell. He came all the way around and he tried Toppenish Creek. And as he came up, you could see from the air he was having a hard time going through the mud, it was so flat. Especially

where the game park is now over there, the game refuge. He kept going and got to the upper ridge of Toppenish Creek and he said "I don't like it up here, I want to go somewhere else. I don't want to go back through that tough place. I'll take a shortcut". So he went Southwest, where he climbed that hill and left his trail. The people used it to come down. Then the Calvary started using it when they would take a short-cut coming this way. They couldn't go up, it was too steep, so they would have to go way up to where Mill Creek is, to go over.

The children have to realize these types of history. To understand it better, they need to know the language and what the laws had been established around these animals. Each one is like you and I, we're not put here for nothing. Chaw cumish out anaxaana (Sahaptin) - You're here for a reason. His determination and each of those first people had a duty to perform, right down to the smallest bug, smallest microbe, each working together. And so, that is why we also say our body is made up of whatever is in the universe and a guidance that we receive and how the body is put together and why.

Then as we were all made out of the natural foods and medicines, from here coordinated with our genomes, our DNA, we lived in harmony back then after the Creator determined this is how it must be and the first people finally agreed. We'll take care of these human beings you are going to make. With the thought that they will take care of us also. And the Creator said, that's the way it must work.

I just want to get that history out of the way so that the younger generation doesn't think that when they hear stories like this, it isn't just a myth, it isn't a superstition. These are genuine stories that happened on this Earth before the Earth destroyed itself and prepared itself as you see it now. One of those last giant people are just over the hill here by the highway. It's a woman. She was coming back, going north and she laid down and died there. So the people buried her there then put a stone showing how big she was. Now it's become a wishing place, which is alright if you wish for the right things. So anyway, that's another example of the time of the giants.

(s) no answer

Could we contact you later for follow-up questions?

(j) yes

(s) sure