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Northwest Treaty Tribes

Protecting Natural Resources for Everyone

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Recovering Salmon Runs Requires Everyone On Deck



by Lorraine Loomis
NWIFC Chair

Treaty tribes and our state salmon co-managers are looking ahead to another grim year of fishing because of poor ocean conditions that reduce marine survival, and the ongoing loss of freshwater habitat.

Higher marine water temperatures, changing currents and a disrupted ocean food chain are the main causes of reduced ocean survival. The salmon that do return are often smaller than normal and females carry fewer eggs.

Queets River coho is one of the weak stocks driving fisheries constraints during this year's North of Falcon process that sets salmon fishing seasons. While overall coho returns are expected to be better this year, the stock continues to decline despite a rebuilding effort that began in 2017.

Coho from Strait of Juan de Fuca tributaries and the Snohomish River are also failing to recover under rebuilding plans. Tighter conservation closures will likely be necessary to ensure escapement goals are reached to produce the next generation of fish.

Stillaguamish River chinook returns are expected to be low again this year. Skagit River summer and fall chinook are also concerning. The summer run is expected to return in low numbers that will constrain fisheries and require close monitoring to avoid a closure. This is especially worrisome because Skagit River summer and fall chinook are the most abundant and healthiest natural chinook stock in Puget Sound.

Chum salmon, traditionally one of the most plentiful salmon species, are expected to be dramatically lower this year in large part because of low marine survival from changing ocean conditions. We're particularly concerned about stocks from southern Puget Sound streams.

Tribal and state co-managers face increasingly difficult decisions because we must also factor in increasing seal and sea lion predation and the needs of southern

resident orcas on top of the ongoing decline of salmon caused by changing ocean conditions and lost freshwater habitat.

Salmon were abundant in western Washington for millions of years. Their sheer numbers, naturally high productivity and plenty of good habitat made them resilient from the effects of disease, drought, poor ocean conditions and a host of other environmental factors.

We must rebuild that resilience if we are going to recover salmon and we need properly functioning habitat to do that. One way is to focus on what we can do to improve freshwater habitat.

A new joint tribal/state riparian habitat initiative is taking on that task through a uniform, science-based management approach to restore and protect stream-side vegetation. Trees, shrubs and other plants along streams help lower water temperatures, filter pollutants and reduce sediment that can smother salmon eggs.

The tribal and state salmon co-managers alone can't recover salmon. We need help from federal agencies, local governments, environmental groups, agriculture and others if we are going to be successful.

We also must continue to build resiliency in the co-manager relationship created by the 1974 ruling in *U.S. v. Washington* that upheld tribal treaty-reserved rights and established the tribes as salmon co-managers with the state.

As salmon continue to decline, every decision carries greater potential impacts to fishermen and the resource. As a result, our co-management relationship is increasingly tested every year. Still, we remain committed to cooperative co-management because our history shows we are better together.



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On the cover: Derrick Sanchez, Nisqually tribal ranch hand, shares a moment with Buck. The Nisqually Tribe is reclaiming their horse heritage to bring healing and therapy to the community. See story on page 10. Photo: D. Preston

Billy Frank Jr. Statue Likely Heading to D.C.

Billy Frank Jr., the late natural resources and civil rights champion, is closer to being honored in Washington D.C., where he spent much of his time working on behalf of the salmon and treaty tribes in western Washington.

Both the state House and Senate passed a bill this spring to retire the statue of pioneer Marcus Whitman and replace it with a statue of Billy in the National Statuary Hall in the U.S Capitol. In April, the bill was headed to Gov. Jay Inslee's desk for his signature.

Each state has statues of two prominent citizens in the nation's Statuary Hall. A statue of Whitman has represented Washington in the hall since 1953. The other is of Mother Joseph Pariseau, Providence Hospital and schools founder who worked throughout the state beginning in the mid-1850s. Her statue was erected in 1980 and will remain.

Billy, who walked on in 2014, was first arrested as a teenager for exercising his constitutionally protected, treaty-reserved fishing rights in defiance of state law that did not recognize those rights and oppressed tribal fishers. He was later arrested more than 50 times as the leader of a

nonviolent civil rights movement that resulted in the landmark 1974 Boldt decision. The ruling upheld tribal fishing rights and established the tribes as co-managers of the salmon resource. Billy then turned his efforts to building a spirit of cooperative natural resources co-management that continues today.

A Korean War veteran, Billy received many honors throughout his life yet remained a humble fisherman. Some of the awards he received include the Albert Schweitzer Prize for Humanitarianism, the Martin Luther King Jr. Distinguished Service Award and the Washington State Medal of Merit. In 2015, he was posthumously awarded the Presidential Medal of Freedom – the nation's highest civilian honor – by President Barack Obama.

Marcus Whitman's statue was chosen to be removed because it has been there the longest of the state's two statues. While Whitman had an impact on Washington's history, it is also important to recognize the contributions of contemporary figures.

The legislation to replace his statue calls for it to be relocated in an honorable location when it returns to Washington state. A statue of Whitman already has a prominent place in



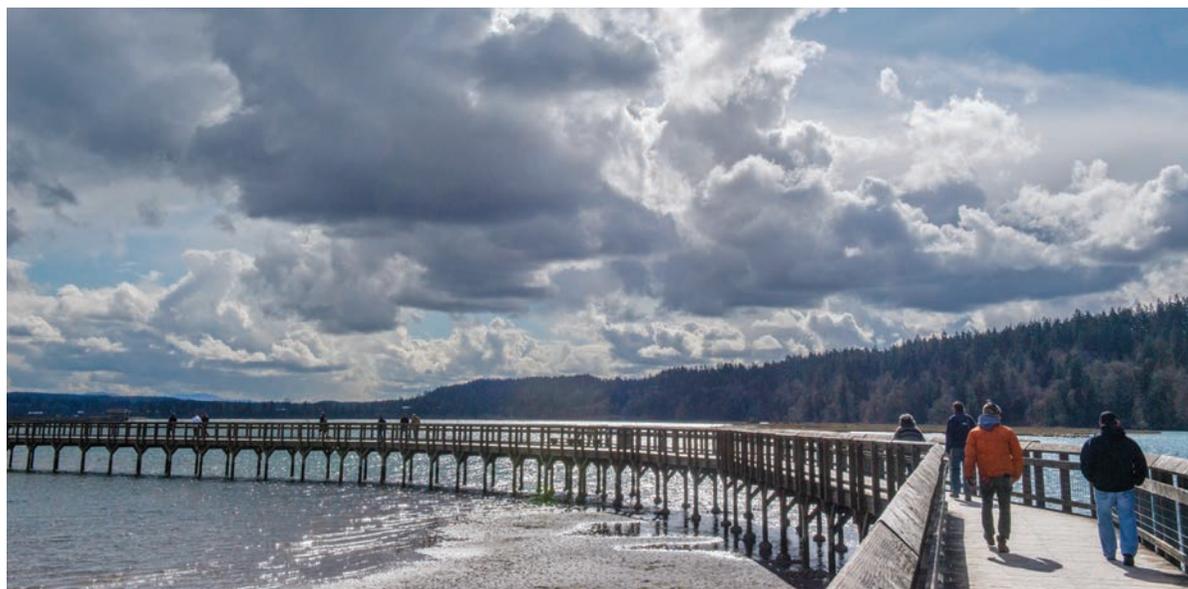
Billy Frank Jr.

D. Preston

the state's Capitol building.

The bill calls for no taxpayer dollars to be used. All costs will be paid for entirely by private donations, which have funded many other statues in the hall. – T. Meyer

Billy Frank Jr. Day



D. Preston

Participants in an honoring walk for Billy Frank Jr. on his birthday, March 9, stroll along the boardwalk that stretches into the Billy Frank Jr. Nisqually National Wildlife Refuge at the mouth of the Nisqually River. The restoration of the refuge, including dike removal, illustrates Frank's relationship with landowners in the area and those who worked to restore the Nisqually River for salmon and the tribe that depends on them.

HABITAT RESTORATION

Tribe, District Recognized for Restoration Partnership

Hermison Road parcel purchase will help improve salmon habitat

The Quileute Tribe purchased a 58-acre plot of land fronting the Quillayute River to build a treatment house for those recovering from addiction.

As an added benefit, the tribe was able to work toward one of its goals in the Quillayute River Action and Assessment Plan, created by the tribe's contractor Tetra Tech as a road map to restore and improve habitat for salmon in the watershed.

"The Hermison Road parcel wasn't the highest on the list of the restoration projects, but we are happy to work with what shows up on our doorstep," said Nicole Rasmussen, water quality biologist for the Quileute Tribe.

The tribe will enroll the land in the Clallam Conservation District's Conservation Reserve Enhancement Program (CREP), which will provide financial assistance to plant and maintain more than 3,000 trees and shrubs in a 180-foot-wide buffer along the river in 2022.

These will protect and shade the river that is home to chinook and coho salmon, and steelhead. In the future, the tribe also will seek grants to stabilize the bank with engineered logjams, helping slow the river and create pools for fish to rest.

As a result of this partnership with



D. Preston

Caroline Wells, left, habitat restoration biologist for the Quileute Tribe, and Nicole Rasmussen, water quality biologist, check out young trees similar those that will be planted on the tribe's newly acquired property on the Quillayute River.

the Clallam Conservation District, the tribe and district were awarded the 2020 Conservation District Tribal Partnership Award.

The award is presented to a conservation district and a Native American tribe each year for demonstrating a relationship that offers an example of regional conser-

vation of natural resources for the betterment of all, according to the Washington Association of Conservation Districts.

"The Quillayute River Action and Assessment Plan means we have invited a lot of folks into the working group that helped make some of these partnerships possible," Rasmussen said. – *D. Preston*

Double the Pens, Double the Fish

Suquamish Tribe hatchery staff Bill Alexander, left, and Corey Oster release juvenile coho salmon into a new net pen in Elliott Bay.

The Suquamish and Muckleshoot tribes added a second net pen to their juvenile coho salmon program in Elliott Bay this year, doubling the amount of fish that the system can contain. Each pen is about 140,000 cubic feet and can hold up to 500,000 juvenile salmon.

The tribes work in partnership with the Washington Department of Fish and Wildlife every winter to transfer yearling coho from the state's Palmer and Soos hatcheries and the Muckleshoot Tribe's Keta Creek Hatchery Complex to the net pens near downtown Seattle. The fish adapt to saltwater conditions through the spring, while the Suquamish Tribe feeds them and manages the net pens. The fish are released in June.



T. Royal



K. Neumeyer (2)

Top: Upper Skagit natural resources director Scott Schuyler, center, fishes the Skagit River with his daughter, Janelle, left, and son, Darryl. Above: Upper Skagit fisherman Darryl Schuyler removes a steelhead from a gillnet during a brief fishery in February.

HARVEST MANAGEMENT

Steelhead Harvest Limited on Skagit River

Two Upper Skagit Indian Tribe fishing boats pulled empty net after empty net during a four-hour steelhead fishery in February.

Fisherman Scott Schuyler caught only two Skagit River steelhead that day with his son, Darryl, and daughter, Janelle.

“It was pretty sad we fished for hours for those two steelhead, but I will cherish the opportunity to be on the river with my kids and I hope they remember today when I’m gone,” said Schuyler, who is also the tribe’s natural resources director.

Another brief fishery was scheduled for March. These opportunities to harvest steelhead are scant in comparison to 20 years ago, when the Skagit River run could sustain close to 50 days of tribal fishing for about 20 fishing boats.

As the fish populations decline, so does the number of fishing boats.

“The cost is high to get on the water,” Schuyler said “A lot of fishermen’s gear is in disrepair. It makes it harder and harder to keep fishing.”

One of the main reasons for the decline of salmon and steelhead across the region is the loss and degradation of spawning and rearing habitat.

Upper Skagit is among the group of tribes and other agencies calling for Seattle City Light to study the impacts from the Skagit Hydroelectric Project on anadromous Skagit River fish species. Among the disputes is whether there is a natural fish passage barrier downstream of the Gorge Dam bypass reach. Seattle City Light says fish have never been able to access that habitat, but tribal staff and others have observed adult steelhead and coho salmon fry in the bypass reach.

Steelhead in particular use harder-to-reach habitat, and could benefit from improved fish passage around the three hydroelectric dams.

Seattle City Light has begun a relicensing process to continue operating in the Skagit River. Before the license is approved, Upper Skagit has asked the utility to look into the feasibility of removing the Gorge Dam.

– K. Neumeyer

Cooperative Effort Uses Cameras to Track Wildlife

Treaty tribes on the Olympic Peninsula will be placing more than 300 trail cameras on the peninsula to keep an eye on wildlife.

For the next three years, the Lower Elwha Klallam, Jamestown S’Klallam, Port Gamble S’Klallam, Skokomish and Makah tribes, and Point No Point Treaty Council will be placing the cameras across the northern and eastern portion of the peninsula. They will target cougars, black bears, bobcats, coyotes, deer and elk to learn how the different species use the peninsula.

In partnership with Olympic National Park and U.S. Geological Service, 30 additional cameras also will be placed within the Elwha River watershed, monitoring the wildlife that use restored sites where two fish-blocking dams

prevented fish from swimming upstream for nearly 100 years until 2014.

The goal of the work is three-fold: Create baseline population estimates for the six species and develop long-term monitoring plans, gather data about the species that use the Elwha watershed and how they are responding to the restoration, and develop a camera system model that can be used by other tribes and agencies within their areas.

In addition to the trail camera network, the tribes plan to radio collar 60 cougars over a three-year period to better understand wildlife corridors.

“Each of the tribes has been pursuing their own wildlife studies and monitoring programs, and everyone has the same goal,” said Kim Sager-Fradkin, Lower Elwha



An alert bobcat was caught on one of the game trail cameras set out on the Olympic Peninsula last fall.

Klallam Tribe’s wildlife program manager. “As we work collaboratively to meet our goals and objectives, each tribe will benefit from the results of the work through better understanding of our shared wildlife resources.”

The camera images will be stored in a comprehensive photo database, from which the tribes will determine

baseline populations of the six species and get a picture of where and how the animals use the Olympic Peninsula.

“By collaring cougars, we see them as an umbrella species that helps us document existing wildlife travel corridors and habitats across the Olympic Peninsula that should be protected and preserved,” Sager-Fradkin said. – T. Royal

Bird Monitoring and Estuary Restoration Go Hand in Hand

The Stillaguamish Tribe is working with partners to improve avian monitoring to better understand how estuary restoration affects birds.

“Our goal is to address a suite of bird-related questions across various scales of space and time, such as Pacific Flyway population level trends and response to restoration,” said Amanda Summers, wildlife biologist for the Stillaguamish Tribe. “At present we are lacking comparable methodology.”

Current bird monitoring in Puget Sound estuaries consists of independent programs that apply different survey designs, protocols and objectives. Pre- and post-restoration monitoring is inconsistent. Puget Sound and the greater Salish Sea support more than 70 species of marine and shorebirds.

The lack of regional coordination limits managers’ ability to

respond to environmental change and prevents avian needs from being included in estuary restoration planning.

The tribe is part of the Puget Sound Ecosystem Monitoring Program Marine Birds Workgroup, which is developing a regional avian monitoring framework. Improving habitat models will help restoration managers consider the impact of management decisions on birds, reduce human conflict and invest strategically in bird conservation.

The workgroup, which also includes the National Audubon Society, Ecostudies Institute and Washington Department of Fish and Wildlife, modeled habitat for five species of birds representing niches in Puget Sound estuaries: brant, dunlin, greater yellowlegs, marsh wren and northern pintail. They used data collected by tribal, state, federal and nongovernmental partners, as well as community science data.

“Our wildlife program is specifically interested in understanding how salmon-centric estuary restoration might be impacting birds,” Summers said. “Given that restoration funding and design in the Northwest is driven by salmon recovery, we hope to identify co-benefit restoration practices, as well as make estuary restoration recommendations that further improve the bird habitat.”

“This is especially important now with the tribe’s recent acquisitions of lowland agricultural properties,” said Jennifer Sevigny, wildlife program manager for the Stillaguamish Tribe. “We hope to use our monitoring results to inform restoration planning for the benefit of fish and wildlife.” – K. Neumeier



Bill Hebner, Stillaguamish Tribe

Northern pintails are one of five species being modeled to find out how estuary restoration affects birds. Learn more about the model: nwtt.colavian.

Tribes Concerned About 'Recreation Boom'

Tulalip Tribes study shows that increased outdoor activity affects tribal harvest

Tribes with treaty-reserved rights to hunt and gather have increasing concerns about the effects of outdoor recreation on public lands.

A recent report developed jointly between the Tulalip Tribes' Treaty Rights Office and Wildlife Program reviewed existing research on the effects of recreational activity on wildlife. The report also considers the potential implications to treaty tribes and highlights the experiences of some Tulalip tribal hunters who have found it harder to access traditional hunting lands.

Jason Gobin, the tribes' director of fish and wildlife, grew up hunting for elk and black bear in the Snoqualmie Valley. The roads have been paved since, improving public access to the land where tribal members have a treaty-protected right to hunt and gather. He hasn't hunted there since the 1990s.

"This is an example of an area that just basically got overrun, and now nobody goes up here and really hunts anymore," Gobin said. "It's become harder and harder to find areas where you can truly hunt."

More recently, tribal hunter Amanda Shelton found that her usual elk hunting grounds became too crowded with mushroom pickers, hikers and mountain bikers. She tried hunting on different days and traveling farther into the backcountry before deciding she would need to move to a less disturbed area.

The Tulalip Tribes' report is part of an effort to learn more about how this "recreation boom" will affect public, state and federal lands in western Washington, as well as tribes' ability to exercise their treaty rights.

The report looks at impacts on elk, deer, black bears, mountain goats and birds.

Research points to consequences from human interaction that include both direct and indirect impacts to wildlife and their habitat. Even when there are no obvious changes in behavior, studies found that wildlife suffer psychological stress, which puts them at greater risk of disease and lowered reproduction rates, among other effects.



Amanda Shelton, Tulalip Tribes

Tribal hunter Amanda Shelton had to find a new place to elk hunt after her traditional places were overrun by hikers, bikers and mushroom pickers.

A 1980s study in the resort town of Vail, Colorado, found that 30 percent of elk calves died when their mothers were disturbed by hikers an average of seven times. If each cow elk was bothered 10 times during calving, all their calves would die.

Another study found that wildlife not only will avoid trails where dogs wander off leash, but the presence of leashed dogs on trails can create a "dead zone" by decreasing the density of fox, bobcat and prairie dog burrows and dens.

In western Washington, the increased demand for outdoor recreation has led to the expansion of parking lots, public access to waterways, new trails and toilets, but little in the way of studies to assess the cumulative environmental impacts and enforcement needed for the intensifying recreation.

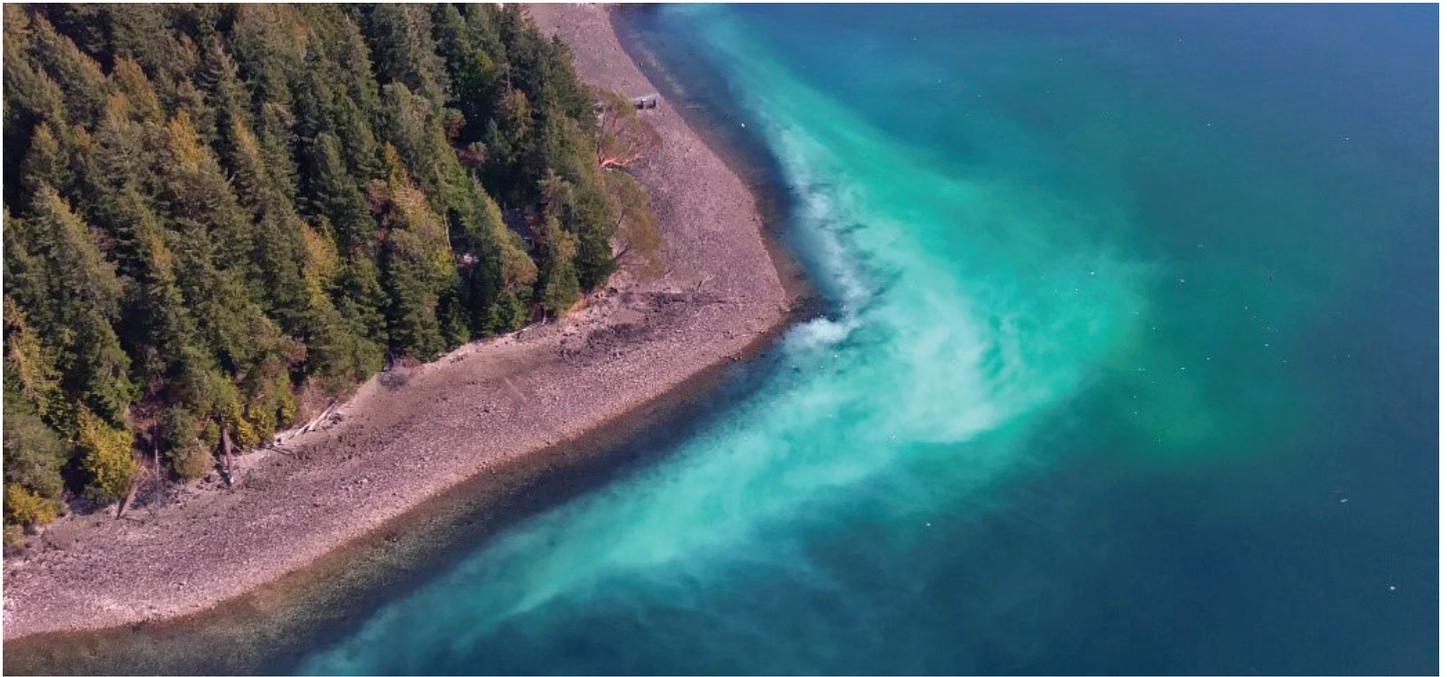
"It is improbable that Tribal signatories to the treaty in 1855 could ever have imagined the widespread conversion of lands,

habitat loss, and diminishment of fish and wildlife populations that we see across Western Washington today," according to the Tulalip report.

A better understanding of these impacts will help tribes advocate for the protection and recovery of treaty resources and the habitat that supports them, and help guide needed research.

"As co-managers of natural resources with the state of Washington, we have the right to a seat at the table when recreation management decisions are made and a voice in how they are implemented," said Lorraine Loomis, chair of the Northwest Indian Fisheries Commission. "Our cultures and treaty rights depend on the long-term health of these lands and resources." – K. Neumeyer

Read the report: nwtt.co/recboom



Tribe, State Looking for Herring Populations

The Suquamish Tribe is adding herring to the mix of forage fish being surveyed in Puget Sound.

Herring are considered a Puget Sound vital sign, an indicator of the sound's health, and an important part of the food web as a prey source for salmon and other wildlife.

For the next two years, the tribe is partnering with the Washington Department of Fish and Wildlife (WDFW) to conduct acoustic trawl surveys for herring – something that has not been done in more than a decade, said Steve Todd, the tribe's salmon recovery biologist.

The acoustic survey will use an echosounder to locate herring in the water

column prior to spawning. A trawl net will collect fish to sample biomass, age, sex and fecundity.

Annual herring egg surveys also are being conducted, using an extended rake to look for herring eggs in eelgrass and other submerged vegetation.

The acoustic/trawl surveys will focus primarily on waters known to support herring around East Kitsap County, including the waters off Port Orchard and Port Madison, plus Yukon Harbor, north of the Hood Canal Bridge and Quilcene Bay.

"It's a good example of the tribe and WDFW working together on something really important for Puget Sound," Todd

said. "The focus is often on salmon, for good reasons, but herring also has been very important traditionally to Puget Sound tribes as sustenance, particularly during late winter and spring prior to the return of salmon."

Other forage fish, such as surf smelt, sand lance and northern anchovy are commonly found in Puget Sound. Surf smelt have been harvested by the tribe for consumption since time immemorial.

Healthy forage fish populations are essential for salmon recovery because salmon rely on them as a high energy food source, Todd said. The stocks also may help reduce predation pressure on juvenile salmon because other fish, marine mammals and birds consume forage fish too.

Forage fish are sometimes referred to as "buffer" prey because they buffer the effects of predation on juvenile salmon, Todd said.

A separate ongoing study has shown when anchovy abundance is high in Puget Sound, the early marine survival of some juvenile salmon species also is high, suggesting that common predators are feasting on the anchovy and less so on salmon, he said. – *T. Royal*



Washington Department of Fish and Wildlife (2)

Top: Herring spawn in Quilcene Bay in March 2021. Left: Adam Lindquist of WDFW collects eelgrass full of herring eggs using the rake method in March 2020 near Agate Pass.

Old Ways to Spur Herring Spawning

The Nisqually Tribe is testing whether sinking cedar boughs and evergreen trees into the mouth of the Nisqually River will attract spawning herring, as their ancestors did.

The traditional practice could be a way to improve herring numbers in South Puget Sound.

“My mother loved the herring eggs,” said Don McCloud, Nisqually tribal member. “But by 30 years ago, we had to rely on our friends in British Columbia to bring her eggs because we just didn’t see the herring around here anymore.”

Herring are small, oily fish important to the entire marine food chain, including salmon, seals, sea lions and orcas. They also give marine animals an alternative to eating salmon and steelhead, which would help protect threatened species.

“While we were finding herring in our research of the Nisqually River estuary and bays around it, we don’t know if they are a distinct population or ‘strays’ from one of the two known stocks of herring in South Puget Sound,” said Chris Ellings, the tribe’s salmon recovery manager. “We also know that there have been large-scale changes to the habitat that herring use to spawn, primarily eelgrass and bull kelp. For example, many of the bull kelp beds that were noted on old maritime charts are no longer there.”

The tribe decided to inventory the eelgrass beds in their traditional areas and any herring spawn they found. Additionally, as a pilot project, cedar boughs and evergreen trees were sunk in areas where elders used to do the same and harvest the bounty.

“Herring spawn well into the spring, so while we aren’t finding herring eggs on either the eelgrass or sunken boughs yet, it’s still early,” Ellings said. “Other creatures are laying their eggs in both eelgrass and the sunken boughs, however.”

The surveys take place about once every 15 days in late winter, then every 10 days as the weather warms and herring spawn more quickly.

The Washington Department of Fish and Wildlife (WDFW) surveys herring spawning throughout Puget Sound, but not the area around the Nisqually delta.

“While they haven’t been surveying Nisqually, we found a partner in Long Live the Kings to help us do the rake survey method that WDFW uses to survey eelgrass and herring spawn,” Ellings said. The tribe provides a boat and biologist to find the eelgrass beds, and Long Live the Kings representatives perform the rake survey to identify all the plants and creatures found.

“We know there has been a decline in eelgrass and kelp that parallels the armoring of the bank for the railroad with lots of rock,” Ellings said. “That loss of sediment input means there isn’t a lot of healthy bottom for those plants to tether to in those areas.”

The surveys find healthier populations of eelgrass



Jack McDermott, Long Live the Kings



D. Preston

Top: Emiliano “Nano” Perez, Nisqually tribal fisheries technician, prepares to sink evergreen trees and cedar boughs in the hope herring will spawn on them in South Sound. Above: Ashley Bagley, Long Live the Kings project coordinator, sifts through eelgrass from a rake survey. The eelgrass is checked for herring eggs and all creatures and plants are categorized.

near areas that are not armored. The tribe hopes the traditional knowledge and the surveys might help jumpstart the herring population in South Sound.

“Elders have been talking about that history to me for 30 years and really want there to be healthy stocks of herring to bring that food back to their table,” said David Troutt, the tribe’s natural resources director.

“They would love to see it.” – D. Preston

Restoring Culture, Medicine of Horses

The thunder of hundreds of horses running on the plains above the Nisqually River once signaled the Nisqually Tribe's prosperity prior to foreign settlement.

But the Treaty War of 1855 stripped the tribe of many of the horses. Then in 1918, Pierce County seized more than 300 acres from the Nisqually Reservation via condemnation to create Fort Lewis, dispossessing hundreds of Nisqually people of their homes and the land to raise horses. Tribal members were scattered far and wide and many of the intimate relationships with horses were lost.

Today, the tribe is honoring Chief Leschi and his brother Quiemuth, both renowned horsemen, and the Nisqually legacy of horsemanship by acquiring land and horses to restore that close relationship.

"Horses aren't a job, they're a lifestyle," said Keoni Kalama, general manager of the tribe's 68-acre ranch adjacent to the Nisqually Reservation southeast of Yelm.

Kalama helped start the ranch, which has grown from a couple of horses to 10 since last summer. He is a Nisqually and Northern Cheyenne tribal member who grew up in the horse ways in Montana.

"It is what we call the Red Road. No alcohol, no drinking," Kalama said. "You ride and care for horses, you participate in many long rides and contests with horses such as roping and relays."

Horses, like canoes, come with a distinctive vocabulary, songs and dances, bringing opportunities to resurrect the Nisqually language and customs.

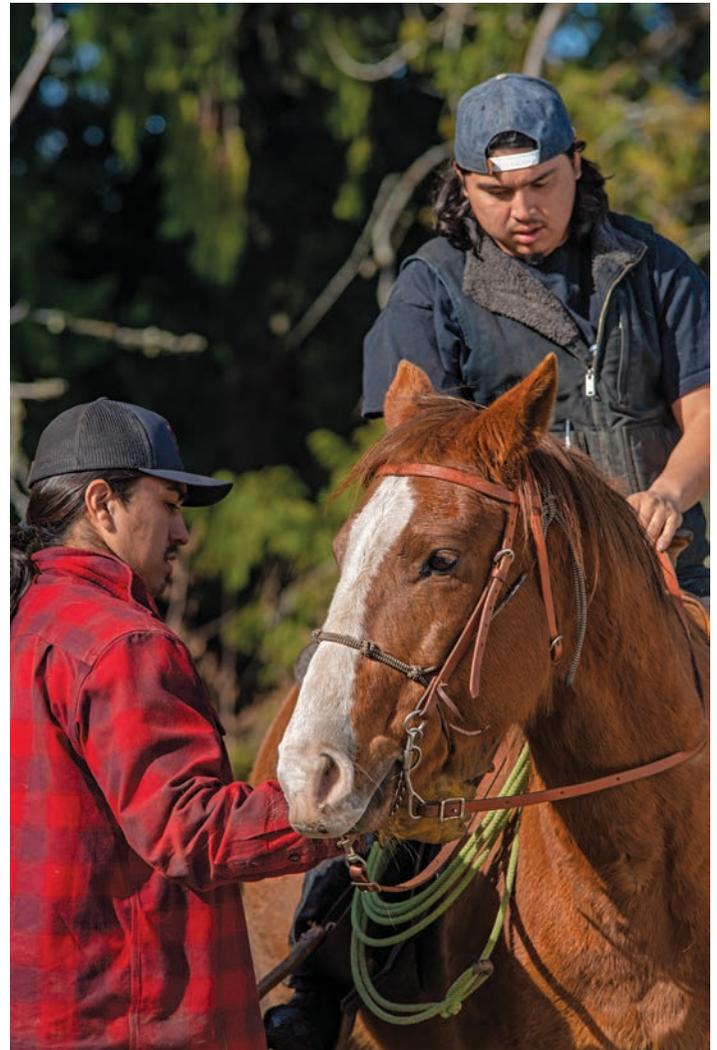
"Richard Oatfield, who owned the land in the 1960s, always had it in mind to return this land to the tribe," said Cynthia Iyall, Nisqually tribal administrator, and a Leschi descendant. "He went to school with many of our parents."

Most of the horses have never been ridden, so Kalama and his ranch hand Derrick Sanchez work to desensitize them to noise and distraction, accept a saddle and learn to load up in a horse trailer.

"We don't 'break' horses here," Sanchez said. "We create partners."

For Sanchez, it has been a gratifying journey to get a somewhat unruly 2-year-old horse named Buck to accept a saddle and bit, and love to be ridden.

"It's been on his time to get to where we are now," Sanchez



D. Preston (2)

said. "We have trust."

Kalama invites veterans and those in recovery from substance abuse to help with the never-ending work. "Come get some of this horse medicine," he tells them.

The medicine is what tribal council envisioned for the horses and property from the start, Iyall said.

"It is intentional that there is a strong connection with our health and mental health services to provide therapy for tribal members with the horses that has been shown to be so beneficial to people who have faced trauma," she said.

Both Kalama and Sanchez will be trained by Professional Association of Therapeutic Horsemanship International

to be horse therapists. Formed in 1969, the organization trains specialists to use horses to assist children and adults with physical, cognitive and emotional challenges to find strength and independence.

At this stage, the horses are taken in trailers to be ridden in Nisqually neighborhoods in hope of attracting youth to work at the ranch and learn to ride when the horses finish their training this summer.

"The future is exciting," Kalama said. "Returning the warrior society to Nisqually, a culture that takes care of people in emergencies and is self-reliant and resilient, that's what horses can do."

— D. Preston

Above: Keoni Kalama, left, general manager of the Nisqually Tribe's horse ranch, and ranch hand Derrick Sanchez have worked to accustom Buck to riders. Left: Sanchez rides Buck at the tribe's 68-acre ranch.





D. Preston (3)

Left: Nisqually tribal council member Hanford McCloud use a traditional fringe-cutting tool to split a strip of cedar bark. Above: McCloud peels a strip of cedar. Top: Tribal members across the Northwest recognize Joyce McCloud by her distinctive cedar hat, gifted to her by her son.

Harnessing Cedar's Healing Properties

“Cedar has healing power – so wear it.” These words from Skokomish tribal weaver Bruce Miller always echo in Hanford McCloud’s mind when he is weaving. “I learned to weave from my grandparents and my parents,” said McCloud, a Nisqually tribal member whose hats are well known in tribal communities throughout the Northwest. Spending three days with Miller early in the development of his weaving skills also helped McCloud expand his skills.

Cedar has been used for baskets, hats, bentwood boxes and regalia, to name a few uses, for millennia by tribes. Cedar’s water- and insect-repelling properties make it ideal for many items used in daily life.

McCloud first learned to weave hats from Makah tribal members Theresa and

Doris Parker years ago. Beginning in 1997, he became fascinated with making the visor style of hat, creating a mold that he still uses today.

“Now, when I make a hat, it just kind of comes to me while I’m working who I’m making it for and that sort of informs the work,” said McCloud, who is a Nisqually tribal council member and culture specialist.

His mother, Joyce, wears an intricate traditional cedar hat that is so distinctive that anyone at intertribal gatherings throughout the Northwest knows her by the hat.

It’s adorned with abalone squares and circles, as well as an eagle feather and an ermine skin in the short-tailed weasel’s white winter color.

“Ermine are predators and they are

symbols of power,” said Hanford, who gifted the hat to her 10 years ago.

Some of his ideas for hats come from studying old pictures of Nisqually people, like his grandmother Angeline. Lately, he has been weaving ribbons of copper into hats and baskets.

Along with other Nisqually tribal members, McCloud gathers cedar bark in the spring, soaking it and peeling it to make it ready for use. A traditional cutting tool for making leather fringe has become a favorite way to split the cedar into the desired widths for weaving projects.

“There aren’t a lot of men who weave, but I’ve always done it,” said McCloud. “With COVID, I can do a video meeting and weave at the same time. I have made five hats already this year.” – D. Preston

Economic Relief Keeps Market Open



Several months into the coronavirus shutdown, the owner of the Lummi Seafood Market was unsure he could sustain the business.

When the Lummi Reservation first locked down, Terry Phair used curbside service to sell fresh, frozen, smoked and canned fish, and shellfish at the store off Interstate 5 in Ferndale.

But when Lummi Hereditary Chief *Tsi'li'xw*, Bill James, became sick from a non-COVID illness, he asked Phair, his wife, Laura Williams, and son, Jaden, to care for him in his final months. Keeping the tribal elder safe from the virus became their priority over keeping the market open.

In the meantime, Jaden, a Northwest Indian College student, began fishing from his kayak in front of the family's home.

"We didn't know where the pandemic was headed," Terry Phair said. It seemed like a good idea to ensure they could continue harvesting if gas became unavailable for outboard motors.

In addition to owning the Lummi Seafood Market since 2017, Phair is a fisherman and a wholesale buyer. Even before the pandemic, the seafood industry was suffering because of Chinese retaliatory tariffs.

Midway through 2020, Terry and Jaden wanted to reopen the Lummi Seafood Market doors, but were unsure how they could afford to restock their entire inventory. They received help from both the federal Coronavirus Aid, Relief, and Economic Security (CARES) Act, as well as the Lummi Nation Community Development Financial Institution (CDFI).

"Without this help, our doors would have been permanently closed," Phair said. "I worked with our new Lummi Nation economic

director, Celina Phair, and was able to renew my lease here at Lummi Te'Ti'Sen Center, which is a tribal small business incubator."

The Lummi Seafood Market was the vision of the ancestors, he said, part of a larger plan to give tribal fishermen more opportunities to sell their harvest. Phair credits Jaden with having the drive to keep the business going.

"Some of our ancestors have passed on," Phair said. "It's all on Jaden's shoulders while I'm fishing."

The market officially reopened its doors in November, but challenges remained. Seafood sales were down because fancier restaurants weren't buying, and retail consumers were being asked to stay home. In addition, fishermen had fewer opportunities to harvest because of the need to maintain physical distance from each other.

"We still have live crab, halibut, smoked salmon and razor clams from the Quinault Indian Nation," Jaden said. "But our customers missed out on summer coho and king salmon."

Prior to the pandemic, there had been an increased market for delicacies like sea urchins. Terry Phair started diving for them about five years ago. Typically, urchins would be sold internationally, but the Phairs are working hard to build local interest in them.

Part of that is teaching people what to do with them via the market's social media accounts. Most people eat urchin raw, but it can also be grilled or mixed into sauces.

"Our elders ate them when they were kids. They were a staple for a long time," Phair said. "Instead of shipping them overseas, we should be feeding our people."

— K. Neumeyer



Top: Jaden Phair offers up fresh Dungeness crab harvested from Lummi Bay. Left: Customer Jet Ngo from Anacortes follows @LummiSeafoodMarket on Facebook to find out when fresh urchin will be available.

K. Neumeyer (2)



Port Gamble S'Klallam Tribe (2)

Why Can't Steelhead Get Through Hood Canal?

The Port Gamble S'Klallam Tribe has been trying to figure out why juvenile steelhead are not getting past the Hood Canal Bridge.

Traffic noise? Light pollution? Water quality? Wave action? Dissolved oxygen issues?

Nope. Mostly, it's the bridge itself.

The bridge's floating pontoons, which span 80 percent of the width of the canal and extend about 13 feet underwater, appear to be impeding steelhead, chinook and chum out-migration, said Hans Daubenberger, the tribe's senior research scientist. In addition, predators, such as seals, are feasting on the fish blocked by the bridge.

From 2017-2019, the tribe and partners in the Hood Canal Bridge Ecosystem Assessment Project studied how and why juvenile steelhead and other species were not migrating past the bridge.

Partners include the National Oceanic and Atmospheric Administration's (NOAA) Northwest Fisheries Science Center, Long Live The Kings, Pacific Northwest National Laboratory, Hood Canal Coordinating Council, and the

state departments of Fish and Wildlife, Transportation, and Ecology.

"Some of the hypotheses we had – such as sound impacts that we thought were problems – weren't problematic," Daubenberger said. "The driving issue is that the bridge acts like a dam. Fish within the several hundred meters of the bridge weren't surviving."

Fish coming out of Hood Canal had been tagged with tiny acoustic transmitters, including smolts from Big Beef Creek and from the Skokomish River; when they reached the bridge, acoustic tag receivers on the pontoons would pick up the swimming patterns of the individual steelhead, noting if the fish had made it past the bridge or not.

Scientists from NOAA discovered there was up to 50 percent mortality of juvenile steelhead at the bridge, primarily by predation, Daubenberger said.

In addition to using NOAA's acoustic tracking data, the tribe collected water quality and zooplankton samples, conducted hydroacoustic surveys for fish density and visual acoustic surveys for

predator activity, and recorded underwater video for presence and identification of species. The tribe also observed fish activity under the bridge's light sources.

Fish in the top 6 feet of the water column are the most affected by the bridge, Daubenberger said.

Steelhead seemed to follow the currents and visual cues along the bridge's pontoons as if they were a dam, rather than diving under the pontoons to pass it, he said. Fish also were

observed feeding on plankton in the pontoons' corners where eddies form, creating easy access for predators.

Juvenile chinook and chum also were observed being preyed upon by seals and seabirds at heavy rates.

The next steps are to design and implement structural changes to the bridge that would guide the fish around the pontoons. The only long-term solution is to replace the bridge, Daubenberger said.

– T. Royal

Above: The Hood Canal Bridge is apparently preventing steelhead, chinook and chum from out-migrating to sea. Below: Emily Bishop, a contractor from Westward Ecology, downloads sonar data.





Kyle Antonelis, Natural Resource Consultants

From left, Swinomish tribal divers Matt Johnston, JJ Wilbur and Cody Cayou assess the marine debris they removed from the Swinomish Channel during the pilot project in 2016 and 2017. The divers identified and hauled more than seven totes full of old crab pots, nets and other fishing gear from the water, in coordination with Kyle Antonelis of Natural Resource Consultants, who also provided the training.

Swinomish Divers Retrieve Marine Debris

The Swinomish Tribe plans to resume work this year to remove marine debris from Similk Bay and the Swinomish Channel after the coronavirus pandemic put the project on hold last year.

Tribal scuba divers intend to remove an estimated 12 abandoned nets and more than 200 crab pots that have been left behind. The debris will be located by Natural Resource Consultants using side-scan sonar to map the sea floor.

When marine debris is abandoned, old nets and pots can “ghost fish” by continuing to kill crabs, marine mammals and

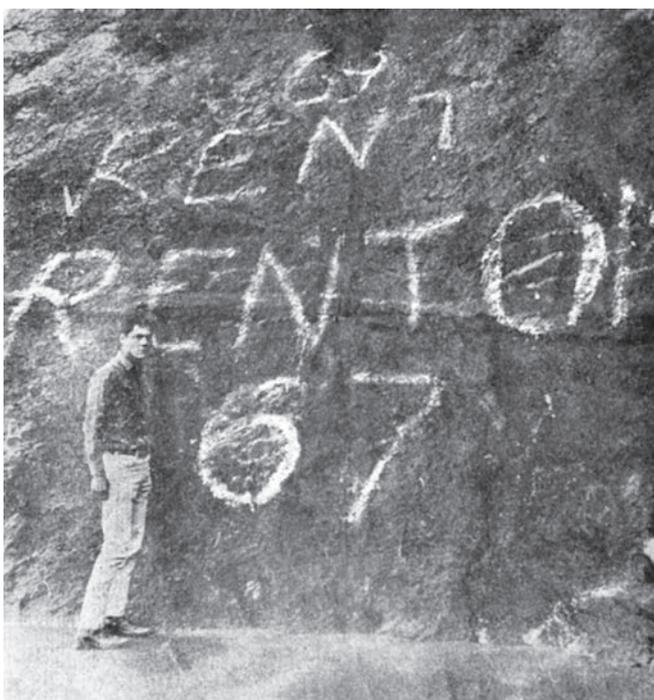
other species. Derelict crab and shrimp pots can damage underwater habitat, and lost nets pose a safety risk to boaters.

The marine debris removal work is a partnership with the National Oceanic and Atmospheric Administration and follows a similar Swinomish pilot project that started in March 2016.

The recovered gear will be redistributed, reused and recycled as best possible. The project aims to promote marine debris awareness and reduce the impacts of derelict fishing gear in Similk Bay and Swinomish Channel.

The work also will include a prevention plan to keep the tribe’s fishing docks free of debris, and provide monitoring and enforcement.

The Swinomish departments of Land Management, Environmental Protection, Fisheries Enforcement, Fisheries, and the Fish and Game Commission will partner with fishermen to evaluate and monitor the effectiveness of marine debris removal, along with prevention and education efforts. – K. Neumeyer



Quinalt Indian Nation

SEVEN GENERATIONS

Joe DeLaCruz, who served as Quinalt Indian Nation chairman for more than two decades, stands near graffiti marring the tribal beach more than 50 years ago.

Vandalism was one of the reasons Quinalt closed their beaches to non-Quinalt visitors without special permission. Other reasons included unpermitted excavation of sand for property development, improper disposal of sewage and waste, theft of driftwood, and illegal razor clam harvest and campfires.

Today, Quinalt holds tribal cultural ceremonies and family gatherings on the beaches, as they always have. Natural resources staff also survey intertidal life to establish baselines in case of an oil spill and to track changes due to a warming climate.

WALKING ON

Henry "Hank" Adams

Henry "Hank" Lyle Adams, a citizen of the Fort Peck Assiniboine and Sioux Tribes, began his Journey to the Spirit World on Dec. 21, 2020 at the age of 77.

Adams was born on May 16, 1943, on the Fort Peck Reservation in Wolf Point, Montana, to Lewis Adams and Jessie Malvaney Adams.

Adams was recruited into treaty rights struggles by grandchildren of Quinalt Treaty Chief Taholah, Jim Jackson and Hannah Mason Saux Bowechop of Neah Bay.

In 1964, he helped bring Marlon Brando to Franks Landing on the Nisqually River and into a coalition of 37 Northwest tribes defending treaty rights. This began what would become Adams' relationship of more than a half-century with the Franks Landing Indian community matriarch, Maiselle Bridges, and her brother, Billy Frank Jr.

After studying at The Evergreen State College, Adams was a key strategist alongside Billy Frank Jr. during the Fish Wars that led to the 1974 Boldt decision and the 1979 U.S. Supreme Court ruling that upheld it. U.S. District Judge George H. Boldt uniquely admitted Hank as lay counsel into the case of *U.S. v. Washington*,

specifically to represent Billy Frank Jr. and other Nisqually treaty fishermen.

Adams authored the *Twenty Point Proposal* to petition the federal government to address Indian needs and conditions that resulted from broken treaties. It was submitted to the Nixon administration in November 1972.

He was instrumental in the development of the Wa He Lut Indian School at Franks Landing and a founding member of NWIFC. For his life work, the Northwest Indian College awarded him an Honorary Doctorate of Humanities in Native Leadership.

Adams also was recognized with an Abraham Lincoln Human Rights Award (1971), State and National Jefferson Awards in Seattle and at the U.S. Supreme Court (1981) and the American Indian Visionary Award presented by Indian Country Today (2006).

Adams is survived by his sisters Lois Adams Charley, Martha McBride Stout, Sarah McBride and Alice Marie Smith; brothers William "Bill" Adams, Tom McBride and George Cole; numerous nieces, nephews, great nieces, great nephews and cousins, and his godson Brandon.

Adams was preceded in death by his father



and mother, sisters Alice Rose Adams, Beverly Linderman and Charlene McBride, and brothers Walter Adams, Jim Adams Sr. and Jerry Hyasman.



Michael Cladoosby

Kel-Kahl-Tsoot

Michael John Cladoosby Sr., *Kel-Kahl-Tsoot*, the hereditary chief of the Swinomish Indian Tribal Community, walked on March 19.

Cladoosby was born Aug. 16, 1933, to Ernest Cladoosby Sr. from Swinomish and Lena Shelton Cladoosby from Tulalip.

His great-grandfather *Kel-Kahl-Tsoot* signed the Point Elliott Treaty for the Swinomish Tribe in 1855.

Cladoosby married MaryLou Day on Dec. 5, 1951 and remained married for 45 years until MaryLou died of lung cancer in 1996 at age 60.

During the 1970s, he opened Jughead's Fireworks with the help of a loan from the late Laura Wilbur.

After the Boldt decision, he purchased a boat from Nancy Wilbur. He never had a deckhand and he pulled his net himself. He always

looked forward to the next season, even after his stroke. He fished with his brother-in-law Kevin Day, and said he was going to fish just a few days before his passing.

Cladoosby is survived by his children, Tony (Lori) Cladoosby, Brian (Nina) Cladoosby, Marty Cladoosby, Michelle (Sonny Clark) Cladoosby and Lori Cladoosby; sister Beverly Grant, and many grandchildren, great grandchildren and a great-great-grandchild.

He was preceded in death by wife MaryLou Cladoosby, sons Marvin "Dubber" Cladoosby and Mike Cladoosby Jr., grandson Sam Cladoosby, parents Ernest Cladoosby Sr. and Lena Shelton, and siblings Floyd Cladoosby, Magdalene Monger, Ernest Cladoosby Jr., Henrietta Jack, Florence, Judy and Della Manibusan.



Bruce Wagner

Bruce Patrick Wagner, age 52, an enrolled member of the Quinalt Indian Nation and longtime resident of Grays Harbor, died on Dec. 19, 2020, in Vancouver, Wash. Bruce was born on Jan. 27, 1968, in Brewster, Wash.

Wagner spent his entire career in service to Quinalt Indian Nation Natural Resources, beginning in 1983 in Fisheries where he spent the majority of his time except for a short stint with Forestry.

He was very active in cultural activities and Canoe Journey. He worked for Fisheries for decades, holding a number of jobs, including supervisor.

Surviving relatives include his sister Lynette Sailto, brothers Joseph Wagner of Tulalip, John Sailto Jr. and Brian Moses, and his stepmother, Karen Sailto. His mother, Sharon Henry, preceded him in the same month.

Recolonizing the Elwha



North 40 Productions

Lower Elwha Klallam tribal member Russ Hepfer and his son, Nyle, discuss how 10 years ago, the world's largest dam removal began on the Elwha River, allowing salmon to recolonize their lost habitat.

NWIFC's latest documentary, *Recolonizing the Elwha*, produced by North40 Productions, illustrates the tribe's connection to that river and the hatchery that kept those salmon runs alive.

Watch it: nwtt.co/elwha

Best Native American Film



Our short film, *Can the Blueback Survive?*, won the 2021 McMinnville Short Film Festival Shawash Ilihi and Audience awards for Best Native American Film.

The film is about the Quinault Indian Nation's fight to recover their iconic blueback salmon from habitat degradation while at ground zero for climate change impacts.

Watch it: nwtt.co/blueback

