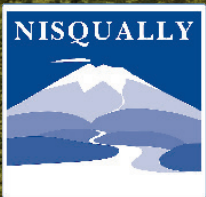


"THE SALMON DANCE ON ITS FIRST ARRIVAL"

# Yil-me-hu

WINTER 2021



THE NISQUALLY  
WATERSHED  
SALMON  
RECOVERY  
NEWSLETTER

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**Disclaimer:** With the exception of "Director's Corner," all articles and photos were produced prior to the COVID-19 pandemic. Nisqually Indian Tribe and Nisqually River Foundation staff are implementing safe practices and protocols outlined by the Nisqually Tribal Council and the Governor's Safe Start Plan.

**Cover Photo:** Agugaluk William Komakhuk (top) and George Sanchez (bottom), both students of Wa He Lut Indian School, exploring Mount Rainier National Park. Photo by Sheila Wilson

 Printed with soy-based ink on recycled paper that is certified by the Forest Stewardship Council.



Artist: Gabe

# Yil-me-hu

**Yil-me-hu, Nisqually word that means "the salmon dance, on its first arrival."**

**The first fish ceremony** — The first fish caught in the spring was prepared in an earth pit stove, shared and eaten by members of the village. The bones, left intact, were returned to the river, pointing upstream. This display was symbolic. It meant that the villagers were respectful to the fish spirits and wished that, because the ceremony had been done correctly, many more fish would come up the stream during that year. A dance followed the ceremony called the "yil-me-hu," a Nisqually word that means "the salmon dance, on its first arrival."\*

\* Carpenter, Cecilia Svinth, Fort Nisqually: A Documented History of Indian and British Interaction. A Tahoma Research Publication. 1986. p13.

Nisqually Indian Tribe



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*Yil-me-hu is published by the Nisqually Indian Tribe Natural Resources Department and the Nisqually River Council to provide information about activities associated with the protection and restoration of salmon and their habitat in the Nisqually watershed.*

Photo by Walker Duval

## DIRECTOR'S CORNER



David Troutt  
Director of Natural Resources  
for Nisqually Indian Tribe

I have a quote from Dr. Martin Luther King on my desk that I look at every day. It is from his famous "I have a dream" speech, but not the words that are most familiar. He said: "We are now faced with the fact that tomorrow is today. We are confronted with the fierce urgency of now. In this unfolding conundrum of life and history, there "is" such a thing as being too late. This is no time for apathy or complacency. This is a time for vigorous and positive action."

Photo by Christopher Ellings

Certainly 2020 was a memorably unusual year with its own set of impacts and challenges. There will be a tremendous focus through actions to revive our national and local economies, but it should also be the time to rebuild and restore and protect our natural world. As we strive to create a future in the face of COVID, we must also act now for salmon.

We have been at this salmon recovery task for over 20 years now and it is time for change. We need to inject a fierce sense of urgency into this effort before it is too late. Salmon populations are still in trouble, and our Southern Resident Killer Whales are slipping away. The salmon are telling us that the sand in the hourglass is running out and soon it may be too late. 32 fall chinook in the Stillaguamish. Nisqually late chum disaster in 2019 of less than 5,000 fish. The signs are there. It is time for action now.

But what should that action look like? If we do more of the same will the result be any different? It recently struck me like a bolt of lightning that the primary system we are using to get to recovery cannot get us there without a revolution of ideas and commitment. I am speaking generally to the unbalanced scales of development and the environment. We are providing maximum security and predictability to the continued growth and repair of the economy of this region while providing much less security and assurances for the environment and salmon.

In 1999 the Washington State Legislature created the Salmon Recovery Funding Board and a system to promote salmon recovery. The foundation of this effort includes citizen engagement through a bottom up process to implement restoration and protection projects for salmon recovery. Key to this process is the availability of grant funding to pay for the great work proposed in the watersheds by its community. There are two problems associated with this system. The first is that not in any single year since this all started has there been sufficient funds to meet the identified need coming out of all of our watersheds. Not once. Rather, we are lucky to see 15% of the resources Statewide to save our salmon.

Second is that at the heart of this effort, and most if not all environmental programs, is competition for those limited resources. In the most recent response to a "brush fire", the Legislature passed the Streamflow Restoration Act to deal with growth and the impact associated with exempt wells. It sets up a process that

will lead to certainty for local governments and developers in allowing exempt wells to be permitted and all of the associated growth impacts linked to a plan to provide offsets and ultimately net ecological gain through a series of projects. Sounds good

**It recently struck me like a bolt of lightning that the primary system we are using to get to recovery cannot get us there without a revolution of ideas and commitment.**

but the problem is that the environmental side of the equation is subject to limited funding a competitive grant process (sound familiar?)

The basic shortcoming of the grant funding processes is the substantially insufficient funding and that it places the net ecological benefit of the Nisqually in direct

competition for net ecological benefit of the Nooksack and the Yakima and the Walla Walla and...

So for every problem there is a solution. The solution here is simple. Let's continue to support the existing system of community engagement, bottom up, locally driven solutions to salmon recovery by injecting significantly more resources. I mean significant. Let's push the limits of our system and fully fund the projects on our work lists for the next 10 years.

To really get recovery moving with the fierce urgency of now, let's try something novel. We have all kinds of science based plans in all of our watersheds across the State of Washington. Let's select some number of watersheds to **fully** implement their plans. In the Nisqually we have approved salmon and steelhead recovery plans and one of the only plans approved under the Streamflow Restoration Act, all containing projects and actions to achieve recovery and provide substantial net ecological benefit. There is no certainty that these plans will ever be fully implemented. We need to make full implementation of these approved plans a priority response to our current crisis. Select two Westside watersheds (Nisqually and ?) and two eastside watersheds and bond fund their full implementation over a period of 10 years. After ten years, move on to the next 4, and so on and so on until we are done.

Fully funding plan implementation while also aggressively investing in the current system to deliver more resources to our watersheds in desperate need is the kind of response necessary to move the needle and attack this problem with the effort and energy it demands.

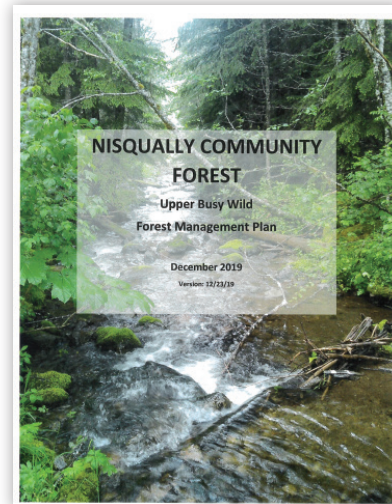
This cannot wait. The fierce urgency of now is upon us. How will we respond to the challenge? Let's not be too late.



# Nisqually Community Forest: A Forest Working Towards Recovery

The Nisqually Community Forest (NCF), which includes the Upper Busy Wild Forest block, is being managed as a working forest that provides timber, non-timber forest products, and ecosystem services that create local jobs and recreational opportunities for the community. The Upper Busy Wild Forest is located in the headwaters of the Mashel Watershed, the largest sub-watershed in the Nisqually Basin, and is being managed in support of salmon recovery. The Mashel River is one of the most important salmon and steelhead producing tributaries in the Nisqually Watershed.

In order to meet the multiple objectives of the forest, the NCF developed a detailed management plan based on current conditions, dividing the Upper Busy Wild Forest into three management categories.



## Late seral

Management is focused on producing mature forest structure and function. Units typically include steep slopes, riparian zones and other sensitive sites, however, some upland sites will also be managed for mature forest structure. These units will either be left in their current condition as “skips,” or will receive a single thinning to adjust stocking and species composition.



## Diversity

Management will emphasize mature forest structure and function within a context of sustained timber harvesting. These areas typically occur on moderate slopes and include seasonal streams and areas that will benefit from lighter or less frequent management. These units will be periodically thinned at a lower frequency and with more of a focus on forest structure than the Working Forest units.

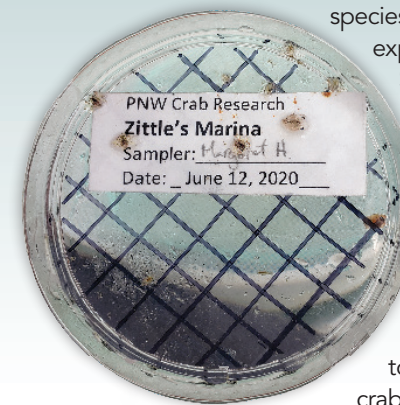
## Working

Management will optimize harvest using uneven-aged forest management that also enhances wildlife habitat and other ecosystem services. Units typically occur on higher ground, on modest slopes and away from streams and other sensitive sites. These units will be thinned on a sustained yield basis to produce a wide range of high value timber products.

Through implementation of the Upper Busy Wild Forest Management Plan, the NCF harvested 173,000 board feet in 2019, all of which went to local mills in Morton and Randle. They also provided several logs with root wads attached that will be used for salmon recovery projects in the region. With continued planning and active management, the forest can provide multiple benefits for salmon, wildlife, and people.

# SHINING THE LIGHT ON LOCAL CRAB FISHERIES

Juvenile Red Squid Captured in the Zittle's Marina Light Trap.

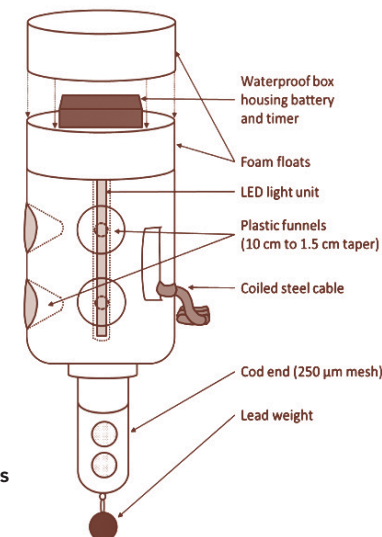


PNW Crab Research  
Zittle's Marina  
Sampler: Margaret H.  
Date: June 12, 2020

Dungeness and red rock crab.

Using light traps, this project gathers critical information about local Dungeness crab populations. They also help researchers understand whether larval abundance can be an early indicator of future adult abundance. Information collected by this research will help guide management decisions and the development of better fisheries management tools.

Light traps made for this project were fashioned out of recycled materials and resemble a giant glowing underwater wasp trap (see picture). Assembled by State and Tribal biologists, they were placed in marine waters across the Puget Sound. At sunset, the light trap turns on, attracting many types of organisms, including larval crab. These organisms swim into the trap and are unable to escape when the light turns off at sunrise. Researchers pull the trap each morning, identifying and counting what they find. Catch data, combined with larval stage and timing of the larval capture, will help determine the location of larval recruitment sources.



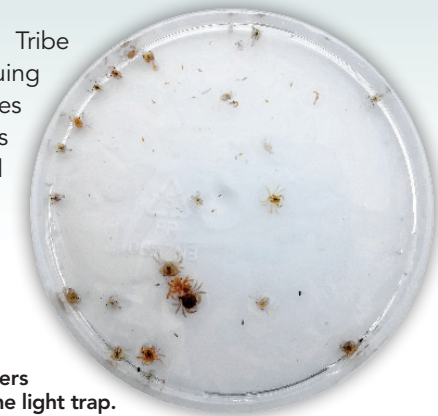
Light trap diagram. Trap includes six funnel openings and an LED lighting unit.

Courtesy of Clair Cook et al. 2018

While the Nisqually Trap captured a large array of organisms this last summer, only a handful of Dungeness crab larva were found. Though disappointing to those collecting the traps, the lack of crab larva was not surprising. Limited numbers of adult crab have been collected in the adult fishery, which had led to the suspicion of little local population growth. Several of the traps in other regions, such as North Puget Sound, have had great success.

The Nisqually Indian Tribe looks forward to continuing this study next year in hopes of better protecting stocks throughout the state and are looking for dedicated volunteers to help with this research effort.

Specimen photos by Margaret Homerding



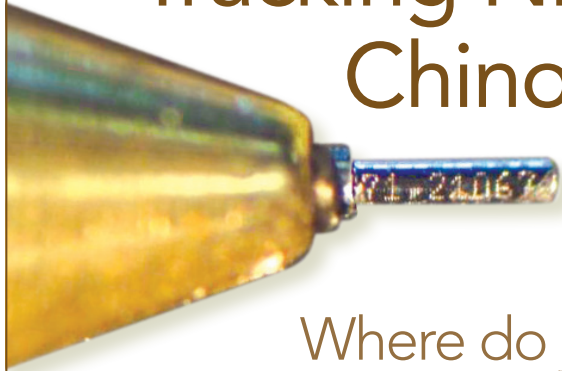
A mix of critters pulled from the light trap.



Katie Houle, Pacific Shellfish Institute, and Jamie Kilgo, WA Department of Natural Resources Aquatic Reserve Program, pull the light trap at Zittle's Marina.



# Tracking Nisqually Chinook Using Coded Wire Tags



Picture of a coded wire tag, 1.1mm long.

## Where do juvenile hatchery-Chinook in the Nisqually estuary come from?

The Nisqually Indian Tribe and United States Geological Survey (USGS) recently completed a study that looked at catch patterns in the Nisqually estuary and nearby areas of South Puget Sound to summarize where the fish came from and when they used the area. The study focused on information from coded wire tags, tiny pieces of stainless steel wire that are stamped with numbers. The tags are inserted into the snouts of young fish before they are released from a hatchery to identify their release group. Many Puget Sound area hatcheries release a small portion of their juvenile Chinook with these tags in their snouts. The tags can later be removed from the fish and read under a microscope, to estimate how well the hatchery release group survived and where they returned to as adults. While monitoring crews in the Nisqually estuary area were out pulling a beach seine and a lampara seine for their regular juvenile salmon monitoring, some of the captured juvenile Chinook were retained for scientific study including removing the tiny metal tags to read their codes and determine which hatcheries the fish had been released from.



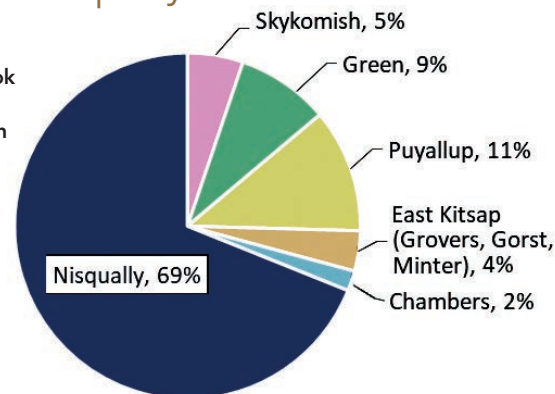
Research biologists cut off the snout of a juvenile hatchery Chinook to gain access to the implanted CWT. Photo by Christopher Ellings



Hatchery chinook Photo by Sayre Hodgson

Not surprisingly, most of the fish caught (69%) were released from the two hatcheries on the Nisqually River, which have a combined release of about 4 million juvenile Chinook per year.

CWT Release Basins of Juvenile Chinook captured in Nisqually area, 2010-2014 (not corrected for proportion tagged in the different releases).



Biologists used seining protocols to sample juvenile Chinook residing in the Nisqually estuary.

Photo by Sayre Hodgson



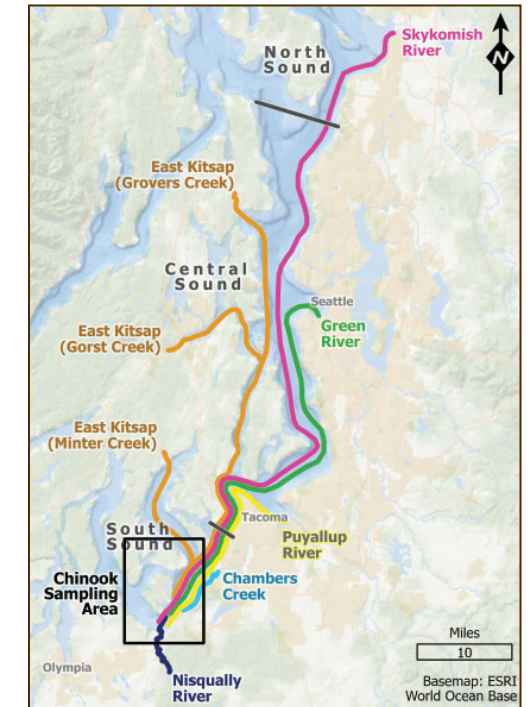
However, fish from a variety of other watersheds were also caught, mainly from the Green, Puyallup and Skykomish Rivers to the north. The fish that travelled the farthest, from the Skykomish River, swam 130 km in Puget Sound in the opposite direction from the ocean to which they were presumably eventually headed. We did not catch any fish released from the Skagit and Stillaguamish rivers farther to the north, even though these systems did release Chinook with tags.

Early in the sampling season (April-May), fish from the Nisqually and other South Sound hatcheries dominated the catch. By midsummer the catch was a mix, and later in the season (August-September) on average 90% of the captures were from Central or North Puget Sound. For tagged fish coming from Central and North Puget Sound, they were more likely to end up being caught in the Nisqually estuary area if they were released earlier or from a group with lighter average weights, while the marine distance they had to swim did not seem to be an important factor. Other factors affecting these patterns could be differences in life history among stocks (eg. the amount of time spent in estuaries), differences in conditions experienced (eg. currents, temperature), and the excellent conditions for feeding and growth these fish experience in the Nisqually estuary.

While this study doesn't provide any information on naturally produced fish, it does tell us that it's very likely that the Nisqually estuary supports juvenile Chinook from a variety of river basins!

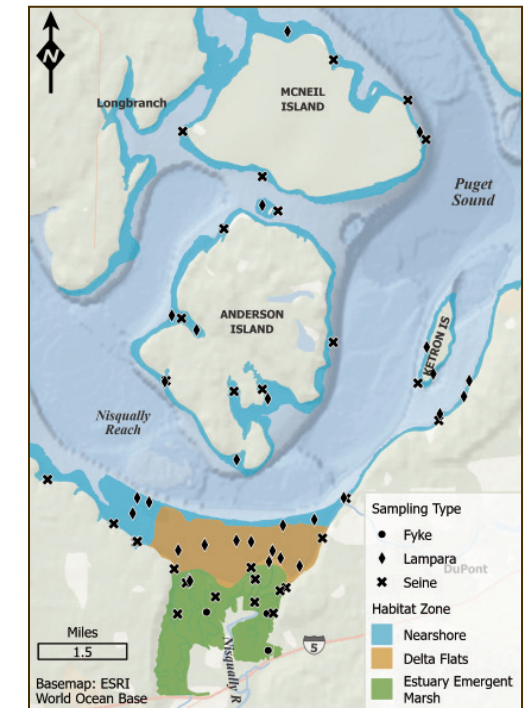


Photo by Sayre Hodgson



Source basins of CWT Chinook caught in Nisqually area, showing generalized paths travelled throughout the Puget Sound.

Map: Jennifer Cutler, Nisqually Tribe GIS Program



Study area with sampling locations and habitat zones.

Map: Jennifer Cutler, Nisqually Tribe GIS Program





# Nisqually Delta Restoration:

## 10 YEARS OF MONITORING AND EVALUATION THROUGH THE EYES AND STOMACHS OF CHINOOK SALMON

The return of tidal inundation to over 750 acres of the U. S. Fish and Wildlife Service, Billy Frank Jr. Nisqually National Wildlife Refuge (Nisqually NWR) in fall of 2009 was the crowning moment in the effort to protect and restore the Nisqually Delta. The Nisqually NWR project complemented three earlier restoration projects completed by the Nisqually Indian Tribe (NIT) on tribal property to restore over 900 acres of the estuary, representing one of the largest estuary restoration projects in the Pacific Northwest and one of the most significant advances to date towards the recovery of Puget Sound. In order to monitor and evaluate the impact of the restoration project, a research partnership between the NIT, the U.S. Geological Survey (USGS), and the Nisqually NWR was formed in the years leading up to restoration. After over a decade of monitoring, the research team has made some notable findings.

In order to put some of the research findings into perspective, it helps to evaluate how key ecosystem indicators are responding to the changes brought on by restoration. One of the most important ecosystem indicators in the Nisqually is Chinook salmon (*Oncorhynchus tshawytscha*), the most estuarine dependent of all the Pacific salmon. Chinook salmon juveniles migrate out of their natal river and enter the estuary to feed and grow for up to several months. This estuarine stopover helps to determine if the juvenile salmon will successfully

reach adulthood in the Pacific Ocean and return to the river to spawn. If Chinook find the resources they need in the estuary then their chances improve to survive their multi-year Pacific Ocean migration. Nisqually Chinook are also important because they are one of the 27 Chinook populations in the Puget Sound listed as 'threatened' under the federal Endangered Species Act. Chinook are also critical prey for Southern Resident Killer Whales and extremely important to the cultural and economic well-being of the Nisqually Indian Tribe. The research team crafted a study plan aimed primarily at evaluating how the restoration would impact the ability of Chinook to access new habitat, find food in the new habitat, and ultimately grow and prosper.

The last of the Nisqually NWR dike was removed in November of 2009 and the first juvenile Chinook were accessing the newly opened habitat by spring of 2010. These early pioneers encountered a rapidly changing landscape that can best be described as a major disturbance. Over 750 acres of freshwater wetland chock full of invasive reed canary grass was almost immediately laid to waste as saltwater flooded in with each high tide after the dike was removed. The transformation from a freshwater system to an evolving brackish marsh occurred rapidly and the Chinook responded. Juvenile Chinook now have access to 131% more tidal channel after restoration, bringing the total tidal channel length to over 20 miles! The new, previously

inaccessible, habitat can be utilized by juvenile Chinook over a broad range of tidal cycles, increasing total accessibility to more than 75% of the time. The increased space Chinook can occupy and the increased amount of time they can spend in the marsh enables the fish to take advantage of a rich supply of new food resources.

The Nisqually NWR delta restoration continues to evolve as sediment moves in and is distributed by the tides which paves the way for salt marsh plants to grow. The tidal channels, which function as fish highways, continue to change as processes like erosion and accretion strike a dynamic equilibrium. The transitional environment may appear hostile and unproductive to the casual observer but research has shown that the restoring area is a fish food producing machine. Some of the favorite prey of juvenile Chinook can be found in the developing estuary in the form of dipteran flies and small crustaceans. The increase in available food for juvenile Chinook after restoration is staggering. For example; in just one small channel in the restoration area, there was an estimated 650,000 kilojoules of energy available to feeding Chinook or 155,354 food calories. The entire restoration area had an estimated standing prey biomass of invertebrates that was equivalent to 6,000,000 kilojoules (1,434,034 food calories) in 2012 which is comparable to over 3500 cheeseburgers of energy! Luckily juvenile Chinook don't have to worry about

cholesterol after feeding on all the energy rich flies and crustaceans.

Juvenile Chinook are readily accessing the restoration area and feeding on the wealth of prey being produced in the restoring habitat. The increased energy available for juvenile Chinook in the estuary translates into more Chinook being able to put on the growth necessary to survive their strenuous multi-year journey to the Pacific Ocean and then back to the Nisqually River to spawn. Chinook can live up to 5 years so it is still too early to detect whether restoration has increased the total number of adult Chinook returning to the Nisqually River.

It will take decades before a restoration project the size of the Nisqually is considered 'mature' and before the impacts to fish and wildlife can fully be assessed. However, based on the first ten years of monitoring the restoration project has dramatically increased the space and food available for juvenile Chinook in the delta and space and food are incredibly important to Chinook at this stage in their life. The Nisqually Delta is an amazing living laboratory in one of the most productive habitats in the Pacific Northwest. Continued monitoring is crucial to understanding how restoration, land use changes, climate change, and a wide range of management scenarios impact fish and wildlife.



# Nisqually River Foundation Honors Jim Wilcox for Lifetime of Stewardship

The Nisqually River Foundation held the third Daniel J. Evans Event on September 4, 2019, honoring Jim Wilcox with the Daniel J. Evans Nisqually Stewardship Award. Every five years, the presentation of the Evans Award gives us an opportunity to recognize someone who has shown extraordinary leadership in protecting and advocating for the Nisqually Watershed.



Photo by Means Photography

Jim Wilcox and Nisqually Tribal Elder Joe Kalama.

The event took place at Wilcox Family Farms, with Mount Rainier in the background, and featured a menu including fresh-caught Nisqually Chinook salmon from She Nah Nam Seafood. For the 150 attendees who came together to recognize Jim and support the Nisqually River Foundation, it was a memorable evening celebrating our watershed's remarkable decades-long commitment to holistic and collaborative sustainability.

Jim Wilcox follows Billy Frank Jr. (2006) and Congressman Norm Dicks (2011) in receiving the Evans Award. He served as a founding member of the Nisqually River Council and has been a member of the Puget Sound Partnership's Leadership Council, as well as being a longstanding leader in sustainable agriculture and advocate for salmon recovery. In a congratulatory letter, Governor Jay Inslee noted Jim's "outsized influence on agriculture and environmental stewardship, in Washington as well as around the country and the world." A third generation family farmer, Jim was involved early on with the Nisqually River Task Force in the 1980s, when contentious debates between farmers, fishermen, tribal members, and environmentalists divided the watershed. In forging a friendship with Billy Frank Jr., Jim became a leading voice for cooperation around a shared vision of a watershed where businesses, salmon, and people could thrive together.

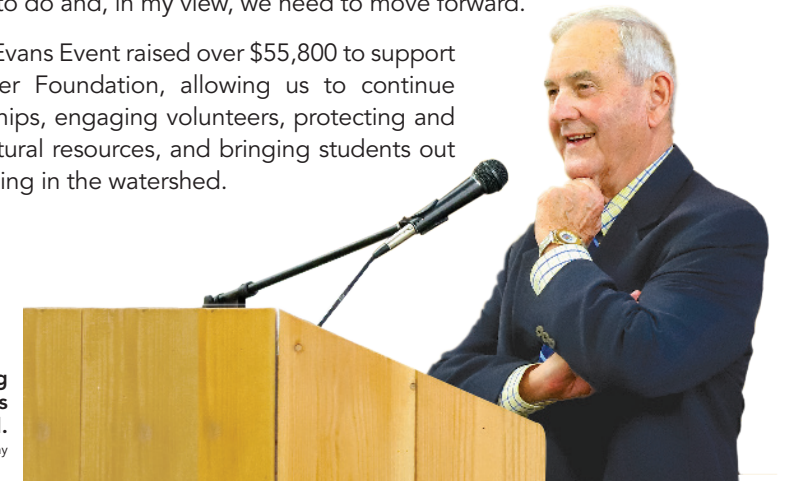
This philosophy was echoed throughout the night by speakers including former Governor Dan Evans, the namesake of the Nisqually Stewardship Award. Governor Evans described the River Council as "an opportunity for people of good faith to come together and find a way to preserve the greater good for everyone." David Troutt, the current chair of the Nisqually River Council, agreed, saying "The Nisqually model is built on collaboration and relationships, and Jim has been in the center of our work for 30-plus years. His leadership in helping create this watershed community of neighbors working together has been instrumental to our success."



Members of the Nisqually River Foundation Board, including the night's honoree Jim Wilcox, and the award's namesake, former Governor Dan Evans.  
Photo by Means Photography

In his acceptance remarks, Jim reflected on more than three decades of successful collaborations in the Nisqually Watershed and set forth a challenge to keep up with the task of salmon recovery. "We know the three or four essential things that need to be done to keep the salmon viable and to restore the great runs we used to have," he said. "We know what to invest in, we know what to do and, in my view, we need to move forward."

Altogether, the Evans Event raised over \$55,800 to support the Nisqually River Foundation, allowing us to continue fostering partnerships, engaging volunteers, protecting and recovering our natural resources, and bringing students out for hands-on learning in the watershed.



Jim Wilcox accepting the Daniel J. Evans Stewardship Award.  
Photo by Means Photography



The room was packed with attendees ready to celebrate Jim Wilcox.

Special thanks to our generous event sponsors for joining us in keeping the Nisqually Watershed sustainable for generations to come: Wilcox Family Farms, the Nisqually Indian Tribe, Taylor Shellfish, J. Z. Knight, Clark Nuber PS, Port Blakely, Wesmar Company, Inc., Foster Pepper, Coyne Jesernig LLC, Tom and Ellen Randall, Laura Weselmann, Bryant Christie Inc., Bill Bryant and Barbara Feasey, and William Ruckelshaus.

Photo by Means Photography



# NO CHILD LEFT INSIDE: Nisqually Tribal Youth Explore and Connect



All photos by Sheila Wilson

In 2019, Washington State Parks awarded the Nisqually River Education Project with a "No Child Left Inside" grant to promote work with students from Wa He Lut Indian School and other tribal youth who participate in the Nisqually Youth and Community Center's (Youth Center) summer programming. The grant titled, "Nisqually Tribal Youth: Explore and Connect," provided several 5th and 6th graders the opportunity to explore and engage with their home watershed. Some of the fun included:



## WHITewater RAFTING

Summer 2019, professional raft guides from Alpine Adventures safely guided kids from the Tribe's Youth Center down the Nisqually River mainstem, from the mouth of the Mashel River to the mouth of Ohop Creek.



## NISQUALLY SALMON CAMP

Salmon Camp is annual program offered by the Tribe's Nisqually Environmental Team, tribal youth have the ability to learn more about natural resources and the environment. In 2019, attendees were able to experience each step of a Tribal fishery: meeting the fishermen and women, learning from the scientists that record and sample the catch, experience harvesting fish, and meet with the folks who run She Nah Num Seafood, the Nisqually Tribe's seafood company. Other activities at Salmon Camp, included witnessing a salmon dissection, learning about the connection between nearshore habitat, forests and the salmon lifecycle, fish printing, a trip to the Nisqually Reach Nature Center, and even a boat ride in Puget Sound!

## CAMPING MOUNT RAINIER

Once the school year began, students from Wa He Lut were invited to attend an overnight campout on Mount Rainier at the Nisqually Camp, a Nisqually-only camping area near Longmire. Not one of the 10 students in attendance had ever been to Mount Rainier or this special campground. The first day of their trip, they hiked along the Nisqually Vista and Dead Horse trails, giving them full view of the Nisqually Glacier, headwaters of the Nisqually River. Day two, they traveled the Carter Falls trail. The following winter, the students were invited back to Mount Rainier for several snowshoeing events!



## HORSE RIDING CLINIC

In the fall, a small group of kids attended a horse riding clinic with Frank Servine of Servine Feed, Tack and Boarding in Roy, WA. They learned basic grooming (brushing and hoof care), saddling, walking/leading, and riding horses in their covered arena.

## TOUR OF CLEAR CREEK HATCHERY

Wa He Lut students were given a tour of the Tribe's Clear Creek Hatchery to help during the spawning season, with a picnic lunch break and tour of Medicine Springs.



## WATCHING THE CHUM RUN AT MCLANE CREEK

Youth headed to McLane Creek in Olympia to observe the Chum run, learn about wetlands, and enjoy a wintery day in the forest.



## NATIVE PLANT RESTORATION

Students planted trees with the Tribe's Native Plant Restoration Crew along the river to restore salmon habitat. On this trip, a student said, "I could come work with you guys some day!"







Photo by Sheila Wilson

Photo by Sheila Wilson



Photo by Sheila Wilson



Photo by Emily McCartan



## NREP awarded NOAA Bay Watershed Education and Training (B-WET) Grant

The Nisqually River Education Project was recently awarded a grant through the National Oceanic and Atmospheric Association (NOAA) to promote Climate Literacy, Action and Monitoring in South Sound. The goal of this project, also known as CLAMSS, is to create an informed community of teachers through hands-on experiences to prepare for bringing their students out into our local fresh and marine waters. With this grant, NREP provide teachers the opportunity to learn from local scientists and experts about threats to Puget Sound: eelgrass restoration as carbon sinks, kelp restoration as a solution to ocean acidification, hypoxia in Hood Canal, and wastewater facilities and nutrient loading in Budd Inlet. They were also

able to tour local oyster farms in South Puget Sound.

Teachers were then able to bring this information into their classrooms, sharing what they learned with their students. As part of the grant, NREP was able to bring more than 750 students out to their local beaches to investigate how these threats and other phenomena are affecting the ecosystem. Teachers and students used what they learned to take action towards reducing their carbon footprints. They did this by planting trees to restore riparian habitats in their watersheds, creating "No Idle Zones" at their schools, and implementing recycling and composting at home and at school. This project has really shown that working together, we can all make a difference!

### NISQUALLY RIVER EDUCATION PROJECT: BY THE NUMBERS IN 2019-2020

ACTIVITY	NUMBER OF STUDENTS	NUMBER OF VOLUNTEERS	NUMBER HOURS PER TRIP	TOTAL NUMBER STUDENT FIELD EXPERIENCE HOURS	TOTAL VOLUNTEER HOURS	OTHER METRICS
Tree Plantings	709	139	2	1,418	278	
McLane Chum Salmon Spawning Trips	266	8	1.5	399	12	
Nearshore Trips	201	6	4.75	954.75	28.5	
Water Quality Monitoring (October)	322	52	2.5	805	130	14 sites; 17 teachers
Water Quality Monitoring (February)	302	30	2.5	755	75	10 sites; 9 teachers
Salmon Carcass Tossing	168	18	2	336	36	
Student GREEN Congress	**CANCELLED :(					
Eye on Nature	**CANCELLED :(					
<b>GRAND TOTAL</b>				<b>4,667.75</b>	<b>559.5</b>	

\*\*Unfortunately, all spring field trips were canceled due to safety concerns regarding the COVID-19 pandemic.





## Salmon Recovery Program: Staffing Transitions



Hi! My name is Joseph "Jo-Jo" Squally and I'm a Nisqually tribal member, born and raised on the Nisqually reservation. Nearly five years ago, I started working for Natural Resources as part of the Marine Services Program where I became a certified diver in SCUBA and surface supply. For four years, I performed underwater construction and welding, as well as earned certifications in rescue training and first aid. I also assisted in training and certifying over 100 tribal divers. Just over a year ago, I made the transition into the Salmon Recovery Program, where I am now part of the Native Plant Restoration Crew, restoring vital salmon habitat by planting and maintaining native trees and shrubs along the Nisqually River and its tributaries. I also get to work closely and learn from other Natural Resources Programs, such as floating the river and performing stream surveys with Harvest Management, assisting the hatcheries with spawning and fish rearing, and going on marine surveys with the Shellfish Program. I really enjoy learning new things from all the programs within the Natural Resources Department.

In my free time I enjoy hunting, geoduck diving, fishing, and spending as much time as I can outdoors with my girlfriend and my two kids, as well as the rest of my family and friends.



Hello Friends and Family, my name is Kyle Kautz; I am an enrolled Nisqually Tribal member. I am the Nisqually Tribe's Natural Resources new Timber-Fish-Wildlife Biologist (TFW). Prior to me taking this new position, I have been a part of the field technician's crew for the past ten years. Within those 10 years, I learned so much about natural resources, from tree planting, spawning surveys, beach seining for juvenile salmon in the Puget Sound and helping out at our two tribal fish hatcheries spawning salmon and doing our yearly fish give away. If I didn't get to experience all of those hands on learning experiences, I wouldn't have this opportunity to take on this new role as the new TFW bio. Also, I have to give a shout out to my crew supervisor and co-workers of the field crew. We had a lot of adventures in that ten-year span and I learned a lot from them as well. I can't thank them enough. Finally, I want to thank Nisqually DNR for this opportunity and selecting me to take on this new position. I have been in my position just over a year now and have learned so much already. My new job duties consist of reviewing Forest Practices Application (FPA) making sure these logging companies and small-forest land owners are staying in compliance and protecting water types, especially fish streams. Nisqually DNR's main goal is to protect salmon and preserve their habitat. And with my new job I will add to that fight to protect the salmon.