

Northwest Indian Fisheries Commission

NEWS



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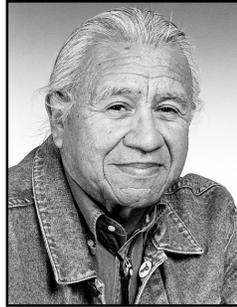


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Fish Are Food, Too

**By Billy Frank Jr.
NWIFC Chairman**



Why do rich farmers get all the breaks and poor fishermen get the shaft?

The president recently signed the Farm Security and Rural Investment Act of 2002 into law, increasing federal subsidies to farmers in the United States by at least \$83 billion to well over \$100 billion over the next ten years – two-thirds of it going to the largest ten percent of farmers. It was the biggest such hand-out in history, and it was an action by a president who came into office promoting free trade, not protectionism.

Obviously, people need food, and obviously agriculture is critical to the economy.

But not a penny has been set aside to subsidize the fishing industry in the Pacific Northwest – and fish are food as well as economic necessities, too. They’re also the foundation of our long term culture and identity, and they’re indicators of the overall health of everyone and everything that lives here. The fact of the matter is that the agriculture industry is the single largest polluter and water user there is, so the case can easily be made that heavily subsidizing the industry leads to even greater degradation of fish habitat. The agriculture in-

dustry gets record subsidies. The fish industry gets a double whammy.

Why? Politics.

No lobby is stronger than the agriculture lobby, in either Washington. No industry sways more votes and none is more self-serving. They like to have you think that the agriculture industry is made of small farmers who love to work in the dirt with their own two hands as they struggle to squeak by financially, personally trucking their annual crops of wheat and potatoes to market. The fact is that most of the industry is owned by millionaire stockholders who treat the Earth as a commodity, and whose interests are dominated by the bottom line for the next fiscal quarter.

The down side of this for John Q. Citizen is loss of control over everything from grocery prices to the enforcement of environmental regulations. That is what is being subsidized.

Fishermen don’t have such a powerful lobby, and most of us really do live hand-to-mouth. When the fisheries resource began to decline two decades ago, we cut back on our fishing effort by up to 90 percent. That benefited the public because it protected resources everyone needs to survive. Today, our industry is struggling to survive, and that is not in

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On The Cover: Bob Schuyler of the Upper Skagit Tribe reels in a crab pot during a Skagit System Cooperative test fishery to assess the Dungeness crab resource. See story on page 4. *Photo: J. Shaw*

Northwest Indian Fisheries Commission News

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Ancient Salmon Fossils Discovered

Jeff Heinis thought he was having a good day fishing – he didn't know the half of it. Heinis, a habitat biologist with the Skokomish Tribe and a life-long resident of the Skokomish Valley, was fly-fishing with a friend who literally walked onto a pile of fossilized salmon.



Jeff Heinis, a habitat biologist with the Skokomish Tribe, holds a fossil taken from a bank of the Skokomish River. *Photo: Marty Ereth, Skokomish Tribe*

and suddenly she looked down and there they were," said Heinis. Several dozen salmon were clearly visible in an eroding bank of the Skokomish River. "We were walking on the side of the river without a trail, it was the end of the day and we were in a hurry to get to the last hole. I'm not really surprised no one saw them before us."

The several dozen fossils could date as far back as 1.6 million years, said Bruce Crowley, paleontologist at the Burke Museum in Seattle. At minimum, the fossils are at least 50,000 years old, he said, putting them back before the last ice age hit the northwest about 16,000 years ago.

"Salmon have been coming back to the Skokomish River since before anyone can remember," said Dave Herrera, Skokomish fisheries manager. "Finding ancient salmon on the Skokomish reinforces the Skokomish people's relationship with salmon. We have always depended on the salmon culturally, economically and spiritually."

In addition to the inherent importance the find has to the tribe, the Burke Museum also has a special interest in the fossils. "This is a very important find," said Crowley. "These are fossils unique to the Burke's collection, and because of salmon's importance to our area economically and culturally, we are very happy to have these here."

Heinis, who at the time was a Department of Natural Resources employee, immediately took one of the fossils to the Skokomish Tribe, the native people of the area. "I thought they should be the first people to know about it," said Heinis.

Marty Ereth, another habitat biologist with the tribe and Heines then contacted the owners of the land the fossils were found on, Simpson Timber, and the Burke Museum.

A crew from the Burke then came out to the site and collected over a dozen samples soon after Heines discovered the fossils. Right now, they are being prepared at the Burke by Crowley. "As soon as we have most of the samples more stable, we can start finding out what kind of salmon these are and more exactly how old they are," said Crowley.

At least two species were present in the riverbank, said Heinis, one appearing to look like a modern steelhead with a thicker tail than other species of Pacific salmon. If the fossils hadn't been discovered when Heinis stumbled onto them, they might never had been found. "The bank where the salmon were was being eroded when we found it," said Heinis. "Not many people walk by where the fossils would have been visible. We are lucky we found them when we did."

The Skokomish Valley the fossil salmon were returning to was much different than the one we see today. "The glaciers have moved back and forth several times since the time these salmon swam here," said Crowley. "Every time they came and went, they changed how rivers flowed. But the Olympic Mountains were still here, only the rivers flowing off them would have changed." – *E. O'Connell*

Frank

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the public's best interest. When we do harvest fish, as our ancestors have done for thousands of years, we can't sell our catch for a decent price. Yet, there is more fish available on the market than ever before.

Why? Because of fish farming subsidized by other countries. That doesn't mean the quality of the product is better. It's far worse. Those Atlantics are so bad that even the seals and sea lions refuse to eat them. To get truly delicious, nutritious salmon, be sure it's from our native runs.

To be sure there are native salmon to enjoy forever, insist on three things:

- That the salmon served at the restaurants and markets you patronize are native, from our own waters;
- That environmental and water use regulations needed to protect and restore salmon habitat are fully enforced, in spite of powerful lobbying efforts to the contrary; and
- That both tribal and non-tribal fishermen get the support and protection they need to get a fair price for their catch and to restore salmon runs to harvestable levels.

Tribes Track Crab To Sustain Resource

Recreational crabbing is a pursuit enjoyed by thousands of families throughout the Pacific Northwest. Commercial crabbing is an industry that sustains tribal and non-tribal enterprises alike. Neither could take place, however, without measures to ensure the sustainability of the shellfish resource – measures like the crab test fisheries conducted by the Skagit System Cooperative (SSC).

SSC, the natural resource consortium of the Swinomish, Upper Skagit and Sauk-Suiattle tribes, conducts test fisheries to determine the abundance of Dungeness crab in the water as well as the suitability of crab for harvest. Before the fishery can be opened, the health and vitality of the resource must be assured.

On a recent day, three fishermen from the SSC tribes placed dozens of crab pots in the water – not for commercial gain, but for a look into the health of the resource. Joe McDonald of the Swinomish Tribe, along with Bob Schuyler and Larry Peterson of the Upper Skagit Tribe, work together to track crab populations in the waters off Camano Island State Park.

“The tribes have always been committed to responsible stewardship of our natural resources,” said Peterson. “By taking samples from a wide variety of areas, we can make sure that no overharvest occurs.”

The fishermen haul in crab and test the shell of each for hardness. The less resistance a crab’s shell offers, the more full the shell is with meat. This tells the SSC crew what percentage of the animals are ready to be harvested.

The data gathered by SSC is shared with the state Department of Fish and Wildlife, and is key to the co-managers’ abilities to make informed decisions on when to open crab for harvest.

“The tribes have an important role to play here,” said Peterson. “Gathering this data gives us a good harvest plan, and a good harvest plan means we’ll all have plenty of crab in the future.” – *J. Shaw*



Colorful tribal crab pots decorate the docks on the Swinomish Reservation near LaConner. Dungeness crab have become an important source of income to treaty Indian fishermen. *Photo: T. Meyer*

Tribe Hosts Annual 'Kids Fishing Day'



Skagit System Cooperative and Upper Skagit Tribe staff help youth catch trout during the annual Upper Skagit Kids Fishing Day. *Photo: J. Shaw*

The traditional sounds of young people fishing can be heard here. Laughter, joking, the joy of a successful catch.

But this is no creek, river or fishin’ hole – the Upper Skagit Tribe’s fisheries department has organized a Kids Fishing Day for the sixth May in a row.

“It’s a chance for the kids to have a good time, as well as get exposed to our fisheries enhancement program,” said Upper Skagit Fisheries Manager Scott Schuyler. “By making sure young people have an understanding of what fish need to survive and an appreciation for the environment, we are laying the groundwork for the next generation of salmon advocates.”

Preschool children from Swinomish and Sauk-Suiattle tribes, as well as youngsters from La Conner and Darrington, got first crack at the 500 rainbows donated by the Washington Department of Fish and Wildlife. Volunteers from the Skagit System Cooperative, the natural resources consortium of the Swinomish, Upper Skagit and Sauk-Suiattle Tribes, lead the kids in their day of fishing fun.

“Incorporating education into the fun ensures that kids grow up caring about fish, and knowing what fish need to be healthy and thrive,” said Schuyler.

– *J. Shaw*

Hoh Stream Walkers Tally Returning Salmon

One of the most productive coho streams in the Hoh River system runs next to one of the most popular hiking trails in North America.

Taft Creek, a spring-fed tributary of the Hoh River on the Olympic Peninsula, flows entirely within the Hoh Rain Forest nature trail system in Olympic National Park. More than 235,000 visitors each year walk along the one-mile long stream, often oblivious to the fascinating life cycle happening right next to them.

But when natural resources employees from the Hoh Tribe are doing their annual spawning surveys, that life cycle is brought to the attention of park visitors. It means surveyors like Monty Arthur also get to do a little salmon education. “It’s different from other streams I survey where I usually don’t see anyone. People are generally interested in what is happening and ask questions,” he said.

Walking the streams and counting the numbers of spawning fish and their redds (salmon egg nests) provides critical information that tribes and the state use to forecast the returns of adult salmon. Those numbers, combined with catch records, are also used to determine harvest limits.

“There is still no technological tool that does a better job of spawning surveys than human observation,” said Jim

Jorgensen, fisheries management biologist for the Hoh Tribe. Jorgensen has worked for the Hoh Tribe since 1979.

The work is physically demanding, requiring technical staff to cross difficult terrain and fast-moving streams to survey potential fish spawning habitat. All information is recorded in a field book and later entered into a computer database.

Coho prefer the smaller tributaries and quiet, forested side channels of river systems. They will utilize all the habitat they can reach. Water levels dictate how far up tributaries coho can spawn. With its reliable spring-fed flow and significant wetland habitat that is favored by growing coho, Taft Creek is responsible for roughly four to five times the density of coho spawners compared to other larger tributaries of the Hoh River.

“Coho runs in the Hoh River system have rebounded significantly the past two years. Considerable fishery cutbacks off of Vancouver Island beginning in 1995 and conservative fishing elsewhere have coupled with cooler ocean temperatures that have improved ocean survival,” Jorgensen said. He cautioned that the trend of robust coho runs can not be assured to last, however, given increasing global climate shifts and other factors. “As recently as 1993, 1994, and 1997, we experienced the opposite in ocean temperature conditions and fish returns,” he said. – D. Preston



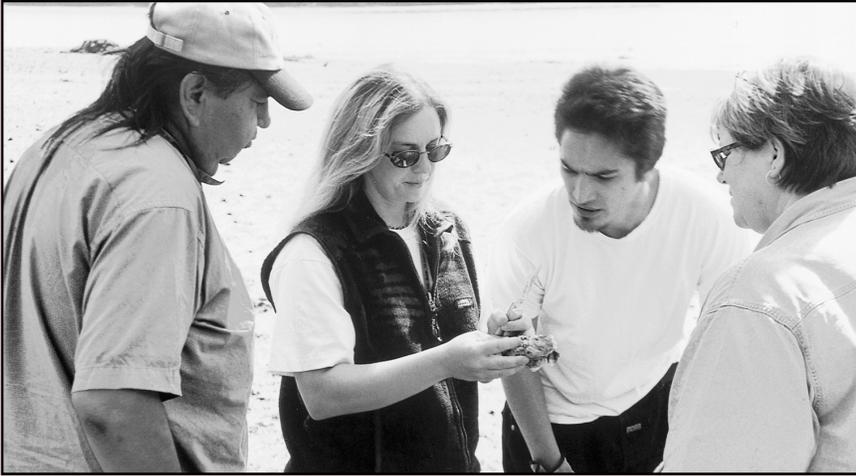
Monty Arthur, Hoh fisheries technician, records coho salmon redds and carcasses in his notebook as part of his survey of coho spawning activity in Taft Creek. *Photo: D. Preston*



Community Effort

Quileute tribal members and visitors help raise a totem pole in front of the tribe's A-Ka-Lat community center in La Push. The new building has a gym, wellness center, cultural room and kitchen. *Photo: D. Preston*

Tradition A Teacher For Aquaculture Class



Vivian Berry, Suquamish shellfish biologist, shows students how oyster larvae latch onto old oyster shells as they grow in tidelands. *Photo: E. O'Connell*

There was a time when the Suquamish Tribe could always depend on the bounty of the beaches to supply them with food – the shores of Puget Sound teemed with shellfish, so much so that oysters and clams became a central part of the diet and culture of the tribe. But now those beaches are polluted, forcing the tribe to create its own shellfish bounty.

The Suquamish Tribe is training 30 tribal members and staff in shellfish aquaculture skills. This project will provide a regular supply of clams and oysters to the tribe for cultural and subsistence harvest, while teaching aquaculture skills that can be used on personal tidelands or potentially in the shellfish aquaculture industry.

Many of the local beaches clean enough for harvest don't naturally support large populations of shellfish – making them prime candidates for aquaculture. For that reason, the tribe is turning to enhancement and aquaculture, training some of its members to turn what are currently barren beaches into thriving oyster and clam beds.

In addition to elements of shellfish biology, water quality, and enhancement techniques, the training will include workshops in which tribal elders will communicate the Suquamish Tribe's cultural connection to shellfish. Lessons in the traditions of Suquamish culture will include storytelling, traditional dances and construction of traditional shellfish harvest baskets from cedar root, as well as lessons in the Lushootseed language.

Tribal members enrolled in the program will take advantage of a wide range of learning opportunities, from trips to shellfish operations to "on the beach" work developing an actual enhancement project.

"What shellfish have meant to the Suquamish people for thousands of years is as important as the science associated with shellfish," said Rob Purser, tribal fisheries director. "We want the students to feel a real connection with the resource. In addition to broadening their knowledge of Suquamish culture, this will also give them an opportunity to gather and celebrate our tribal heritage."

– E. O'Connell

Warm Water Hurts Salmon

Several Hood Canal streams and rivers consistently get too hot for fish, according to monitoring conducted by the Port Gamble S'Klallam Tribe.

"Hot water can cause serious health problems to salmon," said Ted Labbe, Port Gamble S'Klallam habitat biologist. "Young fish using a river for rearing habitat and older migrating fish using it to spawn can develop life-threatening problems if the river temperature is too high."

The tribal study, which examined over a decade of data, looked at a wide range of small to medium rivers along the shores of Hood Canal. It found that at least half of the 50 sites surveyed had temperatures that violate current state water temperature standards.

"While temperature data doesn't give us a whole picture of everything that is going on in a system, in general, high temperatures indicate damaged habitat," Labbe said.

"We know that warm water – anything over 70 degrees – hurts fish," said Labbe. Health problems, such as fatigue and viruses, are found in fish in warm streams. The worst offenders, according to the report, include Big Beef, Donovan and Chimacum Creeks. Two salmon species listed as threatened under the federal Endangered Species Act – Hood Canal summer chum and Puget Sound chinook – utilize habitat outlined in the report. "If we're to make a real effort to rescue summer chum and chinook, we need to improve their habitat," said Labbe.

"Good habitat is more than just cool water – it includes everything from clean spawning gravel to areas of slow water where salmon young and old can rest," said Labbe. "In our efforts to restore salmon stocks, we need to focus on every aspect of habitat restoration."

– E. O'Connell

Snorkel Surveys Reveal Restoration Results

The results are clear. Habitat restoration projects on the Elwha River have begun to pay big dividends.

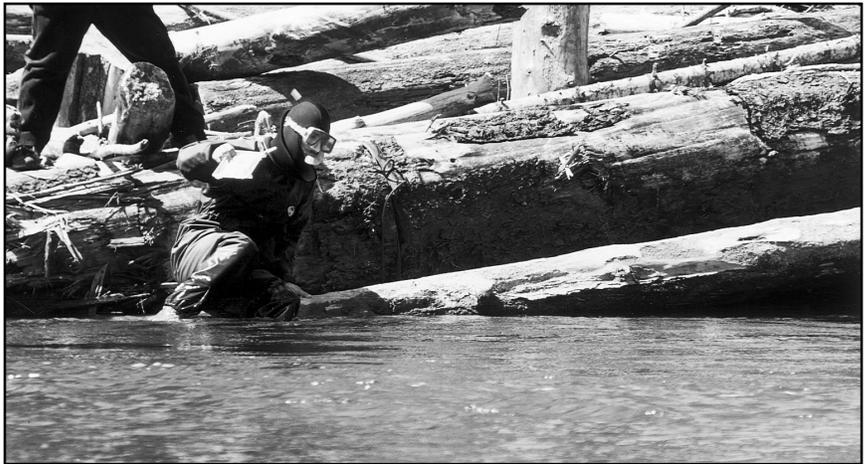
“We’re finding more reasons, from improved habitat to food supplies, that our projects are contributing to the habitat of the Elwha River,” said Mike McHenry, Lower Elwha Klallam habitat biologist. In snorkel surveys, crews are finding larger populations of young fish, said McHenry, and also a variety of species. “What we’re seeing in these repaired habitats are upwards of six species,” he said, including chinook, coho, bull trout, cutthroat, and steelhead.

“We’re seeing a lot of juvenile chinook, but coho seem to be benefiting as well. In one engineered logjam alone we saw over 600 young coho,” said McHenry. To help with the accuracy of the surveys, video equipment will be used first time in this type of survey on the Elwha. “It’s amazing how much we can’t see down there. Even though we pay very close attention, the camera picks up so many more fish than we can actually see,” said McHenry.

In the past few years, the Lower Elwha Klallam Tribe has completed several habitat projects on the lower stretches of the Elwha River, ranging from building logjams to the excavation of spawning channels. “We’re finding big differences in the number of fish in areas with logjams and those that don’t have any wood,” said George Pess of the National Marine Fisheries Service, who partnered with the tribe on the study. “In addition to creating pools and riffles, logjams are also becoming collection spots for salmon carcasses. Instead of being flushed out of the river system after they spawn and die, these salmon are returning their nutrients to the river.”

All but five miles of the Elwha River are inaccessible due to the construction of two impassable hydroelectric dams just a few miles up the river. On top of that, habitat on the Elwha also has been degraded by a lack of wood being transported downstream, increased temperatures, channelization and cleaning of large wood pieces out of the river and logging. “Without large trees lining the banks or flowing down river because of the dams, you don’t see logjams naturally occurring like they used to,” said McHenry. “But, our projects are just a drop in the bucket. The real impact of improved habitat will happen when the dams come down in 2004.”

The snorkel crews are discovering young salmon eat near and inside the logjams. “Not only are we seeing more young salmon congregating around the logjams, but we’re seeing



Todd Bennett, National Marine Fisheries Service, enters the Elwha River to conduct a snorkel survey of fish habitat. *Photo: E. O’Connell*

more of the food they feed on,” said McHenry.

The snorkel surveys are part of a five-year research project by the tribe in cooperation with the National Marine Fisheries Service and the U.S. Fish and Wildlife Service. “This shows that our work over the past few years has started to pay off,” said McHenry. “When young salmon have more food to eat, it wouldn’t be a leap in logic to say that they’d be healthier, and more likely to survive and return to the Elwha River as adults.” – *E. O’Connell*

Elwha River Fast Facts

- The Elwha is the largest river flowing into the Strait of Juan de Fuca, running 45 miles from its source on Mt. Olympus.
- Elwha, or “E-ilth-quat” is a Klallam word for “elk.”
- The Elwha River supports chinook, fall coho, fall chum, and pink salmon as well as winter and summer steelhead, bull and cutthroat trout. Elwha chinook and bull trout are listed as “threatened” under the federal Endangered Species Act.
- The Elwha River watershed covers 313 square miles. Approximately 85 percent of the watershed is protected within Olympic National Park, but that habitat is blocked from salmon migration because of two illegal dams five miles up the river.

Survey Reveals Depth Of Makah

In a needs assessment survey conducted for the International Whaling Commission (IWC), the Makah people revealed knowledge of whaling that has never been shown in any historical record.

The survey, conducted by anthropologist Ann Renker, asked participants what parts of the whale they would want from future hunts – and the results were revealing Renker said. “We found people asking for things that had never been recorded in previous anthropological records regarding the Makah people and whaling,” she said. “It totally debunks the myth that ‘It’s been too long, they don’t remember anything about whaling.’”

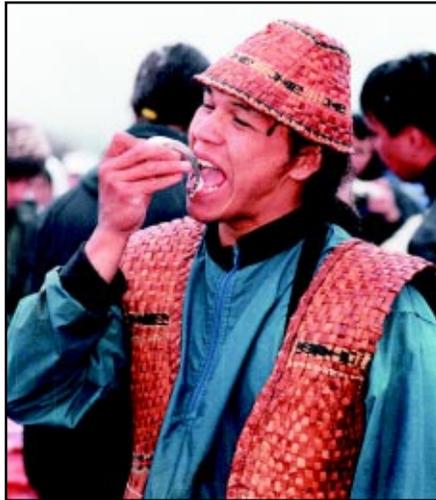
The survey was conducted with 163 Makah people in their homes as part of a needs assessment completed for the International Whaling Commission this year. The assessment gives an in-depth look at what Makah people think about whaling and how they prepared and used the first whale harvested in 1999. In that survey, 93 percent said the tribe should continue to hunt the whale.

“I expected maybe 75 percent, but there was tremendous support for this in the village,” said Renker, the anthropologist who designed and helped conduct the survey, and also wrote the needs assessment for the IWC.

The participants represent roughly 35 percent of those in Neah Bay, a high number for survey participation. Ninety-three percent said that whaling was good for the community because it united the tribe, exercised a treaty right, promoted positive moral change and was important for cultural reasons.

The survey was comprised nearly equally of males and females and respondents ranged in age from 21 to 68 and older.

“I think the survey shows that the community wants the whale in their diet and in their cultural life. As a council,



Bruce Gonzales, Makah whaling crew member, tastes whale blubber for the first time following the successful harvest of one gray whale May 17, 1999. *Photo: D. Preston*

we are ensuring that right is preserved and the quota is there for families to pursue,” said Gordon Smith, chairman of the Makah tribal council. In the survey, 89 percent said they would like more access to whale products in the future.

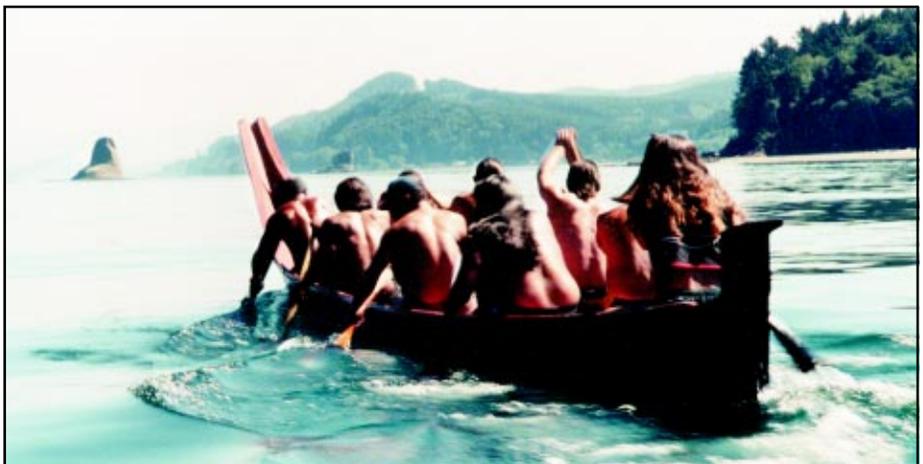
The 100 people in the survey who had received whale meat from the whale harvested in 1999 prepared jerky, roasts, stew, steaks and smoked meat and 11 other types of food. “I think it’s interesting that when we designed the

survey, we came up with four ways and the Makah people added 11 other ways they used the meat, which shows there is still a certain facility with it, even after 70 years,” Renker said. The blubber was smoked, rendered (for the oil), used in cosmetics, boiled, eaten raw, and pickled.

The only difference between the tribe’s first gray whale harvest and the next harvest is that the first hunt was a tribal hunt. Now that the tradition has been re-introduced, the historical practice of individual families practicing and undertaking the hunt is in place. Several families are preparing to conduct hunts. Once they have chosen the time, they will request a whaling permit from tribal government.

As part of the home survey, participants were given the opportunity to add any additional comments they wished. Eleven households felt that the tribal government needed to spend less money on whaling and allow families to take over the task as it had been conducted historically. Three households wanted tribal government to spend more on whaling.

A final environmental assessment by the National Marine Fisheries Service (NMFS) last year found the tribe’s hunt is not harming the gray whale



Makah tribal members practice their canoe skills in preparation for whale hunting in the Strait of Juan de Fuca. *Photo: D. Preston*

Support For Whaling

population. The assessment also expanded the hunting area to include traditional harvest areas in the Strait of Juan de Fuca.

The tribe voluntarily stopped whaling about 70 years ago after non-tribal whalers had hunted the gray whale to near extinction. The gray whale was removed from the Endangered Species Act list in 1994. The tribe has harvested one whale since receiving a quota of an average of five gray whales a year from the IWC in 1997. While populations of the gray whale have dropped from an estimated 25,000 animals to roughly 18,000, scientists believe it is a natural

fluctuation based on food availability. The population is still considered healthy and the Makah Tribe's allocation in no way harms the status of the gray whale.

"By providing whale meat and oil to our community, we believe we will assist in helping return our people to more traditional foods," said David Sones, Makah natural resources director. "This is a critical element to reverse the increasing health problems affecting our people like cancer, diabetes, heart disease and high cholesterol." – *D. Preston*

IWC Renews Makah Quota For 5 Years

The Makah Tribe received a renewal of their five-year quota to hunt an average of four Pacific gray whales a year from the International Whaling Commission (IWC) during the commission's meeting in Shimonoseki, Japan in May.

The tribe's first five-year quota expires at the end of this year. While the IWC's decisions do not supersede treaty rights, the tribe is committed to participating in the IWC process because it is the only international whaling management forum. "This is a really important process and the only organization that is focused on management issues like sustainability and improving populations of whales," said Dave Sones, natural resources director for the Makah Tribe.

The decision by the IWC to grant the Makah quota came amidst rejections of other subsistence whaling for the first time in the IWC's 56-year history, including the Inuit people of Alaska who have always hunted whales for food.

Even if approval from the IWC is not granted, the U.S. has said it will issue a domestic quota to the Inuit people. The rejection of the Alaska quota was largely seen as a retaliation vote by Japan following the IWC's ruling against Japan's proposal to revive commercial whaling in three coastal communities.

In the meantime, a U.S. federal appeals court rejected a request by anti-whaling activists to temporarily halt gray whale hunting by the Makah tribe pending the outcome of a court case. The decision upheld an earlier decision by U.S. District Court Judge Franklin Burgess who denied the activists' request for a similar injunction. – *D. Preston*

Tribes Working To Improve Reliability Of Wild Coho Data

Despite the listing of several western Washington salmon stocks as threatened under the Endangered Species Act, fisheries management decisions must sometimes be based on limited or missing information, especially when it comes to wild coho in the Strait of Juan de Fuca.

For the past three years, the Makah, Lower Elwha Klallam, Jamestown S'Klallam and Port Gamble S'Klallam tribes have been trapping, counting and returning juvenile coho (smolts) migrating out from streams to the Strait of Juan de Fuca.

The smolt data represents the only real information collected about Strait of Juan de Fuca wild coho.

"This lack of information prevents us from assessing the effects of habitat restoration or negative disturbances that affect coho productivity in strait streams. In turn, that could mean there is overfishing or unwarranted coho fishery closures both in U.S. and Canadian waters," said Mike Crewson, biologist for the Makah Tribe.

State government has cut money from the Washington Department of Fish and Wildlife in recent years, so there is no money for the state to conduct any monitoring of salmon stocks in the Strait of Juan de Fuca and the outlook for funds to do so in the near future is poor. The tribes are committed to getting this information, but the long-term monitoring required to understand cycles in fish survival is expensive.

"The tribes are already beginning to apply what we've learned from wild coho smolt monitoring to improve management of our local stocks," said Crewson. "It's a long and expensive process, but the results will be an important contribution to our understanding of naturally-produced Strait of Juan de Fuca coho."

– *D. Preston*

BankSavers Helps Restore Habitat

Tribal Plant Nursery Aids Environment, Economy

For the past half-century, the Stillaguamish Tribe has dreamed of constructing a native plant nursery for local ecology projects. That dream has taken the shape of a 56-acre former dairy farm which produces 100,000 containerized plants, trees and shrubs each year.

“We’re very excited about the direction BankSavers is going,” said Shawn Yanity, vice chairman of the Stillaguamish Tribe. “It’s really become an important part of the tribe’s environmental and economic initiatives.”

More than 60 species of plants native to the Puget Sound region are produced by the Stillaguamish BankSavers Program to replenish lost habitat for fish, birds and other creatures.

Besides repopulating the area’s riverbanks with greenery, BankSavers is an economic engine for the community. Since its inception, the program has hired and trained young tribal members interested in horticulture or environmental restoration careers. Displaced forestry workers, tribal and non-tribal, are also hired.

It isn’t just local projects that can benefit from BankSavers. Currently, the tribe is developing the expertise to become a propagative nursery, growing seedling plants native to other regions. With funding from the state Salmon Recovery Funding Board, the tribe recently initiated a mutually beneficial program with the Indian Ridge Corrections Center to restore 30 sites within the Stillaguamish watershed.

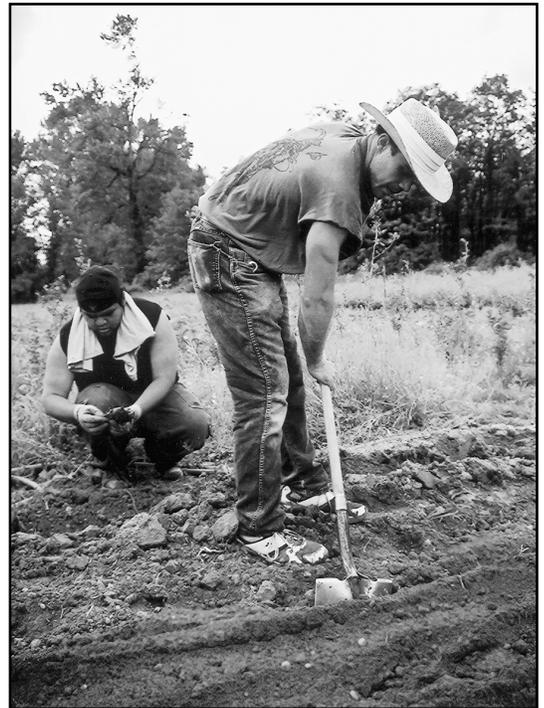
Inmates will provide the raw labor to restore the sites; BankSavers will provide the plants.

“Inmates will gain valuable job

skills and training,” said Yanity.

“The tribe and the public get assistance in restoring wildlife habitat. It’s a real win-win situation.”

As far back as the 1940s, Stillaguamish leaders began long-range planning for an enterprise of this nature. Yanity recalls his uncle, former tribal chair Lou Goodridge, as one of the foremost nursery advocates. “It really bothered him seeing things clearcut all the way to the river. ‘Salmon are going to suffer for it,’ he’d say,” Yanity remembered. “He really wanted to get a project going that would restore habitat on the river. This is something Lou would have loved to have seen. He would be fighting to make this even bigger.” – *J. Shaw*



Gabriel MacLean, right, a dislocated forestry worker, and Thomas DeCoteau of the Sauk-Suiattle Tribe plant bigleaf maple seedlings for the Stillaguamish Tribe’s BankSavers program. Photo: *J. Shaw*



Salmon Procession

Members of the Edwards family carry salmon in a procession as part of the Swinomish Tribe’s annual Blessing of the Fleet held recently on the tribe’s reservation near La Conner. Photo: *T. Meyer*

New Technology Aids Tulalip Water Program

Given that two-thirds of the world is water, all life depends on that life-giving fluid. Given that the Tulalip Tribes rely on fish and shellfish for cultural, spiritual and economic purposes, protecting water resources on the reservation is vital to the tribe's way of life.

For most of the last decade, the Tulalip water quality program has worked to preserve and protect the fresh and marine waters of the reservation. Now, new technology is assisting the program in measuring the health of these aquatic systems.

Harvey Eastman, director of the program, is now utilizing a new colormetric spectrophotometer – a machine that is invaluable in helping Eastman and the Tulalip water quality program determine where problem areas exist on the reservation. From there, the Tulalip Natural Resources Department works to address those problems, aiding both the environment and people who rely on that environment.

The machine helps measure nutrient content in bodies of water, which can be early indicators of septic tank failure, improper applications of fertilizers and other factors that cause problems for water, people and fish.

Eastman has been working with this upgraded equipment over the past few months, ever since it was acquired in November 2001 through a grant from the Tulalip Tribes.

The Tulalip water quality lab was certified in 1995 by the state of Washington's Department of Ecology. Since then, they've been monitoring surface water on and off the reservation.



Harvey Eastman tests local creeks for water quality on the Tulalip Reservation. *Photo: J. Shaw*

The water quality program for Tulalip looks primarily at on-reservation surface water, as well as Tulalip Bay and other nearshore marine waters.

“We work to identify water quality problems so that our natural resources department can solve them,” said Eastman. “Clean water benefits everyone in the community.” – *J. Shaw*



Natural Helpers

Seventh and eighth grade students from Wa He Lut Indian School at Frank's Landing helped pot scores of Douglas fir seedlings recently at the Nisqually Tribe's Natural Resources Center. The seedlings, donated by Weyerhaeuser, will be used in habitat restoration projects in the Nisqually River watershed. The students earlier visited a habitat restoration project along the river to learn about the importance of streamside vegetation and how to identify various plants. *Photo: T. Meyer*

Threatened Spring Chinook Get Boost

The Nooksack Tribe, in conjunction with the Washington Department of Fish and Wildlife (WDFW), released hundreds of thousands of threatened spring chinook into the middle fork of the Nooksack River during May. The event marks an important milestone in restoring a population of threatened chinook.

“This project is essential for recovery of spring chinook, which are listed as threatened under the Endangered Species Act,” said Bob Kelly, director of Nooksack Natural Resources. “Our top priority is restoring the runs of these unique and magnificent fish to the Nooksack River.”

The Nooksack Natural Resources department and WDFW released 200,000 uniquely marked young fish into the river on May 7, so that when those fish return 3-5 years down the road, they’ll return to spawn in the middle fork. Releasing spring chinook in the middle fork is a huge step toward restoring chinook production in the system, since May’s release will be the first time salmon have been released upstream of the City of Bellingham’s diversion dam.

The dam, which is not equipped with a fish ladder, currently blocks access to significant amounts of fish habitat. Due to efforts by the Nooksack Tribe and cooperation and assistance from the Lummi Nation, WDFW and the City of Bellingham, it now appears likely that a fish ladder will be built sometime in the next three years.

“Since the first salmon from this generation of fish are expected to return in three years, now is the time to get these chinook into the river,” said Kelly. “This generation of fish will be the first to use the fish ladder. The sooner we get spring chinook accessing that habitat above the dam, the closer we are to our goal of salmon recovery.”

“Quality habitat is critically important for salmon,” Kelly said. “By ensuring the fish ladder is built, we ensure that substantial habitat will become available. By releasing hundreds of thousands of fish, we create the opportunity for spring chinook to use that habitat.”



The Nooksack Tribe’s release of spring chinook into holding ponds and then into the river will help the magnificent fish return to the middle fork of the Nooksack River.

The fish ladder will open up nearly 10 river miles of mainstem habitat and at least 6 miles of tributary habitat.

“It’s in everyone’s best interests to rebuild healthy spring chinook populations in the Nooksack River, and this is perhaps our best protected habitat. Ninety percent of the watershed upstream from the dam is under federal and state ownership, so land management is already in place to protect and restore salmon and trout habitat. The habitat is there, we just have to get salmon back using it,” said Kelly. – *J. Shaw*

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