

Newsletter of the Native Fish Society

Spring 2009

Coastal Coho Harvest

Timber and the Tillamook

Wild Fish Rescue

An Evening with Lani Waller

Recovery Before Harvest

NFS Stand: Oregon's wild coastal Coho not yet recovered enough for a kill fishery

by **Bill Bakke, Paul Engelmeyer and Russell Bassett** NFS River Stewards

The Oregon Department of Fish and Wildlife Commission voted to make two major changes to salmon fisheries on Oregon Coast streams this fall.

Based on predicted low numbers of returning summer and fall Chinook, the Commission voted to restrict the fishery on the Coast and close it entirely on several streams. NFS commends ODFW for pushing for these restrictions and thanks the agency for closing the Nehalem River, which has an expected run of less than 2,500 fall Chinook.

Oregon Coastal Natural Coho (OCN), on the other hand, are predicted to have a "good" run year, and ODFW plans to open a kill fishery on these ESA-listed fish. ODFW predicts 211,000 wild Coho returning to the Oregon Coast in 2009, enough that in some rivers a harvest could happen in compliance with Amendment 13 to the Pacific Fishery Management Council's Salmon Fishery Management Plan, the document currently used to manage the fishery. According to ODFW, the rivers where the runs are likely to be healthy enough to have a harvest that will not exceed allowable ESA impacts are the Coos, Coquille, Nehalem and Yaquina.

While ODFW Fish Division staff did present a compelling and persuasive argument, NFS remains adamantly opposed to a direct harvest on OCN. In an attempt to stop this harvest, we have worked with other members of Fish Con to oppose the harvest, addressed ODFW staff with our concerns, brought our concerns to the National Marine Fisheries Services, and provided written and oral testimony to the ODFW Commission.

So far our efforts to stop the harvest have not borne fruit. Two key allies in the fish conservation community, despite our best efforts to convince them otherwise, decided to support the harvest. This issue has made us feel like NFS is the only fish conservation group left willing to take the hard policy stands needed to recover our native salmon populations. The ODFW Commission voted unanimously to allow the harvest at their June 5 meeting.

The decision on whether or not to allow a direct harvest on OCN now rests with the National Marine Fisheries Service, which will decide this summer whether or not to allow the harvest. Several NFS River Stewards have already contacted NMFS staff encouraging them to not accept ODFW's proposal to open a kill fishery, and we encourage all NFS members to do the same. Please see the information box near the end of this article for more information on how you can help stop the killing of threatened wild Coho.

Below are NFS' reasons for not supporting the OCN harvest:

OCN are still ESA-listed: Despite the best efforts of ODFW to keep OCN from being listed under the Endangered Species Act, Oregon Coastal Natural Coho were listed as threatened in February of last year. Indirect harvest is allowed on many ESA-listed fish throughout the Pacific Northwest; however, OCN is the first ESA-listed fish in Oregon to have a direct harvest. This could set a disastrous precedent all up and down the Coast.

ODFW has singled out individual river populations for harvest. This ignores recovery of the entire population, which has been determined to be the driver for protection and recovery under the ESA, not individual rivers that may from time to time have better returns. The increase in wild Coho abundance in the early 2000s was due to improved ocean conditions and the population has benefited from that increase in spawner abundance, but it is too early to kill spawners given their threatened status.

The link between "independent population" and "dependent population" was acknowledged by the Technical Recovery Team for ESA-listed Coho salmon. ODFW has identified the Nehalem, Yaquina, Coos and the Coquille as independent populations but a clear link to dependent populations should be better understood. If "healthy" independent populations are linked then the assumption is that they totally saturate their habitats (high, medium and low quality) and create straying behavior to increase abundance in adjacent dependent populations. When one reviews the MidCoast Watersheds Council's Rapid Bio-assessment (RBA) for ocean tributaries it is clear that these dependent populations have not achieved enough spawners to come anywhere close to be described as healthy. On the Oregon Coast there continues to be streams with near zero numbers of OCN. Any harvest proposal should take into account the importance of OCN strays to re-populating river systems where wild Coho have collapsed.

NFS is not against the harvest of abundant wild fish, but a population must be recovered first. An OCN kill fishery is perfect for a population that has been recovered rather than listed as a protected species under the ESA.

ODFW has based the harvest on a very limited time set: The time series data that ODFW uses to justify the OCN kill fishery is a very small subset (1990 to the present) of the time series data that is available. This data on run size should be placed in the context of the historic time series. Looking at the fishery from 1890 to today, this database indicates that wild Coho production in Oregon

On the cover: Native Fish Society River Stewards and volunteers conduct winter steelhead spawning surveys of the Salmonberry River in April. The Stewards also emplaced temperature monitoring equipment and documented the damage done to the river caused by flooding events exacerbated by poor land-use practices. NFS River Stewards, in cooperation with the Oregon Department of Fish and Wildlife, are currently conducting spawning surveys and temperature monitoring on the Salmonberry and Molalla rivers.

Photo by Jim Byrne





ODFW Graphic

Estimated annual abundance of Coho salmon produced by Oregon's mid to north coast basins, including harvested fish, 1890s through the early 2000s. Despite the downward trend, ODFW sees an opportunity to kill wild Coho in a sport fishery.

coastal rivers has declined and the trend takes this population closer to extinction.

The ODFW Coho kill fishery proposal is based on recent abundance of wild Coho spawners from 1990 to 2008. This slice of the pie indicates current spawner abundance in coastal streams that in 1950 caused biologists to be concerned about the future of the runs. Abundance from 1970 through 2008 (including the Columbia River, coastal streams and no distinction made for wild Coho abundance) was never more than 2.7 million and as low as 216,000 (PFMC 2009).

In 1979, ODFW was concerned about the decline of OCN and adopted a plan that called for a maintenance spawner abundance goal of 200,000 wild Coho in Oregon's coastal streams. Since that time wild Coho have met or exceeded that goal only three times (IMST 2000). The point of this is that wild Coho salmon are an ESA-listed threatened species, and they have been declining for decades.

"Despite the progressive restrictions of the commercial river fishery during the past 50 years, the trend of the salmon populations of the coastal rivers has been downward." (Gharrett and Hodges 1950). In the 59 years between 1950 and 2009 the wild Coho have continued to decline and are now a federal protected species. All efforts to reverse this downward trend have failed, yet ODFW sees an opportunity to kill threatened Coho in a sport fishery.

ODFW's history of OCN management does not inspire faith in its current management: OCN were managed appallingly up until 1994, when managers seemed to realize that if they kept with the management status quo there would be no wild Coho left on the Coast.

Fish managers allowed more than 50 percent of the OCN population to be harvested annually in the vast majority of the years from the 1890s through the early 1990s. Some year's ocean-harvest rates alone exceeded 80 percent of the total population. It's almost like fishery managers just decided to throw fishery sustainability and population survivability out the window in favor of a massive overharvest.

To make matters worse, fishery managers replaced dwindling wild Coho stocks with hatchery fish, releasing about 5 million hatchery Coho smolts from Coastal hatcheries annually up until the early 1990s. In some years, between public Oregon Coast, Columbia hatcheries and private hatcheries, Coho smolt releases exceeded 50 million.

While loss of habitat and ocean conditions also contributed to OCN decline, one can clearly see the damage fishery managers do when they focus on harvest and hatchery production rather than wild escapement and natural production. Historically the OCN population size was believed to be more than 2 million. Not that long ago (the early- to mid-1970s), according to Amendment 13, the run was estimated to be 700,000 to 1 million wild Coho. The run bottomed out in 1997 with less than 20,000 fish, a decline of 99 percent of historic levels. (ODFW 2009 and Stahlberg 2009).

See Coho Harvest, Page 8



Oregon counties, BOF reject science and attack state forests, fish and wildlife

by **Rob Russell** NFS Nehalem River Steward

hile President Obama promises America's citizens the best available science will lead environmental policy under his administration, Oregon has a far different agenda. A number of Oregon's state and county politicians are attempting to circumvent science and double the harvest from state forests, putting the future of wild salmon and steelhead at risk. At the center of the debate are the Tillamook and Clatsop State Forests, known collectively as "The Tillamook."

The Tillamook encompasses over 500 square miles of temperate rainforest that are among the most productive and least protected forestlands in North America. Rainfall in excess of 150 inches per year feed the legendary salmon and steelhead rivers of the Tillamook: the Nestucca, Trask, Wilson, Kilchis and Nehalem.

These rivers are known for producing incredible sea-run fish, but populations have declined sharply in recent years. Some species are at serious risk, including spring Chinook and chum salmon. But most years, all of the Tillamook's rivers support strong runs of wild fall Chinook and winter steelhead.

Oregon's Forest Management Plan (FMP), adopted in 2001, allows for the "sustainable" harvest of up to 150 million board feet of timber per year from the Tillamook. In reality, harvest rates from 2002 to 2008 have bounced between 175 and 225 million board feet.

Several county commissioners, backed by the timber industry, want more. The counties say they need more money to help pay for important public services and schools, and they see the Tillamook as their cash box. The timber industry wants to use the current economic crisis as a lever to ensure unbridled access to Oregon's public forests.

Tim Josi, Tillamook County Commissioner and chair of the Forest Land Trust Advisory Committee, recently stated his belief that harvest levels should be raised to 300 million board feet, and together with some state legislators and the timber industry, pushed a bill (HB 3072) to force a dramatic increase of timber harvests from



Photo by Jeff Mishler

This photo, taken last summer, shows clear-cut logging on the North Fork of the Trask looking northwest across Hembre Ridge towards the Wilson River. Despite the concentrated efforts of many river and fish advocates, including several Native Fish Society River Stewards, the Oregon Board of Forestry voted on June 3 to increase timber harvest in state forests.

Oregon's state forests. Thanks in large parts to the efforts of anglers and conservationists, the bill did not make it out of committee this session. The victory in the legislature was short lived, as the Board of Forestry voted on June 3 to increase timber harvest in state forests.

Many forest managers disagree with the increase. According to Andy White, District Forester for the Tillamook District, the productivity of many of the Tillamook's stands were over-estimated in the FMP. "Growth in these stands has slowed dramatically," said White. "Nearly all of the Trask is plagued with simple, poorly growing stands fraught with health issues that are growing slower than they should for the Coast Range."

White was referring to stands that are the result of replanting efforts in the 50s and 60s following a series of catastrophic fires known as the "Tillamook Burn."

A Legacy of Recklessness

On a hot August day in 1933, loggers in Tillamook's ancient forest were ordered by the Governor to halt all activities due to the high risk of fire. Such closures were normal in the driest month of the year, since forest fires were a known hazard. Humidity had reached a dangerous low on this day, and the stop order spread quickly through the forest. One independent logger, having heard the decree, decided to ignore the risks and ordered his crew to load one more truck. As the last massive log was dragged along the forest floor toward the bed of the truck, eyewitnesses say a spark flared several feet in the air, instantly igniting the log and starting what would become the most catastrophic wildfire in American history. The fire raged and spawned other fires, some popping up many miles from the front line.

Over the weeks that followed, firefighters fought heroically to save camps and settlements in the forest. Many settlements were lost, but human lives were saved. Then things got ugly. Winds shifted and the complex of separate fires converged, exploding like an atom bomb into a cloud that mushroomed tens of thousands of feet into the atmosphere. The cloud was seen as far away as Yellowstone Park. Old-growth trees rocketed hundreds of feet in the air in a display that was described as "apocalyptic." Rain eventually prevailed, as it always does in the Tillamook, but by the time the fire died, it had burned over 240,000 acres, or 375 square miles. Most of the burn had been old-growth forest.

After the fire, a massive wave of salvage



logging spread through what was left of the Tillamook. Roads were cut indiscriminately, and the already tortured landscape was ravaged.

The heavy logging activity, combined with dry summers and denuded, parched land triggered another massive fire in 1939, burning over 190,000 acres. Again, salvage operations took what they could. Harvest ramped up even more during World War II, and like clockwork, in 1945 another massive fire ran wild, measuring 180,000 acres.

When the ashes had settled from the third fire, over 355,000 acres had been burned, much of it repeatedly. The forest land, most of which had been privately held before the Great Depression, ended up in the hands of the surrounding counties due to tax foreclosures. The counties, unable to manage the land, transferred ownership to the state in exchange for a promise of future timber revenues. A massive replanting effort was undertaken, and Oregonians united in the cause of restoring the Tillamook. One more fire would burn another 32,000 acres in 1951, again the result of human activity, but restoration was well underway and would continue through the 1960s. The recurring fires had become known as the "six year

jinx," and by the winter of 1951, less than two percent of Tillamook's original old growth forest remained.

Ironically, when a coalition of concerned Oregonians fought in 2004 to set aside a portion of the Tillamook for uses other than timber harvest, outraged county leaders and the timber industry argued that such preservation would increase the risk of catastrophic wildfire. Playing on the fears of rural Oregonians, timber interests ran television ads warning of impending fires if environmentalists got their way. But too few of Oregon's citizens knew the full history of the Tillamook to understand the incredible insult that claim represented. Reckless timber harvest had been the sole cause of the Tillamook's past devastation and poses the greatest risks for its future.

Stealing from Future Generations

Today, as the Tillamook is maturing into a fine young forest and watersheds are in a relative state of restoration, a handful of politicians backed by the timber industry work to undermine Oregon's Forest Management Plan. They strive to increase harvest from the Tillamook, claiming that their interest is for the schools, communities and future generations. But a bizarre dissonance rings loudly overhead. While they claim that the resulting revenues will help counties weather the current economic downturn, they must be painfully aware that timber prices are at their lowest levels in decades. Many of the Tillamook's scheduled timber sales are finding no buyers. ODF is slashing prices on some timber sales to entice potential suitors, which means the state is tossing its public resources into a black hole. A recent editorial (March 10th, 2009) in the Daily Astorian put it this way:

As financial regulators stood by or actively facilitated the monstrous housing bubble, forests were felled to provide the raw materials. Professional foresters are a big step up from the irresponsible financiers on Wall Street, but they still fell victim to some of the same thought patterns when it comes to asset management.

As financial regulators stood by or actively facilitated the monstrous housing bubble, forests were felled to provide the raw materials.

See Forests, Page 12



Anage data was used for clear-cuts form zooo to zoot, landsat forest change data form September 2007, acquired and processed by Wild Salmon Center, was used for clear-cuts form 2005 - 2007; and planned clear-cuts for 2008 were derived from ODF forest planning GIS data. Proposed clear-cuts are from the ODF model of performance measure recommendation in November 2008

or call the Wild Salmon Center at (503)-222-1804 Salmon Anchor Habitats (expire 2011-2013)

Tillamook State Forest

Highway

March 2009





Dave Brown's wild fish rescue

by **Bill Bakke** NFS Executive Director

Dave Brown's Wild Fish Rescue is about saving salmonid fry and restoring natural runs of salmon and steelhead.

The East Fork of the Lewis River has historically had runs of Chinook, Coho, chum and winter and summer steelhead. Over the past 100 years, fish populations have declined and Coho, Chinook, winter and summer steelhead and chum are now listed under the Endangered Species Act.

Dave Brown has lived on Mill Creek, a tributary of the East Fork for the past 17 years. In that time he has explored the creek and found that areas dry up in the summer every year. As the creek dries, fry get stranded in shallow pools cutoff from any flow that may still be occurring. These fish have no chance at survival. Dave approached WDFW about his observations and requested permission to rescue the endangered fry. Dave Brown's Wild Fish Rescue (DBWFR) program was born out of an effort to save fish with no place to call home.

Over the years, Dave has developed relationships with many landowners on Mill Creek, as well as Mason, Manley and Dean Creeks – all tributaries of the East Fork of the Lewis. With their assistance, Dave is able to monitor the creeks. He gets reports of dry up areas and stranded fry in the summer and reports of returning adults and spawning activity throughout the year.

When the weather starts heating up and areas of the creeks begin to dry, Dave mobilizes a team of volunteers (including myself) that go on-site and drag the creek. Using seines, the volunteers net as many fry as possible. The fry are around 1 to 1-1/2 inches in size are sorted in



Photos by Bill Bakke

Volunteers sort fry at Dave Brown's Wild Fish Rescue in Washington. The program rescues threatened salmonids that would have died due to tributaries of the East Fork Lewis River drying up in the summer.

the seine to remove non-native species of fish and transferred to buckets. Because the fry are the result of adults that have spawned naturally in-stream, we typically capture a variety of age classes. We also capture fry from different sections of the stream providing natural genetic diversity. The buckets are hauled to a nearby truck outfitted with a large tank with a re-circulating pump to keep the water oxygenated while the fish are in transit.

The fry are transported by truck back to Dave Brown's property where they are then loaded into smaller containers and driven by ATV down the canyon to rearing ponds. Dave Brown designed and volunteers helped build nine above-ground plywood raceways lined with pond liner and topped with screened lids. Additionally, Dave Brown had two lined with concrete. This was done to improve maintenance and aid in the prevention of botulism which can occur with earthen ponds due to build up of sediment and rises in temperature.

The ponds and raceways become the fry's nursery for the next several months. The water supply comes from underground springs captured with collection boxes. Low cost containers act as a filter allowing sand and other sediment to drop to the bottom of the container and clean water to flow through a pipe near the top of the container. Gravity carries the water through a system of pipes to the raceways and ponds. Spring water is naturally low in oxygen, so the water is "dropped" several times in order to provide aeration.

The fry are separated into ponds and raceways according

to their origin. Care is taken to not mix fish from different watersheds. Each pond or raceway is labeled. The fish are counted (have you ever tried to count a bucket of fry? It's not exact, but we figure we're pretty close.) Records are kept documenting the numbers of fry collected, what stream they were taken from, and the date. This information is provided to WDFW and NOAA. A pathologist from WDFW dissects a sampling of fish at the fingerling stage to check critical organ functions and general health. The results have shown that the fish are very healthy.

The rearing ponds are cleaned and monitored for ph and oxygen levels. Biologists with WDFW come to the site and take weight measurements and scale samples. The rescued fish grow at a rate comparable to



hatchery fish and are very healthy. The fish are fed the same food provided to fish at hatcheries. The majority of fry reach smolt stage in approximately 6 to 8 months. By then it is winter/early spring and the creeks have enough water to sustain the smolts. We release them back to their original location, allowing them to imprint and voluntarily migrate out.

This program is seeing success. Informal polls of local fisherman indicate an increase in numbers of coho being hooked incidentally. Mill Creek residents have noticed increases in returning adults in the past 3 or so years. Dave Brown's section of Mill Creek used to have a sterile aspect to it. Now it reeks of dead fish during spawning season and there are bugs everywhere. Kingfishers and herons also keep a watchful eye on the stream.

These fish are the product of wild fish. They are the result of the female selecting her mate to ensure survival of her progeny. Competition between males for the female occurs. The best suitor wins. This is in stark contrast to what occurs in a hatchery. There, the hatchery manager picks the mate. There is no natural selection. Man determines the genetics. Hatchery fish are all the same age class. WFR rears a variety of age classes because the fish have spawned over time depending on the length of the run, temperature of the stream and numbers of returning fish.

Beginning in 2007, DBWFR received funds to gather statistical data to support the

success of the program. Geraldine Vander Haegen, Research Biologist with Northwest Marine Technologies and coworkers brought tagging equipment to the site. 6,947 fish gathered from Mill Creek near Dollars Corner and 3,346 fish from Mill Creek north were tagged with different numbered tags. The purpose of the tagging was twofold. One purpose is to determine whether the fish that come up Mill Creek to Dollars Corner are entering the system from Salmon Creek (see map below for reference). And the other is to determine the number of adults that return and how far they go up Mill Creek. The adults from the 2007 class are expected to return fall/winter of 2009.

In September 2008, 3,992 fish from Dollars Corner and 2,387 fish from Mill Creek north were tagged in order to continue to gather metrics to measure the success of this project. The adults from this class are expected to return fall/winter of 2010.

DBWFR intends to gather at least 10,000 fry this spring/summer and tag 5,000 fish from Dollars Corner and 2,500 fry from Mill Creek north and 2,500 fry from Manley Creek. The 3 or 4 year study will be complete with the return of these fish as adults in fall/winter 2011 or 2012.

Over the past few years, DBWFR has grown dramatically. Last year 16,000 salmon and steelhead were rescued out of Mill Creek, Mason Creek and Rock Creek. This program is successful largely because of a team of volunteers that are passionate about fish. Dave's core team consists of Lisa



Rescued fry are placed in rearing ponds that act as nurseries for the young fish for several months before they are released back into the creek in which they were found.



The author releases rescued salmon back into Mill Creek.

Wassgren, John DiVittorio, Don Low, Chris and Jesse Farley, and Dan Vossen. We have landowner support and assistance in many areas along the creeks.

Dave Brown was nominated for and received a Sammy Award in 2008. These awards are given to individuals, groups, organizations, or projects for their outstanding contributions to salmon recovery in Clark County, WA. Citizen participation is essential to regional efforts to recover the fish in recognition of this, Clark County implemented the Sammy Awards in 2001 to encourage more individual involvement and to recognize the good work that's already being done.

In addition to landowner support, other supporters of DBWFR include Fish First which has provided some funding in the past 2 years and volunteers. Clark Skamania Fly Fishers is also a supporter, providing grant money and volunteers on an as needed basis.

The Native Fish Society has contributed funding and worked closely with Dave Brown on this important project. Dave Brown works under the supervision of John Weinheimer, Regional Fish Biologist with Washington Department of Fish and Wildlife. NOAA also supports the program and has issued the permit allowing DBWFR to salvage fish in endangered water. This year Dave Brown has been contracted to work on Salmon Creek by Clark County. Work started in May of this year.





Coho Harvest, from Page 3

To make matters even worse, fishery managers reduced their own spawner abundance goals based on less returns in later years and fought not to give OCN protection under the Endangered Species Act. Faced with seriously declining wild Coho runs and fisheries, in 1982, ODFW adopted its first species plan, the Coho Salmon Management Plan. The 1982 Coho Plan goal was for 200,000 wild spawners in Oregon coastal watersheds. From 1990-2004 the number ranged from 16,500 to 231,400 for an average wild spawner abundance of 74,800. Recognizing a problem, ODFW designed a new Coho Salmon Plan adopted in 2007.

In the 2007 plan, ODFW amended the spawner abundance goal for wild Coho from the 40 fish per mile (1982 Coho Plan) to a novel and untested level of just five Coho per mile to maintain viable populations of wild, naturally-spawning Coho salmon. Rather

than a spawner abundance goal of 200,000 wild Coho, the new ODFW plan proposed a 25,000 goal. The reasoning for this amendment was not stated, but the justification for it is that the wild Coho did not go extinct at low run size therefore they cannot go extinct. This novel spawner abundance goal was the subject of considerable controversy and was not accepted by scientists representing the National Marine Fisheries Service Science Center nor

the state panel of Independent Multidisciplinary Science Team. However, NMFS agreed with the ODFW assessment and decided to not list Oregon coastal Coho salmon as a threatened species.

Conservation groups, including NFS, took NMFS to court for failure to list Oregon coastal Coho as a federally protected species under the ESA. NMFS decision to not protect Coho salmon was based on the ODFW assessment, so the court reviewed the ODFW Coho plan and the NMFS decision, finding that "...the NMFS's determination not to list the Oregon Coastal Coho salmon is arbitrary, capricious, contrary to the best available science, and a violation of the ESA ... NMFS should be ordered to issue a new final listing rule consistent with the ESA..." The public sought and got a favorable federal court decision. Now OCN are listed as threatened under the ESA. NFS learned during the last Fish Con meeting with ODFW that the agency is working to get the fish de-listed.

Thankfully today, the OCN fishery is managed much wiser. Starting in 1994, harvest rates have averaged less than 10 percent, and the target hatchery smolt release is now 260,000. The population has responded to those positive changes with an increase in wild spawners. This year, ODFW predicts OCN abundance at more than 200,000 fish.

Despite these positive changes to OCN management, there is an ugly history of the managing agencies making horrendous decisions and mistakes that almost drove this population to extinction. That history makes it hard to believe ODFW staff when they say the rivers have reached their seeding level and carrying capacity or when they say the

"Harvest rate management favors the fishery rather than salmon rebuilding, conservation, and recovery. Even though OCN harvest rates have been dramatically reduced, desired levels of escapement of OCN Coho salmon are seldom reached in Oregon coastal rivers. Improved escapement is essential for recovery of OCN Coho salmon, and control of fishing mortality is the best available tool for achieving improved escapement."

> populations are now healthy and opening up a limited harvest would have no conservation impact.

> Volatile OCN population fluctuations are not taken into account. Except for the Coquille River, the wild Coho populations in the proposed streams have displayed a volatile fluctuation in abundance ranging from near zero spawners to thousands of spawners. This volatility should be of concern for these threatened populations. They are not stable and there is no increasing trend.

> Based on 2009 ODFW information presented for the streams targeted for a kill fishery on wild ESA-listed Coho salmon, data indicates that all these populations have recently experienced very low abundance levels and recent abundance trends for three of the four streams have shown a

declining trend in recent years and two show a declining abundance predicted for 2009. The proposed wild Coho kill fishery is based on recent increases in abundance and a projected increase of abundance in 2009 even though wild Coho abundance has been at historic lows in recent years. The following data was taken from 2009 ODFW data using the very narrow time set ODFW is using to justify this kill-fishery:

Nehalem River

1990-1999 flat trend from 200 to 4,000 OCN

1999-2003 increasing trend from 4,000 to 33,000

2003-2005 decreasing trend from 33,000 to 10,000

2005-2008 increasing trend from 10,000 to 15,000

2009 forecast is for more than 22,000 OCN

Out of 18 years the wild Coho population was at low level abundance or a decreasing trend in 11 years.

Yaquina River

1990-1993 no trend, population at near zero abundance

1993-1995 increasing trend from near 0 to 5,500 OCN

1995-1997 decreasing trend from 5,500 to near 0

1997-1998 no trend at near zero

1998-199 increasing trend from near 0 to 3,000

1999-2000 decreasing trend from 3,000 to near zero

2000-2001 increasing trend from near zero to 3,500

2001-2002 increasing trend from 3,500 to 24,000

2002-2005 decreasing trend from 24,000 to 4,000

2005-2007 no trend, about 4,000

2007-2008 increasing trend from 3,500 to 8,000

2009 forecast decreasing tend from 8,000 to 6,000

Yaquina OCN abundance has been very volatile in the 18 years of this database with wild Coho abundance hovering just above zero repeatedly. Of these 18 years of record, Yaquina River wild Coho abundance was near zero in five years and with a declining trend in nine years. Of the 18-year record used by ODFW to justify its proposed kill fishery on wild Coho, abundance was near







Harvest rates of wild Coho on the Oregon Coast regularly exceeded 80 percent of the run in the 70s and 80s (above) and averaged more than 50 percent between 1890 and 1993. Hatchery Coho smolt releases from Oregon Coast hatcheries at times exceeded 5 million in the late 80s and early 90s (below). Harvest rates and smolt releases were significantly reduced beginning in 1994, which has increased wild spawners; however, despite what ODFW says, OCN are not yet recovered enough for a direct harvest.

zero or declining for 14 years. The forecast for this Coho population predicts a decline in spawner abundance in 2009 even though it is targeted for a kill fishery.

Coos River

1990-2000 this population fluctuates at low abundance from near 0 to 15,000, then back to near 0 and up to 5,000 Coho

2000-2001 increasing trend from 5,000 to 44,000

2001-2007 decreasing trend from 44,000 to near 0

2007-2008 increasing trend from near 0 to 1,400

2009 forecast is for more than 1,300

The Coos River wild Coho abundance over 18 years has repeatedly plunged to near zero spawners. In the 18-year record used by ODFW there were 16 years of low abundance including several years when the population was near zero. This population exhibits instability and is forecast to decline in abundance in 2009 when the target kill fishery is proposed.

Coquille River

1990-2006 increasing trend from 3,000-30,000 Coho

2006-2008 decreasing trend from 30,000-10,000

2009 forecast is for 21,000 OCN

The Coquille River wild Coho population shows a long increasing trend with a steep decline in 2008. The forecast is for an increase in wild Coho in 2009.

Three of the four wild Coho populations show a spike in abundance in 2000 to 2001 followed by a steep decline. The Coquille River shows a steady increase in abundance with no spike in the years 2000 or 2001. This spike was due to lower harvest impact in



ocean and in-river fisheries and an unusually productive ocean environment.

There was a concern prior to this spike in ocean productivity and the reason for imposing reductions in harvest impacts that Coho would become extinct in major Oregon coastal rivers. If the spike in ocean productivity that so dramatically increased abundance for a few years were removed from this data base these populations would have probably remained at low abundance levels.

ODFW proposal to open a kill fishery on wild Coho is largely based on this spike in productivity even though these populations productivity remains low when compared with their historical size.

Nutrient enrichment was not factored: Capacity of the habitat to support Coho salmon and other salmonids is increased by marine derived nutrients that enrich streams from salmon carcasses. However, there is no target for carcass enrichment of these streams in the proposal to increase harvest by the agency.

The scientific literature estimates that target to be 93-155 salmon carcasses per kilometer of stream (Gresh et al. 2000). The historic biomass of salmon returning to the Pacific Northwest rivers was 160-226 million kg.

The number of fish now returning to these rivers has declined to 11.8-13.7 million kg. This means only 6-7% of the marine derived nutrients once delivered to streams is now reaching them (Gresh et al. 2000).

Oregon salmon streams are starved for nutrients that increase their capacity to produce salmon, but there has been no analysis by the agency to determine whether this recommended nutrient enrichment of streams can be achieved in target rivers.





Please act now to protect wild Coho!

That National Marine Fisheries Service is currently seeking review and comment on ODFW's Fisheries Management and Evaluation Plan for freshwater Coho fisheries. Please e-mail NMFS telling them to not allow a direct harvest of Oregon Coastal Natural (OCN) Coho.

Comments are due by July 17, 2009. E-mail your comments to: CohoFisheryPlan.nwr@noaa.gov

The proposed fishery plan can be downloaded from ODFW's website at: http:// www.dfw.state.or.us/fish/coastal_coho_plan.asp

Amendment 13 needs to be changed in order to recover OCN: The Independent Multidisciplinary Science Team found that a continuation of the Amendment 13 harvest policies contributed only marginally to the rebuilding of salmon stocks under the Oregon Plan (IMST 2000).

Amendment 13 regulates OCN Coho salmon harvest based on harvest impact rates, not on the numbers of spawners that return to the spawning grounds (IMST 2000). Rather than using harvest rates to manage salmonids, especially those listed as federal protected species, NMFS should require fishery managers to achieve spawner abundance and productivity goals by population and for ESUs. These spawner abundance goals would be based on an estimate of watershed carrying capacity as well as attainment of ecological goals such as delivery of marine derived nutrients for support of stream productivity and dependent wildlife. Abundance goals would also maximize genetic diversity, life history diversity productivity and spatial structure of harvested populations.

Hatcheries have escapement goals in excess of their egg take needs and fisheries are closed to achieve those goals (For example, in 2008, the Willamette spring Chinook fishery was closed to protect hatchery fish and hatchery egg supply). It is only reasonable to have a balanced program that establishes spawner abundance goals for wild salmonids and make them hard constraints for harvest management so they can be fully implemented. A primary purpose of harvest

management is to effectively secure spawner abundance needed to sustain the fishery over the long term. Harvest management decisions have the most immediate impact on spawner abundance and are therefore critical to recovery of depressed stocks of wild salmonids in Oregon. It is essential, therefore, that the meaning of recovery be defined in measurable terms to guide harvest management decision-making (IMST 2000).

Even though Amendment 13 recognizes the value of marine derive nutrients in coastal rivers, there are no targets for stream enrichment. Traditionally, the ecological role of adult salmon, particularly as nutrient source for freshwater communities and young salmon has been ignored in salmon monitoring (IMST 1999).

Much of the OCN harvest discussion is based on ODFW's seeding levels of habitat, and yet, if you look closely at the issue, a number of key assumptions appear to flawed - ODFW has identified the need to develop an improved indicator of wild Coho smolt marine survival and better estimates of seeding levels to use in the application of Amendment 13. So, while there is an acknowledgement of the need to clarify key components of the A13 and there is an opportunity to better understand fry distribution into high, moderate and low habitat quality under abundant spawner escapement, yet it appears to be a low priority of the agency to gather this much needed information that will improve management in the future.

Yearly, the total habitat miles by basin

appear to be a moving target. Why? The change can vary between 20-30 percent. "Full seeding" levels are actually referring to only about 25 percent of the anadromous habitat in our OCN rivers and lakes – "the high quality habitat." Yet when ODFW establishes a population estimate (seeding levels) for a basin they count spawners from the other 75 percent of the basin.

Also, escapement goals should potentially be adjusted upward when marine survival regimes improves as in 2009 and maybe 2010. So, while the A13 Harvest Matrix is a vast improvement over the past exploitation rates for OCN and significantly better than many other harvest management regimes for ESA-listed salmon, there is in 2009 an opportunity to better understand habitat use and productivity during medium and high marine survival.

Full seeding should refer to the eight thousand plus miles of Coho spawning and rearing habitat and not just a subset of our coastal basins.

More time should be given to rebuild the population: It is encouraging that OCN are beginning to rebuild following the spike in ocean productivity along with constraints on the ocean and in-river fisheries for wild Coho salmon and reduction of hatchery smolt releases.

This rebuilding should be allowed to continue. Allowing a kill fishery, no matter how restrictive, on wild Coho at a time when they are rebuilding from historic lows is inconsistent with conservation management, state law, and the ESA.





Every harvest proposal should include a detailed viability

analysis and a risk assessment: ODFW's proposal for an OCN kill fishery does not include a viability analysis and risk assessment comparable to the work done by ODFW through the Interior Columbia River Technical Recovery Team (ICRTRT). In the ICTRT viability assessment, they reviewed each population according to viability criteria that includes:

- Number and arrangement of spawning area
- · Analysis of gaps or continuity of spawning and rearing areas
- Phenotypic variation
- Genetic variation
- Spawner composition (potential effect of hatchery fish)
- Harvest impact on phenotypes at risk
- · Hatchery impacts on population and risk assessment
- Predation impacts
- Ecological effects
- Abundance and Productivity analysis

Populations are rated for risk based on abundance and productivity as well as spatial structure and diversity risk. Each population is analyzed according to the risk it is exposed to and rated from very high risk to very low risk and an estimate of viability based on this analysis.

The ODFW proposal for a kill fishery on wild ESA-listed Coho salmon in select coastal rivers did not have a risk analysis comparable to that developed by ODFW for interior Columbia River ESA-listed salmonids by the ICRTRT, therefore the risk analysis for this proposal is not sufficient to justify a kill fishery on ESAlisted Coho salmon.

It is our concern that human caused fishery impacts are not evaluated sufficiently to effectively achieve recovery of OCN Coho. For example, when ODFW adopted a coastal cutthroat kill fishery in coastal rivers in 2009; the impact on rearing juvenile salmonids in-

cluding Coho salmon was not adequately addressed.

Harvest rate management favors the fishery rather than salmon rebuilding, conservation, and recovery. Even though OCN harvest rates have been dramatically reduced, desired levels of escapement

of OCN Coho salmon are seldom reached in Oregon coastal rivers. Improved escapement is essential for recovery of OCN Coho salmon, and control of fishing mortality is the best available tool for achieving improved escapement. (IMST 2000).

Incidental mortality and encounter rates in ocean fisheries are based on assumptions and estimates not data. A comprehensive approach to wild Coho salmon recovery, including a risk assessment, is not in place, yet ODFW would have NMFS agree with the harvest of wild Coho in some Oregon coastal streams. Wild Coho salmon have been declining for decades (over 100 years) and every plan devised by the state of Oregon, PFMC and NMFS has failed to reverse that trend, yet getting a few more wild Coho spawners into Oregon's rivers is viewed as a harvest opportunity rather than a conservation necessity.

The proposed harvest would have a negative impact on fall

<u>Chinook:</u> NFS is also concerned about the impact of a targeted wild Coho kill fishery on fall Chinook in Oregon coastal rivers. The forecast is for a very low abundance of fall Chinook. Since Coho and fall Chinook fisheries are similar, that is, the fishing techniques using bait will catch both species, the Coho fishery will likely impact Chinook abundance in these rivers.

If ODFW is allowed to go through with this harvest, restrictions on terminal tackle should be included.

Despite what the agency says, Oregon wild Coastal Coho are not yet recovered enough to allow a direct kill fishery. NMFS will decide this summer if it will allow ODFW's proposal to have a direct harvest OCN. They are seeking public comment. Please urge NMFS not to allow the harvest by e-mailing CohoFisheryPlan. nwr@noaa.gov.

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Forests, from Page 5

Professional foresters are a big step up from the irresponsible financiers on Wall Street, but they still fell victim to some of the same thought patterns when it comes to asset management.

There is a troubling mismatch between the pace at which forests mature and the rate at which they are logged. Fifty-year harvest rotations dwindled to 40 and have been pegged at as little as 35 in recent years. That is demanding a lot from soils and watersheds.

Because of calls from local communities for revenues and employment, even in public forests there is constant pressure to step up harvests.

We need a much longer and more deliberate planning horizon for the woods, one that places explicit financial value on their role in keeping carbon out of the atmosphere, purifying water and a host of other essential functions. Forests must no longer be managed solely to maximize financial returns in the current fiscal year for shareholders, whether those shareholders own corporate stock or serve on county commissions.

To make matters worse, and to revisit the theme of fire, state foresters admit they cannot interest timber companies in the tops of trees that lay in piles at every harvest site. There's just no money in it for the loggers. So these piles remain exposed as potential fuel for forest fires.

The Greatest Permanent Value

Oregon Statute requires that state forests be managed to "secure the greatest permanent value of state forestlands to the state." The same statute defines "greatest permanent value" (GPV) as "healthy, productive, and sustainable forest ecosystems that over time and across the landscape provide a full range of social, economic, and environmental benefits to the people of Oregon."

House Bill 3072 and similar future representation represents an immediate threat to the Tillamook and its vital rivers by seeking to amend the statute, redefining GPV, requiring the Board of Forestry to revise forest management plans to achieve policy and goals described in the new bill AND declare an emergency, effective upon passage of the bill. The following is taken directly from the proposed amendment:

SECTION 1. ORS 530.050 is amended to read:

530.050. (1) As used in this section, "secure the greatest permanent value" means to ensure that lands are forests managed primarily for timber production in order to produce revenue for counties, schools and local taxing districts that receive revenue from those lands.

The proposed changes move directly against public and scientific opinion. In 2006 ODF hired a contractor to conduct a survey of Oregon's residents and state forest stakeholders. The survey tested knowledge of, values regarding, and attitudes toward natural resource management in Oregon state forests. The survey found that ecological values were more important to Oregonians than timber values or recreation values on state forests. Scientific opinion within ODF, as discussed earlier, warns that the state is already over-harvesting, particularly in the Tillamook.

Even though HB 3072 did not make out of committee, Greatest Permanent Value may still be redefined soon. At the June 3 Board of Forestry meeting, the Board not only voted to ramp up logging in state forests, but also voted to take a look at Greatest Permanent Value, which could mean redefining to place more emphasis on timber harvest.

What You Can Do

I strongly urge concerned citizens to become more informed on this issue, to support the organizations that are fighting for sound forest management, and respectfully express your urgent opposition to increased timber harvest directly to legislators and Board of Forestry members.

Our fight for the Tillamook will take staying power. This is the first of many rounds. So let's all use this round to learn the process and do our best, knowing that we will have to act many more times in the coming years to secure protection for the forest and rivers we love.

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Photo by Russell Bassett

Instructors of the Sandy River Spey Clave's Women's Day pose for a photo in Native Fish Society T-shirts May 15 at the Clave. NFS raised \$2,500 to protect and restore native fish runs in the Pacific Northwest from the sale of the T-shirts. These ladies represent what NFS members have always known: wearing NFS merchandise improves your steelhead mojo!

Top row from left: Hannah Belford, Adrienne Comeau, Nicole Darland, Whitney Gould, Mary Ann Dozer, Kati Reid, Marcy Stone, Anne Tattam. Bottom row from left: Mia Sheppard, Kristen Torda, Dawn Chou, Lurah Klaas.



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