

**NATIVE FISH SOCIETY  
CONSERVATION REPORT  
NUMBER Three  
2009**

By Bill Bakke, Director

---

## **HATCHERY REFORM...WELL MAYBE.**

In a highly structured rollout of the HSRG \$3million hatchery reform assessment and recommendations, the guardians of the status quo among the fishery agencies, politicians and consultants sat listening. The room was full of familiar faces that have been engaged in the salmon recovery industry since the Hatfield Salmon Summit in the early 1990s.

How would this science based hatchery reform suggestion be received? One has to listen for code words and phases to really tell what is being said.

Hatchery reform is not something the fish agencies naturally embrace because it can have an impact on harvest and funding. The government agencies are all looking for a federal bailout to move hatchery reform forward. It comes as an added expense on top of hatchery funding shortfalls and shriveling budgets. It was made very clear that hatchery reform had to get in line.

Sue Knapp of the Oregon Governor's Office said, "We will take salmon conservation into consideration while providing opportunities for harvest." She was not making a strong commitment to conservation for it was an elective to be "considered," while harvest is "provided." She went on to say that the state of Oregon would "temper" the impact of hatchery fish on wild fish. This falls somewhat short of the recommendations presented by the scientists.

Oregon Senator Jackie Dingfelder pointed out the natural resource agencies would have a 30 to 40 percent cut in their budgets, so there will be no money to move forward on hatchery reform, unless, of course, the fish agencies can get more public funds from the federal government.

In his speech, Phil Anderson, director of the Washington Department of Fish and Wildlife, said, the agency will maintain 90% of their hatchery production while they attempt to reform hatcheries. Sounds like WDFW will "attempt to reform 10% of their production.

The Oregon administrator for fisheries, Ed Bowles, said, we don't have the funds to implement hatchery reform and, much to the relief of others, he cautioned the

“mitigation promise” (hatchery production) and funding to support it “cannot be forgotten.” He set the priority on everyone’s agenda in the fishery agencies that mitigation hatchery funding is the primary concern and hatchery reform cannot get in the way. He made everyone in the agencies sigh with relief when he said, “hatcheries are not a curse.” He endeavored to soften that by following up with some motivational talk about how we need to “be a good neighbor of wild fish.”

It is clear from the so-called “regional response” that hatchery reform is a new lever the states, tribes, and the federal fish agencies would like to use to secure the hatchery funding they all desire. Hatchery reform is the new golden goose they will ride into Congress for a federal bailout at a time when there is considerable skepticism about hatcheries including their expense and their usefulness in recovery of wild salmon. Maintaining the existing hatchery program with public dollars will be achieved under the illusion of hatchery reform. I could be wrong, of course, but the 150 year track record is very convincing. As long as Congress provides no oversight on how the millions will be spent for hatchery reform, the agencies will have a free hand to use the funding as they wish. After all, the fish managers are the experts and even the courts defer to their incompetence, so it is unlikely that Congress will be so bold as to require accountability.

There were no conservation voices asked to participate in the regional response to hatchery reform. Only the regional political folks with a vested interest in hatchery production and harvest were seated and heard from. It was a masterful configuration that guaranteed a solid round of applause for more federal funding and guarded interest in hatchery reform.

The spokes person for the scientific committee that developed the hatchery reform recommendations, Peter Paquet, summed it up by saying: “Hatcheries will be part of the mix and we hope they are part of the solution.”

The scientists know from experience that the region’s decision-makers will resist hatchery reform even though they will all jump aboard the hatchery reform buckboard to leverage more hatchery funding. Hatchery reform will be used to cloak their 150 year agenda to replace wild salmon and wild salmon habitat with hatchery fish. Not only are wild salmon and steelhead a problem, they are irrelevant to the mission of the fish agencies: they are an impediment on traditional high harvest rates and constrain hatchery production.

One scientist involved in hatchery reform said that recovery of wild salmon and steelhead cannot be done by hatchery reform alone, there must be harvest reform too. Selective harvest along with controlling naturally spawning hatchery fish is needed for successful wild salmon recovery. I hear the scientists are working on the harvest issue paper, but the fish managers don’t like it.

Confident that their coded message was well received by Representative Norm Dicks and others that have access to the purse, they congratulated each other on a job well done.

## **Message from Alexandra Morton in Norway, disease and sea lice are not under control in Norwegian salmon farms and BC stands to lose all**

I have been in Norway for 10 days because 92% of fish farming in British Columbia is Norwegian owned. I have met with many Norwegian scientists, members of the Mainstream and Marine Harvest boards, been to their AGMs, toured the area with fishermen, examined a closed-containment facility, met the Norwegians fighting for their fish and joined a scientific cruise.

I thought Norway had this industry handled and I expected to learn how marine salmon farming could work, but this has not been the case. My eyes have really been opened. This industry still has **major** issues that are growing and has no business expanding throughout the temperate coastlines of the world. The way they have been treating sea lice in Norway has caused high drug resistance. The only solution in sight is increasingly toxic chemicals. In the past two years (2007, 8) sea lice levels have actually increased on both the farm and wild fish. The scientists I met with are holding their breath to see if drug-resistant sea lice populations will explode and attack the last wild salmon and sea trout. The same treatment methods have been used in BC and we can expect this to occur as well.

I am not hearing how the industry can possibly safeguard British Columbia from contamination with their ISA virus. Infectious Salmon Anemia is a salmon virus that is spreading worldwide, wherever there are salmon farms. In Chile, the Norwegian strain of ISA has destroyed 60% of the industry, 17,000 jobs and unmeasured environmental damage. The industry is pushing into new territory. If this gets to BC no one can predict what it will do to the Pacific salmon and steelhead, it will be unleashed into new habitat and we know this is a very serious threat to life.

Professor Are Nylund head of the Fish Diseases Group at the University of Bergen, Norway, reports that, "based on 20 years of experience, I can guarantee that if British Columbia continues to import salmon eggs from the eastern Atlantic infectious salmon diseases, such as ISA, will arrive in Western Canada. Here in Hardangerfjord we have sacrificed our wild salmon stocks in exchange for farm salmon. With all your 5 species of wild salmon, BC is the last place you should have salmon farms."

New diseases and parasites are being identified. The most serious is a sea lice parasite that attacks the salmon immune system. There is concern that this new parasite is responsible for accelerating wild salmon declines. The Norwegian scientists agree with many of us in BC. If you want wild salmon you must reduce the number of farm salmon. There are three options.

The future for salmon farming will have to include:

- permanently reduction of not just the number of sea lice, but also the number of farm salmon per fjord,
- removing farm salmon for periods of time to delouse the fjords and not restocking until after the out-migration of the wild salmon and sea trout.

- But where wild salmon are considered essential they say the only certain measure is to **remove** the farms completely.

There are many people here like me. I met a man who has devoted his life to the science of restoring the Voss River, where the largest Atlantic salmon in the world, a national treasure, have vanished due to sea lice from salmon farms. Interestingly he is using the method I was not allowed to use last spring... Towing the fish past the farms out to sea. Another man is working with scientists and communities to keep the sea trout of the Hardangerfjord alive. There are so many tragic stories familiar to British Columbia.

The corporate fish farmers are unrelenting in their push to expand. With Chile so highly contaminated with the Norwegian strain of ISA all fish farmed coasts including Norway are threatened with expansion. I made the best case I could to Mainstream and Marine Harvest for removing the salmon feedlots from our wild salmon migration routes, but they will not accept that they are harming wild salmon. They say they want to improve, but they don't say how. Norway has different social policies which include encouraging people to populate the remote areas and so fish farming seemed a good opportunity to these people. BC has the opposite policy, but the line that fish farms are good for small coastal communities has been used in BC anyway. I have not seen any evidence that it has even replaced the jobs it has impacted in wild fisheries and tourism.

It is becoming increasingly clear to protect wild Pacific salmon from the virus ISA the BC border absolutely has to be closed to importation of salmon eggs immediately and salmon farms MUST be removed from the Fraser River migration routes and any other narrow waterways where wild salmon are considered valuable.

Our letter asking government that the *Fisheries Act*, which is the law in Canada be applied to protect our salmon from fish farms has been signed by 14,000 people to date at [www.adopt-a-fry.org](http://www.adopt-a-fry.org) <<http://www.adopt-a-fry.org>> has still not been answered.

Please forward this letter and encourage more people to sign our letter to government as **it is building a community of concerned people word wide** and we will prevail as there is really no rock for this industry to hide under and longer.

Alexandra Morton

### **ODFW TRIES TO PRY OPEN KILL-ROOM DOOR ON THREATENED COHO:**

The reasons NFS does not support a kill fishery on ESA-listed wild coho in selected Oregon coastal rivers are:

A coho kill fishery as proposed is perfect for a population that is recovered rather than listed as a protected species under the ESA.

The time series data that ODFW uses to justify the fishery is a subset of the time series data that is available. This data on run size should be placed in the context of the historic time series. We have provided a graphic for that time series (1890 to 2000s) produced by ODFW biologists. This

database indicates that wild coho production in Oregon coastal rivers has declined and the trend takes this population closer to extinction.

The increase in wild coho abundance in the early 2000s was due to an improved ocean condition and these populations have benefited from that increase in spawner abundance, but it is too early to kill spawners given their threatened status.

The kill fishery would target Yaquina, Coos, Coquille, and Nehalem rivers. Except for the Coquille River, the wild coho populations in the other 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.

The Yaquina and Coos rivers are predicted to have declining spawner abundance in 2009.

Capacity of the habitat to support coho salmon and other salmonids is increased by marine derived nutrients that enrich these streams from salmon carcasses. However, there is no target for carcass enrichment of these streams called for by Amendment 13 or in the proposal to increase harvest by the agency. The scientific literature estimates that to be 93-155 salmon carcasses per kilometer of stream. There has been no analysis by the agency to determine whether this recommended nutrient enrichment of streams can be achieved in target rivers.

Historically coho salmon fluctuated between 100,000 to 450,000 fish (1890 to 1940s) with average annual harvests of 310,000 prior to 1923 (Gharrett and Hodges 1950) with a declining trend since that time. It was due to this declining trend that ODFW (then the Oregon Fish Commission) restricted commercial harvest in coastal rivers.

The historic biomass of salmon returning to Pacific Northwest rivers was 160-226 million kg. Now the number of fish returning to these rivers has declined to 11.8 – 13.7 kg. This means that only 6-7% of the marine derived nutrients that once were 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.

Over the last 100 years management plans developed by ODFW, PFMC, and NMFS have failed to reverse the decline of Oregon Coastal coho salmon. This proposal is consistent with earlier recovery-conservation plans in its emphasis on harvest rather than conservation.

It is our concern that the proposed targeted harvest in select Oregon coastal rivers on ESA-listed coho salmon is premature for it relies on a narrow data base for spawner abundance; it does not take into account nutrient enrichment from salmon carcasses to enhance the productive capacity of the habitat; projected spawner abundance is expected to decline in two of the four rivers proposed for harvest; and unfortunately continues the long series of efforts to recover wild coho on the Oregon coastal rivers that have failed to succeed.

The ODFW proposal 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 ICRTRT 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

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 (ICTRT 2007).

In reading the ODFW proposal for a kill fishery on wild ESA-listed coho salmon in select coastal rivers I did not find a risk analysis comparable to that developed by ODFW for interior Columbia River ESA-listed salmonids by the ICTRT. I can only conclude that the risk analysis for this proposal is not sufficient to justify a kill fishery on ESA-listed coho salmon.

ODFW used the NMFS “Truth Scale” to determine the sustainability and viability of OCN coho in Oregon’s coastal rivers (Wainwright et al. 2008) in developing the harvest proposal. ODFW staff were involved in developing the Truth Scale. Repeatedly in this NMFS assessment the authors emphasized not to use the Truth Scale to conclude a pass/fail designation for coho populations in rivers. However, ODFW did use the Truth Scale to conclude that selected populations were viable and could be harvested. ODFW used the pass-fail criterion in evaluating the condition of coho populations as follows: “ODFW interprets positive truth values to indicate the population is sustainable/viable” (header to Table 1 in FMEP document; also stated in other ways in Section 1.) The problem with this approach is that any value above 0, no matter how small, is taken to indicate sustainability, when in fact there is uncertainty on both sides of 0. This approach gives equal weight to Truth Scale scores of .001 and .999 which is not a supportable conclusion.

ODFW staff were involved in developing the Truth Score but when it came time to apply it to the proposal to harvest ESA-listed coho in selected rivers, the staff ignored its proper application. This points out a problem with the ODFW fishery management plan for OCN coho because it is founded on an improper application of the Truth Scale, leading to a deceptive optimism about the viability and sustainability of the coho populations targeted for harvest.

We are also concerned about the impact of a targeted wild coho kill fishery on fall chinook in Oregon coastal rivers. The prospect 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 may impact chinook abundance in these rivers.

If a coho fishery is adopted by the commission, restrictions on terminal tackle should be included. We brought this up to staff at a recent meeting in Salem and were told that they had not discussed the impact of the coho fishery on chinook and had not recommended limitations on tackle. We recommend that the Commission adopt a regulation requiring no bait and barbless hooks for these fisheries. This would assist in protecting fall chinook.

On June 5, 2009, the ODFW Commission, by unanimous vote of support, approved the kill fishery for ESA-listed coho salmon. The NFS testified in opposition, but we knew from experience that this set of commissioners would approve the kill fishery. ODFW does not have

ESA clearance for this fishery yet, but is working diligently to convince NMFS, the agency responsible for recovery of threatened species, that killing wild coho is justified.