

*"The Observer  
has come to stay,  
and it won't  
take water from  
anything that  
wiggles."*

— George Hibbert  
Observer Founding Editor  
Dec. 28, 1900



# CHINOOK OBSERVER

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## Letter: Changing fishing gear raises tangled web of issues

Tuesday, June 29, 2010

"Diverse fishing methods coming back," published Wednesday, June 23 in the Chinook Observer, and Monday, June 21 in the Daily Astorian, is an attempt to take a balanced look at the possible reintroduction of former commercial harvest methods for Columbia River commercial fisheries. It is welcome that the editor recognizes the social and economic dilemma of doing this for those who are heavily invested in the gillnet fishery, which for the past six decades has been the only legal gear allowed in the Columbia River non-Indian commercial fishery. But recognizing the promise of commercial fishing methods that allow for greater mark-selectivity is one thing. Determining if there is a feasible means of implementing such selective commercial fishing methods, and figuring out what will in fact work, is quite another.

None of the gear forms mentioned in the editorial ever was used historically for a selective fishery. In fact, quite the opposite was the case. The haul seine or beach seine, fish wheel, and fish trap all were eliminated by initiative petition both in Washington and in Oregon because they were so deadly efficient. Purse seines were banned in the Columbia River by the fishery management agencies of both states in 1917, outlawed in near-shore coastal waters by the Washington legislature in 1921, and in all the waters of the state by Oregon's legislature that same year (Craig and Hacker, 1940, p.182).

### Many changes on the river

One also needs to consider that a great many changes have taken place on the Columbia River since any of these large gear forms were used commercially. Fish traps historically were guarded by men with guns to prevent predation by marine mammals, which today is prohibited by the Marine Mammal Protection Act. Many of the locations where seines and traps were deployed historically are now no longer accessible because of placement in wildlife refuges, changes in beach front ownership, and the greatly increased regulatory climate of the current day. The only place fish wheels were deployed was in the rapids of the Cascades and The Dalles, conditions eliminated by impoundments behind the hydropower dams of the Columbia River.

Another issue with all large gear forms is crew shares. A gillnet can be fished effectively by one man in a gillnet boat. The boat and gear are easily transportable, making it possible for the fisherman to take his boat to wherever the management agencies have chosen to set a fishery

opener, as they do on a regular basis, using the selective management principle of time, area, and gear placement (TAG selectivity). Large gear forms require several men to operate, which means that if they are to be economically viable, they must catch enough fish to support several fishing families. It isn't enough to simply catch fish; they will need to catch a lot of fish. Also at issue are investment costs and safety. It would be easier and far safer to rig a purse seiner to fish with a gillnet than it would be to rig a gillnet boat to fish with a purse seine. Gillnet boats are not a stable enough platform to safely fish with a heavy block overhead. Drowning fishermen in the attempt to catch hatchery fish is not an acceptable option from anyone's perspective.

There seems to be a general lack of understanding that there are times of the year when gillnets are the most selective gear used in either the in-river recreational or commercial fishery. During the season for fall Chinook, for instance, the gillnet can be fished effectively before and after peak abundance, when target stocks are abundant, but stocks of concern are not. The recreational fishery is only effective during peak abundance, when of stocks of concern are abundant, but target stocks are not. As such, the in-river recreational fishery typically burns far greater impacts while catching fewer fish than the gillnet fleet during that time frame.

### **Water temps matters**

Water temperature is another important factor in mark-selective fisheries. During the mark-selective fishery for spring Chinook, water temperatures are typically in the 45-degrees F range. During the summer, the waters of the Columbia River typically reach 65-degrees F, and in the early fall time frame, 65-degrees to 70-degrees F. Water temperatures that high can be lethal to salmonids without adding fishery stress to the equation. The issue here is not immediate survival rates of fish released. The long-term mortality rate needs to be determined for any gear form used in a mark-selective fishery. That brings us to a sore point regarding the increasing implementation of mark-selective recreational fisheries by fishery managers in both states. There is no data to back up the hooking mortality rates assigned to Columbia River mark-selective recreational fisheries. No hooking mortality studies have been conducted in the Columbia River whatsoever. We concur with the statements recently made by the Columbia River Treaty Tribes at the Pacific Fisheries Management Council meetings in March and April of this year concerning increased implementation of mark-selective fisheries. To quote from the March 2010 meeting:

"The full resource impact of mark-selective fisheries, like any other fishery, needs to be accounted for. If we are to achieve our recovery goals and spawning escapement objectives, then we must control total mortality levels to sustainable levels, and this requires a full accounting of all sources of mortality upon our salmon stocks." (March PFMC agenda item G.7b)

The test fisheries of alternative commercial gears conducted by the Washington and Oregon Departments of Fish & Wildlife this year and last will need to continue for several years to come to accurately determine what gear, if any, will pass muster. It took five years before coded-wire-tag data collected during the spring Chinook fishery of 2003 was analyzed sufficiently to establish a reasonably accurate mortality rate for the tangle net used during the mark-selective fishery for spring Chinook. It is likely to take even longer to figure out how to implement a mark-selective commercial fishery in-river for tule fall Chinook. But the importance of doing so cannot be overstated. The National Marine Fisheries Service (NMFS) and the Hatchery

Scientific Work Group have made it abundantly clear that unless there is an effective, mark-selective commercial fishery in-river to keep hatchery tules off the natural spawning grounds, the hatcheries will be defunded, and the workhorse stocks of offshore fisheries upon which the economies of many of our fishing-dependent coastal communities rely, will be taken away.

### **Tangle nets have promise**

Last year's test fisheries for coho indicated that the tangle net shows real promise for a mark-selective fishery for coho in October if the right mesh-size can be determined. By October, the river temperature has begun to decline. But it would be a grueling fishery with extremely short soak times, requiring the fishermen to lay out and pick up almost continuously. It definitely would be a young man's fishery. But if the opportunity is there to catch more fish, young men will step up to the challenge. This brings us to the last point. All fisheries cause impacts (unintended deaths of bycatch), including hook and line. Unless the management agencies assign the impacts to make a mark-selective commercial fishery feasible, no gear is going to work. One simply has to have impacts to prosecute a fishery, whether it is a mark-selective fishery, or a traditional keep-what-you-catch fishery. As Darren Crookshanks says in the video of the tangle net as used in the mark-selective fishery for spring Chinook on the Salmon For All website, "Once you run out of impacts, you're done."

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