



MANAGING A COMPLEX FISHERY, LAKE CHELAN

As a full time guide on Lake Chelan since 2000 and having had an interest and passion that will remain throughout my life, it is my desire that this fishery be viable for generations to come. Yet, because I make a practice of posting pictures of retained lakers from Lake Chelan, I have received comments from enthusiastic catch and release anglers that would indicate that I do not have the continued viability of the resource in mind. Compared against today's conservation ethic the Lake Chelan's "retain all you can catch rule" for Lakers sounds like lunacy. Yet to the avid Kokanee and Cutthroat anglers that want to catch more and more of their intended species, the rule doesn't go far enough. They would advocate commercial removal of Lake Trout. I want to use this article to explain my opinions on the Lake Chelan Fishing Regulations. I am not so arrogant as to believe that I have all the answers. I do believe that with the thousands of hours that I have spent fishing on the lake over the past 17 years I have earned the right to state my opinion publicly. I also believe that in doing that I should support my opinions. Most of what follows is deeply colored by my own experience and somewhat shaded by my reading and my discussions with other stakeholders in the Lake Chelan fishery.

The first thing that I have learned is that political power (you can read that legal or economic clout) has more influence on fisheries policy than biology or far seeing policy statements. Case in point, the introduction of Kokanee, Rainbow Trout, Mysis Shrimp, Chinook Salmon, Lake Trout and most recently, Smallmouth Bass. Following are some

illustrations from Lake Chelan. The gist of the fishery policy on Lake Chelan states broadly that indigenous fish are to be propagated and promoted while introduced species are to be monitored or reduced in abundance to benefit indigenous species. Yet, the sole species that is targeted for reduced abundance is Lake Trout. The species that are targeted for propagation and promotion are Kokanee and Cutthroat. Cutthroat are indigenous. Kokanee are not. Even though they are voracious shallow water predators and have increased dramatically in the 17 years that they have been in Lake Chelan, Smallmouth Bass are not mentioned in the policy. Burbot are an indigenous species that may be on the decline, yet they are mentioned in passing. Northern Pikeminnow are indigenous, historically have provided a huge piece of the lakes bio mass, would have historically provided a huge amount of forage for the top of the food chain predators, apparently are in steep decline and are barely discussed. Chinook Salmon are introduced and are briefly mentioned and tagged to be monitored. Mysis shrimp are introduced and the huge driver of our Lake Trout and Chinook Salmon populations, are also one of the limiting factors on our Kokanee yet there is little mention of what to do about their population. Lake Trout have a small number of proponents with little clout. The National Park Service on Lake Chelan supports cutthroat. Kokanee are the most fished for fish in the system. Smallmouth Bass through B.A.S.S. have a small but politically effective advocate. Burbot like Lake Trout have a small cadre of proponents that are a political non-entity. Nobody likes Northern Pikeminnow. Mysis Shrimp aren't fished for and defy any reasonable human efforts to control them. While balance is given lip service, fisheries policy on Lake Chelan is driven by political clout and fishery popularity with very little concern for what balance would be most effective and sustainable with the least amount of money.

The single most important organism on Lake Chelan that must be monitored and managed over the decades to ensure that we have a continuing and viable fishery is the Mysis shrimp. The way our current fishery is arrayed, they provide 80% or better of the food supply for our Lake Trout and Chinook. They also limit the numbers and size of our Kokanee by out competing their juveniles for food. The single largest danger to a continued trophy class fishery on Lake Chelan is a crash of zooplankton created by an overabundance of Mysis Shrimp. If we lose our relatively fragile zooplankton base, which is the primary forage for everything, then the Mysis shrimp population crashes as well as us losing our ability to provide a nursery for other fish.

The emphasis on the propagation and promotion of Cutthroat is a waste of money motivated by the Endangered Species Act and a slightly more mature environmental perspective that will ultimately fail. This lake began to favor other species as soon as a dam was built. For the lake to go back to the good old days, we would need to not only eliminate the introduced species, which is biologically impossible, and continue stocking of Cutts, we would also need to breach the dam, which is politically impossible. As beautiful and desirable a fish as our native Cutts are, we are economically wedded to hydro power generation, irrigation for agriculture and flood control. The mitigation methods to try to work around these facts of life are hideously expensive and doomed to failure. The elimination of all the introduced species, would also be necessary and grossly expensive. Remember, that would mean the elimination of Kokanee, Chinook,

Rainbow Trout, Mysis Shrimp and Smallmouth Bass as well as Lake Trout. Can you name one eco system as large as Lake Chelan that has effectively done this?

The Chinook planting program should be expanded. It should be supported and funded by a separate "tag" bought by Lake Chelan anglers that want to retain Chinook as well as by tourism dollars from the Valley's tourism industry in general. A vastly expanded Landlocked Chinook fishery would make this a year round Mecca for Puget Sound area anglers that are sick and tired of inscrutable regulations for migratory Chinook. These fish are the most economically desirable fish in the Northwest. Landlocked Chinook are expensive to propagate and difficult to maintain, but, they promote themselves and would be revenue positive because of the traffic they would generate to the Chelan Valley outside it's July/August tourist "season". Chinook anglers rent lodging, buy meals and do wine tours as well as purchase other goods and services. If we can displace Lake Trout by introducing and retaining more Chinook in the system, it is a winner for everybody.

Smallmouth Bass really need to be watched. They seem to have been one of the most dramatically successful (in terms of their ability to establish and reproduce themselves) species to be introduced into Lake Chelan. They dominate one of the smaller and more critical areas of the lake, the shallow, and nursery water or littoral zones in bio speak. They are voracious predators and multiply quickly.

Lake Trout, for better or worse are currently the Marquis fish that we have here on Lake Chelan and should be managed and promoted as such. They need to be managed by maintaining a robust harvest of our smaller fish to keep the right balance of size and numbers in the system. The harvest of our large fish should be monitored to ensure that our current balance of great numbers and consistent opportunity to catch big fish continues. If we do not harvest enough, they will reproduce and stunt much as has happened in many other Western Lakes and Reservoirs. Additionally, because of the extraordinary depths we catch these fish at, catch and release is pretty futile for the smaller fish, as the great pressure change that occurs will prove to be lethal to the majority of them. This is because the air bladder inflates and can't be deflated by most of the fish under 10 pounds. Even if you can release that pressure the damage to internal organs would prove fatal. Bigger fish take long enough to come up so that they can "burp" their air and be released with much lower mortality. Therefore, the harvest of large numbers of the Lake Trout in the common size range of 17 to 27 inches should continue as an important component of a plan to maintain a balanced fishery.

Further, charging anglers for a catch record card that would allow for the harvest of a limited number of lakers over 30 inches could provide the ongoing money necessary to provide a monitoring system. They need to be promoted by all of us Northwest anglers and members of the Chelan Valley Tourism industry for what they are. In Lake Chelan, they are a fish that is self-sustaining, provide a year round angling opportunity capable of bearing sustained harvest with the potential to produce fish over 20 pounds in a relatively sterile environment. They provide similar marketing opportunities and challenges to Walleye. They are a voracious yet rather slow swimming predator. Therefore, pound for

pound they do not fight as well as a Chinook or a Steelhead. Just like a Walleye. They can be a challenge to catch, just like Walleye. They are delicious to eat, just like Walleye*. Additionally, remember the Yukon and Northwest Territories have a successful Tourism Industry based around trophy Lake Trout angling. The difference is they can sustain a greater harvest here than Walleye can in the Columbia system or far northern waters can for Lakers.

One suggestion would be to change the Lake Trout harvest to 5 fish per person per day under 30 inches in length. This would cause people to value these fish at least as much as other trout in the state. The unlimited harvest regulation, while not harmful biologically has been a public relations disaster for the Chelan Laker causing a significant number of serious anglers to consider them a scrap fish. The harvest of 30 inch plus lakers should be limited to those taken by anglers that purchase a \$30 catch card for 15 fish. They can buy additional cards as they fill the existing ones. Monitoring and managing is the goal. A \$5 card should be available to accommodate our tourist trade. It would be good for one week and allow for the harvest of 2 Lakers over 30 inches. Anglers that do not purchase this card would be required to release those larger fish. Since, unlike smaller fish, they burp their air, the mortality would be relatively low. With the implementation of these recommendations the existing fishery can be maintained and enhanced as things change.

With all the above things being said, there is the rule of unintended consequences that needs to be acknowledged. Things will change, and we don't have all the answers. Nature always throws unexpected curves at us.

In summary, Lake Chelan provides a great Lake Trout fishery as well as a potentially great Landlocked Chinook Salmon fishery. It can sustain a high number of Lake Trout being harvested without a drop in population, but that harvest must be monitored to ensure the continued viability of a trophy and numbers fishery.

*There is a certain crazy dispute in this area. My opinion is that our red meated, tight-grained shrimp eating lakers are great table fare. When I tell my tourists how great they are, they always report back to me that they were the best fish that they have ever eaten. Yet hard-core local anglers will state that they aren't. My question usually is: "Did you let them get warm and mushy, not scrape the loose body fat or did you overcook them?" Even a prime porterhouse can be ruined.