

Submitted by Gary Sinnhuber - Homer AC Representative

RC 252

Amendment of Proposal #53, with Supporting Data

As the result of the Lower Cook Inlet discussions on proposal #53, which was a Homer AC proposal, I would like to amend this proposal to read as follows:

"All sport caught and released fish in the fresh waters of the Kenai Peninsula must be handled such that the gills are not removed from the water."

There have been many discussions about catch and release, both positive and negative. Regardless of how we feel about catch and release, it is extremely important that we standardize the method of release on our Kenai Peninsula fresh waters, to minimize mortality. Proposal #53 is an attempt to do that.

I believe that it is very important for Fish & Game to define best practices for catch & release, and that these practices be well publicized in our fishing regulations, making it a requirement to abide by them. It is not good enough to say that fish should not be removed from the water. I have seen countless times where fish being released are first dragged half way out of the water, technically keeping the tail section in the water, while leaving the front half flopping on the shore in the sand/gravel, muds or rocks, as the hook is removed. Mortality of fish from catch and release is greatly determined by our behavior or habits when releasing the fish, rather than whether we use barbed or barbless hooks.

The following article, which supports this proposal, is an excerpt from a larger article by Jeff Mishler, which was originally printed in the April 2010 issue of "Salmon, Trout Steelheader" magazine. I literally cut and pasted, to condense, making a quick read of the issue at hand. I would strongly urge you to read this excerpt, where Dr. Bruce Tufts studied physiological effects of catch and release, when fish are removed from the water for either 30 or 60 seconds after exhaustive exercise. His results showed that the control fish with no air exposure experienced 12% mortality, while fish held out of water for 30 seconds showed 38% mortality, and fish held out of water for 60 seconds showed 72% mortality.

(2010)

This is a reprint of an article I wrote for a fishing magazine last April, but since we're at the beginning of winter steelhead season, it's a timely reminder of our roles in conserving the last wild ones: Keep Them In The Water!

HOW MANY WILD STEELHEAD DID YOU KILL THIS YEAR?

By Jeff Mishler

Let's just say for the purpose of this piece that you're a catch and release angler. You release all wild steelhead, salmon and trout because, well, it's the law on most rivers here in the pacific northwest and more importantly, an angler concerned about the future of the sport, mostly likely, has come to realize that the future of any fishery lies in the preservation of genetic diversity which can only be ensured through abundant wild adult escapement. Releasing wild fish keeps the gene pool rolling along its natural way. And while some anglers are good at catching fish and others are not, it's very probable that some anglers catch a lot of wild fish because they target them specifically; for whatever reason, they ignore the put and take fishery available to sport fishermen in most states and choose to pursue wild fish presumably using tackle and techniques that minimize mortality of the resource.

No angler of good intentions wants to admit that their catch and release routine, routinely kills wild fish. But these routines are often old habits passed down the family line and they can be hard to break, even if they negatively impact the resource we think we are protecting.

What we do once the hook is set has more bearing on a wild fish's survival than the gear we choose. Whether we fly fish only or pinch the barbs on our favorite plugs, equipment has little statistical impact on the overall percentage of mortality associated with catch and release---It is widely promoted that a fish hooked in the corner of the mouth or outside the mouth experiences a 3% chance of mortality if it is landed promptly, kept in the water and released quickly. The use of barbed or barbless hooks doesn't seem to change that percentage significantly. Mortality is determined greatly by our behavior, or habits.

Dr. Bruce Tufts is a professor of biology at Queens University in Kingston, Ontario, Canada. He has studied the physiological effects of catch and release fishing since the late 1980's. The findings from his research have helped shape catch and release regulations throughout North America.

According to Tufts, factors such as time out of water and length of fight combine to determine a released fish's chance of survival. In his study, "Physiological Effect of Brief Air Exposure in Exhaustively Exercised Rainbow Trout: Implications for "Catch and Release" Fisheries", Tufts studied the effect of time out of water periods of zero, 30 and 60 seconds for rainbow trout after exhaustive exercise. In 57-degree water, after 12 hours of recovery time, the control group-- fish that were held in captivity but not exercised--experienced no mortality. The group not exposed to air immediately after exercise experienced 12% mortality. The group exposed to air for 30 seconds after exercise experienced 38% mortality, and the group exposed to air for 60 seconds after exercise experience 72% mortality. 7 out of 10 trout died after 12 hours when exposed to air for 60 seconds.

Tufts concluded, "...the brief period of air exposure which occurs in many "catch and release" fisheries is a significant additional stress which may ultimately influence whether a released fish survives". According to Tufts' study, any exposure to air significantly decreases a salmon, trout, or steelhead's chance for survival.

Tufts states in a 2004, *In-Fisherman*, article, "When you remove a fish from water the secondary lamellae in the gills collapse, inhibiting gas exchange". Tufts and I use similar analogies when trying to explain how detrimental it is to hold a fish out of water for long periods of time after landing it. Imagine running 100 meters as fast as you can and when you cross the finish line someone grabs you by the back of the head and forces it underwater for a minute. What's your chance of mortality? Salmon, trout and steelhead breathe air about as well as we breath water.

Tufts states in an article published in, *Atlantic Salmon Journal*, Spring 2001, "There's No Excuse Not to Stop Killing Salmon" that, "the studies have documented (delayed mortality) in salmon and other species...it is not something that occurs immediately after the period of exhaustive exercise...therefore not something that would be apparent to an angler releasing a fish. Delayed mortality can occur in fish that appear absolutely normal at the start of the recovery period."

60 seconds out of the water and you've killed 7 out of 10 fish. This is somber news.