

**PROPOSAL 157 – 5 AAC 57.120. General provisions for seasons, bag, possession, annual, and size limits, and methods and means for the Kenai River Drainage Area.** Modify the annual limit of king salmon from the Kenai River to two fish, only one taken prior to July 1, as follows:

Change to “Lower Kenai River Mainstem and Skilak Lake” seasons and bag limits for King salmon; **Of these 5 total king salmon no more than 2 may be taken from the Kenai River and only 1 may be taken from the Kenai River prior to July 1.**

[OF THESE 5 TOTAL KING SALMON NO MORE THAN 2 MAY BE TAKEN FROM THE KENAI RIVER]

**What is the issue you would like the board to address and why?** In recent years we have seen a troubling pattern of near record low returns of early run (ER) Kenai River Chinook salmon to the Kenai River. We believe that a good portion of our Kenai River ER decline can be linked to in-river harvest patterns, fishing on middle river mainstem spawning fish throughout the entire King salmon season, insufficient spawning area protections and multiple years of over-harvest of the population due to biased high sonar counts. We are also concerned that the procedure in place that counts all Chinook harvest after July 1<sup>st</sup> against the Late Run has resulted in less Early Run escapement than reported.

The ER mainstem component of Kings have always been available for harvest longer than any other subspecies of Kenai River Kings because of their early run timing and lack of spawning area protections.

Please remember that these fish have only been fished on like this for about 35 -40 years, which is a relatively short time in the scheme of things, but long enough to have altered their ASL characteristics. The 2012 Yukon study identifies this as, **FIE (Fishing Induced Evolution) whereby you see changes in the genetic component resulting in declines in Chinook abundance, increasingly male-biased sex ratios, decreased size of spawners and declines in the return of the oldest age classes. They go on to say that these can be the results of selective fishing. They also say that, “If size –and age-at-maturity are highly heritable, then the effects of selection would result in a propensity of stocks to propagate more small young mature fish in subsequent generations. This mechanism could cause a long-term decline in returns per spawner.”**

They conclude by saying, **“efforts to counteract declines would likely require reductions in size selectivity of gear and exploitation rates, and that improvements would be slow to materialize, requiring multiple generations under the new selection regime.”**

Even though the ER does not have any Cook Inlet commercial fishing occurring during its run timing into the Kenai River it has suffered more drastically in its age / sex composition over time than the Late Run. We believe this was largely a factor of in-river over-harvest. Over time, the data illustrates that we now have only about a 20 – 25% female component and our largest age class of 1.4 fish has fallen to less than 10% of the run where the 1986 – 2013 mean 1.4 average was 42% of the run.

Research tells us that if we implement a more conservative management scheme we can reverse these trends and rebound these stocks but it will take multiple generations to do so (20 – 30 years). This proposal seeks to lower the exploitation rates on ER fish by implementing a one fish bag limit prior to July 1<sup>st</sup>. This is just one of a suite of proposals our organization is putting forth to provide conservation measures to help in the recovery of our Kenai River Chinook salmon stocks and help us achieve long term sustainability for these stocks.

**PROPOSED BY:** Kenai Area Fisherman’s Coalition

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