

**2011 University of Washington
Fishery selection and Pacific salmon life histories:
patterns and processes**

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“Next I quantified multi-decadal fishery selection patterns in a range of Alaskan Pacific salmon fisheries. I quantified and compared commercial and recreational fishery selection on Chinook salmon (*O. tshawytscha*). I discovered that selection by the recreational fishery, which consistently caught larger fish, but not the commercial fishery, which has caused variable selection but overall caught smaller fish, has been consistent with the size trends towards smaller fish over time.”

“Recently, the effects of fishery selection on wild populations’ life history traits have received a great deal of attention, with the literature warning of adverse evolutionary changes. Selective harvest on wild fish populations has been associated with shifts towards smaller fish, younger age distributions, and decreased age and size at maturation and is linked to changes including decreased fecundity, increased sexual dimorphism, lowered reproductive rates, decreased reproductive potential, loss of yield, increased variability in abundance, and even fishery collapses. Numerous studies have emphasized the importance of older, larger fish for stock stability and sustainability.”

Please Note: These conclusions are consistent with the research findings in the “Arctic-Yukon-Kuskokwim Chinook Salmon Research Action Plan”.

This is more justification to support Proposal 219 to protect some of our most productive Kenai R. mainstem spawning locations. The effects of selective harvest would not be present in these waters and would provide us with our best opportunity at reversing the age class shifts that will hamper future stock recovery.

KAFC – Kenai Area Fisherman’s Coalition