1/14/2020

Additional Information for Chinook Salmon (Proposals 37 and 63)

By Kodiak Salmon Work Group

- In 2014 through 2016, Shedd et al. estimated that 2.6%, 4.5% and 3.8% of the Chinook harvest sampled in the KMA commercial fishery from all temporal strata were of Cook Inlet Origin. These percentages represent 182 fish, 334 and 260 Chinook respectively. Based on the release regulation for the commercial purse seine fishery (>28 inch fish must be released) all of the fish harvested would have been under 28 inches.

- These fish are likely age 2-ocean fish and assuming that age at maturity is 20% 2-Ocean, 25% 3-Ocean and 45% 4-Ocean fish (Eskelin and Perschbacher, ADF&G pers. Comm; Kenai River late run chinook age composition) and assuming that 100% of the 2-ocean fish survived they would represent 36, 67 and 52 fish returning to Cook Inlet systems in 2014-2016.

- Hatchery releases of chinook smolts within Cook Inlet averages 2.5 million smolts/fry annually (ADF&G; Stopha 2016-2018, RIR-5J19.01) while about 1.5 million smolts are produced from wild systems (using 50 smolts/spawner average, ADF&G, Elliott and Jones, pers comm). This translates into about 67% of the smolts produced in Cook Inlet are from hatchery releases.

- It is generally assumed that for Chinook salmon smolt to adult survival ranges from 1-3% depending upon the stock or hatchery release location. The mortality schedule for fish beyond 1-ocean age is poorly understood.

- **If one applies this hatchery to wild ratio to the catches of Age 2-Ocean fish of Cook Inlet Origin harvested in the KMA for 2014-2016, then there would have been 13, 25 and 19 fish destined for Cook Inlet systems (Kenai, Kasilof, Susitna ect). This exercise demonstrates again, that with small numbers of Cook Inlet Chinook identified in the Kodiak Management Area commercial catches, there is little if any conservation benefit realized by a plan as suggested by Proposal 37.**