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RC 014



10,000 years in our Traditional Homeland, Prince William Sound, the Copper River Delta, and the Gulf of Alaska

MEMO Subject: Copper River Chinook salmon Inriver Abundance Estimate (preliminary) Method of Enumeration: Mark-recapture To: State of Alaska Board of Fisheries - 11/30/2021 From: Department of the Environment and Natural Resources - Native Village of Eyak

Using a Darroch Estimator the mark-recapture based 2021 preliminary inriver abundance estimate of Copper River Chinook salmon is:

N = 21,656 Chinook salmon Standard error (SE) = 1,919 Lower 95% Confidence Limit = 17,894 Upper 95% Confidence Limit = 25,417

This estimate represents the number of Chinook salmon greater than 500 mm total length passing through Baird Canyon from 16 May 2021 – 17 July 2021. The inriver abundance estimate has been used by ADF&G (1999-2020) to estimate returning run size (*by adding harvest below the lower river tagging site to the inriver abundance estimate*) and spawning escapement (*by subtracting harvest of inriver fisheries from the inriver abundance estimate*). Currently ADF&G and Wrangell St. Elias NPS are responsible for estimating Copper River Fisheries Chinook salmon harvest.

In total 1,961 Chinook salmon were marked in Baird Canyon (Lower Copper River) and 1,373 Chinook salmon were inspected for marks at Canyon Creek (below the Upper Copper River District) of which a total of 116 Chinook salmon were marked.

Please direct questions regarding the mark-recapture based inriver abundance estimate to NVE-DENR (907)424-7738 or <u>matt.piche@eyak-nsn.gov</u>.

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