

Submitted by Joseph Person**Expected exploitation rate of King salmon in the proposed limited setnet fishery.**

Following my testimony in committee of the whole I was asked for an estimation of how many kings would be killed by this limited fishery. This is my best attempt at doing that and the methodology I used.

In 2022, the Kasilof section fished 84 hours and all sections fished 24 hours.

There were 198 permits fishing in the Kasilof section, and 107 permits were fished in the Kenai section.

So we have a total of

$((198 \text{ permits} \times 84 \text{ hours}) + (107 \text{ permits} \times 24 \text{ hour})) \times (2 \text{ nets per permit}) = 47,904 \text{ net hours}$

In 2022 that killed 41 large late run Kenai River kings for a harvest rate of 0.000856 kings per net hour.

I estimate effort in the proposed limited fishery will be even lower, around a maximum of 170 permits in the Kasilof section and 80 permits in the Kenai Section for a maximum total of 250 permits. The predictable component of the proposed limited fishery is 24 hours for the Kasilof section and 32 hours for all sections.

This gives:

$(170 \text{ permits} \times 24 \text{ hours}) + (80 \text{ permits} \times 32 \text{ hours}) \times (1 \text{ net per permit}) = 12,080 \text{ net hour}$

Applying the same harvest rate we would get an estimate of only 10.3 kings. And this is not even accounting for the expected savings due to fishing off low water slack.

Consequently I am very confident in a maximum expected impact of 50 large kings harvested. With an expectation of much lower.

Next to address the question of mortality of released kings. The best data available is the 2023 Kintama study which released 3 large kings and killed 6 large kings. Extrapolating this out, I would estimate a maximum LARGE king release of 25 fish. Mortality estimates I have been given range from 12-20% which would be an upper range impact of 5 fish.

In conclusion, the most recent available data suggests the possibility of mortality of 7 very restricted openings in the proposed limited fishery ranging from 12-55 fish.