Gene Sandone Information for Proposals 121-127

Total Coho Salmon Harvest (Commercial and Sport) and Percent Harvest by Fishery

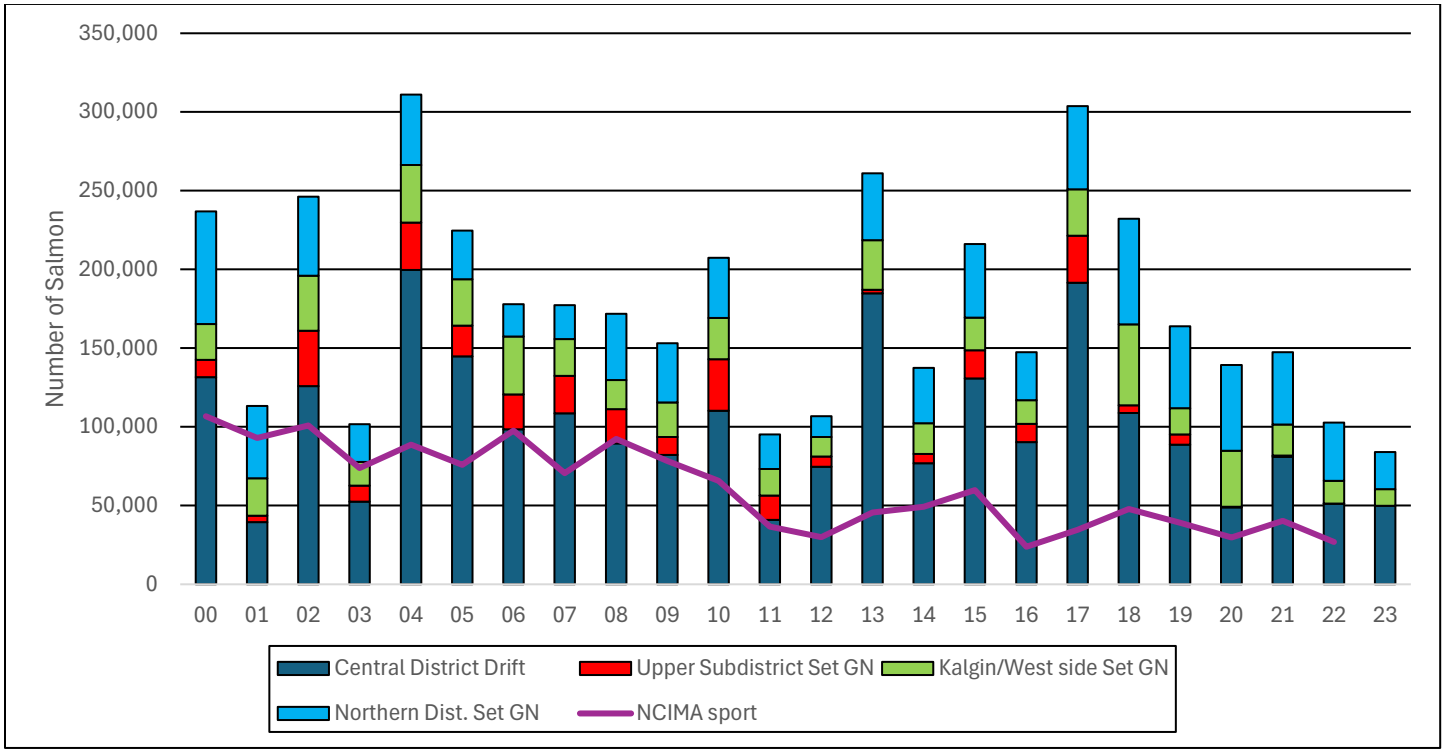

Figure 1. Upper Cook Inlet Coho salmon commercial and sport fish harvests, 2000-2023. Note: Sport fish harvests are unavailable for 2023.

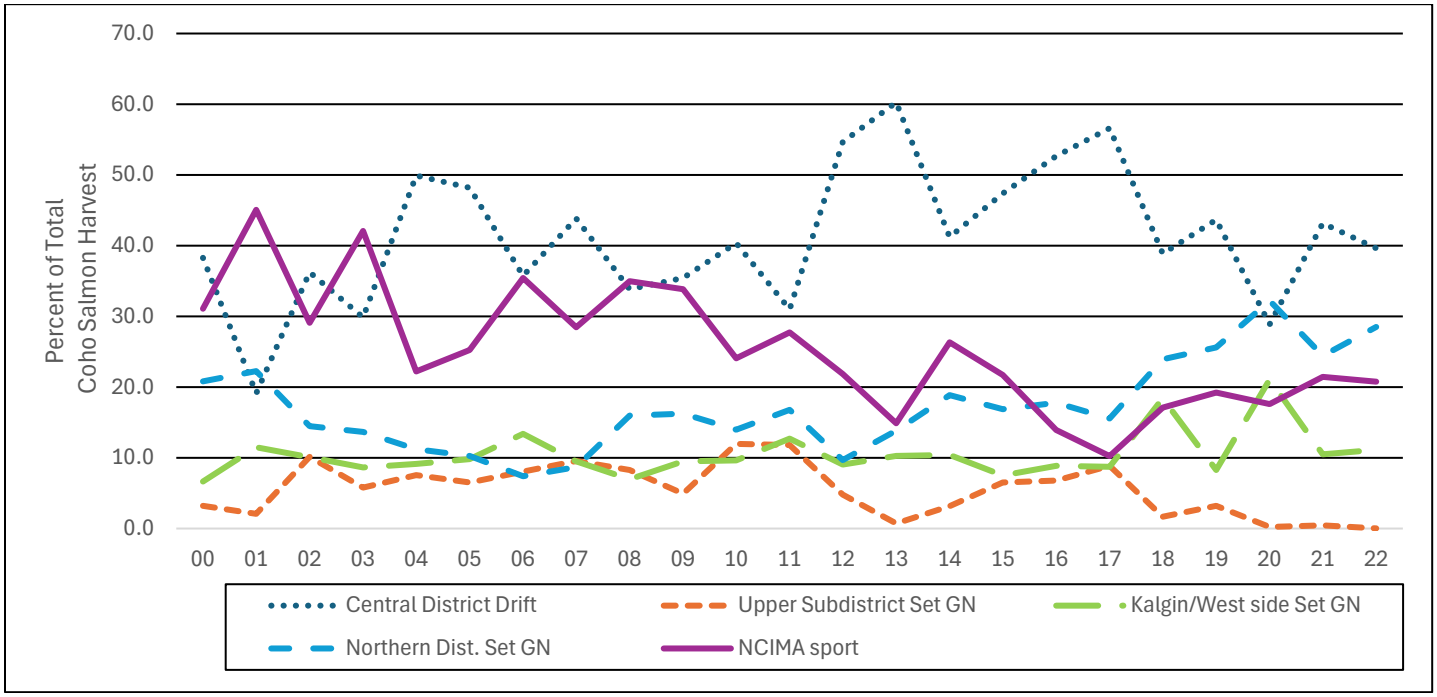

Figure 2. Percent by fishery of the Upper Cook Inlet combined commercial and sport fish harvest by fishery, 2000-2022. Note: Total harvest for 2023 is not yet available because the 2023NCIMA sport harvest is unavailable but is expected to be extremely small.

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Analysis:

The Northern District Set GN percent of the total harvest has been increasing since 2012. The percent of the total harvest has nearly tripled since 2012, going from 9.7% in 2012 to 28.5% in 2022 and a high in 2021 of 32.2, which was the highest percentage of any fishery. In 2023, this fishery accounted for 28% of the commercial harvest (Figure 1). The percentage is not expected to decrease substantial from that value because the 2023 sport harvest is assumed to be small.

The Central District Drift GN fishery harvest has accounted for as much 60.3% of the total harvest in 2013. This fishery's percent of Coho salmon harvest decreased to 28.9% in 2020 and has rebounded since then to 39.6% in 2022. This fishery dominated the 2023 commercial harvest, accounting for nearly 60% of that 2023 harvest (Figure 1). The percentage is not expected to decrease substantial from that value because the 2023 sport harvest is assumed to be small.

The Kalgin/West side Set GN has remained relatively stable from 2000 to 2017, accounting for approximately 10% of the total Coho salmon harvest. This fishery accounted for 12.6% of the 2023 commercial harvest.

Central District Set GN has declined over time to 0 harvest in 2023.

NCIMA Sport The NCIMA Sport harvest experienced a drastic decline in the percent of total harvest from the 2000-2003 period through 2017. During that time the percent harvest declined from 45.1% to 10.2%. More recently, the % harvest of the NCIMA Sport harvest has increased to 20.7% in 2022. It is important to note that recent total harvests have been relatively low because of reduced run sizes.

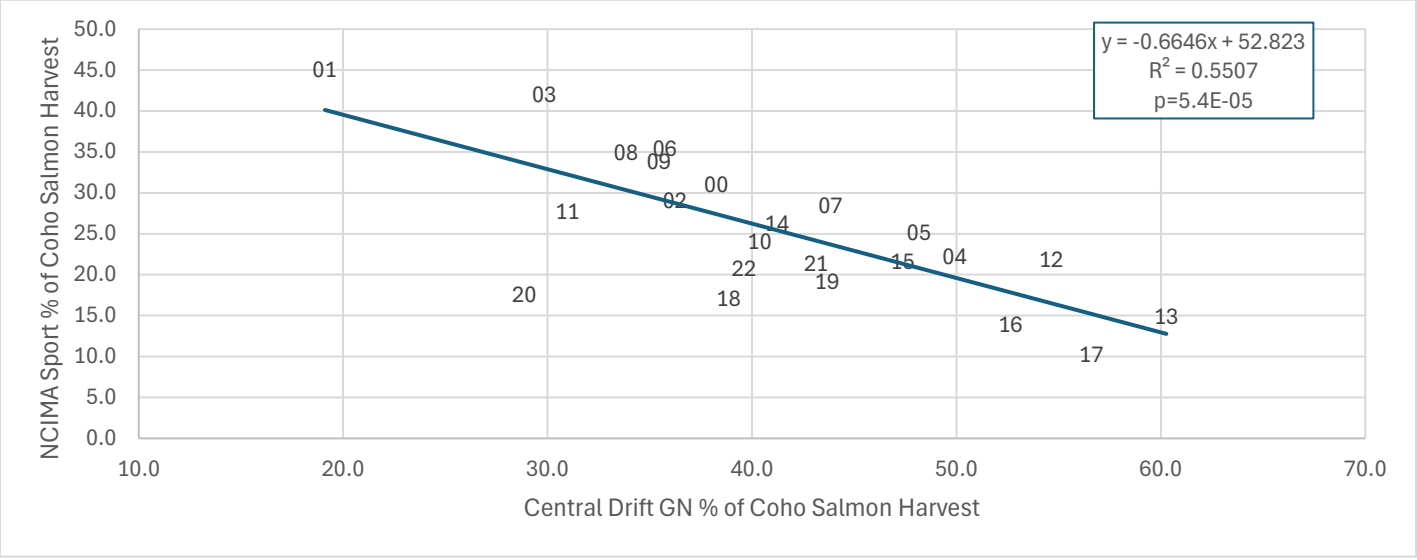

Figure 4. Regression analysis on the Coho salmon harvest percents between the NCIMA sport vs the Central Drift GN harvest percent, 2000-2022.

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The above regression analysis indicates a negative relationship between the Central Drift GN fishery % Coho salmon harvest and the NCIMA salmon sport fishery % Coho salmon harvest. The NCIMA sport fishery is a good surrogate for the inriver run as well as the spawning escapement. The Central District Drift GN fishery is the driver of Coho salmon getting to the streams and rivers of the NCIMA because it takes the highest % and number of fish harvest.

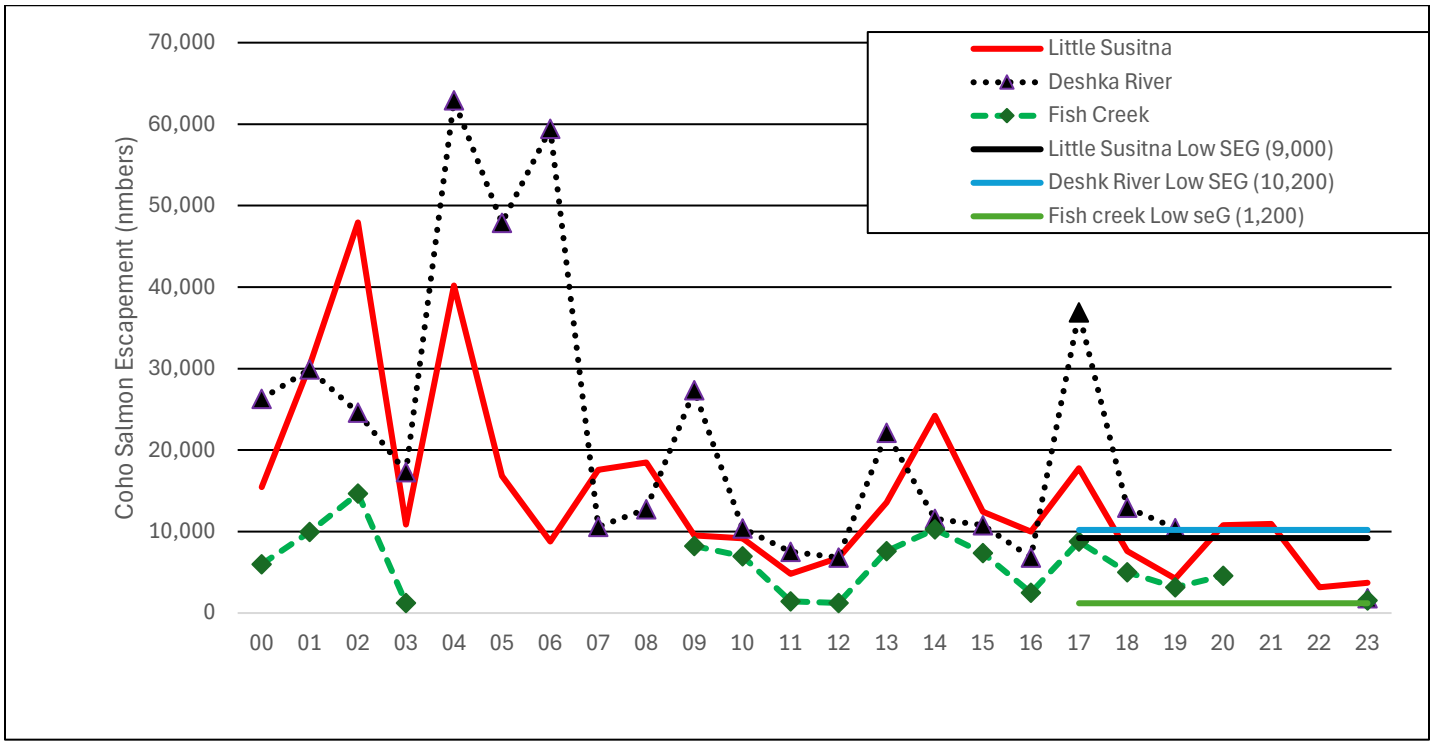

Figure 4. Coho salmon escapement to the Little Susitna, Deshka River and Fish Creek, 2000-2023. The low bound of the SEG for each system is also presented in this figure. Note that in 2023, there are two points on top of each other, the 2023 Deshka River escapement was 1,837; the 2023 Fish Creek escapement was 1,534.

The Coho salmon escapement to these monitored systems is currently very poor, except for Fish Creek. The Little Susitna and Deshka Rivers are currently experiencing Coho salmon escapements below the respective lower bound of the SEGs. Additionally, Sport harvest have been exceeding poor with multiple emergency orders that restrict or eliminate harvest in recent years. Ultimately, priority should be given to bolstering the escapement so that the escapements are achieved within the SEG ranges.