

Take-home points from ADFG Genetic Report for SAP salmon fishery:

<http://www.adfg.alaska.gov/FedAidPDFs/SP23-07.pdf>

Sample/Methods:

- 14,869 samples from chum harvested in SAP fisheries in 2022 (June – August)
- Sampling occurred every day the fishery was open
- 28 strata defined by area, gear type, and period
- Resulted in genetics run on 1 of every 82 fish harvested in 2022 (much higher rate than WASSIP at 1 of every 125)
- Level of sample and analysis resulted in very precise estimates of stock-specific harvests
- Also measured lengths and determined ages for all samples, providing first estimates of age composition and context for future interpretation of stock composition estimates.

Differences from WASSIP:

- Higher sampling rate in 2022
- Design of analysis of the 2022 harvests differed from WASSIP, baseline genetics were the same.
- One year (2022) vs several years. Additional estimates from planned 2023 to 2026 sampling will provide valuable context for the 2022 estimates.
- The relative presence of Asia and CWAK stocks in South Alaska Peninsula harvests was very different in 2022 than in the WASSIP years. Overall in 2022, 3.3 Asia chum salmon were harvested for every CWAK chum salmon whereas the average ratio of Asia to CWAK among 2007–2009 was 0.56 (Table 28).

Distribution of Total Harvest of Asia and CWAK among SAP Components:

- Contributions from the Asia and CWAK groups peaked in June, decreased throughout July, and were minimal by August, present in the fishery at less than 1% of each stock's total harvest.
- For both Asia and CWAK, the vast majority of stock-specific total harvest occurred in the June fishery (91% for Asia, 93% for CWAK; Table 28).
- More of the June harvest took place in the Unimak and Southwestern Districts for both Asia (63% of total) and CWAK (70% of total) than in the Southeastern and South Central Districts (Asia = 29% of total, CWAK = 23% of total).
- Across both areas and all months, most of the total harvest of Asia (94%) and CWAK (82%) was caught by the seine fleet. However, it should be noted that the stock composition estimates for CWAK were greater in gillnet strata than seine strata (e.g., Tables 12-13), but higher harvests in seine strata resulted in the seine fleet harvesting a majority of CWAK total harvest.

Stock composition results for June fishery (all gears, all areas):

- The total June fishery harvest across all districts, gear types, and strata was considerably larger than July and August harvests, with a total June harvest of 544,064 fish (Table 15; Figure 15). The Asia group contributed the largest proportion of the harvest in June with an estimated 315,162 fish (58.0%). The CWAK group had the second largest contribution with an estimated 96,116 fish (17.7%) and the East of Kodiak group contributed an estimated 72,712 fish (13.4%). Harvests from other reporting groups were relatively small.

Stock composition results for June, Seine, Unimak and Southwest districts only:

- When the 4 temporal strata were combined with the stratified estimator approach, total June seine harvest in the Unimak and Southwestern Districts was 321,544 fish (Table 12; Figure 11).

The Asia group comprised the majority of the harvest in June with an estimated 199,002 fish (61.9%). The CWAK group contributed an estimated 55,707 fish (17.3%) and the East of Kodiak group contributed an estimated 33,107 fish (10.3%). No other groups contributed more than 5% of the June seine harvest.

Stock composition results for June, Seine & Gillnet, in Unimak and Southwest districts:

- The total June fishery harvest in the Unimak and Southwestern Districts, including both gear types (seine and gillnet) and all strata, was 366,590 fish (Table 14; Figure 14). The Asia group comprised the majority of the harvest in June with an estimated 216,593 fish (59.1%). The CWAK group contributed an estimated 72,275 fish (19.7%) and the East of Kodiak group contributed an estimated 38,393 fish (10.5%). No other groups contributed more than 5% of the June harvest.

Next steps:

- Uncertain if ADFG will have harvest rates to estimate impacts prior to the Feb BOF meeting
- Future sampling in 2023 – 2026 to provide additional years and context to the 2022 genetics