

Submitted by
CDFW RC 44

2014 Season Summary

Copper River & Prince William Sound

..... Fall 2014



CHINOOK SALMON RESEARCH INITIATIVE

Chinook salmon are an important resource to many Alaskans. At the direction of the Governor, a team of Alaska Department of Fish and Game (ADF&G) scientists and biologists, in collaboration with federal agencies and academic partners, developed a research plan with recommended studies to address low Chinook salmon returns. The Alaska Legislature provided funding for implementation during their 2013 and 2014 sessions. The core of the plan is stock specific, life history-based research focused on 12 indicator stocks from across Alaska.

The Copper River Chinook salmon stock is one of the stocks selected for study under this plan. ADF&G is radio tagging juvenile and adult salmon to determine abundance and is collecting age, sex, length and genetic data from commercial harvests.

Look for the salmon logo (🐟) to identify CSRI research in this newsletter

More information on the CSRI can be found online at: www.adfg.alaska.gov



Copper Chinook: Juvenile and adult fish are being tracked throughout drainage

A Chinook salmon study was initiated on the Copper River to determine what proportion of the escapement spawned above the ADF&G counting tower located 44 miles upstream of the mouth of the Gulkana River. A total of 105 adult Chinook salmon were radio tagged at the mouth of the Gulkana River in June and early July, 2014 and were tracked upriver. Of those 105 radio tagged fish, 76 migrated up the Gulkana River, 26 continued up the Copper River, and three died or expelled the tags. Of the Chinook salmon that migrated up the Gulkana River, 52 passed a tracking station located near Sourdough Creek at mile 33 of the Gulkana River, and 24 of them continued past the counting tower.

The fate of the tagged fish that failed to migrate upstream of Sourdough has not yet been determined, but based strictly on the tagged Chinook salmon that passed the Sourdough tracking station, the estimated proportion of Chinook salmon spawning above the counting tower will likely near 50%. Tagging studies like this provide managers with critical information on spawning distribution.

Copper River coded-wire study ↷

A feasibility study was conducted on the Copper River in the spring of 2014 to determine if a coded-wire tagging program could be initiated in the Copper River drainage. Coded-wire tags would allow ADF&G to estimate Chinook smolt abundance, and in combination with adult return information, marine survival and harvest estimates. This information would provide managers a more complete picture of the health of the Copper River Chinook stocks.

Crews sampled for four weeks on the Copper River Delta, on the mainstem of the Copper River near the Chitina airport and in the lower reach of the Tonsina River using beach seines and minnow traps. In total, 479 Chinook salmon smolt were captured in the lower river delta, 1,629 near the Chitina confluence, and 253 in the Tonsina River. Sampling was concluded on June 11 while catches were still steady or rising. It was determined that migration before ice-out was minimal. Experience gained on how, where and when to capture Chinook salmon smolt in 2014 will be used to conduct a full coded-wire tagging project in 2015.

Sockeye numbers strong in Upper Copper River Drainage

The Upper Copper River sockeye salmon sport fishery bag limits were liberalized from three fish to six fish on June 23, due to projections that the run would exceed the upper end of the spawning escapement goal of 750,000 salmon.

Weekly inriver counts past the Miles Lake sonar exceeded projected counts by more than 50,000 salmon during six separate weeks. As a result, six supplemental periods were allowed during the fishing season in which Chitina Subdistrict personal use dip net fishery permit holders were able to harvest 10 additional sockeye salmon.

The Chinook salmon sport fishery was restricted by emergency order to an annual limit of one fish 20 inches or greater in the Upper Copper River drainage effective June 14. Retention of Chinook salmon in the Chitina Subdistrict personal use dip net fishery was prohibited effective June 16 due to indications of a weaker than forecast run.

Commercially-harvested Chinook sampled ↷

From May 15–June 11, 2014, ADF&G personnel sampled 2,095 commercially-harvested Chinook salmon for age, sex and length data and collected 1,621 genetic samples. This data allows managers to monitor age and size of returning adult Chinook salmon, and genetic information may eventually be used to determine the specific stock composition of the commercial harvest.

Copper River and PWS salmon harvest summary

Chinook salmon: The total commercial Chinook salmon harvest in 2014 was 9,630, below the 10-year (2004–2013) average harvest of 21,200. Due to a poor Chinook salmon forecast, inside waters of the Copper River fishing district were closed for the first 11 fishing periods - nine fishing periods beyond the regulatory requirement.

Sockeye Salmon: The sockeye salmon harvest of 2.07 million fish was more than 1.5 times the previous 10-year (2004–2013) harvest average of 1.32 million sockeye salmon. The overall commercial sockeye salmon harvest from the Copper River District was the third largest harvest in the history of the fishery.

Copper River sonar estimates of 1.18 million sockeye salmon will likely meet the escapement goal once upriver harvest is accounted for.

Pink salmon: An estimated 36.8 million pink salmon were harvested by the seine fleet in Prince William Sound. This is slightly above the forecast harvest level of 31.4 million pink salmon. The Valdez Fishery Development Association run returned at double the preseason forecast and set the new record return at 24.5 million fish.

Coho salmon: It was a strong year for coho salmon with over 416,000 coho salmon harvested in the Copper and Bering commercial drift gillnet fisheries.