

2014 Season Summary Bristol Bay

..... 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 Nushagak River stock is one of the stocks selected for study under this plan. ADF&G plans to research juvenile and adult abundance, and local and traditional knowledge for this stock. These studies were underway in 2013 and 2014 with plans to continue in 2015.

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



2014 inshore sockeye run strong at 40.6 million fish

The 2014 inshore Bristol Bay sockeye salmon run of 40.6 million fish ranks seventh out of the last 20 years (1994–2013) and was 17% above the 34.7 million average run for the same period. This year's sockeye salmon run was 53% above the preseason inshore forecast of 26.6 million fish. Togiak was the only district to come in lower than preseason forecast with Naknek/Kvichak, Egegik, Ugashik, and Nushagak districts all larger than predicted.

The 28.8 million sockeye salmon commercial harvest was 61% above the 17.9 million preseason forecast. All escapement goals were met with a total sockeye salmon escapement of 11.8 million fish. Approximately 13,000 Chinook salmon were harvested in Bristol Bay in 2014. The preliminary harvest for other species was 557,000 chum salmon, 266,000 coho salmon, and 1.3 million pink salmon.

Nushagak River Chinook Research

The final 2014 Chinook salmon count past the Nushagak River sonar site was 70,482 fish. Although the third lowest count since 1990, it still achieved the escapement goal of 55,000 to 120,000 fish past the sonar. The sport fish bag limit for Chinook salmon was reduced to one fish on July 7.

A Nushagak River adult Chinook salmon enumeration study is providing more detailed escapement data. This mark and recapture project showed a preliminary estimate of 116,000 Chinook salmon. A total of 541 Chinook salmon were tagged downstream of the sonar site. Chinook salmon were recaptured at two tributary weir sites, the lowithla and Stuyahok Rivers. At the lowithla River weir a total of 798 Chinook salmon were counted including four tagged fish. The Stuyahok River weir counted a total of 2,197 chinook salmon, of which 10 fish possessed tags.

Spawning ground sampling took place on the Klutispak, King Salmon, and Upper Nushagak Rivers. A total of 275 Chinook salmon were sampled with one tag recovery. The Nushagak River Chinook salmon smolt abundance feasibility study was conducted in the spring of 2014. Beach seines and minnow traps were used to identify productive gear type, fishing locations and emigration timing in the lower river. A total of 783 Chinook salmon smolt were captured using beach seines and 38 smolt were captured using minnow traps. This study will continue in the spring of 2015.

Lower Talarik Creek Rainbow Trout Study

Long-term rainbow trout research on Lower Talarik Creek provided data on rainbow trout spawning abundance and length composition that will be compared to data collected in 2009 through 2013 and in the 1970s. The department has typically collected rainbow trout data from multiple populations for only one year at a time to estimate length composition for comparison to past collections.

An analysis of historic rainbow trout length data collected in Bristol Bay resulted in the recommendation that research should collect data on specific components (i.e., spawning population) of a rainbow trout stock for a longer time period, rather than collect length information from multiple stocks for only one year at a time, to provide more effective monitoring and management decisions.

This project is providing multiple years of rainbow trout abundance, length, maturity, and spawning histories for one tributary of the Iliamna Lake drainage that is a popular sport fishing destination for rainbow trout. It is not possible to monitor the entire drainage, so Lower Talarik Creek is serving as an indicator tributary for monitoring rainbow trout in the entire drainage. Ultimately, the results of this project will provide a better understanding of rainbow trout life history and allow more effective management of the sport fishery for rainbow trout in the entire Iliamna Lake drainage.

Bristol Bay *Salmon Summary*

Wood River sockeye salmon exceeded the escapement goal with a total estimate of 2.8 million. The sport fish bag limit for sockeye salmon was increased to 10 on July 4. In the **Ugashik District**, a cumulative sockeye salmon escapement of 640,000 is within the escapement goal range of 500,000 to 1.2 million. Cumulative sockeye salmon catch is 1.5 million.

The **Egegik District** saw sockeye salmon numbers reach the top end of the escapement goal. Escapement totaled 1.38 million fish, well within the escapement goal range of 800,000 to 1.4 million. Cumulative sockeye salmon harvest is 6.9 million. The **Kvichak River** sockeye salmon escapement was 4.5 million sockeye.

The **Naknek River** sockeye salmon escapement was 1.47 million fish, slightly above the upper end of the escapement goal range. Total sockeye salmon harvest for the Naknek-Kvichak District was 13.7 million sockeye salmon.

The run of **Nushagak coho salmon** exceeded the inriver goal by roughly 100,000 fish. The final count is 478,200. Managers increased the sport fish bag limit for coho salmon to 10 on August 7.