2014 Sesson Summary Southeast

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 collabora-tion 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 historybased research focused on 12 indicator stocks from across Alaska.

The Chilkat, Taku, Stikine and Unuk Rivers were selected for study under this plan. ADF&G is monitoring Chinook salmon escapements of adult fish and is tagging juveniles to determine freshwater production and marine survival. Angler interviews were conducted at nine ports in Southeast, Alaska and harvested Chinook salmon were sampled for genetic data and tag information.

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



Thousands of juvenile Chinook tagged as part of extensive study

Projects to estimate the escapement of Chinook salmon were funded in part through the Chinook Salmon Research Initiative. The 2014 escapement estimates are 1,691 in the Unuk River; 26,000 in the Stikine River; 11,944 in the Taku River and 1,700 in the Chilkat River. In these rivers, the escapement goal was only met in the Stikine River, suggesting continued poor production.

Juvenile smolt tagging projects also took place in each of these systems, resulting in over 80,000 Chinook salmon smolt being coded-wire tagged and released in the Unuk, Stikine, Taku, and Chilkat Rivers. With the exception of the Chilkat River, the numbers of tagged smolt suggested average to above average freshwater production. Details on smolt abundance, along with marine survival and exploitation rate, will be developed as information is collected from adult Chinook salmon returning through 2019. This information will provide managers a more complete picture of the health of these important Chinook salmon stocks.

Agencies partner to rebuild Crystal Lake Hatchery

Despite the total loss to structure, 2014 release goals met

On March 4, 2014, Crystal Lake Hatchery (CLH) in Petersburg was engulfed in a catastrophic fire that resulted in the complete loss of approximately 1,000,000 salmon eggs and fry (Chinook and coho), the incubation and generator buildings, and all associated equipment within the building. Emergency response, cleanup, and temporary stabilization of the remaining hatchery operations were complete by May.

In early July, a contract between Southern Southeast Regional Aquaculture Association (SSRAA) and ADF&G was established to complete the necessary design, procurement, and construction work to rebuild the facil-

ity. By the beginning of July, temporary incubation was setup onsite in an alternative building using new incubators and chillers.

Adult Chinook salmon were spawned in three egg take sessions in August whereby all egg take goals





were met. The egg take goal for coho was met in mid-October.

Steel framing and fabricated metal panels are currently being installed for the structures destroyed in March. Completion of the concrete slab, trenching, and drainage for the hatchery floor is ongoing. ADF&G has met with contractors and it is in final phases of recirculation designs for start-up rearing.

The entire rebuild construction is projected to finish by the end of the year. Despite the losses, all release goals for CLH were met in 2014 as most smolt had already been moved to outside raceways. The remaining fish that survived the fire will be sufficient to meet 50% of the annual release goals for the hatchery in 2015. These fish are harvested in sport and commercial fisheries in Southeast, including at Blind Slough, Anita Bay, Neets Bay and City Creek

Southeast sport and commercial fisheries good in 2014

Conservative commercial and sport fishery management measures were implemented in order to protect Chinook salmon stocks in the vicinity of Yakutat, Petersburg and Ketchikan, while still providing fishing opportunities.

The Chinook salmon escapement goal for the Situk River was met for the first time in the last four years. Chinook salmon brood stock goals are currently being met at the Crystal Lake Hatchery.

Unuk River escapement was double what it was last year. The sport fishery continues to rebound from its low effort observed in 2008, while being managed successfully for meeting treaty obligations, and allocations for lingcod and non-pelagic rockfish.

The Southeast Alaska purse seine fishery began the 2014 season in traditional areas on Sunday, June 15. August 28-29 was the final period of seine fisheries targeting pink salmon and additional fishing opportunities were directed at fall chum salmon. The department forecasted a pink salmon harvest of 22 million fish for the season, below the recent 10-year average harvest of 34.5 million fish. The purse seine season harvest was approximately 31 million pink salmon and 2 million chum salmon.



The drift gillnet fishery season harvest was 5.5 million salmon, well above the 10-year average of 4.5 million salmon. Harvests of Chinook, sockeye, coho and pink salmon were above and chum salmon harvest was slightly below 10-year averages.

The troll fishery season harvest was 2.9 million salmon, well above the 10-year average of 2.4 million salmon. Harvests of Chinook and coho salmon were well above and pink and chum salmon harvests were well below 10-year averages.

Nearly 40,000 anglers interviewed at nine **Southeast ports; over 14,000 Chinook sampled**

Marine sport sampling occurred at nine locations in Southeast Alaska. To date, 39,484 anglers were interviewed and 14,419 Chinook salmon were sampled for tag data and genetics samples were taken from 5,258 Chinook salmon. In the Southeast marine commercial fisheries, 409,673 Chinook salmon were harvested in 25 districts; of those, 112,463 were inspected for size and tag information, many of which were sampled for age, sex, and length information and genetic tissue. Sampling the marine waters harvest will allow researchers to collect tags, potentially from other ADF&G king salmon projects; and analysis of genetic samples could provide information on which king salmon stocks are harvested in area fisheries.

2014 Dungeness crab season: *One of the most successful on record*

The fall season opened October 1 in most of Southeast Alaska. If historic harvest trends hold true, crabbers will likely harvest around one million additional pounds before the fall season closes in most areas at the end of November.



The Southeast Alaska summer commercial Dungeness crab season closed August 15 and it was among the most successful in recent history. While the information is still preliminary, total summer season harvest is likely to be around four million pounds which is the largest summer season harvest since 2002 and is a 142% increase from the 2013 summer season catch. Crab fishermen also benefited from a relatively high exvessel price of around \$3 per pound. Strong prices and catch yielded a total fishery value of around \$11 million making the summer 2014 season one of the most lucrative in history.



