



Hatchery Update

Spring Creek National Fish Hatchery



Introduction

The U.S. Fish and Wildlife Service (USFWS) operates 12 National Fish Hatcheries (NFH), two Fish Health Centers, and one Fish Technology Center in the Columbia River basin. The Columbia River Fisheries Program Office (CRFPO) works with 6 of these facilities to help evaluate release programs and conduct special studies. The CRFPO maintains the Service's hatchery database as well.

About Spring Creek NFH

The hatchery is located on the Columbia River in Underwood, Washington, 167 river miles from the ocean. Spring Creek has raised tule fall Chinook salmon since 1901 from stock collected in the nearby White Salmon River. The hatchery is funded by the U.S. Army Corps of Engineers (USACE) for John Day Dam mitigation and the National Oceanic and Atmospheric Administration (NOAA) - Fisheries Division through the Mitchell Act.

Hatchery Goal

Spring Creek NFH was first established to supplement commercial fisheries harvest. Today the USFWS operates this hatchery to mitigate for lost habitat from dams, provide for commercial and sport harvest, meet tribal treaty and trust responsibilities, and to conserve this unique stock of salmon for future reintroduction to its native habitat. One of Spring Creek's most important goals is to maintain the genetic integrity of this stock to ensure that it will

remain unique among all other populations of tule fall Chinook, maximizing the potential for successful reintroduction efforts.

The hatchery produces 10.5 million tule fall Chinook for release during two different time periods. A total of 6.0 million fish are released during April followed by a 4.5 million fish release in May. Both releases are timed to take advantage of a federal court-mandated increase in water spilled over Bonneville Dam that benefits fish stocks listed under the Endangered Species Act. Spring Creek fish migrate rapidly downriver and the first fish pass Bonneville Dam in just a few hours after release. The hatchery also transfers 3.0 million eyed eggs to the Bonneville Hatchery and 1.7 million juvenile fish to Little White Salmon NFH to boost the number of returning adult fish available for harvest.

Adult Escapement Goal

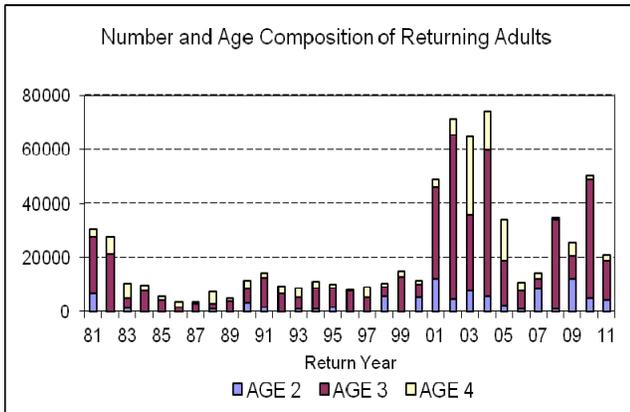
A return of 7,000 adult salmon is necessary to achieve the collection goal of 19 million eggs to meet an on-station release of 10.5 million smolts and transfers of 1.7 million juveniles to Little White Salmon NFH and 3 million eggs to Bonneville Hatchery, operated by Oregon Department of Fish and Wildlife.

Sampling of Returning Fish

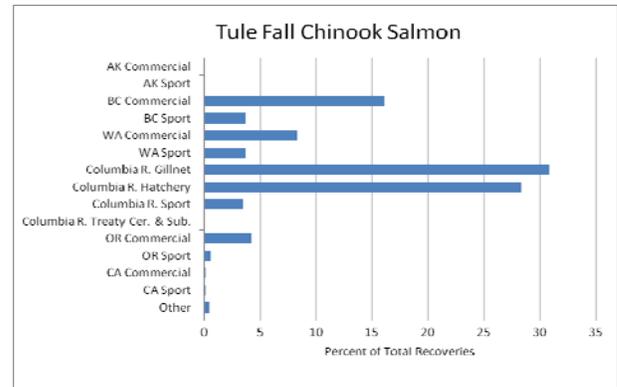
A proportion of returning adults are sampled at the hatchery. Sex and length are recorded and scales are collected to determine age. By using sample information along with coded-wire tag recovery data, and the total number of returning fish, it is possible to calculate the number of returning fish for each age group and, consequently, the number of fish returning from each brood year or release year. On average, since 1981, 14% of Spring Creek's adults return as two year olds, 66% return as three year olds, 20% are four years old, and less than 1% return as five year olds. In 2011, almost 21,000 fish returned to the hatchery, three times more than necessary for broodstock needs.

The number of fish returning from a hatchery release is influenced by early rearing at the hatchery,

downstream migration, ocean conditions, and the harvest rate in the various fisheries.



Information recovered from the tules marked each year with coded wire tags provides harvest managers with information about the condition of the tules and other stocks of salmon that migrate in the same area of the Pacific Ocean.

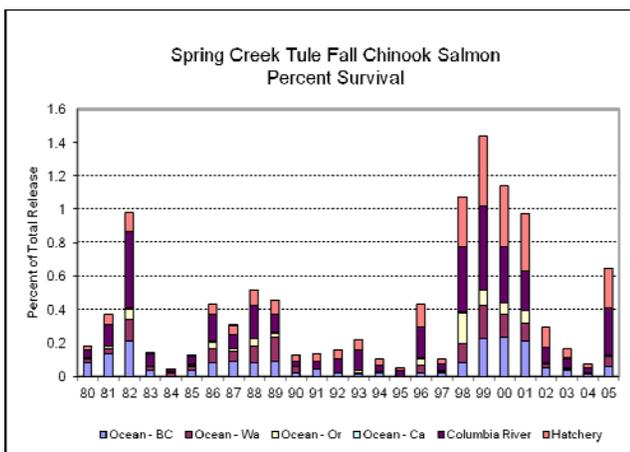


Contribution

A coded-wire tag marking program has made it possible to determine survival rates and Spring Creek NFH's contribution to commercial, sport and tribal fisheries. For broodyear 2005, 65% of the adult recoveries were from ocean or Columbia River fisheries. More than 41,000 fish were harvested in the Columbia River with an additional 19,000 fish harvested in the ocean. Spring Creek tule fall Chinook serve as an index stock for estimating ocean exploitation rates for the Pacific Salmon Commission's treaty between Canada and the United States.

Visitor Facilities

Construction of a new interpretive trail began in December. The trail will offer informational exhibits and highlight the unique riparian area Oregon white oak and Ponderosa pine habitat characteristic of the Columbia River Gorge. Modifications were also made to the fish ladder viewing to accommodate people with disabilities. Both of these visitor improvements are Visitor Facility Enhancement funded projects.



Entrance to Spring Creek NFH





Breaching of Condit Dam on the White Salmon River

The White Salmon River is located 0.5 miles from Spring Creek National Fish Hatchery and Condit Dam, a barrier to fish passage since 1913, was breached on October 26th, 2011 to provide fish passage to the upper White Salmon River. The Service continues to work with the Yakama Nation, State of Washington, PacifiCorp, U.S. Geologic Survey, and National Marine Fisheries Service as well as local watershed groups on fish restoration projects and education on Condit Dam removal.

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