



Hatchery Update

Spring Creek National Fish Hatchery



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.

The hatchery produces 10.5 million tule fall Chinook for release during two different time periods. A total of 6.5 million fish are released during April followed by a 4.0 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 and the first fish pass Bonneville Dam in just a few hours after release. The hatchery will also transfer eyed eggs and juveniles to the Bonneville Hatchery, operated by the State of Oregon, for their on-station release of 4.5 million tule fall Chinook salmon.

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. Both adult returns and juvenile fish releases only pass Bonneville Dam during their migration. The hatchery is funded by the U.S. Army Corps of Engineers (USACE) and the Mitchell Act, which is administered by the National Oceanic and Atmospheric Administration (NOAA) - Fisheries Division.

Hatchery Goal

Spring Creek NFH was first established to supplement commercial fisheries harvest. Today the USFWS operates this hatchery to mitigate for lost habitat, provide for commercial and sport harvest, meet tribal treaty and trust responsibilities, and to



April 2012 Salmon Release

Adult Escapement Goal

A return of 7,000 adult salmon is necessary to achieve the collection goal of 17.9 million eggs to meet an on-station release of 10.5 million smolts and transfers to Bonneville Hatchery, for their on-station release of 4.5 million smolts.

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 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.

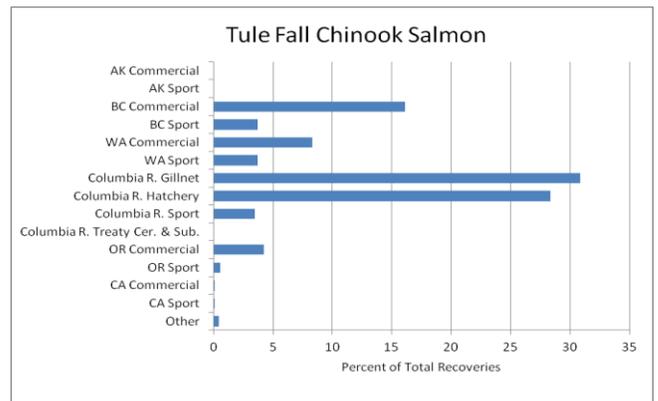
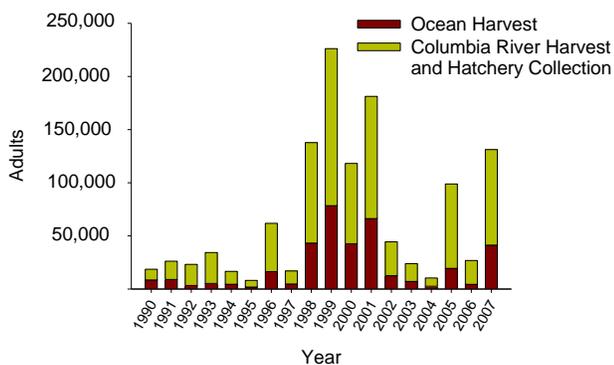
The number of fish returning from a hatchery release is influenced by early rearing at the hatchery, downstream migration, ocean conditions, and the harvest rate in the various fisheries.

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 2007, 85% of the adult recoveries were from ocean or Columbia River fisheries. 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.

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.

Total Adult Fall Chinook Salmon Adults by Year for Spring Creek NFH



Visitor Facilities

The interpretive trail at Spring Creek NFH was completed last July. The entrance kiosk is a nice welcome and orientation for visitors, as well as provides accessible parking. The trail, also ADA approved, provides interpretation on recreation, the unique oak/woodland riverine habitat and Native American fishing on the Columbia River. The trail provides wonderful viewing opportunities of the river, mountains and wind surfers.



White Salmon River Tule Fall Chinook Salmon Populations

The White Salmon River is located 0.5 miles east of 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. In 2012, one year post-breaching of Condit Dam, high counts of 194 Lower Columbia River (LCR) fall Chinook salmon redds and recorded during individual spawning ground surveys for both stocks. Redds were documented both upstream and downstream of the former Condit Dam site. Natural-origin composition of the 118 total LCR fall Chinook salmon carcasses found in these spawning ground surveys, based on presence of an adipose fin was 93%.

Total escapement of LCR fall Chinook salmon in 2012 was estimated as 755 adults to the White Salmon River. The Service continues to work with the Yakama Nation, State of Washington,

PacifiCorp, the U.S. Forest Service, National Marine Fisheries Service as well as local management groups on fish restoration projects and education on Condit Dam removal.

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