



## **OVER 2,200 SNAKE RIVER SOCKEYE CROSS LOWER GRANITE; PROVIDE BROODSTOCK EGGS FOR SMOLT RELEASES**

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The 900-mile trip up the Columbia, Snake and Salmon rivers is complete for at least one sockeye salmon spawner, with the promise of many more to come this year to seed the Sawtooth Valley's Redfish Lake and help fuel the resurrection of a stock that had, 20 years ago, nearly gone extinct.

This year hundreds, perhaps thousands, are expected to make it back to the Idaho basin, a huge increase from totals witnessed during the 1970s, 1980s and 1990s. Many will spawn in the wild; others' eggs will be used to fuel a rapidly growing hatchery smolt production program.

"We caught the first one today," Eagle Fish Hatchery manager Dan Baker said of an adult sockeye trapped Tuesday at Redfish Lake Creek, which drains from the primary, if not the only, remaining spawning for lake for sockeye in the high country of central Idaho into the Salmon River.

The fish was then transported about 130 miles southwest to the Idaho Department of Fish and Game's Eagle Hatchery near Boise where it will be held until it is ready to spawn. It will be held, along with potentially hundreds of its "anadromous" mates that have yet to complete their journey to the Sawtooth Basin. The anadromous fish are species that are born and spawn and die in freshwater, but that spend most of their life growing to maturity in salt water.

More than 2,000 sockeye have been counted passing over the lower Snake River's Lower Granite Dam, which is about 400 river miles distant from Redfish Lake.

The returning sockeye are in large part the product of the Snake River Sockeye Salmon Captive Broodstock Program, which was begun early in 1991 to preserve the genetic stock of a severely declining species. With that charge being successfully completed, the program is amidst a new phase aimed at, ultimately, restoring self-sustaining populations of naturally produced fish.

More and more returning fish from the program have in recent years been allowed to proceed up the Salmon River and Redfish Lake Creek.

Baker said that fishery officials hoped to trap and haul to Eagle Hatchery the first 400-500 spawners that swim into the weir on the Salmon River near the IDFG's Sawtooth Hatchery or upstream at a trap on Redfish Lake Creek.

"After that it will probably be a subsample" of the captured fish that will be hauled to Eagle, Baker said. The rest of the arriving sockeye will be weighed, examined and relieved of a few scales for genetic testing, and then put back in the creek so they can move on to the lake to spawn.

A portion of the fish taken to Eagle Hatchery will be returned to the creek in September. They tend to spawn in October. Others of those anadromous fish will be spawned in the hatchery.

The process has produced fertilized eggs for a variety of purposes. They have long been incubated and hatched, and the young fish raised to adulthood at Eagle and at NOAA Fisheries' Burley Creek Fish Hatchery facilities in western Washington. Those fish can then be spawned in the hatchery, or released into the wild.

A new phase of the program includes the ramping up of hatchery production of migration-ready smolts. The program has long used eggs both to outplant in high country lakes in hope they would hatch out, grow, migrate out and eventually return to spawn. The tactic of releasing pre-smolts, which have to grow and overwinter in freshwater before migrating, was also employed.

But years of study showed that year-old smolts resulted in a much higher percentage adult return than the other strategies. So smolt production now is the focus.

Smolt production has been limited to 200,000 or 300,000 at most annually because of a lack of available rearing space. Fish have been reared at the Oregon Department of Fish and Wildlife's Oxbow Hatchery and at the IDFG's Sawtooth Hatchery.

But completion last year of the \$13.5 million Springfield Hatchery will allow, IDFG officials say, for production of 1 million smolts there for release into the upper Salmon drainage. It is operated by IDFG.

The hatchery was paid for by the Bonneville Power Administration as part of its obligation to mitigate the impact of hydropower dams on salmon and steelhead. BPA markets power generated Federal Columbia River Power System and pays for the fish mitigation with revenues from ratepayers.

The expanded Snake River sockeye hatchery production was also called for in NOAA Fisheries FCRPS biological opinion. The BiOp outlines measures NOAA Fisheries says must be implemented to avoid jeopardizing stocks listed under the Endangered Species Act. The Snake River sockeye were listed as endangered late in 1991.

This additional capacity will move the sockeye recovery effort from "the conservation phase to a re-colonization phase where emphasis will be on returning increasing numbers of ocean-run adults to use in hatchery spawning and to release to the natural habitat to spawn," according to the IDFG.

An increase in adult fish may eventually mean recreational and tribal fishing seasons on Snake River sockeye in waters where such harvest has long been banned.

The Springfield Hatchery is now rearing its first batch of young salmon with the expectation that about 220,000 smolts will be released into Redfish Lake Creek in May.

Roughly 80,000 smolts from Oxbow are expected to be ready for release in the spring and another 180,000 or so from Sawtooth.

"This will be Sawtooth's last year class," Baker said. And an additional year of production is planned at Oxbow.

"After that we should be ramped up to 1 million at Springfield," Baker said.

A total of about 700,000 fertilized eggs will be delivered to Springfield later this year, with the hope they will generate 600,000 smolts for release in May 2016.

The target is 1.2 million eyed eggs to Springfield in 2015.

The program would appear to be building momentum. This year's return is the sixth out of the past seven years of more than 757 fish. From 1975 through 2006 only 10 counts exceeded 100.

Through Thursday, 2,270 sockeye salmon had passed over Lower Granite. The cumulative tally this year at Lower Granite through Thursday already represents a record high since annual counts began upon completion of the federal hydro project in 1975. And fish continue to stream over the dam. A total of 74 passed Thursday.

The bulk of the Snake River run is likely past, but fish typically can be counted well into September, though in small numbers.

Lower Granite is the eighth and final project the spawners pass in the Columbia-Snake system before turning into the Salmon River and Idaho. After clearing Lower Granite the fish swim into the Salmon River on their way to the Stanley basin. That last leg upstream of Lower Granite is roughly 400 miles.

The previous high count at Lower Granite was 2,201 in 2010 and next on the list was 1,502 in 2011, according to data posted online by the Fish Passage Center.

