

IDAHO DEPARTMENT OF FISH AND GAME
McCALL SUMMER CHINOOK HATCHERY
July 2009 Monthly Narrative
Steve Kammeyer

South Fork Salmon River SU Production

Brood Year 2008

There are currently 1,221,138 SFSR SU parr being reared in the 2-outdoor rearing ponds (208,295 AD/CWT and 1,012,843 AD clip only). These fish average 77.6 fpp (3.47 in TL) in size. During July these fish were fed 5,665 pounds of feed resulting in an average conversion of 0.65 for the month (0.69 to date). Feeding behaviors have continued to remain good in response to near optimal water temperatures. During the month, water temperatures averaged 52.6 degrees Fahrenheit; ending at 53.5 degrees (daily average range 51-54).

Fish marking crews were on station July 20-24, 2009; using 2-MATS trailers running 2-shifts each day. During this period 614,529 SFSR SU parr were marked from indoor vats into the outdoor ponds. Of these, Pond 2 received 208,389 AD/CWT and 311,611 AD clip only. A CWT retention check, following a 21-day post marking period, will take place this year for the 4-CWT wire tags codes used. To facilitate this process, two indoor vats were subdivided at ¼ and ½ length and 300 AD/CWT fish from each tag code (1,200 fish total included in the Pond 2 inventory) were bought back inside following marking. Pond 1 was loaded with an additional 94,529 AD clip only. Due to the hatchery inventory being in excess of spring smolt release goals an early-fall summer chinook parr release is anticipated to take place in mid-September. Excess summer chinook will be taken from Pond 1 (AD clip only population) and then trucked to the SFSR to be released below the SFSR Trap water intake structure which will not be in operation.

The MCFH inventory increased another 20,309 parr (3.330%) based on the physical count inventory obtained following the July marking. The MCFH inventory for the entire BY08 SFSR SU rearing production group has increased by a total of 34,257 fish (2.822%) following the physical counts obtained during the June/July marking operations. Hatchery production (BY08) has been based on the retention of eggs coming from 281 spawned SFSR Reserve females. Back tracking data shows the BY08 MCFH Production Group had a revised average Eye-up of 89.32% and a revised average fecundity of 5,033.9 green eggs per female.

	Number	Total Length (inch)	Fish/Pound	Total Mortality		Feed Conversion		Density Index	Flow Index	30-d Length (inch)
				Month	To Date	Month	To Date			
BY08 SFSR SU										
Pond 1	701,554	3.53	73.4	906	1.65%	0.63	0.69	0.12	0.70	0.92
Pond 2	<u>519,584</u>	<u>3.38</u>	<u>83.3</u>	<u>5,794</u>	<u>2.82%</u>	<u>0.68</u>	<u>0.69</u>	<u>0.08</u>	<u>0.48</u>	<u>0.64</u>
	1,221,138	3.47	77.6	6,700	2.15%	0.65	0.69	0.10	0.61	0.80
BY08 Johnson Creek SU	100,906	3.27	92.3	168	1.82%	0.93	0.82	0.26	0.51	0.46

Johnson Creek SU Production

Brood Year 2008

Johnson Creek origin summer chinook parr currently number 100,906 and average 92.3 fpp (3.27 inch TL) in size. During July, 386.0 pounds of feed was fed to these fish resulting in a conversion of 0.93 for the month (0.82 to date). Following marking (CWT only no fin clips) the Johnson Creek parr were returned into 4-indoor rearing vats. Ending density and flow indices averaged 0.26 and 0.51, respectively.

Fish marking crews CWT tagged the Johnson Creek parr on July 23rd. Fish were taken at roughly equal proportions from 2-indoor rearing vats and marked back into 4-indoor rearing vats each with a separate CWT code. This was done to facilitate a study proposed by NPT fishery personnel where ½ of the Johnson Creek smolts will be released prior to the SFSR smolts and ½ following. Also within each of these release groups approximately ½ of the fish will be marked with an elastomer tag (CWT/VIE) and the other ½ will not be marked with an elastomer tag (CWT only). Each of the four combinations will PIT tagged in January 2010 to allow for survival comparisons to Lower Granite Dam.

South Fork Salmon River Trap

Through July 31st a total of 7,394 returning summer chinook salmon have been trapped/ processed through the trap (does not include “re-trapped” recycled fish). A large percentage of jacks have been encountered this year (49.5% of the run total), but there is a significant difference between hatchery jacks (51.7% of the Reserve total) versus Natural/Wild unmarked jacks (13.2% of the Natural component).

SFSR Returning SU	Reserve	Natural (unmarked)	No Mark/ w/ CWT	Total
Adult	3,366	361	7	3,734
Jack	3,601	55	4	3,660
Total	6,967	416	11	7,394

Data Current through July 31, 2009

Salmon categorized as “No Mark w/ CWT” have been dispatched at time of trapping to allow for CWT recovery/ snout collection which will be processed at a later date to determine actual fish origin. Prior to being killed these fish have been closely examined for the possible presence of an elastomer tag indicating the fish to be a Johnson Creek stray. To date no Johnson Creek strays have been observed at the SFSR Trap.

Currently, 648-Male and 561-Female Reserve summer Chinook salmon are being held as Brood stock which should meet anticipated spawning needs of 458-females. A smaller version of the “RO” pond is still being used to contain surplus fish prior to disposition. However, maintaining a partitioned space in the female holding pond at this late date may be having a negative impact on female pre-spawning mortality. To date pre-spawning mortality has been 12-Males (1.8%) and 79-Females (12.3%).

Additional Reserve Salmon Dispositions

Fisheries		
SFSR Sport/Tribal & Tribal Fisheries	1,231	Adult & Jack
Boise River Sport	900	Jack
<i>subtotal</i>	<i>2,131</i>	
Outplants		
East Fork South Fork Salmon River (NPT)	150	99-F; 51-M/J
<i>subtotal</i>	<i>150</i>	
Subsistence		
Nez Perce Tribe	850	Adult & Jack
Shoshone-Bannock Tribe	620	Adult & Jack
<i>subtotal</i>	<i>1,470</i>	
Shoshone-Piaute Tribe	300	Adult & Jack
Health & Welfare Organizations	1,104	Adult & Jack
<i>subtotal</i>	<i>1,404</i>	
“RO” Pond (awaiting final disposition)	314	
Total	5,469	

Totals are subject to change following end of season verification.

In response to warming water temperatures, the water in which salmon are being held in the holding ponds is being treated with formalin 5-days each week to help control the development of fungus on the fish.

Primary sort has been scheduled to take place on Tuesday August 11th. Spawning days will continue to occur on Tuesday’s and Friday’s this year however all SFSR SU will be spawned at a 1M: 1F ratio with males killed following gamete collection. Genetic samples will be collected during spawning.

Resident Species

Catchable size rainbow trout, numbering 26,150, were redistributed into area waters during July. In doing so, 906 miles were driven at an approximate transportation cost of \$1,037. Catchable redistribution totals for this summer are: 93,100 fish stocked requiring 3,537 miles to be driven at a cost of \$4,128. A total of 924 pounds of feed was periodically fed out to these fish throughout the month to help maintain fish condition.

At the end of July, there are 40,738 rainbow trout and 96,234 Washoe FH westslope cutthroat trout fry (in two groups) that were set out this month. A 3rd group of westslope cutthroat trout alevin, purchased from the Westslope Trout Company and numbering 49,480, are currently residing in incubation trays. In early August, Arctic Grayling being reared at Ashton FH will be picked up for mountain-lake stocking. Inventory numbers from Ashton FH indicate grayling stocking requests will likely be met at 1/3 of the requested level. No golden trout will be available to stock this year.

Eyed westslope cutthroat trout eggs received from Washoe FH, Montana F&G, have been both time-consuming and challenging. Incubation mortality rates for these eggs were: 37.7%-Washoe A and 38.9%-Washoe B with mortality primarily being associated with a high number of “blanks” from the 2-year-old spawners. After being fed for 6-days, to get them started on feed, the 1st group of Washoe C2's were placed on a 10-day prophylactic medicated diet of TM-200 (3%) at a feeding rate of 0.626% body weight; initiated on July 25th. The medicated feed was fed for first part of each day's ration then non-medicated feed was given to achieve the full daily ration. Mortality began to spike on the 1st day of the treatment, but prior to the first feeding of the medicated feed, and the daily % mortality has continued to increase since that time. Doug Munson rescheduled his activities and was able to conduct a fish health assessment for these fry on July 27th but subsequent lab analysis of samples collected was negative for bacterial infections. The prophylactic feed treatment for the Washoe-A C2's is scheduled to end on August 3rd and assessment of further action will be explored at that time. No prophylactic medicated feed treatments are currently anticipated for either the Washoe-B group or WSTC westslope cutthroat trout. Fish stocking flights, for the mountain lake stocking program, are scheduled to begin in early August.

	Number	Total Length (inch)	Fish/Pound	Total Mortality		Feed Conversion		Density Index	Flow Index	30-d Length (inch)
				Month	To Date	Month	To Date			
Rainbow Trout (TT) Catchable On Hand (Nampa FH)	14,321	9.8	2.65	91	0.38%			0.09	0.07	n/a
Rainbow Trout (TT) Fry (TroutLodge)	40,738	1.15	1,629	2,832	6.83%	0.58	0.58	0.36	0.19	0.10
Westslope Cutthroat (C2-A) Fry (Washoe FH, MT F&G)	49,317	0.90	3,443	17,793	26.51%	3.57	3.57	0.27	0.24	0.07
Westslope Cutthroat (C2-B) Fry (Washoe FH, MT F&G)	46,917	0.83	5,032	163	0.35%	N/a	N/a	0.19	0.17	0.00
Westslope Cutthroat (C2) Alevin - Incubation (Westslope Trout Co, MT)	49,480	Approx		Incubation Morts						
		0.9	3,500	3,520	6.64%					