

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

**South Fork Salmon River SU Production**

**Brood Year 2007**

Smolts numbering 1,106,700 (52,126 lbs) were transported and released into the SFSR, at Knox Bridge, over the period of March 23-25, 2009. Included in this total were the following mark groups: 788,672 Ad-clip only, 266,330 Ad/ CWT and 51,698 AD/ PIT. The average size, at release, for these fish was 21.25 fpp (5.18 inch TL). Release size by pond was: Pond 1 – 21.80 fpp (5.20 inch TL); Pond 2 – 20.70 fpp (5.16 inch TL). Ending hatchery density and flow indices averaged 0.22 and 2.01, respectively. During March 2,149 pounds of feed was utilized resulting in an average conversion to date of 0.85. The average condition factor for BY07 smolts calculated for time of release was 3386<sup>-7</sup> but varied between the ponds as 3262<sup>-7</sup> for Pond 1 and 3516<sup>-7</sup> for Pond 2. This variation is most likely related to feeding issues brought on by duck activity occurring on Pond 1 through the past several months.

A sub-sample of 790 SFSR summer Chinook salmon smolts (397- Pond 1, 393 - Pond 2) were randomly selected from a seine pull in each pond. These fish were then anesthetized to check for mark quality and fish size on March 18, 2009. A larger sample, approximately 1,700 fish from each pond, was used to compute fish per pound size estimates at this time. Salmon in Pond 1 (496,957 Ad-clip only and 51,698 Ad/ PIT) were marked by being “hand-clipped.” Those in Pond 2 (266,330 Ad/ CWT and 291,715 Ad-clip only) were marked using a MATs (automated marking trailer) that was supplemented by hand-clipping crews.

Mark quality for smolts in both ponds appeared to be very good with 96.84% of the smolts sampled having a complete Ad-clip (see Table below). The category of “flag” is used to denote the presence of a very small portion of adipose fin that is likely the result of regenerated tissue. Partial Ad-clip is used to describe the condition where a more significant portion of the adipose fin is present. In both of these cases it is likely some mark would be observable on a returning adult with varying degrees of deformity. A total of 2 of the smolts sampled did not show any indication of being Ad-clipped on close inspection. The one unclipped smolt sampled from Pond 2 did not contain a CWT tag. Due to mixed rearing conditions, no retention checks were made for CWT’s or PIT’s. A total of 60 “shed” PIT tags were recovered from Pond 1 (including up-wells).

	Number	Total Length (inch)	Fish/ Pound	Total Mortality		Feed Conversion		Density Index	Flow Index	30-d Length (inch)
				Month	To Date	Month	To Date			
BY07 SFSR SU	1,106,700	5.18	21.25	1,360 <sup>a</sup>	1.95%	n/a	0.85	0.22	2.01	0.02
<sup>a</sup> Includes transport mortality estimate of 560 smolts.										
<b>Smolt Mark Quality/ Retention Summary for BY07 SFSR SU</b>										
	Complete AD Clip	“Flag” Ad Clip	Partial Ad Clip	Very Poor Ad Clip	No Mark Observed					
Pond 1 (n=397)	380 95.72%	7 1.76%	9 2.27%	0 0.00%	1 0.25%					
Pond 2 (n=393)	385 97.96%	4 1.02%	3 0.76%	0 0.00%	1 0.25%					
BY07 SFSR SU (n=790)	765 96.84%	11 1.39%	12 1.52%	0 0.00%	2 0.25%					
Mark retention assessment was conducted on March 18, 2009.										

SFSR BY07 Release Data – Eyed Eggs and Smolts

Mark Type Released	Number Released
<i>Fall 2007 Eyed Egg Box - SBT</i> Eyed Eggs (Reserve)	None due to Fire Activity (190 F & 195M released near Roaring Creek in lieu of Request)
<i>March 2009 Smolt Release</i>	
Ad clip only	788,672
Ad clip w/ CWT	266,330
Ad clip w/ PIT	51,698
<i>Smolt release Subtotal</i>	1,106,700
<b>Total SFSR BY07 SU Release</b>	<b>1,106,700</b>

**Brood Year 2008**

There are 1,206,208 SFSR SU fry being reared in 12-indoor early rearing vats which are averaging 849.5 fpp (1.58 inch TL) in size. During March, these fry were feed 299.9 pounds of feed resulting in a conversion of 0.77 (0.86 to date). Ending density and flow indices averaged 0.54 and 0.86, respectively. Visual monitoring of vat densities have not warranted extending any vats at this point. Water temperatures remained constant throughout the month at 37.5 degrees Fahrenheit.

	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	1,206,208	1.58	849.5	2,199	0.62%	0.77	0.86	0.54	0.56	0.29
BY08 Johnson Creek SU	101,723	1.65	754.5	197	0.96%	0.83	0.84	0.30	0.26	0.33

**Johnson Creek SU Production**

**Brood Year 2007**

Nez Perce fishery personnel transported/ released 91,080 Johnson Creek origin summer Chinook smolts into Johnson Creek (near Wapiti Ranch) over the period of March 16-18, 2009. At release these fish averaged 28.0 fpp (4.77 inch TL) in size. Johnson Creek smolts had been dual marked with 100% CWT and 100% VIE (Red elastomer behind Left eye) with no fin clips. Included in the release group were 2,094 PIT tags. Nez Perce fishery personnel completed a mark quality assessment for these fish during PIT operations on January 27<sup>th</sup>. The following mark retention rates were reported: 98.28% VIE (2,120/ 2,157), 98.28% CWT (2,120/ 2,157). Coverage for at least one of these marks was found to be 100% (2,157/ 2,157).

Johnson Creek smolts were sampled on March 13<sup>th</sup> to assess size at release. Fish were crowded in the collection basin to provide for a random collection of samples. Ten grab samples were taken to provide pound count information (1,311 fish sampled). Two of the grab samples were used to determine assess condition factor (283 fish). The average condition factor was found to be  $3296^{-7}$ . Prior to release, smolts were fed 122 pounds of feed resulting in a conversion to date of 1.08.

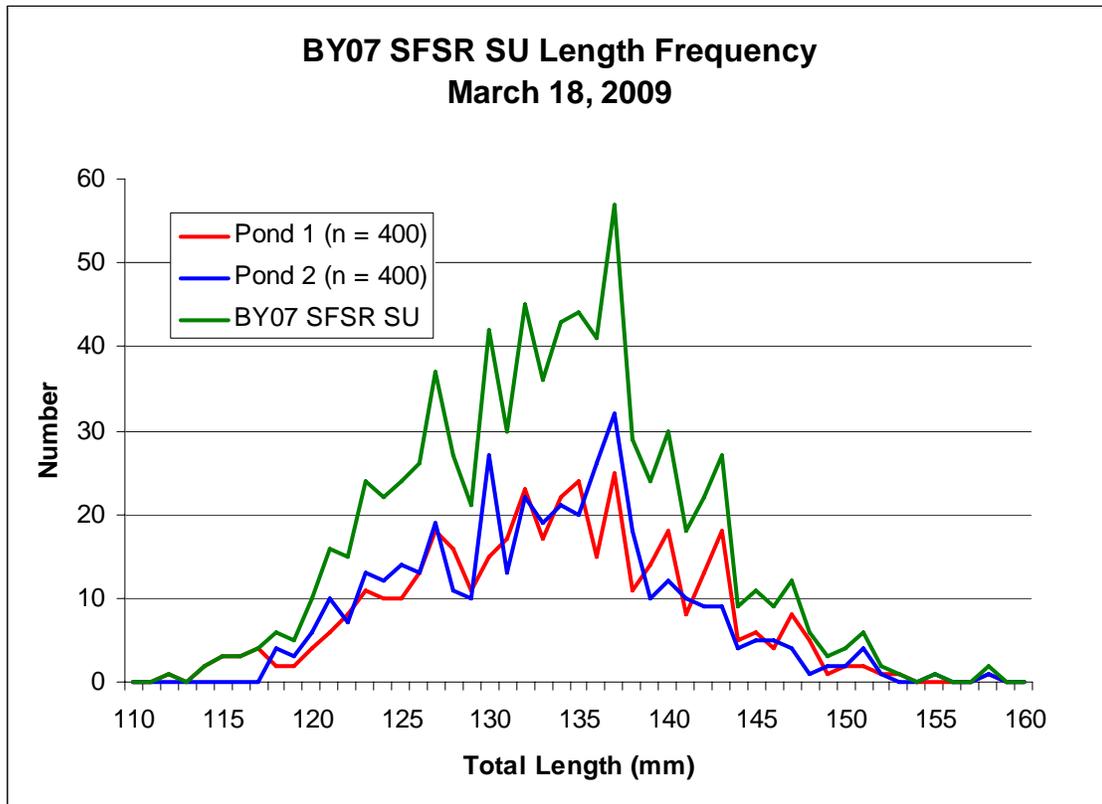
	Number	Total Length (inch)	Fish/ Pound	Total Mortality		Feed Conversion		Density Index	Flow Index	30-d Length (inch)
				Month	To Date	Month	To Date			
BY07 Johnson Creek SU	91,080	4.77	28.0	108 <sup>a</sup>	3.82%	n/a	1.08	0.11	0.14	0.01

<sup>a</sup> Includes transport mortality estimate of 50 smolts.

## Brood Year 2008

Johnson Creek origin summer Chinook fry currently number 101,723 and average 754.5 fpp (1.65 inch TL) in size. During March these fry were fed 31.3 pounds of feed resulting in a conversion of 0.83 (0.84 to date). Two indoor early rearing vats continue to be used for the Johnson Creek fry and remain set at ½ length. Ending density and flow indices average 0.30 and 0.26, respectively.

## Miscellaneous



- The hatchery staff is very appreciative for the help of Gary Ady and Dick Bittick during smolt transport operations. Using their trucks, Gary and Dick transported approximately 589,700 smolts (27,750 pounds) which greatly enhanced MCFH release efforts.
- The MCFH staff are grateful for the assistance received from Rob Hill and Carl East, NPT, for seining smolts and helping to load them onto trucks throughout the release period.
- Steve attended HACCP (Hazard Analysis and Critical Control Point) Planning for Aquatic Invasive Species training in Boise.
- Joel set up discharge pipes for Steelhead releases into the Little Salmon River at the “Stinky Springs” site.



Rob and Carl Loading BY07 JC Smolts (3/17/09).



John Gebhards Scanning for JC PIT's (3/17/09).



SFSR BY07 Smolt Release (3/23/09).



SFSR BY07 Smolt Release (3/23/09).



Trucks Lined Up for Loading BY07 SFSR Smolts (3/25/09).