



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Dworshak Fisheries Complex

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MEMORANDUM

To: Fisheries Supervisor, Columbia Basin Ecoregion
Region 1, Portland, OR

From: Complex Manager
Dworshak Fisheries Complex

Subject: **Monthly Activity Report –April, 2009**

Fish Management Culture

Dworshak

SPRING CHINOOK SALMON (SCS)

Brood Year 2008

On April 6-7, there were a total of 802,612 BY08 SCS fingerlings transferred from Kooskia National Fish Hatchery (KNFH) to Dworshak National Fish Hatchery (DNFH). These fish were approximately 750 fish per pound (fpp) at the time of shipping and were transferred into six raceways (RWs) in A-bank. On April 9-17 there 136,000 fry moved from Dworshak incubators into RW 10. These fry started on feed within a few days after transfer and were approximately 1800 fpp when moved outside.

An experiment was designed to help determine if a better initial rearing system could be used for the SCS instead of putting fry from the incubator trays directly into concrete RWs. There were two 3'x 3' x 20' aluminum rectangular tanks set up inside of RWs 13 and 14. There were also seven 6' fiberglass circular tanks placed into RW 15. On April 16, the rectangular tanks each received approximately 28,500 fry from the incubators and the circular tanks each received approximately 16,900 fry. All fry were started on feed shortly after moving outside.

At the end of the month there were approximately 1,162,130 BY08 SCS on station. The fish which were initially reared at Kooskia averaged 400 fpp and the fry transfers from Dworshak incubators averaged 1200 fpp. Raceway water temperature averaged 40.5°F and overall mortality was 0.8 percent.

COHO SALMON (COS)

Brood Year 2008

Coho are being reared in BPs 67-69-71-73 in System III. At the end of the month there were 897,524 COS averaging 90 fpp and 81 mm (3.2 inches) total length. Mortality for the month was 0.2 percent. Water temperature averaged 40.5°F in the Burrow's Pond (BPs).

There were 25,067 COS from BP69 and 25,073 COS from BP 71 moved into mixed-cell pond 66. These fish are being used to evaluate feed types and rates, drains and water flow patterns in the mixed-cell pond. The COS will be released into the main stem of the Clearwater River in June.

FALL CHINOOK SALMON

Brood Year 2008

The Idaho Fishery Research Office (IFRO) is participating in two studies on fall Chinook salmon (FCS); 1) an evaluation of migrational behavior of Clearwater River fall Chinook salmon subyearlings and 2) an evaluation of the effect of transportation and summer spill in the Columbia River hydro system on smolt-to-adult return rates of Snake and Clearwater River fall Chinook salmon. Both of these studies are being conducted with Lyons Ferry Hatchery stock and the fish are referred to as either Snake or Clearwater River surrogates depending on their release location. The Clearwater River surrogates for the migrational behavior study were initially incubated and reared at the Nez Perce Tribal Hatchery (NPTH). The Snake and Clearwater River surrogates for the transportation study were initially incubated and reared at Umatilla Hatchery (UH). All three groups were transferred to DNFH where cool water temperatures allow date and size at release to be controlled to match rearing timing and size of fish in the wild.

On March 11 2009, a total of approximately 2,000 Clearwater River surrogates for the migrational behavior study were trucked from NPTH to DNFH. At the time of arrival, these fish were 380 fpp and averaged 50 mm (1.9 inches) fork length. Water temperature at the time of arrival was about 40.0°F. The mortality rate the day after transport was about 7 percent (139 morts). This was attributed to cold water disease of the brain combined with sub lethal stress associated with a total dissolved gas (TDG) level of roughly 105 percent. Packed columns were installed that reduced the TDG level down to about 102 percent and mortality rate fell to less than 0.1 percent.

On April 3, a total of approximately 234,067 Snake River surrogates for the transportation study were trucked from UH to DNFH. At the time of arrival, these fish were 351 fpp and averaged 52 mm (2.0 inches) fork length. Water temperature at the time of arrival was 40.8°F. The TDG levels were below 105 percent, but raceway depth was raised about 10 inches to provide additional opportunity for compensation. Mortality after transport was less than 0.1 percent.

On April 10, a total of approximately 105,300 Clearwater River surrogates for the transportation study were trucked from UH to DNFH. At the time of arrival, these fish were 780 fpp and averaged 40 mm (1.6 inches) fork length. Water temperature at the time of arrival was 40.5°F. The TDG levels were below 105 percent, and raceway depth

was raised about 10 inches to provide additional opportunity for compensation. Mortality after transport was also less than 0.1 percent.

On April 27, the Clearwater River surrogates for the migrational behavior study were 139 fpp and 70 mm (2.8 inches) fork length. The Snake and Clearwater River surrogates were 223 and 508 fpp, respectively (61 mm or 2.4 inches; and 47 mm or 1.9 inches) fork length, respectively. Water temperature was 39.8°F. Mortality rate was below 0.1 percent for all three surrogate groups.

In the case of the migrational behavior study, the goal is to rear the Clearwater River surrogates to about 50 fpp and 95 mm (3.7 inches) fork length prior to transfer back to NPTH in July. At this time they will be implanted with either a radio or acoustic tag, allowed to recover, and released into the Clearwater River. The target size for both Snake and Clearwater River surrogates is 139 fpp and 70 mm (2.8 inches) fork length. The Snake River surrogates will be PIT tagged and released during the last two weeks of May and the first week of June. The Clearwater River surrogates will be PIT tagged and released from the last two weeks of June to the first week of July. Tagging of the fish will be done by BioMark staff and begin on May 18.

At the end of the month there were 341,000 FSC on station ranging in size from 508 – 139 fpp.

SUMMER STEELHEAD (SST)

Brood Year 2008

Excessive spilling of water from Dworshak Reservoir due to flood control from high snowpack caused elevated gas saturation in the hatchery's outside water supply. Because of the elevated nitrogen levels in the water, both on and off-site releases took place the week of April 13 instead of the two-week release plan. Of the 1,798,874 BY08 SST released, 230,712 (13% of release) received no adipose fin clip to designate them as hatchery fish and are under the U.S. vs. OR Harvest Settlement Agreement. These fish went to American River and Newsome Creek. Table 1 depicts the final release numbers of BY08 SST by each rearing System.

Table 1. BY08 SST releases from Dworshak NFH, April 2009.

System	Number	Weight (lbs)	fpp	Lgth (mm)
Syst I Outplant	364,256	61,196	6.0	199
Syst I Direct Rel	338,251	58,279	5.8	201
Syst II Outplant	288,529	46,369	6.2	196
Syst II Direct Rel	337,737	59,462	5.7	202
Syst III Outplant	77,722	17,520	4.4	219
Syst III Direct Rel	392,379	87,332	4.5	218
Total Outplanted	730,507	125,085	5.8	200
Total Direct Rel	1,068,367	205,073	5.2	208
Total/ Ave	1,798,874	330,158	5.4	205

Along with the unmarked SST outplanted to American River and Newsome Creek, other outplanting sites from each system included Clear Creek at Kooskia and the Red House hole on the South Fork of the Clearwater River. All off-station releases were done using trucks from the U. S. Army Corps of Engineers(USACE).

Water temperature for the month averaged 40.5°F for each System and mortality for the month was approximately 0.05 percent.

Brood Year 2009

Due to roof construction, all fish must be moved out of the nursery building by August 1. Consequently, SST spawning concluded on April 21 this year, about two weeks earlier than normal. By the end of the month approximately 1.8 million BY09 SST were on feed in the nursery along with another 280,000 eyed eggs in hatching jars and 500,000 eggs in incubation trays. The ladder was closed the final time for collection of the spring-return SST on April 20.

RAINBOW TROUT (RBT)

Brood Year 2008

By the end of the month there were 10,826 BY08 RBT in three BPs in System III averaging 1.8 fpp and 283 mm (11.2 inches) total length. Mortality for the month was 4.9 percent. The fish remained on single pass river water (avg. 40.5°F).

These RBT will be for the “Kids Fishing Derby” in conjunction with National Fishing Week on June 12, 2009.

Brood Year 2009

At the end of the month there were 13,842 BY09 RBT in circular tanks averaging 250 fpp and 55 mm (2.2 inches) total length. Mortality for the month was 1.1 percent. Water temperature in the tanks averaged 50.2°F during the month.

These fish will be utilized for the “Kids Fishing Day” in 2010.

SUMMARY

Table 2 Total Production—Fish on Station (04/30/09).

SP	BY	Location	Number	Wt (lbs)	FPP	L in	L mm
FCS	09	B-Bank RWs	341,000	1,300	262	2.3	59
SCS	08	A-Bank RWs	1,162,130	2,313	502	1.9	48
COS	08	Burrows Ponds	897,524	10,015	89.6	3.2	81
SST	09	Nursery	2,070,392	5,600	369.7	2.0	50
RBT	09	Incub. Circ Tanks	13,842	55	250.0	2.2	55
RBT	08	BPs 60, 62 & MCU	10,826	6,009	1.8	11.2	283
Total			4,154,714	23,992			

MCU = Mixed cell unit which were Burrows ponds 64 and 66 before renovation.

Kooskia

Kooskia Trap Operations BY09

The trap remained open through April 8 for BY09 Adult SST collection. The adults were collected and the results are seen below.

Kooskia Steelhead Summary BY 2008.													
Date	Out-planted			Killed CWT			Natural passed upstream			Trap Morts			Daily Total
	M	F	J	M	F	J	M	F	J	M	F	J	
3/31/2009	42	87	4				1	3	1				138
4/8/2009	21	57	2				0	2	1				83
													0
													0
													0
Total:	63	144	6	0	0	0	1	5	2	0	0	0	221

After removing the Steelhead on April 8th, the hatchery creek supply was dewatered, the trap was closed, and the weir panels were raised. Trapping will resume May 11 for BY09 SCS. The Obermeyer weir was lowered on April 2nd to allow creek debris to sluice during the spring runoff.

Kooskia Brood Year 2008

Kooskia Stock BY08 SCS number 695,399 averaging 310.4 fpp at 2.21 inches long. Growth for the month was .60 inches. Kooskia stock SCS are currently being reared in the outside nursery tanks on reuse with chilled well water makeup. The reuse water temperature averaged 49.2°F this month. The chiller was turned on to maintain system temperatures from April 3-7 due to a warm spell. System temperatures remained favorable until April 22, when another warming trend necessitated use of the chiller. The chiller will likely remain on for the duration of rearing until October.

Dworshak Brood Year 2008

All Dworshak Stock BY08 SCS were transferred back to Dworshak on April 6 -7. Number of fish transferred was 802,613 SCS at 760 fpp.

Research:

Approximately 1,500 Dworshak SCS were brought up on March 9. These fish are being used by the **POST** (Pacific Ocean Shelf Tracking) Project. (See www.post.coml.org for more details). POST researchers conducted their tagging April 13-22. Group 1 barged fish was transported by John McKern April 16th, with subsequent barge and direct release groups to be distributed in May. These fish are being housed in the inside tank room on single pass well water.

Maintenance

Dworshak

- On April 30th, the crew participated in the Annual Valve Exercise along with the Clearwater State Fish Hatchery and U.S. Army Corps of Engineers. This exercise is critical to the evaluation of the existing pipeline and valve operation which supplies water to the Dworshak Hatchery incubation and nursery areas and is the sole water source for the Clearwater State Hatchery.
- Hauled Chinook from Umatilla, OR to DNFH, DNFH to KNFH; steelhead from KNFH to South Fork of the Clearwater River and pumped fish for USACE trucks to haul.
- Fabrication projects: Wrench to remove valve cover caps; 4" male to 3" female pipe fitting for draining digesters; 4" female to 6" female fitting for new nursery fish pump; underwater fence post driver for Fishery Resource Office (FRO), added 27" to A-bank stand pipes and cut off pipe and studs in mix cell pond
- Electrical projects: troubleshoot hard wire circuit and soft start on Main Pump #3, troubleshoot emergency control power circuit in Main Pump #6, lockout and disconnect motor on Main Pump 33; installed and energized outside outlet for University of Idaho kelt study at Warehouse West; troubleshoot failed sump pump in System I digester; troubleshoot and repaired transfer switch in System I pump house and wire transformers for flow monitors, other equipment in mix cell ponds, install wire and connect remote display panel and test run #3 generator.
- Removed #3 pump in Main Pump house for overhaul.
- Repaired several water leaks on hatchery and housing grounds.
- Cleaned System digesters.
- Prepared fish pumps for outplanting.
- Installation projects: installed 11 tanks in A-banks with water lines and drains; built and installed header manifold for tanks in A-bank, installed new drain plates and pipe in #2 Mix cell.
- Performed annual maintenance on groundskeeping equipment, fertilizer, mowed and weed-eated grounds.
- Performed daily janitorial work on hatchery buildings, ran traveling water screens, cleaned moss from trap, ran generators for monthly exercise.

Kooskia

- Installed new radiant heater in shop.

Meetings/Training/Travel

Dworshak

- 4/3 Larry Peltz, Complex Manager and Mark Drobish, Hatchery Manager attended a meeting in Lewiston, ID with staff from the Nez Perce Tribe (NPT) and U.S. Army Corps of Engineers (COE) on reservoir Management.
- 4/13-17 Penny Hasenoehrl, Purchasing Agent, attended BTS training at the Regional Office in Portland, OR.
- 4/14-16 Larry Peltz, & Howard Burge, FRO Project Leader attended the Pacific Regional Fisheries ARD meeting in Olympia, WA.
- 4/27-28 Larry Peltz attended a Lower Snake River Compensation Plan (LSRCP) and HRT meeting in Boise, ID.

Kooskia

- April 14-17: Adam Izbicki attended the Project Leaders Strategic Planning Meeting in Lacey, WA.
- April 23: Idaho Fish & Game (IDF&G) personnel visited Kooskia to look at a possible boat ramp project near the hatchery settling pond. Adam Izbicki and Larry Peltz from USFWS and Stan Hawkins from IDF&G were present.

Miscellaneous

- 4/8 Larry Peltz led an all-staff meeting on Teamwork and showed a video on the importance of teamwork.
- 4/22 April birthdays parties were celebrated in the Conference Room with Idaho Fish Health Center (IFHC) hosting the event with cake and ice cream.
- 4/17-19 Dave Trainor, Rob Kellar, Gia GrowingThunder, LouAnn Lasswell, Larry Peltz, Susan Sawyer, Megan Wandag, Thomas Trock and Mark Drobish participated in the Dworshak Complex booth at the Outdoor Show in Lewiston, Idaho on April 17-19, 2009.

Personnel Actions –

Safety/Wellness –

Information/Education (I/E)

Dworshak

Tours - 9

People - 178

Register – 108 from 11 states (top 3: WA-11, MT-6, CA-6)

Volunteers – 15 volunteers Hrs – 89

On-site:

- Completed school tours for steelhead spawning season.
- Participated in Regional Connecting People with Nature monthly conference call.
- Participated in IdEEA monthly board of directors conference call.
- Completed final arrangements for annual NCITA Visitor Orientation tour for 6 hatchery volunteers on the Salmon River (postponed from last yr) and submitted resignation for Board of Director seat.
- Final phase of Complex brochure edits, photos sent to contractor; extended project to end of May for review by Visitor Services staff.
- Scheduled staff for Lewiston outdoor show (new event).
- Provided steelhead for classroom dissections to 2 local schools.
- Began scheduling Hatchery in the Classroom fish releases for May.
- Scheduled steelhead dissections in area schools.
- Finalized Earth Day event with meetings, school scheduling.
- Planning for annual career fair exhibit, activity in Orofino city park.
- Planning for Dworshak Extreme Explorers after school club's culminating field day.
- Provided Fin Bin to one school.
- Conducted job shadow activities for 5 high school students.

Offsite:

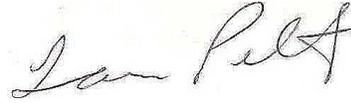
- Conducted 4 classroom fish dissections for 165 students.
- Conducted annual Earth Day activities in Orofino city park for 100 4th gr students.
- Sent 6 hatchery volunteers on NCITA orientation tour of salmon river thru NCITA.
- Staffed hands on exhibit at annual Idaho Job Service school career fair – est. 150 students.
- Interviewed with CBS affiliate KLEW during hatchery school tour and fish dissection.
- Planned and staffed first annual Inland NW Outdoor show in Lewiston (Clearwater River Casino) for 2days; provided hands on activities, handouts, information to over 600 contacts; promoted Lets Go Outside materials.
- Conducted 2 meetings of Dworshak Extreme Explorers after school club for 12 students.

Kooskia

No visitors signed the guest book. No guided tours, but many visitors stopping to check the trap, see the big fish, and take a look around the hatchery grounds, when it wasn't snowed in or ponds frozen.

Website contacts: (data not available)

Education and Outreach projects:

A handwritten signature in black ink that reads "Larry Peltz". The signature is written in a cursive style with a large initial "L".

Larry Peltz

Complex Manager

cc: Kooskia NFH
Hagerman NFH
CFRU – Moscow
Dworshak Production (2)
LSRCP – Boise