



# Dworshak Fisheries Complex

## Monthly Activity Report



June 2014

U.S. Fish & Wildlife Service, Region 1

Volume 3, Issue 5

### Special points of interest:

- A new fish counter and camera installed at Dworshak!
- Kooskia began using electro-narcosis on June 30 !
- Total Fish on station at Dworshak: 5,053,070
- Total Fish on station at Kooskia: 753,946

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### Manager's Message

DNFHC does not operate in a vacuum. In fact, it is just the opposite... we are the center of a highly coordinated partnership with a variety of stakeholders.

For starters, DNFH is jointly operated by the USFWS and Nez Perce Tribe (NPT). These two groups have joined together through the Snake River Basin Adjudication Agreement (SRBA). Although both the Service and the Tribe care about fish and the environment, and are similar in many ways, there are distinct differences as well. Blending these two entities and their employees into one cohesive work team has proven challenging. But, guess what? You've done it, and in my opinion, you've done it well in a very short period of time.

How about funding? Who pays for all this stuff? Fish production, program monitoring and evaluation, research, habitat improvements, fish health services, outreach, the list goes on and on. Dworshak Complex is just that... complex...in the breadth and scope of work conducted here.

And funding is just as complex, coming from the Corps, Service, NPT, BPA, educational institutions, cash match organizations like Trout Unlimited, even private funding sources! A lot of folks are involved,



Steve Rodgers, Complex Manager

Credit: USFWS

either doing the work or paying for it.

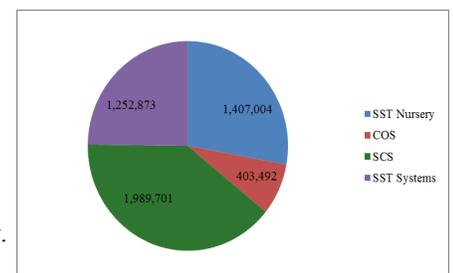
What about our neighbors in the valley? Obviously what we do at DNFHC directly affects the people who live, work and recreate in this area and wherever the fish go. Fishing guides, tackle shops, motels, grocery stores, and many other businesses are heavily dependent on revenue generated by fisheries. Tribal members, both inside and outside the reservation, value our fish for more than just food, as the fish are tied to their spiritual and cultural values as well. Without question, our program is critical to the quality of life people enjoy in this area, adding another layer of dependent complexity.

Let's not forget our neighbor across the North Fork... Clearwater Fish Hatchery (CFH) and Idaho Fish and Game (IDFG). Over the years, the two facilities have helped each other and that partnership is getting stronger. One example is when CFH worked cooperatively with DNFH to get reservoir water

they weren't using re-routed to Dworshak, helping to solve a long-standing IHNV issue.

A second example of this teamwork occurred when DNFH took on CFH's spring Chinook production after a pipeline failure at the dam, rearing those fish to full term smolts, releasing them at size and on schedule. This collaborative approach has been a "win" for everyone, and will continue as we work together through future challenges. I'd even say the positive relationship you've built with IDFG here locally is helping build a stronger relationship between the Tribe, Service and IDFG across the state!

The bottom line is Dworshak Fisheries Complex is extremely complex in every facet: the program, the facilities themselves, funding, partnerships and collaboration, you name it. I hope this message reminds you all of that complexity, and that our success today would not be possible without the positive attitudes, flexibility and adaptability you all show on a routine basis. There's a reason they call it Dworshak COMPLEX.



Gerry Fogelman checking adults for coded-wire tags at Kooskia NFH



Credit: NPT

575 Chinook were trapped this month at Kooskia



Credit: NPT

Kent Hills crowding adults at Kooskia NFH

### Hatchery Headlines: Dworshak Spring Chinook Salmon (SCS)

#### Brood Year 2013 (BY13)

There were 1,989,701 fish at the end of June averaging 332 fpp (2.16 inches). Mortality dropped from 2.35 % (48,121) to 0.41% (8,178). Small screens were pulled early in the month to give fish more room in the RWs. There are four distinct ponding groups: Low-density, high-density, flow study, and Selway. Each group can be identified through parental based tagging (PBT). Fish were fed 2674 pounds of #0 crum Bio Oregon gaining 3513 pounds. Raceway flow averaged 500 gpm and water temperature was 44 degrees.

### Hatchery Headlines: Dworshak Summer Steelhead (SST)

#### Brood Year 2014

Marking began on June 14 with Take 1 going into System 1, BP's 1 and 3. Take 2 was marked into BPs 5 and 7, Take 3 was marked into BPs 9 and 11, and Take 4 was marked into BPs 13 and 15. At the end of June there were 1,407,004 remaining in the Nursery. Average fpp in the Nursery was 247 (2.5 inches). There were 24,582 mortalities (1.0%) during the month. Primary reservoir water was heated to 54 degrees.

1,254,932 fish were marked and moved into 8 System 1 BPs in June. By the end of the month there were 1,252,873 fish averaging 89.1 fpp (3.18 inches). There were 2,059 mortalities (0.2%). System 1 is on primary reservoir water heated to 54 degrees.

### Hatchery Headlines: Dworshak Coho Salmon (COS)

#### Brood Year 2013

At the end of May there were 403,492 Coho in 4 RWs averaging 303 fpp (2.21 inches). There were 8,896 (2.05%) mortalities during the month. On June 16, 81,815 Coho fry were transferred to Dworshak from Kooskia to make up for early rearing losses experienced in May. The full Coho report can be seen on page 4.

### Total Fish on Station: Dworshak, 6/30/2014

#### Brood Year 2013

SP	BY	Location	Number	Wt (lbs)	FPP	L in	L mm
SST*	14	Nursery	1,407,004	8,604	247	2.4	60
COS	13	RWs 16-18	403,492	1,547	261	2.2	56
SCS	12	RWs 19-28	1,989,701	5,997	332	2.0	52
SST	14	System 1	1,252,873	14,829	84	3.2	82
<b>Total Fish/Fry on Station</b>			<b>5,053,070</b>	<b>30,977</b>			

## Hatchery Headlines: *Kooskia*

### **Kooskia NFH Monthly Activity Report**

Under SRBA and the Clearwater Annual Operating Plan, the Tribe, Service and Idaho Fish & Game have agreed to implement other fish production actions related to KNFH mitigation. Reports will include additional information about other species reared, processed and released in relation to KNFH operations.



Credit: NPT

This activity report is implemented by the Tribal Fish Hatchery Manager, Kent Hills. All information in this report was collected and or performed by the hatchery staff during the preceding month.

### **Kooskia Chinook Brood Year 2013**

There are 672,131 Chinook fry on station, at 117 fish per pound. These fish were fed 1966 lbs. of feed. Total mortality for June was 634. Water temperature is 50 degrees.

### **Eagle Creek Coho Brood Year 2014 (TDY @ Kooskia)**

There are 81,815 Coho fry on station; they are 162 fish per pound with a total mortality of 0. These fish were fed 76 lbs. of feed. These fish were transferred to DNFH on the 18th of June.

### **Kooskia Adult Trap Operations**

Trapped 575 fish, of those, 32 were released into Clear Creek nine miles up at the second bridge, 35 jacks were released at Pink House on the Clearwater River, 508 were transported to DNFH for brood stock. The Idaho Pathology department live sampled 100 fish for IHNV these fish were PIT tagged and will be sampled a second time at spawning to determine the dominate strain.

## Information and Education Corner

**Statistics for June:** Tours– 2, 49 people; Register– 162 visitors from 17 states, Canada, Puerto Rico, and the Netherlands; Volunteers 1– 10.5hrs; Web site– 287; Facebook Reach– 2,487.

### ***Dworshak On Site:***

June 3– Tour for St. George's School sixth graders (33 kids and 6 adults)

June 4- University of Idaho IGERT program (10 adults ) multi-disciplinary tour of facility

### ***Dworshak Off-site:***

June 2– Aquatic Field Day for Orofino High School Science Classes at Tunnel Pond (53 students)

### ***Kooskia On-site:***

305 visitors ; no tour groups recorded

Inventory on July 1 showed a total of 403,492 Clearwater stock Coho



Credit: NPT

“The electro-narcosis tank was used in today’s trapping. It worked well!”



Credit: Adam Izbicki/USFWS

Scott Koehler worked with USACE staff to repair a leaking fire and maintenance line.

## Hatchery Headlines: Nez Perce Tribal Fisheries At Dworshak

The inventory of BY13 Coho on July 1st showed a total of 403,492 Clearwater stock Coho in four B Bank Raceways (16, 17, 18, and 30). On June 18th, 81,815 BY13 Coho were transported from Kooskia NFH to Dworshak NFH because of high mortality.

**Table 1. Brood year 2013 Coho inventory as of June 1, 2014 at DNFH**

	Number of Fish	Weight (lbs.)	FPP (average)	Length (inch)
<b>Raceway 16</b>	104,663	302	346.70	2.02
<b>Raceway 17</b>	120,810	308	392.60	1.94
<b>Raceway 18</b>	96,300	274	351.00	2.01
<b>Raceway 30</b>	81,719	663	123.2	2.85
<b>TOTAL</b>	<b>403,492</b>	<b>1,547</b>	<b>303.38</b>	<b>2.21</b>

### MORTALITY:

- The average percent mortality for Clearwater stock Coho for the month was 2.05%.
- Total monthly mortality was 8,896 collected by staff.

### GROWTH:

- Average fish per pound (fpp) decreased from 1200 fpp to 303.38 fpp.
- Average length increased from 1.31 inches to 2.21 inches.

### FEED:

- A total of 484 pounds Bio-Oregon’s BioPro starter #0 crum, #1 crum, and #2 crum feed was fed for the month. ROMET medicated top coating was used. The cost of feed for the month was \$1,231.60.

### FISH HEALTH:

- Monthly fish health samples were collected by Corie Samson. See fish health reports.
- RW 30 was given a salt treatment to help with distress.

### REPORTS: NA

### MEETINGS/TRAINING: NA

## MEETINGS/TRAINING

Dworshak- Penny Hasenoerhrl attended Admin. Assistant Conference in Spokane, June 25.

Kooskia - Kenny Simpson began an online Excel class.

## Administrative Activities

Safety: None Reported

Personnel Actions: Jesse Jeppesen transfer effective 6/28

**Dworshak June 2014**

- Installed new battery charger for hyster forklift
- Finished pond crowder charger and solar panel
- Repaired heat pump on Quarters #2
- Replaced Paper towel holder in break room
- Repair 2/ ½ degasser line on Nursery tank 206
- Repair sprinkler timer on Quarters #2
- Replace door window in quarters

**Kooskia June 2014**

Jun 02: Trapped 5 adult male and 4 adult female Chinook transported to DNFH.

Jun 02: Lawn sprinkling system was set up by Gerry.

Jun 09: Trapped 3 adults, one jack and one natural jack salmon, the natural was released into Clear Creek above the weir at the second bridge, the other four were taken to Dworshak holding pond 3 as brood stock.

Jun 12: A total of 33 Chinook were taken out of the trap, 30 were sent to DNFH for brood stock 2 were released in Clear Creek and one jack to button beach.

Jun 16: A total of 22 females, 16 males, 6 jacks and 3 natural Chinook were taken out of the trap for a total of 47 fish, 39 were transported to DNFH for holding, 22 females, 16 males and 1 jack. Later the 5 jacks were transported to Pink House and released and the 3 naturals were transported above the Clear Creek weir

Jun 18: Randy and James ran new wires and conduit in the office for our computers, printers and phones.

Jun 18: 81,815 Coho fry was transported to DNFH by tribal fisheries.

Jun 21: New flooring was installed in the office by Hales Flooring of Kamiah.

Jun 23: Total fish transported to DNFH was 248, and within this number we had 104 males, 133 females and 11 jacks. A total of 31 adults were pit tagged and tissue samples taken by Fish Health. Clear Creek received a total of 20 fish consisting of 9 natural males, 7 natural females and 4 natural Jacks for natural spawn-

- Repair fire hose pump intake hose
- Crew working to install 3 new main pumps.
- Installing new photo cell fish counter and camera system in pond 9
- Repaired leak in fire and maintenance line near new road
- Serviced the main Air Frame feeder breakers during annual power outage
- Pruned Trees near maintenance shop

ing. A total of 24 fish were recycled to Pink House. This group consisted of 1 adult female, 1 adult male and 22 jacks. A total of 292 fish were removed from the Kooskia trap.

Jun 24: Eleven females, 3 males and 1 jack were taken from the trap and transported to DNFH for holding, 5 jacks marked and returned to the trap for future out planting to Button Beach.

Jun 27: Twenty-seven males and 9 females Chinook were taken from the trap and transported to DNFH for holding.

Jun 30: Art and Kent finished the electro-narcosis tank and it was used in today's trapping. It worked well, required a few tweaks, but overall worked well. This allows fish handling without the use of chemicals. Sixty-six males, 59 females and 2 jack salmon were taken from the trap and transported to DNFH for holding. Also removed from the trap were 5 males and 1 female wild salmon which were released into Clear Creek above the weir at the second bridge.



Credit: NPT

**James Paddelty “Channel” installed conduit at Kooskia Office**

## Pacific Lamprey Nez Perce Tribal Hatchery

Credit: Jill Olson/USFWS



Credit: Jill Olson/USFWS

Fish Health and Nez Perce Tribe injected 140 lamprey with oxytetracycline

## Idaho Fish Health Center

**Bacteriology:** Laura received samples from 21 cases representing 138 fish. In addition, Laura participated in a *Yersinia ruckeri* identification project (ring testing) along with the other 8 fish health centers. During the process, she discovered an issue with a Lot of API identification strips. These exercises show the importance of routinely running positive and negative controls to make sure protocols will result in accurate identifications. Laura also started converting AFS Blue Book protocols into a SOP format and began writing a new antibiotic sensitivity SOP.

**Virology:** Corie and Chelsea ran a total of 75 samples representing 188 fish from Dworshak NFH, Nez Perce Tribal Hatchery, Nez Perce Tribe Coho Program, Nez Perce Tribe Kelt Program, Kooskia National Fish Hatchery, Kootenai Tribe of Idaho and the Wild Fish Health Survey. Corie and Chelsea ran 93 blind passes representing 442 fish from Dworshak National Fish Hatchery, Hagerman National Fish Hatchery, Nez Perce Tribal Hatchery, Nez Perce Tribe Kelt Program, Nez Perce Tribe Coho Program, Kootenai Tribe of Idaho and the Wild Fish Health Survey.

**PCR:** Chelsea and Laura extracted 186 viral pellets for *Nucleospora salmonis* (NS), 20 Hagerman monitoring samples for NS, and 6 bact samples for confirmation. Laura ran the samples and entered the data into the database.

Rick completed the processing and screening of one hundred and fifteen samples from adult spring Chinook salmon, summer Chinook salmon, fall Chinook salmon, Coho salmon and steelhead trout that were collected from five US Fish and Wildlife Services facilities and two tribal facilities in the Pacific Northwest for Infectious Salmon Anemic virus (ISAv). Samples were screened by reverse transcriptase real time PCR as required by the APHIS ISAv Surveillance Program. All samples were negative including the 274 samples screened in May.

Juvenile spring Chinook salmon from the B bank raceways with pop-eyes and swollen abdomens were screened by Rick for bacterial kidney disease and IHNv by real-time PCR and were negative. Rick screened one of the mortalities from the adult steelhead trout kelt program for IHNv by PCR. Corie provided Rick with 19 cell culture samples that were IHNv positive for PCR confirmation.

**ELISA:** No samples were analyzed by ELISA during the month of June.

**Parasitology:** Two hundred and twenty one samples from one pre-release inspection, one diagnostic case, and two wild fish survey collections were screened for *Myxobolus cerebralis* by Rick using the pepsin-trypsin digest.

**FWS Hatcheries- Kooskia:** Guppy examined SCS at Kooskia on 6/11. Chinook are doing well at this time. She also checked Coho fry at Kooskia prior to transfer to Dworshak NFH. Rick and Chelsea collected 72 non-lethal samples for the IHNv study from fresh trapped adult spring Chinook salmon at Kooskia prior to their transfer to Dworshak.

**Hagerman:** Rainbow trout and Steelhead fry were shipped from Hagerman for their monthly monitoring examination. The Rainbow trout are currently on Spring 17 and Main spring water. Their stomachs were also examined for New Zealand Mudsnaills. The Steelhead fry were examined for NS only. Laura processed the samples, see PCR.

**Dworshak:** Corie and Guppy examined STT mortality brought in from the tagging trailer. They had moderate levels of *Trichophyra* on the gills. One water flea was also observed on the skin scraping. Tank 703 in the nursery was examined to get a better idea the levels of *Trichophyra* on random healthy fish. 5/5 fish examined had light to moderate levels of *Trichophyra* on the gills. The fish were not exhibiting signs of the parasite (flashing) and no mortality appeared to be associated with the parasite.

### **Idaho Fisheries Resource Office—Aquatic Conservation (Mike Faler)**

Coordinated with Nancy Leonard (NPCC) and Neil Ward (QW Consultants) to assist the Council with their bull trout “Dashboard” and identification of High Level Indicators (HLI). Reviewed the existing Dashboard to familiarize myself with its organization.

Met with Jana Grote and Jody Brostrom via teleconference to discuss and review the first draft of the Aquatic Conservation Strategic Plan. I continued developing ideas for the Plan as the month progressed. The next version of the Plan will be reviewed via conference call on July 23rd.

Met with Juliet Barenti (Spokane ES, Partners Program) to introduce myself and discuss opportunities for upcoming projects where we can leverage fish passage and/or habitat \$\$ to existing resource needs. We will meet in the near future to visit project sites in the Pend Orielle and Pack River basins, and discuss project proposals.

Coordinated with John Oppenheimer (Idaho Conservation League) about becoming involved with the Clearwater Collaborative, and I attended the June meeting. The Clearwater Collaborative is a group comprised of Resource Management agencies, Industry Representatives, and the general public. They are currently preparing a bill to present to the Idaho Legislature that would free the “shackles” on the Nez Perce and Clearwater National Forests, increase their timber target from 60M bf to 100M bf, and restore forest management practices on the “roaded front” of the Forests.

Assisted Al Williams with the safety audit for the FRO building and storage areas.

Met with Sam Lohr, Denise Hawkins, and R.D. Nelle via teleconference to discuss approaches and protocol for Aquatic climate change monitoring on National Wildlife Refuges. Funding has been approved for FY 14, and a follow up meeting has been scheduled for July 17.

#### **Idaho Fish Health Center (continued from page 6)**

Rick completed two diagnostic exams of juvenile spring Chinook salmon in the B bank raceways with slightly increased mortality. Moribund fish had swollen bellies, pop-eyes or were swimming on their sides. No pathogens were detected, but coagulated yolk was present in the sampled fish.

Rick, Corie, Jill and Guppy attended HET meeting regarding SCS trapping and spawning on 6/11.

Guppy provided veterinary extra label prescriptions for formalin treatments for fungus on adult spring Chinook for both Kooskia and Dworshak stocks.

NEZ PERCE TRIBE: Coho salmon in raceways B16 – 18 continued to experience high mortality so another round of Romet was recommended to keep healthier fish from getting any bacterial infections. Coho were brought down from Kooskia to help offset the mortality. It was reported one week after they were brought down that the fish were hanging on the sides and at the tail race. Fish had also gone off feed. No mortality had been noted and no pathogens could be found. It was recommended to switch from their current feed BioPro back to the

BioVida that was being fed at Kooskia, and to decrease rations until the fish started feeding again. The NPT Coho crew decided to try adding shade to the raceway and the fish almost immediately spread out and began to feed again on the same feed they had been on.

Corie examined a kelt mortality on June 3, 2014. The fish had a large amount of external fungus. It was tested and found to be IHNV positive by PCR and cell culture.

Laura and Chelsea performed a pre-release on juvenile SCS destined for Meadow creek release site. Monthly monitoring was performed on juvenile SCS on station before transfer to the Sweetwater Springs facility for further rearing.

Guppy provided veterinary extra label prescriptions for oxytetracycline injections of lamprey as collected for the Nez Perce Tribe. On June 19, Jill, Chelsea and Corie traveled to NPTH to help inject 29 Lamprey with oxytetracycline. On June 26, Corie, Chelsea and Laura traveled to NPTH to help inject 111 Lamprey with oxytetracycline.



### June Birthdays:

Christiansen

Wiese

Izbicki

Bowen

King



### June Service

Comp

### Anniversaries:

Ray Jones

Frank Mullins

Corie examined a lamprey mortality the day after the 19 June injection. Corie found one furuncle and was able to isolate *Aeromonas salmonicida* from the kidney and furuncle. Laura confirmed it as *A.sal* with PCR. It is unknown if this was the ultimate cause of the mortality.

#### Kootenai Tribe:

Corie received four shipments representing five different spawning events of the White Sturgeon at the Kootenai Hatchery. Eggs, milt and ovarian fluid samples from 25 different fish were examined for virus. Inspection report was submitted to the Kootenai Tribe regarding prior juvenile white sturgeon sampling upon completion of fish health test results.

**Wild Fish Survey:** Required annual electroshocking training was completed by Laura, Rick and Chelsea. 60 fish samples were received from 2 sites for a total of 120 fish. 60 mysid shrimp samples were also submitted for virology testing from Lake Pend Oreille. Laura attended the June UAT conference call and attended several Cabinet Gorge conference calls.

#### Other:

All available staff attended national fish health center conference call hosted by Joel Bader, National Aquatic Animal Health Coordinator on 6/2. All staff also participated in an Idaho Fish Health Center call with supervisor Andy Goodwin on 6/5 to discuss fish health workforce planning for Region One. All staff participated in regional fish health center call hosted by Andy Goodwin on

## Staff List

#### Complex Management

Steve Rodgers, Complex Manager

Mark Drobish, Hatchery Manager

Mike Tuell, Nez Perce Tribe Co-Manager

Nate Wiese, Assistant Hatchery Manager

Jack Christiansen, Aquatic Engineer

**Dworshak Production Staff-** Rob Bohn, Angela Feldmann, Wayne Hamilton, Jill Olson, Tom Tighe,

**Nez Perce Tribe Production Program-** Mike Bisbee, Tuianna Moliga, Lou Ann Lasswell, Steve Coomer, Jeremy Sommer, Carter Lopez, Ira Wilson, Mike Murphy, Casey Mitchel

June 9.

Guppy attended the Snake Basin SCS coordination webinar/conference calls scheduled for every Tuesday morning, as available. Guppy also attended Region One surrogate species webinar on 6/4.

The Lower Snake River Compensation Plan budget and Statement of Work for the Idaho FHC was submitted for FY 2015 as requested. The COE budget and Annual Work Plan for the Idaho FHC was also submitted for FY 2015. Guppy participated in Dworshak management team meeting on 6/5. She also attended R1 Project leader call on 6/9.

Laura and Guppy attended Aquatic Animal Health Policy call including all nine national fish health centers on 6/24.

Guppy completed and submitted EEO/Diversity training for FY14 as required for FWS supervisors.

RO safety officer Alan Williams performed safety evaluation of the Idaho FHC on 6/12. Many of the findings were addressed immediately by staff and Dworshak maintenance including the writing of a safety plan specific to the Idaho FHC by Guppy.

Guppy participated on conference call on 6/12 to assist in planning for the NCTC course on Field and Lab Techniques. She created and submitted a flow chart for actions to be taken in the event of fish problems or fish kills in the field.

As current chair, Guppy created draft agenda for the upcoming Pacific Northwest Fish Health Protection Committee meeting in Lewiston, ID in September.

**Administration-** Penny Hasenoehrl, Steve Bradbury, Randy Bowen

**Maintenance-** Adam Izbicki, Terry Weeks, Rick King, Rob Kellar, James Oatman, Scott Koehler, Jimmy Oatman, James Paddelty, Melissa Billups, Joe Livesay

**Idaho Fish Health Center-** Dr. Marilyn Blair, Laura Sprague, Corie Samson, Rick Cordes, Chelsea Weeks

**Idaho Fishery Resource Office-** Mike Faler, Dr. William Conner, Ray Jones, Aaron Garcia, Carrie Bretz, Frank Mullins, Dr. Chris Peery, Jody Brostrom, Ken Bugler, John Hook, Brad Buechel

**Kooskia National Fish Hatchery-** Kent Hills, Art Broncheau, Kenny Simpson, Gerry Fogelman