



Dworshak Fisheries Complex

Monthly Activity Report



February 2015

U.S. Fish & Wildlife Service, Region 1

Volume 4, Issue 4

Highlights:

It is STEELHEAD spawning season !!

- **Total Fish , Alevins, Eyed Eggs on station at Dworshak:**

9,233,656

- **Total Fish on station at Kooskia:**

BY13 661,509 Chinook molts

BY14 873,979 Chinook sacfry

BY14 364,550 Coho smolts

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Manager's Message



Steve Rodgers, Complex Manager

Well, spring has certainly sprung, it seems ahead of schedule. Much of the snow pack that provides flow for our out-migrating fish is already gone, and ocean conditions don't look promising either. It may be a tough environment for this year's smolts, and most likely in the next few years as well. That may mean fewer adults back in the near term, more restrictive fisheries, and a harder time making our program goals. However, it's not all doom and gloom.

I've heard repeatedly from animal caretakers and technicians to biologists and management staff that the egg quality for both spring Chinook and our B steelhead looks noticeably better this year. That is partially the result of the fish themselves, but also a reflection on the extra care our production folks are taking in spawning the females, and in fertilizing and caring for these eggs. We've made an effort to create some level of stability in our production planning, and folks seem to be excelling in an environment without constant flux and change. This stability is reflected in things like increased fecundity and higher egg quality. I expect we'll see continued good fish culture evidenced in the nursery and outside as well.

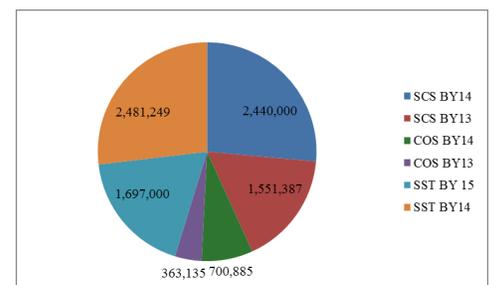
I've also heard from several fish markers, who mark and tag our fish year after year. They've told me directly that the quality of fish they're marking has improved noticeably in the last few years. I've heard that same sentiment from the FWS trailer operators as well. This is testament to the dedica-

tion our production folks show day after day in caring for these fish.

Recently, Ray Jones presented at the LSRCP meeting on our spring Chinook program and the density study many of you have been involved with. One of the take home messages from that presentation was that there is little room for improvement in our in-hatchery rearing of spring Chinook here at DNFH. Unless we see a major capital investment to change the rearing tanks, improve water quality and quantity, etc.; we can't do much better while our fish are at the hatchery. Over time the hatchery's performance has improved, and there is a trend showing more adult spring Chinook back to the project area from our releases in recent years. Since 2001, DNFH adult returns have averaged around 70% of the LSRCP goal for this program. That is well above some of our fellow LSRCP hatcheries; and markedly better than in the past at DNFH...something you can all feel good about.

This month I just wanted to point out that all that pond cleaning and mortality picking and feeding and spawning and evaluating and sampling and everything else you do makes a difference. It translates into healthy fish leaving our facility. That in turn leads to more adult fish returning to our communities, supporting fisheries for everyone to enjoy. On behalf of everyone that benefits from our fish, either directly or indirectly, thank you.

Figure 1. February 28, 2015: Total Fish on Station.





Credit: :Kent Hills NPT

364,550 Coho smolts arrived at Kooskia Hatchery from Dworshak Hatchery to be acclimated on Clear Creek water prior to release



Credit: Kent Hills NPT



Credit: Kent Hills NPT

Fisheries Resource personnel arrived for CWT tag retention survey

Hatchery Headlines: *Dworshak Spring Chinook Salmon*

Brood Year 2013 - At the end of February there were 1,551,387 fish in 30 RWs averaging 24 fpp (5.2 inches). Mortality was 0.07% (1,148). Fish returned to a 5-day per week feeding schedule to ramp up pre-release growth. There are three distinct ponding groups: Low-density, high-density, and flow study. Each group can be identified through parental based tagging (PBT). Raceway flow averaged 790 gpm and water temperature was 43 degrees. Fish health reports indicated healthy fish with adequate pyloric fat no sign of disease. Fish are on track to be released early April at 20 fpp. The Fisheries Resource Office is monitoring river conditions. Our release window is looking like March 23-April 1.

Brood Year 2014 - There are 2.44 million aelvin currently in Dworshak production. Percent mortality from eye to hatch was 1.2%. Alevin are being incubated on secondary reservoir water chilled to 37 degrees. Ponding is scheduled for mid-April.

Hatchery Headlines: *Dworshak Summer Steelhead (SST)*

Brood Year 2014 - There were 2,481,249 SST in the Burrow’s Ponds at the end of February averaging 8 fpp (7.22 inches). There were 610 mortalities (0.02%). All fish are being reared on river water at about 700 gpm and water temperature was 43 degrees. Fish are on track to be released in April at 6 fpp.

Brood Year 2015 - Spawning continued in February. There have been a total of 274 females spawned in four takes, providing approximately 1,697,000 green eggs. There were 119 females spawned at take 1 on January 13, 2015, and 31 females spawned at take 2 on January 20, 2015, 62 females in take 3 (2/10/15) and 62 females in take 4 (2/24/15). Takes 1 and 2 were early returning fish and were kill spawns; takes 3 and 4 were air spawned for the CRITFC/NPT Kelt program. No eggs were shipped for I.E./Research programs in February. Expected fecundity is 6541 eggs/female for kill spawning, and 5773 eggs/female for air spawning.

Hatchery Headlines: *Dworshak Coho Salmon (COS)*

Brood Year 2013

At the end of February there were 363,135 Coho in 5 Burrow’s ponds. Coho averaged 24 fpp (4.9”). Mortality was 0.07% (255 individuals). Fish were confirmed positive for Cold Water Disease by IDFH. The full Coho report can be seen on page 4.

Brood Year 2014

There are 700,885 BY14 Coho in DNFH A-Bank. Aelvin are being incubated on chilled water (37°F).

Table 1. Total Production—Fish on Station at Dworshak

SP	BY	Location	Number	Wt (lbs)	FPP	L in	L mm
SCS	13	RWs 1-30	1,551,387	66,114	24	5.2	133
SCS	14	alevin/incubation	2,440,000				
COS	13	BP 74-82	363,135	15,250	23.81	4.9	125
COS	14	alevin	700,885				
SST	15	eggs	1,697,000				
SST	14	Systems	2,481,249	326,678	8	7.2	183
Total Fish/Fry on Station EOM			9,233,656	408,042			

Hatchery Headlines: *Kooskia*

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.

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.

Kooskia Chinook Brood Year 2013

There are 661,509 Chinook smolts on station at 24.9 fish per pound; they are 5.1 inches (129.5 mm). These fish were fed 2364 pounds of feed and gained 3,075 pounds for the month. Total mortality of 203, the fish were on creek water at an average of 38.5 degrees. These fish will be released into Clear Creek on March 12, and spring Chinook from the Clearwater Hatchery will be placed in the burrows ponds on March 13 for acclimation for release on March 23.

Kooskia Chinook Brood Year 2014

There are 873,979 sack fry on station; they are on 40 degrees F water in 17 incubation stacks. We had a total mortality of 20,760 Three trays were culled due to all being deformed (curly quered) 12,035 and most were picked from the remaining tray which also had a lot of genetic deformities 8,725.

Dworshak Coho Brood Year 2014

A total of 364,550 Coho smolts arrived at Kooskia Hatchery from Dworshak Hatchery to be acclimated on Clear Creek water prior to release on February 24. Two trucks from the Nez Perce Tribe Fish Hatchery made two trips each for two days a total of four trips. Thanks to Brett and Bob for transporting. Neal Rain Transport will be transporting Coho from Eagle Creek Hatchery the first part of March for acclimation.

Kooskia Adult Trap Operations:

Trap is closed but will be opened for adult steelhead trapping the first of March.

Training and conferences:

Art & Kent went to Clearwater Hatchery to attend an AOP meeting.

Kenny, Kent and Art attended the Nez Perce Tribal Fisheries Salmon Symposium at the Clearwater River Casino on Feb 10, 11 &12.

Kent travelled to Lapwai for a meeting with Becky on Feb 18.

Kent travelled to Lapwai for a NPTEC meeting on Feb 20.

Gerry to Lewis & Clark College for safety training Feb 24-26.

Hatchery Headlines: Nez Perce Tribal Fisheries At Dworshak Performance February 2015

The inventory of BY13 Coho on February 25th showed a total of 363,135 Clearwater stock Coho in five Burrows Ponds (74, 76, 78, 80, and 82).

Table 1. Brood Year 2013 Coho Inventory as of March 1, 2015.

	Number of Fish	Weight (lbs.)	FPP (average)	Length (inch)
BP 74	80019	3294	24.29	4.90
BP 76	79426	3381	23.49	4.95
BP 78	79852	3296	24.23	4.90
BP 80	51659	2109	24.50	4.89
BP 82	72179	3170	22.77	5.01
TOTALS	363135	15250	23.86	4.93

MORTALITY:

- The average percent mortality for Clearwater stock Coho for the month 0.07%
- Total monthly mortality after inventory was 255 collected by staff.

GROWTH:

DNFH

- Average fish per pound (fpp) decreased from 26.67 fpp to 23.86 fpp.
- Average length increased from 4.69 inches to 4.93 inches.

FEED:

- A total of 1408 pounds Bio-Oregon's BioPro 2.0 mm feed was fed for the month @ \$2,742.10.

FISH HEALTH:

- Monthly fish health samples were collected by Corrie Samson. Steve Coomer reported an increase of fish with eroded noses. Samples were collected and confirmed positive for Cold Water Disease. See fish health case number 15-076.

REPORTS: NA

MEETINGS/TRAINING: None

BY 14 EGGS:

- As of March 1 st 2015 there are 700,885 BY14 eggs in DNFH A-Bank
- A total of 12,498 dead eggs picked off during the month of February (3.63%) all takes have hatched.
- Take One has 1,098 total temperature units
- Take One has 1,022 total temperature units
- Take One has 917 total temperature units



Credit: Jill Olson USFWS



Credit: Jill Olson USFWS.



Credit: Jill Olson USFWS.

Idaho Fish Health Center—February 2015

Bacteriology: Monthly monitoring and pre-release samples were received from 6 cases. Laura confirmed *Aeromonas salmonicida* by IFAT at Hagerman NFH.

Virology: Corie ran a total of 88 samples representing 280 fish from Dworshak NFH, Kooskia NFH, Nez Perce Tribe Kelt program, and Hagerman NFH. She also ran 68 blind passes representing 128 fish from Dworshak NFH, Lyons Ferry Hatchery WDFW, and the Wild Fish Health Survey.

PCR: Laura began processing samples collected in Jan and Feb from Hagerman NFH for *Nucleospora salmonis* (NS).

ELISA: Guppy tested 232 kidney samples for *Renibacterium salmoninarum* (Bacterial Kidney Disease) by the ELISA test this month. Samples included wild fish health survey samples from Bozeman and Idaho FHCs, monitoring for Dworshak SCS high and low density groups, Kooskia SCS monitoring, and Lyons Ferry FCS import permit.

Parasitology: Rick screened 12 samples representing 60 fish from the Kooskia SCS prerelease fish for *Myxobolus cerebralis* by pepsin-trypsin digest (PTD).

FWS Hatcheries

Kooskia: Rick and Corie performed pre-release exam for Kooskia SCS on 2/11.

Hagerman: Corie traveled to Hagerman NFH on 2/4 for monthly monitoring examinations. A few of the Steelhead raceways were experiencing increased mortality. Upon examination fish appeared to be suffering from *N. salmonis*. Bacterial cultures taken were positive for *A. sal.* A VFD was written by Guppy to start a florfenicol treatment in the effected raceways. The *A. sal.* vaccine currently used on the steelhead and the timing of its delivery is being reassessed for optimization.

Corie and Laura performed pre-release inspections at Hagerman NFH 2/25. Kidney and gill tissue samples for *Nucleospora salmonis* and bacteriology testing were taken from Sculpin that were being trapped from Bickel creek. Diagnostic testing was also conducted on both lots of Rainbow trout that were experiencing elevated mortality.

Dworshak: Rick examined both low density and high density SCS groups for monitoring of the density study at Dworshak on 2/12.

Rick assisted in taking fish health samples during Take 3 steelhead trout spawning for the kelt program at Dworshak on 2/10. Guppy assisted in taking fish health samples for this program at Take 4 spawning on 2/24. She also helped Dworshak production in their goal of using larger steelhead males for more than one female by checking sperm motility of these larger males.

Laura performed monthly monitoring on system 1 and 2 steelhead. They were treated early in the month for excessive external parasites.

NEZ PERCE TRIBE:

Laura performed monthly monitoring on SCS in s channels on 2/10.

Guppy wrote veterinary extra-label prescriptions for the steelhead kelt program at Dworshak.

(Continued page 7)

Maintenance & Operations Activities

February 2015

Dworshak - No Report

Kooskia -

Feb 02: The pit tagging trailer arrived in preparation for tagging BY13.

Feb 03: FRO began PIT tagging spring Chinook Brood Year13, 4,000 fish from burrow pond 2, and 4,000 from burrow pond 3.

Feb 05: A hole was drilled under the pavement at the hatchery entrance for electrical conduit for the new entrance gate.

Feb 11: Fish Health arrived to take sixty fish from SCSBY13 for pre-release inspection.

Feb 14: Idaho Fish and Game used the hatchery for hunter safety shooting.

Feb 18: Installed a new finger weir in the trap.

Feb 19: Lucky Acres Fencing finished installation of the gate to the Hatchery.

Feb 24: 364,550 Coho smolts arrived at Kooskia Hatchery from Dworshak Hatchery to be acclimated on Clear Creek water prior to release.

Feb 25: Fisheries Resource personnel arrived for CWT tag retention survey.



Credit: Kent Hills NPT

New finger weir installed in the Kooskia fish trap!



Credit: Kent Hills NPT



Credit: Kent Hills NPT

Lucky Acres Fencing finished installation of the gate to the Kooskia Hatchery.



Credit: Kent Hills NPT



Channel (or **James Paddlety** as he's formally known),
was named **Nez Perce Tribe employee of the month.**

Congratulations Channel...good job!

Idaho Fish Health Center

(Continued from page 5)

Florfenicol medicated feed was fed to all Coho ponds to treat bacterial Coldwater disease. Fish were moved to Kooskia NFH for acclimation prior to release.

Wild Fish Survey: No samples collected in February. Laura attended the UAT conference call on 2/5.

Other:

Rick Cordes' last day with the Idaho FHC was Feb. 20 as he took a permanent job with the USFWS Bozeman FHC. A potluck celebration for Rick was given at the hatchery on Feb. 19.

All available staff attended a national fish health center conference call hosted by Joel Bader, National Aquatic Animal Health Coordinator on 2/2. All staff also participated in Region 1 fish health call hosted by Andrew Goodwin on 2/2.

Corie attended the Salmon River AOP held in Boise, Idaho February 5.

Laura attended a Region One project leader call in Guppy's absence on 2/9.

Guppy attended a national fish health center call with HQ and two ARDs to discuss the future of the National Wild Fish Health Survey Program's database on 2/12.

Laura helped organize a CE workshop for ICAFS being held in March entitled "Inflow: Outflow: Responsible fish culture".

Guppy participated in the Clearwater AOP 2015 final meeting on Feb. 3. She also participated in the Dworshak Complex management team meeting on 2/5.

Laura attended the Nez Perce Tribe Symposium in Lewiston 2/10- 2/15.

As current chair, Guppy helped organize and ran the Pacific NW Fish Health Protection Committee (PNFHPC) meeting held in Monterey, CA on 2/10-11. Speakers from Wyoming, Alaska, the WDFW Eastbank Hatchery, NOAA, and California gave updates on Recirculating Aquaculture Systems (RAS). Speakers from USFWS, NWIFC, ODFW and WDFW also gave information on research and use of the injectable antibiotic tulathromycin (Draxxin) in fish. Additional presenters from CA spoke about the Monterey Bay Aquarium, the Ocean Resources Enhancement and Hatchery Program's White Sea Bass Program, and case reports from drought conditions in CA. Rachel Breyta from USGS also gave an update on the IHN virus.

Guppy attended a Job Accommodation Network (JAN) webinar on Promoting Employment of Individuals with Disabilities in the Federal Workforce on 2/18.

Guppy participated on conference call on 2/19 with Sonia Mumford (Olympia FHC) and David Thompson (Lower Columbia River FHC) as a Region 1 committee to discuss and formulate guidelines concerning antibiotic injections for adult broodstock.

Guppy participated in a conference call hosted by Rod Engle on coordination for an implementation plan for additional LSRCP spring Chinook in the Clearwater Basin on 2/23.

Job opening for a Pathways student intern position at the Idaho FHC was advertised from 2/23-2/27.

Aquatic Conservation

February 2015



Credit: Jill Olson, FWS

Jody Brostrom –Salmon, Idaho

- No Report

Ray Jones - Hatchery Monitoring and Evaluation Accomplishments

Staff attended the AOP meeting on the 3rd to finalize plans for the 2015 production year.

The spring Chinook salmon production coordination group met on February 13th to coordinate activities for the spring. The current status of production groups and evaluation studies was reviewed. Flow monitoring will commence the 1st of March in preparation for spring Chinook salmon smolt releases from Dworshak NFH.

PIT tagged 8,000 BY14 spring Chinook salmon at Kooskia NFH to evaluate juvenile travel times and adult returns.

Participated in Takes 3 and 4 for summer steelhead spawning; collected coded-wire tags; coordinated with the production staff to complete spawning activity reports for spawning takes 3 and 4.

Reviewed draft US v. Oregon production documents and provided comments to LSRCPC office in Boise.

Samples were collected to measure on-station performance of spring Chinook salmon for the rearing density and flow evaluation projects.

February Lamprey Research

Participated in several lamprey Conservation Team meetings.

February Administrative Actions

Staff met with Roy Elicker and Rich Johnson to discuss future actions for the FRO.

Budgets and funding requests were developed regarding the FRO Project Leader position.



Credit: Jill Olson, FWS

Inspiring the next generation !!!

Hatchery in the Classroom brings in 50 to 300 kids and adults to Dworshak FC nearly every Tuesday during Steelhead spawning season!



Credit: Jill Olson, FWS

Information and Education Corner



Dworshak–

Visitors: 104 people from 8 states

Website Statistics: Page Loads - 337, Unique Visits–271 , First Time visitors - 244, Returning Visits– 27

Facebook Reach: 3,599 ; Engagements - 720

Tours: *On-site* - On Feb. 6 , 24 (3) Classroom tours of facility and spawning activities (49 K-12 grade, 9 adults);
 - On Feb. 21 Hosted a Birthday Party with 16 kids and 15 adults.

Off-site - On Feb. 4 Jill Olson guided 5 hatchery volunteers on tour of (3) local hatcheries and Spalding Mission site

Outreach: Feb. 18 - Kid’s Fishing Day Planning meeting #1 with NPT at Tunnel Pond and HIC Tank Set up at Orofino Jr./Sr. High

Kooskia-

Visitors: There were 152 visitors to the hatchery during this month; this figure is compiled by staff.

----- Meetings and Travel -----

Jill Olson attended Connecting People With Nature and Community of Practice Workshop in Vancouver, WA Feb 23-28.

Staff List

Complex Management

- Steve Rodgers, Complex Manager
- Mark Drobish, Dworshak NFH Manager
- Mike Tuell, SRBA Coordinator
- Dr. Marilyn “Guppy” Blair, Idaho Fish Health Ctr.
- Mike Faler, Aquatic Conservation Lead
- Adam Izbicki, Maintenance Supervisor
- Dr. William Conner , Fall Chinook Research Lead
- Kent Hills, Kooskia NFH Manager
- Dr. Chris Peery, Fish Production M&E Lead

Dworshak Production Staff

- Adam Izbicki, Jeremy Sommer, Jill Olson, Angela Feldmann, Tom Tighe, Rob Bohn, Wayne Hamilton, Mike Bisbee, Tui Moliga, Lou Ann Lasswell, Steve Coomer, Carter Lopez, Casey Mitchell, Zach Broncheau, Jaden Hudson

Administration

- Randy Bowen, Anna Ray (on Detail)

Maintenance

- Scott Koehler, Terry Weeks, Rick King, Rob Kellar, James Oatman, James Paddelty, Melissa Wright, Joe Livesay

Idaho Fish Health Center

- Laura Sprague, Corie Samson, Rick Cordes

Idaho Fishery Resource Office

- Ray Jones, Aaron Garcia, Carrie Bretz, Frank Mullins, Jody Brostrom, Ken Bugler, John Hook, Brad Buechel

Kooskia National Fish Hatchery

- Art Broncheau, Kenny Simpson, Gerry Fogelman