



Oregon Department of Fish and Wildlife

"DRAFT"

Oregon Hatchery Research Center (OHRC) Progress Report

Month: June-August 2011

Author: Ryan Couture

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Facility Issues

- The silt settling pond was drained and cleaned in June in preparation for maintenance. The first week of July, a contractor was on site to repair approximately 100 linear feet of liner that had pulled away from the pond wall. Water was seeping under the pond and to the creek. The liner is now repaired and the pond is back in operation.
- Once the pond liner was repaired, staff installed the new pond cover. The pond cover will prevent algae growth during the summer and restrict leaves from falling into the pond in the fall.
- The inside of the drum filter shed was painted with Killz primer. The paint will prevent water damage from all the moisture in the shed while the drum filter is operating.
- Radar plumbing, from Newport, spent one day working on two of the residences at the OHRC. House #1 and #3, both built in the early 1950's have deteriorating cast iron drain pipe throughout the house resulting in numerous leaks. Radar replaced the 1 ½" cast iron drain pipe with 2" abs drain pipe.
- The wifi system was FINALLY installed. We used year-end funds from the OSU portion of the budget to fund the project. Five access points are located within the building and the two original access points remain near the fish trap and simulated streams.
- Steve Durkee, OSU's Institutional Animal Care and Use Committee (IACUC) Administrator, visited OHRC in July. Steve is assisting us in preparing for the AAALAC inspection/tour in October.

Fish Handling/Research Projects

- Ryan and David Noakes met with Kevin Goodson, Kathleen O'Malley as well as Mike Gray, Gary Vonderohe and Tim Walters from the Coos River district to discuss research plans. Mike Gray has developed a research plan to evaluate eyed egg injections, unfed fry releases and smolt releases to jumpstart and supplement coho runs in the Coos system. Some preliminary work at the OHRC will include evaluation of the Moist Air Incubator for thermal otolith marking, evaluation of the "Egg Planting Nome," and development of isotope analysis of otoliths which would eliminate the need to thermal mark.
- Craig Banner was here on late in June to mark two groups of fish. The fish are diploid and triploid Cranebows from Fall River. They were marked using a Freeze Brand on either the right or left side. The mark works great and lasts 8 weeks or so. They will be transferred to the Deschutes and exposed

to C. Shasta, then transferred back to the Salmon Disease Lab in Corvallis. The goal of the project is to determine disease resistance differences between diploid and triploid trout.

-The ambient (control) incubation temperature group of fry from a research project were ponded and started on feed this in June. They project will identify whether elevated environmental temperatures during embryonic development suppress ovarian development and lowered environmental temperatures suppress testicular development in steelhead trout, *Oncorhynchus mykiss*.

-In August, Kassi Cole spent three weeks at the OHRC and all of the ambient fry from the temperature experiment were sampled. We also sampled four groups of heated steelhead. Kassi prepped samples for histology and will return late in September to analyze the gonad tissue samples.

-Year three of Christine May's sediment experiment was wrapped up in June. The objective of this study is to quantify how the depth and composition of fill affects the emergence success of juvenile salmonids. The hypothesis is that increases in coarse sediment depth will result in a linear decrease in survival by entrapping juvenile salmonids in the subsurface environment. Also, fine sediment will exponentially decrease the depth at which mortality occurs. The combined effects of fill depth and composition on egg survival and juvenile fish emergence will be analyzed with regression analysis. The resulting regression equation can then be used to infer survival rates from field-based measurements of fill depths and fine sediment concentration, thereby providing a predictive tool that can be used for monitoring and assessment. This project is lead by Christine May from James Madison University in West Virginia.

-A proposal for funding was submitted to the Bureau of Reclamation (BOR) for the swim-thru fishway experiment. Late in August we found out that BOR funded the project and ODFW signed the agreement. Construction of the fishway will take place in September and preliminary testing will take place in October.

-Eight sturgeon were pickup from OSU's Smith Farm and transported to the OHRC. The Sturgeon will be held in the show pond and are already providing a new surprise for visitors.

Education and Outreach

-This years Free Fishing Day event was a huge success and went off without a glitch. The total attendance was 461 people, 217 of those were youth anglers. Lots of kids 5 and under fished in the "kiddie pond" and lots of youth were able to catch their 1st fish! Thanks to all the staff and volunteers that helped out with the event.

-Ryan gave a tour to the Longview Hills Fishing Club from Newport. They were very interested in new research being conducted at the OHRC.

-Our life-size fish display project showed up in June. The display consists of 6 adult fish in a display case in their spawning colors (2 of each species, coho, Chinook, steelhead). There is also one cutthroat, numerous eyed eggs and a few fry and smolts. The wall display consists of one of each species (coho, Chinook and steelhead) in their ocean phase colors. The display was funded by R&E and Oregon Anglers Research Society and will help educate anglers and visitors on the differences of these salmonid species as well as providing information on their complex life histories. Signage for the display will be installed in September and the base should be complete as well.

-Joseph attended the OCAMP end of year meeting in June to debrief the year's events and successes.

-OCAMP met again late in August with a symposium in Newport to kick-start the 2011-2012 school year. This year's theme is "Climate Change."

-Nineteen students from Nanjing University in China toured OHRC and David Noakes summarized current research projects. This group has visited OHRC the last three summers with Chinese students.

-Susan Sahnaw's group from OSU's Natural Resource Education Program met here for a two day workshop in July.

-Joseph assisted with a Girl Scout day camp in Philomath. He taught a fish printing class for all the girls.

-Michael Hayworth, an intern from OSU, spent the summer working hard at OHRC. He took the lead on updating our lab inventory (no small feat) and creating a specimen inventory. He did a great job!

Miscellaneous

-Ken Loffink from ODFW Fish Screens and Passage was here to survey our fish ladder and barriers as part of a statewide survey.

-OHRC hosted a 1 ½ day Fish Genetics Workshop in July. 18 techs, senior techs and managers attended the workshop from each region in the state. David Noakes (OHRC/OSU), Marc Johnson (ODFW), Kathleen O'Malley, Neil Thompson and Renee Bellinger (all from OSU) presented at the workshop. Day two included a tour of the genetics lab in Newport.

-Ryan and David Noakes met with Lance Kruzic, from NOAA on July 20th. OHRC has struggled with NOAA permitting issues related to Coho research due to ESA listing. The normal "take" or "research" permits do not allow for collection/kill of adults. With Lance's advice, we will develop a HGMP covering much of the RM&E done at the OHRC... (That's a lot of acronyms!).

-Ryan spent a week of vacation on the foggy south coast exploring Brookings, the Oregon Caves and the Redwoods.

-Ryan attended the ODFW NW Region Meeting in June and set-up the A/V equipment for the meeting in Albany.

-Ryan attended ODFW's RMT/ELT meeting in Salem, filling in for Manny Farinas. Ryan gave an OHRC update including the recent Fish Genetics Workshop, as well as an update of the other hatchery programs in the area.