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Director's Greeting....

It's always sad to see employees leave, but it's good to know that they are moving on to new and exciting challenges and opportunities. In this issue you'll hear about staff moving on and our next issue will introduce new staff joining the AFTC team. We look forward to welcoming new faces and keeping the AFTC family strong.

Staff:

Administration:

Judy Gordon, Center Director
 Patty Crandell, Deputy Center Director
 Vince Bocci, Administrative Officer
 Toni Scholder, Administrative Assistant
 Mark Hack, IT Specialist
 Jim Lowell, Maintenance Worker
 John Holmes, Fish Biologist
 Jeff McLaren, Biological Technician
 Scott Gronbach, Facilities Op Specialist

Nutrition:

Ann Gannam, Regional Nutritionist
 Ron Twibell, Fish Nutritionist
 Jeff Poole, Extruder Operator
 Nathan Hyde, Biological Technician
 Heidi Lewis, Fish Nutritionist
 James Barron, SCEP Employee

Conservation Genetics:

Denise Hawkins, Regional Geneticist
 Christian Smith, Conservation Geneticist
 Pat DeHaan, Conservation Geneticist
 Brice Adams, Biological Technician
 Molly McGlaflin, Fish Geneticist
 Matt Smith, Fish Geneticist
 Jennifer Von Bargaen, Lab Geneticist

Ecological Physiology:

Ken Ostrand, Regional Eco-Physiologist
 Kyle Hanson, Fish Physiologist
 Ben Kennedy, Fish Ecologist
 Richard Glenn, Microbiologist
 Will Simpson, Fish Ecologist
 Kurt Steinke, Electronics Engineer
 Jerone Anderson, Electronics Technician
 James Samagaio, Biological Technician

Modeling and Management Decision:

Doug Peterson, Senior Scientist

FAREWELL, KEN!



USFWS

Ken Ostrand, Regional Ecological Physiologist and Program Head for AFTC's Applied Research in Ecological Physiology Program, accepted a position as Deputy Center Director at FWS, San Marcos NFH & TC in San Marcos, TX. During his tenure, Ken grew the Program at AFTC from a staff of three to nine; expanded the services provided in physiology, remote monitoring technology, and ecology; increased the number of peer-reviewed papers published, and developed a strong network of collaborators here in the Pacific Northwest. A farewell party was held in his honor and to wish him and his family safe travels and good luck (especially with the TX heat!). Even the weather wished them a farewell as it poured rain during what is normally the Pacific Northwest's dry season! Good luck Ken! You'll be missed!

Program Highlights....

Nutrition

As part of Fish Feed Quality Control, Nathan Hyde, Ron Twibell and Heidi Lewis analyzed 46 feed samples in May, June, July and August for feed quality. As part of the routine analyses, all feeds from the hatcheries were checked for rancidity. Ann Gannam wrote the feed memos and contacted the feed mills when necessary.

Ron Twibell wrote and submitted the Fish Feed Quality Control quarterly report for the 3rd quarter (April-June) to the NFHs and FHCs of the Pacific and Pacific Southwest Regions, as well as to Canadian, tribal and state partners.

Ron Twibell, project lead, and Heidi Lewis analyzed Gila trout eggs from 128 females for the Mora NFH and TC. The eggs were analyzed for total lipids and fatty acid composition. Long chain fatty acids are needed for reproductive success. Analyses of these egg lots may give insight into egg quality. This is the second year eggs from Mora NFH and TC that have been analyzed.

Ron Twibell and Ann Gannam met with Kyle Hanson and Richard Glenn from the Ecological Physiology program to discuss the possibilities of running a palatability trial using rosemary oil. Rosemary oil has been shown to have antimicrobial properties and is a potential immunostimulant in fish. The first step in determining the efficacy of the oil is to see if the fish find the rosemary oil palatable as a feed pellet top-coat.

Due to the financial system closing early, Ron Twibell made sure the funds were spent and the budget records for the Nutrition Program were in order.

Nutrition cont....

Heidi Lewis completed the Summer 2011 issue of the American Fisheries Society's (AFS) Fish Culture Newsletter. The newsletter is available at www.fishculturesection.org.

Conservation Genetics

Matt Smith, Christian Smith, and Denise Hawkins collected fin clips from spring Chinook spawned at Little White Salmon, Carson, and Warm Springs NFHs. The samples will be used as part of our National Fish Hatchery Genetic Profiling project which provides genetic data for standardized markers that can be used to compare the NFH broodstock with nearby populations. The goals of this report series are 1) to summarize available genetic information for NFH broodstocks and make that information available to hatchery managers, and 2) to make sure that data for the NFH broodstocks are available for internal hatchery reviews and Hatchery Evaluation Team (HET) meetings, as well as to our partners.



Collecting genetic samples at Warm Springs NFH.
USFWS: C. Smith

Program Highlights cont....

Conservation Genetics cont....



Collecting genetic samples at Little White Salmon NFH

USFWS: M. Smith

Brice Adams has been busy processing the nearly 2000 samples that represent the Abernathy Creek steelhead for this year's comparison of relative reproductive success of naturally spawning hatchery- and natural-origin steelhead. This is a Bonneville Power Administration (BPA) funded cooperative project that involves all Programs at AFTC.

Denise Hawkins worked with Tim Whitesel, Columbia River FPO (CRFPO) and Phil Howell, US Forest Service (USFS) to provide the bull trout technical team with an assessment of current core areas and a proposed stepwise method to delineate core areas as part of the Recovery Planning process. This work is part of the project underway by RMEG (bull trout recovery, monitoring, and evaluation group).

Denise Hawkins participated in a review panel for an application to the Natural Sciences and Engineering Research Council of Canada Strategic Project Grants Program.

Ecological Physiology

James Samagaio, Will Simpson, and Richard Glenn used portable passive integrated transponder (PIT) antennas to track residual steelhead throughout Abernathy Creek.

Richard Glenn and James Samagaio finished analyzing ATPase activity in juvenile steelhead from gill samples that were collected from November 2010 through May 2011 as part of a project comparing the physiological status of hatchery and wild fish.

Ken Ostrand, Ben Kennedy, Will Simpson, Kyle Hanson, Ashley McNamee, and James Samagaio collected steelhead parr by electrofishing to determine how population demographics, migration timing, and reproductive success of the Abernathy Creek population respond to hatchery supplementation with native broodstock.

Richard Glenn completed quantitative PCR analysis of gut samples for a study designed to determine the differences in the gut microflora community between wild and hatchery origin steelhead.

Kyle Hanson traveled to Warm Springs FTC in Warm Springs, GA, to learn about cryopreservation techniques for long term storage of fish milt.



Solar panels and cellular communication components used to power a PIT antenna array on Catherine Creek.

USFWS: J. Anderson

Program Highlights cont....

Ecological Physiology cont....

Will Simpson, Kyle Hanson, Ben Kennedy, Jerone Anderson, and Kurt Steinke installed PIT antenna arrays at Catherine Creek in northeast OR near the town of La Grande. These arrays will allow remote detection of tagged juvenile salmon and provide information on fish behavior and survival.



At a dam site on Catherine Creek, OR, PIT antennas were attached to plywood backing and hung from a steel cable over the creek so that floating debris can pass underneath antennas during spring floods without ruining the equipment.

USFWS: J. Anderson



Pass-over PIT antennas were installed at another site on Catherine Creek to track the movements of tagged salmon through the creek.

USFWS: J. Anderson

Administration/Facilities

Dan Shively, Fish Passage and Habitat Partnerships Coordinator for the Fisheries Program, Steve Zylstra, ARD Science Applications, and Fisheries Program intern Meghan Kearney, all from the Pacific Regional Office, visited AFTC for the day.

Patty Crandell attended an EEO training at the Pacific Region Office conducted by private attorney Sam Vitaro titled: "Reasonable Accommodation; Impacts of ADA/AA; Disability Discrimination; EEO Pitfalls; Avoiding Retaliation; Pregnancy Discrimination Act of 1978; and Genetic Information Nondiscrimination Act"

AFTC supervisors (Judy Gordon, Ann Gannam, Patty Crandell, Denise Hawkins, Vince Bocci) attended EEO training at the Pacific Region Office. Professor Bob Miller from Lewis and Clark and Pat Gonzales-Rogers provided Tribal Consultation Training for the Fisheries Program.

Judy Gordon graduated from the FWS Advanced Leadership Development Program, Cohort X.



Ashley McNamee, Biological Aide and Student Temporary Employment Program employee resigned her position to start a family. We here at AFTC are extremely excited for her and her husband, Josh, as they look forward to the birth of their first child. Good luck, Ashley!

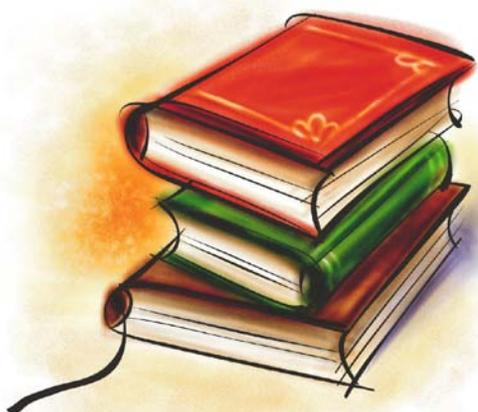
Reports and Publications

Conservation Genetics

McGlaufflin, M. and D. Hawkins. 2011. Genetic characterization of coho salmon (*Oncorhynchus kisutch*) in Agency Creek, a tributary to the South Yamhill River (Willamette Basin, OR). Year 2 Abernathy Fish Technology Center Report submitted to Confederated Tribes of Grand Ronde.

Ecological Physiology

Glenn, R.A, P.W. Taylor, and K.C. Hanson. 2011. The use of a real-time PCR primer-probe set to observe infectivity of *Yersinia ruckeri* in Chinook salmon, *Onchorhynchus tshawtscha* (Walbaum) and steelhead trout *O. mykiss* (Walbaum). *Journal of Fish Diseases* 34:783-791.



Outreach

Critter Camp



Heidi Lewis assisting with "Smell your way home".

Margaret Lederer, Humane Society

Ron Twibell, Heidi Lewis, Nathan Hyde and Ann Gannam provided a program for the Critter camp held at the Cowlitz Humane Society. The camp is an activity organized by Longview Parks and Recreation. We told the children about Pacific salmon, their life history and then played the "Smell your way home" game.

Cowlitz County Fair

Ann Gannam set up an AFTC/FWS booth at the Cowlitz County Fair. The fair ran for 4 days. She also checked the booth daily to ensure the pamphlets and give-a-ways were in order and available.

Workshops, Conferences, and Meetings....

Nutrition:

- Nutrition Program attended the fire extinguisher training.
- Ann Gannam taught the Nutrition section of the Fundamentals of Fish Health class. The class is organized by the Olympia FHC. This year it was held at the Northwest Indian Fish Commission conference room. The 24 attendees included tribal members and NOAA-Fisheries, FWS and US Department of Agriculture (USDA) staff.
- Ron Twibell, Ann Gannam, Heidi Lewis and Nathan Hyde took part in the “Scientific Integrity/Ethics Science in the Service” webinar.
- Ron Twibell and Scott Gronbach provided Hazard Communication Training for the station’s monthly safety meeting.
- Heidi Lewis and Ann Gannam participated in a NOAA-Fisheries/USDA Plant Products in Aquafeed Working Group teleconference. The title of the teleconference was “Improving productivity, efficiency, product quality and environmental sustainability of aquaculture operations through systematic integration of information and knowledge.
- Ann Gannam, Nathan Hyde, Ron Twibell, and Heidi Lewis participated in a WebEx Presentation on the 2011 projects funded by the North Pacific and Great Northern LCCs.

Conservation Genetics:

- Christian Smith attended HET meetings for Makah and Quinault NFHs where he presented and discussed the genetic profiling results.
- Pat DeHaan and Denise Hawkins met with Bianca Streif (Oregon FWO) to discuss Oregon bull trout core areas. Recent genetic data were incorporated where available to assess core area boundaries.
- Denise Hawkins participated in a webinar based FIS Accomplishments module refresher hosted by Sean Connolly. Sean answered several questions dealing with adding plans to the database.
- Denise Hawkins participated in a discussion with Baker Holden and Mark Celedonia (Washington FWO); Bill Edwards (Quinault NFH), Sonia Mumford and Joy Evered (Olympia FHC). The topic of the meeting was to assess the potential uses of genetic monitoring in addressing some questions at Quinault NFH.
- Christian Smith participated in a White Salmon Workgroup meeting which included discussions of weir placement and fish diversions in conjunction with the removal of Condit Dam.
- Matt Smith met with Larry Telles (Eagle Creek NFH), Doug Olson (CRFPO), and Todd Alsbury, Ben Walczak, and Danette Faucera Oregon Department of Fish & Wildlife (ODFW) to discuss collecting genetic samples of Clackamas River coho.
- Matt Smith and Denise Hawkins met with Derrek Faber and Wayne Wilson (ODFW) to discuss progress and timelines for a BPA funded steelhead reproductive success project in the Deschutes Basin, OR.

Workshops, Conferences, and Meetings....

Conservation Genetics cont....

- Christian Smith and Denise Hawkins participated via phone in a meeting of the Interagency Ecological Program Salmon Genetics team. The participants presented information on the impacts of hatcheries on listed and non-listed salmonids in the California Central Valley as well as a comparison of genetic and length-at-date run assignments for juvenile Chinook salmon at state and federal south Delta salvage facilities. Christian provided an update on several projects that we are working on in the CA Central Valley including our work with Livingston Stone NFH winter-run Chinook salmon and an assessment of spring-run Chinook salmon in Clear Creek, CA.

Ecological Physiology:

- Will Simpson met with representatives from the ODFW to discuss the monitoring of salmon passage at Umatilla River dams using PIT tag technology.

Administration/Facilities:

- Patty Crandell participated in two Pacific Region Climate Change Board (RCB) meetings. One was at the Pacific Region Office. The second was the annual in-person all day meeting held in downtown Portland. The annual meeting was intended to help Board members reconnect and to discuss plans for the coming fiscal year.
- Patty Crandell, Doug Peterson, and Kyle Hanson participated in several Fisheries Program Climate Change Planning Team meetings via phone.
- Vince Bocci, Toni Scholder, and Patty Crandell participated in a conference call with Pacific Regional Office staff about the new business system, FBMS.
- Judy Gordon attended a quarterly advisory committee meeting of the Oregon Hatchery Research Center in Alsea, OR.
- Patty Crandell, Kyle Hanson, and Denise Hawkins participated via webinar in a BPA hosted metadata training session. The Conservation Genetics Program is currently working on two BPA funded reproductive success projects.
- Patty Crandell, Ken Ostrand, and Denise Hawkins met with H.B. Stubbs and Lodestar Studio representatives for the 60% review of the proposed interpretive kiosk text and graphics.
- Richard Glenn, Kyle Hanson, Ron Twibell, Heidi Lewis, and Patricia Crandell attended the Columbia River Gorge NFHC HET.

Modeling and Management Decision:

- Kyle Hanson and Doug Peterson planned and facilitated a two day technical meeting in which partners assisted with the development of a decision tool to help NFHs with planning for future impacts of climate change. The meeting was held at the Columbia River FPO; most Climate change Planning Team members were in attendance and invited partners who could participate included Bruce Marcot (USFS Pacific Northwest Research Station), Joy Evered (FWS Olympia FHC), Tim Mayer (FWS R1 hydrologist), Doug Olsen (FWS CRFPO), Bill Brignon (FWS CRFPO), Nate Wiese (FWS Dworshak NFH), Keeley Murdoch (Yakama Indian Nation), David Patte (FWS R1 Climate Change Coordinator).

Employee Spotlight....



Christian Smith
Conservation Geneticist

Christian was born and graduated from high school in Fabulous Las Vegas, NV. He completed both his B.Sc. and Ph.D. in Biology at the University of Victoria in BC, Canada. After graduating, Christian worked as a geneticist for Seastar Biotech Inc. and the State of Alaska, before starting work at AFTC in 2006. His primary responsibility at AFTC has been meeting genetic information needs of the National Fish Hatcheries in Regions 1 and 8.

Outside of work, Christian enjoys cooking, hiking, and any activity which involves the beach.



Christian enjoying a spring afternoon catching eulachon in Cook Inlet, Alaska.

Chris Habicht