# Warm Springs Fish Health Center

April to June 2013 Activity Report



Norm Heil, Project Leader Brian Hickson, Fish Biologist Devin Chappell, Fish Biologist Allison Hernandez, Fish Biologist Nikki Persons, Fish Biologist at Arkansas field office (below)



The Fish Health Center (FHC) is a component of the Warm Springs Regional Fisheries Center (RFC) and was developed to improve and enhance fisheries management. More specifically, the FHC provides a wide range of services from disease diagnostics to ploidy inspections.



Images are all courtesy of the US Fish and Wildlife Service unless noted otherwise.

Goals:

- Provide service, expertise and information that contributes to the health, survival, enhancement, restoration, and recovery of fish and other aquatic species in support of national and regional priorities.
- Supports hatchery operations to provide quality fish that contribute to ecosystem objectives.
- Assists in the development of management strategies through assessment and applied research to support the protection of wild stocks and recovery of threatened and endangered species.
- Educates key audiences about the elements of comprehensive fish health and its critical significance to healthy aquatic ecosystems.



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## **Fish Health Involvements**

The Regional Fisheries Center (RFC) hosted delegates from the Chinese Academy of Fishery Sciences for a learning exchange program over three weeks. The three delegates gave presentations from each of their specific areas. Conversely, each of the three entities of the RFC, the Fish Health Center (FHC), Fish Technology Center (FTC) and National Fish Hatchery (NFH), gave presentations on their respective missions and functions. The delegates came from different regions in China: Beijing, Shanghai and Wuhan, with the latter two being along the Yangtze River where most of the research presented was conducted. Their time was divided up among the three entities of the RFC and subjects covered were driven by the delegates' interests.

The Fish Health Center provided information on: diagnosis and identification of fish diseases with concentrated discussions on gas bubble disease; fish anatomy and physiology; identification of bacterial isolates; Best Management Practices used for disease control; treatments, disinfection, and drug use; water quality; boat versus backpack electrofishing; and fish passage structures across the United States. Additionally, much of the information provided focused on fish health policy and how the U.S. Fish and Wildlife Agency collaborates with other agencies for fisheries management. The National Triploid Grass Carp Program was also discussed.



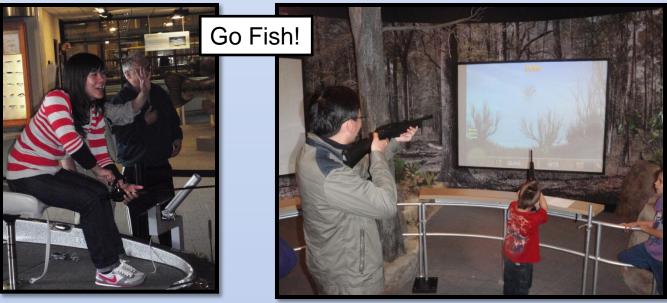
## **Fish Health Diagnostics**



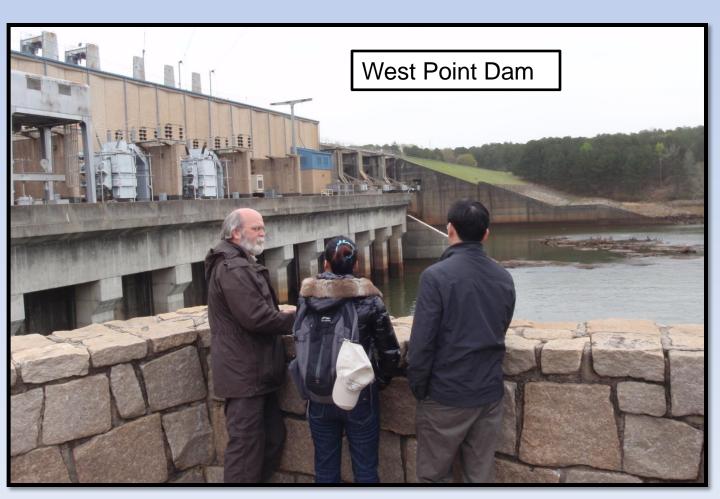
Practical experience that was provided for the delegates included but was not limited to: Electrofishing on West Point Lake, necropsy procedure, parasite checks, bacterial assays, tissue collection and preservation, virological assays, and cell culture techniques.



#### **Fish Health Involvements**



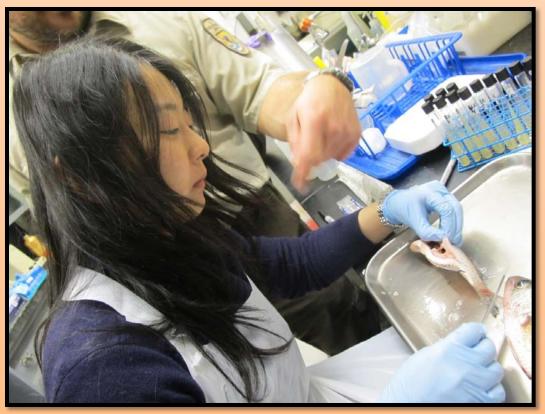
FHC had accompanying representative(s) for other activities that were provided for the Chinese delegates including: West Point dam tour; an excursion to Bears Bluff NFH during which the delegates got a tour of the facility, went to see the Angel Oak, the Atlantic Ocean and stopped by Georgia DNR's GO Fish! facility in Perry, GA on the return trip; kayaking on the Flint River and various other extracurricular activities.



# Wild Fish Health Survey



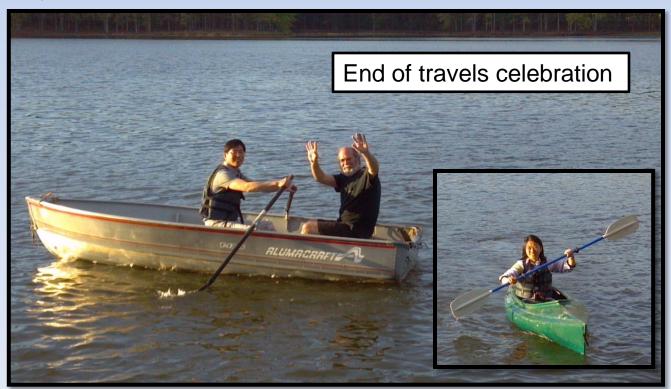
All specimens caught by Chinese delgates electrofishing were examined and used to log a case for the wild fish health survey.



#### **Fish Health Involvements**



During their visit, Devin took the Chinese delegates sightseeing, bicycling at Callaway Gardens and to kayak on the Flint River. In addition to the luncheon held at Warm Springs to wish the delegates farewell on the trip back to China, Brian also hosted an evening get-together at his house on the lake to honor the visitors before their departure. Overall, the visitors' experiences and learning exchanges while visiting here exceeded theirs as well as our expectations.



## **FHC Outreach and Education Activities**



Brian gave a fish health seminar at the Pettigrew Center of Fort Valley State University for individuals interested in setting up aquaponic recirculation systems for fish habitat/aquaculture. As you can see in the images, these systems pump water up and across the root systems of plants, which in turn removes the nitrogen from the water and improves water quality.







Individual tank with surface plants and fish below.



## **Fish Health Diagnostics**

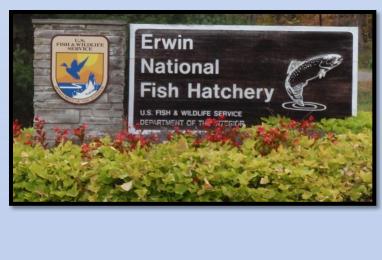


Devin and Brian travelled to Tennessee to conduct the annual inspection at Dale Hollow National Fish Hatchery. Several SCA interns learned about parasitology and YCC intern, Kaleb Sweezy, assisted on the inspection.



# **Fish Health Diagnostics**





Norm travelled to Tennessee to conduct the bi-annual inspection for Erwin National Fish Hatchery.



#### **Other FHC Activities**







#### Vince Mudrak and Rosla Plant retirement

The Director of the Warm Springs Regional Fisheries Center, Vince Mudrak, and the staff Park Ranger, Rosla Plant, retired on Friday, May 31, 2013. There will certainly be a void here at the Center without the two of them. Center staff had a celebration for them on their last day to show our gratitude for their many years of service in conservation (Vince had 21 years and Rosla 24 years). Rosla previously worked as a radiology technician and also for a Congressman previous to joining the service. Vince previously worked for the State of Pennsylvania in Fisheries. They were presented with plaques from the Regional Office and Vince was honored by Center staff having a brick inserted for him on the American Fisheries Society wall. Both Vince and Rosla will be spending more time with family and we wish them all the best for the future and hope they enjoy their retirement to the fullest!



### **Triploid Grass Carp Program**

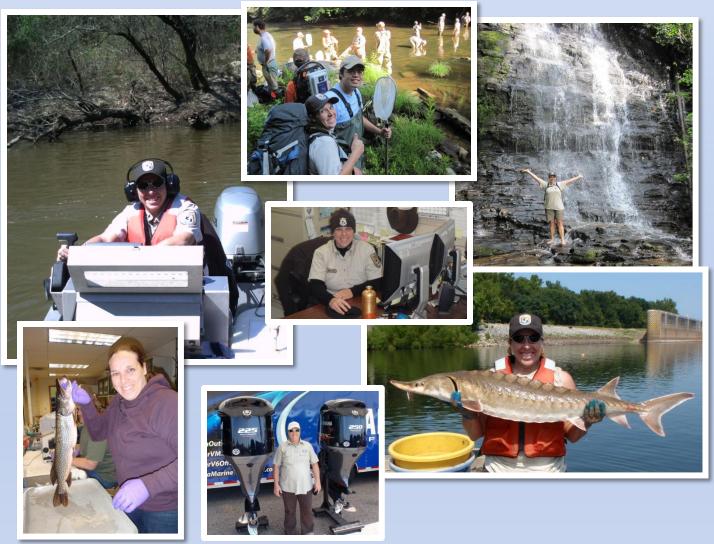




With Vince's retirement, his involvement and responsibilities for the grass carp program will be distributed between Joel Bader (Washington office), Cindy Williams (Regional office) and Bill Wayman of the Warm Springs Fish Technology Center as the leaders for the National Triploid Grass Carp Program.



#### **Other FHC Activities**



This will be the final Fish Health newsletter produced by Allison Hernandez. She accepted a job with DOI's Bureau of Ocean Energy Management (BOEM) and will be moving to New Orleans at the end of July.

"I have thoroughly enjoyed working for the U.S. Fish and Wildlife Service. It has been an honor and a pleasure working with the incredible staff at the Warm Springs Regional Fisheries Center!! The supportive staff here, especially our team-oriented, cohesive working group in Fish Health, have been an absolute dream to work alongside. I hope to continue making a difference in the world of conservation for our nation's and world's environment/natural resources and to continue building partnerships and friendships along the way!"

The new position will have her working as a Biologist (Protected Species), specifically conserving T&E species impacted by the construction and decommissioning of renewable energy projects on the Outer Continental Shelf in the Gulf of Mexico and Southeastern Atlantic Coast.

## FHC volunteer work





Two volunteers helped with preparing media over the early summer. High school intern, Nicole Plessinger, and other volunteer, Hunter Shirey assisted with getting these important tasks accomplished.

