



Chief Editor: Elsie Davis

October 2015



RD's Corner

The kids are back in school, temperatures are dipping, and we are closing out the fiscal year—all sure signs that fall

is upon us. I love this transitional time of year. As leaves turn from green to gold and birds begin their migrations south, we bear witness to the beauty and harmony all around us. I think fall is nature's gentle way of helping us to release our grasp on summer and hunker down for winter.

We finished out summer in the Southeast Region with an event that really energized me—a Listening Session at Wheeler National Wildlife Refuge with a cross-section of our employees from stations in Alabama, Mississippi, Kentucky and Tennessee. These folks came together prepared to share with the Regional Directorate Team their own and their colleagues' thoughts on a number of issues that were raised in our recent employee pulse check survey: communication, priorities, career development and training, diversity and inclusion, and dealing with limited resources. And share they did.

You will recall that we have committed as a region to step up the interaction between employees and their leaders. We want to ensure the connection between the folks in the field and those in the Regional Office is strong and sound; that real dialogue is occurring, and we are appreciating and understanding one another in our different roles. This isn't just a nice-to-do activity; rather, it is crucial to achieving our conservation goals for the habitats and species under our stewardship. The way I see it, the

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We're listening: Service holds listening session at Wheeler National Wildlife Refuge

By Jeff Fleming, External Affairs

Wheeler National Wildlife Refuge was the site of the Southeast Region's 13th listening session where 25 employees from across our programs met to talk about a broad range of subjects.

Cindy Dohner opened the discussion by thanking employees and pointing to the creativity, innovation and commitment to problem solving employees are using in every corner of our region. "We work for you," she said. "We're committed to you, this region and the Service."

She talked about the region's challenges. We are facing significant population growth, expansion of highways, other infrastructure and development, and increasing pressure on the region's natural resources. She talked about the integral role each of us plays in achieving the Service's mission. We are leading the way on numerous fronts finding creative solutions that address some of these challenging issues and collectively making a difference in fish and wildlife conservation. The passion and dedication of our employees is evident in the conservation work done every day.

Resuming these listening sessions and taking several other steps to better connect with employees is part of a broader effort to sustain a coordinated internal communications effort building on last fall's regional 'Pulse Check.' To learn more about that effort please visit <https://inside.fws.gov/go/post/r4-pulse/> to check out the survey's results and other activities.

Employees spent a day talking about the need to clarify priorities, doing a better job with communications, career development, training, diversity and getting the most out of limited resources during a time of transformational change.

A team of employees is nearing completion on an update of regional priorities, which was an important theme from the survey and emerged during the listening session as well. Communications was a part of every conversation and topic during the day and was a reminder that communications is the one box you can't ever check as done.

We had a great conversation about employee development and heard lots of interest in individual development plans and a desire to get more out of them. When it comes to 'One Service,' there is a lot of interest in co-location and we heard about state-wide cross-programmatic meetings that are held each year in states like Kentucky.

Action items and summary information are coming soon. Next up for our listening sessions is one at Alligator River National Wildlife Refuge in mid-October with employees representing field stations from parts of Georgia, North Carolina and South Carolina.

To learn more about previous listening sessions, you can visit here: https://intranet.fws.gov/region4/shapingfuture/shaping_index.html#listening

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partnering in conservation that our region is known for starts right here at home, with our own work force. When those relationships are functioning well, we can move forward together, as a unified force, building powerful outside relationships that extend our conservation reach.

One of the things that really struck me in this Listening Session was hearing employees express their delight in simply getting to know one another. It was a rare opportunity for them to appreciate one another's role in getting the job done for fish and wildlife in the Southeast. Employees not only shared their thoughts and lives, but they also listened and learned from one another. In the process, they struck a balance between doing and being.

The issue of balance is a crucial one for all of us—balance between working and playing, reflecting and acting, listening and talking, leading and following, doing and delegating. Balance is not something that will just come to us in our daily lives; rather, it is something we have to consciously choose, plan for, and work on. We have been talking about this issue in our Regional Directorate Team meetings, and the Directorate is grappling with it, too. It is a challenge for every employee, if not every human being. Without balance, we risk tripping up, professionally and personally. We need balance to keep our thoughts, words, and deeds in correct proportion. We are an organization and a region that prides itself on doing, and rightly so. Our accomplishments on behalf of the fish and wildlife and their habitats are truly impressive. Yet to maintain our equilibrium and our mental and physical health and well-being, we have to find a balance between doing and being. To be in balance, we need enough sleep, enough play, and enough involvement with people and things that bring us joy—our families, our friends, nature, hobbies, and outdoor activities come to mind. We need balance in our expectations of ourselves and of one another. For example, do we expect perfection or can we balance our expectations with an ounce or two of humility and acceptance that we are, after all, human.

There is much work we can do together to make the Southeast Region all that we want it to be, both in terms of our interactions with one another and our accomplishments. The work of finding balance in the many dimensions of our own lives is an individual pursuit—the work of being human. In E-Grits, we are opening up space each month for individuals to share how they are achieving balance in their lives. Watch for it, and let's inspire one another. ❖

- *Cindy*

Employee of the Month

Moria Painter, Wolf Creek National Fish Hatchery

By Elsie Davis, External Affairs



Moria Painter surrounded by students at Wolf Creek.

"I love to share nature with my two girls, Ella and Lena. Moria Painter says. "Watching them learn, explore and get dirty. We are constantly doing science experiments – shooting balloon rockets up the stairs, making dry ice bubbles, observing things through microscopes, anything hands-on and messy."

It wouldn't be too much of a stretch to guess what Moria's job is at Wolf Creek. She is the Environmental Education and Outreach Specialist in charge of managing the daily operations of the Visitor Center and the hatchery's environmental education program. She organizes special events, field trips, presentations, and educational workshops and supervises Visitor Center volunteers and environmental education interns.

She also serves as a liaison for Wolf Creek's partnerships with local, state, and federal groups. Moria represents the Southeast Region on the Service's Conservation Education Team which includes a Fisheries representative from each region. The team members share information such as upcoming events and updated educational materials. They are starting an e-newsletter.

Moria has served at Wolf Creek for a little over two years. She worked for the National Park Service for 19 years. She started her federal career in 1995 with the Army Corps' of Engineers while she was pursuing her Master's degree at Western Kentucky University in Recreation and Park Administration. Moria served at the Corp's Nolin Lake in Kentucky. Her first job with the National Park Service was at Mammoth Cave National Park, also in Kentucky. She later worked in the Park Service's Southeast Regional Office in Atlanta. Prior to Wolf Creek, Moria served at the Ozark National Scenic Waterways in Missouri, and then Obed Wild and Scenic River in Tennessee.

Her husband Brett is a Law Enforcement Park Ranger at the Park Service's Obed Wild and Scenic River. In May, Secretary Sally Jewell honored him with the Department of Interior's Valor Award in Washington D.C. Brett and two other Obed rangers received the award for rescuing people on the Big South Fork River during winter flood conditions.

"It was a joy to share some of our nation's history with our kids and such an honor for Brett to receive this award," Moria said.

Moria says her family loves to travel. This year, besides the trip to Washington, D.C., they went to Illinois, Arkansas, and Missouri to visit family, enjoyed exploring the City Museum in St. Louis, and played in the Jacks Fork River at Ozark National Scenic Riverways in Missouri. They also rode bicycles in Frankfort, the Capital of Kentucky.

They lead an active outdoor lifestyle. Her family also enjoys going to the beach, hiking kayaking, and rock climbing.

ARD in the field: Allan Brown does field work at Mattamuskeet National Wildlife Refuge



Allan Brown and John Stanton preparing to complete submerged vegetation and water quality surveys for Lake Mattamuskeet, North Carolina, photo:USFWS

“Large rain drops hit our faces and felt like small pellets hitting us, but with our survey completed it didn’t matter,” Fisheries ARD Allan Brown said. “Field work is unpredictable.”

In August, Allan traveled to Mattamuskeet National Wildlife Refuge in eastern North Carolina to sample what life is like for Service employees in the field. He helped refuge employees with their lake-wide submerged aquatic vegetation survey and monitored water quality.

Lake Mattamuskeet sits at the center of the 50,180-acre refuge, and it is the largest natural lake in the state. Located on the Atlantic Flyway, the lake is an essential over-wintering site for 200,000 to 300,000 migratory waterfowl.

On his first day in the field, Allan put on a lifejacket and a pair of ear muffs to accompany Migratory Bird Project Leader John Stanton on a refuge airboat operated by Maintenance

Worker Larry Boomer. They collected survey information and water quality measurements at various points along two of the eight north-south transects across the lake. Allan also helped Refuge Biologist Michelle Moorman take water quality measurements at the four major canals that exit the lake and connect it to Pamlico Sound.

On the second day, Allan met with local refuge managers and the Edenton Fish Hatchery manager to discuss local and regional issues and priorities at the North Carolina Migratory Bird Field Office. While at the office, Allan helped Refuge Inventory & Monitoring Biologist Wendy Stanton band a mourning dove captured in a trap behind the office as part of the joint state-federal pre-season dove banding program.

“I appreciated these opportunities, and I greatly enjoyed my Take an ARD in the Field Days,” Allan said. ❖

Regional Directorate Team visits to the field: Mississippi Sandhill Crane

By Jennifer Strickland, External Affairs



An aerial photo of a prescribed fire at Mississippi Sandhill Crane, photo: USFWS

If you didn’t know better, you might think that Kevin Reynolds recently took a position in our prescribed fire program. This is because after his September 11 visit to Mississippi Sandhill Crane National Wildlife Refuge, Kevin has gained a deep appreciation for the importance of fire as management tool.

“That trip was the highlight of my week!”

As the Department’s Case Manager for the Deepwater Horizon Natural Resource Damage Assessment, Kevin spends a substantial amount of time working with partners across the Gulf of Mexico to discuss, plan and execute restoration opportunities. The job is carried out through consistent meetings, phone calls and emails, but it rarely provides the opportunity for site visits.

“A while back we had discussed a potential Deepwater Horizon early restoration project at Grand Bay using prescribed fire as a key management tool,” Kevin explains. “It was amazing to finally be on a Gulf Coast refuge and see first-hand the incredible benefits of effective fire management!”

Kevin spent time touring the refuge and learning about its management opportunities and challenges with Jereme Phillips, Sami Gray and Scott Hereford. “I learned all about the habitat requirements for a breeding pair of cranes, and that an important part of fire management is actually smoke management,” Kevin says.

Kevin’s visit is part of a broader effort underway by your Southeast Regional Directorate Team to spend more time with staff in the field. Sometimes an RDT member will come visit for a day, and sometimes they’ll step into the shoes of station staff to do a “job share.”

These experiences are extremely valuable for both leadership and staff. On one hand, they expand leadership’s awareness and understanding of the great work being done across the region, and on the other they provide employees unique opportunities to speak face to face with folks whose names they may have heard but faces they’ve never seen.

If you’d like to submit your station for a job share or site visit, log on using a networked computer to <https://inside.fws.gov/index.cfm/go/post/r4-pulse?#jobswap>

Gulf Restoration News:

Public meeting in Mississippi discusses proposed Gulf restoration projects

By Nadine Leavitt Siak, *Gulf Restoration Program (FWS Gulf Program)*



Mississippi Department of Environmental Quality, photo: Robbie Wilbur

The Gulf Coast Ecosystem Restoration (RESTORE) Council held a public meeting September 10, in Biloxi, Mississippi, to discuss and receive public feedback on the first slate of restoration projects the Council proposes to fund following the 2010 Deepwater Horizon oil spill. All of the proposed projects would be funded by a portion of RESTORE Act dollars designated for ecosystem restoration from the Clean Water Act settlement reached with Transocean, one of the parties responsible for the spill.

The Council proposes to fund projects costing approximately \$140 million for restoration activities in ten key watersheds across the five Gulf states. The Biloxi meeting focused on the Mississippi projects, which cover the establishment of a Mississippi Sound Estuarine Program (\$2.3 million); land conservation/acquisition (\$15.5 million); beneficial use of sediments retrieved through dredging activities (approximately \$5 million); and restoration education and outreach

(\$750,000). The eight Gulf-wide projects on what the Council calls its draft Funded Priorities List (FPL) also received attention.

The meeting in Biloxi was one in a series of public meetings across the Gulf Coast that the Council has hosted to discuss the draft FPL and seek public and tribal comments. The formal public comment periods runs through September 28, 2015.

Justin Ehrenwerth, executive director of the Council, opened the meeting by telling the approximately 120 people in attendance, “We all know and remember what brings us here tonight -- the worst natural disaster in history. And from that disaster, we have some remarkable opportunities to do the right thing.”

He later noted that pursuing opportunities related to well-vetted land acquisition results in “benefitting the people and the ecosystem into perpetuity.”

Of the more than 20 community members, organization representatives, fishermen and scientists who spoke before the Council, approximately a quarter focused their remarks on the proposed \$15.5 million land conservation/acquisition project. Entitled “Strategic Land Protection, Conservation and Enhancement of Priority Gulf Coast Landscapes in the Mississippi Sound Region,” this project would be led by the State of Mississippi with the U.S. Department of Interior and U.S. Department of Agriculture as partners.

Biloxi community organizer Howard Page told the Council he was “really jazzed” to see this particular proposal. Page said if you look at every dollar available, “conservation and preservation of land is going to give the biggest bang for your buck.”

The Council chose priority areas for land acquisition by engaging Mississippi state agencies and overlapping their priorities with those in several other vision and strategy documents, including the conservation vision of U.S. Fish and Wildlife Service. Environmentally compliant land acquisition would initially focus on the upper reaches of the Tuxachanie/Tchoutacabouffa River in the DeSoto National Forest, the Grand Bay National Wildlife Refuge complex, and Gulf Island National Seashore.

Robert Smith, Coastal Program Coordinator for Wildlife Mississippi, told the Council, “While there are a lot of potentially great projects on the draft Funded Priorities List, we are most excited to see some of the land conservation projects, particularly those that impact private lands.”

“Acquisition, protection, and restoration of habitats on private lands in coastal watersheds are key components for ensuring the Mississippi Gulf Coast – and the Florida, Alabama, Louisiana and Texas coasts – continue to become even better places to live, work and raise a family,” Smith concluded.

The Council is comprised of governors from the five Gulf states affected by the Deepwater Horizon oil spill, the Secretaries from the U.S. Departments of the Interior, Commerce, Agriculture, and Homeland Security as well as the Secretary of the Army and the Administrator of the U.S. Environmental Protection Agency. The federal RESTORE Act dedicates 80 percent of Clean Water Act fines levied against companies involved in the oil spill to restoration and economic recovery, with about 60 percent of that under the control of the Council.

Service involved in proposed Gulf restoration projects for Alabama

By Nadine Siak, Gulf Restoration Program (FWS Gulf Program)



Libby Washburn, Liberta Swan (Executive Director of the Mobile Bay National Estuary Program), Dr. James Connors (University of South Alabama), Michael Pierce (MLK Avenue Redevelopment Corporation), Teresa Christopher (Department of Commerce), Eliska Morgan (Alabama RESTORE Council Executive Director)
photo: Debbie Devore, USFWS

DOI Deputy Chief of Staff Libby Washburn and Debbie DeVore of the FWS Gulf Program joined Teresa Christopher, Senior Advisor for Gulf Restoration to the U.S. Secretary of Commerce, on a field trip organized by the executive director of the Alabama state RESTORE Council September 1, 2015. Along with members of the Mobile Bay National Estuary Program and representatives of local urban and minority development partnerships, they toured an urban watershed in Mobile, Alabama, to learn more about projects currently on the Gulf Coast Ecosystem Restoration Council's draft Funded Priorities List.

The RESTORE Council released its first slate of proposed restoration projects, known as the draft Funded Priorities List (FPL), on August 12, 2015. The projects, which are focused on 10 key watersheds across the five states bordering the Gulf of Mexico, would cost almost \$140 million. The money comes from Clean Water Act fines levied against companies involved in the 2010 Deepwater Horizon oil spill in the Gulf, as directed by the RESTORE Act of 2012.

"The Service is pleased to be a partner with our other federal and state agencies on the RESTORE Council and with the work that has culminated in the draft

Funded Priorities List," Debbie Devore, restoration coordinator for the FWS Gulf Program, says. "The proposed projects in Alabama are good examples of how the Council's initial investments are based in a watershed approach to restoration across the Gulf."

The FPL includes eight projects in Alabama, securing more than \$12.6 million in immediate (Category 1) and \$13.5 million in future (Category 2) funding. The Department of the Interior would be partnering with the State of Alabama and the Department of Commerce on a proposed \$2.5 million project led by the US Army Corps of Engineers to develop the final design and permitting of a 1,200 acre wetland creation site for beneficial use of dredge material in the Upper Mobile Bay. Patric Harper, the Service's Northern Gulf Coast Coastal Program Coordinator serves on the local technical advisory group for this project. ❖

What's Trending

By Katherine Taylor, External Affairs



Apps: Training for the zombie apocalypse? Or just looking to increase your outdoor survival knowledge? The Bear Grylls app is a blend of survival hands-on advice, interactive instruction manual, wilderness, quiz, mini-games and adventure photo gallery.



photo: Pamela Denmon, USFWS

#MostSharedStory:

In August we shared a post explaining why balloons and wildlife do not mix. It was shared by 2,613 Facebook users and reached 246,380 people!

Social Media:

Nesting green sea turtles are crushing records at Archie Carr NWR this year! Sea turtles are always a hot commodity on social media, but especially so right now with happy nesting news.

Culture: If you have a teenager at home, odds are you're familiar with the Snapchat app. The Service's Social Media Coordinator's group is looking for strategic ways to feed to content DOI's account. Have an idea? E-mail Katherine Taylor: katherine_taylor@fws.gov ❖

Bragging Rights

Volunteers plant marsh plugs at Bayou Sauvage National Wildlife Refuge

By Shelley Stiaes, Southeast Louisiana Refuges



Marsh restoration project, photo: Coalition to Restore Coastal Louisiana

About 80 community volunteers planted 17,000 plugs of smooth cord grass in the Joe Madere Marsh Unit of Bayou Sauvage National Wildlife Refuge on August 29, 2015. The volunteers rode in airboats to the planting site to stand in knee deep water and mud to accomplish their task.

The refuge's Joe Madere Marsh Unit was one of the last areas that could hold stormwater before a nearby New Orleans neighborhood would be flooded. This unit was inundated with saltwater during Hurricane Katrina after the levee breached during the early morning hours of August 29, 2005, as the eye of the storm passed about 15 miles east of the refuge.

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The Bayou Sauvage marsh project was part of the Citywide Day of Service established by New Orleans Mayor Mitch Landrieu to commemorate the tenth anniversary of Hurricane Katrina. During that day, 10,000 volunteers participated in restoration projects across six different regions of the city. ❖

Carolina Heelsplitter collaborative recovery effort makes progress

By Morgan Wolf, South Carolina Ecological Services Field Office



Tony Brady, Natchitoches NFH; Morgan Wolf, South Carolina ES Field Office; Jonathan Wardell, Orangeburg NFH, photo: Gena Long, USFWS

Last month, staff from Orangeburg, Bears Bluff, and Natchitoches National Fish Hatcheries joined the South Carolina Ecological Services Field Office for a baseline survey of Carolina heelsplitter numbers in Flat Creek, part of the Pee Dee Basin population. Nineteen new, untagged heelsplitters and six tagged recaptures were found. The group also found a few animals that had been tagged at least five years previously, indicating the suitability of the habitat for the mussel's persistence.

The goal of this survey effort was to identify areas in Flat Creek that could act as source locations for possible augmentation work in the spring of 2016. Successful augmentation is now a possibility due to ongoing habitat restoration in the area. Since 2014, the Service has been actively improving fish passage and heelsplitter habitat in

partnership with Lancaster County, South Carolina. So far, two non-functioning road crossing structures have been replaced with bottomless arched culverts, both within and upstream of critical habitat. Another road crossing replacement is planned for the near future, culminating in the reconnection of nearly six miles of critical habitat for this endangered species. Combined with habitat restoration, future augmentation efforts will greatly enhance the Carolina heelsplitter's recovery prospects. ❖

Helping the Ozark hellbender

By Katy Smith, Norfolk NFH



Larry Sawatzki and Donald Beard filling forms for Ozark hellbender boxes at the Norfolk National Fish Hatchery, photo: USFWS

Well-known for outstanding scenery and world-class trout fishing, the cold, fast flowing waters of the Ozarks are perhaps lesser known as the exclusive home of one of North America's largest salamanders: the endangered Ozark hellbender. Measuring up to two feet long, these aquatic amphibians are found only within a few tributaries of the White River, including the Eleven Point River in Arkansas. Sadly, these gentle giants are now endangered due to severe population decline brought about partly due to habitat alteration. The large flat rocks that these animals require for shelter and survival are often accidentally or intentionally disturbed by recreational river users or by sedimentation and river flow.

The Greers Ferry and Norfolk National Fish Hatcheries recently partnered with the Conway Ecological Services Field Office and the Arkansas Game and Fish Commission to help address this problem. Working collaboratively, staff and volunteers at these offices designed and built approximately 50 concrete and mesh boxes that mimic the natural voids and crevices that are typically found within Ozark river systems. These boxes will provide additional habitat for the hellbenders to lay eggs, shelter young and create secure resting places away from predators. Staff members from the Conway, Arkansas, Ecological Services Office collected the finished boxes in early August and placed them in the Eleven Point River prior to the start of this year's hellbender breeding season. Through this partnership, it is hoped future generations of outdoor enthusiasts will once again have the chance to experience seeing this unique species. ❖

Chattahoochee Forest NFH provides pallets for Lake Nottely fish attractors

By Crystal Thomas, Chattahoochee Forest NFH



Fish attractors, photo: Georgia Department of Natural Resources

Check it out! Chattahoochee Forest National Fish Hatchery provided fish feed haul pallets to be recycled as fish attractors and placed in Lake Nottely. Jeff Durniak with Georgia Department of Natural Resources highlighted Chattahoochee Forest National Fish Hatchery with a post on Facebook:

"Members of the Lake Nottely Improvement Association and staff from the U.S. Forest Service - Chattahoochee-Oconee National Forest joined our staff to build and install more than 100 fish

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attractors at four sites in Tennessee Valley Authority's Lake Nottely. The attractors are recycled from pallets used to haul fish feed to the Chattahoochee Forest National Fish Hatchery. For more fishing info on Lake Nottely, visit <http://gofishgeorgia.com/Fishing/Nottely>. ❖

Longest Day of Play

By Abigail Bradford, Wolf Creek NFH



Longest Day of Play activity, photo: Moria Painter, USFWS

On Saturday, June 27, Wolf Creek National Fish Hatchery held the annual Longest Day of Play in collaboration with Russell County Community Health Coalition. This event celebrates the longest day of the year, and encourages everyone to get outside and enjoy the beginning of summer. The weather turned out to be a little rainier than anticipated, but this brought even more people to the hatchery!

Nearly 70 children attended the event and had a blast playing indoor games, making crafts, meeting our animals, and traveling from booth to booth to learn about healthy lifestyle choices. The games we played, such as Animal Olympics and Monarch Migration, encouraged physical activity and a greater appreciation for nature.

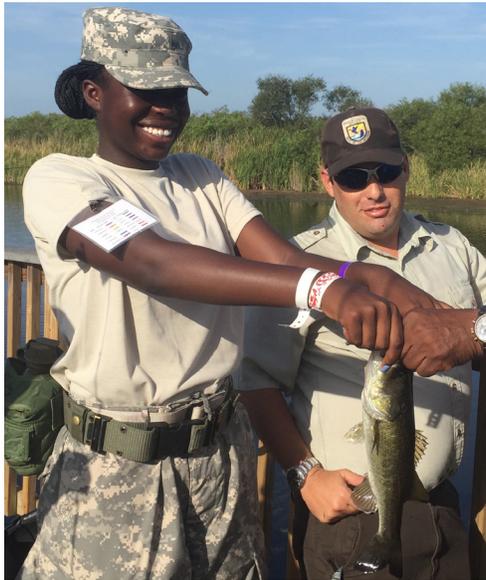
Every participant received a Longest Day of Play t-shirt. Many lucky children brought home door prizes at the end of the day that encouraged outdoor play, such as bicycles, fishing poles and tickets to a local water park.

This year's event was made possible with the help of our generous partners: Russell County Cooperative Extension Service, Cumberland Family Medical, Coventry

Cares, Monticello Banking Company, Hospice of Lake Cumberland, U.S. Army Corp of Engineers, 21st Century Community Learning Center, Partners in Prevention, Healthy Kids Clinic, and Anthem Blue Cross Blue Shield Medicaid. ❖

South Florida's urban refuge

By Joseph Whelan, Loxahatchee NWR



JROTC member goes fishing, photo: Joshua Parks, AmeriCorps SCA

"After a year of building community relations and developing programs, Urban Refuge is not just another initiative, it is the backbone of our Public Use Program," says Jacob Tuttle, assistant Manager of Arthur R. Marshall Loxahatchee National Wildlife Refuge. Bordering the most populous metropolitan area in the Southeast, Loxahatchee is identified as one of the most significant urban refuges in the National Wildlife Refuge System. In March 2014, the refuge partnered with North Carolina State University and the U.S. Geological Survey to identify opportunities to improve its urban outreach program. Through this partnership, a local Advisor's Council was established that participated in a series of workshops designed to assist in engaging new and diverse communities. The Council was comprised of representatives from diverse neighboring communities

who were non-traditional users of the refuge. Strategic partnering with organizations has helped the refuge's staff overcome the challenges involved in welcoming children to public lands.

During Loxahatchee's 2015 Summer Urban Outreach Program about 1,000 students from South Florida learned about the refuge, conservation, and the Everglades. Among the multiple federal, state and local partnerships and programs represented in this effort were the Secretary of the Interior's Play, Learn, Serve, Work youth initiative, the Florida YMCA Youth in Government Program, and the Broward County Junior Reserve Officers' Training Corps (JROTC) Cadet Leadership Development Program. "Going fishing and seeing an alligator up close are new activities for most of these kids. Going to the refuge helps conquer their fear of the outdoors and it teaches them that they are responsible for something bigger than themselves," says Yvonne So, YMCA director of Outdoor Education for South Florida. "When asked to locate Loxahatchee on a map of Florida, most of the students pointed to areas halfway across the state. They're just not aware; getting kids onto the refuge reinforces that the Everglades is not a place on TV, it is our home."

New partnerships also mean new opportunities for refuge staff members to visit schools, YMCAs, and many other clubs and organizations off-refuge. One example is the Homestead YMCA Everglades Summer Camp, a partnership between Loxahatchee, Everglades National Park, Biscayne National Park, and the Homestead YMCA. Out of about 100 parents who responded to the YMCA Everglades Summer Camp satisfaction surveys, 85 percent strongly agreed that it was a positive experience for their kids.

"It's becoming popular to use the term Urban Refuge; but, we aren't changing because of the label, we are changing to best serve our community and to fulfill the mission of the Fish and Wildlife Service," Tuttle said.

If there's an opinion, facts will be found to support it.

— Judy Sproles

Being this close to 5.5 million people, the boundaries between the refuge and the community are blurred. Loxahatchee may be 143,000 acres on a map but when we go out into the community, the refuge goes with us. When we walk down the halls of local schools or the YMCA, kids address us by name and introduce us to their parents. We are developing a conservation constituency through everyone who is reached by our programs and who visits our public lands; a constituency with a youthful foundation that spans to non-traditional user groups on a local and national level. ❖

Wolf Creek National Fish Hatchery hosts environmental education workshops

By Bryson Scruggs, Wolf Creek NFH



Air Quality workshop participants construct a mechanism to collect particulate matter from the air using random household items, photo: Moria Painter, USFWS

On July 23 and 24, Wolf Creek National Fish Hatchery hosted the Southern Forests & Climate Change workshop and the Air Quality workshop for science teachers throughout Kentucky. With 14 participants over the two days of workshops, everyone took home an abundance of knowledge and new views on climate change and our planet's air quality.

On the first day, Jennifer Hubbard-Sanchez of Kentucky State University conducted the Project Learning Tree module on Southern Forests & Climate Change workshop.

Through the day, participants were encouraged to think outside of the box of how we are affecting climate change and what we can do to help. Hubbard-Sanchez

led the group through interactive games and activities to demonstrate appropriate ways to learn about climate change in a classroom setting.

On the second day, Roberta Burnes and Elizabeth Schmitz of the Kentucky Division of Air Quality conducted a professional development course on Air Quality. Burnes and Schmitz had many wonderful activities planned for the day. Participants learned about the carbon cycle as they moved from station to station collecting beads to represent the stratosphere, lithosphere, atmosphere and biosphere. This workshop gave teachers new ways to inform students about Air Quality issues while following Kentucky educational standards. ❖

Bringing back blueback herring

By Stephen Jackson, Edenton NFH



Deputy Project Leader Ronnie Smith cares for blueback herring, photo: USFWS

Edenton National Fish Hatchery in North Carolina is producing and monitoring blueback herring in an attempt to restore populations into the Chowan river system.

River herrings have been culturally, economically, and ecologically important since colonial times when they provided an important source of protein and income. They also are an important prey species for the aquatic and marine food chains. Commercial landings in the Chowan River alone dropped from 10.3 million pounds in 1972 to zero in 2006. Similar declines have occurred coast-wide.

It was for these and other reasons that the Eastern North Carolina/Southeastern Virginia SHC Team designated the blueback herring its signature aquatic species. It also is likely to be a surrogate species for the South Atlantic LCC.

In 2011, the State of North Carolina conceded that the five year old fishing moratorium has had no impact in restoring the species or even in halting its decline. In partnership with the North Carolina Wildlife Resources Commission, Edenton National Fish Hatchery began a program to determine if stocking of blueback herring fry into three tributaries of the Chowan River will result in an increase of spawning adults. A fourth tributary is being monitored; but, it is being used as a control and is not being stocked with fish.

Since 2012, Edenton has stocked out over five million herring fry to the three Chowan River tributaries. This year, we should see the first of the fry returning as adults, and we look forward to gauging the success based on genetic analysis.

Every adult brought into the fish hatchery has a fin clip taken for genotyping using microsatellite markers. By comparing adults brought to the hatchery and fish later sampled in the wild, we can determine if the populations in the various tributaries are genetically distinct, and if fish sampled later are wild or of hatchery origin. If the fish were raised at the hatchery, we can research: (1) which parental cross resulted in the fish; (2) when and where that particular fish was stocked; (3) depending on sampling location, whether returning adults display stream fidelity to their tributary; and, (4) what percentage of adults does the hatchery contribute to the spawning run.

“Arte es Conservación,” art exhibition at Cabo Rojo NWR

By Gisella Burgos, Caribbean NWR Complex



art exhibition, photo: USFWS

Can you imagine walking through an art museum and not seeing any trees? No mountains or streams, sunrises or sunsets? It's impossible, because nature is everywhere in art. This year, Cabo Rojo National Wildlife Refuge presented “Arte es Conservación,” an initiative to connect our visitors to nature through art and to remind them of our need to protect it. Local artists had the opportunity to feature their photos, paintings and/or drawings highlighting local wildlife, nature landscapes and flora. Visitors also enjoyed free nature workshops and presentations. ❖

Wolf Creek gives thanks for Pollinators at Get Outdoors Day

By Abigail Bradford, Wolf Creek NFH



Trivia wheel and water bottle planters, photo: Abigail Bradford, USFWS

Wolf Creek National Fish Hatchery participated in the Army Corps of Engineers' Get Outdoors Day in Somerset, Kentucky in June. This event is in support of First Lady Michelle Obama's “Let's Move!” initiative, a program

designed to encourage kids to eat healthy and get active. With this event falling on the second day of Pollinator Week, the Wolf Creek activity focused on pollinators and the vital jobs they do for both our environment and our health.

The 80 kids from the community who attended this event had the chance to spin our Pollinator Wheel and answer trivia about pollinators and their effects on humans. Participants also had the opportunity to decorate their recycled water bottle planters and plant zinnia seeds to encourage pollinators to visit them at home. Zinnias are a known pollinator attractant, and hummingbirds love them! Wolf Creek has been working hard to educate the community about pollinators through events like these, by creating a butterfly garden, and with our popular bee exhibit at our visitor center. ❖

Conserving the ghost orchids of Florida Panther National Wildlife Refuge

By Jessica Sutt, Florida Panther NWR



A ghost orchid in full bloom at Florida Panther National Wildlife Refuge. Only about five to ten percent of the small South Florida population blooms each summer, photo: Mark Danaher, USFWS

Through collaboration with partners including Illinois College, University of Florida, and the Naples Orchid Society, conserving native orchids is a continuing project of the Florida Panther National Wildlife Refuge. In July, the orchid team worked with Dr. Ernesto Mujica of Cuba's ECOVIDA Research Center for a comprehensive survey of perhaps

the most revered orchid in North America, the ghost orchid. Dr. Mujica is a renowned orchid researcher whose work has included long-term monitoring of Cuba's ghost orchids and publications of a comprehensive guide to Cuba's orchids.

The invaluable participation of Dr. Mujica was made possible through years of persistence and recent history-making improvements in U.S. relations with Cuba. By the end of July, Dr. Mujica, primarily assisted by Illinois College students Shannon Skarha and Justin Mably, documented more than 100 ghost orchids. While only 11 ghost orchids were found during the first two weeks of surveying, expeditions quickly became more successful. In one location 20 ghost orchids were found in four hours, more than ever previously documented on the refuge. Another site was nicknamed the Graveyard due to its 72 ghost orchids and a single pond apple tree was found serving as home to ten ghost orchids.

Having established an inventorying and monitoring program parallel to Dr. Mujica's, the team aims to compare Florida populations to those in Cuba for increased understanding of the needs for continued ghost orchid survival. We hope to set a new standard for international conservation science as Cuba and the U.S. continue improving relations.



Ghost orchid hunters take a break from trudging through the swamps. L to R: Wildlife biologist Ashlee O'Connor; Volunteer Wendy Mazuk, Illinois College Students Shannon Skarha and Justin Mably, Supervisory Biologist Mark Danaher, and Dr. Ernesto Mujica of the ECOVIDA Research Center; photo: Sarah Steele-Cabrera, USFWS

Chattahoochee Forest National Fish Hatchery re-opens to visitors

By Crystal Thomas, Chattahoochee Forest NFH



Deputy Hatchery Manager Kelly Taylor gives thumbs up for the hatchery visitor information sign on Rock Creek Road after closure signs were removed, photo: Jamey Mull, USFWS

Construction that began in August of last year on a series of fish rearing raceways at Chattahoochee Forest National Fish Hatchery is finally complete. The concrete raceways were completely removed and re-constructed. Progress was slowed throughout the project due to unforeseen circumstances with construction and inclement weather.

“Determination to complete the project never ceased and has yielded an end product that should successfully support the trout rearing process for many more years to come. I am proud of the staff here at Chattahoochee and their endurance as everyday job duties were affected, and various cancellations occurred due to the construction project,” Kelly Taylor, deputy hatchery manager, said. “We are thankful for the understanding and support conveyed by the public, Friends of the Hatchery, volunteers, anglers, and other agencies such as the U.S. Forest Service.” ❖

Local students work at Dale Hollow National Fish Hatchery

By Andrew Currie, Dale Hollow NFH



Courtney, Jared, and Ashley clean indoor fingerling production tanks, photo: Andrew Currie, USFWS

Clay County, Tennessee residents Ashley Hancock, Courtney Ritter, Jared Browning, and Tyler Cherry worked this summer at the Dale Hollow National Fish Hatchery as Youth Conservation Corps (YCC) enrollees. Ashley, Courtney, Jared, and Tyler helped the hatchery staff with feeding fish, collecting and counting dead fish, cleaning tanks and raceways, moving fish around the hatchery, distributing fish to local waters, performing janitorial work, maintaining the public fishing area, and carrying out general grounds maintenance. The enrollees also assisted with the annual fish health inspection at the hatchery. For recreation, the YCC students toured Wolf Creek National Fish Hatchery in Jamestown, Kentucky, and spent time in its visitor/environmental/education center.

The three objectives of the YCC program are to accomplish needed conservation work on public lands, provide gainful summer employment to youth for about eight weeks, and develop an understanding and appreciation in participating youth of the nation's natural environment and heritage. Dale Hollow selects enrollees by random drawing from applications received from Clay County High School students. If funding is available, two boys and two girls will be selected to work at the hatchery next summer in the YCC program.

Restoring habitat on Desecheo National Wildlife Refuge

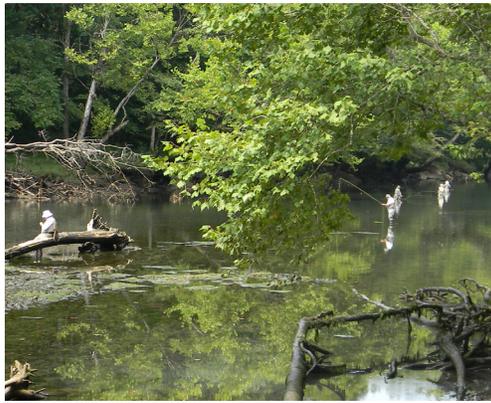
By Gisella Burgos, Caribbean NWR Complex

The island of Desecheo received funds to remove black rats and restore the native flora and fauna. It will be a second attempt to remove these rats from the island. The first attempt in 2012 appeared to be successful, but eight months later rats were observed. Historically, Desecheo Island was a major seabird rookery; however, due to the presence of introduced predators, including the invasive black rats, the number of seabirds species observed has diminished throughout the years. The removal of invasive rats will allow the native forest to recover and will promote the recolonization of the island by several seabird species that historically nested on the island. ❖

Friends and Volunteers

Healing Waters fly fishing events held at Dale Hollow National Fish Hatchery

By Andrew Currie, Dale Hollow NFH



Veterans enjoy a day of fly fishing on the Obey River, photo: Andrew Currie, USFWS

The Friends of Dale Hollow National Fish Hatchery teamed up with the hatchery, U.S. Army Corps of Engineers (Corps), and Project Healing Waters to sponsor two days of fly fishing at the Obey River and hatchery public fishing area for veterans on August 22 and 29. Project

Healing Waters Fly Fishing Incorporated is dedicated to the physical and emotional rehabilitation of disabled active military service personnel and disabled veterans through fly fishing, education, and outreach. A total of 21 veterans from Murfreesboro, Cookeville, and Nashville took part in these events.

Following a day of fishing, veterans enjoyed a catered meal at the Corps picnic pavilion located at the Dale Hollow Dam

Recreation Area. The meal was provided by the Friends Group. The extra food was donated to a local church for their weekly free meal program. Friends Group members, hatchery staff, and local volunteers helped make the event a success. Special thanks to the Corps for scheduling water releases around the event and providing the use of the picnic pavilion at no charge. ❖

UPS revitalizes nature trail at Wolf Creek

By Bryson Scruggs, Wolf Creek NFH



Volunteers from UPS pose in front of a recently set nature trail sign, photo: Abigail Bradford

Raising more than a million Rainbow, Brown and Brook trout per year at Wolf Creek National Fish Hatchery is not our only focus. As an Environmental Education based facility we welcome school groups, summer groups, teachers and any other visitors interested in learning about the hatchery.

On July 29, eight eager UPS employees from Kentucky and other surrounding states took time out of their work retreat to lend a helping hand to Wolf Creek's Environmental Education team on an ongoing nature trail revitalization project. After an early morning of striper fishing on Lake Cumberland and a tour of Wolf Creek Dam, the crew came to the hatchery for some hard work on the nature trail.

Our three-quarter-mile Nature Explorer Hiking Trail winds through the woods, over streams, past Hatchery Creek, and ends back at the Visitor Center. The UPS volunteers set 15 trail signs and two

benches along the trail. Each sign holds a fun fact, useful information or a nature challenge which will provide visitors with an interactive nature hike.

With hard work, a little sweat, loads of determination and some

brainstorming, the Nature Explorer Hiking Trail at Wolf Creek National Fish Hatchery is better than ever. With the addition of interpretive signs, hiking the trail will be a new experience for visitors of Wolf Creek.

Interagency collaboration against invasives

By Corey Lloyd, Merritt Island National Wildlife Refuge



Interns and volunteers with the Shuttle Atlantis exhibit, photo: Corey Lloyd, USFWS

Exotic invasive plant control is a crucial part of refuge habitat management. A recent collaboration effort was organized to combat invasive plants, including: Paper mulberry, Guinea grass, and the highly invasive Brazilian pepper. Collaborators include: the Fish and Wildlife Service, volunteers, the Greening Youth Foundation, the Student Conservation Association, the Florida Fish and Wildlife Conservation Commission, the West Volusia Audubon, and the Merritt Island Wildlife Association, the refuge's friends group. Refuge employees working on the project included Steven Trull, Stan Howarter, Corey Lloyd, and Nikki Szostak. Refuge volunteers and interns included Tom and Sue Killian, Akua Amponsah, Christopher Fernandez, Duncan Feldman, and Mitchell Bordeaux.

As thanks for the efforts towards exotic plant control, a private tour of Kennedy Space Center was arranged by Nancy Corona. Our tour was led by Ronald Caswell, who happened to be the most positive and excited space enthusiast I have ever had the pleasure of meeting. Ron took us inside some of the most iconic

buildings in the history of space flight. We experienced the enormity of the Vehicle Assembly Building, and we even walked in the Launch Control Center's firing room. The day ended at the Space Center's visitor center, nose to nose with Space Shuttle Atlantis. Surely this experience was out of this world! ❖

Loggerhead baby – Orsulak



Loggerhead sea turtles begin life out of their nest about the size of a silver dollar. If they survive (most do not) they can grow to be the largest hard-shelled turtles in the world, photo: USFWS