



THE  
LONGLEAF  
LEADER

# Partnerships

By Chris Erwin, American Forest Foundation, Longleaf Partnership Council Chair

# Carbon and Climate Change Mitigation in Longleaf Pine – Research Updates at the Summer Longleaf Partnership Council Meeting

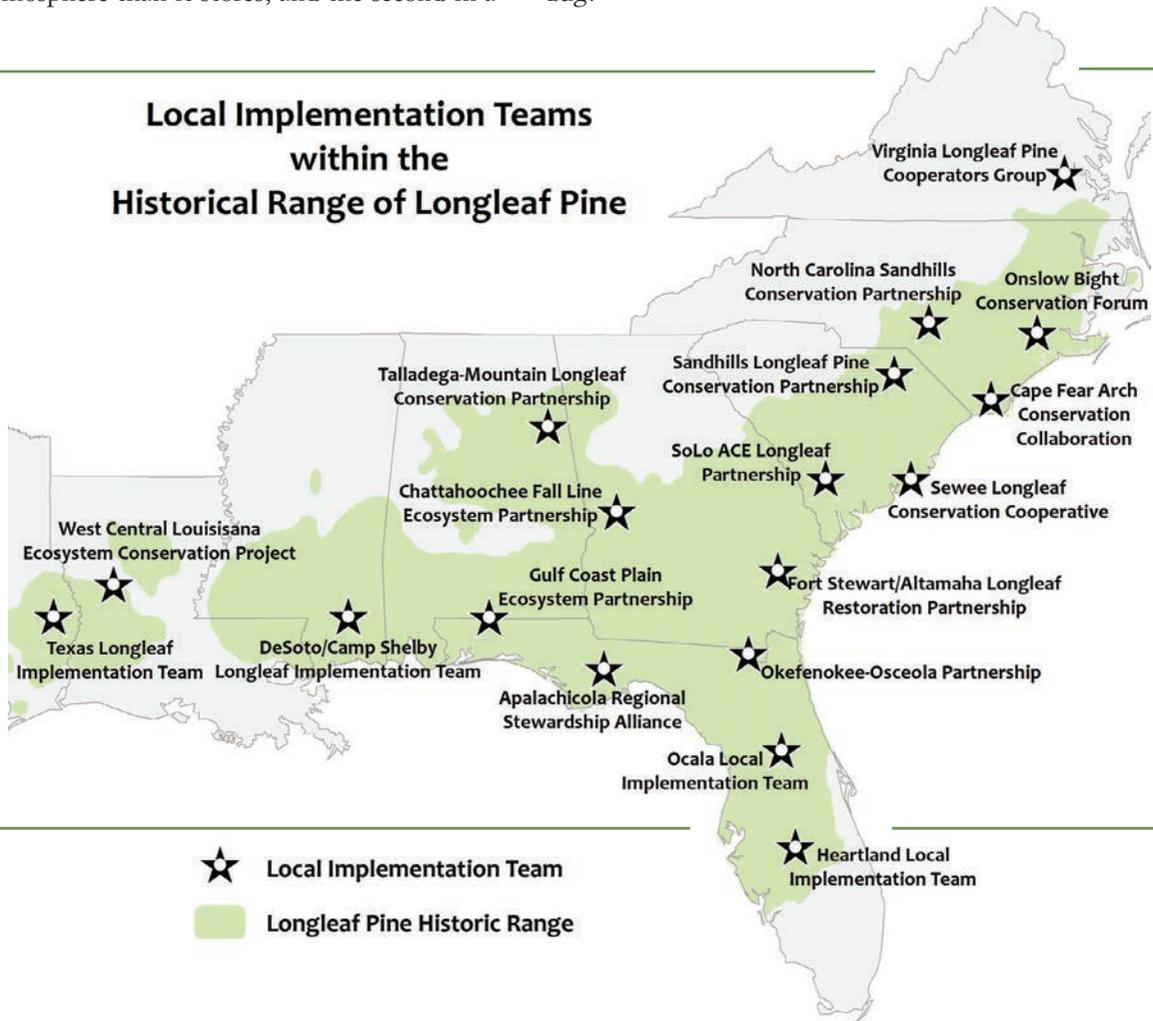
The Longleaf Partnership Council hosted its third quarterly meeting in August. We were honored to hear from Dr. Tom O’Halloran from Clemson University who is working at the Baruch Institute of Coastal Ecology and Forest Science. Dr. O’Halloran updated us on work that he, Colette DeGarady with The Nature Conservancy, Dr. Marzieh Motallebi, Dr. Bo Song, and PhD student Lucas Clay from Clemson University Department of Forestry and Environmental Conservation, are leading on the role of longleaf pine in mitigating climate change. Dr. O’Halloran described atmospheric carbon sampling technology (Eddy Flux Systems) mounted on towers that measure carbon exchange rates. He described two studies in longleaf stands located on Hobcaw Barony, a 16,000-acre plantation owned by the Belle W. Baruch Foundation on the Waccamaw Neck Peninsula of South Carolina. One study is a newly restored stand that is a carbon source, emitting more carbon into the atmosphere than it stores, and the second in a

60-year-old stand that is a carbon sink, storing more than it emits.

This work at Hobcaw Barony supports other research looking at carbon stocks above and below ground., including important studies led by Dr. Lisa Samuelson (Auburn University) and Dr. Susanne Wiesner (University of Alabama and The Jones Center at Ichauway, now at University of Wisconsin-Madison). It was interesting to see that longleaf and other southern yellow pine forests peak in carbon storage around 20 years of age at a rate that is comparable to tropical forests.

It is a pleasure to listen to dedicated professionals who spend their careers pursuing data to support the body of knowledge that informs the best management practices for landowners. Thank you, academic and research professionals, and all landowners who make lands available to pursue science. We are all drinking from the well that you and your predecessors have dug.

## Local Implementation Teams within the Historical Range of Longleaf Pine



## Burning for Seed on the Cody Scarp: Some Dirt is Sand, and Some Dirt is Clay

By Brian Pelc, Apalachicola Regional Stewardship Alliance LIT Coordinator



Members from several ARSA agencies, including The Nature Conservancy and Florida State Parks, team huddle up for a mid-day shift in burn zones. This burn occurred at Torreya State Park, mostly located north of the Cody Scarp. Photo by Brian Pelc.

The growing season brings a lot of focus on wiregrass seed production in the eastern portion of the Florida Panhandle. Members from the Apalachicola Regional Stewardship Alliance (ARSA) frequently join forces to burn large tracts when seed is needed for the following fall. This past May and June, partners from across the region and multiple agencies prioritized and completed thousands of acres of sandhill and upland pine longleaf burning in an effort to ensure adequate seed production for restoration projects. The Cody Scarp (escarpment) transects the ARSA region from east to west along the northern third of the LIT. Land managers and biologists do their level best to provide seed sourced from the correct side of this biogeographical boundary. Clay deposits to the north of Cody Scarp provide more soil moisture, supporting slightly different species composition and locally adapted plants compared to the sandy soils south of the escarpment. Sourcing seed from the correct habitat type helps conserve local genetics and ensure successful restoration outcomes. However, it can be difficult to find adequate supply from proper donor sites. ARSA members cooperatively burn in a wide variety of habitat types with healthy groundcover communities to obtain seed for restoration projects the following winter.

## Louisiana Pine Snake Recovery Underway at Kisatchie National Forest

By Dan Weber, The Nature Conservancy



Captive bred pine snake at the Memphis Zoo. Photo by Mark Weber, The Commercial Appeal.



Louisiana pine snake to be released on the Kisatchie National Forest. Photo courtesy of the Memphis Zoo.

The Catahoula Ranger District on the Kisatchie National Forest is the site of an ongoing effort to reintroduce the federally threatened Louisiana pine snake (*Pituophis ruthveni*). This April, representatives from the U.S. Forest Service and U.S. Fish and Wildlife Service as well as zoos in Memphis, Tennessee; Fort Worth, Texas; and Alexandria, Louisiana, released 50 captive-bred, young pine snakes into their natural habitat. This release brings the total number of individuals to 228 since the start of the project in 2010. The snakes are equipped with microchips that store

identifiable information allowing biologists to track their movements and survivorship over time.

Originally occurring in longleaf pine forests across Louisiana and Texas, Louisiana pine snakes are currently found in only five Louisiana parishes and three Texas counties. Their primary prey source is the pocket gopher, and they tend to live in the gopher burrows, spending more than half their lives below ground. Their disappearance has been due largely to habitat loss associated with poor land management practices, including fire suppression and large-scale timber production. The Louisiana pine snake is the rarest snake in North America and is listed as endangered by the International Union for Conservation of Nature. In Texas, it is state-listed as threatened and protected from direct harm and unauthorized collection. It is classified as imperiled in Louisiana and protected from illegal possession or harvest from the wild.

The Kisatchie National Forest consists of approximately 604,000 acres and forms the core of the Kisatchie/Fort Polk SGA where the local longleaf implementation team, the West Central Louisiana Ecosystem Partnership, composed of the U.S. Department of Defense, state and federal wildlife agencies, conservation NGOs and others have united to restore longleaf pine and other native ecosystems within a six-parish conservation area.

## Texas Team Hosts TLA President for Field Tours

By Jenny Sanders, Texas Longleaf Implementation Team Coordinator



*Image 1: Texas State Ornithologist, Cliff Shackelford, explains remote monitoring technology used to monitor bird species occurrence in longleaf pine. Image 2: Partners tour the greenhouses at the East Texas Plant Materials Center, where locally-adapted native plant species are propagated for distribution and restoration. Photos by Jenny Sanders.*

In June, the Texas Longleaf Implementation Team (TLIT) was excited to host Carol Denhof, President of The Longleaf Alliance, for a series of field tours and social gatherings to celebrate recent longleaf efforts.

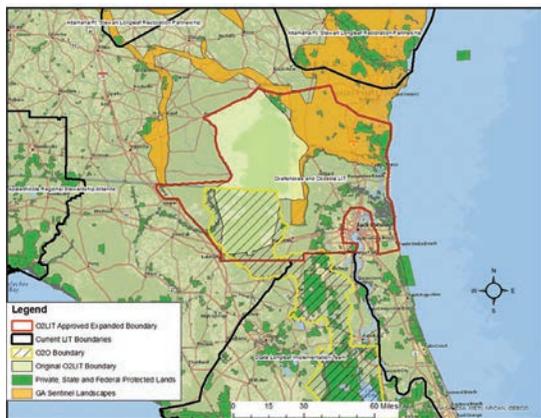
The visit included tours on several tracts where the team heard from Texas Parks & Wildlife Department and U.S. Fish & Wildlife Service staff about their project monitoring bird and snake species occurrence in longleaf. The group toured the East Texas Plant Materials Center (ETPMC) and learned about efforts by the USDA Natural Resources Conservation Service and the Caesar Kleberg Wildlife Research Institute's East Texas Natives Program to develop locally adapted native seed sources for restoration work in our area. These undertakings are breaking new ground, and we

hope they can serve as a model for the rest of the longleaf range as other teams work to develop wildlife monitoring and groundcover restoration.

The TLIT extends a big thank-you to Carol and The Longleaf Alliance for giving our team an excuse to break the "Zoom Cycle" and gather in the field. It was a wonderful time to network, learn from one another, and be inspired by some outstanding longleaf restoration and management.

## Okefenokee-Osceola LIT Boundary Expansion

By Rebecca Shelton, The Nature Conservancy



*O2 LIT expanded boundary. Map by Rebecca Shelton.*

In late November 2020, the Longleaf Partnership Council approved a boundary expansion for the O2LIT. By expanding our boundary, we have effectively increased our range from 1.2 million acres to over 3.2 million.

The changes are intended to provide comprehensive and cooperative resource management among partners and programs to facilitate greater support for longleaf landowners and managers. Additionally, expansion towards other existing LIT boundaries allows us to provide unified coverage for resource management and increase the outreach funding opportunities for our current and potential partners, effectively increasing our "service area."

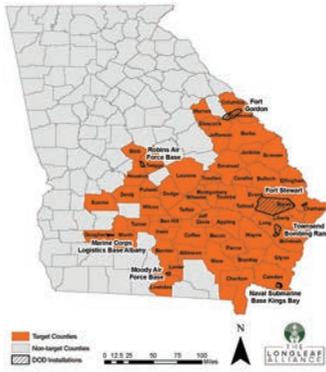
To set, prioritize, and highlight resource opportunities, a subcommittee for the O2 LIT will revise our Charter and Conservation Plan with the new boundary and other updates that have been made since its 2016 inception. To aid this effort, we will incorporate findings from the Southeast Conservation Blueprint in spatial planning. The Southeast Conservation Blueprint, from the Southeast Conservation Adaptation Strategy, is a living, spatial plan that

identifies important areas for conservation and restoration across the Southeast and Caribbean. The Blueprint stitches together smaller subregional plans into one consistent map, incorporating the best available information about key species, ecosystems, and future threats.

For landowner outreach, the Florida Fish and Wildlife Conservation Commission, in cooperation with The University of Florida's Institute of Food and Agricultural Sciences, is holding another landowner outreach meeting at the South Prong Plantation in Baker County, Florida in November 2021. This outdoor meeting will provide an overview of invasive plant identification and commonly used herbicide treatment techniques. Attendees will also have the opportunity to network and connect with other participants, including private landowners, land managers, contractors, and conservation partners, potentially influencing restoration on over 55,000 acres of private land.

## Bright Future of Fire in the Georgia Sentinel Landscape

By Susan French, *The Longleaf Alliance*



*Image 1. Positive native vegetation response in a Jefferson County longleaf stand approximately 2 months post-burn. Photo by Susan French. Image 2. The Coastal focal area of the Georgia Sentinel Landscape. Map by Susan French.*

The Georgia Sentinel Landscape (GSL) Pilot Project is a collaboration between public and private stakeholders who have overlapping natural resource management goals in proximity to one or more of the nine military installations that anchor the landscape. The project goals are to help private landowners, who own approximately 90% of the forestland in the state, overcome challenges associated with effectively managing and enhancing their forestlands with prescribed fire by providing technical and financial assistance as well as outreach programs.

In the first year, cost-share funding was provided to more than 100 landowners resulting in over 10,500 acres of prescribed

burning. Two new burn trailers will also soon be available for rental by private landowners, one housed at the Georgia Forestry Commission (GFC) Talbot County office and the other at the GFC Glynn County office. The burn trailers contain equipment such as drip torches, fire rakes, and ‘smoke ahead’ road signs to help landowners conduct safe and effective prescribed burns.

The application period for the 2022 cost-share funding cycle in the focal area (see map) is open, and the deadline to apply is November 1, 2021. Applications received after this date will be accepted and evaluated for future rounds of funding. All applications will be competitively ranked, emphasizing longleaf pine ecosystem health, gopher tortoise habitat, and proximity to military installations. You can learn more about this program by visiting [longleafalliance.org](http://longleafalliance.org) > what-we-do > conserving-diverse-forests > georgia-sentinel-landscape-prescribed-fire-program. Be sure to follow The Longleaf Alliance on social media for announcements and updates on upcoming prescribed burning workshops and events.

## South Carolina SLPCP Enables RCW Expansion

By Charles Babb, *Sandhills Longleaf Pine Conservation Partnership Coordinator*



*New RCW residents. Photo by Charles Babb.*

The South Carolina Sandhills Longleaf Pine Conservation Partnership (SLPCP) aided local red-cockaded woodpecker (RCW) colonies to expand onto private properties. After assisting three landowners in improving RCW habitat and entering the SC Department of Natural Resources Safe Harbor Program, twelve artificial nest cavities were installed in the spring of 2020 to allow nearby colonies the room to expand outside public lands in Chesterfield County. For the first time, trail cameras revealed consistent RCW activity at eight of the sites this spring, where birds created pitch wells and used the cavities for roost sites. One pair was successful in raising a brood of chicks.

“We were thrilled to discover this nest,” said Charles Babb, LIT Coordinator. “We had not seen signs of activity at this tree but noticed the adults feeding chicks during one of our regular visits. I think it was a quick move in response to heavy pressure from flying squirrels at another cavity. As far as we know, this is the first nest on private land within our

LIT.” Hopefully, next year will bring an increased number of active nesting pairs as the birds continue to create sap flow around the cavities.

“This is a perfect example of how cooperation between private landowners, the SLPCP, National Fish and Wildlife Foundation, U.S. Fish and Wildlife Service, and SCDNR can have a lasting impact on a species’ long-term survival,” according to Babb. “We are working with two adjacent landowners to expand this project.”

## Lands Added to Blackwater River State Forest Benefit Longleaf Ecosystem

Recovery and Protection of the Military Mission *By Vernon Compton, The Longleaf Alliance*



*Coldwater Creek as it flows through Wolfe Creek Forest. Photo by Vernon Compton.*

The Wolfe Creek Forest Florida Forever project is a land protection priority for the state and the Gulf Coastal Plain Ecosystem Partnership (GCPEP). The Trust for Public Land, along with the U.S. Navy, the Florida Forest Service, Santa Rosa County Commission, U.S. Forest Service, and the Florida Department of Environmental Protection, worked together to protect 3,490 acres of the forest, furthering efforts to restore longleaf pine habitat and prevent incompatible land development that could interfere with the operations of Naval Air Station Whiting Field. “The conservation of this landscape-level property bolsters private and public efforts to restore longleaf pine forest, providing critical habitat to numerous federally and state-protected plant and animal species, offers public access to incredible recreational opportunities and supports our national defense operations at NAS Whiting Field,” said Doug Hattaway, Senior Project Manager for The Trust for Public Land.

“NAS Whiting Field enjoys an outstanding community-military partnership with the State of Florida, Santa Rosa County, and numerous stakeholders. Through these partnerships, we have been able to safeguard more than 10,000 acres to protect a mission that has a critical role in the DoD’s National Military Strategy. Our collaborative efforts are fundamental in encouraging compatible land development, conservation of public and private lands, and base buffering initiatives.” NAS Whiting Field Commanding Officer Captain Paul Flores stated. “The execution of this project complements our efforts to sustain military mission training and preserve the environment in perpetuity.”

“The addition of nearly 3,500 acres to the Blackwater River State Forest will provide exciting new recreational opportunities to the public and create connectivity among conservation forest lands in the area, benefitting native plants and wildlife,” said Erin Albury, State Forester and Director of the Florida Forest Service. “This conservation success would not have been possible without the hard work of our many partners.” Florida Department of Environmental Protection Interim Secretary Shawn Hamilton added, “The acquisition of this critical parcel is a testament to the importance of partnerships at the federal, state, and local level. Not only will this project further the department’s mission of protecting water quality, it will also preserve a crucial ecosystem, as well as a buffer for military operations.”

Congratulations, and thank you to all of the partners who collaborated to protect this important conservation parcel.

## Protecting the Altamaha River Corridor – 6,200 acres Conserved on Beards Creek

*By Fort Stewart Army Compatible Use Buffer Staff*



*Altamaha River. Photo by Randy Tate.*

The Altamaha River and its associated upland communities have long been recognized as a biodiversity treasure, supporting a long list of at-risk species. Thanks to the efforts of many partners over the past 20 years, great progress has been made towards establishing an ecologically functional and sustainable corridor along the river.

In 2021, another big step forward was taken when The Conservation Fund (the Fund) acquired over 6,200 acres near the river’s confluence with Beards Creek. In addition to providing habitat connectivity for wildlife, this linchpin property will also help protect an undeveloped corridor between the Marine Corps’ Townsend Bombing Range and the Army’s Fort Stewart, helping to ensure that homeowners won’t complain about noise from military aircraft moving between the two installations. The partnership between the Department of Defense (DOD) and various conservation organizations has led to the protection of over 150,000 acres

in Georgia alone since Congress established DOD’s Readiness and Environmental Protection Integration Program in 2003.

Fort Stewart and the Fund are working with several other members of the Fort Stewart/Altamaha Local Implementation Team (LIT) to establish conservation easements that will provide for permanent protection of the property, as well as restoration and management of longleaf pine with seedlings secured by The Longleaf Alliance. Protection of the Beards Creek property illustrates how close-knit LITs can achieve outstanding conservation goals in support of America’s Longleaf Restoration Initiative.

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