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PUBLISHER The Longleaf Alliance, EDITOR Sarah Crate, ASSISTANT EDITOR Margaret Platt, DESIGN Bellhouse Publishing
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COVER In the aftermath of Hurricane Laura, Kisatchie National Forest is diligently working to restore their longleaf pine and its
awe-inspiring views like these featured at the 2018 Biennial Longleaf Conference. Photo by Randy Tate.

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any of us are familiar with traditional reasons for growing longleaf pine – timber, hunting, wildlife habitat, aesthetics – but landowners are increasingly looking at ecosystem benefits like carbon storage, water quantity and quality, and forest resiliency that are products of well-managed forests. Every year landowners are faced with environmental challenges, including unpredictable weather, wildfires, and pests. While no single tree is immune to these threats, properly managed longleaf pine often has a high tolerance against these events compared to other southern pines.

The recently released third publication in the Longleaf Resilience Document Series focuses on longleaf’s resilience to fire (page 17). The authors did a phenomenal job explaining the relationship between longleaf and fire and describing the benefits of regular, low-intensity burns used for forest management. Fire is a factor that is a continuous possibility in the southeastern U.S. landscape – controlling how, when, and where fire occurs is crucial to promote healthy ecosystems but also reduce wildfire risk. Building a forest that thrives on fire yields long-term benefits to biodiversity and communities.

Living on the Georgia coast, I am intimately familiar with the threats we face and the risk of damage posed with each hurricane season. Record-setting storm events seem to be the norm, and we have witnessed especially devastating impacts on longleaf and other forested areas these past few years. Despite longleaf’s increased resiliency to wind damage compared to other pine species, few trees can withstand the extreme conditions produced by these storms. In this issue, we hear about the destruction caused by Hurricane Laura in Louisiana last fall and the plans of the Kisatchie National Forest to recover those beautiful stands of longleaf. It is hard to see past hundreds of thousands of acres of downed mature longleaf and the overwhelming job of recovery, but our partners with the U.S. Forest Service are resilient (just like the tree) and dedicated to the process of restoration. They wasted no time in assessing the damage, jumping into action, and planning for the future.

There will always be risks associated with land ownership, but shaping your forests to mitigate for those risks can result in positive outcomes for landowners. The resilience of longleaf to these threats makes it an ideal tree species for combatting the effects of climate change. I take heart in the commitment of landowners and forward-thinking partners that are making decisions that will have long-ranging benefits to the forests of the Southeast.
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MANAGEMENT CHECKLIST | SUMMER 2021

- **Evaluate young stands:** Inspect new longleaf plantings and plan future treatments if problems are noted. Mow or spray problematic species such as crabgrass, coffee weed, partridge pea, hairy indigo, and other emergent weeds; old fields seldom burn well until grasses become major components.

- **Prepare for planting longleaf:** Secure soil samples for selected longleaf restoration sites. Subsoil or rip sites with hardpans when very dry, and early enough to allow time for the furrow to settle before planting season.

- **Order longleaf seedlings** for upcoming plantings; nurseries may sell out their entire inventories early. A list of preferred nurseries can be found at www.longleafalliance.org.

- **Herbicide treatments:** Secure contractors for any chemical site-prep treatments. For maximum efficacy, foliar active herbicides such as glyphosate (Roundup®/Accord®) should be applied to actively growing pasture grasses at their most receptive stage. If targeting waxy species, triclopyr (Garlon®) may be applied now or delayed until after the first frost to minimize impact to herbaceous groundcover.

- **Spray invasive species** such as kudzu, cogongrass, bermsudagrass, climbing fern, bicolor lespedeza, bahiagrass, and fescue. Repeated applications will likely be necessary to combat these problematic species.

- **Prescribed fire:** Growing season fires may continue into the summer if the weather allows. Not good burning weather? Conduct post-burn evaluations of the woody control you achieved in your earlier burning. Or build firebreaks for future burns.

- **If natural regeneration is part of your plan, conduct longleaf pine cone (for fall ’21) and flower counts (for fall ’22), and perform a seedbed preparation burn on mature longleaf stands with good cone crops before seed fall (October/November). The goal is to increase the likelihood that longleaf seed falls on bare mineral soil but not have the seedbed so clean that predators can easily find and destroy most of the new seed.

- **Order native seed for understory restoration:** Seeds from local ecotypes and endemic species are limited and expensive. Although some landowners have the time and expertise to collect their own, most restoration will occur with purchases from the few seed companies that sell southeastern sourced seed.

- **Too hot to go out?** Now is a great time to develop or update your management plan! Numerous partner organizations are willing to help, and often there are incentives to assist.

Reach out to The Longleaf Alliance with any questions you may have pertaining to establishing and managing longleaf stands at longleafalliance.org/contact

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Dear Longleaf Alliance,

My husband and I recently purchased a new property, and we are interested in growing longleaf pines. We are new to growing trees and new to longleaf, so we are not even certain if longleaf pines grow in this area. We are interested in any information or advice on how to go about this. Much appreciated!

A New Longleaf Fan in Maryland

Dear New Longleaf Fan,

We appreciate your interest in helping to restore longleaf! A quick look at a map tells us that your property is outside of what is traditionally considered the historic range of longleaf pine. We don’t recommend planting longleaf beyond the natural range, but we also know it has happened in many places, and our understanding of where longleaf pine once occurred has expanded over time.

The extensive loss of longleaf pine during the 19th and 20th centuries makes pinpointing the native range a challenge. The most commonly cited longleaf pine range map was published by Elbert Little in 1971, but many folks have documented longleaf outside that range through herbarium records, historical references, naval store remnants, and living trees. Cecil Frost first published an expanded northern extent for longleaf pine in 1993. More recently, in 2018, Jennifer Costanza led the effort to create a digital map that incorporated Frost’s work on the distribution of Southeastern pine savannas and woodlands, notably longleaf pine.

But your actual question wasn’t about the history and accuracy of longleaf range maps, but “Can I grow longleaf here?” And the answer is “maybe.” With others experimenting with planting longleaf outside its commonly accepted range, your site would not be the furthest north by any stretch. Most importantly, we want you to choose the right tree for your site and the right tree for your objectives for the property.

The primary factors governing longleaf restoration and management are climate, fire, soils, and humans, including the initial level of site degradation. The book Ecological Restoration and Management of Longleaf Pine Forests, edited by L. Katherine Kirkman and Steven B. Jack, and reviewed in this issue (page 38), fully explores these factors.

For your site, we need to learn about the climate, topography, and soils (as determined by USDA-NRCS in your county - websoilsurvey.com). A detailed micronutrient soil analysis will provide insight into the suitability of the site for longleaf. Some other considerations to determine if longleaf is a good fit include past and future management. Fire is our most effective tool, but if you can’t burn, will you be able to manage competition by other means, like grazing? Or will you have to use more expensive methods like spraying or mowing?

Moving further north may increase the potential for damage from icing or heavy snow, so location and terrain matter. We also advise seeking local knowledge and experience. The nearby Virginia Longleaf Local Implementation Team is a valuable partnership to begin making those connections.

If all this looks favorable, you might consider doing this gradually — plant a few longleaf pines as a test and watch how they develop before planting the entire area.

As you learn more about your particular site, we welcome any questions that arise and are here to help.

Thanks for reaching out,
The Longleaf Alliance

References


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**Description**
Rabbitbells is a low, spreading legume species that seldom exceeds 16 inches in height. This is one of the legume species that has simple leaves. The leaves are fleshy feeling and rounded. The yellow flowers emerge during the summer and produce an inflated pod that “rattles” when the seeds ripen and separate inside the pod.

**Distribution & Habitat**
Rabbitbells is a common legume species that occurs throughout most of the longleaf range from Virginia in the north, south to Florida, and west to Louisiana. It can be found growing in dry longleaf pinelands, openings in oak-hickory woods, and sometimes roadsides and rights-of-way.

**Wildlife Value**
Bobwhite quail occasionally eat the seeds, and gopher tortoises may eat the leaves.

**Plant Availability**
This plant is sometimes available from nurseries specializing in native plants. Once established, it spreads easily, vegetatively and by seed.

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**References**

Bobcats in Longleaf

Bobcats can be found in most regions with longleaf pines (*Pinus palustris*). Recent research by Andrew Little et al. (2018) investigated bobcat habitat selection in longleaf pine savannas, specifically in relation to fire. At the Jones Center at Ichauway in Georgia, scientists monitored 45 adult bobcats during 2001-2007. Bobcats preferred mature pine stands managed by frequent (<3 years) and small-scale fires (<40 ha) as well as other habitat types (e.g., agricultural fields and shrub). Male and female bobcats also selected different habitat types, with females staying closer to young pines and roads than males. The frequent use of prescribed fire in longleaf pine forests increases understory plant species diversity, which may influence where bobcats hunt their prey.

References


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Kisatchie Rising
Moving from Mourning to Mending

By Jim Caldwell, U.S. Forest Service

Forest Service personnel cut their way in to assess the damage.
All who know the Kisatchie National Forest love it, and there is no minimizing the loss nor the necessity to mourn following Hurricane Laura. The original longleaf forests of Louisiana were once reduced to an endless stump farm, but 90 years of careful management restored its beauty. Dedicated foresters, biologists, and countless volunteers helped the Kisatchie rise then, and now it is our turn to do the same.

A ride through Kisatchie National Forest is a travelogue of scenic longleaf pine forests, clear streams, and beautiful wildflowers. The longleaf needles glistening in the sun, and the bluestem grass blanketing the landscape like wheat on a prairie. Red-cockaded woodpeckers flying through the canopy, chirping, and doves cooing in the distance.

Not long ago, my visits to the Kisatchie were filled with these iconic scenes. With my camera focusing on a cluster of green pinecones set on a blue-sky canvas, I could quickly rotate to take in the towering trees, the groves of longleaf saplings, and the multi-colored wildflowers dotting the landscape. However, all of this would change abruptly.

The storm that changed it all

On August 27, 2020, Hurricane Laura smashed into Cameron, Louisiana, as one of the strongest hurricanes to make U.S. landfall in recorded history. The hurricane devastated towns in its path, with sustained winds of 150 mph. Typically, storms become disorganized and lose strength as they move inland; the winds sheared by hills and trees, and the moisture energy provided by the ocean is lessened. It would soon become apparent this storm was anything but typical. Incredibly, the winds of Hurricane Laura remained at hurricane force as it moved through central Louisiana, 100 miles inland, to the Kisatchie National Forest!

Near the southeastern corner of the Forest, Forest Supervisor Lisa Lewis and her family huddled under a kitchen table as pines crashed through their roof. They feared for their lives as the pine limbs tore through and gallons of rainwater poured inside. By morning, Lisa would see that 38 large pines had blown down on her property, with many of them crashing onto her home. She knew Kisatchie National Forest would have sustained a great deal of damage. However, nothing could prepare her for what she would see on the Forest’s Vernon Unit.

Lisa spoke to me over the phone in a hushed voice, “Jim, the trees on the southern side of the Vernon Unit are gone, broken, uprooted, crushed, nearly all of them are gone! That beautiful longleaf pine stand on the eastern side of Fort Polk? Those trees are lying on the ground everywhere! I cannot believe what I am seeing.”

Ironically, this very longleaf stand Lisa was referring to was the tour site for the 2018 Biennial Conference hosted by The Longleaf Alliance, chosen for its sheer beauty. Now giant longleaf pine trees were twisted off, many uprooted, and others broken in two.

When routes were cleared enough to access the Forest, I grabbed my cameras and headed out. Even though Lisa had described the damage, I did not envision the magnitude of the destruction. Trees and power poles were snapped off, leaving a jungle of electric lines tangled in the pine limbs. National Forest Recreation Areas were damaged beyond recognition, pavilions smashed. Much of the Forest was unrecognizable. Hundreds of red-cockaded woodpecker trees...
were broken off at the cavity, leaving the birds homeless. Within the next few days, the Forest Service installed hundreds of artificial cavities where they found standing trees. As if by some miracle, very few birds perished, and they soon moved into their new homes.

Assessing the damage

Once all personnel were accounted for, Forest Supervisor Lewis brought together her leadership, establishing a two-phase approach for the Forest’s five ranger districts: Phase 1 was the Assessment Stage, Phase 2 being the Recovery Stage. The first order of business was securing an Incident Management Team to assess the damage to the timber resource, transportation routes, recreation sites, and endangered species. Each of the five ranger districts became an incident division with crews comprised of the Gold Incident Management Team and Kisatchie National Forest personnel.

Within a month, surveys revealed some incredible facts; four of the five ranger districts sustained severe damage. Considering an average year value for pine saw timber, over $73,000,000 of pine and hardwood timber were lost. More than 400,000 acres in the Forest were damaged. Over 200,000 acres suffered severe to moderate damage. Thousands of acres of pine on the Vernon Unit had less than 10% of the trees still standing.

Because there were downed trees everywhere, on national forest lands and private and industrial lands, the daunting reality was the flooded timber market in Louisiana. Suddenly, millions of board feet of timber were available for sale, with a very small market. Sadly, it is estimated that only five percent of the downed timber will be harvested.

Working toward recovery

Of course, the Forest Service is working vigorously to harvest as much timber as possible, not just to make use of the quality saw logs on the ground but also to reduce the catastrophic wildfire danger and aid in site preparation and longleaf reforestation. Kisatchie personnel continue the uphill battle to find markets.

A variety of methods will be used to restore the timber stands. As areas are harvested, some of the sites will be mechanically site prepared and planted. In areas where the timber cannot be sold, the sites will receive site preparation burns. Where the downed trees cannot be cleared, longleaf will be interplanted among the logs. Where sufficient longleaf still stand, some areas will receive a seedbed preparation burn with the hope of catching a good seed fall.

“As we move into the Recovery Phase, we still have priority concerns. We are looking at our fuel loading and the impacts to our prescribed burning program. We are working on a Recovery Plan that will look at the short-term and long-term actions needed to get the Forest back,” said Forest Supervisor Lewis.
Millions of seeds are needed to restore the lost longleaf.

Located on the Forest is the Stuart Seed Orchard. Here tree families are crossed to produce pine seeds that develop trees with outstanding characteristics — the best of the best. But in order to meet the vast need for the restoration ahead, historical cone collection and seed production areas established years ago will be put back into production. In the upcoming years, generations of longleaf cones will be collected to extract seeds to grow seedlings, and in some cases, to use direct seeding for reforestation. Bringing back the longleaf of the Kisatchie using these proven sources is a key strategy to move restoration forward.

“It’s hard to believe so much devastation took place and that we lost so much of our longleaf pine,” said Forest Supervisor Lisa Lewis. “We are all working together to restore the landscape.”

Ken Arney, Regional Forester, said, “I witnessed the resiliency of the employees on the Kisatchie National Forest and the commitment of USDA Forest Service employees to public service and management of the damaged forests from Hurricane Laura. There are also a lot of partners that are stepping up to assist with restoration.”

There is a long road ahead and much to do. Efforts to restore the beautiful longleaf pine of the Kisatchie National Forest will continue. Perhaps in upcoming years, another Longleaf Biennial Conference will take place in Louisiana, and we will tour these iconic longleaf lands once again.

Hope for a resilient future following a catastrophic storm

By The Longleaf Alliance Staff

The losses sustained from Hurricane Laura are staggering, and the effects on our Louisiana friends’ and partners’ homes, communities, and natural areas require long-term recovery efforts. But there is optimism and encouragement found in the examples of our neighbors.

In Florida, Georgia, and Alabama, we see hard-earned results from multi-agency, multi-year recovery efforts following Hurricane Michael, a Category 5 storm. At Florida’s Tyndall Air Force Base, where a direct hit brought winds of 160 mph and a 15 ft. storm surge, 12,000 acres of upland pine forests sustained severe or catastrophic wind damage, requiring an entirely new forest management plan. In the 2+ years since, timber was salvaged on >9,000 acres, aided in part by biomass markets that were able to use storm-damaged wood for up to 18 months instead of the usual 4 to 6 months. Mechanical and prescribed fire treatments were applied, and approximately 3,700 acres of longleaf pine are in the ground. Before the hurricane, Tyndall’s plan for a slow transition toward longleaf pine restoration (using row gap thinning in existing slash pine plantations) was projected to take 35 years. Now longleaf pine ecosystem restoration is projected to occur on 9,000 acres by 2023.

The successes following Hurricane Michael demonstrate the resiliency of the longleaf community and our conservation partners. The strong partnership at Tyndall Air Force Base (including the U.S. Fish and Wildlife Service, The Longleaf Alliance, Eglin AFB Natural Resources, the Arbor Day Foundation, Air Force Wildland Fire Branch, and F4 Tech) resulted in significant forestry accomplishments, otherwise unobtainable by a single entity. As we look to the resiliency of the longleaf ecosystems as a whole, we continue our work toward the future of longleaf using our greatest asset — our community.
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Opportunities are currently available for landowners to receive financial and technical assistance for forest management activities in key landscapes within Alabama, Florida, Georgia, Mississippi, South Carolina, and Tennessee.

For more information, visit forestfoundation.org/usfws.
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Longleaf pine forests provide landowners with benefits such as valuable timber products, exceptional wildlife habitat, and recreational opportunities. Since growing longleaf pine is a long-term investment, landowners must continuously make management decisions and weigh future risks. In the coming decades, landowners may experience an increased risk in their woods due to climate change and other factors including increased insect and disease infestations, windstorms, and wildfire across forests nationwide. Fortunately, when it comes to wildfire, longleaf forests have a unique tolerance due to forest management practices and the fire-resistant characteristics of the tree itself. Proper management and the unique qualities of the tree could ultimately reduce the risk of catastrophic losses from wildfire.

Nature and humans have a long history of shaping the longleaf ecosystem and its ecological processes through fire. Natural fires were historically ignited by lightning, beginning in late spring. These fires were low intensity and frequent (every 2-5 years on average depending on available fuels). Native Americans began applying fire over 10,000 years ago to manage the landscape for food and game, medicinal purposes, and many of the other reasons we do so today. For millennia, fires burned across the southeastern landscape until they were extinguished by rain. But today, the Southeast is fragmented, and various land use changes have altered existing fire patterns. Due to these changes, prescribed fire is an even more important tool for managing the forest.

Proper Management Decreases Wildfire Risk

Proper forest management can influence the impacts of fire on a stand when it is exposed to wildfire. Thinning correctly, and at the right intervals, increases timber value and promotes healthier forest conditions, which ultimately enhances resilience to wildfires. Further, applying prescribed fire reduces the amount of fuel available to burn. When forests are fire suppressed, fuel from shed bark, needles, and other forest debris builds up. During a wildfire, these stands can burn with high intensity, and fire can climb into the crown, often significantly damaging trees.

Increasing and often extended drought conditions, likely to become more frequent with climate change, have the potential to increase the frequency and severity of wildfires. Wildfire can be catastrophic, leading to economic losses, water quality issues, damage to structures and homes, and even worse, endanger human health and safety. There is also evidence that inhaling smoke from wildfires could be more harmful than...
smoke from prescribed fire. Therefore, it is important to conduct prescribed burning where it is feasible. In fact, the longleaf ecosystem is fire-adapted and thrives with frequent, low-intensity fire as typically seen during prescribed burns.

**Longleaf Pine Provides an Advantage**

Fire shapes longleaf pine forests in many ways. It prevents fire-intolerant species from dominating forest stands, controls invasive plants, minimizes insects and diseases, increases groundcover plant diversity, and stimulates seed production and flowering.

Longleaf pines have traits that make them more resistant to wildfire than many other tree species, pine and hardwood alike.

In the “grass” stage of a longleaf pine, the terminal bud is shielded from fire by long needles that protect it. The needles absorb and deflect the heat, and as a result, the bud is often spared from exposure to lethal temperatures. Any needles that are burned, grow back quickly.

While longleaf is fire adapted, it is not fire-proof. It is important to have a well-written burn plan and stay within the designated parameters to avoid damaging the stand. When trees start to grow in the “rocket” stage until the young trees reach 5-6 feet in height, they can be still be vulnerable to fire, especially when the terminal bud or “candle” is elongating. There may still be some mortality, even with prescribed burns, if care is not taken. Burning on an interval that prevents fuel
from accumulating near young longleaf is vitally important as it prevents more intense fires from damaging the young pines. By the time the tree reaches 8 feet in height and 2 inches in diameter at ground level, the bark has thickened, insulating and protecting it from the heat. The lower limbs become pruned by fire, so the canopy of the trees remain above flame lengths. The protective needles and thick bark allow landowners and managers to burn their stands earlier and across a wider range of conditions and seasons with less risk than burning young loblolly or slash pine stands. These other pines don’t become fire resistant until around 10 years of age. Cost savings may also be available to landowners who utilize prescribed burning since frequent fire can reduce the need for more expensive mechanical or chemical treatments to control unwanted vegetation.

Finally, longleaf with native groundcover is advantageous because the combination of needle cast and understory fuels facilitate burning during a wide range of conditions, including the growing season.

**Conclusion**

Longleaf offers resilience for an uncertain future. As a result of climate change, we may encounter more droughts, windstorms, and wildfires. Longleaf, even densely planted, is more resilient to these disturbance events and better adapted to survive.

Longleaf offers the ability to burn (better needle cast) and tolerate (bark and fire adapted early stages) fire under a wider range of conditions as compared to other southern yellow pine species. Landowners should consider planting or restoring longleaf or maintaining their existing longleaf forests as one way to reduce risk from wildfires. The longleaf pine ecosystem is not only physically adapted to tolerate fire, but the ecosystem itself thrives when fire is present.

Active longleaf management may be more costly but incentive programs are available to assist landowners with firebreaks, burning, establishment, midstory hardwood control, and other practices. Check with your local state forestry agency or the USDA Natural Resources Conservation Service office to see what resources may be available to you.
References


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Terence Hassan’s grandfather purchased his family’s land in Williamsburg County, South Carolina, in 1904. As a young child, Terence spent his Sunday afternoons visiting his relatives on the property when it was an active family farm, the green fields growing in tobacco. When Terence was seven years old, he moved to Upstate South Carolina and didn’t set foot on the property again until 2016, close to age 40. When he did, he immediately felt a spiritual attachment to this piece of land, remembering time spent there in his youth. But Terence found the property to be much different than what he remembered. The timber wasn’t being managed, and invasive species like privet and wisteria had taken hold. So, knowing very little about land conservation, he reached out for help to begin the process of restoring his property and the longleaf pine forest that was once there.

Taking the First Step

Terence walked into the local USDA Natural Resources Conservation Service (NRCS) office looking for resources to help him manage his property or at least get started. Little did he know that his 47 acres would bring together partners in the Sewee Longleaf Conservation Cooperative focal area, one of the 18 America’s Longleaf Restoration Initiative partnerships across the range of longleaf pine. His initial request eventually resulted in technical or financial assistance from the Center for Heirs Property Preservation, the South Carolina Forestry Commission, U.S. Fish and Wildlife Service (USFWS), and The Longleaf Alliance.

The Road Map

The Williamsburg District Conservationist (DC), Kelli Coleman, worked with Terence to develop a Conservation Plan, which helped define natural resource concerns for his property. This plan served as Terence’s road map, providing the information needed to implement effective practices. The DC then collaborated with partners to develop a long-term Forest Management Plan to identify his goals and objectives, describe the management activities, and create a timeline for implementing those activities. A Forest Management Plan is an essential organizational tool and can help save resources and money when followed. Planning starts with a resource inventory that includes soils, water, plants, and wildlife.

An Exciting Development

During this planning phase, several indicator plants of former longleaf pine savanna were identified on Terence’s property,
including three species of carnivorous plants. USFWS’s threatened and endangered species historical records revealed that a unique species, American chaffseed (*Schwalbea americana*), had been observed on the property. This federally endangered plant species depends on frequent prescribed fire to create the conditions it requires to persist in the landscape. The discovery of this species pivoted the project into an exciting direction—the restoration of its native ecosystem—a longleaf pine savanna.

For Terence, his management objectives and the site characteristics were perfectly suited for longleaf pine. Not all properties are the right fit for longleaf, but NRCS, along with your state forestry professionals, or The Longleaf Alliance, can guide you in the right direction to achieve your goals.

**Restoration Gets Underway**

Farm Bill programs, which Terence quickly applied for, provide forest landowners and farmers with financial assistance through voluntary programs that help conserve their natural resources. The Hassan property falls within the Longleaf Pine Priority area in South Carolina, allowing it to be eligible for funding under NRCS’s Longleaf Pine Initiative (LLPI). LLPI enables NRCS to work with landowners to improve or restore their longleaf forests through conservation practices such as firebreak installation, controlling invasive species, burning, groundcover restoration, and tree planting.

The primary program used to support longleaf restoration through the Longleaf Pine Initiative is the Environmental Quality Incentive Program (EQIP) which provides landowners with financial assistance of 50% to 90% of the cost to implement practices to conserve and restore their land. By enrolling in EQIP, Terence used cost-share to prepare the site mechanically, and with financial assistance from The Longleaf Alliance, he replanted 30 acres in longleaf pine. Terence is also using NRCS incentives to eradicate several invasive plant species growing on the old homesite area of the property.

Terence says, “I have learned so much through reading the information these groups have provided and consulting with the conservationists and subject matter experts. They make themselves available and take a lot of the ‘red tape’ out of the funding process.”

**Conservation Programs for Your Land**

Many resources are available through NRCS for landowners interested in restoring or establishing their longleaf pine forests. NRCS offers conservation planning, technical assistance, and financial assistance to help landowners achieve their goals through the Longleaf Pine Initiative and funding programs such as EQIP and Conservation Stewardship Program (CSP). To apply, check in with your local USDA Service Center or visit www.nrcs.usda.gov/getstarted.
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A controlled burn on private lands. Understanding fire patterns across the landscape is vital to effectively managing forests with fire. Photo by John McGuire.

By Lucas Furman, The Longleaf Alliance, and Bridgett Costanzo, USDA Natural Resources Conservation Service

The SE FireMap
A New and Improved System for Mapping Fires Across the Southeast

Forest landowners, scientists, and natural resource professionals have an exciting new tool at their disposal — the SE FireMap! Effective tracking and increased understanding of wildland fire patterns across the landscape has long been identified as a critical need, especially considering approximately 85% of land ownership in the Southeast is private and lacks information on forest conditions. To help address this knowledge gap, in 2020 the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) provided funds through an agreement with the U.S. Endowment for Forestry and Communities to support the development of an improved regional fire mapping product.

The improved accuracy and comprehensive coverage of this SE FireMap directly support decision-making to prioritize funding for staff, projects, training, equipment, and more. Fire is key to healthy native landscapes in the Southeast to keep “working lands” working, restore the longleaf pine ecosystem, support the Department of Defense’s military and training missions, conserve listed and at-risk species, manage for wildfire risk, and minimize the need to conserve species through regulation. The importance of enhancing and expanding prescribed burn management cannot be overstated — it is imperative that we have a reliable method to select priority geographies to manage our natural resources and wildfire risk.

Tall Timbers Research Inc. (TTR) conducted the scoping phase for the SE FireMap project and released a “Version 1.0 Beta” product on March 30, 2021. The Version 1.0 Beta (v.1) product was developed in partnership with the U.S. Geological Survey utilizing Landsat Burned Area Products (Hawbaker et al. 2017), and maps all detectable fires from 1994 - 2019 across nine states in the southeastern United States. This product represents the first regional effort to map fires greater than 2.5 acres across the region regardless of ownership! The SE FireMap aims to improve fire management in urban and rural communities and will be used to track fires from Virginia to Texas.
The v.1 SE FireMap can be explored on the Landscape Partnership Portal via a Google Earth Engine web mapping application, and data downloads are available by request. While the v.1 product offers vastly improved fire occurrence data over any other current regional or national product, it should be noted that an updated and refined SE FireMap product is anticipated in 2022. A key objective of this v.1 beta product revolves around soliciting feedback from end-users to help guide future improvements and development. To learn more about the SE FireMap initiative or share feedback with the project team, please visit the following webpage: LandscapePartnership.org/key-issues/wildland-fire.

References

SE FireMap Objectives

- Develop a cohesive system using remote sensing to track both prescribed fires and wildfires across the Southeast, providing significantly improved resolution over other regional and national systems currently in use.
- Identify priority databases already in use by partners to test mapping accuracy and help train the SE FireMap toward reducing error rates.
- Provide comprehensive coverage of both public and private lands.
- Seek to achieve a mapping scale that balances the desire to support site-specific management decisions with the ability to ensure accuracy.
- Coordinate continuously with fire mapping experts within the U.S. to facilitate future expansion of this project to include other regions, especially the Western U.S.
- Deliver the SE FireMap online for public use as a decision support tool “dashboard” with standard query options, as well as spatial data and map downloads, to promote the efficiency and effectiveness of fire management toward conservation and economic and public safety goals.
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America’s Longleaf Restoration Initiative (ALRI) launched the Longleaf for All working group in 2020 as an ongoing commitment to advocate for and partner with minority and unserved landowners, as well as minority professionals in the field of forestry and longleaf conservation. Land ownership comes with an array of challenges. However, for minority and under-resourced landowners, additional barriers exist that have resulted and continue to result in a cycle of perpetual land loss in the Southeast. Longleaf for All is currently working to identify and address these specific challenges that face underrepresented landowners, such as access to resources, legal counsel, markets, and outreach.

Using the Initiative’s network and platform, Longleaf for All’s overarching goal is to increase minority participation in forestry-related programs, practices and activities and help landowners reap the economic, ecological, and cultural benefits of owning forested land. The working group/committee of diverse partners provides ALRI’s Longleaf Partnership Council recommendations to accomplish this, enabling the Initiative to more effectively build relationships, share information and resources, and provide guidance on how ALRI and its partners can enact long-term strategies for inclusion and opportunities.
REGIONAL UPDATES

Improved Prescribed Fire Weather Information Available on the Chattahoochee Fall Line

By LuAnn Craighton, The Nature Conservancy and RT Lumpkin, Georgia Forestry Commission

Prescribed fire practitioners now have a new source of accurate and timely weather information, which will help guide the safe and effective use of prescribed (Rx) fire along the Chattahoochee Fall Line. In April 2021, The Georgia Forestry Commission and The Nature Conservancy collaborated to install a new Remote Automated Weather Station (RAWS) in Marion County, Georgia. The station updates a broad set of weather parameters hourly and provides historic, current, and forecasted conditions free-of-charge to users who access the station online. Both public and private land managers will benefit from the information collected by the new RAWS station. Prescribed fire is consistently used as a management tool to maintain and restore the longleaf pine ecosystem in the Army Compatible Use Buffer (ACUB) conservation corridor around Fort Benning. The ACUB corridor currently includes over 22,000 acres of public land available for outdoor recreation in and around Marion County. In addition, the newly formed Chattahoochee Fall Line Prescribed Fire Co-Op is providing training and resources to increase the use of Rx fire by private landowners across the region. The new weather station fills a data gap between RAWS stations already in operation. It will provide accurate information for planning, executing, and evaluating Rx fire in the sandhills of west Georgia.

To access the weather station, visit gatrees.org/fire-prevention-suppression/cflrxfirecoop. Scroll to the bottom of the home page to the “Helpful Resources” section, and click on the links to weather conditions. Alternatively visit mesowest.utah.edu. Select GEORGIA as the REGION/ZONE and use the drop-down menu to select NWS and RAWS as the NETWORK. Refresh the map. Click on the black dot due east of Columbus, GA (Oakland Station) to access the Marion County data.

Fort Stewart/Hunter Army Airfield Recognized for Natural Resources Conservation and Cultural Resources Management

By Randy Tate, The Longleaf Alliance

In March 2021, the Army announced the winners of the 2020 Secretary of the Army Environmental Awards, the highest honor conferred by the Army in environmental science and sustainability. Fort Stewart/Hunter Army Airfield (FS/HAAF), a founding member of the Fort Stewart/Altamaha Longleaf Partnership and the anchor site for this significant geographic area, won two of the coveted awards; Natural Resources Conservation - Large Installation and Cultural Resources Management - Team.

The announcement highlighted areas in which FS/HAAF excelled, including a successful Army Compatible Use Buffer Program, a recovered red-cockaded woodpecker population, an aggressive prescribed fire program, a popular public hunting and fishing program, and robust longleaf/wiregrass restoration efforts. These programs result in improved training landscapes and emphasize excellent natural resource programs.

Fort Stewart/Hunter Army Airfield (FS/HAAF) is the largest Army installation east of the Mississippi River and is home to the 3rd Infantry Division. FS/HAAF is also home to the largest remaining tract of the longleaf pine-wiregrass ecosystem in Georgia. The longleaf pine ecosystem, blackwater rivers, ephemeral wetlands, HMA’s, and wildlife openings provide training lands for soldiers and habitat for seven species protected by the Endangered Species Act and over 20 species of concern.

The lands on FS/HAAF have been used to serve our nation’s defense for well over half a century, and this legacy is not taken lightly by those who use them today. The Natural Resources Team is dedicated to future generations who will use these lands and their resources.
REGIONAL UPDATES

Record Start to the Fire Season for The Longleaf Alliance’s GCPEP Teams

By Vernon Compton, The Longleaf Alliance

Over the past 25 years, the Gulf Coastal Plain Ecosystem Partnership (GCPEP) has focused on prescribed fire as the utmost priority. In 2004 the Partnership approved establishing the first support team to work with partners to increase fire implementation. That team, the Ecosystem Support Team (EST), has since been joined by two newer teams now working in the landscape, the Wetland Ecosystem Support Team (WEST) and the AMBBIS Team (short for Ambystoma bishopi, the scientific name for the reticulated flatwoods salamander). With strong leadership from partner fire staff and a high level of collaborative planning and scheduling with The Longleaf Alliance (TLA), the GCPEP teams had a record start to the 2021 fire season; team staff supported 80,323 acres of fire on the ground as of May. This is good news for native groundcover, wildlife habitat, and the recovery of rare natural communities and species. Such a high amount of prescribed fire would not be possible without the partners and teams taking advantage of good fire weather conditions at every opportunity.

Multiple partners also had outstanding starts to the fire season. Notably, the Florida Fish and Wildlife Conservation Commission led an excellent effort on the Escribano Point Wildlife Management Area, benefitting the restoration of ephemeral wetlands and the recovery of the reticulated flatwoods salamander.

There are many complexities to achieving the required, sustainable level of prescribed fire in such a busy landscape. The solution-focused leadership of our partners, assisted by TLA’s GCPEP teams, are finding ways to accomplish more longleaf ecosystem restoration and management through our best and safest tool – prescribed fire.

Longleaf News from North Carolina

By Dan Hannon, The Nature Conservancy & U.S. Fish and Wildlife Service

The end of April saw the completion of the Longleaf Ecosystem Occurrence (LEO) surveys throughout the southeastern portion of North Carolina. The effort began in August of 2020, with the goal of visiting and assessing 500 sites in each of three Local Implementation Teams (Onslow Bight, Cape Fear Arch & Sandhills) in North Carolina by April 2021. The project was completed in partnership with The Longleaf Alliance and Florida Natural Areas Inventory, with the field portion of the project led by the NC Chapter of The Nature Conservancy.

With the majority of the longleaf on protected lands already documented and shared with LEO, our survey efforts focused on private land longleaf and previously undocumented longleaf on protected lands. With the help of several dedicated volunteers and an intern from NC Coastal Land Trust, we visited 1922 sites and assessed 1694 stands of longleaf pine forest. In addition to assessing new or undocumented longleaf sites, successful efforts were made to acquire existing longleaf data from partners, with Marine Corps Base Camp Lejeune being the best example of an important longleaf inventory dataset that was shared during the project.

The field assessments, along with the acquisition of longleaf inventory data, fill an important gap in our understanding of the distribution of the ecosystem on private lands as well as on and around large blocks of longleaf both in NC and throughout the longleaf region. Our next steps include working with state and regional partners to classify longleaf condition class at each of the stands where longleaf was present and assessed.
Opportunities for Landowner Assistance within the SoLoACE Longleaf Partnership and Sewee Longleaf Conservation Cooperative

By Jennie Haskell, The Longleaf Alliance

Within South Carolina, approximately 1.8 million longleaf pine seedlings were planted on private lands during the 2020 - 2021 planting season. Over 528 acres were prescribed burned during the 2021 dormant season (January-March) on private lands with assistance from SC partnerships.

Through a grant from the National Fish and Wildlife Foundation, the South Lowcountry and ACE Basin (SoLoACE) and Sewee Partnerships offer cost-share opportunities for landowners for 2021 and 2022. If you are a landowner needing assistance establishing longleaf pine or with prescribed burning, please contact Jennie Haskell at jennie@longleafalliance.org.

Because prescribed fire is an effective and efficient tool for managing the longleaf pine ecosystem, the SoLoACE partnership is developing prescribed burning cooperatives to help neighbors improve their longleaf pine ecosystem conditions. Please reach out if you are interested in joining a prescribed burning cooperative, as a burn crew member or as a landowner needing to burn or even supplying lunch to those who are making the burn possible.

Prescribed burn in longleaf. Photo by Jennie Haskell.

REGIONAL UPDATES

Sandhills Generational Education Field Day

by Charles Babb, SLPCP Coordinator

The South Carolina Sandhills Longleaf Pine Conservation Partnership (SLPCP) held a field day with local Boy Scouts and 4-H members as part of a grant from NRCS to educate youth about the values of the longleaf ecosystem. This is the second annual event with nearly 30 youth having participated in an ongoing longleaf restoration on this privately owned stand of mature longleaf. LIT Coordinator Charles Babb says, “These kids have made a personal connection with this particular property. Last year they took part in the installation of artificial RCW nest cavities, and now they have helped us restore the native ground cover on the property and have seen the effects of prescribed fire on the landscape. These are things they will continue to observe in the future – all because the landowner welcomes the opportunity to teach local groups about this wonderful ecosystem.”

After listening to talks about native species, wildlife, birds, and bees, the kids scattered out through the 30-acre stand and planted 116 individual plots of native seed provided in pre-measured packets by the SLPCP. Packets each contained enough seed to establish 100 square feet with eleven species of native plants important for providing both year-round pollinator and wildlife habitat. Trail cameras will be installed to capture wildlife visitors to the plots to develop additional educational materials.

“Despite the limitations caused by COVID-19, the SLPCP continues to find methods to teach the next generation of landowners about the value of the longleaf ecosystem to our economy and lifestyle,” said Babb. “They are the ones that will continue the longleaf legacy in the forests we are planting today.”

NRCS biologist Sudie Thomas discusses how native plants attract pollinators and valuable insects food sources for birds and other animals. Photo by Susan Griggs.

Students use hand rakes to establish native understory plants in a 30-acre stand of longleaf pine. Photo by Susan Griggs.

Opportunities for Landowner Assistance within the SoLoACE Longleaf Partnership and Sewee Longleaf Conservation Cooperative By Jennie Haskell, The Longleaf Alliance

Prescribed burn in longleaf. Photo by Jennie Haskell.
Texas Team Named 2021 Conservation Wrangler by Texan by Nature

By Jenny Sanders, TLIT Coordinator

In April, the Texas Longleaf Local Implementation Team (TLIT) learned they were named 2021 Conservation Wranglers by Texan by Nature. As one of the four selected Texan-led conservation efforts, qualifying recipients are science-based projects that have demonstrated a positive return on conservation for people, prosperity, and natural resources.

As a 2021 Conservation Wrangler, the TLIT will receive 12-18 months of dedicated support with program management, strategic planning, marketing strategy, metrics capture and analysis, professional content production, and partnership development. Specifically, Texan by Nature will assist the TLIT in diversifying funding for longleaf restoration in Texas by engaging corporate partners in our work.

“The Conservation Wrangler program proves that conservation is essential for the health of our natural resources, our people, and our economy,” shared the former First Lady and Founder of Texan by Nature, Mrs. Laura Bush. “Congratulations to the 2021 Conservation Wranglers, and thank you for the terrific example you’ve set for all Texans.”

“In addition to natural resource benefits, this year’s Conservation Wranglers represent collaborative, wide-ranging partnerships and new opportunities for delivering and measuring impact. Our work with the selected projects will expand conservation efforts and results across Texas. We look forward to sharing Conservation Wrangler learnings, best practices, and opportunities to participate in and scale conservation efforts and return,” said Joni Carswell, President and CEO of Texan by Nature.

The TLIT is excited to work with Texan by Nature to expand our efforts and engage more partners in the work of longleaf restoration in Texas! Read more about this program and the other 2021 Conservation Wranglers at txlongleaf.org.

News from Virginia Longleaf Pine Cooperators Group

By Brian van Eerden, The Nature Conservancy

The Virginia Longleaf Cooperators capitalized on stellar weather and fuel conditions to complete 6,880 acres of prescribed fire in southeast Virginia this spring. This year marked the first use of drone equipment to assist with fire operations on conserved lands in the region. In addition to performing aerial ignition, the drone also captures fire behavior video to help inform fire effects monitoring. Moreover, the drone’s thermal imaging equipment is being used to monitor surface temperatures and detect potential escapes.

The Nature Conservancy, which purchased the drone, will be working with LIT partners to document best practices that can be shared with other fire management programs.

The Longleaf Alliance President Carol Denhof visited southeast Virginia in early May to conduct a longleaf ecosystem groundcover restoration workshop attended by Virginia’s Secretary of Agriculture and Forestry Bettina Ring, Virginia’s new NRCS State Conservationist Dr. Edwin Martinez, Dr. Lytton Musselman of Old Dominion University, private landowners, public and private agency field biologists, and college students. The event was hosted by The Longleaf Alliance Board Member Bill Owen. Plans are underway to establish a native groundcover seed orchard on Owen’s Raccoon Creek Pinelands property to provide locally sourced seed for groundcover restoration projects across longleaf pine habitats in southeast Virginia.
Louisiana Ecological Forestry Center Hosts Burn Workshop
By Dan Weber, North Louisiana Program Manager, The Nature Conservancy

During May 5-7, 18 participants attended a prescribed burn workshop organized by the Louisiana Ag Center. The multiday event took place at the Louisiana Ecological Forestry Center (LEAF) in Sabine Parish, Louisiana, and included classroom training and a live fire exercise. At approximately 4,600 acres, LEAF is the site of one of the largest private longleaf pine restoration efforts in the state. It regularly hosts agencies and landowners interested in advancing their understanding of restoring and maintaining longleaf habitat.

Additional partners in the effort included the Louisiana Department of Wildlife and Fisheries and the LA Department of Agriculture and Forestry. The workshop’s goal was to train and encourage forest landowners to burn their lands safely and legally. Topics included: fuels, burning techniques, proper tools, optimal weather conditions, smoke management, liability management, planning, fire behavior, and more. Participating in this workshop begins the process of becoming a Louisiana Certified Burn Manager. Execution and documentation of five prescribed fires will complete the process.

Attendees included six private landowners and 12 forestry and land management professionals. This included LEAF staff resulting in the entire staff of LEAF having their Louisiana Burn Manager Certifications. The class burned 92 acres on the property for the live burn exercise.

The West Central Louisiana Ecosystem Partnership (WLEP) is a coalition of stakeholders supporting longleaf and other ecosystem restoration efforts within the Fort Polk/Kisatchie National Forest Significant Geographic Area. The WLEP includes the partners involved in this workshop in addition to the U.S. Forest Service and U.S. Department of Defense, Natural Resource Conservation Service, conservation NGOs, and others.

Federal Oil Spill Funding to Benefit Longleaf Forests in the Florida Panhandle
By Brian Pelc, Apalachicola Regional Stewardship Alliance LIT Coordinator

Apalachicola Regional Stewardship Alliance (ARSA) members are excited to announce the recent award of $5 million from the RESTORE Council due to the 2010 Deepwater Horizon oil spill in the Gulf of Mexico. Apalachicola Regional Restoration Initiative (ARRI) will bring much-needed funding for forest management (including longleaf pine restoration, prescribed fire, hydrological flow restoration, and invasive species control) on both public and private lands within the ARSA landscape. A major focus of the work will be on the Apalachicola National Forest and surrounding conservation lands, where a legacy of water and land management decisions from the past continues to degrade critical wildlife habitats and water quality, even today. East and west of this specific project area, all partners within the longleaf local implementation team (LIT) will glean the benefits from the fire and invasives team, on-going monitoring collaboration, and sharing of this and other funding resources. The USDA Forest Service generously sponsored this proposal, and their commitment to the LIT construct has been apparent throughout the several years’ process of ARRI application and approvals. This and other funding have made the LIT successful in implementing the 2017 ARSA Longleaf Conservation Plan, which guides the priorities for all longleaf work within the team’s boundary.
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By Sarah Crate, The Longleaf Alliance

Longleaf Tumbling Ecosystem

‘Longleaf Tumbling Ecosystem’ was born out of an opportunity – the rise of fire festivals in the Southeast. The mission of these festivals is to communicate the importance of prescribed fire to the public, often attracting families with children. A welcomed opportunity for natural resource professionals invested in longleaf, it also presents a challenge – how do you tell the story of ‘good fire’ to a diverse group of people (from young preschoolers to mature audiences) in a fun AND concise way?

Knowing that interactive visuals convey messages more effectively than words alone, I sought to create an eye-catching educational game that emphasized the importance of fire in longleaf pines ecosystems. Like many good ideas, inspiration struck over a beer. As new parents, my husband and my most common social outings were to family-friendly breweries, giving us a chance to enjoy much-needed adult interactions with no sitter required. A common component at these establishments is yard games. Seeing customers of all ages appreciate these games inspired the creation of ‘Longleaf Tumbling Ecosystem’ – an oversized Jenga® like activity.

With color-coded blocks representing components of the longleaf ecosystem – longleaf pines, groundcover plants, wildlife, and fire – the block tower is an excellent way to demonstrate the role of fire visually.

What would happen if all the red fire blocks were removed? The ecosystem would quickly change or collapse.

"Tumbling Longleaf Ecosystem" was developed by the North Carolina Forest Service and is used at outreach events like Party for the Pine Festival. Photo by Barry New.

Handouts, facilitator guide, and tips for making a set can be found at longleaf alliance.org/what-we-do/education-outreach/next-generation.

A practiced facilitator can enhance the educational component through discussion on why parts of the ecosystem might be lost as blocks are removed, including succession, predation, and natural and human-caused disturbances.

My favorite part? The game ends on a message of restoration. Recruiting the participates to reconstruct the tower after it collapses symbolizes restoring the longleaf ecosystem. Naming these restoration activities – plant trees, sow native grass seed, conduct a prescribed fire – while restacking the blocks emphasizes this connection while setting up for the next round. Double win!
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Ecological Restoration and Management of Longleaf Pine Forests

Editors: L. Katherine Kirkman and Steven B. Jack
Publisher: CRC Press; 1st edition, 2017

Great news from The Jones Center at Ichauway! *Ecological Restoration and Management of Longleaf Pine Forests* is now available in paperback making it a very affordable addition to your library. Covering two decades of research and management experience about the longleaf pine ecosystem, anything you have ever wondered on the topic is covered here.

This highly readable compilation brings together current ecological research related to restoration and management challenges, both those we face now and in the future. The chapter authors and book editors gathered and employed findings from some 70 pages of literature citations. The ecological principles and learnings from lifetimes of research are organized for you into five major restoration sections, ranging from the background to the ecological basis for ecological restoration, linking understandings and management, incorporating practical (social) issues, and concluding with perspectives for restoration in an uncertain future. Key ecological findings lead to implications for restoration and management, making this work immediately applicable. We find this text vital to those engaged in longleaf ecosystem restoration and recommend it highly.

Grab it at a low price while you can, www.routledge.com. At 451 pages, eBook versions and hardback copies are also available.

“*Ecological Restoration and Management of Longleaf Pine Forests* is a timely synthesis of the current understanding of the natural dynamics and processes in longleaf pine ecosystems. This book beautifully illustrates how the incorporation of basic ecosystem knowledge and an understanding of socio-economic realities shed new light on established paradigms and their application for restoration and management. Unique for its holistic ecological focus, rather than a more traditional silvicultural approach, the book highlights the importance of multi-faceted actions that robustly integrate forest and wildlife conservation at landscape scales, and merge ecological with socio-economic objectives for effective conservation of the longleaf pine ecosystem.”
Barbara Tomlinson is a full-time artist and caretaker of the land. She lives and works on a conservation easement held by Tall Timbers in a Special Natural Area with longleaf pine and native groundcover. One day, a small but heavy branch fell out of a longleaf tree in her yard; lower branches like this one often stay on the tree for decades after dying, the resin crystallizing in the heartwood like a mineral. Barbara saved it and began experimenting with cutting and polishing techniques for the sticky heartwood. When Hurricane Michael knocked down some of those venerable trees, this artist went out in her woods and collected the precious limbs. After this windfall of raw material from the hurricane, Barbara acquired more equipment and improved the polishing process.

Barbara slices the wood into translucent discs and makes them into earrings, pendants, and sun catchers. Larger pieces serve as bookends; hollow sections become pen cups or reading glasses holders. A branch with a small hollow up the middle big enough for a wire may transform into a lamp. Patrons remark on the distinctive smell as they open their package. There is a notable heft to the pieces as resinous heartwood has higher specific gravity than any wood, comparable to the density of amber or coal.

In addition to longleaf pine, Barbara also works with southern live oak heartwood and even wiregrass! She developed a technique to make the grass blades into lightweight, surprisingly durable hoop earrings. These earrings garner many compliments, a conversation starter for teaching about this rare plant and ecosystem.

Happy to spread the joy of creating, Barbara sells longleaf pine needles for baskets from hand-thinning small trees. She collects the boughs and processes the needles, including a sterilization step to prevent spreading pests.

A generalist maker and content creator, Barbara's art aims to 'fill in the blanks,' hence the name Beachton Blank Works. She also edits manuscripts as Beachton Book Works and sells knitting patterns as Beachton Knit Works.

Find more than 70 longleaf-related art pieces in Barbara’s Etsy shop (www.etsy.com/shop/BeachtonBlankWorks) and follow her on Twitter and Instagram @beachton.
My wife, Yvonne, and I were on our way to the Florida beaches in December of 2019 when we decided to stop in and visit with John Winn, a long-time member of The Longleaf Alliance and longleaf landowner of a restored longleaf forest near Waldo, Florida. In addition to the property John and his wife, Mary Lou, manage around their home (with about 90 acres of longleaf pine), John also manages the Longleaf Ecology and Forestry Society’s demonstration sites in Alachua County.

The Longleaf Ecology and Forestry Society (LEAFS) in Florida is a non-profit tax-exempt organization founded in 1993 to promote the use of longleaf pines in reforestation by small private landowners, chiefly those owning 100 acres or less. John told us that LEAFS aims to show landowners what they can do on their land to restore a longleaf forest they can enjoy while providing wildlife habitat and timber income in the future. LEAFS’s two tracts, each about 100 acres, use low impact, low cost, ecologically beneficial methods of timber management – strategies accessible for small landowners. Open to the public during daylight hours, both tracts offer interpretive trails.

The site we visited that day is adjacent to County Road 1471. LEAFS bought it in 1993 when a planned commercial greenhouse operation went belly up. Part of the site had already been bulldozed and cleared of all vegetation, and the remainder of the property had been “high graded” during previous logging operations and, in John’s words, looked pretty beat up.

There were still some older longleaf and slash pine; with John’s effort to replant longleaf, establish firelines and institute a prescribed fire regimen, plus 27 years of growth, the site now
looks and functions as a young longleaf forest. John’s firelines double as mowed hiking trails and provide easy access for about a mile through the forest.

Much of the native groundcover persisted. Today a low growth of gallberry, saw palmetto, and blueberry with scattered patches of color in the form of meadow beauty and grass pink have restored diversity throughout the site. White-tailed deer tracks were common, and we heard a pair of Carolina wrens calling to each other. We also noted an Eastern towhee, and John reported often seeing common yellowthroats, pine warblers, and several species of woodpeckers.

The high-water table and flat terrain make this an excellent example of longleaf pine flatwoods. Lower areas hold water and provide habitat for amphibians.

**How to get there**

If you find yourself heading down Highway 301 south through Waldo, Florida, and want to take a break from the road, hang a left on County Road CR 1471 and go about a half-mile. You will see a sign and a small, grassy parking lot on the right with an information booth. Park and walk through a piece of what Florida once was and, at least on this tract, will be again. In addition to the tract we toured, LEAFS other demonstration site is less than one mile away, adjacent to Lake Alto Park.

Visit the LEAFS website at www.longleafs.info for additional information. If you can’t visit in person, we suggest exploring their virtual tour with detailed site description online.
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Reese Thompson, Chair of The Longleaf Alliance Board of Directors, and Burner Bob® were recognized as Georgia’s 2020 Fire Bird by the National Bobwhite Conservation Initiative. Dallas Ingram, Georgia DNR State Quail Coordinator, recently presented them with their award, saying, “What better mascot for prescribed fire and who better to receive the Fire Bird Award than the firebird himself, Burner Bob® and Reese Thompson.”

Created by Reese, Burner Bob® is on a mission to help people understand that the longleaf forest and its many plants and animals need fire to survive and thrive. He is devoted to showing people how to conduct prescribed fires safely. Burner Bob® has traveled across the United States, sharing this message at conferences and festivals as well as in print and video.

The National Fire Bird Conservation Awards illustrate the various ways entities, groups, and individuals can contribute on many levels to the landscape-scale revival of wild bobwhite quail. The term “fire bird” was first coined by naturalist Herbert Stoddard, who researched the species in the early 20th century, serving as a reminder of the significance of fire to create and maintain habitat for grassland/shrub land birds like quail, pollinators, and other wildlife. Recipients are chosen by the respective state’s quail coordinator and are announced at the annual meeting of the National Bobwhite Technical Committee.
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Roundstone Native Seed LLC is proud to be a part of The Longleaf Alliance. It is our passion, our drive, and our mission to make a positive difference in the natural landscape by working alongside longleaf conservationists and enthusiasts. We are grateful that the seeds we gather and produce grow into appropriate longleaf ecosystem understory.

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The Owen Fellowship of The Longleaf Alliance is an exciting program we are proud to offer in conjunction with the 14th Biennial Longleaf Conference to be held October 25-28, 2022 in Wilmington, North Carolina, and subsequent conferences.

The initial award will be given to a graduate student in the amount of $15,000. The recipient will attend the 2022 conference, submit an article for publication in The Longleaf Leader quarterly magazine, and will submit a poster and presentation about the research at the 2024 conference.

Dr. William ‘Bill’ Owen is a professional musician, educator, and landowner in Virginia. Through his work on the Board of Directors of The Longleaf Alliance, he was inspired to endow a fellowship for advanced studies and research in the longleaf pine ecosystem. He hopes The Owen Fellowship will encourage the next generation of longleaf leaders. We expect all applicants to be official members of The Longleaf Alliance ($25 student rate).

**Required Application Materials**

- A proposal describing the research project and the specific funding needs [2-page, single-spaced maximum]. Relevance of the research project to the protection, management, and restoration of the longleaf pine ecosystem must be clearly stated. Salaries not supported.
- Applicants must identify all other current funding for their research and justify the need for The Owen Fellowship Award.
- A curriculum vitae.
- A letter of support from the faculty advisor overseeing the research.
- An unofficial transcript.
- A high-resolution photo of the applicant.

*Required application materials should be sent to Lynnsey Basala, Vice President for Development at lynnsey@longleafalliance.org.*
LEARNING OPPORTUNITY FOR LANDOWNERS

The Longleaf Alliance is pleased to announce support from The Richard and Rita Porterfield Educational Trust to assist landowners in furthering their knowledge of longleaf pine management.

Whether it’s the cost of registration or the time away from other commitments, there are barriers to participating in educational opportunities. These barriers impact landowners, and particular communities of landowners, differently and disproportionally.

Landowners who are members of underrepresented racial, ethnic, or gender groups, or who self-identify as low-income or under financial hardship are invited to participate in an upcoming Longleaf Academy at no cost to them.

To take part in this opportunity, simply indicate that you are an eligible landowner when registering for any of our Longleaf Academy Programs. Or contact Karen Zilliox Brown (karen@longleafalliance.org) about upcoming programs.

VIRTUAL LONGLEAF ACADEMIES

The Virtual Academies include all the same content that you have come to expect — now available online as four-week courses.

New Academies are scheduled all summer! See what’s available at longleafalliance.org/upcoming-events.

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In January 2019, Carol Denhof and I kicked off a year-long project at Moody Forest Wildlife Management Area in Appling County, Georgia. Little did I realize how my year would turn out or how this project would help get me through it.

The project, Carol’s idea, entailed visiting Moody Forest each month of the year and taking a photograph from the same spot. The goal was to create a visual story demonstrating the rejuvenating effects of fire in longleaf pine ecosystems. We worked with Forest Manager Chuck Martin to identify an area slated to burn that year. Carol then chose a spot rich in native groundcover to showcase — an easy find due to the excellent management by The Nature Conservancy and Georgia Department of Natural Resources over the last 15 years.

The project excited me from the start since it incorporated three things I love and have been engaged with for much of my career — photography, longleaf, and Moody Forest. When the property was purchased in 2001, I was involved in its early management as Director of Science and Stewardship for The Nature Conservancy of Georgia. I know it well and have burned there many times.

Not long after that first January photoshoot, I developed a sore right hand with no idea why. The soreness persisted, so I sought medical attention in late February. By early April, my hand became badly swollen. I continued with the recommended tests, searching for an answer while also continuing my monthly visits to Moody.

As the year progressed, I became more and more enthusiastic about the prospects of the photo series. Early spring saw a little green-up, with more soon to follow. It all became even more exciting when, thanks to Chuck, I was there for the growing season burn in May and captured a photograph during the fire!

June saw more tests and more visits to specialists. Finally, in early July, I received the diagnosis of acid-fast bacillus, a type of bacteria that causes tuberculosis and certain other infections. The “other infection” I had was eventually proven
to be *Mycobacterium chelonae*, a rare bug first found in turtles in 1903, hence *chelonae*. I most likely became infected from an oyster cut on my knuckle! The diagnosis was quickly followed by debridement surgery to remove damaged tissue and infection.

By this time, the native groundcover at Moody was quickly re-sprouting following the fire, and I was beginning to see how special and unique a vantage point I had on this little corner of the Forest, in this unique ecosystem that I love. I realized that coming to one spot and taking the same photo each month for a year may be something I may never do again and was something few people have the opportunity to do. I was determined not to let this infection stop me from completing it. It became more than just a project; it became a reason to keep going.

The rest of the year saw two more surgeries. An intravenous port was implanted in my arm, and I received three straight months of hour-long antibiotic infusions. While my ordeal was getting harder, the groundcover at Moody Forest grew richer and more abundant, and my monthly visits were a welcome escape. The port was implanted in mid-September and removed in mid-December. Coincidentally, autumn is my favorite season in a longleaf wiregrass forest. It was as if the Forest knew I was having a hard time, so it put on its best display to help me heal and carry on.

After taking the final photo on New Year’s Eve Day, I closed the year filled with a sense of accomplishment. The 14 images, which included three in May, before, during, and after the fire, became *The Perennial Forest: A Visual Account of One Year in the Life of a Longleaf Forest*, an online Adobe Spark Story created by Carol. It was extremely satisfying to see the “good part” of my momentous year shared and appreciated.

I learned many things in 2019. For one, you can never predict what life will throw at you. Our control of our lives only goes so far. Appreciating what you do have is important. Feel gratitude for the simple things in life. And spend time in the woods; it will make you feel better! If you can, visit Moody Forest as it is a special place indeed. And don’t forget to take your camera with you.