

THE LONGLEAF LEADER

THE TREE

VOLUME XI - ISSUE 1

SPRING 2018

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COVER Young longleaf in silhouette at sunset. Photo by Randy Tate.

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New Growth and New Opportunities

BY ROBERT ABERNETHY, THE LONGLEAF ALLIANCE



PRESIDENT'S MESSAGE

It was a busy winter in the longleaf world. All across the South, landowners and partners were hard at work planting longleaf, conducting prescribed burns, educating the public, meeting, and planning.

Back in January, Tall Timbers hosted their annual Fire Fest with over 950 people attending and learning about prescribed fire and the longleaf ecosystem. Longleaf Alliance staff, along with many of our partners and Burner Bob, were there to teach and answer questions about different aspects of longleaf and fire.

Then, in February, Burner Bob (Reese Thompson) made his television debut with Chris Jenkins of the Orianne Society at the Southeastern Wildlife Expo talking about longleaf, fire, and indigo snakes.

The Longleaf Alliance recently formed a new Wetlands Ecosystem Support Team (WEST) in the GCPEP Partnership area through a Florida State Wildlife Grant to restore priority wetlands embedded in longleaf forests of northwest Florida; meanwhile, Lucas Furman and Ryan Bollinger are working with LITs all across the range, mapping longleaf.

We teamed up with the South Carolina and Georgia Forestry Commissions and the U.S. Endowment for Forestry and Communities through the Savannah River Clean Water Fund to improve forestry practices and sign up landowners along the Savannah River for conservation easements to protect water quality by keeping the land in forests. Longleaf forests have been demonstrated to yield clean water, saving millions of dollars in water treatment costs for taxpayers in the greater Savannah urban area. This is the first time such an “ecosystem services” initiative has involved two southern states working together, as citizens become increasingly aware of how healthy forests improve their lives.

Through The Alliance, we have the pleasure of working with dozens of partners to get the word out about longleaf and create

excitement for the restoration of the longleaf ecosystem. We are working together on tree planting projects and prescribed burns, landowner site visits, restoration projects, and Longleaf Academies, all with the same goal of helping more landowners restore and manage their longleaf forests.

When it all comes together, the landowner is rewarded with a beautiful forest that he or she was personally involved with establishing, managing, and possibly harvesting in the future. Their neighbors are rewarded too! The pride and caring for the land that I see in landowners' eyes is real, whether their objectives are producing straw, high-quality pole timber or quail, or wildflowers and native grass. They all derive real enjoyment from working on the land and working with their longleaf.

Our primary goal is helping the landowner meet their objectives, to grow the best trees possible and manage their land in the best way possible to achieve their vision for their land. Partnerships, hard work, and being honest brokers of science-based information about longleaf help make this happen.

In this issue, our feature article by Wayne Bell focuses on tree improvement and what our nursery partners are doing to produce the best seedlings possible. We have also included articles about the wildlife, the groundcover, and the partnerships that are helping landowners put longleaf in the ground. We aim to include something for every one of our readers in every issue and to include specific information a longleaf manager will find useful. I hope you enjoy this issue, and after a winter of planting and prescribed fire, please remember to slow down a little and enjoy the spring! It is one of the best, and often the shortest season of the year in longleaf. Thank you for being a part of The Longleaf Alliance.

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2018 | Calendar

April 17-19, 2018

Longleaf Academy:
Groundcover Restoration 201
Aiken, South Carolina

May 1-2, 2018

Tools for Engaging Landowners
Effectively Workshop
Solon Dixon Forestry Education Center
Andalusia, Alabama

May 8-10, 2018

Longleaf Academy: Longleaf 101
Lufkin, Texas

June 12-14, 2018

Longleaf Academy: Fire & Longleaf 201
Weymouth Woods
Southern Pines, North Carolina

July 17-19, 2018

Longleaf Academy: Fire & Longleaf 201
Webb Center
Garnett, South Carolina

August 14-16, 2018

Longleaf Academy: Herbicides & Longleaf
201
Solon Dixon Forestry Education Center
Andalusia, Alabama

September 25-27, 2018

Longleaf Academy:
Understory Diversity 201
Little Ocmulgee State Park
McRae, Georgia

October 23-26, 2018

2018 Biennial Longleaf Conference
Alexandria, Louisiana

For more information about events please visit The Longleaf Alliance website (www.longleafalliance.org.) Dates, locations, and course titles are not final until registration has opened.

SPRING 2018 MANAGEMENT CHECKLIST

Evaluate Young Stands:

- Assess winter tree plantings for early mortality from freeze damage or other factors.
- Uncover and/or lift viable containerized longleaf seedlings that were planted too deep.

Planting Longleaf:

- Order seedlings for future plantings early. Sometimes nurseries sell out of preferred seed sources or entire inventories. A list of preferred nurseries can be found at www.longleafalliance.org.

Herbicide Treatments:

- Assess stands for herbaceous competition to determine the need to spray or mow, especially on former agricultural sites. If a chemical release treatment is needed, know your pH before applying Oust® or Oustar®.
- Apply hexazinone as a site prep or to control oaks on sandhills around bud-break. Hexazinone is tough on oaks but easy on many understory species.
- If harvesting a tract, ensure adequate time for resprouting before applying a fall herbicide site prep treatment. If in doubt, wait a year.

Prescribed Fire:

- Evaluate your winter burns to determine if you obtained desired fire effects.
- Burn young longleaf stands invaded by short needle pines or hardwood stems that are too large to control with winter burns.
- Use growing season fire in wiregrass stands to promote viable wiregrass seed production and more wildflowers.
- Conduct a seed bed preparation burn on mature stand with good cone crops. This allows the seed bed to be clean but not so clean that all the seed is destroyed by predators.

Plant Native Warm-Season Grasses:

- Plant before mid-May to try to avoid summer droughts.

Q&A

Q. Dear Longleaf Alliance,

Just before Christmas, I planted 80 acres of my property with containerized longleaf seedlings in Berkeley County, South Carolina. In January, we had eight inches of snow and temperatures between 15 and 28 degrees for three days. My seedlings look like someone took a blow torch to them! Are they dead? I need help!

A. Lost in the Lowcountry
Dear Lost,

Although it looks bad, try not to worry. While sustained cold can cause mortality in newly planted seedlings and you probably did lose some, it may not be all that bad. Reports we have indicated you did not get much wind, which would have dried the seedlings out, and the snow may have helped insulate and protect the seedlings. It is not unusual for newly planted

pine seedlings to look burned (white to brown) after planting if the weather has been cold, but if the stems or roots aren't frozen, they live. Two things you can do to check is (1) Dig up a few seedlings and look for new root growth outside the plug. New root growth is good. (2) Scratch away the bark with your thumbnail above and below the root collar. If the wood underneath is white to creamy, the seedling is healthy. If it is brown, it has been frozen to death. It's common for this injury to be on one side of the seedling, so look at the seedlings you examine on all sides. Longleaf seedlings also can resprout if they are top-killed. In any case, wait until warm weather arrives, before the understory greens up and check your seedlings. We think you will find the majority of them survived the freeze.

Sincerely,
The Longleaf Alliance

Q. Dear Longleaf Alliance,
I am looking for an area where I can buy property to grow longleaf. I want to know your thoughts on the top ten things to look for when purchasing land for growing longleaf. For me, this could be anywhere from Georgia to Texas. Do you have any thoughts on this?

Hitting the Reset Button on Life

A. Dear Reset, in our work providing technical assistance and making site visits, we sometimes see how folks may follow an impulse to buy land because it was cheap, and then find how that can make for a "hard row to hoe" later. If a person was free to go anywhere, they absolutely should look at markets in that woodbasket, and how many other larger nearby landowners are already growing, and especially burning, longleaf. It just makes the future easier. Within one of your choice areas, prospective buyers should look at the soil types, which are foundational for all that follows. I would consider the understory remaining on an available tract, and understand all you can about the previous uses of this land and its history. Most of us must consider the price of the land, and costs include the taxes to continue to own it or severance taxes imposed on harvesting, but I'd propose these "reality checks" not be the primary drivers of your dream.

Knowing that on this subject there is no one right answer, here are some considerations to weigh while we try to answer your question. Other landowners might rank their priorities quite differently, but hopefully, this will help you sort out your priorities. So...here is one "Top Ten List" to consider:

1. Property located close to where I want to anchor the rest of my life - easy to get to, both for work or play, whenever I want or need to go there.
2. Location where you can manage - especially burn- easily now and in the future. This is easier where others are already managing longleaf, especially numerous larger landowners.

3. Located where markets reward those growing sawtimber and poles.

4. Sites with the best soils with the best history of previous use; preferably sandy loam or loamy sand of moderate fertility. Somewhat drought resistant soil, but able to respond well to fire or winter disking.

5. Property where previous owner/managers have retained a balanced and diverse native understory, both because I enjoy discovering and learning about new plants and because this leads to better bird hunting.

6. A place where quail and turkey thrive. I'd prefer not to have to spend many years trying to get them back.

7. Located in an area where property rights are understood and honored, and where a "community" of like-minded people work. This is a subtler assessment of the relative index of local tradition and community; does it bend towards order and progress, or towards outlaws and trespass?

8. Land drained by an interior, fishable creek, bordered by several other diverse stand types for beauty and aesthetic diversity, because all work and no play, well, that's just not good.

9. Property is reasonably close to a friendly town where spare parts, shells, and other essentials are available.

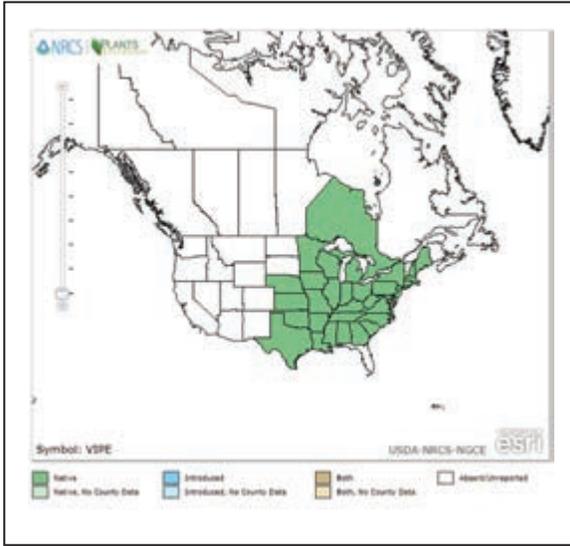
10. Property where neighbors are open and friendly, quick to form a PBA (Prescribed Burn Association), and are open to working together.

Lastly, I would also check back with The Longleaf Alliance while doing my search. I would just want to ask, "Before I get too far into my searching, are you aware of any members, who, being true longleaf fans, have invested a lifetime successfully restoring their own longleaf ecosystem, but are now weighing their options and their prospective heirs? As stewards of the land, we want to leave things better than we found them, but we don't want to see it end there. When we are ready, we hope to pass this awesome privilege and heritage to an even better steward."

By Carol Denhof, *The Longleaf Alliance*

PLANT SPOTLIGHT

VIOLA PEDATA (L.) BIRD'S FOOT VIOLET



Map showing distribution of bird's foot violet. USDA PLANTS Database.



Bird's foot violet in flower. Photo by Karan A. Rawlins, University of Georgia, Bugwood.org.

Description

Bird's foot violet is a small herbaceous perennial plant with distinctive deeply lobed leaves that are primarily basal. The leaf blades measure 1-2 inches long and are palmately lobed, given the appearance of a "bird's foot." Each blade is held by a stalk that is about as long as the blade. The blue-violet or lavender flowers emerge alongside the leaves on slender stalks. The irregular flowers have five petals and are spread widely exposing the orange stamen tips in the center.

Distribution & Habitat

Bird's foot violet can be found growing in the dry soil of longleaf pinewoods and turkey oak scrub. It has a wide distribution, ranging from Canada all the way down to Florida and west to Texas.

Wildlife Uses

This little plant is actually quite beneficial to wildlife. As it is an early spring bloomer, it provides a good nectar source for

pollinators at that time of year. Bobwhite quail have been known to eat the seeds in summer, deer forage the leaves in winter, and turkey forage the roots.

Commercial Sources

These plants are not widely available but are offered commercially through specialty native plant nurseries.

References

Miller, J.H. and K.V. Miller. *Forest Plants of the Southeast and their Wildlife Uses*. The University of Georgia Press, Athens, GA. 454pp.

Sorrie, B.A. 2011. *A Field Guide to Wildflowers of the Sandhills Region*. The University of North Carolina Press. Chapel Hill, NC. 378pp.

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Manager Eric Soebren putting up a kestrel nestbox at Stimpson Game Reserve in Clarke County, Alabama. Photo by John Trent.

WILDLIFE SPOTLIGHT

American Kestrel

By Catherine Rideout, East Gulf Coastal Plain Joint Venture

The American Kestrel is a wide-ranging bird of prey, which inhabits many open habitats across North America and elsewhere. They can often be seen perched on powerlines on the side of the road hunting for prey and bobbing their tails. This is the smallest falcon in the United States, measuring only 9 inches in length. In the Southeast, we host a “subspecies” called the Southeastern American Kestrel (*Falco sparverius paulus*), which has some subtle differences from the American Kestrel (*Falco sparverius*). It is somewhat smaller with reduced spotting compared to the American Kestrel, but similarly to the American Kestrel, both males and females have a boldly patterned head, and both sexes have a barred, bright rufous back, while females have rufous wings and males sport bold bluish-gray wings.

The Southeastern American Kestrel requires open habitats including longleaf pine savannas, sandhills, prairies, and pastures. Unfortunately, the subspecies is in decline. Kestrels use cavities for nesting which are usually excavated by woodpeckers in pine trees, and the primary threat to these birds is thought to be the loss of cavities for suitable nesting. Other threats include a loss of open pine habitats due to conversion to agriculture and development and a lack of maintaining fire-dependent habitats such as longleaf pine as a result of fire suppression.

Fortunately, scientists have shown an interest in Southeastern American Kestrels, and there have been efforts to determine the best sites for habitat restoration with the potential for captive breeding and reintroduction of birds to those areas.

Additionally, these birds will use nesting boxes, so providing properly constructed nesting boxes in well-maintained and fairly large blocks of habitat (at least 125 acres) can assist with conservation efforts for these birds. By following suggested guidelines on siting, maintaining, and monitoring nest boxes, private and public landowners can positively impact these birds. As an example, in Alabama, state wildlife agency biologists have placed nest boxes on the Stimpson Game

Reserve in Clarke County. This site is the only known confirmed location where birds are present in Alabama, which was determined while biologist Carrie Threadgill was conducting bird surveys on the site.

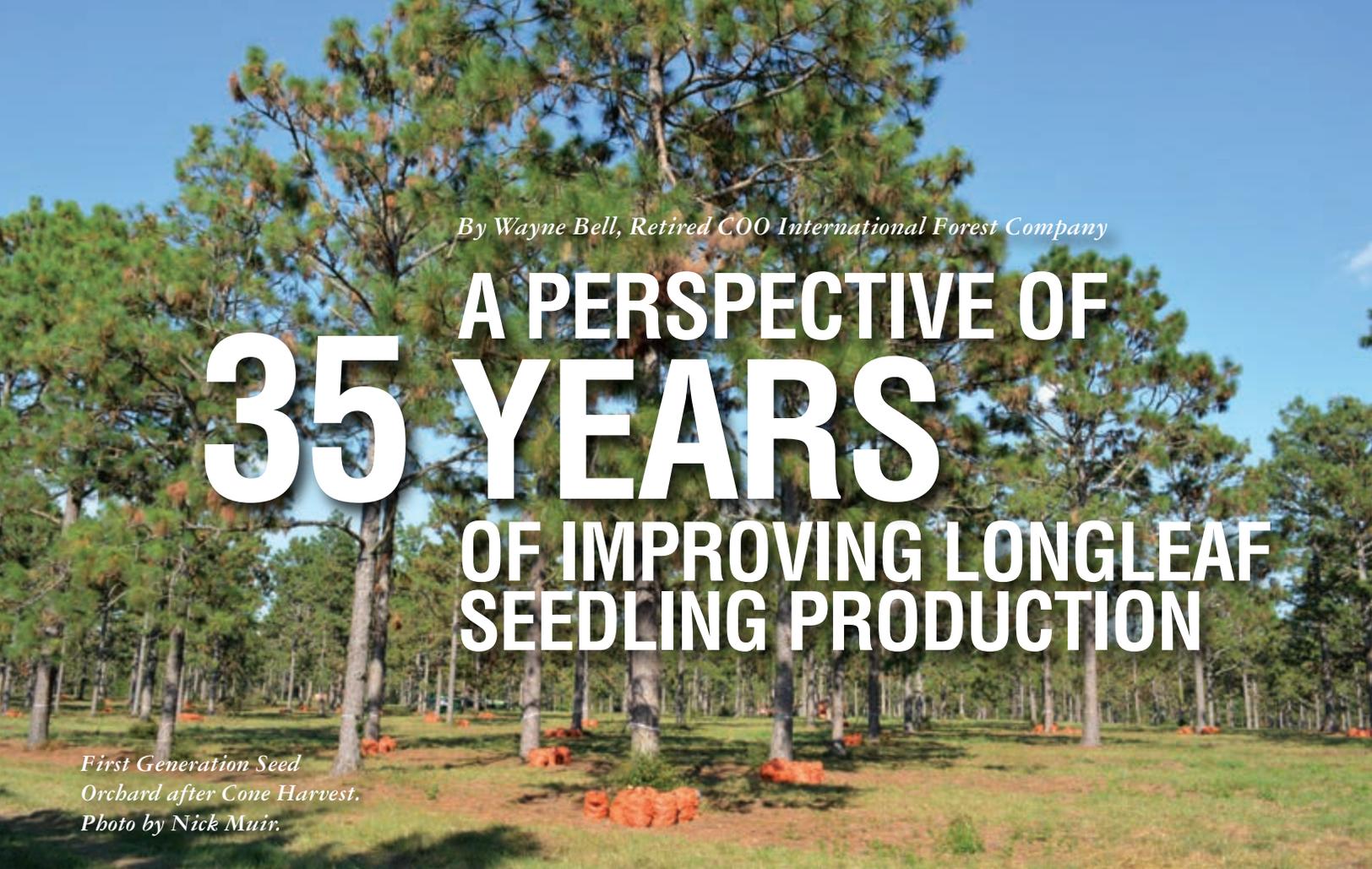
Landowners with tracts of property of large enough size can provide nest boxes. Implementing management practices to benefit Southeastern American Kestrels in addition to other wildlife which are dependent on longleaf pine habitat is also beneficial. When possible, practical, and safe, managing for snags which provide cavities is also useful. Using prescribed

fire maintains the openness of the habitat, which allows these birds to forage for prey such as lizards and insects, and burns also create snags. The Florida Fish and Wildlife Conservation Commission has a great deal of information on their website. If you would like to learn more about Southeastern American Kestrels, their biology, and information on nest boxes you can see the following website hosted by the state wildlife agency: <http://myfwc.com/research/wildlife/birds/southeastern-american-kestrel/>



Male American Kestrel. Photo by Dave Hawkins.

©Dave Hawkins Photography, Nashville, TN



By Wayne Bell, Retired COO International Forest Company

A PERSPECTIVE OF 35 YEARS OF IMPROVING LONGLEAF SEEDLING PRODUCTION

*First Generation Seed
Orchard after Cone Harvest.
Photo by Nick Muir.*

The longleaf seedling production and sales business has been unique in how it has met the demands for reforestation. Historically, the industrial and state nurseries have been the primary providers for loblolly and slash pine. However, it was the use of container seedlings by private nurseries that provided the breakthrough for successful survival of large plantings of longleaf pine. Today, over 97 percent of longleaf pines are grown as container stock by private nurseries. (Southern Forest Nursery Management Cooperative Annual Seedling Survey, 2017.)

In 1983, International Forest Seed Company (IFSCO), started producing the first commercially available container longleaf seedlings. IFSCO became International Forest Company (IFCO) in the 1990s. After many trials with different materials and shapes of containers, a solid wall plastic container was chosen. Other private nurseries followed IFSCO with many initially choosing less expensive trays similar to those used in Canada or Scandinavia that were made from polystyrene. As southern U.S. growers gained experience over the next twenty years, production issues with polystyrene trays forced a shift to hard plastic containers. Today, over 90 percent of all container seedlings in the southern U.S. are produced in some type of hard plastic container.

With that said, International Forest Company (IFCO) continued looking for ways to increase seedling survival and outplanting performance. Some of the first trials examined the impact of the length of the container plug, but these results never conclusively proved that plug length was a major factor in seedling survival or growth. Root volume and root morphology, however, did show some significance.

As planting acres expanded, depth of planting became an issue on the many different soil conditions that were encountered. Shorter container lengths of 3.5 to 4 inches were expanded to 4.5 to 6 inches in length. However, the longer containers often prevented good air penetration to the center of the plug which adversely effected root development along the entire length of the plug. The Southern Forest Nursery Management Cooperative (SFNMC) at Auburn University started experiments with different container types. As a result of these trials, it was determined that hard plastic containers with air holes in the walls of the containers produced a better root system by providing numerous areas for root pruning and new white roots to develop. Today, there are commercial hard plastic trays that have these improvements in use. Some nurseries have invested in their own exclusive designs to maximize root and plant development. Root weight compared

to seedling top weights are an important indicator of good seedlings. Before purchasing longleaf seedlings, ask your nursery what information they have of the root system morphology and outplanting success of their container seedlings. If your nursery is a member of the SFNMC, they may have some data they can share with you.

There are a number of nurseries producing high-quality longleaf seedlings. However just planting good quality seedlings is not enough. The biggest mistake we continue to see is making poor decisions on weed and grass control in the first two years of establishment. Effective competition control is essential to getting a longleaf seedling started. The upfront decisions on the type of herbicides and timing of application are critical, and a landowner should work with a professional to get these correct. Planting too soon after the initial chemical application, even when soil moisture is good, can be as devastating as choosing the wrong rates or chemicals. Some soil active herbicides require a waiting period based on soil texture, chemical choice, rainfall, and rate applied. Site preparation done in late spring and early summer prior to planting in the fall is ideal for tree growth and survival. Follow-up or spring weed control after planting is often important as weeds come back with a vengeance even on clean sites.

To ensure good tree growth, additional chemical applications are important. The University of Georgia forestry extension website has a number of good publications to guide your planting and chemical decisions, and The Longleaf Alliance has Longleaf Academy: Herbicides & Longleaf 201 to address these best practices.

With that said, the proper handling and management of seedlings is critical to survival. Inexperienced planters are not cheap! Plant fresh seedlings and keep the seedlings cool in shaded conditions or in a cooler from the time they leave the nursery until planting day. Proper planting depth of seedlings

is critical. Do not plant longleaf seedlings too deep as this will result in seedling death. The bud must never be below ground. It is advisable to leave one-half inch of the root plug showing after planting but if soil has been plowed or is very loose, more may be better. Have supervision of the planting process at all times to avoid problems. There are a number of professional consulting foresters throughout the South that can help you be successful at growing longleaf.

Another key part of success is making sure you are using the proper seed source for your area. Natural longleaf seed source collections have not shown that one source is better than

another. I would advise that you try to plant coastal plain sources in coastal plain areas and piedmont or montane sources in the piedmont areas.

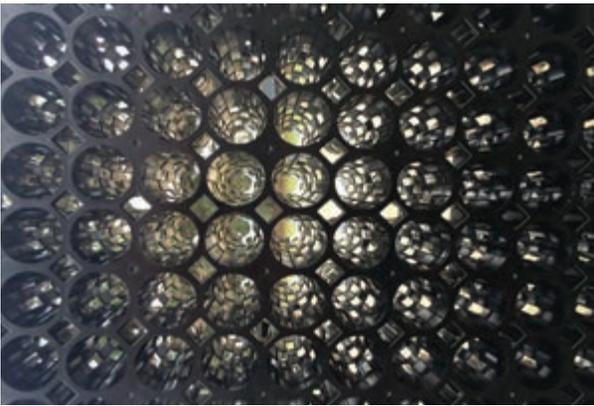
Unfortunately, longleaf tree improvement is severely behind other pine species in the South. This, however, is changing. There are currently seedlings available from longleaf seed orchards that were based on early selections of first-generation material. Early indications are that these improved longleaf trees should show better form and disease resistance than unimproved seedlots. If available, consider planting improved longleaf seedlings because you can increase the quality of your longleaf stand and final crop trees. There are several new progeny tests that have been established in the South that should provide

information over the next few years. This information will help us improve longleaf economics by providing a tree with better growth and form.

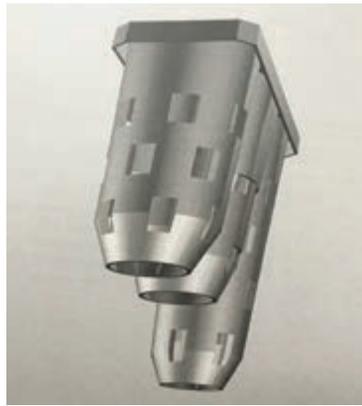
Other opportunities for genetic improvement could be in pine straw production, early emergence from the grass stage, wood quality, and pole quality. There has been almost no work on any of these characteristics. The differences we see in longleaf populations make us hopeful that improvements are possible.



Muir with IFCO in New Seed Orchard in Moultrie, GA. Photo by Nick Muir.



IFCO Operational Air Vent Technology Tray. Photo by Mike Coyle.



New Air Vent Tray Technology. Photo by Proptek.



New Air Vent Tray Technology. Photo by Wayne Bell.

To move longleaf pine tree improvement forward will require some investment from seedling producers and users of longleaf products. Most pure forest investment companies are not comfortable with this as they have such good data and results with loblolly and slash pine that it is a considerable risk for them to undertake longleaf. There are some efforts being made within the North Carolina State Tree Improvement Cooperative, but it will take members and prospective members to request this work and more importantly to participate financially. If groups like The Longleaf Alliance,

state forestry commissions, private nurseries, and America's Longleaf could help get funding for testing and selection, this could be a huge help, and the investment should pay off handsomely for landowners. Timber investment companies may participate if they see the benefit of planting longleaf on their lands. Such funding could possibly be accomplished with a surcharge on every acre planted to help fund this work. Sixty years of research shows that tree improvement pays off in every other species of pine. It will work for longleaf pine as well!

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We offer great educational events such as our Nov. 2 Forest Owners Program on Longleaf Pine Management -- to be held in conjunction with the SC Forestry Association's convention at the Isle of Palms, SC. Coordinator is Walt McPhail, 2012 National Tree Farmer of the Year (864/288-7618 or TreeVetSC@aol.com).

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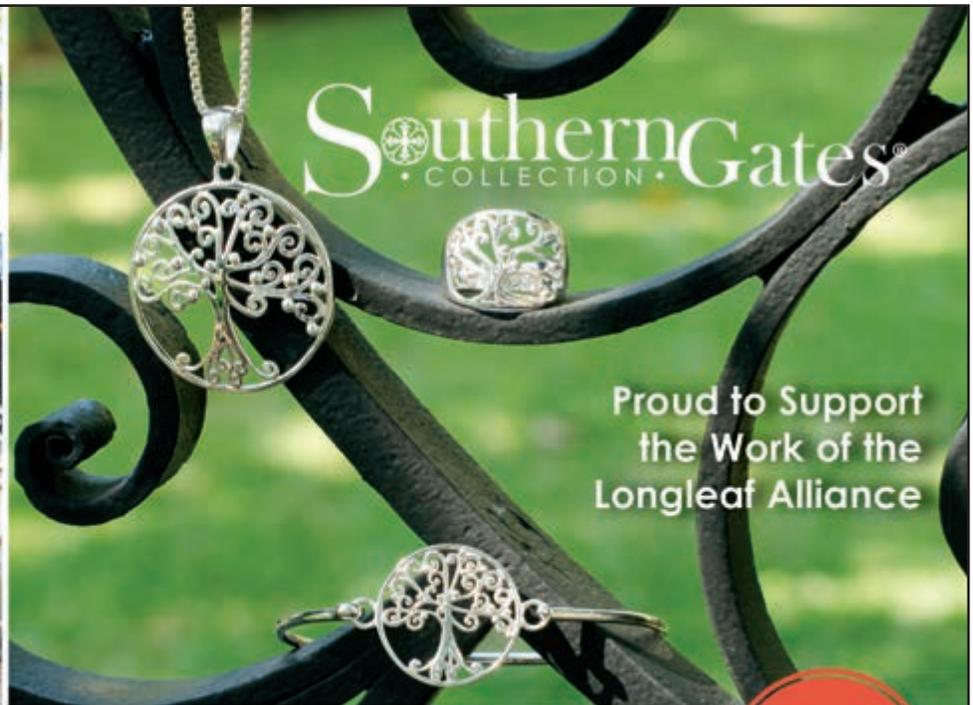
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LONGLEAF TREE RINGS REVEAL A FIERY PAST IN PINE SAVANNAS

By Monica Rother, Tall Timbers Research Station & Land Conservancy

Many of us have looked at the growth rings on an old stump or wooden beam and wondered about the life of the once living tree. The narrowest rings capture difficult years, perhaps due to drought or tough competition with neighboring trees. Wide rings, on the other hand, tell tales of abundant rainfall or a newly created canopy gap. In the rings of longleaf pine, there is also a story of fire. It is widely known that longleaf pine is well adapted to survive surface fires, with thick bark and a seedling stage where long needles surround and protect the young tree's terminal bud. Even so, the heat of a fire can kill a small part of the tree's growth tissue. When this happens, a scar forms within that year's annual growth ring. The tree heals and may go on to live many more decades, but the scar will persist as a record of that fire.

Fire scars are the bread and butter for tree-ring scientists interested in learning about historical fire activity in areas where surface fires occur. Those who know longleaf understand that low-intensity fire has long been an inextricable component of its environment, but details about historical fire activity remain elusive. How frequently did fires occur? Were fire return intervals fairly constant, or did they vary widely? Were fires concentrated in certain times of year? Were humans or lightning the primary ignition source of past fires? These are the types of questions that fire scars in tree rings can help



Dr. Jean Huffman (left) and Dr. Monica Rother (right) with a fire-scarred section of longleaf pine.

answer. And the answers to these questions should provide further justification and guidance for prescribed burning practices in the modern day.

A hub for tree-ring research (dendrochronology) is Tall Timbers, a research station and land conservancy in Tallahassee, Florida. Researchers there are using fire-scarred pines to learn about historical fire activity in various pine savannas in the Southeastern Coastal Plain. The research is collaborative and includes three Tall Timbers scientists or associates (Dr. Jean Huffman, Dr. Kevin Robertson, and myself) as well as interns, technicians, and federal and local partners. Private landowners who allow collection of dead material on their properties are also essential to the research. Although tree-ring based fire histories are

abundant in the western United States, pine ecosystems of the Southeastern Coastal Plain have been understudied.

I recently spoke with Tall Timbers Research Associate Jean Huffman about her passion for doing fire-related tree-ring research: "It is hard to describe, but doing this work is such an honor and privilege. To see back in time and to learn about fires that would otherwise be unknown, to learn more about these ecosystems that are so intertwined with fire, to have old, dead trees 'speak' – it's so exciting and I'm so grateful to do it!" Huffman has worked for decades both as a researcher and fire manager in Florida, including at Myakka River State Park and

the St. Joseph Bay State Buffer Preserve. Her initial interest in dendrochronology research was piqued by a presentation on the fire history of a sequoia-mixed conifer forest in California. Dendrochronologist Dr. Thomas Swetnam delivered the presentation at the 1989 Tall Timbers Fire Ecology Conference. Later, in Bolivia, Huffman became enthralled by the possibility of conducting a study using fire scars in Spanish Cedar (*Cedrela odorata*). That work ultimately didn't pan out (the tropical rings couldn't be dated), but her excitement for dendrochronological research led to her eventual completion of a PhD at Louisiana State University, focused on fire-scarred longleaf. Largely self-taught, Huffman has been a leader in tree-ring research in the southeastern United States, particularly regarding fire history of longleaf pine savannas in Florida and the specialized approaches needed for that type of work.

One of the most exciting projects currently underway involving Jean, myself, and other collaborators is a fire history study of the St. Joseph Bay State Buffer Preserve and Tyndall Air Force Base in the panhandle of Florida. The project builds on research initiated by Huffman for her dissertation and now includes many dozens of fire-scarred stumps collected at the two sites. The stumps were originally cut in the late 1800s or early 1900s during the wave of widespread deforestation of longleaf pine savannas. Many of the trees were old-growth at the time they were cut,

so their scars reveal information about fires that happened over the last several centuries. As Huffman explains, "This work is important because it can tell us how fires burned in this region for the last 300 or more years. This includes the period before European settlement."

Looking forward, we will continue to use fire scars to learn about past fires. Several ongoing studies are focused in the Red Hills region of northern Florida and southwestern Georgia. For one study, we are analyzing sections of longleaf collected on Tall Timbers and several other private properties. We are finding evidence of continual burning (every one to two years) from the late 1800s through modern day. These were mostly human-set fires used to maintain open conditions and promote habitat for hunting northern bobwhite quail.

In another study, we are comparing fire-scarred tree rings to paper records of prescribed fires in recent decades to learn more about how fire scars form and how accurately the scars match the known dates of fire. The Tall Timbers team will also continue to seek out and collect old fire-scarred stumps before they are lost to development, decay, stumping (deliberate removal of stumps), and other threats. These stumps are invaluable. As Huffman explains, "It is a surprise and delight to find new locations of old stumps! I'm committed to trying to preserve these rare and irreplaceable records of history."



A piece of longleaf pine with dozens of scars created by past fires. Photo by Monica Rother.

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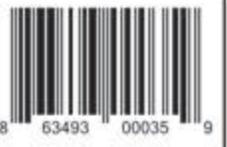
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By Lamar and Felicia Dewberry with Ad Platt, *The Longleaf Alliance*

LANDOWNER SPOTLIGHT

DEWBERRY LANDS: A CLASSROOM IN A MOUNTAIN FOREST

Lamar and Felicia Dewberry in their young longleaf stand. Photo by Ad Platt.

Dewberry Lands is a family-owned operation located near Lineville, Alabama in Clay County. The property is managed for timber production, recreation, wildlife, and aesthetics by Lamar and Felicia Dewberry. The elevation of their property is about a thousand feet with some as high as fourteen hundred feet. This is true mountain longleaf country.

After graduating from Auburn University and moving back to Clay County, Felicia and Lamar wanted to become landowners. So, in 1983 they purchased their first tract of land. From there they continued to add to what makes up Dewberry Lands today, now totaling 840 acres.

“Our early goals, due to financial constraints, were to harvest the timber to apply the money made for the purchase,” explained Lamar. “We immediately had the property reforested for future financial gain. We did not always harvest all of the timber on the property because we used it for recreational

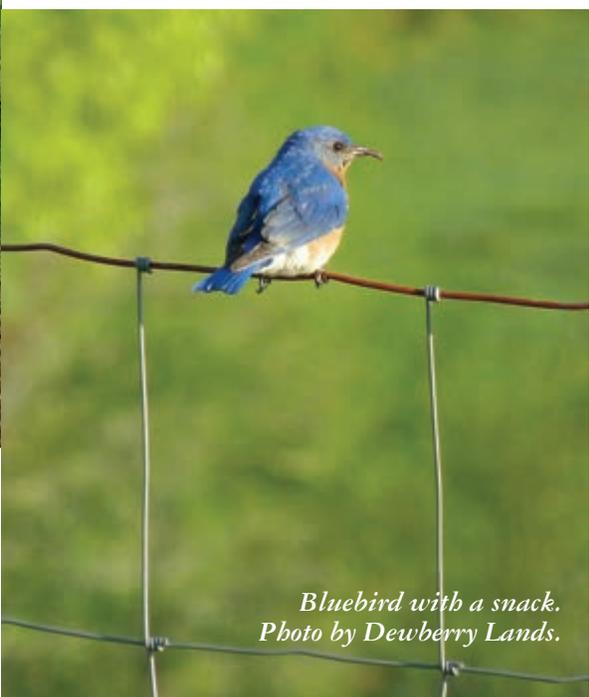
purposes, too. When we began reforesting our property we planted back in loblolly pines; this is not true today.”

In 2006, the Dewberrys planted their first acreage of longleaf pines. The reason they planted the first longleaf pines was twofold. First, Felicia and Lamar had seen how beautiful longleaf trees were in the national forest near them, and every tract they own has a few longleaf pines growing on them, so they knew the habitat fit. “I just knew that there was some scattered, natural, wild longleaf on the property when we bought it, that were up to 75 years old and beautiful, and I knew I could grow more like them,” said Lamar. Secondly, there were government programs to help with the cost of reforestation. At that time, Natural Resources Conservation Service had the WHIP program that encouraged planting longleaf pines, so the family thought they would give it a try.

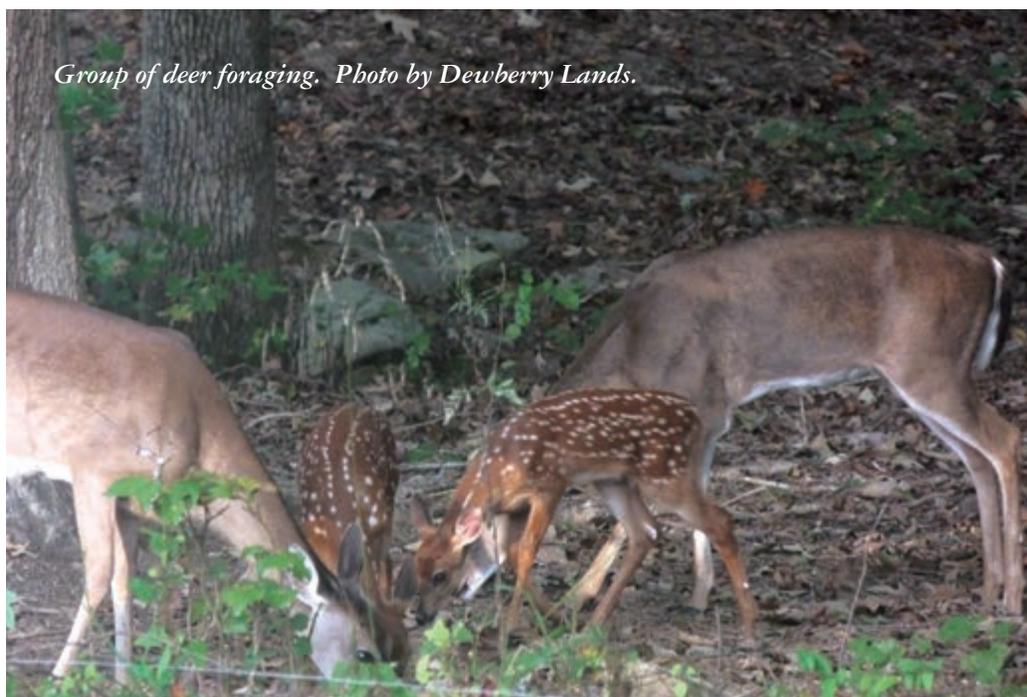
Lamar shares that “Our goals have changed over the years;



Panoramic vista looking out over Dewberry Lands to Cheaha Mountain. Photo by Ad Platt.



Bluebird with a snack. Photo by Dewberry Lands.



Group of deer foraging. Photo by Dewberry Lands.

we used to try to grow as much wood as possible, but now other values like wildlife and enjoying the land are becoming much more important. We also wanted to plant longleaf because it is more resistant to insects and diseases. Now, the goal is to plant longleaf pines on all harvested areas where prescribed burning can be utilized. Many of the negative myths about growing longleaf pines are not true when managed properly. One day our children and grandchildren will be able to enjoy walking through the longleaf forests that we are planting now.”

The land is managed to achieve multiple objectives. In addition to timber production, wildlife, recreation, and aesthetics have become increasingly important factors in the management planning. NRCS programs have also helped in other aspects of management, including prescribed burning, developing an improved stream crossing, and improvements to forest roads.

“As we learn about the longleaf forest, we become more appreciative of the benefits this habitat provides. We see the most deer and take the best deer, in the open grassy young



*Prescribed fire in young longleaf stand.
Photo by Dewberry Lands.*

longleaf stands we've planted over the last few years," states Lamar. Plans are in place to do considerably more.

The property is very diverse, with over 130 documented wildflowers which can be seen on the family website dewberrylands.com. The Dewberrys also host another website (privateforestlandowner.com) to share with others how they manage their property in hopes of encouraging proper management practices.

Although Lamar officially retired from teaching Ag Education in 2003, their passion for environmental education never slowed down. They use their property as a true "Classroom in the Forest," and especially focus on adult

education for other forest landowners. The goal is to provide an example of good land management that will have a lasting impact on groups ranging from elementary students to college students to adult groups. Some of the adult programs have included Women's Walk in the Forest, forest road management, stream crossings, and other forest management practices including management of longleaf pines.

Their tree farm earned formal designation as a Treasure Forest in 2006 and has also received an NWTf Wild Turkey Woodland Award, Alabama Tree Farm of the Year, and they were selected

to receive the Governor's Conservation Achievement Award for Forest Conservationist of the Year. Another honor was the designation in 2008 as the Alabama Farm of Distinction. These recognitions and accolades have allowed them to reach more people with their message of multiple-use conservation, but are not the impetus.

"God has allowed us to own this land for a little while, and we'll try to do our best while it is ours to leave it better than we found it," says Lamar. "Now we are planting for our grandchildren, and if the good Lord is willing, one day these children will also enjoy that beautiful music of the wind in the longleaf. All the while, it grows bigger and stronger."



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By Shan Cammack and Bryn Pipes,
Georgia Department of Natural Resources,
Nongame Conservation Section

SEEKING AND SNUFFING BURNING DUFF:

A BETTER DRY MOPPING TECHNIQUE FOR LARGE BURN UNITS

The former duff line is obvious here at Moody Forest Natural Area as a bulged line at the base of the tree. Repeated burns have carefully reduced the duff without harming the longleaf pine. Photo by Randy Tate.

Mature longleaf pine trees can have basal accumulation of duff in areas of fire suppression or exclusion. It is well-known that the longleaf pine is a fire-adapted species. However, if the longleaf has significant duff and it is burned when there is not sufficient duff moisture, a duff fire could result, and this could kill the tree. We see way too many big old pine trees being killed by duff fires. What happens is that ground fires can smolder in duff over long periods. This generates a lot of heat, possibly cooking feeder roots and/or collaring the cambium, essentially girdling the tree. Interestingly, that tree may have delayed mortality and may not die for a couple of years. It is super important to burn duff trees on the right day, with the right weather and fuel conditions. This article presents a practical method of checking for duff fires after a prescribed burn. This method is for dry mopping and should not be used

in lieu of burning under a duff prescription. It is an efficient technique that is particularly effective for larger burn units.

Prescription and firing technique is key to success for burning in duff.

Work within important fuel moisture and weather target windows that are most appropriate for your area. Look for weather conditions with:

- Fewer days since rain
- Lower KBDI (Keetch-Byram Drought Index)
- Higher wind speeds

Be aware of soil moisture trends during the current season as well as the long term past weather history, because dense duff can become semi-impermeable after drought periods (with a long recovery time). It is preferable to have good moisture



Image 2



Image 3



Image 4



Image 5

Image 2: Signature look of duff consumption at Laura Walker State Park. Photo by Shan Cammack. Image 3: Simply walk through the woods with a backpack blower and hit suspicious trees to reveal duff fires. The introduction of oxygen is often enough to spark flames or reveal smoke. Townsend Wildlife Management Area. Photo by Shan Cammack.

Image 4: There were no open flames or smoke visible until the DB3000 was activated. One may have simply walked past this tree without suspecting a duff fire. Oboopee Dunes Wildlife Management Area. Action Photo by Shan Cammack.

Image 5: Only blow away the beaten material and a small buffer. Try to keep as much duff intact without risking a reburn.

throughout the whole profile of duff, not just the top layer of duff. Check the duff moisture carefully ahead of the burn, by feeling it with your hand; 3 to 4 inches of rain in the last two days eliminates residual smoldering. (*Refer to the Hiers et al 2016 reference.)

Use a firing technique which will have little residence time on duff trees. This typically means a fast glancing fire.

But there's no guarantee that duff trees won't catch anyway

Inadequate soil and duff moisture and nearby dry limbs and cones are the usual suspects for ignition of duff fires. You must check for duff fires after the burn. If you have just a few old prized sentinel trees, it would be worthwhile to ensure, during

prep for the burn, that cones and dry limbs were moved away from these trees. Physically raking away duff can be as damaging to the feeder roots as a slow fire.

Seeking out duff fires

During the burn, you should continually assess duff throughout the burn unit to see if it has ignited. It may not be igniting in one habitat type but is in another (i.e., not igniting along a creek but igniting on the adjacent sandhill). The duff layer may not ignite in the morning but could do so in the afternoon when there is a lower rH or relative humidity.

After the burn, look for flames or for clues of burning duff around suspicious trees. Smoldering duff can be insidious and

doesn't always produce flames or smoke. Here are some smoldering duff signs to look for:

- Wisps of smoke or a cloud of gnats.
- Signature holes of duff consumption (see Image 2).
- Cold trail with the back of your hand to find hot spots.

This is a technique where you feel for hot spots by passing the back of your ungloved hand over the white ash close to the bole of the trees to find residual heat.

When you find duff burning...why not just drown it with water?

Water can extinguish duff fires, but it is time intensive and sometimes requires a lot of water. You also must consider proximity to a water source. Where is your water source, especially if you are in a remote area inaccessible by equipment? Even if water is used, regular checkups are still needed as the duff may reignite. This technique can also be very intensive, putting wear and tear on water handling equipment.

There is a better way: The DuffBuster 3000!

You can use a leafblower (we affectionately call ours the DuffBuster 3000) to identify duff fires, even the "hidden" ones (see Image 3). The advantages include:

- No water necessary.
- Resource and time efficient: just a walk in the woods with the leafblower.
- Minimal impact to the resource. No heavy equipment is necessary, and the technique is not obtrusive. This is a good MIST practice (Minimum Impact Suppression Tactics; see Image 4).

DuffBuster 3000 Step-by-Step Process

Before you start, make sure you are wearing airway and eye protection. A bandana or dust mask will help prevent inhaling the smoke and ash that is kicked up.

- If you suspect a duff fire, blow around the base of trees with small circular motions.
- Look for any glowing embers or flare-ups.
- Blow or knock out hot spots with your boot or a hand tool.
- Must separate the heat from the unburned duff, so move burning material well away from the tree and from flammable fuels that lead back to the tree.
- Sometimes the leafblower does all the work for you by simply blowing the burning material away.

- Blow the area again to get heat away from duff and check for residual hot spots.

- Repeat as necessary and cold trail. Any residual heat could turn into a re-ignition of duff.

Ideally, with this technique, you only remove the burning duff and a small buffer zone beyond that. It is important to keep the rest of the duff around the tree intact (see Image 5).

Remember that the key to successfully burning duff trees is to choose the correct weather, fuel, and soil conditions. Hopefully, this technique will be useful in seeking out and extinguishing duff fires in mature longleaf pines, thereby reducing mortality.

For further information, check out these resources:

J. Morgan Varner, III, Doria R. Gordon, Francis E. Putz, and J. Kevin Hiers. 2005. Restoring Fire to Long-Unburned Pinus palustris Ecosystems: Novel Fire Effects and Consequences for Long-Unburned Ecosystems. Restoration Ecology Vol 13, No. 3, pp. 536-544.

http://www.americaslongleaf.org/media/2533/effects-of-fire-restoration-to-fire-suppressed-llp-uf_1.pdf

J. Morgan Varner, Jesse K. Kreye, J. Kevin Hiers, and Joseph J. O'Brien. 2016. Recent Advances in Understanding Duff Consumption and Post-Fire Longleaf Pine Mortality. Proceedings of the 18th Biennial Southern Silvicultural Research Conference, Knoxville, Tennessee.

https://www.srs.fs.usda.gov/pubs/gtr/gtr_srs212/gtr_srs212_049.pdf

Kevin Hiers, Morgan Varner, Jesse Kreye, and Joe O'Brien. 2016. Advances in Understanding Duff Fires in Longleaf Pine Forests. North Florida Prescribed Fire Council Meeting.

http://southernfireexchange.org/PFC/etc/NC-PFC-Fall-2016_Hiers-Varner-Kreye-O'Brien-Duff-Fires-in-LLP.pdf

Here are links to our video of the "DuffBuster 3000" in action, as well as our poster from the International Fire Congress.

Video:

<https://dnr.box.com/s/cke600a76mdhzuheime51qw0u35v5t1j>

Poster:

<https://dnr.box.com/s/8wsrbn7ljhpu121ewgs2co1pzjpmndng>

If you have some young next generation help, here is link they may enjoy:

<https://youtu.be/2id7i9fMntM>

THANK YOU to the Local Implementation Teams

By Ryan Bollinger, LIT Consul, The Longleaf Alliance

In the Spring of 2017, the America's Longleaf Restoration Initiative (ALRI) "planted a seedling" for improving communications on restoration priorities and goals between the Federal Coordinating Committee (FCC), the Longleaf Partnership Council (LPC) and Local Implementation Teams (LITs). The FCC requested a Range-Wide Longleaf Restoration "Road Map" as well as short-term and long-term LIT restoration goals to help inform and refine restoration priorities. The LITs were also asked to identify needs and challenges for accelerating longleaf restoration over the next five years. These refined and comprehensive goals for all seventeen LITs will help set the direction and restoration vision as the partnership heads into the second half of the 15-year window for implementation of the Range-Wide Conservation Plan for Longleaf Pine. This information will also help partners understand what resources are needed (funding, staff, equipment, policies, etc.) to move the needle and accelerate restoration towards ALRI's 8M acre goal.

Throughout the Spring and Summer of 2017, the LIT Consul, Andrew Schock (LPC Chair), and Jon Scott (National Fish &

Wildlife Foundation) collaborated to develop the framework for collecting information from the LITs, communicated the request with the LIT Coordinators at the LIT Summit in August, and synthesized feedback from the teams into a comprehensive summary of spatial priorities and acreage targets. The LIT Coordinators and their conservation partners truly stepped up on short notice to collect information from partners and share their unique needs and opportunities for moving the needle. A synopsis of goal setting results was shared with the FCC in January, with a deep dive planned at an in-person meeting in April.

The Federal Coordinating Committee, the Longleaf Partnership Council leadership team, and the LIT Consul would all like to express a huge thank you to the LIT Coordinators and individual partners who contributed to this project. Your efforts will pay dividends in the long run. It may take time to reap the rewards of this planning effort, but given a little sunlight and nurturing, we look forward to seeing this seedling flourish.

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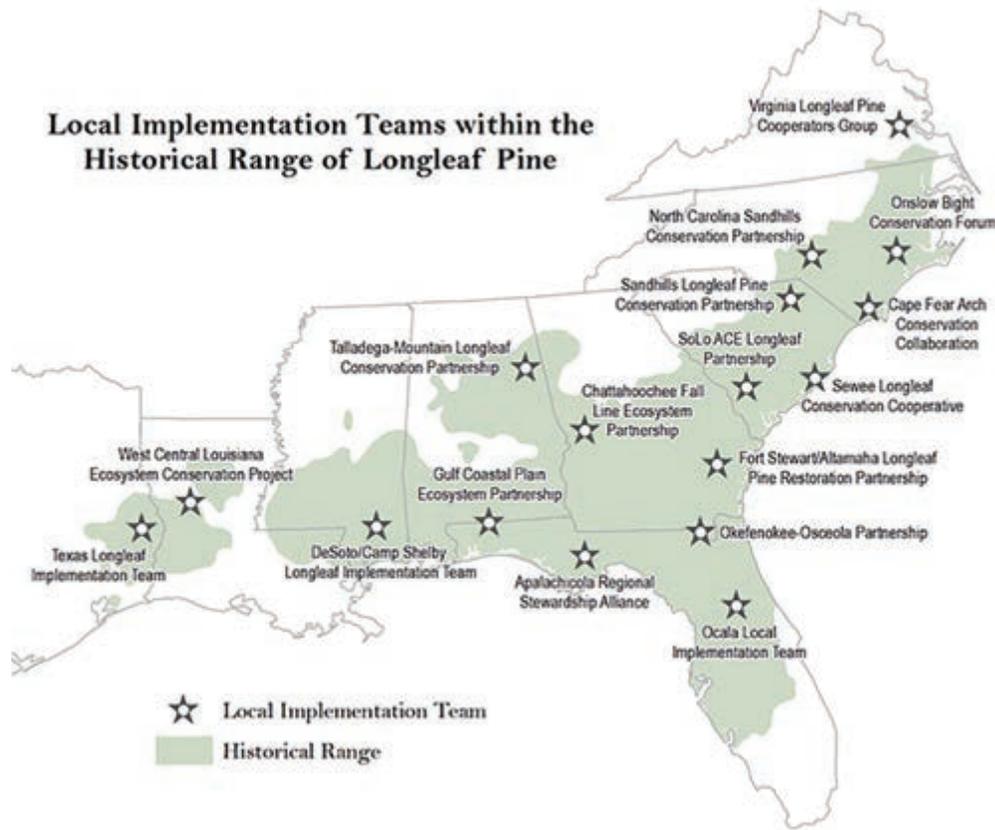
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Jeff Tapley: (804) 514-7546



ARSA Welcomes a New Student Conservation Association Crew

By Brian Pelc, *The Nature Conservancy*



Student Conservation Assoc. intern Aaron Kelliban at a partner burn at the St. Joe Bay Buffer Preserve; a state-owned property. The Crew is based at the Conservancy's Apalachicola Bluffs and Ravines Preserve and is available for assistance across the ARSA region. Photo by Charles Oliver.

At the start of the new year, The Nature Conservancy's North Florida staff met their new SCA fire interns and crew mentors at the Osceola National Forest. During the 3-day meeting, staff assisted with S-212 evaluations and assisted with a S-130 field day. The fire interns are from various Job Corps programs in the Southeast which partnered with the Student Conservation Association (SCA) who was responsible for recruiting the interns and mentors. The mentors have 2-3 years' experience in fire and natural resources and live on-site with the interns, making sure they have the greatest chance of success during the internship. The role of ARSA (Apalachicola Regional Stewardship Alliance) and other LITs in this partnership is to provide the knowledge, experience, and skill that one would need to become a successful Rx fire practitioner and land steward. ARSA is one of 6 locations across the range, hosting 1 veteran crew and 5 underserved youth crews spread out over the southeast. This program is primarily funded through the National Fish and Wildlife Foundation and US Forest Service. In ARSA, we are using this internship to not only educate young adults about the importance of our work and role in nature, but also to connect people and nature. Our expectations for the interns is to leave North Florida understanding the importance that people play in the maintenance and restoration of natural resources through sound Rx fire and land management.

Cape Fear Arch and Onslow Bight Prescribed Fire Partnerships

By Mansfield Fisher, *The Nature Conservancy*



Prescribed fire crew at work. Photo by Matthew Grimes.

From January through June 2018 The Nature Conservancy (TNC) is providing a contract prescribed fire crew to the North Carolina Wildlife Resources Commission (NCWRC.) TNC and NCWRC have partnered to increase fire capacity in the coastal plain for many years. The contract prescribed fire crew is the newest addition to this partnership and provides testimony to the importance of partnerships in restoring longleaf pine ecosystems. Not only is the fire crew supporting NCWRC in the Cape Fear Arch, but after only a month assisted NCWRC in the Onslow Bight, TNC in both the Cape Fear Arch and Onslow Bight landscapes, and the US Forest Service in the Croatan National Forest.

NASA Meets the Gopher Tortoise in Georgia

By Cassidy Jordan, *The Nature Conservancy – Chattahoochee Fall Line Program*



NASA DEVELOP's Georgia Energy Project is a collaborative effort supporting both conservation values and green energy development. Image courtesy of NASA DEVELOP.

Solar energy is a rapidly growing industry in the state of Georgia. The increasing popularity of utility-scale solar farms is encouraging decision-makers and energy stakeholders to incorporate sustainability planning in their developments. However, the construction and siting of solar farms can result in negative impacts on environmentally sensitive habitats and associated species, such as our beloved state reptile, the gopher tortoise. DEVELOP, part of NASA's Applied Sciences Program, addresses environmental and public policy issues through interdisciplinary research projects that apply the lens of NASA Earth observations to community concerns around the globe. The Nature Conservancy, along with the Georgia Department of Natural Resources, has been partnering with DEVELOP's Georgia Energy Project in Athens, Georgia, to raise awareness of the need to consider vulnerable areas in the solar development process. Having worked together now for two terms, with a third term anticipated for Summer 2018,

our project objectives include: conducting solar site suitability analyses, analyzing landcover changes associated with solar development, and integrating environmental and infrastructural data to map solar suitability versus habitat sensitivity. The overarching project goal is to provide decision-makers and interested stakeholders with an interactive online mapping tool to assist in the selection of solar development sites.

For more information on this project:

<https://usg.maps.arcgis.com/apps/MapJournal/index.html?appid=9d50b5415d1542d59c222751e45610c9>

<https://develop.larc.nasa.gov/2017/fall/GeorgiaEnergyII.html>

The Longleaf Alliance Honored by Georgia Coastal Advocacy Group, 100 Miles

By Randy Tate, The Longleaf Alliance



One Hundred Miles 100 Honorees at the 2018 Choosing to Lead Conference on Jekyll Island, GA in January 2018. Photo by 100 Miles.

The Georgia coastal advocacy organization, 100 Miles, founded in 2013, recognized The Longleaf Alliance as one of its 2018 One Hundred Miles 100 honorees. The organization, named after the length of the Georgia coast from South Carolina to Florida, honors 100 different individuals, businesses, and organizations each year in conjunction with its Choosing to Lead Conference. The Longleaf Alliance is a founding partner in the Fort Stewart/Altamaha Local Implementation Team (LIT) which includes much of the Georgia coast, and much of the focus of our work has been through this LIT.

In addition to coordinating the Fort Stewart/Altamaha LIT, The Longleaf Alliance has contributed to groundcover restoration at Ashantilly, a historic site with longleaf in Darien. Also, Longleaf Academies are held along Georgia's coast, most recently a Longleaf 101 Academy in Guyton. This Academy featured a field trip to Fort Stewart. Carol Denhof and Randy Tate of The Longleaf Alliance also

participated in 100 Mile's recent Coastal Georgia Naturalists series educating on longleaf forests.

Last year Fort Stewart/Hunter Army Airfield was honored as a One Hundred Miles 100 for showing that protecting the Army's military mission and protecting habitat for rare and endangered species can work together and even thrive.

Randy Tate and longtime Longleaf Alliance Board member, Lynda Beam, attended the conference and gladly accepted the award on behalf of the The Longleaf Alliance.

Northwest Florida Water Management District Plants 15 Millionth Longleaf Pine

By NFWFMD Staff



Partners celebrating the planting of the 15th millionth longleaf seedling on NFWFMD lands by planting longleaf seedlings. Photo by Northwest Florida Water Management District.

A turnout of state and local government leaders celebrated a milestone recently as the Northwest Florida Water Management District (NFWMD) planted its 15 millionth longleaf pine tree on public lands.

The planting ceremony took place within the Econfina Creek Water Management Area and featured Department of Environmental Protection Secretary Noah Valenstein as well as county commissioners from Washington County and several other key stakeholders.

"Planting trees and restoring forests are something we take a lot of pride in here in northwest Florida," said George Roberts, Chairman of the District's Governing Board. "We understand the significant role the longleaf pine habitat plays in protecting water resources for the residents in our District."

Once other plantings are completed this month, the District will have planted nearly 15.1 million longleaf pines since 1993. In that same 25-year period, the District has also planted an additional 1.6 million other trees,

including cypress and other hardwoods, to bring the overall total tree plantings to nearly 17 million.

"It's an honor to join the District on Florida Arbor Day to celebrate 15 million longleaf pine trees," Valenstein said. "The Department is committed to continuing to work with the District and our local partners to restore natural habitat and protect our state's prized properties in northwest Florida and statewide."

The District has also planted more than 6.6 million wiregrass tubelings - a key component to a healthy longleaf ecosystem. The longleaf pine is a critical piece of northern Florida ecosystems. The tree's presence helps improve plant species diversity and provides wildlife habitat for animal and insect species. It also provides erosion control and natural fuel for effective prescribed burns.

The Northwest Florida Water Management District should be congratulated for reaching such a significant milestone in protecting water resources and restoring the longleaf ecosystem," said Vernon Compton, The Longleaf Alliance's (LLA) Director of the Gulf Coastal Plain Ecosystem Partnership. "The LLA values the partnership we have with the District and admires the impressive restoration work that it has accomplished."

North Carolina Longleaf Coalition Announces Longleaf Honors

By Sarah Crate, NC Forest Service and Debbie Crane, The Nature Conservancy



Lark Hayes proudly displays her 2017 Illustris Palustris Award. Photo by Sarah Cratel/NCFS.

Private property owners in North Carolina who are doing an excellent job of managing their longleaf are eligible for a new honor from the NC Longleaf Coalition. This spring the Coalition will announce the first members of its Longleaf Honor Roll. To be considered for the honor roll, property owners must have a current forest management plan, manage their longleaf with prescribed fire, and reduce negative impacts from pine straw harvesting by raking on rotation.

The Coalition developed marketing and nomination materials for the recognition program, which include a distinctive logo. Recipients will receive a sign to post at their forest in recognition of the honor as well as a letter of commendation from the Coalition. The Coalition plans to feature Honor Roll recipients to encourage more private property owners to actively manage their longleaf.

In addition to recognizing private landowners, the Coalition also presents the annual Illustris Palustris Award to an individual with outstanding accomplishments toward longleaf conservation. In 2017, Lark Hayes was honored for her contributions toward the vision and early leadership of the NC Longleaf Coalition and the America's Longleaf Restoration Initiative.

For more information on these awards visit nclongleaf.org.

North Carolina Sandhills Conservation Partnership Update

By Stephanie Wagner, Sandhills Area Land Trust



Group meeting before contractor-led burn. Photo by Stephanie Wagner.

Private landowner outreach has been going strong in the NC Sandhills through the new year. Late fall 2017, project partners held a series of meetings attended by approximately 100 private landowners from our six-county region. Attendees met with the agencies and natural resource professionals that are available to help individuals and families achieve their longleaf stewardship goals.

This project's Sandhills Prescribed Burn Association (PBA) initiative has recently facilitated several private landowner burns. One burn had a different approach, with a contractor leading a two day burn on 60 acres of private longleaf woodlands. PBA participants came to assist, ranging from landowners who are experienced burners to landowners who are considering using prescribed fire on their land. We will continue this collaborative model: bringing professional burners together with the PBA gets burns accomplished and provides supervised experience.

In April, our Partnership is looking forward to the annual Party for the Pine. This event celebrates the birthday of the oldest-known longleaf pine tree (protected on state park land). This year the old tree turns 470! This festival is an important outreach tool used to teach our community about our special longleaf pine ecosystem and the importance of prescribed fire. Read more at www.PartyForThePine.org.

Planting Seedlings and the Seeds for the Next Steps: Ocala Longleaf Pine Local

Implementation Team *By Cheryl Millett, The Nature Conservancy and Ivor Kincaide, Alachua Conservation Trust*



The crew gets ready to plant 49,000 longleaf seedlings at Ichetucknee Springs State Park on a cool January day. Photo by Florida Forest Service.

Wildland Restoration International conducted longleaf restoration and maintenance work on 89.5 acres on three public and eight private properties, including hardwood thinning, prepping burn units, treating non-native invasive species, and planting longleaf seedlings.

Two additional planting projects took advantage of winter rain. The Florida Park Service planted 49,000 longleaf seedlings on a site prepared with a burn, setting the stage for what we hope will be a successful restoration of a sandhill with scattered mature longleaf, turkey oak, and sand post oak that has excellent native groundcover. Alachua Conservation Trust (ACT) also planted 70,000 seedlings on another sandhill restoration site in Hawthorne, Florida.

ACT has also been busy digging into Ocala LIT work by hiring a Prescribed Burn Association Coordinator to work with private landowners to increase burning on private lands. We partnered with the Florida Fish and Wildlife Conservation Commission and Prescribed Fire Training Council to help 19 enthusiastic attendees at the newly-formed North Florida Prescribed Burn

Association weekend workshop held last December in Gainesville. These private landowners plan to work together, burning each other's lands. ACT has other irons in the funding fires with partners to accelerate work around Ocala National Forest, Camp Blanding, and on private lands, so keep an eye out for more!

Sandhills Longleaf Pine Conservation Partnership Promotes “Generational Education”

By Charles Babb, South Carolina Sandhills Longleaf Pine Conservation Partnership



Students learning about longleaf with Alyne Askins from Sandhills National Wildlife Refuge. Photo by Sue Griggs.

After seven successful years of establishing 17,000 acres of new longleaf habitat, the South Carolina Sandhills Longleaf Pine Conservation Partnership (SLPCP) has embraced the idea of a “Generational Education” program to develop the future managers of the forests being established today. According to LIT Coordinator Charles Babb, “We all know that longleaf will outlive those of us here today. The majority of environmental benefits from the trees we are planting won’t be realized until the next generation or after, so it is critical that we begin teaching those future owners/managers the values and benefits of well-managed longleaf ecosystems now.” The goal is simple: To make forest management a part of the family heritage, handed down with property from generation to generation.

The SLPCP joined forces with landowners Bill and Kasey Lenz to host local school groups where students can be exposed to the thrill of watching bird dogs at work, learning about weather and prescribed fire, and seeing examples of how Native Americans utilized forests to gather foods, medicines, and other materials for life. Students will be invited back with parents for a more in-depth training on forest management. NRCS will sponsor the program through the Conservation Innovation Grant (CIG) Program. “We are thrilled to share the joy that we get from being in, and managing our woods,” said Bill Lenz. “If we can just spark an interest in a few young minds, who knows, maybe the next great conservationist will find their purpose right here.”

South Lowcountry – ACE Basin (SoLoACE) Longleaf Partnership Update

By Bobby Franklin, *The Longleaf Alliance*



UGA Extension Forester Dr. Dave Dickens discussing economics and products at Aiken LL101 Workshop. Photo by Bobby Franklin.

Winter was busy in the counties comprising the South Carolina SoLoACE region. As I write this, planting has just about wrapped up, and smoke fills the air on good burning days. January 23-25 marked a successful Longleaf 101 Academy at the UGA Conference Center near Aiken. Thirty-two attended, including ten landowners. Special thanks are due to our host, the Savannah River Ecology Lab for their hospitality and use of the conference center. We will be back in Aiken April 17-19 for the first edition of the Native Groundcover Restoration Academy. Our partners are also holding a one-day “Learn to Burn” workshop on May 16th at the Webb Wildlife Center in Hampton County.

As always, we are grateful for the continued support and partnership from: The Longleaf Alliance, Clemson University, Ducks Unlimited, Hitchcock Woods Foundation, International Paper Company, Lowcountry Land Trust, National Fish and Wildlife

Foundation, National Wild Turkey Federation, Natural Resources Conservation Service, The Nature Conservancy, Nemours Wildlife Foundation, Savannah River Ecology Lab, South Carolina Audubon Society, South Carolina Department of Natural Resources, South Carolina Forestry Commission, U.S. Fish & Wildlife Service, U.S. Forest Service/Savannah River Forest Station.

Texas Longleaf Implementation Team (TLIT)

By Kent Evans, *Texas LIT*



Brian Gowin and Shawn Benedict examine longleaf killed by Hurricane Harvey flooding. Photo by Kent Evans.

Hurricane Harvey impacted thousands of families in southeast Texas. The storm dumped over 45” of rain over Hardin County, home of The Nature Conservancy’s (TNC) Roy E. Larsen Sandylands Preserve and adjacent Campbell Global lands. The swiftly rising waters caused loss of TNC employee housing, personal belongings, equipment, and facilities. Recently, Brian Gowin of Campbell Global, Shawn Benedict of TNC, and I looked at some plantations where prolonged inundation killed 6’ to 8’ longleaf saplings. Trees taller than the flood waters did not suffer. Unfortunately, yaupon seemed unaffected by the flood. Flooding impacts on the preserve will continue to be monitored by TNC.

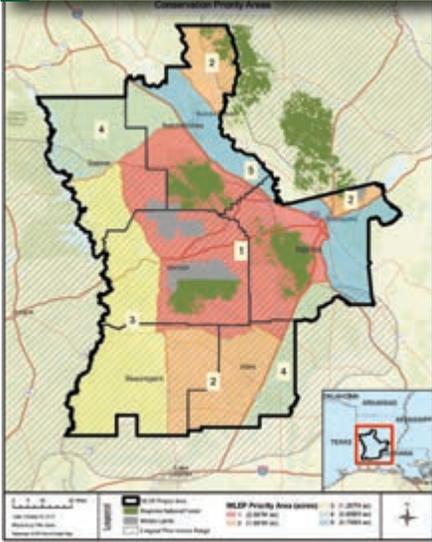
Texas AgriLife hosted a Forest Pest Seminar recently attracting over 100 forestry consultants, loggers, pesticide applicators, and landowners. Participants shared a common enemy, yaupon. My presentation covered experiences from agency staff and Texas land

owners planting longleaf and using fire to favor the herbaceous understory and control invasive brush such as yaupon.

Many stands of longleaf have been started by participants in our TLIT workshops and field days. An example is Trey Whitley, who started burning his thinned loblolly plantation the first year of ownership. He clear-cut some of his loblolly plantation, planted longleaf, and then added fire to thinned loblolly and applied fire to longleaf at 12 months. Trey said his teenaged sons recognize the development of the native, herbaceous understory and enjoy the rapid increase in their deer herd. The boys are really engaged, helping with prescribed burning, planting, and observing wildlife habitat changes. Trey added that converting to longleaf and adding fire is much more exciting than the former loblolly/yaupon thickets. Their family is in this for the long haul, setting the stage for multiple generations of enjoyment and stewardship on the land.

Louisiana Longleaf Implementation Team Renews Declaration of Partnership

By Dan Weber, *The Nature Conservancy*



WLEP work area within the Fort Polk/Kisatchie National Forest SGA. Photo by The Nature Conservancy.



Kisatchie National Forest sandstone glade. Photo by The Nature Conservancy.

December 2017 marked the five-year anniversary of the founding of the West Central Louisiana Ecosystem Partnership (WLEP) created in response to the America's Longleaf Restoration Initiative goal of 8,000,000 acres of longleaf pine by 2025. The WLEP, a coalition of stakeholders including the U.S. Forest Service and U.S. Department of Defense, Natural Resource Conservation Service, state and federal wildlife agencies, conservation NGO's and others, oversees

efforts within the Fort Polk/Kisatchie National Forest Significant Geographic Area (SGA).

At the recent 2017 annual partnership meeting, the steering committee voted to renew the original Declaration of Partnership for an additional five years citing the important contributions the group has made to the 2025 goal and the greater leverage and cooperation that partner agencies have achieved because of their participation.

WLEP efforts have brought more than 2 million dollars of restoration funding to the SGA, funds that were matched by the partnership. Hundreds of resident landowners, conservation professionals, and members of the timber industry have received education and guidance from the partnership through the presentation of Longleaf Academies, field days, and burn workshops. Perhaps more importantly, this past year the WLEP oversaw the planting of approximately 2,000 acres of longleaf together with over 90,000 acres of combined burning and other stewardship activities to existing stands within the SGA.



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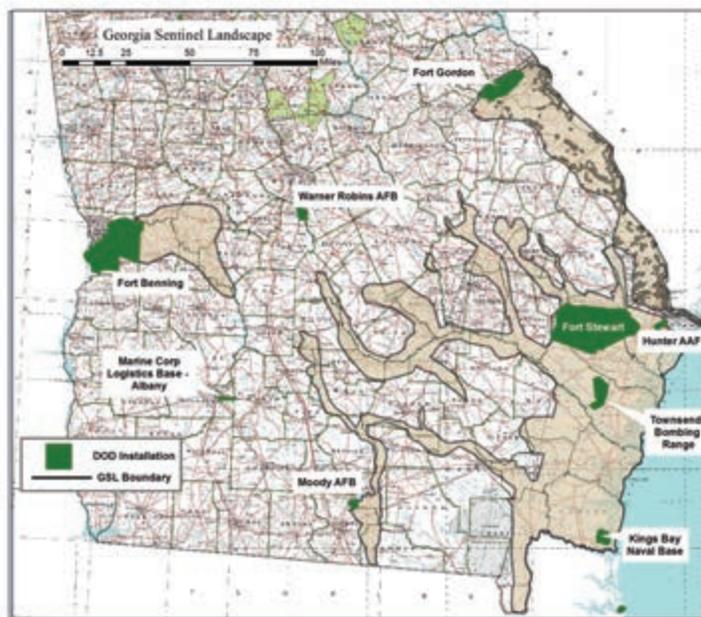
By *Tim Beaty, Fish & Wildlife Branch, Ft. Stewart/Hunter Army Airfield, GA*

Georgia Sentinel Landscape Becomes the 7th in the Nation

In 2013, the U.S. Departments of Agriculture, Defense and the Interior announced the Sentinel Landscapes Partnership, a nationwide federal, local and private collaboration dedicated to promoting natural resource sustainability in areas surrounding military installations. Agencies from the three Departments coordinate the Partnership at the national level through the Sentinel Landscapes Federal Coordinating Committee (FCC). In a broad sense, Sentinel Landscapes are places where preserving the working and rural character of key landscapes strengthens the economies of farms, ranches and forests; conserves habitat and natural resources; and protects vital test and training missions conducted on those military installations that anchor such landscapes. The first six Sentinel Landscapes were designated based on consensus among the three federal agencies, but in 2017, the FCC announced an application process for up to three additional partnerships to gain recognition as Sentinel Landscapes.

An essential element of a Sentinel Landscape is that it has to have one or more Department of Defense (DOD) installations at its core. Given the large number of DOD installations in Georgia, many installations and conservation organizations expressed interest in seeking recognition as a Sentinel Landscape. With the help of over twenty partners representing federal, state, local, NGO and other interests, an application was submitted in March, and in October this local partnership received notification that the Georgia Sentinel Landscape (GSL) had been selected as the 7th Sentinel Landscape nationwide.

The GSL boundary encompasses almost 4.5 million acres as seen on the map at Figure 1. This dynamic landscape includes nine DOD installations and the associated compatible use buffer areas; three million acres of sandhill habitat important for the conservation of the gopher tortoise and other sensitive species; and 100,000 acres along the Savannah River that are high priority for conservation in order to protect drinking water for Savannah, Augusta, and other communities. The area also includes parts of three Significant Geographic Areas identified in the Americas Longleaf Restoration Initiative (ALRI)



Map of Georgia Sentinel Landscapes.

(Okefenokee-Osceola, Chattahoochee Fall Lines, and Fort Stewart / Altamaha), as well as the counties along Georgia's pristine 100-mile coastline.

Sentinel Landscape designation does not mean that all 4.5 million acres will become one big natural area or that no development can occur within the landscape. However, it does establish this broad area as a priority landscape where dollars can be focused and leveraged to maximize multiple benefits to protect military readiness, conserve natural resources, and preserve working lands. DOD is assigning extra points to installations within a Sentinel Landscape when allocating funds from the Readiness and Environmental Protection Integration (REPI) program. Sentinel Landscape designation will also be helpful in the competition for funding from programs administered by the Departments of Agriculture and Interior. Much work remains to be done, but the partners are honored to have this landscape in Georgia recognized as a Sentinel Landscape and are excited about the opportunities that this designation will bring moving forward.

360

EMORY UNIVERSITY GOIZUETA BUSINESS SCHOOL IMPACT CHALLENGE

By Ad Platt, *The Longleaf Alliance*



Dr. Steven Jack, of the Jones Center, provides a foundation in longleaf ecosystem management for MBA students from Emory University Goizueta Business School. Photo by David Weitnauer.

All 33 partners in the Longleaf Partnership Council (LPC) are working in a united way on the common goal to restore 8 million acres of longleaf by the year 2025. In the past year, the LPC has had challenging conversations about the rate of progress versus the time and distance remaining to achieve our goal. We recognize significant acceleration will be needed if we are to reach our goal on time, but all partners remain committed. It will take more than simply “working smarter AND working harder”; internally we have identified “Game Changers,” new strategies that can help speed our progress. And with eyes on the goal, we are also engaging in a novel partnership with Emory University’s Goizueta Business School to take a fresh and unbiased look at the challenges and opportunities for longleaf from their unique areas of expertise.

In this project, five first-year MBA students from the Goizueta School, along with a second-year guide and their faculty advisors, will examine opportunities to improve markets and valuation for all that longleaf can produce, to benefit private landowners, and particularly to bring new institutional large private landowners into the effort. The question – what would naturally incentivize more large private landowners to choose longleaf over other species? This experiential learning

project will be a team effort over their spring semester, with the final product from their work due in early May 2018. The project is possible thanks to financial support from the R. H. Dobbs Foundation, Georgia Pacific, The Joseph W. Jones Ecological Research Center and Georgia Power. But numerous other organizations including the Forest Landowners Association, Resource Management Service, the Warnell School of Forestry at the University of Georgia, and The Longleaf Alliance have helped to provide the students with a foundation level of background knowledge.

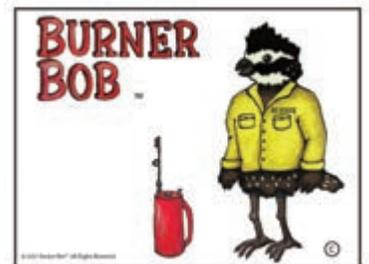
No one study or one semester of work will solve the challenges we collectively face to improve markets or marketing, grow customers for longleaf products, identify new products, reduce operating costs, or increase the financial returns realized from choosing longleaf. But we are intrigued to learn what this bright team of students will propose from their different perspectives.

And, should this pilot project turn out to be as useful as we expect, we hope to continue this line of inquiry over numerous iterations, and invite other Universities to engage these challenges from their particular areas of expertise.

WHILE YOU'RE IN THE GRASS STAGE

By Anne Rilling, *The Longleaf Alliance*

Bob and his family have moved to the Ideal Forest. This forest has scattered longleaf pine trees and shrubs that provide areas of protection from predators and extreme weather. With scattered clumps of grasses and forbs, it is not too thick at ground level and allows Bob and his family to hide from anything and everything that wants to eat them while they are finding resting areas and food, especially insects, essential for the diet and survival of young chicks. As he grows, he will learn to eat seeds from plants such as ragweed and beggarweeds. Bob and his brothers and sisters are happy, growing up buff and strong.

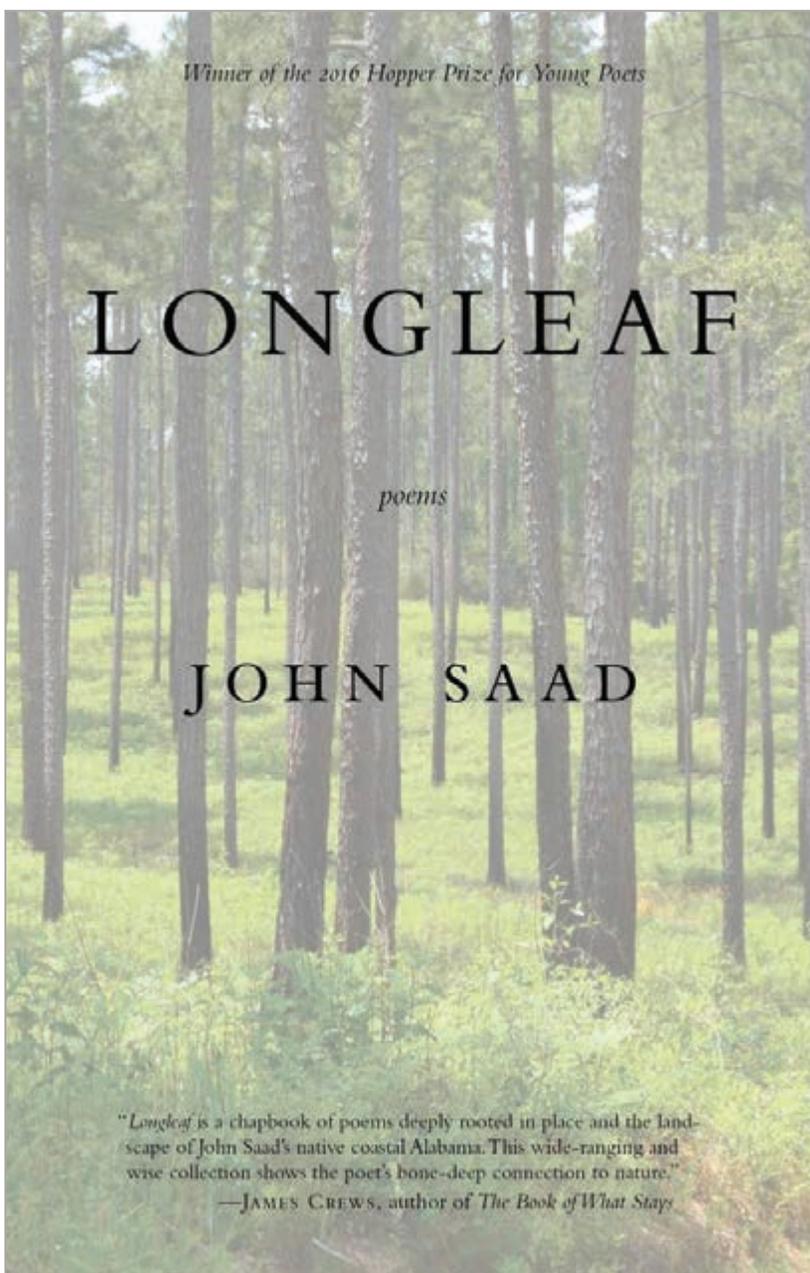


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LITERARY LONGLEAF

Longleaf By John Saad 2017, Green Writers Press, Vermont, 44 p. ISBN-13: 978-0998260440

Longleaf, John Saad's collection of poems was the winner of The Hopper Prize for Young Poets in 2016. His poetry has appeared in *Kudzu House*, *Steel Toe Review*, *Birmingham Arts Journal*, and *ISLE*. A native of coastal Alabama, he is also the state winner of the 2014 Hackney Literary Award for Poetry.



LONGLEAF

The duff,
the fernspine

underfoot,
where light

coils
the crooks,

leaves
needledrift

on holes
and shells,

the shagged
blowdowns,

and scales
darting,

lithe,
crimping

early red—
say

a crowning
syllable

without
waste,

come March,
burning

candlegrass
into

a tendered
clearing.

LONGLEAF ART SPOTLIGHT



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About the Artist: HEWN by Marc Ventry

HEWN specializes in handcrafted one-of-a-kind items created from reclaimed heart pine and architectural features, salvaged from historic homes, tenant houses, and tobacco barns and slats in the Florida Panhandle. Marc Ventry is the man behind

HEWN. He uses his extensive carpentry skills and love of the South and the outdoors to build inspired, heirloom-quality furniture, frames, cutting boards, and more. To see more of Marc's work, visit his website at www.hewninc.net.



Longleaf Destinations SOLON DIXON FORESTRY EDUCATION CENTER

Entrance to the 5300-acre Solon Dixon Forestry Education Center. Photo by Casey White.

In a remote area of Covington and Escambia Counties in southern Alabama you will find the Solon Dixon Forestry Education Center. The Dixon Center's 5,300+ acres range from very dry uplands to very wet bottomlands, creating a diversity of forest types, habitats, and opportunities for guests. Cypress and tupelo ponds, sink holes, springs, caves, river frontage, dry upland ridges, agriculture, natural longleaf, abundant wildlife, and wildflowers combine to create diverse teaching and management opportunities.

The Solon Dixon Forestry Education Center was a gift to Auburn University from the late Solon Dixon, and his recently passed widow, Martha Belvin Dixon, residents of Andalusia, Alabama.

Mr. Dixon dreamed of a place where young people could experience nature while learning about forestry, wildlife and the many other aspects of natural resources management. He envisioned a place for applied teaching and learning, where people could see and experience the effects of management practices. With his love of natural resources, Auburn University, and young people, his vision became a reality. Beginning in 1978 this generous couple donated an 80-acre tract and an initial monetary donation. This land would later combine with another larger deed of property — at the time

the largest of its kind in Auburn's history — the Dixon family home-site, and funds necessary for the creation of this center, to be operated to create the Solon Dixon Forestry Education Center, a 5,350-acre forestry and wildlife conservation education facility operated by the Auburn School of Forestry and Wildlife Sciences.

Since its dedication in 1980, the Solon Dixon Forestry Education Center has managed its natural resources and programs to meet the objectives of: (1) providing quality natural resource education to a variety of user groups, particularly Auburn University students; (2) providing a base for and support of research efforts in natural resource fields; (3) serving as a source of information and technology transfer from the scientific community to the general public; and (4) managing its own natural resources wisely and economically to provide income for the Center's programs.

Located only hours from numerous major cities, the Center includes the 6,500 square foot Solon and Martha Dixon Foundation Learning Center, a state-of-the-art auditorium, classroom and conference room, two large bunkhouses, five semi-private dormitory buildings, a rec center, administrative building, classroom and computer lab building, maintenance shop, and cafeteria.



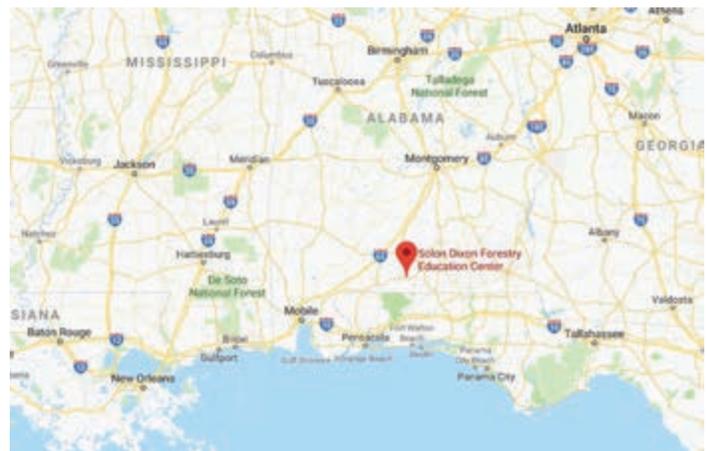
Fire is now a regularly used management tool used across the Dixon Center. Photo by Solon Dixon Forestry Education Center.

High-quality longleaf habitats are common within the forested areas of the Center. Photo by Carol Denhof.



Forestry students from Auburn University learning about longleaf habitats from John Gilbert.

When the Center opened in 1980, much of the existing forest had been cut through with limited amounts of merchantable timber remaining. Fire had been excluded from the property, and the understory was dense with very little sunlight reaching the ground. One of the first decisions made was to reintroduce prescribed fire to much of the property. At the same time, timber management became a priority, as Mr. Solon's directive was for the Center to be operationally self-sufficient. To meet this goal, a management direction was undertaken to promote high-value stands of longleaf, slash, and loblolly. While much of the upland focus is in pine management, areas of bottom and upland hardwood were retained to provide a diversity of habitats for plants, animals, and visitors. Today, of the 5350



Map showing location of the Solon Dixon Forestry Education Center.

total acres in the Center, approximately 3500 acres make up our working forest, 260 is in agriculture leases, and the remainder is in a variety of set-aside areas.

The Longleaf Alliance is proud to call The Dixon Center home. Former Director of the Dixon Center, Rhett Johnson, along with Dean Gjerstad of Auburn University founded LLA in 1995, and since then the headquarters of the organization has been housed at the Dixon Center.

Numerous Longleaf Academy courses, workshops, and field days have been hosted here as well. The educational facilities and diverse field sites allow for unparalleled opportunities for training.

Other places of interest that are close to the Dixon Center include the Conecuh National Forest, Open Pond Recreation

Area, Blue Lake Recreation Area, and Blackwater State Forest (Florida). If you are not staying in dormitories on the property, there are quite a few towns within driving distance to the center; the closest with lodging and food options are Andalusia (17 miles) and Brewton (26 miles).

Because of the imagination, wisdom, and generous legacy of forestry pioneer Solon Dixon and his wife Martha, quality forestry education is supported here and is excelling.



*Timber production is used as an income source for the Center.
Photo by Solon Dixon Forestry Education Center.*



*Solon and Martha Dixon
Foundation Learning Center.
Photo by Casey White.*



PRT is excited to announce the opening of a nursery in Atmore, AL

Established at the former E.A. Hauss nursery site on a long term lease with the Alabama Forestry Commission. The nursery began sowing in March 2017 with seedlings shipped out for the 2017/2018 planting season.

PRT offers native and piedmont longleaf seedlings utilizing local seed sources from all across the longleaf region. We also offer improved seed for longleaf and grow loblolly, slash and shortleaf.

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Gifting the Longleaf Pine

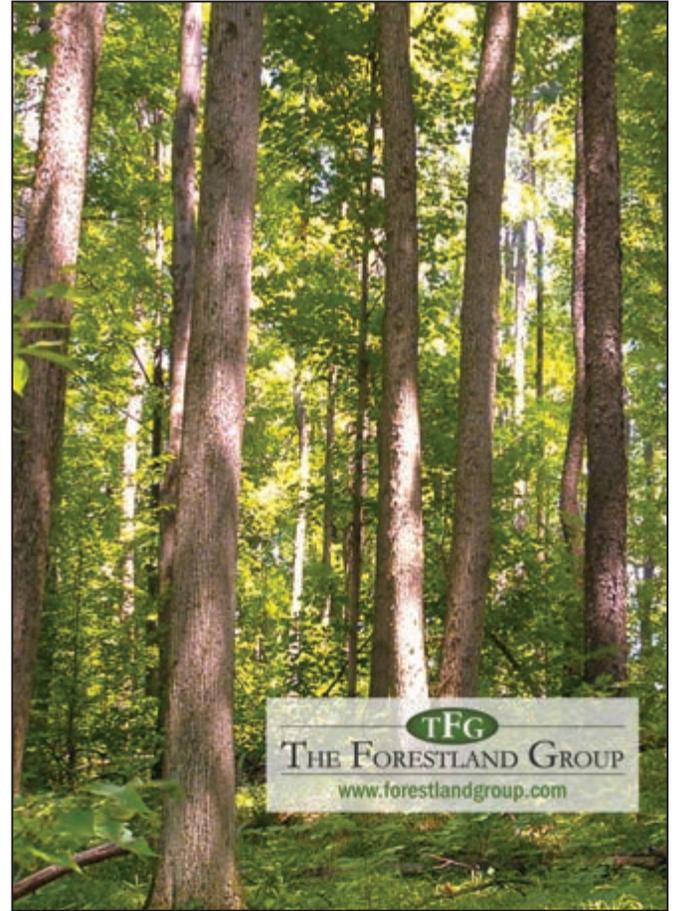


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LLA TEAM GROWING IN SOUTH CAROLINA



SC Field Project Coordinator and Savannah River Watershed Project Director Lisa Lord.

Wildlife Science, a MEd in Biology Education from Auburn University, and is now also pursuing an MS in Wildlife and Fisheries Biology from Clemson University. Lisa joined The

Lisa Lord has joined The Longleaf Alliance team as the SC Field Project Coordinator and Savannah River Watershed Project Director. Lisa is a Certified Wildlife Biologist and has worked on numerous natural resource management, longleaf restoration, and land conservation projects and initiatives in South Carolina over the last fifteen years, including working closely with private landowners to manage their land. She earned a BS in

Longleaf Alliance staff last October after working for several non-profit conservation organizations and as a natural resource and conservation consultant for land trusts and private landowners throughout the state.

Lisa works throughout the South Carolina longleaf range, but primarily in the ten counties along the SC side of the Savannah River meeting with landowners to discuss longleaf ecosystem management, red-cockaded woodpecker, and gopher tortoise management and coordinating the public lands tree planting program. Lisa also works on a new innovative project, in partnership with the South Carolina and Georgia Forestry Commissions and the Savannah Clean Water Fund, and with the forestry, conservation, and drinking water sectors and priority landowners on the GA and SC sides of the Lower Savannah River. The objective of this project is to optimize forestry and land management practices to improve and protect water quality and facilitate permanent land protection in the watershed through conservation easements.

ALLIANCE WELCOMES EST SUPERVISOR KAIDEN SPURLOCK

by Vernon Compton, The Longleaf Alliance



New GCPEP EST Supervisor Kaiden Spurlock. Photo by The Longleaf Alliance.

Kaiden has 14 years of prescribed fire experience in the Southeast. He previously served as a Preserve Steward and Wild Land Firefighter with The Nature Conservancy on several preserves in Florida and most recently worked for The Nature Conservancy as the Northwest Georgia Burn Crew Manager. His experience also includes being a Crew Foreman with AKA Tree Removal in Buford, Georgia. Kaiden has a Bachelor of Arts in Business Management (2009) and a Master of Business Administration (2013) from Warner University.

The Longleaf Alliance is pleased to welcome Kaiden Spurlock as the new Gulf Coastal Plain Ecosystem Partnership (GCPEP) Ecosystem Support Team Supervisor working in northwest Florida and south Alabama. Kaiden will supervise both the Ecosystem Support Team (EST) and the Wetland Ecosystem Support Team (WEST), with priorities centered on restoration and management of the longleaf ecosystem, with an emphasis on prescribed fire.



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Emily Bagby*



*WEST Team Member
Edward O'Daniels*

ALLIANCE WELCOMES NEW TEAM TARGETING RESTORATION OF ISOLATED WETLANDS *by Vernon Compton, The Longleaf Alliance*

Thanks to a Florida State Wildlife Grant, a new Longleaf Alliance team, the Wetland Ecosystem Support Team (WEST), has begun work in the GCPEP landscape targeting isolated wetlands with prescribed fire and other treatments needed to restore them. The Senior Team Member is Jessica Sandoval, and Team Members are Emma Gladstone, Emily Bagby, and Edward O'Daniels.

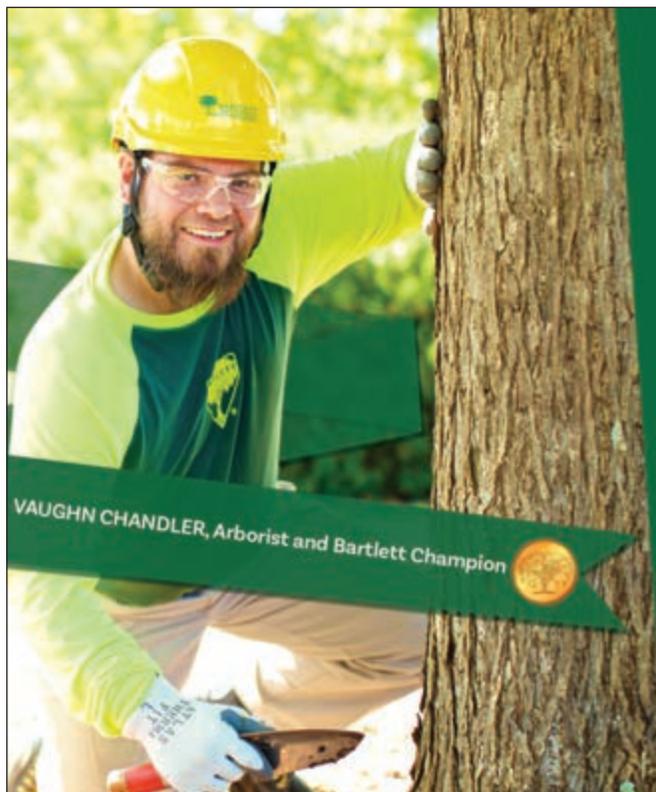
Jessica Sandoval has a Bachelor of Science in Biology from the University of Central Florida and most recently worked on the Ocala National Forest assisting with habitat and ecosystem management projects.

Emma Gladstone is currently pursuing a Bachelor of Arts in Urban Environmental Studies at Birmingham Southern College with a 2018 graduation date. Her previous experience includes work at the Southern Environmental Center and Turkey Creek

Nature Preserve, and with Backridge Tree Service.

Emily Bagby will graduate in 2018 with a Bachelor of Science in Forest Resources and Conservation with a minor in Wildlife Ecology from the University of Florida. Emily is a U.S. Army Veteran and previously served as a Shorebird Steward Volunteer with the Audubon Society and a Red-cockaded Woodpecker Volunteer at Blackwater River State Forest.

Edward O'Daniels received his Bachelor of Science from the University of Florida with a Major in Natural Resource Conservation and a Minor in Wildlife Ecology. His previous experience includes work as a Biological Technician at Eglin Air Force Base and with the Northwest Florida Water Management District assisting with land management.



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— Becky Humphries,
NWTf Chief Executive Officer

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We will conserve or enhance 4 million acres of critical wildlife habitat.

We are working to restore and manage longleaf pine ecosystems throughout their historic range.

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Jacksonville Zoo and Gardens is a partner of the Longleaf Pine Alliance - helping ensure a sustainable future for longleaf pine ecosystems.

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JACKSONVILLE
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By Lynnsey Basala, *The Longleaf Alliance*

Nursery Conservation Partnership Support Continues to Expand

As the planting season concludes and we look forward to another great year, I would like to commend our Nursery Conservation Partners for their ongoing commitment to The Longleaf Alliance. Nurseries such as Bodenhamer Farms & Nursery, Blanton's Longleaf Container Nursery, Meeks' Farms & Nursery, International Forest Company, and Whitfield Farms & Nursery have provided some of our largest contributions over the years, and we are humbled by their level of support and advocacy for the longleaf pine. Thank you to our newest partners, Advantage Forestry Container Pines, ArborGen, PRT USA, and *Forestate Growers, LLC for coming on board thus allowing us to inch closer to our vision of eight million acres of longleaf by 2025. Nursery Conservation Partnership support is an irreplaceable portion of our budget and of significant importance to the overall goal to restore longleaf forests across the range.

For nearly a decade, The Longleaf Alliance has worked closely with nursery managers to track seedling sales and

availability across the range, as well as expand upon the evolving contractor list. Together, we continue to increase participation, improve methods and the level of customer service for our biggest supporters. Thank you to the wonderful nursery managers for helping us maintain a strong line of communication with our partners and for providing updates for the nursery list located on The Longleaf Alliance website in recent months. If you wish to provide updates or learn more about the role of nurseries as part of our Nursery Conservation Partnership Program contact Development Director, Lynnsey Basala, at lynnsey@longleafalliance.org or (314) 288-5654.

*Jacob Moore purchased the assets and operations of Forestate Growers, formerly Deep South Growers, in Douglas, GA in December 2017. It's our pleasure to welcome Jacob and Forestate Growers as a 2018 Nursery Conservation Partner.

Complete List of Nursery Conservation Partners

Advantage Forestry Container Pines; ArborGen; Blanton's Longleaf Container Nursery; Bodenhamer Farms & Nursery; Florida Forestry Service – Andrews Nursery; Forestate Growers, LLC; International Forest Company; Georgia Forest Commission – Flint and Walker Nurseries; Meeks' Farms & Nursery, Inc.; North Carolina Forest Service; PRT USA; Rayonier Forest Operations, LLC; South Carolina Forestry Commission - Taylor Tree Nursery; Whitfield Farms & Nursery

Mid-Atlantic Pine Straw Mulch Restores Longleaf in South Carolina

Giving back to and preserving the environment is the foundation in which Mid-Atlantic Pine Straw Mulch was founded. Mid-Atlantic Pine Straw Mulch is committed to restoring Longleaf Pine Forests in the Southeastern US, one tree at a time. For every bale of pine straw sold by Mid-Atlantic Pine Straw Mulch, one longleaf pine tree seedling will be planted, specifically in South Carolina where the pine straw is sourced. Mid-Atlantic Pine Straw Mulch aspires to donate 100,000 trees over the next ten years.

Do you have a third-party fundraiser idea? Make The Longleaf Alliance your charity of choice! Contact Development Director, Lynnsey Basala, for more information.



2nd Biennial Instagram

Photo



Contest

#RestoreLongleaf

To enter, simply follow these instructions:

1. Follow @longleaf_alliance on Instagram
2. Instagram a photo associated with Longleaf Ecosystem Restoration
3. Use the hashtag #RestoreLongleaf
4. Tag @Longleaf_Alliance in your photo

Awards will be given out at The Longleaf Alliance's Biennial Conference in Alexandria, LA, October 24, 2018.
Contest ends Friday, September 21 at Midnight.

Per Instagram rules, we must mention this contest is in no way sponsored, administered, or associated with Instagram, Inc. By entering, entrants confirm they are 18+ years of age, release Instagram of responsibility, and agree to Instagram's term of use. By submitting an entry, you are allowing The Longleaf Alliance to use the images with full credit to the entrant in future publications or materials to promote longleaf restoration.

@gretzkawc011 (2016 Contest Winner)



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12th Biennial Longleaf Conference

LONGLEAF REFLECTIONS
LONGLEAF REFLECTIONS

Looking Back Taking Stock Making Progress

Alexandria, Louisiana October 23-26, 2018

HEARTPINE

{HEARTPINE}

A LONGLEAF BRIDGE TO PAST AND FUTURE

By Tray Dunaway, Camden Battlefield and Longleaf Pine Preserve

*A tall descendant of the longleaf
from the colonial era. Photo by
Historic Camden.*

Longleaf pines were described as growing to 150 feet in height with a diameter up to 4 feet in the 18th century. Traveling in a longleaf forest would be like walking through a cathedral with large columns supporting a thin canopy allowing shafts of sunlight to fall on a floor covered by pine straw and tall bunch grasses. These provided forage for the once abundant buffalo and later for the free-ranging domestic livestock of pioneers in the wilderness of colonial South Carolina. It was truly a different world.

Surrounded by one of these 18th century virgin longleaf forests eight miles to the north of Camden, South Carolina, two mighty armies' advance units clashed on night marches at 2:30 a.m. on August 16, 1780. Continental troops and Patriot militia led by General Horatio Gates and a superbly organized and equipped British army under the command of General Lord Cornwallis literally crashed into each other on the major north/south Great Wagon Road in the Carolina backcountry. This large battle of thousands unfolded at daybreak. The ill-trained and poorly equipped left flank composed of Virginia and North Carolina militia panicked, collapsed, and fled from the field, overwhelmed by the "shock and awe" of arguably the best trained and battle-hardened fighting British soldiers in the world. In less than an hour and a half, the battle was over and

would become the largest field defeat of the Patriot army in the Revolutionary War or any American field army until WWII. Over the centuries following the patriot defeat, the flora and fauna also changed. As with Gates' defeat, the longleaf ecosystem also was vanquished.

In April 2017, Historic Camden Foundation became the legal steward of the 476 acres that compose the core Camden Battlefield. This land was conserved thanks to over 100 years of forward-thinking efforts of many individuals and groups

including the Daughters of the American Revolution, the Palmetto Conservation Foundation, the Katawba Valley Land Trust, and Friends of the Camden Battlefield Advisory Board. Historic Camden has initiated a challenging, multi-generational plan for the Battlefield's future that will blend history, natural resources, and recreation to create a cohesive visitor experience.



The author in 18th c. attire at the Battle of Camden and Longleaf Pine Preserve, Camden, South Carolina. Photo by Historic Camden.

By involving national, regional, and community partners, Historic Camden has created the Camden Battlefield and Longleaf Pine Preserve to develop the multifaceted opportunities this large tract offers. Partnering with others such as the South Carolina Battleground Preservation Trust and Campaign 1776 is further saving and interpreting this sacred place. The Board of Historic Camden hired both History and Natural Resources Directors who will together share recreational planning. As the Natural Resources Director, I am pleased to share our Longleaf Pine Preserve story.

While self-educating by reading a variety of books and publications on longleaf pine and restoration, taking The Longleaf Alliance's Longleaf 101 Academy accelerated my knowledge base and gave me the opportunity to learn directly from experts. The practical, rather than just didactic information, approach from Longleaf 101 gave me a

roadmap, access to Longleaf Alliance staff experts, and answers to questions I didn't even know to ask. Longleaf 101 told me what other expertise I needed to tap into because the diversity of experts who are helping us on this journey is as diverse as our existing forestry tracts.

One of our first steps was to secure a knowledgeable forester who could appreciate a slightly different approach to logging on archeologically sensitive ground where preservation of the soil itself is essential for our necessary blend of history and



The author giving a service project orientation to Pack 320 and Troop 342 scouts from Sumter, SC and Shaw AFB. Photo by Historic Camden.

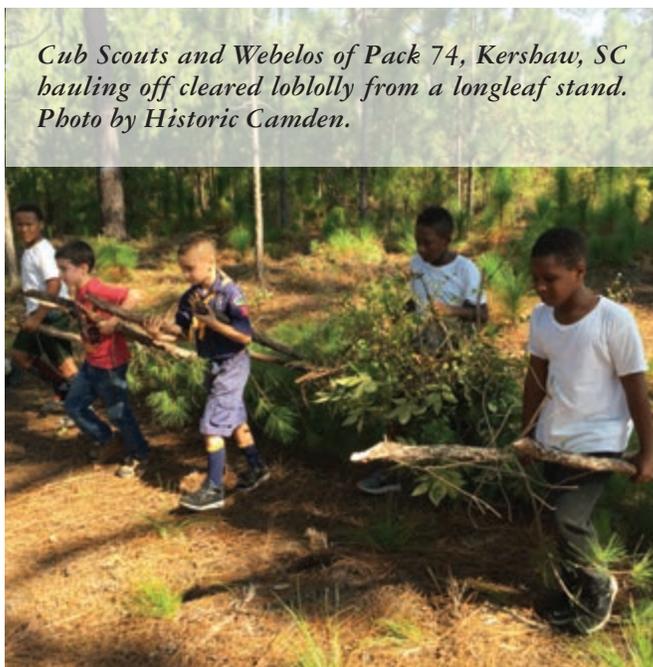
natural resource goals. Coy Meyers of Forest Land Management is our professional forester and provides immediate local forestry expertise on reforestation and business aspects of forestry product sales. This knowledge is incorporated into a 10-year forestry plan detailing management for five distinct forest tracts. This plan allows Angel Sams, our local NRCS agent, to position us for government cost-share programs and connect us to the resources of Jeff Clark and his Kershaw County Soil and Water District experts. Kershaw County and Camden local governments have also contributed greatly to this huge team effort.

Dr. Joan Walker of Clemson University has willingly shared her expertise in conversion to longleaf and restoration of native warm season grasses to create an eventual longleaf savanna. Having Clemson Extension's Sandhill Research and Education Center with T.J. Savereno and Ryan Bean just 25 minutes away has offered mutually beneficial opportunities. Site walks with biologists Joe Cockrell and Bret Beasley with the US Fish and Wildlife Service have been sources of great advice and will particularly be of benefit when we start a prescribed fire regime. Dr. Austin Jenkins, a well-known

South Carolina naturalist at USC Sumter, is also involved with planning.

In the private sector, relationship building is ongoing and has involved outreach to local, state, and even national stakeholders. We are currently in a continued dialogue with International Paper for future collaborations. Our outreach to the Boy Scouts of America has created opportunities for a permanent primitive Scout camping site. Our land also provides conservation and service projects that benefit both Scouts and the Preserve. A variety of wildlife, educational, and environmental groups are participating with our growing coalition of partners.

Historic Camden has created an economically self-sustainable plan to reforesting 400 acres to the original longleaf pine ecosystem so we will be grant-independent for essential needs. We recognized if we were overly dependent on grants in our planning and those dried up we would lose forward momentum. We view receiving grant money as tremendously beneficial for enhancing the Preserve but not our only source of financial support. The huge expense of reforestation, prep work, longleaf planting, re-introduction



Cub Scouts and Webelos of Pack 74, Kershaw, SC hauling off cleared loblolly from a longleaf stand. Photo by Historic Camden.

of prescribed fire, and other future overhead expenses will be mitigated by profits from harvesting existing stands of loblolly and slash pines, longleaf pine straw raking, and sales from other forest products.

To balance our three areas of emphasis, (history, natural resources, and recreation), synergistic plans have evolved. Current and planned firebreaks will become paths aligned to support historical interpretations and purely recreational goals. Logging decks can also serve as permeable parking areas for visitors. Furthermore, the varied diversity of today's existing stands necessitates different individual approaches for our future forest.

The essential need for prescribed burns to restore the competitive advantage of longleaf as well as enhance the diversity of flora seems obvious to current Historic Camden staff and board now that we are educated. Most local citizens certainly do not yet appreciate fire's role in the process of reforestation and longleaf ecology, and future Historic Camden staff and boards will need education as well. Community support is essential to the Preserve's success. Using presentations to local groups, articles in regional publications, and creation of a Facebook page is helping to inform and educate the public of our plans and what the future holds. It also affords a medium to increase awareness of the severely endangered longleaf ecosystem. While our first prescribed burns are not planned until after mechanical thinning and a subsequent growing season, our community has already been provided information to counter years of fire suppression and misinformed Smokey Bear messaging.

After the despair of defeat on the Camden Battlefield, the Patriot cause rallied and ultimately emerged victorious. In the words of Gen. Nathanael Greene, by whose efforts the Southern Campaigns of the American Revolution led to ultimate victory, "We fight, get beat, rise, and fight again!" Historic Camden, with supportive partners, is actively helping this vanished longleaf ecosystem rise again.

While few of us will see our longleaf pine seedlings become 100-year-old mature trees, we can plant the seeds, (or rather, "seedling plugs"), for a lasting legacy gift to our descendants as all of us, together, grow the past. Today and tomorrow's visitors will see how natural resource restoration and historic

preservation can balance economic self-sustainability. And perhaps the largest benefit will be the aesthetic value of visitors once again walking unimpeded through a beautiful longleaf pine forest – an experience unknown to most people in our community - as our Camden Battlefield Longleaf Pine Preserve bridges past and future.

M. Tray Dunaway, MD, FACS, CSP is the Natural Resources Director for the Camden Battlefield and Longleaf Pine Preserve and a proud graduate of Longleaf 101. For additional information, please contact Historic Camden at (803) 432-9841. Subscribe to our Facebook Page, (battlefieldlongleafpreserve).

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