THE LONGLEAF LEADER

GROWING A LEGACY

A WORKING FOREST FOR THE LONG RUN

VOLUME IX- ISSUE 4

WINTER 2017

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COVER Longleaf pinecone in a longleaf stand that is used for pinestraw production in South Carolina. Photo by Casey White.

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By Robert Abernethy, The longleaf Alliance

PRESIDENT'S MESSAGE

We all know the stats. Once, there were 90 million acres of longleaf. At one point, we estimate the acreage dropped below 3 million acres and today the acreage has increased to 4.7 million acres. A 50% increase. This success is attributable to many of the people that recently attended the 11th Biennial Longleaf Conference in Savannah, Georgia.

The theme for the conference, "Working Forests for the Long Run," implies active management that is committed, directed, and engaged. Our goal to manage "for the long run" will necessitate management that is adaptive and changes as the conditions of the forest and land ownership change. This active management requires that we all work together. The people that attended the Longleaf Conference represented all manners of disciplines, industries, and careers. We had foresters and wildlife biologists in abundance. However, we also had college professors and researchers, economists and consultants, representatives of state and Federal land management agencies and non-governmental organizations, and we had landowners that come from every walk of life. All these people come with common goals of good land management, a love for the land, and a vision for their own little spot of heaven.

As I have traveled around the South over the last 30 years, I have met all of these people and the one thing they all have in common is a desire to do "what is right." Knowing, "what is right," is the tough part. We may want to restore the land, but to what condition? How do we know what is right? The people that attended the Conference sought answers to these and other questions.

For three days, this past November we came together in Savannah to teach and learn from each other on how to manage a "Working Forest for the Long Run." There were many other meetings our members could have attended that first week in November; over 300 chose to be in Savannah. Without our members, we could have had no conference, and without our members, we cannot restore the longleaf ecosystem to a place of prominence in the southern landscape.

This beautiful forest is our landscape. It is a part of our history and our culture, it has provided the materials to construct our homes and businesses and it inspires us to create art and literature. Thank you for all you do, every day. Enjoy the winter and when this drought breaks, and we get some rain, let's get some trees in the ground and some flames in the forest.

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2017 | Calendar

January 10-12, 2017
H201 Herbicides & Longleaf
Rayburn Country Resort
Jasper, Texas

February 21-23, 2017
F201 Fire & Longleaf
Webb Wildlife Center
Garnett, South Carolina

March 28-30, 2017
F201 Fire & Longleaf
Cheraw State Park
Cheraw, South Carolina

May 23-25, 2017
LL101 Longleaf Academy
Stockton, Alabama

June 13-15, 2017
H201 Herbicides & Longleaf
Tuskegee, Alabama

July 11-13, 2017
LL101 Longleaf Academy
Ft. Stewart, Georgia

Aug 15-17, 2017
H201 Herbicides & Longleaf
Tall Timbers Research Station
Tallahassee, Florida

September 26-28, 2017
U201 Understory Restoration
Southern Pines, North Carolina

October 11-13, 2017
U201 Understory Restoration
Alexandria, Louisiana

October 24-26, 2017
U201 Understory Restoration
Milton, Florida

For more information about events please visit The Longleaf Alliance website (www.longleafalliance.org).

WINTER 2017 MANAGEMENT CHECKLIST

- **Site Prep Burns:** It is important to conduct a site prep burn prior to planting longleaf. Site prep burns: remove logging slash, lead to better planting jobs, stimulate early growth by increasing available nutrients, and decrease hot spots that may kill young seedlings in subsequent burns.

- **Planting Longleaf:** To take advantage of the winter precipitation and maximize survival, planting early is almost always better than late planting. Remember to keep an eye on planting depth.

- **Prescribed Fire:** Winter is a prime time to conduct fuel reduction burns in mature or sapling stands. Late December through the end of winter is a good time to introduce fire in young longleaf stands to help control unwanted pine seedlings and other competition. *Monitor the Keetch-Byram Drought Index (KBDI) prior to conducting any prescribed fires. Even after an inch or two of rain, the effects of long-term droughts will persist leaving trees susceptible to mortality from prescribed fire.

- **Evaluate Young Stands:** Evaluate young stands to determine one-year survival and insure adequate stocking. Wait until after the first frost, so the grass stage longleaf can be more easily seen.

- **Prune Longleaf:** In some stands that lack fuels or have a low stocking rate, mechanical pruning may be an option to avoid the "Old Field" growth form. Winter is the easiest time to prune and should be finished before the spring green-up. Pruning may not be practical in a large stand.

- **Plant Native Warm Season Grasses:** Later winter through early spring is the recommended time to plant our native understory species. Some plants require a cold-stratification period and need to be planted earlier.

- **Herbicide Treatments:** Basal bark and stem injection herbicide treatments are typically most effective at controlling unwanted or invasive trees and shrubs during the dormant season.

Q&A

Q. Dear Longleaf Leader,

I have a client with some two-year-old longleaf, and I have signed up to burn them under the Southern Pine Beetle program. I went to a forestry meeting last week, and they said it is not good to burn off the needles on pines because they have to produce more needles to in order to continue growth. Under what circumstances would I want to burn this stand?

Jim

A. Hi Jim,

Although we encourage and would like to see more (careful) prescribed burning accomplished in longleaf plantings, we begin by saying: make sure you have an objective that can be reasonably accomplished by burning - - or in other words, don't burn if burning cannot help you reach this goal. (Usually, it can.)

That being said, we might often be better off by burning earlier rather than waiting too many years to get started. While we wait, major competitors of the planted longleaf are not waiting, including loblolly or other pine volunteers and hardwoods of many kinds. Because they can in a few years get so advanced (> 7' tall) that fire is not very effective in controlling them, the major competition species may dictate when or how soon you need to burn. We know longleaf is more vulnerable to damage when it first leaps out of the grass and before it gets to 6' tall, especially if it has unprotected, elongating candles showing. So much so that if it is actually in that height range, you would benefit from burning it earlier (before they candle in the spring), or waiting for a little later in the spring when the needles have fully developed to protect the bud and candles again.

Another part of your question was under what circumstances, and here we want to focus on the prescription very closely. Your site inspection of the trees and their embedded fine fuels will help you craft the proper plan. Heavy sod grasses would be much more problematic than a more open native understory. By understanding the fuels available to feed the flames, and the size of the trees, your plan will be crafted to specify the flame height and duration. Your plan, and your ignition techniques will shift as the fuels and topography and weather conditions change to achieve the type of fire desired.

The general circumstances will most likely be "low intensity, short duration flame under wind conditions sufficient to manage the fire effects and vent heat quickly." Because backing fires appear modest but stay in one place too long, they actually can be much more damaging to grass stage longleaf because the duration of heat (residence time) can be lethal for small seedlings. Better to minimize any backing fire, and flash fire quickly through the small longleaf using short strip head fires or flanking fire ignition. Your site and fuels will be the guide, but for my site, this might mean a cool temperature, moderate RH%, 5--10 mph steady breeze to steer by, good soil moisture from recent rain > 1/2" (so heavier fuels remain damp and don't ignite), perhaps an overcast day, and managed so as to minimize scorching and stress to the longleaf. Some techniques we may use to do this include adjusting the width of ignition lines, or going to point source ignition, or adjusting how those points line up across the burn.

Regarding the day of burn, and prior to getting started, employ a test fire on a similar, but isolated corner where you can see what fire behavior you are getting on site before you commit to the entire unit. In advance of the burn day, see if you can create some interior fire lines or use roads where you could cut it off if weather conditions change and suddenly you are out of prescription.

Is it sometimes OK to burn off the needles? It might be if it was necessary to achieve the particular objective, but I would try to minimize that as much as possible so as not to slow down the growth of my trees, or to minimize the number lost. If you did have to trade 10% longleaf mortality to achieve 60% loblolly mortality, would that be a good trade? It might, and sometimes can be the difference between having a workable stand going forward vs. a doghair thicket that takes many more years to develop into a mixed, mostly loblolly stand. This is not a "once and done," but a frequently repeated process that will get easier as you learn the tract and train the fuels.

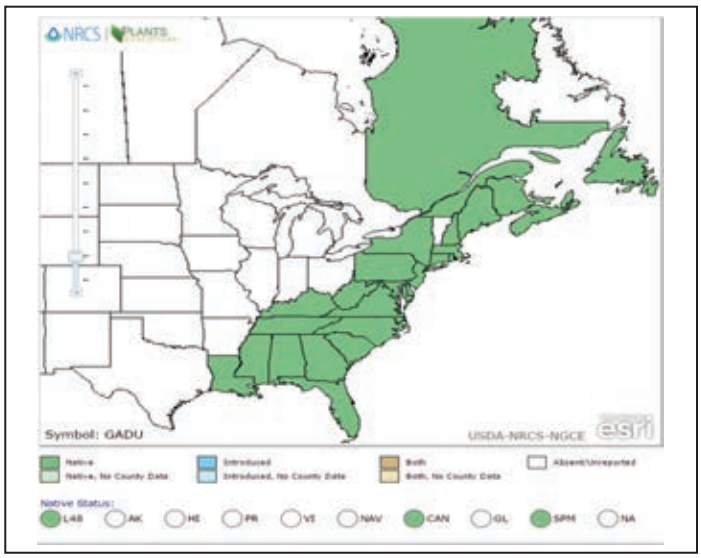
Hope this helps, but if you would rather, we can also talk more by phone about some of these details. And every year it is good to review that excellent brochure, "The Pine That Fire Built," just to be reminded again of all the do's and don'ts as we get our thinking back into “fire mode”. If you don't have it, we will be glad to send you one.

The Longleaf Alliance

By Carol Denhof, The Longleaf Alliance

PLANT SPOTLIGHT

Gaylussacia dumosa (Andrews) Torr. & A. Gray Dwarf Huckleberry



Map showing distribution of dwarf huckleberry. USDA PLANTS Database.

Dwarf huckleberry showing the shiny leaves with pointed tips. Photo by James H. Miller & Ted Bodner, Southern Weed Science Society, Bugwood.org.

Description

Dwarf huckleberry is a small perennial shrub that is a member of the Blueberry Family. It's closely related and is usually found growing along with the native *Vaccinium* or blueberry species. This shrub that grows to approximately 1.5 ft tall, forms colonies through the growth of long underground rhizomes. *Gaylussacia* leaves are shiny above and have golden resinous dots that are especially noticeable on the underside of the leaf. The leaf also has a distinctive pointed tip. This plant starts to bloom in March and continues through June. The flowers grow in clusters of short, white, tubular flowers measuring ¼ inch in length. The flowers lead to production of large round berries throughout the summer.

Distribution & Habitat

Gaylussacia dumosa can be found in a variety of habitats from dry to moist pinelands, turkey oak scrub, flatwoods, and savannas. It has a wide distribution across eastern North America. It can be found from eastern Canada south to Florida and west to Louisiana.

Wildlife Uses

Native bees utilize the flowers of dwarf huckleberry as a nectar plant. The fruit is consumed by a variety of birds and mammals including northern bobwhite, wild turkey, ruffed grouse, and squirrels. Songbirds such as eastern bluebird, blue jay, northern mockingbird, northern cardinal, eastern towhee, and gray catbird also eat the large fruits of this plant.

Other common species

Dwarf huckleberry can possibly be confused with shiny blueberry (*Vaccinium myrsinites*) or another species of *Gaylussacia*, dangleberry (*G. frondosa*). The dwarf huckleberry can be distinguished from the shiny blueberry by the presence of the pointed tip on the end of the leaf. Dangleberry is different in that its leaves are larger and have a glaucous or chalky green color.

Commercial Availability

This species is not widely available in the trade.

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Miller, J.H. and K.V. Miller. 2005. *Forest Plants of the Southeast and their Wildlife Uses*. The University of Georgia Press, Athens, GA 30602. 454pp.

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

USDA, NRCS. 2016. The PLANTS Database (http://plants.usda.gov, 7 November 2016). National Plant Data Team, Greensboro, NC 27401-4901 USA.

GROWING A LEGACY

A Working Forest for the Long Run

Thursday night celebration at Ships of the Sea Maritime Museum. Photo by Carol Denhof.

Over 350 members of the longleaf community gathered in Savannah, Georgia this past November for the 11th Biennial Longleaf Conference. The meeting provides the opportunity for people from all over the southeast to get together and celebrate longleaf. Despite our varied backgrounds, we all have one thing in common – our dedication to bringing back this special forest.

For the very first time, the conference was kicked off with a unique art exhibition titled Longleaf Regenerated that showcased 12 artists inspired by the longleaf ecosystem. From paintings to photography to sculpture to pine needle weaving, all of the works were truly amazing and added a different element to the conference that allowed us to appreciate the beauty that is all around us.

We were honored to have some exceptional keynote speakers this year. During the opening plenary, Dr. Reed Noss, Professor at University of Central Florida and the author of the acclaimed book *Forgotten Grasslands of the South: Natural History and Conservation*, enlightened us with an address entitled "The Antiquity of Fire and Pine Savanna in the Southeastern Coastal Plain, and Why it is Relevant to Restoration and Management". We were then captivated by the ability of Philip Juras to see through the landscapes of today to imagine what once was during his lunch keynote entitled "Framed by Longleaf: An Artist's Perspective". During the Friday morning plenary session, we were all inspired to keep doing the good work that will have long-term impacts on the longleaf ecosystem. Lindsay Thomas reminded us that we are more apt to save those "places with a story" and that healthy longleaf forests have so many stories to tell. Lindsay was followed by Janisse Ray. Janisse appealed to our emotional ties to the land and how we as the longleaf restoration community must maintain hope that we will succeed in our efforts and indeed make it a forest for the long run.

As in year's past, conference attendees were given many opportunities to learn about the latest work being done in longleaf restoration and research through the session presentations. Conference speaker sessions followed themed tracks that included Partnerships, Innovative Tools & Techniques, Ecosystem Restoration, and Working Forests. The invited speakers provided a wealth of knowledge and attendees went away with ideas to put into practice on the lands that they are managing. The field trips reinforced many of the concepts that were introduced during the indoor sessions. This year, attendees were given a choice of field trips: Nemour's and Big Survey Plantations in the lowcountry of South Carolina or Townsend WMA and Ft. Stewart Military Installation in Georgia. Each trip focused on different aspects of longleaf management and restoration. The South Carolina tour was planned to discuss management choices that private landowners face, such as pine straw raking, thinning, savanna restoration, and technology used to monitor your property. The Georgia tour was geared more towards restoration professionals.

(A.) Savannah Marriott Riverfront Atrium during the evening poster reception. Photo by Carol Denhof. (B.) This year's silent auction provided many interesting items to bid on and purchase. Proceeds went to support the work of The Longleaf Alliance. Photo by Carol Denhof. (C.) Hunter Parks with Green Assets addressing a concurrent session in the Working Forests Track. Photo by Bobby Franklin.

Attendees learned about the important work being done in the lower Altamaha River basin, rare species such as gopher tortoises, red-cockaded woodpeckers, and indigo snakes, and groundcover restoration.

The Longleaf Conference also provides the opportunity for working partnerships to meet. This year, the Longleaf Partnership Council met prior to the conference, the Southeastern Prescribed Fire Council met on Friday after the close of the conference, the coordinators of the Local Implementation Teams gathered during the conference, and a post-conference workshop to learn about the longleaf mapping project was on Friday. These groups are essential for getting the work of longleaf restoration accomplished, and the collaborations resulting from these meetings are advancing our overall goal of increasing longleaf on the ground.

This gathering once again provided the chance for colleagues to strengthen existing partnerships and form new relationships with others to achieve our common goal of increasing the acreage of longleaf habitat across the range that runs from Virginia south to Florida and west to Texas. The enthusiasm and excitement was palpable during the conference. This energy will not only provide the motivation to keep up the great work we are doing on a daily basis, but also to carry us through the next couple of years until we're all together again at our next conference.

Lamp shade created from glass-encased foraged swamp pine knots by artist Taylor Melzer that was on display in the Longleaf Regenerated exhibition. Photo by Carol Denhof

Ryan Mitchell discussing wiregrass seed with a group during the Ft. Stewart field tour. Photo by Randy Tate.

By Bill Palmer, President, Tall Timbers Research Station and Land Conservancy

CELEBRATING THE CULTURE OF FIRE: PAST AND FUTURE OF PRESCRIBED FIRE ON PRIVATE LANDS

Private landowners manage over a million acres of frequently-burned pine savanna in the southeastern U.S., including many of the best examples of old growth longleaf ecosystems. As is typical with frequently burned pine forests, these lands have relatively open pine canopies, sparse mid-story of fire-adapted hardwoods, and a diverse ground cover that provides key habitat structure for hundreds of species, many of which are threatened. In the Red Hills of Georgia and Florida, there are more than 30 threatened or endangered species which are dependent on the use of frequent fire. From North Carolina to Texas, landowners demonstrate leadership in conservation and are helping to increase the acreage of pine savanna, to improve bobwhite populations, and benefit imperiled species. Nowhere do more private landowners work to sustain pine savanna than in Southwestern Georgia, northern Florida, and Southeastern Alabama, where nearly 800,000 acres of this habitat resides in private ownership. When these private efforts are combined with the publicly-owned lands managed with fire, it truly is a "longleaf legacy landscape."

Burning the Wade Tract. Photo by Rose Rodriguez.

Fire is a unique management tool: it alone is essential for achieving the many objectives represented by a diverse set of private owners. While most of the country has lost its fire culture, in the longleaf legacy landscape it still exists largely due to uninterrupted use on private lands. This region is the birthplace of prescribed fire and has maintained a rich history of its use. That culture now includes the most progressive and active forestry agencies promoting and applying it on millions of acres annually. The combination of research stations, NGOs, public agencies, and landowners all working to promote the safe and effective use of fire provides the hope that we can not only sustain the culture of fire but expand it to restore a natural heritage that requires it. Increasing the use of fire by leveraging this culture is necessary if we are to sustain threatened species on private lands, stem the declines of common species, and reduce wildfire risks. Recent wildfires in the Southeastern U.S. are a reminder of how important prescribed fire is and how quickly drought can change fire behavior in our managed ecosystems.

However, the challenges to expanding the culture of fire are daunting. It will take a coordinated effort with a diverse set of approaches to advocate and train inexperienced landowners. Growing human populations, prospects of climate change, increasing air quality standards, human health and safety are just a few of the issues that we need to address. We need to share and grow our knowledge of prescribed fire behavior and improve our ability to model and manage smoke, while at the same time promoting and increasing its use. With the recently created Prescribed Fire Science Consortium, Tall Timbers, the US Forest Service, managers, and researchers from across the country have teamed up to focus on the pressing needs of prescribed fire science. This effort will ultimately develop new tools for practitioners, but also directly answer questions that arise from managers on key prescribed fire topics. Tall Timbers' proximity to frequently burned lands and its history of supporting fire research provides an ideal setting to facilitate this collaboration. This consortium will improve effective fire management and provide the firm scientific basis to help private and public land managers grow the culture of fire well into the future.

Fertilization Economics in Longleaf Pine Stands

By: E. David Dickens, UGA Warnell School of Forestry and Natural Resources
David J. Moorhead, UGA Warnell School of Forestry and Natural Resources
Pat Minogue, University of Florida
Bob Franklin, The Longleaf Alliance

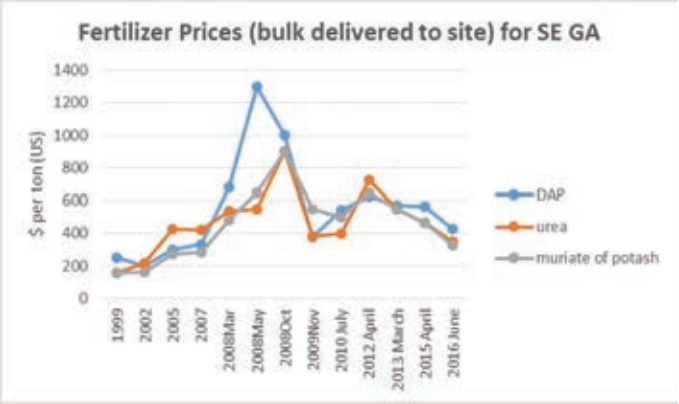
Forest landowners, at some point in the life of their longleaf pine stands, may wonder if fertilization may be of value. There are many questions that need to be addressed to make a sound decision. The recent longleaf fertilization paper in the Fall 2016 Longleaf Leader (pages 18-20) addressed many of these questions. As a continuation of that previous article, this paper will address the economics of longleaf fertilization using four studies: two studies on old-field sites with moderate to high fertility (former crops were a rotation of annual crops with annual fertilization and no woody competition initially) and two studies on cut-over pine-hardwood sites (former crops were pines and hardwoods) with low fertility and excessively drained sandy soils (with woody competition in many cases).

EXAMPLES OF LONGLEAF FERTILIZATION ECONOMICS

Former old-field site longleaf planted fertilization studies in south Georgia

The two old-field, unthinned longleaf stands that were both planted December 1986 (at 605 TPA) are located in Screven and Tift County, Georgia. The former crops were a rotation of corn, cotton, soybeans or peanuts, and a winter grain with annual N, P, and K fertilization. The University of Georgia Warnell School of Forestry and Natural Resources faculty (David Dickens and Dave Moorhead) installed side-by-side replicated plots to determine if a split (1/2 dose of NPK 3 years apart; at ages 17 and 20 years old) or a single NPK dose would improve pine straw production and wood growth prior to a first thinning enough to justify the cost of these single or split applications (NPK application totals were 150 N + 50 P + 50 lbs K per acre).

Results at both old-field planted sites were as follows. (1) Merchantable wood tons per acre gains (4-year increment), when averaged across the two sites four years after initial fertilizer treatments, were zero or negligible for the single and split NPK treatments (34 and 32 tons per acre, respectively) compared to the control (32 tons per acre, Tables 1 and 2). (2) There was an average pine straw yield gain of 28 bales per acre per year with the ½ + ½ NPK and full NPK treatments at the Screven County site, and a 25 bale per acre per year average gain with the same treatments at the Tift County site. At $0.80/bale for the extra straw produced with the ½ + ½ NPK or full NPK treatment through six years (initially, there was



Nitrogen (N) as DAP and urea, phosphorus (P) as DAP, and potassium (K) as Muriate of potash fertilizer prices in SE Georgia from 1999 through June 2016

no fertilizer benefit one year after initial application, because needles stay on pines 18-24 months) there was a pine straw financial benefit of $112 per acre at the Screven County site and $100 per acre at the Tift County site. Using current June 2016 fertilizer prices, an NPK fertilizer plus application cost would be approximately $167 per acre, so in both cases, there was not enough extra pine straw produced to cover the current cost of the fertilizer on these two old-field sites. Since these two old-field planted longleaf stands would most likely be thinned (versus clear-cut), even if there were significant wood growth and value gains, only 1/3 to 1/2 of the fertilizer benefit would have been recovered from the thinned wood, and the balance of the fertilizer cost would not be recovered in the final wood

harvest. Typically, mid-rotation fertilizer responses for loblolly, longleaf and slash pine peak four years after application and dissipate after eight years, so a clear-cut is needed within six to eight years after fertilization if a landowner wants to capture 100 percent of the mid-rotation fertilizer benefit.

Treatment	Trees per acre		dbh (inches)		Basal area (ft^2/ac)		Tons per acre (4yr increment)	
	Age (years)							
	17	21	17	21	17	21	17	21
Control	325	303	8.37	9.24	121	135	84	120 (36)
Split NPK	303	273	8.47	9.52	114	125	83	114 (31)
Full NPK	328	305	8.32	9.24	120	136	86	118 (32)

Table 1. Trees per acre, diameter at breast height (dbh or 4.5 feet above groundline), basal area and merchantable tons per acre (4 yr increment) for December 1986 unthinned, old-field planted longleaf pine plots at the Screven County, Georgia site (Bonneau and Blanton soils) through age 17- and 21-years-old.

Treatment	Trees per acre		dbh (inches)		Basal area (ft^2/ac)		Tons per acre (4yr increment)	
	Age (years)							
	17	21	17	21	17	21	17	21
Control	320	303	7.97	8.80	114	126	82	110 (28)
Split NPK	317	310	7.96	8.84	113	129	80	113 (33)
Full NPK	360	350	8.26	9.09	127	146	99	135 (36)

Table 2. Trees per acre, diameter at breast height (dbh or 4.5 feet above groundline), basal area and merchantable tons per acre (4 yr increment) for December 1986 unthinned, old-field planted longleaf pine plots at the Tift County, Georgia site (Albany and Leefield soils) through age 17- and 21-years-old.

Longleaf fertilization studies on excessively drained, low fertility, cut-over sites with excessively drained sandy soils in South Carolina

Two longleaf fertilizer studies were installed on the Sand Hills State Forest in Chesterfield, South Carolina on sandy, excessively drained, low fertility, cut-over sites. One was in a 9-year old un-thinned plantation (planted in 1986) and another in a 32-year old (planted in 1963) longleaf plantation which had been thinned twice.

A 42-year-old longleaf stand in South Carolina growing on an excessively well-drained deep sandy soil (Alpin soil series) that was NPK (150 N + 50 P + 50 K) fertilized twice in a 10-year period, improving both pine straw production and sawtimber and pole production.

Photo 1 shows a longleaf pine stand that was fertilized twice (once at age 32 and again at age 36 years) with NPK. In this case, fertilization was needed twice in a 10-year period due to the deep excessively drained sands where inorganic fertilizers can easily leach though the soil profile and past the feeder root zone. On better soils (i.e., sandy loams with a restrictive layer within 50 inches of the surface) NPK fertilization may only be needed once to enhance pine straw production for four to six years and wood gains for six to eight years.

In the older, twice thinned (age 20 and 31 years old) longleaf stand, the pine straw yield response to NPK fertilization improved by 135 bales per acre in the first four years and by an estimated 150 bales per acre in the following six-year period. Additionally, the extra wood grown (30% chip-n-saw, 40% sawtimber and 30% poles) from the two NPK applications, through age 42, was 12.7 tons/acre (Table 3). Using recent (2015) Georgia pine stumpage prices of $20/ton for chip-n-saw (CNS), $30/ton for sawtimber (ST) and $50/ton for poles (P), and a proportionate price across the product classes of $33/ton, times 12.7 tons of incremental wood response to NPK fertilization, the increased CNS+ST+P wood value was $419 per acre but pulpwood value was decreased by $36 per acre (3 tons less versus the control during the 10 year period @ $12/ton, Table 3) for a net wood gain with NPK fertilization of $383/acre. The additional pine straw, 285 bales/acre at $0.90 per bale (SC 2015-16 prices) yields $257/acre incremental straw value (an annual $25.70 in years 2 through 10 increase versus the control). The total wood plus straw value increase is $640/acre. Using 2015 fertilizer prices for 250 lbs DAP (45 N + 50 P), 230 lbs urea (105 N) and 100 lbs potash (50 lbs K) per acre and a $0.10/lb cost to apply, the total cost of the two NPK fertilizations was $334/acre. Costs per acre for each application are $40 urea, $53 DAP, $16 potash and $58 to apply ($167 per application x 2 applications). In this case, where pine straw and wood values are high, and fertilizer costs are relatively low, there is a large NPK fertilization benefit. The rate of return for the incremental fertilization response in longleaf wood (income at the end of the 10-year period) and pine straw (annual income starting in year 2 through 10) over the 10-year period is 11.8%. This is a 1.9-fold increase in return versus cost and a positive net revenue increase of $306/acre. In other cases, where incremental wood and/or straw responses may be less, fertilizer costs higher, or where pine straw raking and income is not part of stand management, fertilization may not be financially attractive.

The young, unthinned longleaf stand (age 9 – 19 years old) in South Carolina that was fertilized twice in a ten-year period did not provide a large enough economic response to fertilization to justify the costs. The incremental wood response to fertilization was approximately ½ ton per acre per year, which was essentially pulpwood. Pulpwood is historically lower

Year	Treatment	Trees/ acre	Dbh (in)	Total height (ft)	Merchantable tons/acre (10 yr MAI)	Pulpwood tons/acre	Chip-n-saw, sawtimber+ poles tons/acre
1995	control	196	7.50	50.1	36.3	27	9.3
	NPK	177	7.30	49.7	31.6	24	7.6
2005	control	195	8.70	55.2	53 (1.67)	17	36
	NPK	175	9.37	57.6	58 (2.64)	11 (-3 vs C)	47 (+12.7 growth vs C)

Table 3. Mean trees per acre, dbh, height, and tons per acre by treatment from 1995 (age 32 years) through 2005 (age 42 years) for the 1963 planted longleaf stand (thinned in 1983 and 1994 and fertilized in May 1995 and May 1999) on the Sand Hills State Forest in Chesterfield County, SC (Alpin soil).

in value than sawtimber or poles by 2- to 4-fold. Nor did fertilization yield enough incremental pine straw to justify the cost of NPK fertilization, with an average of 30 bales per acre per year over the ten-year period, but with no pine straw gain in year one. The incremental fertilization wood response harvested in a thinning plus the incremental pine straw yield response for the two NPK applications was $273 per acre. This included $243 in pine straw for 270 incremental bales at $0.90/bale (an annual income starting in year 2 through year 10) plus $30 in incremental pulpwood at $12/ton on the 2.5 tons harvested (in year 10 of the study or at age 19 years) in a thinning of the 5.1 tons gained by fertilization. With a first thinning at age 19, only 1/3 to 1/2 of the incremental wood value would be realized, so the fertilizer benefit is mostly in the pine straw response in this young longleaf stand.

In this young, unthinned longleaf stand case, the lack of large economic response was due to: (1) a much lower stumpage price for pulpwood, (2) fertilization provided only just over ½ ton per acre per year of incremental wood, (3) only 1/3 to1/2 of the extra wood grown was captured in the thinning (versus a clear-cut which captures 100% of the wood gain), and (4) the $194/acre cost for two NPK (75 N + 25 P + 50 K) applications. The rate of return for the incremental wood value captured in the thinning and pine straw value versus the two NPK application costs is 9.0%. This is a 1.41-fold increase in value, or a net gain of $79/acre, which for many forest landowners may not be an adequate net revenue increase to justify the cost, irrespective of investment risk.

Treatment	Trees per acre		dbh (inches)		Basal area (ft^2/ac)		Tons per acre (4yr increment)	
	Age (years)							
	17	21	17	21	17	21	17	21
Control	320	303	7.97	8.80	114	126	82	110 (28)
Split NPK	317	310	7.96	8.84	113	129	80	113 (33)
Full NPK	360	350	8.26	9.09	127	146	99	135 (36)

Table 4. Mean trees per acre, dbh, height, and merchantable tons per acre by treatment from age 9 years old (1995) through age 19 years old (2005) for the 1986 planted longleaf stand (fertilized in May 1995 and May 1999) on the Sand Hills State Forest in Chesterfield County, SC (Alpin soil).

SUMMARY

When fertilizing any southern pine species, land use history is an important factor in determining if a given stand will respond to single, split, or repeated applications. Typically (based on our 12 old-field fertilization studies since 1995), fertilization does not pay on sites recently in agriculture, pasture, or hay cutting because of moderate to high inherent fertility from the former land use. There are many important factors in deciding whether to fertilize a pine stand including: (1) a determination of nutrients needed using diagnostic tools (leaf area index estimates, soil, and foliage sampling), then fertilizer materials and amounts needed (NP or NPK typically; see Fall 2016 Longleaf Leader), (2) current application costs and fertilizer prices for di-ammonium phosphate (DAP 18-46-0) or mono-ammonium phosphate (MAP 11-52-0), urea (46-0-0), and potash (0-0-60), (3) expected growth response period (typically 5 to 8 years depending on soils and stand age and stocking), (4) anticipated future stumpage prices for the projected products grown, (5) anticipated increase in pine straw bales per acre and price per bale (where pine straw is raked), and (6) anticipated incremental wood gains in thinning and final harvest as a result of fertilization.

Alternative fertilizer materials such as animal manures and biosolids that are classified as land applicable may be economically justifiable to use and offer pine growth benefits. These organic materials act as slow release fertilizers, which on excessively drained sandy soils of low fertility can have a longer response benefit than traditional inorganic fertilizer materials. If pine straw is not part of the income stream and a landowner is only going to get a wood gain from fertilization, the pine stumpage price(s) for the extra wood has to be high for longleaf pine as longleaf is the least responsive to NP or NPK mid-rotation fertilization when compared to loblolly and slash pine.

In practice, to choose which stands to fertilize, stands are ranked from those potentially most capable and probable (cut-over, low fertility sites) to realize a financial gain in a five to 10-year period to the least probable of responding (old-field, pasture and hay field, moderate to high fertility sites). The problem lies in anticipating what wood values will be at time of harvest, and prices may be higher or lower than at time of fertilization. If a stand is to be thinned after fertilization not all the financial benefit from fertilization is realized until final harvest. If a landowner can double their revenue (versus cost) from incremental wood and straw produced in six to nine years after fertilization, then they realize an 8% to 12% rate of return (this assumes all extra wood and straw revenues are realized at the end of the time period, higher rates of return are realized when pine straw extra income is considered on an annual basis). For example, it costs $135/ac for a single NPK application and the landowner gets an extra $270 in pine straw and wood at the end of eight years, then he/she made a 9% rate of return for investment in fertilization using the "rule of 72" (money doubles every 8 years = 9% rate of return, every 6 years = 12% rate or return, every 9 years = 8% rate of return, every 12 years = 6% rate of return).

By Kent Evans, Coordinator Texas Longleaf Implementation Team

LANDOWNER SPOTLIGHT MIKE HOWARD

Mike Howard speaking to landowner group during field day. Photo by Kent Evans.

Ten years ago, Mike Howard began acquiring land in Sabine County, Texas in the footprint of the historic range of the longleaf pine ecosystem. Mike first bought a 1000-acre tract of cut-over and unmanaged land along the western edge of Toledo Bend Reservoir. With a history of commercial timber production, the land had lost its longleaf pine 50 years earlier and had little history of controlled fire. After the last commercial harvest the land had been allowed to grow up into a tangled thicket typical of unmanaged lands. That is when it went up for sale and caught Mike's attention. He had a vision of what the native habitats were in this part of east Texas and knew he could make a difference. Thus Mike began the labor of restoring those forest communities to the land which is now known as Clear Creek Ranch. Even though much of the land was covered in thickets of yaupon, Mike recognized the potential to restore the variety of habitats on the land, from the low hardwood creek bottoms to the high sandy upland hills. Over time, several contiguous tracts were added to the original purchase and now stands at approximately 2500 acres. With the creative use of herbicides, mechanical treatments, and fire, the original forest composition and structure are quickly recovering.

Mike sought advice from state and federal agencies on restoring longleaf to the uplands on the property. In the process of planting over 1,100 acres to longleaf, he utilized a variety of farm bill programs and technical assistance through the Texas A&M Forest Service, Natural Resources Conservation Service, and Texas Parks and Wildlife Department (TPWD). He also became partners with those agency staff and hosted numerous youth groups, landowners, and resource professionals on the land where they could learn from and share the processes in restoring part of the longleaf ecosystem. Mike is hosting a TPWD growth and yield study to compare growth rates of loblolly and longleaf in the Longleaf Ridge area. Mike is keenly interested in seeing the wildlife response to the restoration process and has enlisted the help of TPWD which monitors the response of the Bachman's sparrow, a state listed species of concern, through annual bird count surveys. The richly diverse herbaceous growth also has attracted a response from the native eastern wild turkey and bobwhite quail. Mature trees along the shores of Toledo Bend Reservoir host nesting bald eagles. Beaver and river otter frequent the streams on the property. The deer herd is managed through the state's Level 3 Deer Management Program and Mike joins many other Texans in a year round control effort of feral hogs.

Mike maintains a busy, full-time legal practice in Houston and is an avid woodworker recognized for the amazing restoration work done to the 100-year-old house that serves as his law office. Listed on the National Register of Historic Places, the law offices contain some touches from longleaf lumber Mike repurposed into cabinets and furniture collected from a dilapidated Texas coastal cottage. He invests much of his "spare time" in east Texas on the farm. There you can see his hands-on management style carried out on the forest. He runs his own dozer and serves as the burn boss on prescribed fires to keep a two-year rotational burn on the longleaf. Mike, with his family and friends burn an average of 1,000 acres a year. He is an advocate of land owner burning and has contributed his perspective on burning in Texas at local workshops.

In addition to providing the Clear Creek Ranch longleaf stands with the critical natural function of regular fire, the land provides another critical ecological function, connectivity, for

Young longleaf. Photo by Kent Evans.

Recently burned longleaf stand. Photo by Kent Evans.

the longleaf forests in Sabine County. Along two sides of the property is the Sabine National Forest's "Foxhunt Tract." This 2400 acre tract is a functioning example of a mature longleaf forest with a regular fire regimen and contains many of the classic components of the system including red-cockaded woodpeckers, pitcher plant bogs, and a diverse herbaceous understory. However, for at least 40 years, the national forest tract has been isolated by more than 5 miles from the next nearest longleaf stands. As Mike sustains longleaf and fire over time, the management of his 2,500 acres will almost double the size of the adjacent National Forest longleaf stand.

Mike's passion to restore these lands has not gone unrecognized. In 2009 Mike was awarded the Certified Forest Steward Award for his unique efforts, followed in 2011 by the prestigious Texas Lone Star Land Stewardship Award in creating wildlife habitat from the Texas Parks and Wildlife Department. Because more than 94 percent of Texas is privately owned or operated, private landowners are the key to effective wildlife habitat management in the state. Mike Howard provides a powerful example to other private landowners through his "hands-on" management and his effective advocacy. And a vital piece of the longleaf ecosystem is being restored to health and productivity.

Tools of the trade. Photo by Kent Evans.

Dr. James M. Guldin, Chair

NEWS FROM THE LONGLEAF PARTNERSHIP COUNCIL

SOUTHERN RESEARCH STATION, USDA FOREST SERVICE

Greetings and salutations to longleaf pine partners across the South, from your new incoming Chair of the Longleaf Partnership Council (LPC). My name is Jim Guldin, and I'm a research ecologist and project leader with the Southern Research Station of the US Forest Service. My responsibilities directing the agency's longleaf pine research led me to one of the research seats on the Longleaf Partnership Council in 2014, and I was recruited into the leadership of the group by Kevin McIntyre and Mike Black. I'll work hard to advance the positions of the Longleaf Partnership Council, and to continue to expand my knowledge about longleaf pine with the help of my friends and colleagues across the South—especially Troy Ettel with TNC, who has 'graduated' to serve as past Chair of the Council, and Andrew Schock of the Conservation Fund, our new Vice-Chair.

If you've been following our activity for the past year, you know that we are now six years into the 15-year restoration effort set forth by America's Longleaf Restoration Initiative--and we are behind the rate of restoration we need to attain the goal of 8 million acres of longleaf pine by 2025. The accomplishments to date have been stellar—we're now planting about 150,000 acres of longleaf pine annually, and prescribed burning has jumped to about 1.5 million acres annually. Those are astounding success stories; we need to honor that effort and to continue those accomplishments. But we still see longleaf pine stands converted to agriculture and to other forest types, especially planted loblolly pine stands, and that's a difficult thing both to quantify and to address.

The LPC has spent much of the past year digging into the weeds of what kind of game-changing actions might be developed, with the support of our Federal Coordinating Committee leaders from the Forest Service, the Department of Defense, the Natural Resources Conservation Service, and the US Fish and Wildlife Service. We've identified six areas where work might advance the cause: 1) increase restoration on public lands; 2) increase restoration on private lands, especially with large landowners; 3) increasing the urgency and importance of the message about longleaf restoration; 4) promote longleaf pine as part of Gulf restoration efforts, 5) increase support for the application of prescribed fire, and 6) increased support for land protection on strategically significant tracts.

At the November LPC meeting, we heard a report from the Forest Service about efforts to increase the pace of restoration on southern National Forests. We also plan to convene some LPC ad hoc working groups to refine the details in restoration on both public and private lands, which might use some of the findings that the Forest Service reported. LPC leadership also enjoyed a long meeting at the Longleaf Conference with Ryan Bollinger, Longleaf Implementation Team (LIT) Consul with The Longleaf Alliance, and representatives from each of the 17 LITs working in the significant geographic areas to advance longleaf restoration on public and private lands. The LITs are busy finalizing their SGA conservation plans as part of the annual NFWF call for funding proposals.

Finally, we are sad to report the passing of Patrick Glass, the first Chair of the LPC, after a brief illness in Arkansas. Patrick was an ardent and passionate enthusiast for longleaf pine. His experience during his career in Mississippi and Alabama were instrumental in his ability to organize the LPC during our first year of existence. We honor his memory as a colleague and a friend.

Upland longleaf forests cover the rolling loam hills of the Vernon Unit. Photo by Jim Caldwell (USFS).

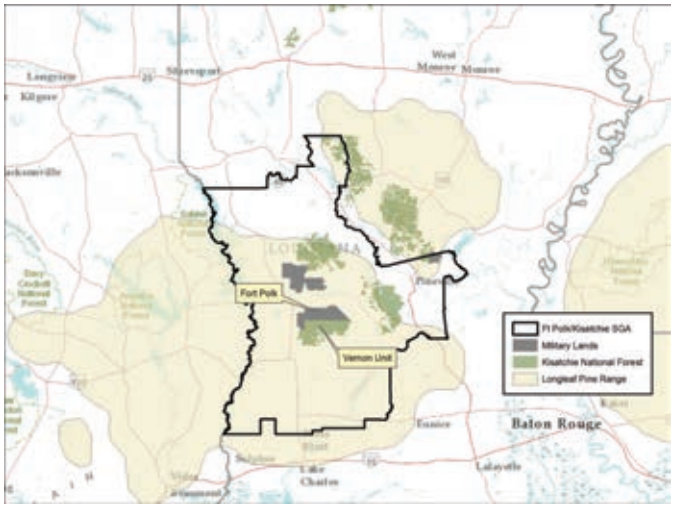
The Burnin' Vernon:

Longleaf Heaven on the Western Edge

By Jim Caldwell (USFS), Dan Weber (TNC), & Rick Jacob (TNC)

You can feel the breeze against your face. You can hear the wind in the pines, and you smell a freshness that comes only from a pine forest on a winter's day. The sun rays spear through the limbs and needles and the light dances among the bronze blades of grass. As if an artist had created a canvas, the longleaf forest is alive with textures and colors creating a rich tapestry of beauty.

The Vernon Unit of the Kisatchie National Forest is a place like no other. Located in the western range of longleaf pine and within the Calcasieu District of the Kisatchie, the Vernon spans the sandy hill uplands between the Red and Sabine Rivers in west-central Louisiana. The Kisatchie consists of 604,000 acres in several large tracts throughout the northwest and west-central area of the state. A stone's throw from the Texas border, many people are not aware that longleaf pine even exists this far west or know very little about these forests where bluestem replaces wiregrass in the understory. The Vernon encompasses just over 85,000 acres of which over 30,000 acres are burned each year earning the Unit the nickname, "The Burnin' Vernon," all under the capable direction of Calcasieu District Ranger Lisa Lewis and her dedicated staff. Ranger Lewis also oversees an active timber management program selling millions of board feet of timber each year. After years of stewardship, the Vernon is quietly becoming a longleaf showpiece equaling anything else found across the range.



Location of the "Burnin' Vernon" and adjacent Fort Polk, which together form the core of the SGA in western Louisiana. Map by Rick Jacob (TNC).

The Vernon Unit forms the core of the Fort Polk/Kisatchie National Forest Significant Geographic Area (SGA). The local implementation team known as the West-Central Louisiana Ecosystem Partnership (WLEP) is a coalition of stakeholders consisting of the U.S. Forest Service and U.S. Department of Defense, state and federal wildlife agencies, conservation NGOs and others united to work collaboratively to accelerate restoration of longleaf pine and other native ecosystems on public and private lands within a six parish conservation area anchored by the SGA. Ranger Lewis serves on the WLEP steering committee and helps to guide the significant amount of restoration occurring in this region. On public lands about 1,000 acres/year is added, mostly due to RCW management requirements. On private lands, perhaps even more, depending on availability of Farm Bill funds. And the condition of existing longleaf stands and stands being managed for eventual conversion to longleaf is continuing to improve. The National Forests are burning about 250,000 acres/year in the ecoregion, equally divided between TX & LA.

Ranger Lewis and the Vernon Unit were recognized for having made exemplary contributions to longleaf restoration across the

Showy blazing star (Liatris pycnostachya) adds a touch of purple to the bluestem dominated understory. Photo by Latimore Smith (TNC).

Ranger Lisa Lewis (far right) at Partnership Meeting with school principal Shannon Alford, Buck Vandersteen Director of Louisiana Forestry Association, Jim Caldwell, staff officer Kisatchie NF, and Eddie Taylor, Forest Supervisor of Kisatchie NF. Photo by Jim Barnett.

147 RCW nestlings were banded last year on the Vernon Unit. Photo by Jim Caldwell (USFS).

range at The Biennial Longleaf Conference in Savannah, GA this past November. This was the first year that awards were given to partnering agencies in addition to the individual awards given in the past. Both the Louisiana NRCS team and the USFS team under Lisa Lewis were recognized – a clear validation of the important advances made in longleaf conservation in Louisiana.

The Vernon and the adjacent Joint Readiness Training Center at Fort Polk share Army training operations as well as RCW population and habitat. This unique and collaborative effort leverages resources and personnel to manage the forest and ensure military readiness. The Army at Ft. Polk trains across approximately 67,000 acres of Army-owned land used for live fire and maneuver training and another 88,000 acres of land owned by the USFS.

A RICH HISTORY

The accounts of early settlers give us an idea what the landscape must have looked like in the western Gulf. Sargent and Mohr in the late 1800s reported that the virgin longleaf forests of the western range were typically more heavily stocked than the majority of the forests to the east, almost certainly owing to the predominance of more fertile loams. The largest longleaf pines in the virgin forests of the West were 35 to 40 inches dbh, 120 feet tall, with the oldest trees averaging 200 – 300 years of age, but rarely exceeding 400 years.

Fire was a common occurrence, consuming the thick, rank vegetation and maintaining the open park-like forest. Cecil Frost in 1998 estimated the fire return interval to be every 1 – 3 years in flats and rolling hills, and every 4 – 6 years in more dissected uplands. Stambaugh in 2011 used dendrochronology of fire scars in the Kisatchie Hills Wilderness and determined that for the period from 1650 – 1905, the fire return interval there averaged 2.2 years, and ranged from a low of 12 years to as often as twice a year.

In the late 1800s as the eastern U.S. population grew, sawmills sprung up seemingly everywhere to meet the growing lumber demands. Many of the small towns that exist in west central Louisiana today were originally sawmill towns. Fullerton sawmill opened in 1907 and by 1920, there were two sawmills, an alcohol plant and much more. The town grew to 5000, and Fullerton was the first place in rural Louisiana to have many modern conveniences. With the establishment of a large railroad system, the mill had cut most of the longleaf pine in its working circle by 1927. The rolling hills were left denuded and eroded.

In the 1930s, federal forest lands began to be established in the region. Kisatchie was proclaimed in 1930, followed by The National Forests of TX in 1936 which now total about 600,000 acres. More recently, the Big Thicket National Preserve was established in 1974 and now totals over 105,000 acres. The importance of these events cannot be overstated, because this established 1.3 million acres, much of it in longleaf habitat that now forms the core Significant Geographic Areas that we have today to build from and continue the longleaf recovery. Today, Louisiana has about 267,000 acres in longleaf dominated forests, about 160,000 of that in public ownership and the remainder in private.

A BRIGHT FUTURE

The call of the red-cockaded woodpecker can be heard overhead. You can see a cluster of cavity trees in the distance with their bark shining, sporting a glaze of pine tar. The Vernon Unit features over 170 active clusters of the endangered red-cockaded woodpecker constituting the largest population in the state. Last year alone an astounding 147 nestlings were banded. The Vernon population serves as a donor population, and as part of the Western Gulf Coast Translocation Cooperative, has provided numerous birds over the years to partners west of the Mississippi River. The Louisiana Pine Snake, which is currently proposed for

federal listing as threatened is found on the Vernon. It's a fossorial species restricted to longleaf woodlands on deep sands with healthy groundcover to support its preferred prey species, the Baird's pocket gopher.

One of the captivating things about a well-managed longleaf forest is that you can see for such a long way. Wildflowers abound, pine lily, butterfly weed, and yellow asters form a collage of greens, bronze, copper, and yellow. Lush pitcher plant bogs dotted with white top sedge and toothache grass occur throughout the Vernon whose rolling hills harbor over 400 plant species, over 100 of which are essentially restricted to these forests. Dr. Jim Guldin, Senior Research Scientist with the US Forest Service recently commented, "When I want to show longleaf pine, I'm talking good longleaf pine, to collaborators, scientists, and all interested people, I take them to the Vernon Unit! It's great! It is amazing!" In fact, Dr. Guldin recently led a tour of international scientists through the longleaf country. "I chose the longleaf of the Vernon Unit because there is no other place like it," Dr. Guldin stated.

The Vernon continues to draw nature lovers as well as researchers and a growing conservation partnership. The National Bobwhite Conservation Initiative (NBCI), in collaboration with the Louisiana Department of Wildlife and Fisheries, recently chose to locate the Louisiana Quail Focal Area on the Vernon Unit due to the shared commitment to habitat improvement demonstrated by Ranger Lewis' team. Additionally, NRCS and the U.S. Forest Service announced a Joint Chiefs' Landscape Restoration Partnership award to improve the health and resiliency of the longleaf pine ecosystem on the Kisatchie National Forest, U.S. Department of Defense, and private lands. At a press conference held under Vernon longleaf, NRCS State Conservationist Kevin Norton commented, "There could be no better place and no better backdrop for talking about increasing longleaf pine in Louisiana than the Vernon Unit of the Kisatchie National Forest. Just look around you!"

Yes, there is something unique about the Vernon longleaf pine. Standing in the forest, a majestic cathedral of longleaf above, watching the red-cockaded woodpeckers fly by over the river of pitcher plants below, you'll understand that there is something different and distinct about the Vernon Unit, a slice of longleaf heaven on the western edge.

Jon Scott with National Fish and Wildlife Foundation addresses the group during the LIT Coordinators Meeting. Photo by Ryan Bollinger.

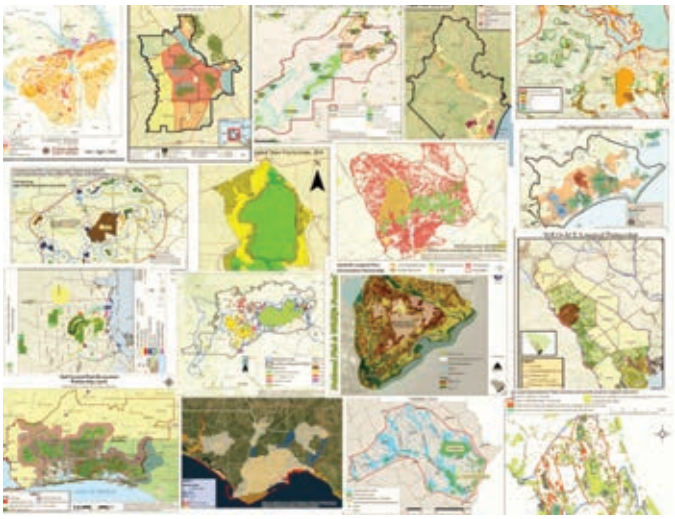
Mapping Madness at LIT Coordinators Meeting in Savannah

By Ryan Bollinger, The Longleaf Alliance

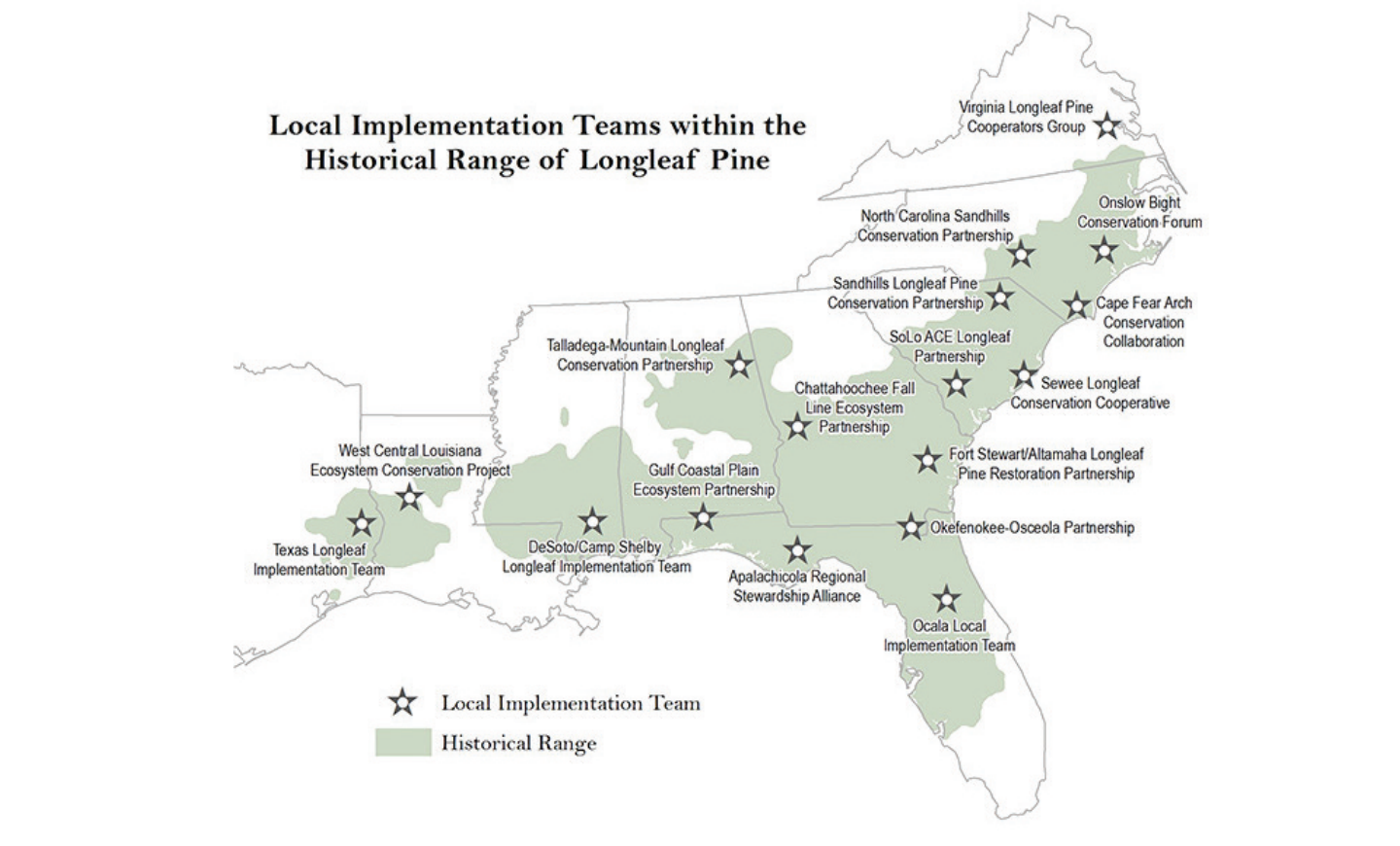
In the waning hours of the first full day of the 11th Biennial Longleaf Conference, a group of intrepid Local Implementation Team (LIT) Coordinators met with Longleaf Partnership Council leadership and mapping experts to share and discuss their draft priority area maps and methodologies. These maps have been created in response to a request from America's Longleaf Restoration Initiative (ALRI) and National Fish and Wildlife Foundation (NFWF) for each LIT to prepare a draft map delineating the highest priority acres for additional landscape-scale longleaf restoration within their respective LIT boundaries.

Although the meeting was late and folks were exhausted from an eventful day, the room held a palpable buzz of enthusiasm and comradery that benefited the evening's discussions. The gathering was used as an opportunity to share each team's restoration priorities and vision for supporting the ALRI goal of achieving 8 million acres of longleaf by 2025. Each LIT was given an opportunity to highlight their team's strategies and in turn receive feedback from the group. Wrapping up the evening's discussions, Luther Jones the Natural Resources Conservation Service (NRCS) Longleaf Pine Initiative Coordinator brought a positive message to the group and tasked the LITs to work more closely with NRCS at the state and local level to build on the agency's successful collaborative efforts to support landowners implementing longleaf restoration on private lands.

Moving forward from the November meeting, the teams will continue to refine the priority area maps and build on their conservation planning efforts. The 17 LITs continue to lead the charge demonstrating how effective partnerships and collaboration help to accelerate longleaf restoration accomplishments. Thank you to all the LIT Coordinators and their partners for an unwavering commitment to America's Longleaf Restoration Initiative.



Thumbnail Collage of all 17 Draft LIT Priority Area Maps shared during Coordinators Meeting. Maps produced by LITs.



ARSA Update: Conservation Planning on a LIT Scale

By Brian Pelc, The Nature Conservancy

Land managers from across the Apalachicola Regional Stewardship Alliance LIT convene for a strategic planning workshop. The outcome of discussions like these will result in a regional longleaf pine conservation plan to guide restoration and management for the next ten years.

Conservation planning is essential to ensuring that 1) Local Implementation Team (LIT) conservation funds maximize Key Conservation Outcomes (e.g. acres of longleaf restored, improved and maintained, etc.), 2) major threats to these outcomes are identified and strategies to overcome them are vetted, and 3) spatial priorities are agreed upon by the LIT leadership to determine where funds are best invested. The Apalachicola Regional Stewardship Alliance (ARSA) LIT Steering Committee agreed to draft one of the early longleaf pine focused ten-year conservation plans as one possible model for other LITs to follow. To date, the committee has met three times and is on track to complete drafting by early 2017. A final report will be available to other LITs soon after drafting. However, this update can serve to give broad suggestions on one format for drafting a conservation plan as well as some suggested data to help with spatial analysis. Using our NFWF/Southern Company funded Apalachicola Longleaf Initiative funds, ARSA chose to hire an outside consultant to guide the steering committee through the process (Rob Sutter, Enduring Conservation Outcomes, LLC). The ARSA approach to framing the planning process included the following steps: 1) define Key Conservation Outcomes (KCO's, listed above), 2) rank known threats to KCO's (e.g. altered fire regime), 3) develop a list of secondary outcomes to humans and nature (e.g. abundant clean water), 4) develop prioritization criteria for LIT "Hubs" and "Corridors" as well as within-hub decision tool, 5) define Hubs and Corridors. This last step required gathering some spatial data in advance of our meetings including the following primary data: Aerial Imagery of the LIT (2016, ESRI Basemap), LIT Boundary, Managed Conservation Lands within the LIT (2016, Florida Natural Areas Inventory), Extent and Condition of known longleaf pine (Florida Forest Service/Florida Natural Areas Inventory v3.0), and Critical Lands and Waters Identification Project (CLIP, Univ. of FL v3.0). More detail will be available after the plan is drafted, and specific questions can be addressed by phone or email.

North Carolina Fire in the Pines Festival

By Jeff Marcus, The Nature Conservancy

Fire in the Pines attendees learned about native pollinators and other aspects of the longleaf ecosystem. Photo by Alan Cradick.

Smokey Bear was a big hit at the NC Fire in the Pines festival. Photo by Angie Carl.

On October 22, 2016, The Nature Conservancy and multiple partners associated with the Cape Fear Arch Conservation Collaborative put on the 7th Fire in the Pines Festival. This festival was originally started to build support for controlled burning at the wildland-urban interface by the town of Boiling Spring Lakes. It has grown into a broader outreach effort building awareness and support for controlled burning and longleaf pine conservation.

The festival had to be delayed two weeks due to Hurricane Matthew, but still attracted 2500 visitors to Halyburton Park in Wilmington. We had 32 interactive exhibits for children to learn about our "Fire Forests." Everything was educational, including the hayrides. Kids participated in an information scavenger hunt and visited booths with live snakes, raptors, bees, and carnivorous plants. There were displays of fire equipment, Girl Scout arts and crafts, live music, a photo booth, four food trucks, and the ever-popular Smokey Bear.

A survey was distributed to parents to assess changes in attitudes about fire. While it can be difficult to measure long-term changes in attitude and behavior, we think this festival is part of the solution to build more public awareness of and support for prescribed fire.

Research on the Chattahoochee Fall Line: Drought Resilience in Longleaf Pine

By Dr. Lisa Samuelson, Tom Stokes, Michael Ramirez, and Jake Blackstock - Auburn University, School of Forestry and Wildlife Sciences

Precipitation reduction trays being installed in an 11-year-old longleaf pine plantation to research drought resilience. Photo by Tom Stokes.

Longleaf pine is considered a drought-resistant species and thus better adapted to future changes in climate, but the degree of drought resilience in longleaf pine is not well understood. The goal of this research is to better define drought resilience of longleaf pine by studying growth and physiology of longleaf pine in response to experimentally induced drought. Rainfall exclusion troughs were installed in an 11-year-old longleaf pine plantation in Marion County, Georgia in May 2016. Rainfall exclusion troughs cover 40% of the plot area and transport the intercepted rainfall off the treatment plots to induce drought. Tree and stand-level transpiration, leaf water relations, leaf area dynamics, and water use efficiency are being monitored. Soil carbon fluxes and growth are also being measured to assess net ecosystem productivity. To date, the exceptional drought in the region has reduced soil moisture, stand transpiration and soil carbon fluxes to near 0 in both the control treatment exposed to normal rainfall and the rainfall reduction treatment. As drought progressed, trees in the rainfall reduction treatment demonstrated water use strategies to limit plant water loss, but both treatments are now exhibiting severe drought stress. The ability of longleaf pine ecosystems to recover from drought once rainfall resumes will be closely monitored to understand drought recovery.

Partners Lead Biennial Conference Georgia Field Tours

By Randy Tate, The Longleaf Alliance

Garrett Anderson of GA DNR speaking to group at Townsend WMA. Photo by Randy Tate

Group touring mature longleaf flatwoods at Ft. Stewart. Photo by Randy Tate.

Partners from the Fort Stewart/Altamaha Longleaf Partnership came together to host a Georgia Field Tour for 120 participants of the 2016 Longleaf Alliance Biennial Conference held in Savannah, Nov 1-4, 2016.

Partners from GA DNR, GA DOT, The Orianne Society, The Nature Conservancy and Marine Corps Air Station, Beaufort, pitched in to show conference attendees the great longleaf sandhill restoration work being accomplished at Townsend WMA. Four stops were featured at Townsend with small groups of conference attendees visiting each stop. As usual, the gopher tortoise stole the show as participants were able to see a live tortoise up close thanks to GA DNR's Jessica McGuire, who is licensed to have them for demonstration purposes.

The field tour participants then moved to Glennville, Geogia, for a lunch pond-side at the Glennville Recreation Center. In addition to a hearty lunch, participants were treated to a live reptile show compliments of The Orianne Society. Folks learned firsthand from the Orianne Society's herpetologists about native snake biology and conservation.

At Glennville, staff from the Wildlife and Forestry branches of Fort Stewart joined the tour for a visit to three Fort Stewart stops. Participants on the tour learned how Fort Stewart is restoring groundcover through "yoking" restoration sites, followed by native grass dispersion. They saw the native grasses collection process in action and in general marveled at the beautiful and expansive longleaf flatwoods on Fort Stewart. Fort Stewart is home to the most extensive coastal plain longleaf flatwoods in the Southeastern Coastal Plain.

Everyone seemed to enjoy the trip, participants and tour leaders combined. Tim Beaty, Chief of the Fish and Wildlife Section said, "It was a pleasure to have everybody here. We always learn a lot from interacting with folks who come to visit. Hope everyone will come again."

GCPEP Partners Recognized for Management and Restoration Accomplishments

By Vernon Compton, The Longleaf Alliance

Eglin Air Force Base Natural Resource Team accepts DOD Team Achievement Award. Photo by Carol Denhof.

Gulf Coastal Plain Ecosystem Partnership (GCPEP) partner Eglin Air Force Base was recognized with The Department of Defense Team Achievement Award at the 11th Biennial Longleaf Conference in Savannah, Georgia. This award recognized a DOD team who has gone above-and-beyond the call of duty in managing and restoring the longleaf ecosystem on military installations. Eglin Air Force Base has a long track record of restoring and managing the longleaf ecosystem in one of the significant geographic areas identified in the Range-wide Conservation Plan for Longleaf Pine. Their accomplishments include outstanding fire, forestry, and wildlife programs that have resulted in tens of thousands of acres of longleaf being restored and a recovered red-cockaded woodpecker population, now serving as a donor population. Congratulations to the Natural Resource Team from Eglin Air Force Base on this most deserved recognition.

Also, Florida Commissioner of Agriculture Adam H. Putnam recently presented David Smith of the Florida Forest Service with the Florida Resource Manager of the Year. The award was presented at a September 20, 2016 meeting of the Governor and Cabinet for his exemplary contributions to Florida's natural resources. Smith helps manage Blackwater River State Forest (BRSF), the largest state forest in Florida and one of the nation's largest intact longleaf pine forest ecosystems. "I am proud to recognize David for his commitment to protecting and restoring the natural resources of this great state," said Commissioner Adam H. Putnam. "David Smith brings a wealth of knowledge and experience to the Florida Forest Service, and his passion for Florida's natural spaces is a great benefit to our state." David joined the Florida Forest Service in 2006 and has served as the Forestry Operations Administrator at Blackwater River State Forest since 2009, overseeing fire management and operations. Prescribed fire is a top priority for GCPEP partners and David has represented BRSF on the GCPEP Steering Committee for years, bringing a high level of fire knowledge and experience to the partnership.

National Wild Turkey Federation Awarded Grant to Restore Longleaf Pine in West Central Louisiana

By Dan Weber, The Nature Conservancy

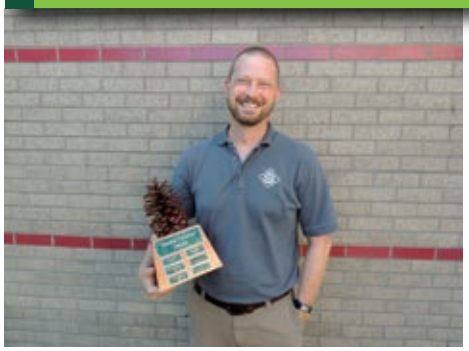
Prescribed burn, Rapides Parish, LA. Photo by NWTF.

Field Day, Rapides Parish, LA. Photo by NWTF.

Important species in central Louisiana including the red-cockaded woodpecker and the Louisiana pine snake will receive an assist due to a recent grant from the National Fish and Wildlife Foundation and International Paper. The project is a part of the Forestland Stewards Initiative created to identify, restore, and protect landscapes in three priority regions in the southern United States, one of which is The Piney Woods of Texas and Louisiana. The grant will provide $300,000 to The National Wild Turkey Federation (NWTF) to establish 800 acres of longleaf pine and improve an additional 2,300 acres through prescribed burning and other management practices. The work will occur in the Fort Polk/Kisatchie National Forest Significant Geographic Area (SGA) and be accomplished in partnership with the local longleaf implementation team, the West Central Louisiana Ecosystem Partnership (WLEP). The NWTF will match the award which will expand protected wildlife corridors linking public and private lands, support site visits to existing landowners, and provide small group outreach communication to new private landowners that may be interested in restoring longleaf pine. Project partners include the Louisiana Department of Wildlife and Fisheries, The Nature Conservancy, Natural Resources Conservation Service, U.S. Department of Defense, Campbell Timber Management, and Crosby Resource Management.

The Winner of the Illustris Palustris Award is……

By Bill Pickens, North Carolina Forest Service



2016 Illustris Palustris Award winner, Brady Beck. Photo by Bill Pickens.

The North Carolina Longleaf Coalition presented the 2016 Illustris Palustris Award to Brady Beck, a wildlife biologist with the N.C. Wildlife Resources Commission (NCWRC). He actively manages longleaf pine on the NCWRC Sandhills Gameland and works with the many wildlife species, including red-cockaded woodpeckers, that depend on the longleaf ecosystem. Brady has a genuine passion for the longleaf pine forest and his career provides him an opportunity to practice and promote the mission of the North Carolina Longleaf Coalition - the restoration and conservation of the longleaf ecosystem. However, what makes Brady Beck so unique is how he tells the longleaf story.

Brady's accomplishments are impressive. Every year he participates in countless workshops for landowners, students, and professionals sharing his longleaf knowledge and experiences of the longleaf ecosystem. For years, Brady has led 4-H campers through the longleaf forests of the Sandhills Game Lands as part of the annual Fur, Fish and Game Rendezvous at Camp Millstone. It is his passion for longleaf that ignites the same desire in the next generation. He has also led the Virtual 360 Field Tour as part of the new Fire Ecology course offered through N.C. State University, which emphasizes the use of prescribed fire to manage the longleaf pine ecosystem. In March of 2016 Brady served as a leader and organizer for the Palustris Arts Festival in Southern Pines, where hundreds gathered to celebrate the birthday of the oldest known longleaf pine and to celebrate the 100th anniversary of North Carolina's State Parks.

Brady has a special gift - one that allows him to tell the longleaf story artistically through photography and videography. With a creative and artistic eye, and the patience to wait for the perfect shot, he captures the astounding beauty of the longleaf ecosystem with spectacular photography (www.bradybeckphotography.com). Brady is also the producer of "More Than Pine Trees and Sand," a series of short, educational videos highlighting the unique character, critters, and habitats of the longleaf pine ecosystem in the Sandhills of North Carolina. The first episode highlights two rare frogs, the Carolina Gopher Frog and the Pine Barrens Treefrog. This is part of a larger effort, the "Disappearing Frogs Project," and can be seen at http://youtu.be/iNVBcvRQLgs. His imagery also serves as the backdrop for a cultural theater performance, "Bleeding Pines of Turpentine," that tells the story of the longleaf pines and the people of the North Carolina Sandhills.

Whether it's wildlife, threatened and endangered species, plant communities, fire ecology, prescribed burning, or the beauty of the longleaf forest – Brady Beck captures and presents it as only he can- he is truly an inspiring advocate for longleaf and we are lucky he calls North Carolina home.

Okefenokee/Osceola Local Implementation Team (O2LIT) News

By Hunter Bowman, The Nature Conservancy

Job Corps Burn Team after a hard day's work of removing invasive sandpine trees from a young stand of longleaf at Townsend WMA in Georgia. Photo by Hunter Bowman.

The O2LIT has had a busy couple of months! Members of the team put together two separate landowner workshops/field days, one in Ware County and one in Brantley County. Both workshops highlighted longleaf economics, site preparation, cost share opportunities available for landowners, and the uses of prescribed fire.

O2LIT team members also partnered with LITs from Georgia and Florida to organize two "Teaching Effective Landowner Engagement" (TELE) workshops (a program run by the Yale School of forestry) in order to train natural resource professionals how to better communicate with forest owners. Each LIT walked away from the workshops with fully fledged outreach campaigns. The O2LIT's campaigns focused on motivating landowners to apply for cost share and to use prescribed fire to decrease the likelihood of catastrophic wildfire.

Moving forward, the O2LIT will continue with its efforts to map the existing longleaf in our Significant Geographic Area, as well as our efforts to prioritize 150,000 acres for longleaf restoration over the next decade. We are also looking forward to hiring another Job Corps Burn Team. The Job Corps Burn Team is made up of underserved youth who, through this program, will have the opportunity to learn skills necessary to market themselves for natural resource jobs, such as Rx fire, seedling survival checks, and invasive species removal. They will be stationed at the Osceola National Forest, where they will assist Forest Service staff in their Rx fire operations.

Getting it Done on the Ground and Strategically: Ocala Longleaf Pine Local Implementation Team (OLIT)

ByCheryl Millett, The Nature Conservancy

'Tools for Engaging Landowners Effectively' workshop to develop outreach program for increasing fire on private lands. Photo by Ryan Bollinger.

On the ground: The Northeast Ecosystem Restoration Team, run by Wildland Restoration International, conducted an additional 376 total acres of longleaf management, including 364 acres of controlled burning, 7 acres of hardwood thinning, and 5 acres of planting longleaf. We also helped partners secure funding awarded by Publix through the Arbor Day Foundation for 105,000 longleaf pine seedlings to restore 458 acres on three properties (one managed by Alachua Conservation Trust and two managed by St Johns River Water Management District).

Conservation planning: Hurricane Matthew postponed our two-day conservation planning workshop, but the upside is that, in December, we were able to build on what we learned in an Apalachicola regions workshop.

Private lands outreach: The Ocala LIT coordinated a two-day Tools for Engaging Landowners Effectively (TELE) workshop for all 4 LITs in Florida, with 28 private landowner incentive program leads, outreach specialists and others to learn latest private woodland attitude survey data results and create outreach plans for increased longleaf management, increased prescribed fire, and increased engagement with Farm Bill and other incentive programs.

Sandhills LIT Update

By Susan Griggs, Natural Resources Conservation Service

Bret Beasley (Partner, USFWS) empties the native seed harvester after a collection run. The LIT collected over 100 pounds of native seed in the fall, with plans to establish it on private landowner property. Photo by Susan Griggs.

The Sandhills Longleaf Pine Conservation Partnership (SLPCP, Partnership) spent the last quarter making preparations for the biennial longleaf conference in Savannah. Nearly all of the partners were represented either by attendance, poster submission, or giving a presentation.

LIT Coordinator Charles Babb developed a presentation, "Effective Outreach Targeting Small Landowners," which he gave during the LIT breakout session. He also co-authored a poster titled "Successful Partnership in the SC Sandhills," along with US Fish and Wildlife Service Partners Allyne Askins and Bret Beasley. Susan Griggs (USDA-NRCS) and Johnny Stowe (SCDNR) co-authored a poster detailing the prescribed fire rental trailer which the Chesterfield Soil and Water Conservation District built using funds from a National Fish and Wildlife Foundation (NFWF) grant. The fire trailer was available for inspection during the South Carolina field tour.

Askins and Stowe also authored additional posters presented during the conference.

Post-conference, Babb, Griggs, and Beasley were busy collecting native understory seed which were planted on private landowner sites in the fall. Both the collector and planter were purchased using funds from a NFWF grant.

Multiple partners are collaborating on a new, prescribed fire curriculum which will be used in a small-group setting with local landowners this winter. This instruction will bridge the gap between the Certified Prescribed Fire Manager course and actual field work.

South Lowcountry – ACE Basin (SoLoACE) Longleaf Partnership Update

By Bobby Franklin, The Longleaf Alliance

Dave Dickens discussing longleaf fertilization at Big Survey Plantation tour. Photo by Bob Franklin.

The fall of 2016 found us assessing damage from early October's Hurricane Matthew, which grazed the coastal regions. Rainfall amounts varied from less than an inch in the far inland areas of the project area to 10-17 inches less than 40 miles from the coast. Wetlands took a beating with numerous uprooted trees while upland areas suffered light to sporadic damage. We were fortunate.

On September 21, the partnership sponsored a field day tour for landowners and managers showcasing prescribed fire efforts of the Sumter National Forest's Long Cane Ranger District in Edgefield County. The event was attended by 93 landowners and managers and was the first day of the two-day South Carolina Prescribed Fire Council's annual meeting at the National Wild Turkey Federation's headquarters in Edgefield.

On November 3, the partnership was involved in hosting a tour of private lands in South Carolina for the 11th Biennial Longleaf Conference in Savannah. Attendees looked at land management efforts at Nemours Wildlife Foundation in Beaufort County and Big Survey Plantation in Colleton County. Highlights included learning about the ACE Basin Working Lands Protection Initiative, red-cockaded woodpecker reintroduction, savanna restoration, drone use in land management activities, pine straw management, longleaf fertilization, and thinning planted longleaf. We are deeply indebted to Nemours Wildlife Foundation, Folk Land Management, Big Survey Plantation, South Carolina Department of Natural Resources, Joe Gallagher, and Dr. David Dickens, Georgia Cooperative Extension Service for their hard work in putting on this tour.

In other news, 36 red-cockaded woodpecker cavity inserts have been installed on Hitchcock Woods Foundation property in Aiken, SC, in preparations for red-cockaded woodpeckers to be translocated. This is the first partnership project effort on private lands in the partnership area.

New Longleaf Orchard Underway in Texas

By Tom Byram, West Gulf Coastal Plain Tree Improvement Project, Texas A&M Forest Service Geneticist

One-year-old longleaf graft in the Texas A&M Forest Service's new seed orchard at the Magnolia Springs Seed Orchard. TFS employees are (L-R) Randall Clark, Wes Morehead, and Arthur Nichols. Photo by Texas A&M Forest Service.

Longleaf progeny test recently thinned on the Masterson State Forest (Newton Co., TX) to leave only the best individuals for seed production. Photo by Texas A&M Forest Service.

Planting a stand of bluestem grass acquired from the NRCS East Texas Plant Materials Center as a future seed source. Extensive site preparation was conducted to ensure that the seed would not be contaminated with seed from other species. Photo by Texas A&M Forest Service.

Seed source matters and one of the best sources for western sourced longleaf pine will be from the seed orchard recently grafted at the Texas A&M Forest Service's Magnolia Seed Orchard in Jasper Co. (Photo 1). The trees in this orchard were selected from individuals that survived a rigorous multiple-step screening process. First, seed was collected from approximately 580 individual trees from local stands throughout the Western Gulf Region (TX, LA, and MS). In a second step, seedlings from these trees were field tested for survival, brown spot resistance and early height growth. Then, only seedlings from the top 50% of all families were further evaluated for growth rate and form in a second round of long-term tests. Finally, after 15-20 years of observation, only the best 20 to 30 individuals from the best families are being grafted in the TFS orchard where in eight to ten years they will supply local landowners with genetically improved seed for this important species.

But we know you may not be able to wait that long. In the meantime, there are two other ways to access closely related seed. The first is from the seedling seed orchards originally established by the Mississippi Forestry Commission (now collected by the USFS) and the Louisiana Department of Agriculture and Forestry (availability of seed from this location is unknown given that the State of Louisiana recently shuttered their tree improvement program). Both these orchards were established with seedlings from the top 50% of the families from the short-term tests described above and then thinned to leave only the best- looking individuals to produce cones. The second source of seed may come from a project initiated this year by the TFS. One of the long-term progeny tests located on the Masterson State Forest in Newton Co., TX was thinned to leave only the best trees for cone and seed production (Photo 2). This area will supply only a small part of the regional seed demand and then only after the crowns develop more fully as they respond to the sudden openings the thinning created. Trees from thinned progeny tests have lower standards for selection and will be intermediate in genetic gain between local seed production areas (SPA) and seed orchards.

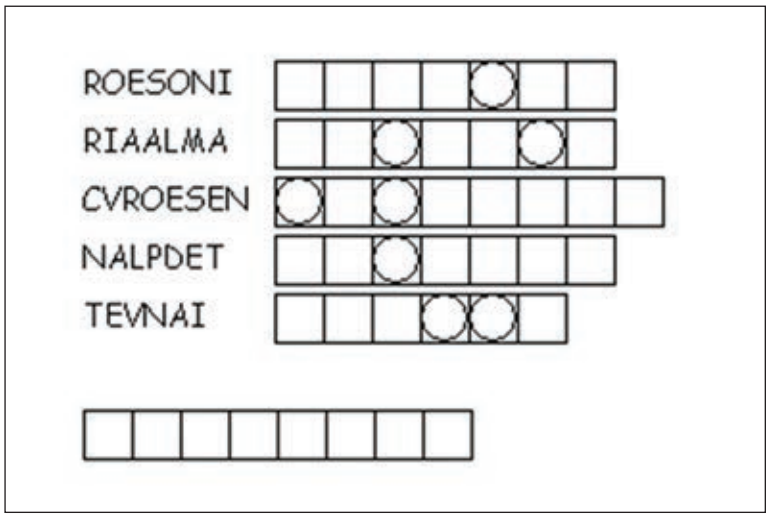
The Texas A&M Forest Service is also supporting two other initiatives. The first is to locate and preserve up to 100 trees from local stands to safeguard this resource. This is being done in conjunction with the states of Florida and Georgia that are also preserving selections from their local populations. Our trees will be grafted at Magnolia Springs Seed Orchard and exchanged with the other states as insurance against catastrophic loss from such events as hurricanes. A new project for the agency involves establishing a stand of little bluestem grass to be managed for seed production for this important component of the longleaf pine ecosystem (Photo 3). This project uses a variety of bluestem grass selected by the NRCS East Texas Plant Materials Center staff in Nacogdoches, TX from bluestem collected in Texas and Louisiana. So not only can the longleaf trees be from local populations, the bluestem grass established as an understory can also be from local sources!

While you're in the grass stage...

By Anne Rilling, The Longleaf Alliance

"Grass Stage" is a section just for kids and/or kids-at-heart. Longleaf forest management is a long-term endeavor, and in order to keep the longleaf pine ecosystem in longleaf, the next generation must get engaged or else all of the hard work, restoration, and protection currently going on will be for naught. We hope you share "Grass Stage" with your "next generation" longleaf enthusiast.

Lesson 22: President Franklin D. Roosevelt created a peacetime army, known as the Civilian Conservation Corp., that employed millions of men. Use Lesson 22 found on our website (www.longleafalliance.org/next-generation) to help unscramble the words. Answers can be found below the picture.



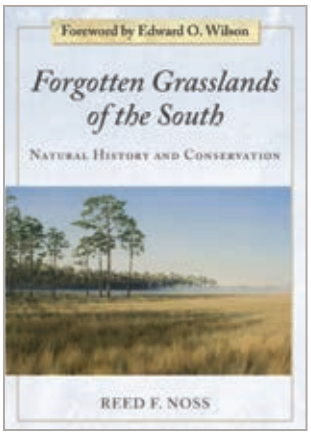
Print showing people working together to plant longleaf seedlings. Drawing by Patrick Elliott.

Answer
erosion, malaria, conserve, planted, native, civilian

LITERARY REVIEW

Forgotten Grasslands of the South: Natural History and Conservation

By Dr. Reed F. Noss *2013. Island Press. Washington. 317 p. ISBN 13:978-1-59726-489-1*



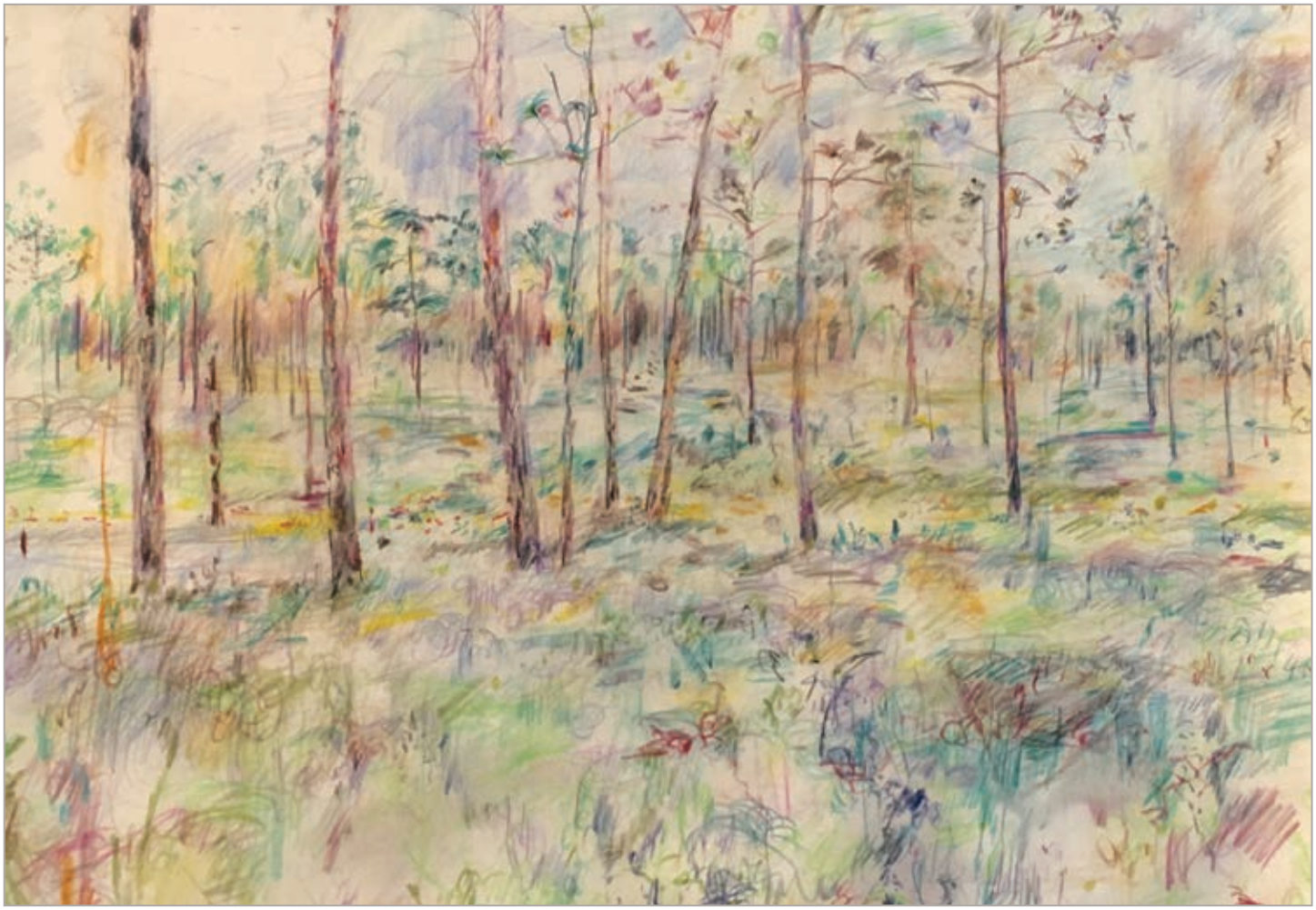
A few human generations ago, grasslands were abundant across the South; today they are rare. A well familiar touchstone for many of us engaged in longleaf restoration are these observations from William Bartram, in 1774, on his travels near present-day Gainesville, Florida: "We left the magnificent savanna and its delightful groves, passing through a level, open, airy pine forest, the stately trees scatteringly planted by nature, arising straight and erect from the green carpet, embellished with various grasses and flowering plants."

Reed Noss has crafted a marvelous book in *Forgotten Grasslands of the South*. For anyone interested in longleaf, ecology, natural history, or conservation, *Forgotten Grasslands* provides an engaging yet scholarly introduction to these rapidly vanishing but still vital ecosystems of the American South.

This book provides a highly readable guide to what has been lost, what remains, and both why and how much these places matter as centers of biological diversity and even recovery in times of change. With this text that is part natural history, part ecological science, and laced with personal narrative, Noss explores the origins and history of these biologically richest communities on earth and reflects on the challenges of preserving these places of wonder.

Our native grasslands include the longleaf savannas and woodlands. These ecosystems, first celebrated by Bartram and Muir, were central to the development of the most accomplished naturalists of our own time, Ed Wilson, Archie Carr, Herb Stoddard, Reed Noss. What you will learn in this book will ensure you can never underestimate these grasslands again.

LONGLEAF ART SPOTLIGHT



Pitcher a Forest, 2016
Mixed-media on paper
19" (h) x 25 ½" (w)

About the Artist: Henry Dean

Multi-media artist-designer Henry Dean lives and works in Savannah, Georgia and his work was showcased during the recent exhibit "Longleaf Regenerated" that ran concurrently with the Longleaf Conference. He is a professor in the School of Foundation Studies at Savannah College of Art and Design, teaching drawing and design fundamentals. Dean's art practice reflects various long-standing interests, propelled by immersive sojourns in chosen outdoor environments, along with studio production. For "Longleaf Regenerated" he visited and spent time working in forests northeast of Milton, Florida, and north of Baxley, Georgia.

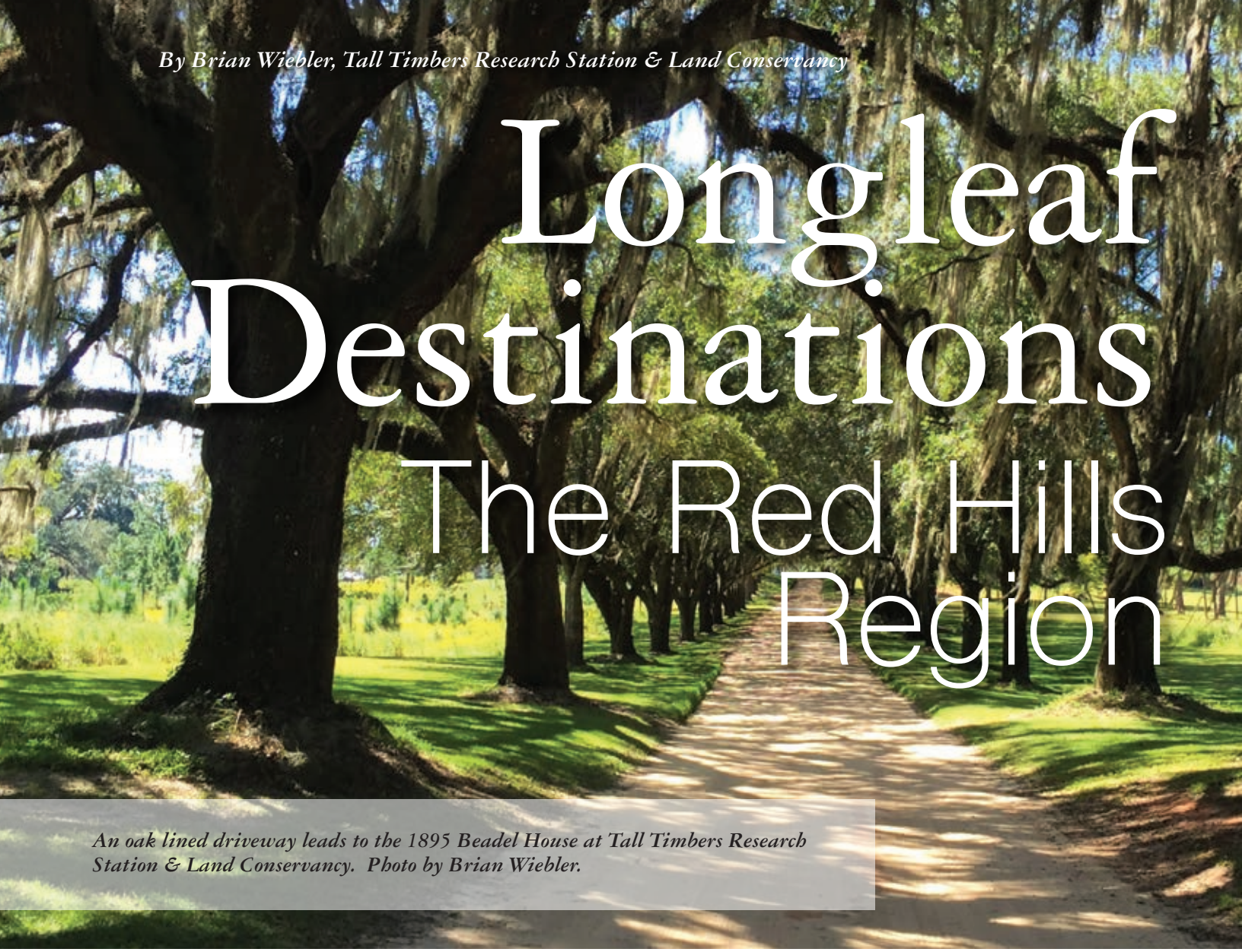
Dean's art includes abstract and more "representational" modes, contemporary in feel, but referencing and embedding traditional plein air (responsive) methodologies. The beauty and complexity of the environment are a focus, combining awareness of our emerging Internet culture. Dean's practice utilizes and facilitates chance, allowing ideas of changeability to be expressed in assemblies and finished artworks.

Henry Dean's first immersive tidal emplacement-installation (The Marsh is Art), was executed in 2003, off Scriven Point, Georgia. His ongoing production of groundworks and tidal water-air panel-screens, reflect a fascination in the uncertainty and predictability expressed in "Nature," and "Time." For more information and reviews, please visit Henry Dean studio on Facebook.

By Brian Wiebler, Tall Timbers Research Station & Land Conservancy

Longleaf Destinations

The Red Hills Region



An oak lined driveway leads to the 1895 Beadel House at Tall Timbers Research Station & Land Conservancy. Photo by Brian Wiebler.

Tallahassee is perched on rolling hills along an ancient shoreline and is surrounded by some of the greatest enduring longleaf pine acreage of the southeastern coastal plain. As the capital of Florida, home to Florida State University, Florida A&M University, and more than ¼ million people, Tallahassee provides the urban energy for an entertaining city experience while maintaining quick access to the woods.

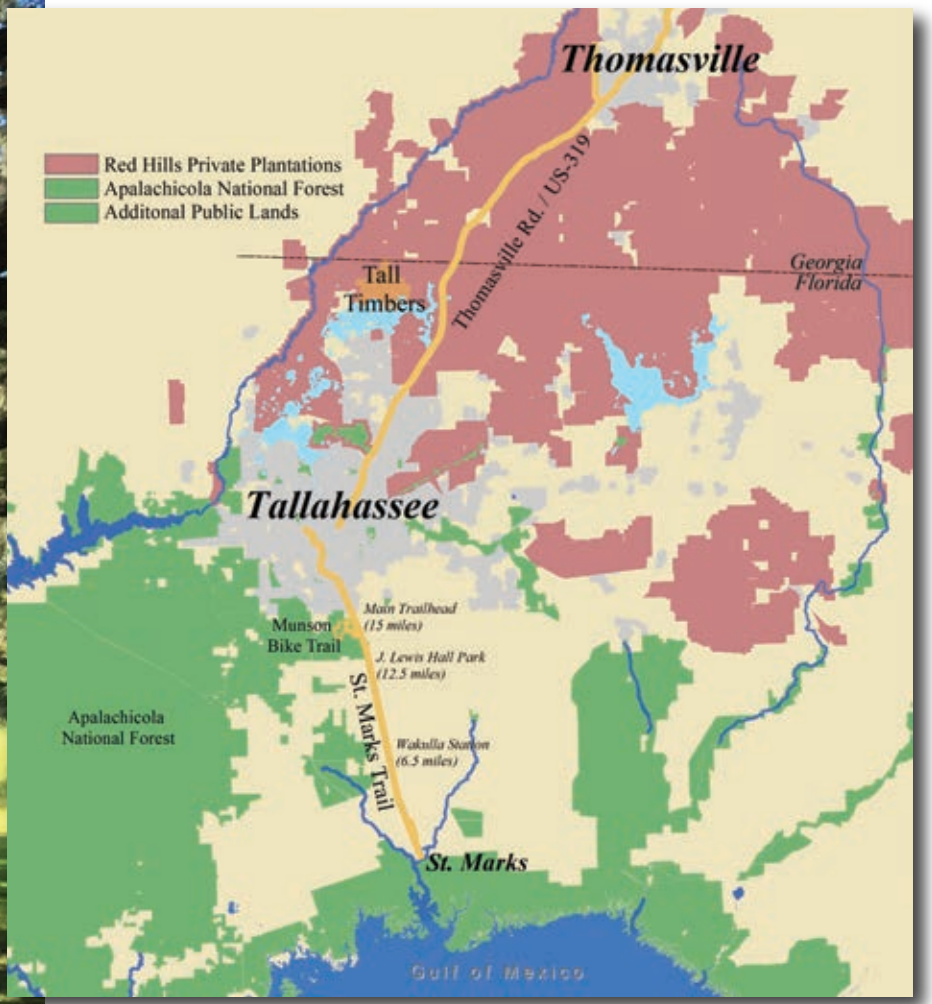
The city is well situated between the 600,000 acre Apalachicola National Forest on its southern edge and the 400,000 acre Red Hills Region running north up into Georgia. The National Forest is publicly owned and the Red Hills Region is typified by large private quail hunting plantations with a significant number protected from future development. Both areas are home to inspiring stretches of longleaf pine and clear views that demonstrate the long commitment to keeping the natural force of fire in these woods with frequent controlled burns.

On a trip from north to south, your Red Hills Region experience begins in Thomasville, Georgia. A classic longleaf lover's destination, Thomasville was the migration hub for wealthy northern industrialists seeking warm winters and clean pine scented air in the post-Civil War South. The legacy of this migration persists in the handsome brick street downtown and the amazingly intact quilt of large plantation ownership that fills the landscape between Thomasville and Tallahassee.

Take in a taste of Thomasville's fine dining, a downtown walk on Broad Street, a visit to The Big Oak at 124 E. Monroe, a wooded drive on Pine Tree Boulevard, and when you decide you need more; visit ThomasvilleGA.com for enough to make this a standalone destination.

Thomasville Road (U.S. Route 319) is the main thoroughfare linking Thomasville and Tallahassee. The 45-minute drive runs through the width of the Red Hills plantation belt, giving you a feel for the expanse of this portion of fire managed pinelands. For a closer look, slow it down with a detour on one of the historic canopy roads.

Weave your way down red clay routes through the canopy of trees on Millpond, New Hope, Sunny Hill, or Centerville



A yellow path through the middle of this map provides a quick tour of some of the great natural and cultural resources in the Tallahassee area. Photo by Brian Wiebler.

Roads. This revered American landscape rich in culture and natural resources imparts a very distinctive sense of place.

Back on Thomasville Road at the border to Florida, the Kate Ireland Parkway longleaf pine and wiregrass planting project in the wide median of this 9-mile stretch reminds travelers of the importance of these species in area history and ecology. Kate Ireland (Miss Kate to all) was a strident conservationist, donating both land and money to make the median project happen, and providing a firm push for other large landowners to join her in committing to permanently protect their land and water from future development.

Just inside Florida is where you will find Tall Timbers Research Station & Land Conservancy. A two-and-a-half-mile detour on County Road 12 places you at the entrance to this birthplace of modern fire ecology. The 4,000-acre former cotton plantation stands as an example of how land management with prescribed fire guided by research can bring back high quality wildlife habitat.

Tall Timbers has deep roots in the long and fascinating effort to bring fire back to the land, restoring the natural process of frequent burning in southern pines. It's a storied place that has filled books with history and research, including work by famous fire crusaders like Herbert Stoddard and Ed and Roy Komarek. Tall Timbers continues as an active private research station and land conservancy, addressing land management and conservation needs in the region.

Visit the 1895 Beadel House at Tall Timbers and learn about this rich history one Sunday each month (schedule at TallTimbers.org), or schedule a visit to overlap with the first annual Red Hills Fire Festival at Tall Timbers on January 22, 2017. The all-ages event hosted by prescribed fire partners in Florida and Georgia will be a full showcase of all things healthy forest and fire related.

Thomasville Road ends on the north side of Downtown Tallahassee and the City's hard work to invigorate the area shows. Features such as the new Capital Cascades Trail that laces through Capital Cascades Park, a new pedestrian bridge, a beautifully designed path along FAMU Way, as well as

Capital Cascades Trail weaves its way through the recently completed Cascades Park in Downtown Tallahassee. Photo by Brian Wiebler.

improvements to Railroad Square Art Park, All Saints District, and Gaines Street are the tangible result of a long term focus on making the City more friendly for getting around on foot or bike. Downtown includes great hotels, restaurant options, and direct connections to these surrounding districts and attractions (VisitTallahassee.com). This is home base for exploring the area.

Tallahassee has a growing reputation for serious mileage of quality trails, and the moniker "Trail-ahassee" is no joke locally. Trailahassee.com came on on-line a couple years back to help folks explore the abundance of land and water trails. While the west side of Capital Cascades Trail is currently under construction, it is only a three block detour to pick up the eventual connection to the upper portion of the St. Marks Historic Railroad Trail on Gamble Street. The future connection will make the transition simpler and lengthen this great trail all the way to Florida State University.

The paved St. Marks Trail is 20-miles long and takes cyclists on a wooded journey to the town of St. Marks. Positioned at the confluence of the Wakulla and St. Marks Rivers, the town is a perfect bike ride destination with waterfront bars, a boat landing, and an old Spanish colonial fort at San Marcos de Apalache Historic State Park.

The St. Marks Trail is forgivingly flat and makes the 20-mile ride feel like less. The 40-mile round trip from Downtown is accessible to intermediate riders with a day to take it easy and enjoy stops along the way. However, there are three different trailhead options to shorten the trip to your taste. The Trail changes character throughout the ride, with more urban sections in Tallahassee, longleaf and small towns midway, and increasing wetlands as you near the coast.

The St. Marks Historic Railroad State Trail main trailhead is the most popular starting point and offers access to the spectacular Munson Hills Off-Road Bike Trail. Munson is a joy to ride and is alone worth the trip to Tallahassee. It's a professionally designed mountain bike trail that feels like a clay-lined roller coaster curving through a truly delightful longleaf and wiregrass forest. The trail's design makes it accessible to beginners while still being a thrill for seasoned single track riders. Tallahassee is a stronghold for longleaf, but Munson provides a supremely accessible public opportunity to experience longleaf and come close to the avian experience of gliding through an open savanna.

Explorers with a mountain bike and more time can dive into other areas of the Apalachicola, the largest National Forest in Florida. Riding is allowed on the full network of numbered Forest Roads, ranging from wide gravel stretches to tight grassy lanes you can have all to yourself. With flat land and forgiving winter weather, the Apalachicola is a great place to try out the growing practice of "bikepacking" or camping from your bike.

Lori Bergstrom and Leigh McCreless take in a fast paced ride through the longleaf. Photo by Brian Wiebler.

Racks and bags on your bike carry a load of camping gear with much less effort than your back, and two wheels can cover many more miles as you seek out the next longleaf vista, pitcher plant bog, or cypress dome.

The best small forest roads also come with some big puddles, so it's good to use waterproof bags for those items you wish to enjoy a dry night in. Lastly, deer hunting during general gun season is popular, so be sure to look up the season dates and use your blaze orange, or just steer clear of the woods during this window.

Tallahassee is a very fun mid-sized city with great access to protected land and water. Plan your trip to Tallahassee today.

Brian Wiebler is the Red Hills Outreach & Education Coordinator for Tall Timbers Research Station and Land Conservancy. Contact Brian at brian@ttrs.org.

2016 Regional Longleaf Award Recipients

CONGRATULATIONS TO THE 2016 REGIONAL LONGLEAF AWARD RECIPIENTS!

These individuals and organizations make daily contributions and show unwavering dedication to furthering the cause of longleaf restoration across the southeastern United States.

Individual Awards & Award Recipients

The Bill Boyer Natural Resource Professional of the Year Award: recognizes a natural resource professional who has made outstanding contributions within the field of longleaf ecosystem conservation

Jerre Creighton, Virginia Department of Forestry

The Palustris Corporate Achievement Award: recognizes a corporation with long-standing commitment toward conservation of the longleaf ecosystem

F. Bennett Whitfield, Whitfield Farms & Nursery of Twin City, GA

The Gjerstad/Johnson Landowner of the Year Award: recognizes a private landowner for ensuring the future of the longleaf ecosystem on private land

Reese Thompson of Vidalia, GA

A True Longleaf Champion Award: recognizes a lifetime of dedication to the conservation and restoration of the South's iconic forest

Tim Beaty, DPW, Environmental Division, Fish and Wildlife Branch, Fort Stewart

Hervey McIver, The Nature Conservancy

Conservation Partner Awards & Award Recipients

Natural Resources Conservation Service Team Achievement Award: recognizes an NRCS team who has gone above-and-beyond the call of duty in delivering longleaf restoration for private landowners

NRCS Louisiana Team

Department of Defense Team Achievement Award: recognizes a DOD team who has gone above-and-beyond the call of duty in managing and restoring the longleaf ecosystem on Military Installations

Eglin Air Force Base, Natural Resource Team

US Fish and Wildlife Service Team Achievement Award: recognizes a USFWS team who has gone above-and-beyond the call of duty in managing and restoring the longleaf ecosystem for wildlife and the National Wildlife Refuge System

Carolina Sandhills National Wildlife Refuge

USDA Forest Service Team Achievement Award: recognizes a USDA FS team who has gone above-and-beyond the call of duty in managing and restoring the longleaf ecosystem on and around the National Forest System

Vernon Unit, Calcasieu Ranger District, Kisatchie National Forest


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Image 1: *Jerre Creighton receiving The Bill Boyer Natural Resource Professional of the Year Award from Robert Abernethy. Photo by Carol Denhof.* **Image 2:** *Greg Ely of Whitfield Farms & Nursery receiving the The Palustris Corporate Achievement Award from Robert Abernethy. Photo by Carol Denhof.* **Image 3:** *Reese Thompson receiving Gjerstad/Johnson Landowner of the Year Award from Robert Abernethy. Photo by Carol Denhof.* **Image 4:** *Tim Beaty receiving the True Longleaf Champion Award from Robert Abernethy. Photo by Carol Denhof.* **Image 5:** *Hervey McIver receiving the True Longleaf Champion Award from Robert Abernethy. Photo by Carol Denhof.* **Image 6:** *John Pitre (NRCS, Louisiana State Resource Conservationist) and Adele Swearingen (NRCS, Louisiana Public Affairs) receiving the Natural Resources Conservation Service Team Achievement Award from Robert Abernethy and James Tillman.* **Image 7:** *Eglin Air Force Base Natural Resource Team receiving the Department of Defense Team Achievement Award from Robert Abernethy. Photo by Carol Denhof.* **Image 8:** *Lyne Askins, Refuge Manager for Carolina Sandhills National Wildlife Refuge, receiving US Fish and Wildlife Service Team Achievement Award from Robert Abernethy and Clay Ware.* **Image 9:** *District Ranger Lisa Lewis receiving the USDA Forest Service Team Achievement Award on behalf of the Vernon Unit, Calcasieu Ranger District of the Kisatchie National Forest from Robert Abernethy, Kyle Jones, and Jeff Matthews.*

Rhett Johnson Honored at Longleaf Conference

By Robert Abernethy, The Longleaf Alliance

At the recent 11th Biennial Longleaf Conference Awards Luncheon in Savannah Georgia, The Longleaf Alliance presented a special award to an individual that has meant a lot to many of the Alliance members. Two of the Alliance Board members Mr. Barclay McFadden and Mr. Angus Lafaye joined Alliance President Robert Abernethy in presenting the award and title of Founder Emeritus of The Longleaf Alliance to Mr. Rhett Johnson. Rhett was taken completely by surprise.

Rhett Johnson receiving award at Longleaf Conference in Savannah GA from Robert Abernethy, Barclay McFadden, and Angus Lafaye. Photo by Carol Denhof.

Rhett Johnson grew up in the longleaf piney woods of South Carolina. He received a BS from NC State in Wildlife Biology and a Masters in Forest Management from Clemson. His professional interests and expertise include threatened and endangered species, multiple-use forest management, wildlife management, fire ecology, and longleaf pine management and restoration. He has served in many professional leadership positions including chair of the Southeastern SAF and president of the Alabama Wildlife Federation. He is a regional leader in promoting forest and wildlife management practices based on sound ecological principles and he is the Director Emeritus of Auburn University's 5,300-acre Solon Dixon Forestry Education Center located near Andalusia, AL. He is the Co-Founder along with Dean Gjerstad, of The Longleaf Alliance and has served as its President and an Alliance Board Member.

In presenting the award, Robert Abernethy said, "It seems like everywhere I go in the longleaf range I meet Rhett's students. Whether they attended Auburn and went through Forestry School at the Solon Dixon Center or studied under him at a Longleaf Academy, field trip or just a walk in the woods. We are all Rhett's students because you cannot have just a walk in the woods with Rhett. Every moment you spend in the woods with Rhett is a forestry and wildlife lesson."

By Lynnsey Basala, The Longleaf Alliance

New Year Reflections: Your Donor Dollars in Action

We define reflection as a way of looking back so that the view looking forward is even clearer. What a wonderful and successful fiscal year we had thanks to the dedicated and generous non-profit state and federal conservation partners, individuals and families, corporations, foundations and organizations that have allowed The Alliance to inch closer to our goal of eight million acres of longleaf by 2024.

There were many collective successes in key areas in 2016; most notably in areas such as habitat protection, education and restoration, thanks to your donor dollars in action: The Longleaf Alliance teamed with the South Carolina Department of Natural Resources to install artificial nest cavities for red-cockaded woodpeckers (RCWs) on the Aiken Gopher Tortoise Heritage Preserve. We are happy to report that the home building worked and in June, SCDNR biologists discovered that a banded male and female RCW had traveled 11.6 and 18 miles respectively from where they were hatched on the Federal Savannah River Site to these new cavities. We are expanding this program to include private landowners in South Carolina willing to accept and manage for the birds through a grant from the National Fish and Wildlife Foundation and International Paper.

Our staff provided longleaf technical assistance such as proper planting techniques and prescribed fire management, understory restoration, and stand management to over 4,300 landowners via in-person and hands-on presentations. This included a record fourteen Longleaf Academies in seven states and ten fire training courses. Many of you attended the wildly successful 11th Biennial Longleaf Conference in Savannah, Georgia in early November! We also worked with partners and landowners to assist with the planting of approximately 1.6 million longleaf seedlings on nearly 3,200 acres and assisted with prescribed burns on over 83,000 acres. Last but certainly not least: In 2016, the Alliance allocated an astounding 84% of income to programs and services.

Thank you for choosing to give your thoughtful donations to The Longleaf Alliance through our wide array of multi-channel giving vehicles. Your generosity allows us to work more aggressively to secure a sustainable future for longleaf pine ecosystems through more extensive research in the areas of forest restoration as well as converting lands back to the ecologically diverse and productive forests they once were.

The following list contains those that contributed funds between October 1, 2015, and September 30, 2016. If you find that we have made an error, please don't hesitate to call our headquarters in Andalusia, Alabama or email us at office@longleafalliance.org so we can correct our records.

The Longleaf Alliance is a 501(c)(3) organization. and contributions may be tax-deductible to the fullest extent permitted by law.

I support the Alliance through multi-channel giving vehicles because…

"I love what your group does for such a noble tree that has played an important role in the history of our country, and is part of a very unique ecosystem. Thank you for doing what you do, and allowing us to help where we can." Patrick Franklin, The F.A. Bartlett Tree Expert Company

Patrick Franklin became an official member in 2014. The F.A. Bartlett Tree Expert Company became a Corporate Conservation Partner in 2015. Recently, they also became a Conference Sponsor at the $2,500 level. Like many of our partners, Bartlett continues to increase their level of support and participation because of the boots-on-the-ground work we're accomplishing.

If you would like to explore all of the Alliance's giving vehicles, contact Development Director, Lynnsey Basala, at (314) 288-5654.

2016 SUPPORTERS

The Palustris Society Founders

Last fall, several members of The Longleaf Alliance Board of Directors founded the Palustris Society to further the legacy that Rhett Johnson and Dean Gjerstad created to protect and restore longleaf forests. The vision is to create a group within The Longleaf Alliance comprised of dedicated conservationists who share our dream of restored and viable working longleaf forests by making a donation or pledge of $10,000 or more to the Alliance. Commitments to the Palustris Society range from annual contributions of $10,000 or more, to single commitments of $10,000 including pledges paid over a period of up to five years. For more information on the Palustris Society, contact Development Director, Lynnsey Basala, at (314) 288-5654.

$50,000 Level
Barclay and Jane Perry McFadden
Charles and Susan Tarver*

$10,000 Level
Lynda Beam*
Judd Brooke
Angus and Cary Lafaye
Richard and Rita Porterfield*
Dr. Salem and Diane Saloom and Family*
Reese Jordan Thompson and
Pam McIntyre Thompson
Drs. George and Anne Tyson*
Marc and Penny Walley
Phillip and Debbie Woods*

Donors may designate all or a portion of their contribution to be allocated to The Longleaf Alliance Endowment. These individuals are acknowledged above with an asterisk.

The Longleaf Alliance Endowment
The Longleaf Alliance Endowment was established in 2015 and is comprised of memorial and restricted Palustris Society pledge contributions. The endowment offers a unique opportunity to strengthen the Alliance mission and ensure that the longleaf forest is conserved for our children and grandchildren to enjoy for generations.
Mary Baltikauski
Lloyd Chapman
Doug Lurie
Robin Owens

Friends of The Longleaf Alliance
$2,500-$4,999 Level
Bob Glenn

$1,000-$2,499 Level
Cornelia Corbett
James Daly
Peggy Galis
Anne Lee
John Matel and Christine Johnson
Julie Moore
Michael Parker
William Payne
Dan Rather
Bill and Becky Smith
John and Faye Vick
George Watkins
Michael Wetherbee

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Vaughan Hedrick
William Hunter
Kenwood Nichols
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David Ratcliffe
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James Wadsworth
Dwaine and Cynthia Willett
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Gary and Melda Boyd
Noel Brinkley
Gordon Carlisle
Luke Corum
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Tom Darden
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Calvin Ernst
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Patrick Franklin
Howard Gnann
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Greg Luce
Mike and Leanne McEnany
Barclay McFadden
George McFadden
Thomas and Lisa McFadden
Eric Moore
Charles Rutherford
Linda Stine
Joel Wernick
Frank Wetherbee
Joseph Williams

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Anonymous
Robert and Yvonne Abernethy
Russell Acree
John Adams
Troy Ammons
Austin Arabie
C. McNeill Baker
Jan Barlow
Timothy Bates
John Bauknight
Ed Baxley
Barbara Bell
Mark and Marsha Bollinger
Barry Booth
Daniel Bradley
Nancy Brennan
G. Arthur Brinson
Richard Broadwell
Paul Brouha
Ledley and Oberly Brown
Ann Carswell
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Cecil Chambliss
Charles Chandler
Charles Chapin
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Audrey Thompson
Reese Thompson
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James Truax
Nancy Turner
Dale Wade
Joan Walker
Dr. Lomax Walker,
Bill and Jane Walley
Carl Wernicke
Joe Whatley
James Wise
Andrew Woodham
Larry Wright
Orby and Brenda Wright
Samuel E. and Roberta Youngblood

Up to $100 Level

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Anonymous
Anonymous
Anonymous
Anonymous
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Nell Allen
Matthew Amick
Sherri and Eric Amundson
Jeremy Anderson
Scott Anderson
Guy and Jan Anglin
Drew Arnold
Jason Ayers
Christopher Baker
W. Wilson Baker
Harold Balbach
Matt Balding
Clay Bales
Julie Ballenger
Mary Baltikauski
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Scott Barnes
Rita Barrow
Michael and Lynnsey Basala
Frederick Beaujeu-Dufour
William Bedsole
Amy Bell
Liza Berdnik
Ken and Mary Jo Beverly
Mike Black
W. Robert Blackledge
Alex Boldog
Ryan Bollinger
Jerry Booker
Brodae Aengus Booth-Sutherland
Sabel Afton Booth-Whaley
Mac Borland
Laura Bosworth
Danny Boulet
Hunter Bowman
Nathan Bracewell
Ken Braddock
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Heather Brasell
Jon Brater
Dale Brockway
Jerry Brown
Randy Browning
Duke Bryan
Ansel Bunch
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George Chastain
Martin Cipollini
Barry Clark
Gregory Clayton
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Donna Finnegan
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James Fowke
Patricia Foye
Joey Francis
Conrad Franz
Reed Freeman
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Curtis Rollins
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Henry Thompson
William Tietjen
Stanford Tillman
Enoch Timothy
Albert Tisi
Gena Todia
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Melanie Walter
Hunter Walters
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Clay Ware
Larry Warren
Shirley Watson
Elliot Weaver
Charles Webb
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Gail Westcot
E. John Whelchel
George Whitehurst
Carol Wiggins
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William Wolfarth
Tiffany Williams Woods
David Woodward
James Woodward
John Woodward
Steve Worthington
Benjamin Wyche
Herbert Young
Lamar Zipperer
James Zito

Corporate Conservation Partners

$10,000 Level & Above

CHEP; A Brambles Company

$5,000 Level

Anonymous
Blanton's Longleaf Container Nursery
Hancock Natural Resource Group
International Forest Company
Kelly Plantation
Meeks Farms & Nursery, Inc.
Resource Management Service, LLC
Whitfield Farms & Nursery

$4,500 Level

Westervelt Ecological Services

$3,500 Level
The F.A. Bartlett Tree Expert Co.

$3,000 Level
Bodenhamer Farms and Nursery

$2,500 Level
Cox Industries
Dow AgroSciences
Ernst Conservation Seed
Flowing Well, LLC
Forest Investment Associates
Green Assets
Milliken Forestry Co., Inc.
Molpus Woodlands Group
Roundstone Native Seed, LLC

$2,000 Level
Advantage Forestry Container Pines, LLC
Hood Industries, Inc.

$1,500 Level
Campbell Global, LLC
Enterprise Holdings

$1,000 Level
Anonymous
Cedar Creek Land & Timber, Inc.
Crop Production Services
Enviva
Merrily Plantation, Inc.

$750 Level
American Forest Management

$500 Level
Charles Ingram Lumber Co.
Crosby Land & Resources
Larson & McGowin
Molpus Timberlands Management
Nalty Timberlands
Poarch Band of Creek Indians
Southern Seed Company, Inc.
Standing Tree, LLC
Wake Stone Corporation
Water's Edge Woods
Woodstone Resources, LLC

$250-$499 Level
Anonymous
Cheeha Combahee Plantation
Crenshaw Land Management Group, LLC
Deep South Growers
Deep South Land, Inc.
Duncan-Two, LTD
Folio Fred, LLC
Grace Acres Farms
Huxford Land Company, LLC
J. Crisp Enterprises, LLC
JE Pittman Pea River Farm, LLC
John L. Russell Properties, LLC
Lentile Family Partnership, L.P.
Loblolly Forest
Longleaf Energy Group, Inc.
Longleaf Land & Timber, LLC
McGowan Forestry Consulting
Moore Farms Botanical Garden, LLC
Nancy R. Walters Consulting
Norman Plantation, LLC
Oakridge Partners, LP
PowerSouth Energy Cooperative
Spring Lake Tree Farm, LLC

$100-$249 Level
A.J. Hodges Industries, Inc.
Ammerman Timber Company, LLC
Aucilla Pines, LLC
Batts Tree Farm
BB & MS Rounsaville Farms
Beach Forest Management
Bear Creek Plantation
Berger Peat Moss
Bill Ardrey Forestry
Black Mingo Plantation, LLC
Bladen Farms
Bradley Tree Farms, LLC
Broadwell Brothers, LLC
Buckhead Forestry, LLC
Burke Holdings, L.P.
Charles Dixon & Co., LLC
Cone's Folly Timber Farm, LLC
Dargan, King & Knight. LLC
Delaney Development, Inc.
Diamond Timberlands, LLC
Flint Plantation, LLC
Forest and Land Management, Inc.
Forest Resource Consultants
Forestall Company, Inc.
Forestry Consultants, Inc.
Gillespie Lumber, LTD
Hill Forest Management
Improving Our Environment, LLC
K & L Forest Nursery
Keim's Forestry Services
Leary Properties, LLP
Long's Services, LLC
Mulberry Plantation, Inc.
Native Forest Management
Never Done Farm, LLC
O.W. Cox Naval Stores, LLC
Oak Grove Farm
Oaklawn Plantation, LLC
OUBAAS Plantation LP
Pinekone Farms, LLC
Plantation Pinestraw
Ragan Tree Farm, LLC
Rayonier Forest Operations, LLC
RCWO, LLC
Redtown Timber, LLC
RFR Consulting, Inc.
Ridge Properties, LLC
Rigdon Livestock Farms, Inc.
Shady Grove Land & Timber Co.
Sizemore & Sizemore, Inc
South Carolina Pole & Piling, Inc.
Southeastern Natural Resources
Southern Forestry Consultants,Inc.
Stone Mountain Farm, LLC
Stuewe & Sons, Inc.
Sunny Brook Farms
Thomas Farms, Inc.
Thompson Forest Consultants, Inc.
Uchee Farms, LP
Watson Resources
Whipple Tree Farm, Inc.
White Oak Forestry Corporation
Wood Lane Farm, LLC
Woodland Cottage, LLC
Never Done Farm, LLC

Up to $100 Level
A D B S Farms
Aquatic Services
Bankhead Land & Timber
Bembry & Bembry Farms, LP
BR Mosley Land Co, LLC
Brede Farm & Timber
Brewer Lands, LLC
Brown & Brown Insurance
C.V. Forestry Services, Inc.
Canebrake Farm, LLC
Carolina Heart Pine, Inc.
Carter Tree Farm
Cedarleaf Farm, LLC
Chartered Foresters, Inc.
Cleveland Farms, Inc.
Cleveland, Inc.
CLG Farms, LLC
Colony Garden Club
Congaree River, LLC
Construction Supplies of New Orleans, Inc.
Dexter Longleaf, LLC
Dopson Forestry Services
F&W Forestry Services, Inc.
Flowers Forestry, LLC
Forage Grass Farm
Forest Lodge Farms, LLC
Forestate, LLC
Go Pinestraw, Inc.
Good Earth Systems, LLC
Goose Creek Forestry
Grasslander
Harrison Woodlands, LLC
Hart Family Farm, LLC
Hursey Farms
Irons Hilltop, LLC
Jenkins Timber Properties, LLC
Jowett Wood, Inc.
Light Forestry Consulting Services, LLC
McKeon Tree Farm
Never Fail Farms
Nixon Land Company
North Bassett's Creek Timber Management
Ole Pataula Farms, LLC
OVF Management, Inc.
Pasley River Farms, Inc.
Phillips Building Supply of Gulfport, Inc.
Pinecare Forestry
R.R. McLenon Farms
Reid Farms, LP
River Ridge Plantation
Rutland Forest Nursery
Silvics Analytic
Solon Dixon Forestry Education Center
Spring Creek Land Company, LLC
Stone Forestry Services, Inc.
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Susan Griggs Photography
The Gall Mash, Inc.
Three Rivers Forestry LLC
Timber Investment Managers, LLC
Timberland Transitions, LLC
True North Forest Management Services
Ute Creek Cattle Company, Inc.
Varn Turpentine & Cattle Company
W.A. Freise & Sons Timber and Land Company, Inc.
WBD Consulting
Weinaug Woodlands, Inc.
Wildhaven Tree Farm
Wildland Management Services, LLC
Woodward GA Stewardship Forest
Yeamans Hall Club

Agency Conservation Partners
Chesterfield Soil and Water Conservation District
Florida Fish and Wildlife Conservation Commission
Florida Forest Service - FM
Georgia Department of Natural Resources
Louisiana Department of Wildlife and Fisheries

LSU, Department of Biological Science Baton Rouge
NC Div. of Forest Resources
NC State University
North Carolina Forest Service
South Carolina Department of Natural Resources Wildlife and Freshwater Fisheries Division
St. Marks National Wildlife Refuge
Stephen F. Austin State University
Texas A&M Forest Service
University of South Carolina
US Department of Defense - NAS Pensacola
US Department of Defense - NAS Whiting Field
US Fish and Wildlife Service
US Fish and Wildlife Service, Georgia
US Fish and Wildlife Service, North Carolina
US Fish and Wildlife Service, South Carolina
US Fish and Wildlife Service, Texas
US Forest Service
US Forest Service, Conecuh National Forest
USDA, National Resources Conservation Service, Alabama
USDA, National Resources Conservation Service, South Carolina
Virginia Department of Forestry

Nonprofit Conservation Partners

Alabama Forest Owner's Association
Alabama TREASURE Forest Association
American Bird Conservancy
American Forest Foundation
American Forests
Anonymous
Arbor Day Foundation
Betty McGowin Charitable Trust
Bicknell Family Charitable Fund
Boston Foundation
D. W. McMillan Trust
Florida Wildlife Federation
Friends of St. Marks Wildlife Refuge
Henry Fair Family Fund for the Environment of Coastal Community Foundation of South Carolina
Hitchcock Woods Foundation
International Association of Wildland Fire
J. W. Jones Ecological Research Center
Jacksonville Zoo & Gardens
John Winthrop Charitable Trust
Lillian C. McGowin Foundation
Max McGraw Wildlife Foundation
Meadowview Biological Research Station
Mississippi Fish & Wildlife Foundation
Mobile Botanical Gardens
National Audubon Society
National Fish and Wildlife Foundation
National Wild Turkey Federation
National Wildlife Federation
NatureServe
Nemours Wildlife Foundation
Norfolk Southern Foundation
Palmetto Garden Club
Robert K. Johnson Foundation
Rosalyn B Ashworth Family Trust
SC Wildlife Federation
Sid and Vivian Beech Trust
Solon and Martha Dixon Foundation
South Carolina Bluebird Society
South Carolina Tree Farm Committee
Sustainable Forestry Initiative, Inc.
The Conservation Fund
The Horton Trust
The Nature Conservancy
The Sandhills Area Land Trust
The Sledge Foundation, Inc.
The South Carolina Chapter of the Association of Consulting Foresters
The Williams Foundation
United Way of Southwest Alabama
Universal Ethician Church
Walthour-Moss Foundation
Women of Woodside, Inc.

By Reese Thompson

A wise man once said, "Quality is a constant for it is always in demand."

Wiregrass in all its glory. Photo by Reese Thompson.

Perhaps some basic background information would be helpful to understand my perspective. As a sixty-three-year-old man, who is sixth generation Georgian of Scottish descent, I am fairly constant in my ways and beliefs. My family has always been tied to land through forestry. Turpentine was our principal business for several generations up until 1981 when severe droughts resulted in big turpentine trees being 'bled to death.' Dry land row cropping also ceased, now we are tree farmers.

Growing up on a tree farm helped me differentiate between longleaf and other pines. The clump of long needles on a straight stem with few links was referred to as a 'hill pine' while other pines grew along the branches and creeks. My father realized the quality of longleaf and began cutting them for poles due to their nature of being clean, straight, and trunk free from limbs. As a young boy, I would imagine them as the masts of colonial sailing ships. In reality, they were used to support lines providing electricity to homes and businesses.

As a teenager driving a truck or tractor through the woods, I was always looking for lighter stumps. I knew they went deep into the ground, hard as rock, and were not going to move if I hit them. My knowledge of lighter stumps served me well as a role model during the transitional period from high school to college. The stump had weathered and endured many obstacles while staying grounded which provided a sense of stability.

My Father always said, 'plant longleaf.' As a young man, I would try to follow his advice, but my success with bare root seedlings was marginal at best. After some trial and error with planting depth, I have been successfully planting containerized longleaf for the past 15 years. Now they provide a sense of pride.

Why plant longleaf? It would be easier and cheaper to plant a faster growing species for short rotation fiber tonnage. Easy and cheap are not qualities that I seek. One might compare the tortoise and the hare to longleaf and loblolly. One is slow and steady and the other fast. The Almighty in his infinite wisdom made one long-lived and the other subjected to many predators. It is a documented fact that longleaf is more fire, wind, bug, disease, and drought resistant than other pine species. Longleaf produces tight grain premium quality lumber and a greater percentage of high value poles.

As an adult, I am finally beginning to realize the priceless treasure that exists in the longleaf ecosystem. Sadly, most high school students know more about the moon than the ecosystem where they live. I strive not to make that mistake with my children, as they need to know the longleaf forest is rivaled only by tropical rainforests in biodiversity and sensitive species.

It's autumn now, and while walking through the woods, mentally I enjoy reaping the harvest of summer burns. The wiregrass is waist high with golden seed stalks. Lopsided Indian grasses are bent over due to the weight of its seed; big bluestems are more than six feet tall with their bluestem cousins varying in heights. There are small pollinators in bloom providing food for butterflies and other insects. Nature is completing another cycle. It is time to begin planting seedlings. I will be planting longleaf then native ground cover to help restore a dwindling ecosystem because it produces quality products, and since quality is always in demand, there will always be a market for it. Again, it would be easier, cheaper, and faster to plant another species, but tree farming is a multi-generational process, and I plant for my children and future grandchildren. I am in the race for the long run.