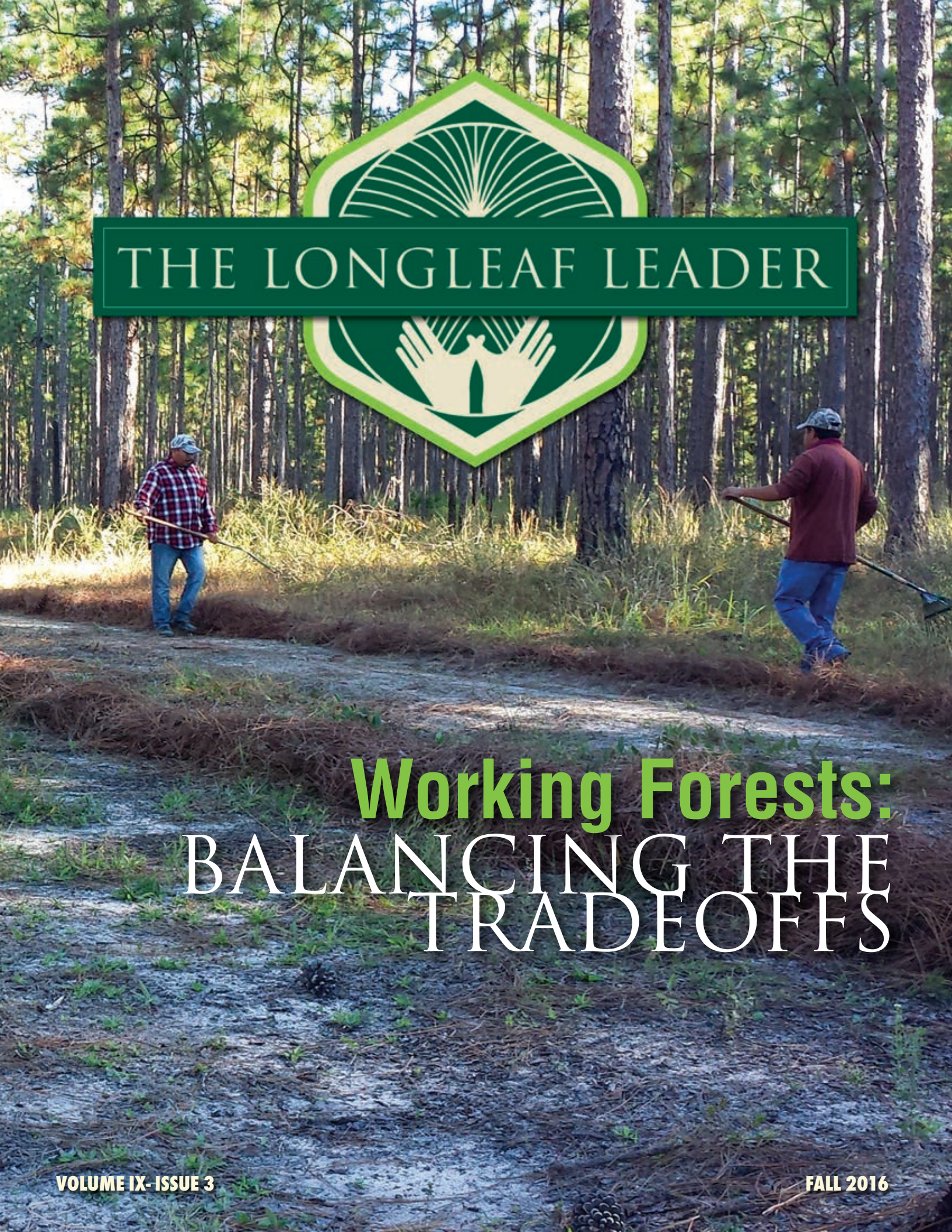

Working Forests: BALANCING THE TRADEOFFS

VOLUME IX- ISSUE 3

FALL 2016

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COVER Raking pine straw in a mature longleaf forest. Photo by Casey White.

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PRESIDENT'S MESSAGE

By Robert Abernethy, The longleaf Alliance

As we gear-up for the regional conference in Savannah this fall, I find myself reflecting on the collective effort that makes it all possible. This event happens because we have the support of our conservation partners and conference sponsors. There would be no Conference without them or without the private landowners, land managers, wildlife biologists, foresters, conservation groups, consultants, university researchers, agency and outreach personnel and staff who share a passion for the restoration of the longleaf pine ecosystem. It takes us all working together to not only restore the forest but also to host a successful conference.

The 11th Biennial Longleaf Conference kicks off November 1 with a Welcome Reception and "Longleaf Regenerated" art exhibit, sponsored by the US Fish and Wildlife Service. The show will be a celebration of the inspiration each artist draws from the longleaf forest, using various longleaf media, to create a unique work of art.

On Wednesday November 2, the plenary will open with Dr. Reed Noss, Provost's Distinguished Research Professor, Pegasus Professor, and Davis-Shine Professor of Conservation Biology at the University of Central Florida and President of the Florida Institute for Conservation Science. Dr. Noss will be followed by concurrent sessions focused on managing working longleaf forests, cutting edge technology, groundcover restoration and new and exciting developments in the longleaf world. Following the day of talks and classroom sessions we will retire to the Poster Reception, sponsored by Dow AgroSciences, featuring over a dozen authors with posters to discuss longleaf research and management from 6-8pm.

On November 3, come prepared for a networking field trip to either Georgia or South Carolina. The Georgia trip, sponsored by American Forests, will head south to visit the Georgia DNR Townsend Wildlife Management Area and Fort Stewart Army Base where we will discuss longleaf sandhill restoration, gopher tortoise and indigo snake habitat management, prescribed fire and groundcover restoration. The South Carolina field trip will focus on production forestry with a trip to Big Survey Plantation to discuss the results of a first thinning of a longleaf pine plantation, and pine straw production and fertilization. Then on to Nemours Wildlife Foundation for a discussion of savanna restoration, prescribed burning challenges, red cockaded woodpecker restoration, and a demonstration of the use of drones in forestry.

After the field trips and a quick shower, we're hosting a private evening celebration in Savannah at the Ships of the Sea Maritime Museum, sponsored by CHEP; A Brambles Company. Ships of the Sea Museum features nine galleries of ship models, maritime paintings and artifacts. The vast majority of ship models were commissioned by the Museum to interpret the rich story of Savannah's maritime history from colonial vessels and ironclads to modern navy ships.

Exhibitors will be available throughout the Conference to meet and talk with attendees about their products and services. Roundstone Native Seed will be there as will Pine Garden Baskets, Georgia NRCS, Cascade Fire Equipment, Truax Company, Grasslander, Beaver Plastics Ltd and many others. And as always, the hospitality suite will be well-stocked, full and overflowing where friends and partners can meet and continue discussions until 10:00 pm.

It is in Savannah and it only comes around every 24 months, so do not miss this opportunity to learn from the best and get to know the "people with dirt under their fingernails and black streaks on their pant's legs" that are making longleaf conservation happen on the ground, every day. There's still plenty of time to register and be included in what's slated to be a banner Conference! See you in Savannah!

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2016 - 2017 | Calendar

Longleaf Academy: Understory 201
Yemassee, South Carolina
October 4-6, 2016

11th Biennial Longleaf Conference
Growing a Legacy: A Working Forest for the Long Run
Savannah, Georgia
November 1-4, 2016

Longleaf Academy: F-201 Fire & Longleaf
Withlacoochee Training Center
Brooksville, Florida
November 29-December 1, 2016

Longleaf Academy: H201 Herbicides & Longleaf
Jasper, Texas
January 10-12, 2017

Longleaf Academy: F201 Fire & Longleaf
Garnett, South Carolina
February 21-23, 2017

Longleaf Academy: F201 Fire & Longleaf
Cheraw, South Carolina
March 28-30, 2017

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

FALL 2016 MANAGEMENT CHECKLIST

- Apply Fall Site Preparation Herbicides: For maximum efficacy, foliar active herbicides such as glyphosate (Roundup®/Accord®) should be applied to pasture grasses well before the first frost. Conversely, a late application of triclopyr (Garlon®) may be applied if targeting waxy leaf competitors while minimizing impact to herbaceous groundcover. Allow 60 days for soil active herbicides to break down before planting longleaf, especially those with the active ingredient imazapyr (Arsenal®/Chopper®).

- Apply Mechanical Site Preparation Treatments: Scalp agricultural sites, but remember to stay strictly on the contour and pick the scalper up regularly. Leaving waterbars in the furrow will greatly reduce erosion. Sites with hardpans should have been subsoiled or ripped this summer to give plenty of time for the soil to settle. Remember to not plant seedlings directly into the subsoiled/ripped furrow.

- Clean up or establish fire lanes for site prep or fuel reduction burns.

- Harvest Native Herbaceous Seeds: Certain species, such as the Indian Grasses (Sorghastrum spp.), ripen and fall in a very short time window (as little as 1 or 2 weeks). Ripe wiregrass Aristida stricta or A. beyrichiana can lose all of its ripe seed if a cold front blows through. Be watchful and move quickly!

- Order Native Seed for Understory Restoration: Seed from local ecotypes and endemic species are limited and expensive. Some landowners and land managers have the time and expertise to collect their own seed, but most restoration will be done with seed purchased from the few seed companies that sell southeastern seed sources.

- Plant Longleaf: It's never too early to plant longleaf if the following conditions are met: the site is prepared (see Fall Site Prep recommendations), there is adequate soil moisture, seedlings are available, and a planting crew is available; the latter may be the limiting factor.

- With containerized longleaf, tell the planting crew that you want to see the top of the plug on cutover sites and to have 1.5 inches of the plug above the soil surface on scalped sites. Containerized longleaf are very forgiving when planting shallow but will die when planted too deep.

Lopsided indian grass in flower on the Blackwater River State Forest in Florida. Photo by Carol Denhof.

Q&A

Q. Dear Longleaf Alliance,

I'd like to plant longleaf pine on my property in the Carolina Piedmont. Can it grow up here and what do I need to do to get the trees established?

Upstate Fan

A. Dear Upstate Fan,

Yes, longleaf can be grown in the Piedmont! It grows naturally in the mountains of northeast Alabama, northwest Georgia, the Alabama and Georgia Piedmont, and the lower Piedmont of the Carolinas. I have seen longleaf stands doing well on the Clemson Experimental Forest in Anderson County, SC and on private land in Spartanburg County. While we don't advocate large scale plantings outside the native range, it can be planted. We would suggest trying it on a limited scale on sandy clay upland Piedmont soils.

If this is what you want to do, use a chemical site preparation, followed up with a site prep burn, just as you would on Coastal Plain sites. Because of the clay soils, subsoiling may be needed to break up impervious soil. Do this on contour to avoid soil erosion. In the Piedmont, you have two planting windows. If soil moisture is available, you can plant in late September to mid-November. This will allow the seedling roots to become established and help reduce frost heaving injury to the seedlings. Frost heaving occurs during hard freezes when ice spewing out of the ground can push poorly rooted seedlings out of the ground. The other window is to plant containerized longleaf seedlings in early March after the danger of hard freezes are past. If subsoiling was done, plant the seedlings on the uphill side of the subsoiled row, within 4-6 inches of the subsoiled row. Always use mountain or Piedmont seed source longleaf seedlings. They will withstand cold, snow, and ice better than Coastal Plain seedlings.

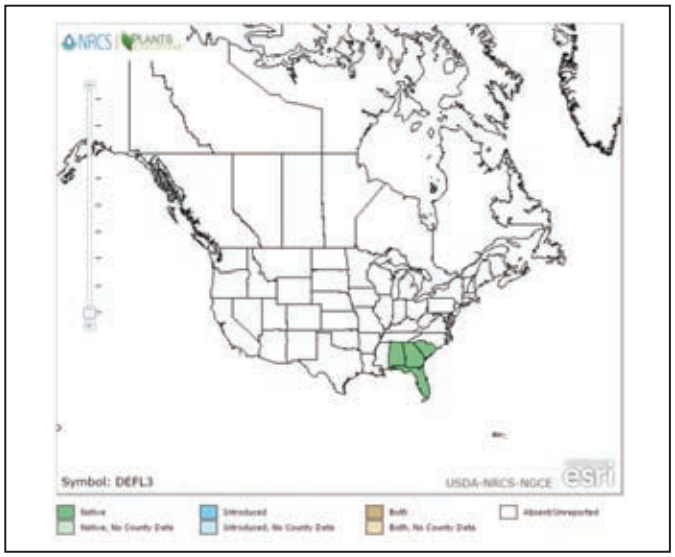
As always, reforestation plans need to be specific to your site. Consult with a knowledgeable forester or Longleaf Alliance staff for specific recommendations.

The Longleaf Alliance

By Carol Denhof, The Longleaf Alliance

PLANT SPOTLIGHT

Desmodium floridanum Michaux Chapm. Florida Ticktrefoil



Map showing distribution of Florida ticktrefoil. USDA PLANTS Database.

Newly sprouted stems of Florida ticktrefoil showing abundant hairs that cover the plant. Photo by Jones Ecological Research Center.

Description

Florida ticktrefoil is a perennial legume species that can reach a height of 3 feet. The whole plant is covered in short hooked hairs that make the plant feel rough or sticky. Like many other legume species, this plant possesses leaves that are trifoliate (compound leaf with three leaflets). Each leaflet can be quite large, measuring 1-3 inches in length. Small, pinkish pea-like flowers form in late summer-fall and flat pods with 2-4 segments follow later in the fall. These segments or "beggar's ticks" will stick to your clothing as you walk through the woods in the fall.

Distribution & Habitat

This species of *Desmodium* is fairly common and occurs throughout the central portion of the longleaf range from South Carolina south to Florida and west to Alabama. It can be found growing in pineywoods with dry to mesic soils.

Wildlife Uses

Desmodium species are very important food plants for the northern bobwhite as well as the wild turkey. The foliage is also a highly preferred forage for white-tailed deer and a preferred host plant for the larval hoary edge butterfly.

Other common species

There are many species of *Desmodium* that occur within the southeastern US. The most similar species that could be confused with Florida ticktrefoil is velvetleaf ticktrefoil (*D. viridiflorum*). However, where the Florida ticktrefoil has a sticky texture, the velvetleaf ticktrefoil has soft, velvety hairs on the underside of the leaflets. When picking a seed mix, make sure that you do not use the non-native species *D. tortuosum* that is commonly included in "native" seed mixes.

Commercial Availability

Local ecotype sources of this species are available in seed form from Roundstone Native Seed and Ernst Conservation Seed.

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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.

Norden, H. and L.K. Kirkman. Field Guide to Common Legume Species of the Longleaf Pine Ecosystem. J.W. Jones Ecological Research Center, Newton, GA. 72pp.

USDA, NRCS. 2016. The PLANTS Database (http://plants.usda.gov, 9 May 2016). National Plant Data Team, Greensboro, NC 27401-4901 USA.

By Catherine Rideout, East Gulf Coastal Plain Joint Venture

WILDLIFE SPOTLIGHT

Ruby-throated hummingbird feeding on cardinal flower. Photo by USFWS.

Ruby-throated hummingbird. Photo by Michael Seymour.

Late summer and early fall are a wonderful time of year to enjoy a small yet dynamic species of bird in the Southeastern United States. The ruby-throated hummingbird is the only hummingbird to breed in the East, but it has the largest breeding distribution of any hummingbird in the United States. These hummingbirds are only 3.75 inches long. Males and females both have a green crown, back, and wings with a white belly. Females have a white throat and males have a stunning ruby throat, thus their name. Ruby-throated Hummingbirds use various habitats and can be seen in hardwood forests, mixed pine-hardwood woodlands, and gardens.

Weighing in at only 3-4 grams, this tiny bird migrates during the spring and summer, with many individuals crossing the Gulf of Mexico. Most spend the colder months in Central America, but some individuals do overwinter in the Deep South. On their way to the breeding grounds during spring migration, birds arrive on the Gulf Coast in February. They'll later be seen in large numbers at hummingbird feeders in August and September, fattening up for their long journey south. They often visit flowers as they forage for nectar and serve as a pollinator for many plant species in the Southeast. They are also known to supplement their diet with sap, spiders, gnats, moth larvae, and insect eggs.

Unlike many birds, male and female ruby-throated hummingbirds do not develop a pair bond. They exhibit solitary behavior and only come together during mating. Females are the sole nest builder and often use spider webs to line their nest and hold other plant materials together. Most commonly, the female lays two eggs and incubates the eggs for about two weeks. After hatching, the young birds spend approximately three weeks before fledging from the nest.

Ruby-throated hummingbirds use feeders throughout the migration and breeding period and, at times, western species such as rufous hummingbirds can be spotted at feeders in the Southeast during the late fall and winter. In addition to maintaining feeders, consider adding nectar-producing native plants to your garden to attract these welcome visitors. Plants such as trumpet creeper (*Campsis radicans*), coral honeysuckle (*Lonicera sempervirens*), and red columbine (*Aquilegia canadensis*) among others are excellent food plants. If you'd like to learn more about hummingbird feeders and native plants, please visit websites by the Hummingbird Society and Operation RubyThroat:

http://www.hummingbirdsociety.org/feeding-hummingbirds/

http://www.rubythroat.org/plantsnativetopten.html

Reference:

Weidensaul, Scott, T.R. Robinson, R.R. Sargent and M.B. Sargent. 2013. Ruby-throated Hummingbird. The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Bird of North America Online: http://bna.birds.cornell.edu/bna/species/204

Beach erosion reveals the complex structure beneath this slash pine stump. Photo by Jeff Holmes.

STUMP REMOVAL AND THE LONGLEAF ECOSYSTEM: MORE THAN MEETS THE EYE

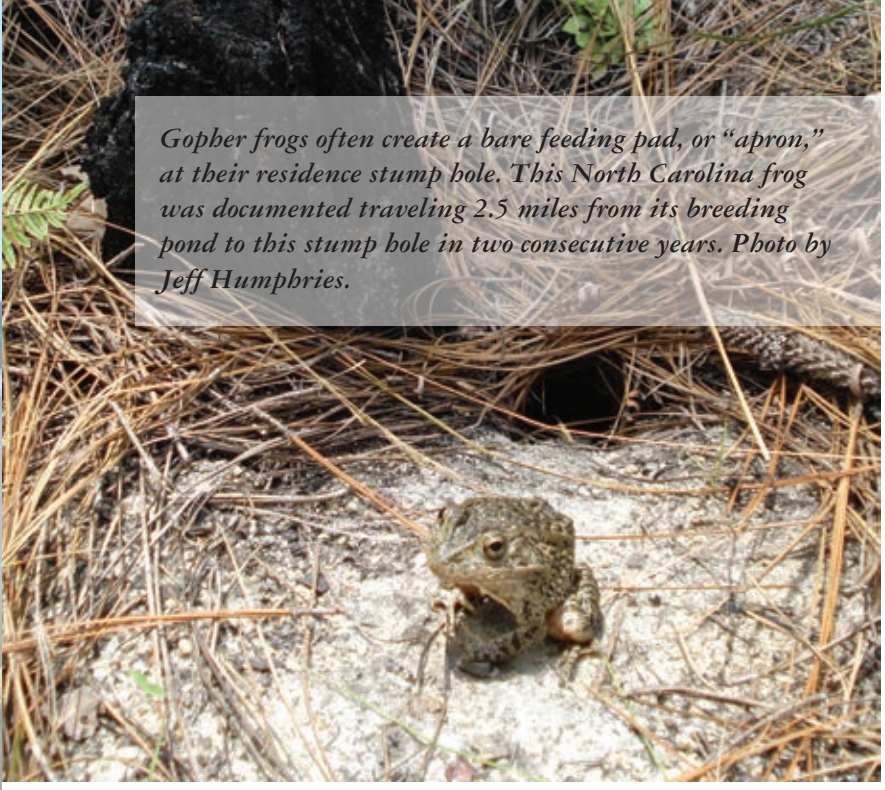
By Mark Bailey, Conservation Southeast Inc.

Balancing the economic and environmental benefits of certain management practices can be challenging for landowners, as maximizing one often compromises the other. For example, to offset some of the costs of restoring and managing longleaf pine, some landowners elect to harvest pine straw. Done carelessly, groundcover and wildlife habitat can be degraded by straw raking. However, experienced crews using hand tools can periodically harvest pine straw with minimal impact in well-managed (i.e., frequently burned) longleaf stands.

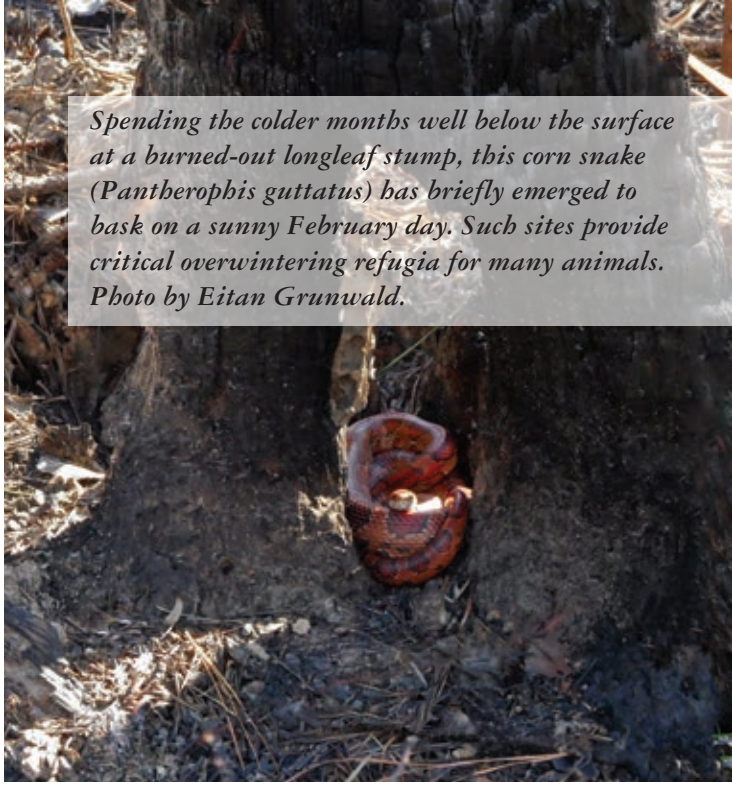
Stumps, like pine straw, have potential monetary value to landowners, but the comparison ends there. Stump removal ("stumping") eliminates a critical wildlife habitat that unfortunately is seldom considered. The tap root of a longleaf is nearly as large in diameter as the tree's trunk, tapering gradually to depths of 10 to 15 feet, and lateral roots of an old tree may radiate out as far as 75 feet. For millennia, the resinous remnants of dead and often quite old trees, especially the below-ground portions, were an abundant feature across the landscape. Decomposing and burned-out roots created a complex network of subterranean cavities that served a vital ecological function for a diversity of small mammals, reptiles, and amphibians taking shelter from winter cold, summer heat, predators, and fire. Left in place, a 40-year-old longleaf stump cannot provide the quality of habitat as a 400-year-old tree, but it can provide much of the same function.

The value of gopher tortoise burrows to other wildlife is widely appreciated, but stump holes are apparently of even greater importance. Dr. Bruce Means monitored 63 stump holes and 112 gopher tortoise burrows over eight years when he was Director of Tall Timbers Research Station. In 1,324 observations of stump holes, 11 vertebrate species were seen 959 times (72%), yet in 6,725 visits to gopher tortoise burrows, 17 species were observed only 707 times (11%). Species observed using stump holes included eight reptiles: eastern kingsnake (*Lampropeltis getula*), coachwhip (*Masticophis flagellum*), garter snake (*Thamphophis sirtalis*), black racer (*Coluber constrictor*), gray rat snake (*Pantherophis spiloides*), eastern diamondback rattlesnake (*Crotalus adamanteus*), cottonmouth (*Agkistrodon piscivorous*), and eastern box turtle (*Terrapene carolina*); two mammals: opossum (*Didelphis virginiana*) and cotton rat (*Sigmodon hispidus*); and even one bird: bobwhite quail (*Colinus virginianus*).

Often covered with pine needles or leaves, there may be no visible surface evidence of a well-aged stump hole. But like a hidden cave, passages to subterranean cavities remain, and some



Gopher frogs often create a bare feeding pad, or "apron," at their residence stump hole. This North Carolina frog was documented traveling 2.5 miles from its breeding pond to this stump hole in two consecutive years. Photo by Jeff Humphries.



Spending the colder months well below the surface at a burned-out longleaf stump, this corn snake (Pantherophis guttatus) has briefly emerged to bask on a sunny February day. Such sites provide critical overwintering refugia for many animals. Photo by Eitan Grunwald.

of the rarest species of longleaf forests require them. Gopher frogs (*Lithobates capito*) almost exclusively use stump holes in North Carolina and other places where there are no tortoise burrows. Burned-out or rotted-out stump holes were found to be heavily used (more so than tortoise burrows) in radio-telemetry studies of eastern indigo snakes (*Drymarchon couperi*) in the Florida panhandle, black pine snakes (*Pituophis melanoleucus lodingi*) in southern Mississippi, and Louisiana pine snakes (*Pituophis ruthveni*) in Louisiana. The rarity of these animals today is due primarily to habitat loss, fragmentation, and fire suppression, but the practice of stumping has without doubt exacerbated their decline.

Modern stump removal equipment in operation, Longleaf Alliance field trip, 2014. Photo by Mark Bailey

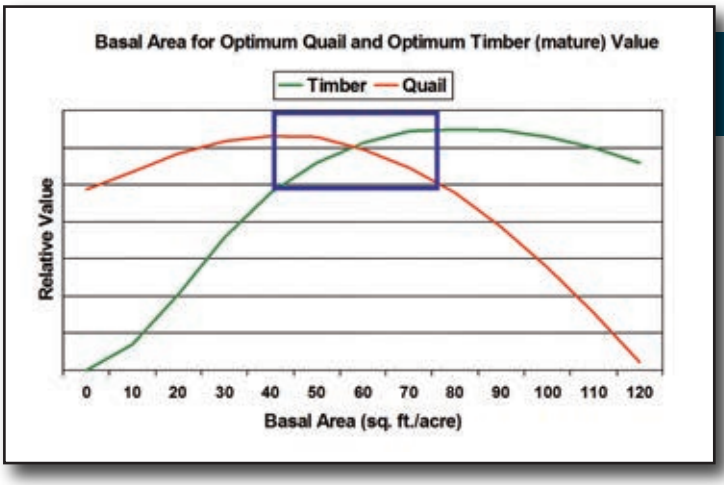
Almost all of the old-growth, heavily resinous stumps were extracted decades ago to produce turpentine, rosin, and pine oil. Removal techniques included dynamite and bulldozers, resulting in scarring of the land that can still be seen today. The resins in mature second-growth longleaf stumps also have value, and modern operations extract them with modified tracked excavators so that disturbance is reduced. After the stump is pulled, the hole is backfilled, leaving animals no surface access to underground cavities. The result looks "clean" to the pleased landowner, who likely is unaware that the stumped stand's ability to support the native fauna has been compromised, or that the scattered bare patches are prime for colonization by invasive species such as cogongrass (*Imperata cylindrica*) which rapidly occupies disturbed ground and may be transported by machinery.

Stumping is an irreversible practice that should not be undertaken without serious consideration of wildlife management objectives and native wildlife habitat. Should the stumping company representative assure you that they will leave your land in as good or better shape than when they begin, just remember there is more to the longleaf ecosystem than meets the eye.

Managing Pine Savanna for Bobwhites and Other Amenities: Trade-offs and Treasures

By Reggie Thackston and Dr. Theron M. Terhune, Game Bird Program, Tall Timbers Research Station & Land Conservancy

"If we accept the reality that life is a series of trade-offs, then we can commit ourselves to a particular path without too much grief, resentment, or disappointment….And if we choose a path and call it good, we open up even more possibilities for growth and satisfaction…" (https://www.psychologytoday.com/blog/headshrinkers-guide-the-galaxy/201109/life-is-series-trade-offs Jennifer Kuntst Ph.D.)



Relationship between tree basal area, timber value, and bobwhite quail success.

One might ask what in the world a quote from a clinical psychologist has to do with managing pine savanna for bobwhites and other wildlife? However, on the other hand if you've worked with bobwhite restoration and management in today's Southeastern pine landscapes you might not find this quote odd at all – and at times some of us might even need a little therapy! The hard truth is that successfully establishing and maintaining open pine savanna requires science-based planning and targeted delivery of management practices, but often yields economic trade-offs. More simply stated, Mr. Bob and his pine savanna cohorts come with a price tag. Let's take a brief look at some of these costs and benefits.

Beginning in 2012 and working with Dr. Barry Shiver (at that time with ForesTech™ International now CEO of Smarter Forestry™) a timber growth and yield specialist, the SiMS™ (property of ForesTech™) model was used to estimate Net Present Values (NPVs) for a variety of pine savanna management regimes where bobwhites were the primary objective. These NPVs were then compared to those of optimum economic management where wildlife received no consideration. Using forest site, product, market and management assumptions, NPVs were calculated for longleaf and loblolly pine plantations at three rotation ages, two site indices, with and without pine straw harvest, and with and without management practice incentives (e.g. Farm Bill). The complete quantitative results are far too lengthy for this column, but there are a few qualitative nuggets that provide food for thought relative to considering the cost/benefits of varying management decisions:

- **Raking pine straw**

  Benefit: Substantially increases NPVs

  Trade-off: Significantly reduces ground cover quality and wildlife value

- **Prescribed burning on a two-year fire frequency**

  Benefit: Establishes and sustains grass/forb/shrub ground cover, restores ecosystem health which includes enhancing wildlife values (especially for bobwhites and other fire-adapted species), reduces wildfire risk, and increases young longleaf tree quality

  Trade-off: Reduces NPV

- **Thinning heavy early in stand life**

  Benefit: Jump starts the restoration process and increases availability and longevity of habitat for bobwhites and other wildlife

  Trade-off: Low-to-moderate NPV reduction

- **Extending stand life beyond economic rotation age**

  Benefit: Provides the most productive years for understory conditions in well-managed pine savanna

  Trade-off: Moderate-to-large NPV reduction

• Receiving economic incentives

(e.g. Farm Bill Conservation Programs like EQIP and CRP)

Benefit: Depending on the programmatic payments and requirements, can significantly or totally offset management costs. Through these programs landowners may indeed be able to have their cake (or quail) and eat it too!

Trade-off: May reduce management flexibility for the length of the contract

These summary points might raise more questions, or perhaps points of debate, than they provide answers. However, what they do clearly point out is that pine savanna management to optimize bobwhite abundance, like all land management, results in direct and indirect trade-offs, both monetary and ecological (see graph). The key to success and satisfaction is front-end planning to set specific management objectives with full realization of the costs and benefits. That is where trained professionals and natural resource conservation organizations can be of assistance. These professionals can help landowners weigh the benefits and trade-offs to enable informed decision making to most fully integrate and achieve economic and ecological objectives.

And it's important to note that not all land management "benefits" can be fully quantified. For example, what is the value of:

1) the knowledge that one is successfully restoring a landscapes' ecological health and treasures for present, and perhaps even more valuable, for future generations;

2) the sound of the wind blowing through a mature open pine forest;

3) the vista of a veritable prairie under the trees stretching "as far as the eye can see";

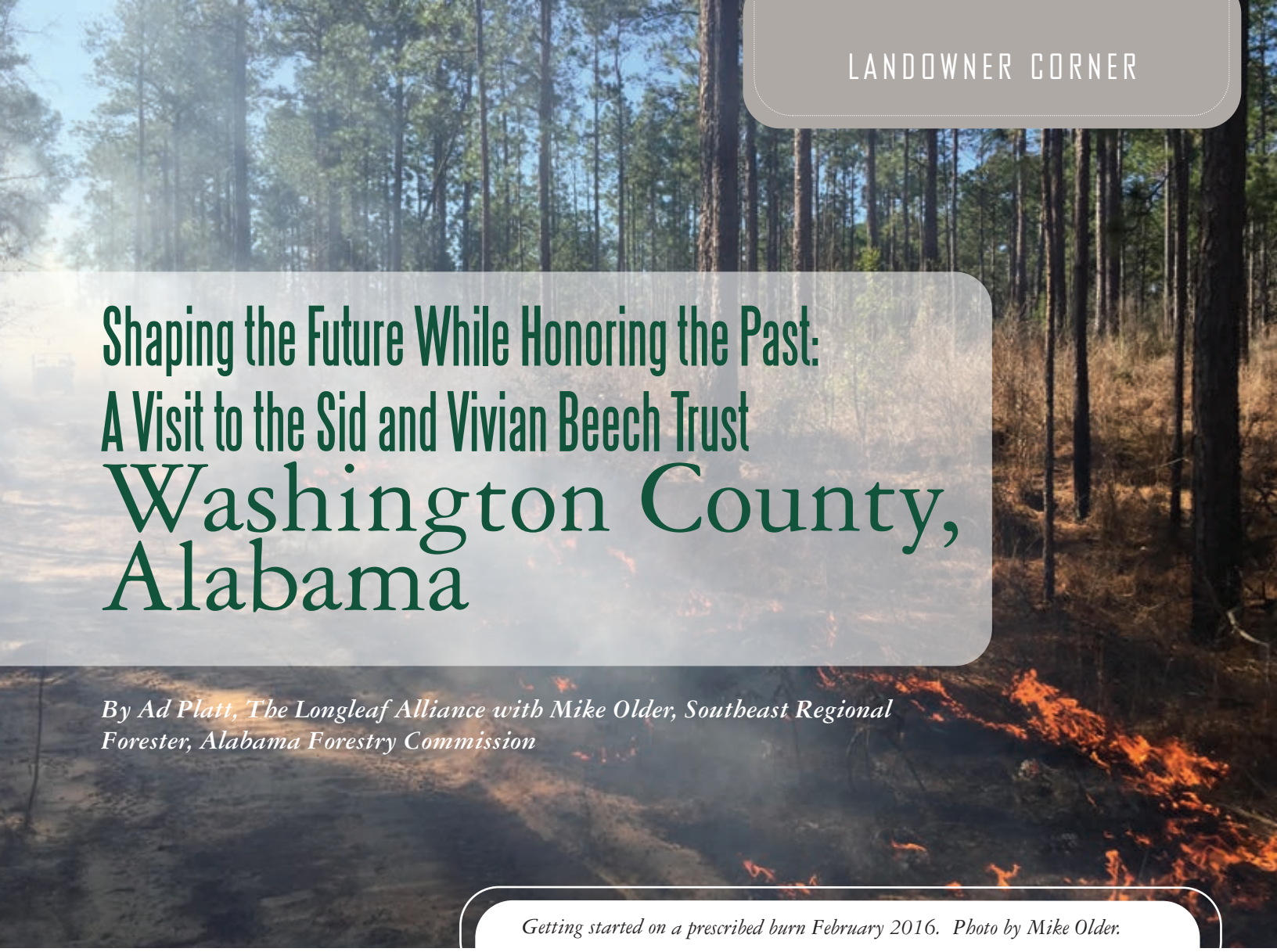
4) the melodious sound of a Bachman's sparrow, harmonized by other songbirds; and

5) the thunderous explosion of a covey of wild quail???

To quote, what has become somewhat of cliché – it's Priceless!

Shaping the Future While Honoring the Past: A Visit to the Sid and Vivian Beech Trust Washington County, Alabama

By Ad Platt, The Longleaf Alliance with Mike Older, Southeast Regional Forester, Alabama Forestry Commission



Getting started on a prescribed burn February 2016. Photo by Mike Older.

"Have you ever seen the dawn of a new day from a turkey blind in mature longleaf, admiring the dogwoods in full bloom, bright as snow, in the first light of morning, while all the woods come alive?" With this picture in mind we begin our tour of a truly inspiring tract in southwestern Alabama.

I found Vivian Beech and her brother, Nolan Williams, already working up a sweat making improvements to their entrance signs when I arrived with Vivian's nephew, Mike Older, for a late July tour of "the Pasture." This tract is one of two properties that they have long managed, the other being "the Farm," their original family homestead near Fruitdale, 13 miles west of Chatom, Alabama. (When their family first homesteaded in this region, Fruitdale was still part of Mississippi.) To Sid and Vivian, Mike was the closest thing to a son. He spent many summers with them until he was old enough at 11 to begin working on "the Farm." Mike credits these early years in having everything to do with his choice of forestry as a career.

This tract came into the family as a result of Mike's Uncle Sid partnering with Bud Dickey in the pole business. When they eventually separated this business about 1975 the Beech portion became these 1,320 acres. The tract is nearly rectangular in shape, with the pinelands on the east and west evenly divided by some of the diverse hardwood bottomlands, some 500 acres, of Armstrong Swamp. There are also some 500 acres of natural longleaf with good stocking, along with a new plantation of longleaf of 100 acres, established under a WHIP 2010 contract, as well as about 200 acres of fifty-year-old planted slash pine that is gradually being thinned to favor the natural longleaf that seeded in and has grown well.

Though he was making his living in the timber business, this property was for Sid a retreat, almost like a church he visited nearly every Sunday. Why longleaf? Sid loved it, and Vivian does also. The family grew up hunting; Sid and Vivian especially loved turkey hunting. The open stands of longleaf, and the quality timber and poles longleaf produced were what they liked most about these woods. Sid didn't want to thin, cut poles, or burn on this land. Along with hunting turkeys

I found Miss Vivian making improvements to her entrance signboard when I arrived for my tour. Photo by Ad Platt.

and some deer, Sid also bucket-fed a dozen does that came running like pets when they heard his truck in the field.

Because the property went many years without much cutting or any burning, it gradually started to become very dense and dark over time. Without a burning program, the wildlife Sid and Vivian valued was being reduced along with habitat quality.

In the summer before his junior year of college and after Sid had been retired for several years, Mike and Uncle Sid restarted a pole mill business. They were business partners for 5 of 8 years, with Michael managing the procurement side, marking and cutting poles on nearby properties before he went to work as a forester for the Alabama Forestry Commission. Since Sid's passing in 2005, Michael has gradually assumed the forestry work of burning and marking timber on the property where he was first exposed to forestry. Vivian continues to be involved in all decision making, supervises all activities on the property, and is present on a daily basis during logging, road work, burning, or planting operations.

The overall management objectives in their plan are to continue developing the longleaf pine ecosystem using natural regeneration (where possible), and to produce quality wood products while enhancing wildlife habitat for game and non-game species as well as recreation. Timely thinnings and routine prescribed burning are the primary practices. A plan was developed and followed where all the upland pine stands were thinned over a five-year period starting in 2006. Each stand was marked to ensure the best trees were retained for merchandising 40-45' poles and other products, including Number 1 sawlogs for the export market.

Natural Resources Conservation Service (NRCS) assistance has been helpful in several ways. In addition to the 2010 WHIP funded planting, NRCS also assisted with establishing permanent, stabilized fuel breaks and fire lines around the long unburned portion of the property, and assisted with the initial round of burns that were the slowest and most difficult. The family was also assisted by The Longleaf Alliance, National Wild Turkey Federation (NWTF), and the Alabama Forestry Commission, whose advice was very helpful. Sid and Vivian were charter members of the Washington County Treasure Forest Chapter. In 2014, The Sid and Vivian Beech Trust were honored as the winners of the Southern Region Helene Mosley Memorial TREASURE Forest Award and in 2015 were selected as the Alabama Tree Farmer of the Year.

Vivian and Sid were always community oriented and shared a strong devotion to connecting the community to the land, the longleaf, and to the native wildlife. Youth development was especially rewarding, particularly passing on outdoor skills like hunting turkey or deer. Their belief - - share it while you're here - - led them to strongly support almost every civic organization in Chatom, from the Red Cross, United Way, Scouting (Boys and Girls), Eastern Star, Masons, and others. Through creation of a trust and from timber proceeds, they have been especially generous in supporting the Boy Scouts of America. Because they were proud citizens and committed to forestry and natural resource education, they donated 160 acres

of forestland to Mobile College (now the University of Mobile) in the 1970s, and a school forest to the Washington County School System in 2005.

Vivian has taken hundreds of youth on their first hunt and has helped many of them bag their first turkey or deer. They never leased the hunting rights; because taking guests, especially first timers hunting in the big longleaf, was one of their favorite things to do. Besides the turkey and the deer, they take special pride in populations of gopher tortoises, alligators, a host of more common birds and wildlife, and at one time had a resident eagle on the property. But they are proudest of, and most enjoy the occasional interactions with their newest resident, a large black bear that periodically appears on their game cameras. The bear has, however, put a stop to Vivian's early morning turkey hunting.

An ongoing project of Vivian's has been gathering the history on this property since settlement. This tract is believed to be the site of the first turpentine still in Washington County, and some large slash pines in the swamp still show box cuts. The original homestead sites of the Howards, Hannahs, and others are known and honored, along with a cemetery. Vivian enjoys pointing out the many historic features they have documented on this tract, such as where an earlier owner, Oscar Maclure, had laid out the dummy lines for railroad logging in the 1940s, or an old dip vat used when cattle roamed the open woods and an ox pen area that contained the oxen first used to log the woods.

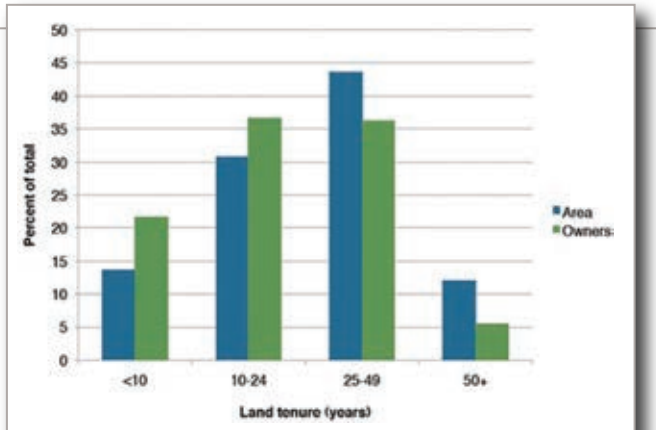
Going forward, this family continues to cherish this land, and is working towards a true uneven aged stand. The average age of the longleaf now is approximately 85, with a few over 120. So as the stands are opened up, new cohorts of longleaf will be recruited by applying a modified Stoddard-Neel approach. Continued prescribed burning is conducted on 300-500 acres annually, with burns moving into the growing season as fuel loading is reduced. Some of the new members of the family are also becoming very interested, helping to carry on the trust, and the forest.

A little advice from Vivian, "Make the most out of today; you never know about tomorrow." In this spirit, and at age 95, Vivian took the controls of a small plane last year to get an aerial view of her hometown. Secondly, "Management is easy and fun; looking into the future is hard." And lastly, "You don't buy friends, you make them."

Vivian's brother Nolan (l) and nephew Mike Older (center), along with Mike's brother James (not in photo), all remain highly engaged in the ongoing stewardship of the trust lands. Photo by Ad Platt.

by Barrett McCall, President, Larson & McGowin

THE HUMAN ELEMENTS OF FOREST MANAGEMENT PLANNING



Length of ownership of southern family forests as a percent of total area and number of family forest owners, 2006. Source: Southern Forest Futures Project Chpt 6. Brett J. Butler and David N. Wear

In forestry school we learn about key events in the life of the forest using terms like: periodic natural disturbance, establishment of early successional species, climax forest, and rotation length to describe conditions along the history of a developing stand. We don't spend as much time discussing an extremely important event in the life of the forest, particular the privately owned forest, and that is the transition from one ownership to another. If you assume a longleaf stand typically has a 40-50 year rotation studying Fig 1 it is easy to see that it's the rare situation for a landowner to hold timber property much longer than a single rotation. Given this situation it should be no surprise that we often see management goals significantly disrupted when a death in the family causes ownership to transition.

The basic elements of a forest management plan include:

- Documenting the objectives of the owner (mission and vision statement)
- Describing the current condition of the timber stands (species, age, stocking)
- Timber Type Map
- Description of planned activities for management (thinning, prescribed burning, stand improvement)
- Identifying future harvest activities
- Budget and gross/net cash flow projections

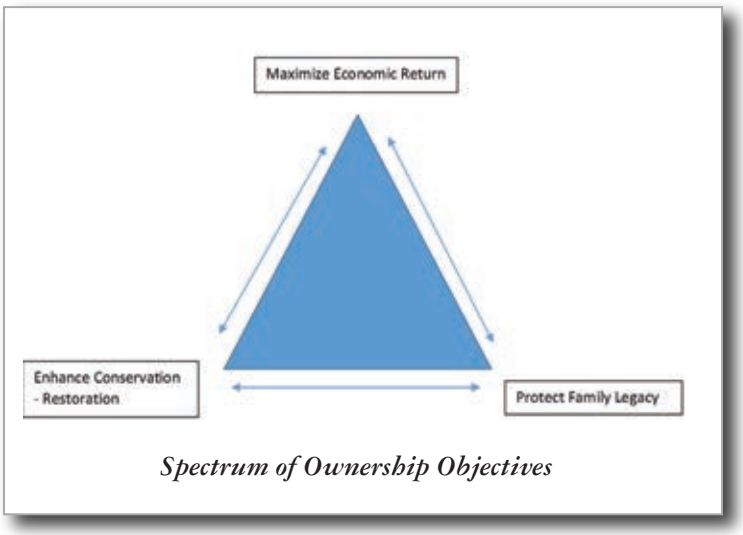
The current condition of the forest always constrains the options for forest management in the short run, and so many landowners focus on simple 5 to 10 year goals. So how does a landowner grapple with longer term goals and major life events like ownership transition as they plan activities?

Understanding Management Objectives

There are numerous social science papers and landowner surveys that categorize why timberland owners own property and what their objectives are for managing their land. My personal experience is that objectives change depending on the owner's stage in life and their economic situation. Consider Fig 2. Each point on the triangle represents a generalized objective: protecting family legacy, maximizing economic benefit, and enhancing conservation/restoration. The middle aged landowner whose children are approaching college age may have to maximize economics as the overriding objective and be ready to harvest a stand of trees when the market is strong to pay for looming college expenses. While the retirement aged landowner may want to use the land as a focal point providing a place to bring the family together and preserve family legacy by foregoing a timber harvest to protect a grove of trees that is a favorite family picnic spot. The reality is that, through time, the influence of one of these objectives on an owner's management decision move back and forth. Complicating matters, different generations within the same family look at things differently with at times significantly different objectives about how the property should be managed. Identifying and documenting one's objectives should be a dynamic process revisited every few years with the knowledge that things change and forest management plans can and should be flexible, changing with life events and market conditions.

Predictability

Forest management planning is becoming significantly more sophisticated as computer technology and a growing universe of silviculture research allows us to model future forest conditions under a variety of management activities. However, some management activities and tree species have received more focused research than others. Today, landowners and foresters are making plans with a wealth of knowledge about growth response of loblolly pine to management inputs, while our knowledge of longleaf pine in comparison is decades behind in research. In many situations soil type will define species composition on a given property, but in the case of longleaf vs loblolly, many landowners favor loblolly simply because the



Spectrum of Ownership Objectives

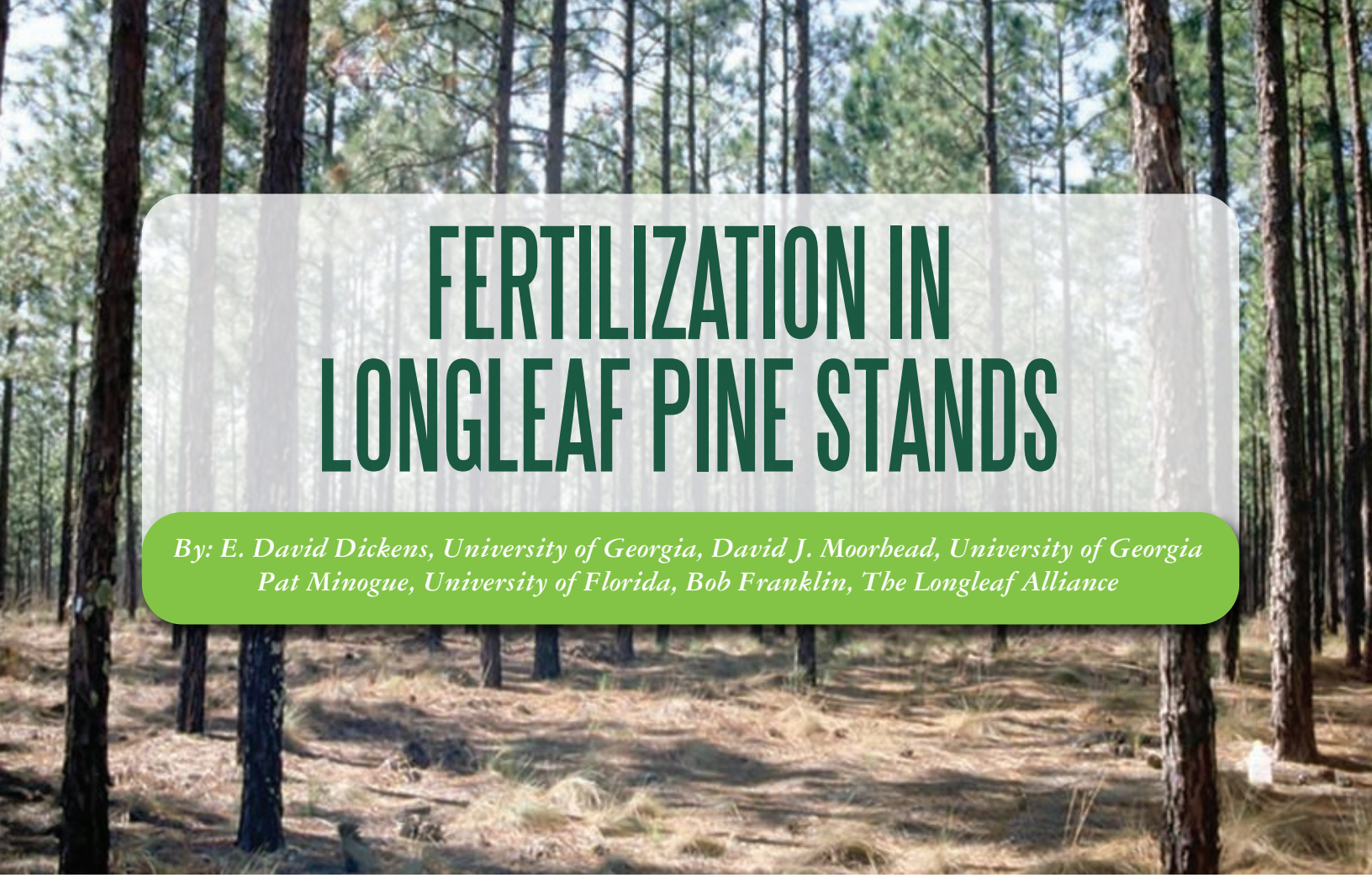
results of their management activities are more predictable. We have several clients who want the results of their management to be very predictable following a detailed step-by-step plan that results in very predictable volumes available for harvest. Others focus on the unpredictability of markets and shun management planning all together. It's important to recognize that the management plan is a blueprint that aids in documenting goals, organizes information about the forest, and serves as the basis for the landowner to communicate within the family and with their forester. Being a communication tool is by far the most important purpose of a forest management plan and a critical part of long term success.

Tax Man and Forest Planning

Everyone is familiar with Benjamin Franklin, who wrote in a 1789 letter that "Our new Constitution is now established, and has an appearance that promises permanency; but in this world nothing can be said to be certain, except death and taxes." The 2015 estate tax and gift exemption is $5.45 million per individual meaning that an owner whose land is worth $2,000 per acre can transfer 2,700 acres to their heir without paying estate taxes assuming they have no other assets in their estate except the land. To the vast majority of timberland owners that is a sizable property. Before the tax laws changed increasing the size of the exemptions, many landowners managed their forest in a way to protect wealth from the tax man by "banking value on the stump." Forests were allowed to grow older past what many forest economists would consider financial maturity to provide liquidity in the form of older trees ready for harvest by their heirs to settle estate tax obligations. The challenge we face today is that tax law seems to be uncertain with exemptions expiring only to be renewed by Congress at midnight on December 31, and though favorable to timberland owners at the moment, the fear of the uncertain rules in the future leads to paralysis in management planning.

Parting Thoughts and Adaptive Management Planning

Consider Dwight D. Eisenhower's sage advice that "Plans are useless, but planning is everything." The attributes of a given forest - its age, species composition, location, and site quality - are the first elements a forester focuses on when preparing a forest management plan. However, it's the human elements dictated by the unique situation presented by the timberland owner as they attempt to identify and document their goals and objectives that are the most important component. Recognizing that objectives can change and using the management plan as a basis for communicating between the owner, their family, and their forester is the key to long-term success.



FERTILIZATION IN LONGLEAF PINE STANDS

By: E. David Dickens, University of Georgia, David J. Moorhead, University of Georgia
Pat Minogue, University of Florida, Bob Franklin, The Longleaf Alliance

A forty-two-year-old longleaf stand in South Carolina growing on an excessively well drained deep sandy soil (Alpin Soil Series) that was NPK fertilized twice in a 10-year period, improving both pine straw production and sawtimber and pole production.

BACKGROUND

Numerous southern pine fertilization studies have been performed in the southeastern U.S. since the 1960s. Fertilization studies on loblolly pine have been the most numerous and extensive, followed by slash pine fertilization studies, and lastly, longleaf pine. Table 1 summarizes the eight-year nitrogen+phosphorus (NP) or nitrogen+phosphorus+potassium (NPK) fertilizer response estimates from studies for these commercially important pine species. Loblolly pine is the most responsive to NP or NPK fertilization, followed by slash (22% less than loblolly), and then longleaf (50% less than loblolly). Table 2 summarizes the pine straw yields of longleaf to NPK fertilization. The benefit of a single NPK application lasted three to four years on cut-over sites with excessively well drained deep sandy soils that have low fertility, and four years or six years with a one time or split application, respectively, on soils with better nutrient and water holding capacity and on former old-field sites.

The major "windows" to fertilize pine stands are: (1) at planting, mostly with a one-time P or NP treatment (150 – 250 lbs diammonium phosphate or triple super phosphate) to rectify a phosphorus deficiency on poorly drained lower Coastal Plain soils and geological terraces, (2) a one time or five to six year interval application of NP or NPK for enhancing pine straw production from canopy closure (age 8 to 12 years old) to first thinning age or for increasing pulpwood production in intensively managed loblolly pine stands managed on a 14 to 20 year short rotation, and (3) to enhance higher value sawtimber and pole production after a first or second thinning. Generally, fertilization at planting for longleaf pine has little growth benefit as we typically plant longleaf on well drained upland sites that are not P deficient. NP or NPK fertilization can be beneficial on low fertility, cut-over sites for enhancing pine straw production and increasing wood production, but not to the extent that loblolly or slash responds to fertilization (Table 1). Table 2 illustrates extra longleaf pine straw that can be produced with NPK fertilization. The pine straw increases lasted two to three years on excessively well-drained sandy soils from a one-time NPK application, and four to six years on moderately well drained loamy sand soils from a one time or split NPK application. Longleaf NP or NPK fertilization at ages 15- to 19-yrs on old-field sites tends to produce only

minor amounts of extra wood over a six to ten-year period, whereas NP or NPK fertilization in 9- and 32-year-old longleaf stands on low fertility cut-over sites produced 0.5 to 1.0 ton/ac/yr extra wood over 10 years, respectively with two NPK applications.

Table 1. A summary of an 8-year fertilizer response to a single NP or NPK fertilizer application at or after canopy closure on low fertility cut-over sites.

Pine species	Average 8 – year growth response	Low end of response[1]	Upper end of response[1]
	Tons per acre per year		
Loblolly	1.60	1.00	2.20
Longleaf	0.80	0.50	1.10
Slash	1.25	0.80	1.70

[1] A mean growth response of plus or minus 40% occurs in approximately 80% of cited NP fertilization sites based on work at NCSU Forest Nutrition Cooperative for loblolly pine, slash from UGA, NCSU, and UFL studies, longleaf from NCSU and UGA studies.

Table 2. A summary of longleaf pine straw response to NPK a single or split (1/2 NPK in the beginning and ½ NPK two years after) fertilizer applications in unthinned and thinned stands.

Land use history	Location	Study period stand ages (yrs)	Average for no fertilizer (bales*/ac)	Average for single dose NPK (bales/ac)	Average for split dose NPK (bales/ac)
Old-field unthinned	Screven Co, GA	17 – 23 (benefit lasted 4-6 yrs)	225	250	260
Old-field unthinned	Tift Co, GA	17-23 (benefit lasted 4-6 yrs)	205	240	250
Cut-over unthinned	Chesterfield Co, SC	9-14 (benefit lasted 2 yrs) deep sandy soils	95	130	–
Cut-over thinned twice	Chesterfield Co, SC	32 – 36 (benefit lasted 3 yrs) deep sandy soils	85	130	–

*a bale was 13x13x26 inches or 20 lbs field weight and 17 lbs dry weight.

DIAGNOSTIC TOOLS TO DETERMINE NUTRIENT NEEDS

The main diagnostic tools to determine if a longleaf stand would be responsive to NP or NPK fertilization are: (1) foliage sampling, (2) soil sampling, and (3) leaf area index. Foliage sampling is done in the dormant season, collecting longleaf needles from the previous year's first flush of needle growth that are growing in the upper 1/3 of the crown on the south side of the tallest trees in the stand. Make a composite sample from three trees with enough needles to fill up at least ½ of a 9x12 inch envelope. Collect samples from additional trees to provide at least three composite sample envelopes per 10-15 acres. Foliage analysis should include total forms of N, P, K, calcium (Ca), magnesium (Mg), boron (B), copper (Cu) and iron (Fe). Foliage "minimum" (sufficiency) concentrations for loblolly, longleaf, and slash pine are found in Table 3. If any of the nutrients are below the minimum, then there is a good chance that the stand will respond to the addition of that (or those) nutrient(s).

Soil sampling can be done any time of year by taking a clean plastic bucket and soil probe (or narrow shovel or trowel) and some soil sample bags into the stand. Brush aside the forest floor layers to the mineral soil and take a sample of the soil to a six-inch depth. Place each soil sample in the plastic bucket. Collect from six to eight locations per 10 acres within the stand, mix the soil and place enough in the soil bag (available from a private lab or the University Extension office) to the "fill" line. Submit for standard analysis of pH, P, K, Ca, Mg, Mn, and zinc (Zn).

Leaf area index estimates are taken in the July – August period when leaf areas are at their maximum. Check with your County Agent, State or Extension Forester on sampling techniques. Take several leaf area index samples (10 per 20-30 acres) from the stand, writing each value on a notepad. Take a map of the stand and write notes where each sample is taken. For longleaf pine, if soil available P is less than 6-10 lbs/acre, foliar P is less than 0.08%, foliar N is less than 0.95% and leaf area index is less than 1.5 then the stand will likely respond to a NP application. If the stand also has a foliar K value less than 0.25% then the stand will likely respond to a NK application. Refer to Tables 2 and 4 for NP or NPK application levels for longleaf pine. Use www/bugwood.org for more information and the proper use of these diagnostic tools.

Table 3. Foliar nutrient sufficiency (minimum) guidelines for loblolly, longleaf, and slash pine

Nutrient	Loblolly pine[a]	Longleaf pine[b]	Slash pine[a]
	percent		
Nitrogen (N)	1.2	0.95	1.0
Phosphorus (P)	0.12	0.08	0.09
Potassium (K)	0.30	0.25 - 0.30	0.25 – 0.30
Calcium (Ca)	0.15	0.10	0.08 – 0.12
Magnesium (Mg)	0.08	0.06	0.06
Sulfur (S)	0.10	–	0.08
	parts per million (ppm)		
Boron (B)	4 - 8	–	4 – 8
Copper (Cu)	2 - 3	–	1.5 – 3
Iron (Fe)	20 - 40	–	15 -35
Manganese (Mn)	20 - 40	–	20 – 40
Zinc (Zn)	10 – 20	–	10 – 20

[a] Allen (1987); Jokela (2004); Pritchett and Comerford (1983); Wells, Crutchfield, Bowen, and Davey (1973).

[b] Blevins, Allen, Colbert, and Gardner (1996) for N, P, K, Ca, and Mg. No literature available to date for longleaf sufficiency for S, B, Cu, Fe, Mg, or Zn.

OTHER FACTORS THAT DETERMINE FERTILIZATION NEEDS (OR LACK OF NEED)

Land Use History

Land use history is an important factor in deciding if fertilization will be of economic value. Most studies have found that traditional one-time or split NP or NPK applications of inorganic fertilizer materials, animal manures, and biosolids (treated sewage sludge or wastewater that meets land application criteria) on former old-field, pasture or hay cutting fields do not increase wood growth or pine straw yields to a level that justifies the fertilizer cost. This is due to the moderate to high levels of residual fertilizer in the soil from previous land use practices. Conversely, cut-over sites (previous crop was trees) are often low in N and P or N, P, and K and will respond to a single or intervals of NP or NPK applications at a level that is economically justified.

Visual Symptoms

In some cases, a longleaf stand may look like it is not growing well. Visual symptoms that may indicate a nutrient deficiency include: light green or yellow (chlorotic) needles, short needles, needles in tufts at the end of branches, stunted growth, and poor crown development. If you know what a healthy longleaf stand looks like, then these symptoms should be easy to see. If a longleaf stand (of any age) has these needle and crown symptoms, take some soil and foliage samples from the stand and see if there are nutrients that are below the sufficiency level for longleaf pine.

Soil Series Knowledge

Knowing the Soil Series of each candidate stand can be of great help in determining the magnitude and duration of fertilizer benefit. For example; if part of a longleaf stand (for example; the northeastern 50-acre corner of a 200-acre stand) is on Lakeland and Kershaw soils (typified by turkey oak and other scrub oaks and poor pine growth rates), these deep sandy, excessively well drained soils, are generally low fertility soils and will respond to inorganic NP of NPK fertilization for only three to four years, yet can respond to animal manures and biosolids for four to seven years. Soils that have a restrictive layer (usually an increase in clay; a zone called the argillic horizon) within 40 to 50 inches and are moderately well to well drained are better soils to fertilize using inorganic and organic materials with a larger and longer lasting response. Use the NRCS web soil survey to find the Soil Series on your property.

Stand Conditions and Factors

The following factors are important in longleaf stands to maximize the fertilizer benefit to the crop trees. (1) Understory and mid-story vegetation should be minimal. (2) Diseases such as pitch canker can worsen with fertilization and should be minimal in stands selected for fertilization. (3) Longleaf pine basal area (the combination of trees per acre and their diameters) should not be more than 100 square feet per acre before fertilization. A higher basal area indicated the stand needs to be thinned before it's fertilized. (4) Do not fertilize within two to three years of a planned thinning or clear-cut as insufficient growth response often does not occur before the harvest (better to fertilize after a thinning).

ADDITIONAL FERTILIZATION CONSIDERATIONS

If a longleaf stand is determined to be responsive using the three diagnostic tools, plus soil series and land use history knowledge, stand conditions, and other factors, then the landowner should consider (1) the fertilizer materials and application costs, (2) the estimated growth response over a six to 10-year period to the single or split fertilizer application, (3) the anticipated stumpage price for the extra wood grown at the end of the period, and (4) where pine straw is being raked, the total value of the extra straw. Use the application levels shown in Table 4 for nitrogen (N), phosphorus (P), and potassium (K) and the levels of various fertilizer materials shown in Table 5. Do not go over the 75 lbs N/acre application level in stands where diameter at breast height (dbh; 4 ½ feet above ground) is less than 6 inches.

Species	Stand size	Nitrogen (N)	Phosphorus[1] (P)	Potassium[2] (K)	Ca, Mg, S, B, Cu, Mn, Fe[3]
Longleaf	dbh < 6"	75	25 - 50	50 - 80	as needed
	dbh ≥ 6"	125			

[1]To convert from elemental-P to P_2O_5 multiply by 2.3. To convert from P_2O_5 to elemental-P divide by 2.3.
[2]To convert from elemental-K to K_2O multiply by 1.2. To convert from K_2O to elemental-K divide by 1.2.
[3]Approximate application levels are based on stand needs: 25 to 40 lbs Ca/ac, 25 lbs Mg/ac, 25 to 40 lbs S/ac, 0.5 to 1 lb B/ac, 3 to 5 lbs Cu/ac, 3 to 5 lbs Mn/ac, and 10 to 15 lbs Fe/ac

Table 4. Recommended fertilizer application rates (elemental – lbs/ac) for longleaf pine.

Pine species & dbh size	Urea[1] (46-0-0)	Diammonium phosphate[2] (DAP; 18-46-0)	Muriate of potash (0-0-60)
	Pounds per acre		
Longleaf < 6" dbh	65 - 115	125 - 250	100 - 160
Longleaf ≥ 6" dbh	175 - 220		

[1]Use the low Urea application level when used with the high DAP or MAP dose and the converse when a low DAP or MAP dose is used.
[2]Mono-ammonium phosphate (MAP; 11-52-0) may be available and can be used in place of DAP @ 88 – 176 lbs/ac to achieve 20 to 40 lbs elemental-P/acre (46 to 92 lbs P_2O_5/ac) but Urea dosage will need to be increased to achieve N application levels in Table 4.

Table 5. Application level recommendations using common fertilizer materials for longleaf pine stands after canopy closure that have a good probability of response to fertilization.

A young (10-year-old) longleaf stand in South Carolina where 150 lbs N + 50 P + 50 K per acre was one time applied. In this case the nitrogen (N) application level was too high, creating needle production that was too heavy for small stem diameters to support, causing 20 to 25% of the trees to lean over (many greater than 45 degrees).

ESTIMATED NUTRIENT REMOVALS WITH PINE STRAW RAKING

Studies have shown that annual pine straw raking (removing the top fresh, undecomposed needles) removes an estimated average of 15 lbs/ac N, 2 lbs/ac P, 7 lbs/ac K, 10 lbs/ac Ca and 2.5 lbs/ac Mg. Three studies have shown that without fertilization, near-term diameter growth over one to three years was reduced by 0.20 to 0.70 inches with annual raking. However, the same studies showed that diameter growth after two to three years of annual raking was the same as unraked stands. Fertilization alleviated the near-term diameter growth losses.

By Susan Griggs, Natural Resources Conservation Service

Local Implementation Team Spotlight
Sandhills Longleaf Pine Conservation Partnership

Education is a key component of the SLPCP. Since 2011 the Partnership averages two field days a year. A fall event is a three-stop tour on a variety of topics, while a dormant season day focuses on prescribed burning, and a hands-on prescribed burning event. Photo by Susan Griggs.

In June 2010, Allyne Askins, Jason Ayers (both with the US Fish and Wildlife Service), Laurel Barnhill, Steven Hewett (both SC Department of Natural Resources employees), Corinna Hanson (SC Parks, Recreation and Tourism) and Brian Davis (SC Forestry Commission) had the energy and presence of mind to come together and develop what is now the Sandhills Longleaf Pine Conservation Partnership.

Both Askins and Davis have since joked that they were longleaf before longleaf was cool.

The loosely formed team quickly gathered steam, eventually pulling representatives from a dozen agencies, non-governmental organizations, and private landowners while almost immediately receiving grant funds from the Partners for Fish and Wildlife (PFW) and the National Fish and Wildlife Foundation (NFWF).

Askins explained the initial goals of the Partnership were to expand the longleaf footprint onto adjacent private lands. "Between the Carolina Sandhills National Wildlife Refuge, the Sand Hills State Forest, the Cheraw State Park and the Cheraw Fish Hatchery, we had more than 101,000 acres that were being primarily managed as a longleaf ecosystem. We knew that if we were going to recover the endangered red-cockaded woodpecker (RCW) and support the America's Longleaf Restoration Initiative, we needed to make a concerted effort to reverse the fragmentation that was occurring outside of our public lands."

In November, 2011 the Chesterfield Soil and Water Conservation District (SWCD) received grant funds from the PFW, followed by NFWF funding in 2012 to support the Partnership's efforts in establishing longleaf on private landowner property within the SLPCP focus area located primarily in Chesterfield County, SC. The LIT boundary dips into a small portion of Darlington and Lee counties, following not geo-political boundaries, but rather the very Sandhills landscape in which longleaf thrived long ago.

The Partnership utilized existing relationships that the USDA-NRCS already had in place. Key groups of people such as consulting foresters, timber buyers, tree planters, and typical forest landowners were targeted with outreach efforts. These groups, in conjunction with a user-friendly website, targeted media outreach and social media posts were monumental in the rapid growth of interest among landowners.

Nearly all of the Partners live, work, shop and go to church within the focus area, something that also helps them reach landowners. USDA-NRCS District Conservationist Charles Babb explains that "being accessible to landowners in places other than the office means that we can talk to new landowners who might otherwise feel uncomfortable in a formal office setting."

An educational series titled "Longleaf and Lunch" was initiated in 2011 which was comprised of a landowner level, three-stop tour each fall. Additionally, a late winter series was started in February, 2013 which revolved around the use of fire as a management tool. The Partnership has sponsored an informal educational burning classroom course and a formal Certified Prescribed Fire Manager course. "Learn and Burn" field days have been held on private property since 2014 which allow landowners to participate in an actual prescribed burn.

As the Partnership grew, the need for a dedicated longleaf coordinator became essential. The burden that was being

collectively shouldered by the initial group was in danger of hindering the excellent work being accomplished.

In June 2014, the Partnership hired their first full-time coordinator, Jimmy Lisenby via funds from its second NFWF grant. As a nurseryman, Lisenby brought the experience needed to both steer the Partnership, and the knowledge to begin their understory restoration efforts.

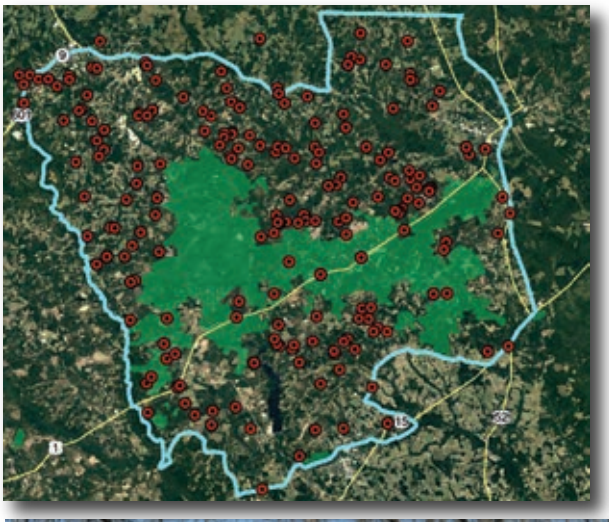
Additional NFWF funds were allocated for Lisenby to purchase a small seed harvester and seeder. True, native-ecotype seed was collected from the Carolina Sandhills NWR and subsequently established on 25 acres of private land in 2015, with plans to continue establishing 25 acres annually.

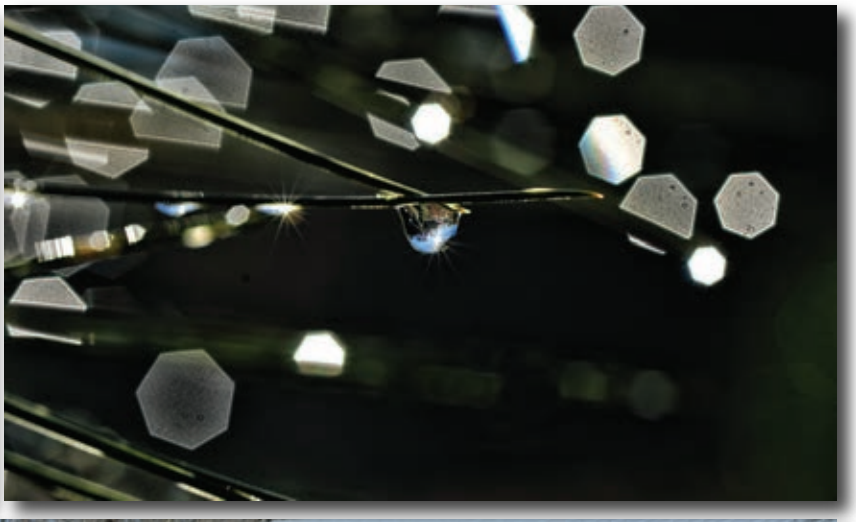
After losing Lisenby to a private nursery offer he couldn't refuse, the Partnership was able to hire Babb upon his retirement from the USDA-NRCS in March, 2016.

Already a key participant, Babb stepped into the lead roll without missing a beat. "I've worked in Chesterfield County for 32 years alongside landowners and farmers. Becoming Coordinator afforded me a new opportunity to work with a specialized group of private forest landowners," said Babb.

As the Partnership moves into its sixth year, the balance is continuing to shift to include additional, more specialized educational components. "Combined with USDA programs, we've helped landowners plant over 12,500 acres of longleaf, and now we're educating and giving landowners the tools to manage those acres."

Babb continued, explaining that as more trees are being planted, they are now starting to identify landowners which have non-traditional timber goals. These landowners may also want to include management techniques for quail, turkey or even bees, and we have been able to tailor our management education specifically to include these unique topics.





Top Left: *This map represents 101,000 acres of public lands (green) outlined by the focus area. Each of the 224 landowner sites is indicated by a red circle. Map created by Susan Griggs.* **Top Right:** *Longleaf water drops. Photo by Susan Griggs.* **Bottom:** *In 2015 the SLPCP bought and outfitted a fully stocked prescribed fire rental trailer. Eight landowners utilized the trailer during the 2015-16 burn season. (The trailer is shown here with several of the Partnership members and a handful of landowners.) Photo by Susan Griggs.*

The other partners agree. South Carolina DNR biologist and forester Johnny Stowe and State Forest Director Brian Davis have been instrumental in providing the hands-on instruction to landowners at the Learn and Burn days. "Being able to walk with a landowner on a fire line as they carry a torch is one of the most rewarding things I do all year," explained Stowe.

In October, 2015 the Partnership rolled out a fully outfitted prescribed burning rental trailer purchased with funds from their third NFWF grant. Eight landowners used the trailer during the 2015-2016 burn season.

This fall, the Partnership will be introducing a small-group educational series funded via Resilient Landscapes funds administered through the PFW. "We are developing two curricula to bridge key prescribed fire gaps that we see with our landowners."

The first gap exists when landowners take and pass a certified prescribed fire manager course, but feel ill-prepared to be in charge of an actual prescribed fire. "Our small group course will allow us to sit down with a handful of landowners over the course of several meetings," explained Babb. Landowners will be developing a burn plan on their own property while they discuss their reasoning during the small group meetings.

"It is our hope that with the right setting, our small-group attendees may also feel a camaraderie with one another and ultimately it may lead to a neighbors-helping-neighbors during the burn season," added Babb.

The second gap that Babb hopes to bridge is the involvement with local volunteer fire departments. Recently he spoke with representatives from local departments, and the interest for continued education at the firehouse level is apparent. "If we can help fire departments understand how prescribed fires behave, it may help our rural/urban interface, and help reduce wildfire risks. The ultimate, best-scenario is that one day we have volunteer fireman helping our landowners carry out prescribed fire on their lands."

Whatever the specific outcome, it is clear that the SLPCP is in the private landowner longleaf business for the long haul. In conjunction with NRCS, the two organizations have partnered with 224 landowners to establish 12,500 acres over the past five years. In addition, the Partnership establishes an average of 25 acres/year of native ecotype seed on private acres.

By the National Fish and Wildlife Foundation with Vernon Compton, The Longleaf Alliance

LONGLEAF PINE FORESTS AND ECOSYSTEMS

ACROSS THE SOUTHEAST RECEIVE $4.3 MILLION IN FUNDING FOR RESTORATION ACTIVITIES

The Range-Wide Conservation Plan for Longleaf Pine highlights that success with the restoration of the longleaf pine across the historic range for the species will require the efforts of both private and public landowners. In many portions of the longleaf range those partners are working together collaboratively in partnerships through the efforts of Local Implementation Teams. These teams get priority work done on the ground restoring and managing the longleaf ecosystem. That work could not occur without the support of programs such as the National Fish and Wildlife Foundation Longleaf Stewardship Fund.

Recently the National Fish and Wildlife Foundation (NFWF) awarded 21 projects across the historical longleaf pine range with $4.3 million in grants to support the restoration of the longleaf ecosystem and advance the objectives of the Range-Wide Conservation Plan for Longleaf Pine. These projects ultimately will restore more than 14,800 acres and enhance more than 230,000 additional acres of longleaf pine habitat, while leveraging more than $5.3 million in additional funds from grant partners.

The grants are administered by NFWF's Longleaf Stewardship Fund, a landmark public-private partnership that includes the U.S. Department of Agriculture's (USDA) U.S. Forest Service and Natural Resources Conservation Service, the U.S. Department of Defense (DoD), the U.S. Fish and Wildlife Service (FWS), and private funding from Southern Company, International Paper's Forestland Stewards Initiative, and Altria Group. The fund, now in its fifth year, combines the financial and technical resources of the partnership to accelerate restoration of the longleaf pine ecosystem and implementation of the Range-Wide Conservation Plan for Longleaf Pine as part of America's Longleaf Restoration Initiative.

"The $4.3 million in Longleaf Stewardship Fund grants will build on the successes achieved through this powerful, longstanding public-private partnership," said Jeff Trandahl, executive director and CEO at NFWF. "The grants will support a range of critical conservation actions, including longleaf plantings, invasive species control and the use of prescribed fire for longleaf restoration. These projects will benefit a wide array

of wildlife, including rare species such as the red-cockaded woodpecker, gopher tortoise, indigo snake and dusky gopher frog."

The longleaf pine ecosystem once encompassed more than 90 million acres, reaching from Virginia to Texas. Unique to the southeastern United States, it contains a stunning diversity of plants and animals and provides a range of additional benefits, including supporting forest-dependent economies and military readiness. With many agencies, nonprofits, private landowners and businesses committing to longleaf pine restoration in recent years, the acreage of longleaf pine forest has grown from an estimated 3.4 million acres to an estimated 4.7 million acres, reversing a century-long decline across the South.

The 21 projects selected to receive support include 13 Significant Geographic Areas for longleaf pine conservation. Additionally, the funding is expected to provide more than 1,800 private landowners with educational and technical assistance related to longleaf restoration and available cost-share programs, with an anticipated 200 landowners entering into stewardship programs on private lands.

"We accomplish more when we work together, and a shining example of collaboration is here in the Southeast, where private landowners, government entities and other groups have come together to restore this critical landscape," said Robert Bonnie, USDA's Under Secretary for Natural Resources and Environment. "Restoring longleaf enhances wildlife habitat and improves the quality of water, air and soil while providing a source of income for landowners. We're proud of this team effort, and the importance of this grant program in helping recover the longleaf landscape through sustainable forestry practices."

"DoD is proud to work with our partners in the Longleaf Stewardship Fund," said Peter Potochney, performing the duties of the Assistant Secretary of Defense (Energy, Installations and Environment). "The collective efforts to restore the longleaf pine ecosystem helps the military conduct its test and training missions by providing natural buffer areas around its installations and preventing these lands from converting to incompatible land uses. Additionally, healthy longleaf pine forests across the Southeast provide habitat for imperiled species that are either currently protected under the Endangered Species Act or might become listed, creating additional training restrictions for our men and women in uniform. By partnering with the National Fish and Wildlife Foundation, approximately $8 will be spent by our partners for every dollar DoD spends. This effort will result in establishing more than 14,800 acres of longleaf and enhancing an additional 230,000 acres, and directly benefiting 10 military installations."

"The Service is proud to join with our other conservation partners as sponsors of the Longleaf Stewardship Fund," said Cindy Dohner, the U.S. Fish and Wildlife Service's Southeast Regional Director. "The strong relationships we have developed with NFWF and our Federal, State, and private partners are paying great dividends in supporting working forests and their contributions to the South's culture and economy while also conserving numerous listed and at-risk species. I am very impressed that we are going to be able to support the restoration and enhancement of nearly 250,000 acres of longleaf pine habitat through the 2016 awards, more than any previous year of the partnership."

"The Longleaf Stewardship Fund harnesses the power of collaborative public-private partnerships to address critical conservation needs in the Southeast," said Southern Company Chief Environmental Officer Dr. Larry S. Monroe. "Southern Company is proud to join our trusted partners in finding real solutions to conserve and protect the longleaf pine ecosystem, with its many ecological, economic and cultural benefits."

"International Paper is proud of our longstanding work with the National Fish and Wildlife Foundation to demonstrate the economic, social and ecological value of working forests. Together we continue to conserve and restore some of America's most treasured landscapes," said Tom Cleves, vice president of global citizenship. "For more than a century, we have practiced sustainable forestry and we continue to promote the long-term sustainability of natural resources through the Forestland Stewards Initiative."

"Promoting the sustainability of natural resources is a core part of Altria's mission," said Wendy Shields, Manager, Corporate Citizenship for Altria Client Services. "By helping restore the longleaf forests, we are improving our communities while protecting the resources on which we depend."

Since 2012, the Longleaf Stewardship Fund has invested more than $18.4 million in projects that will restore more than 62,500 acres, improve more than 776,000 additional acres of longleaf pine forest, and benefit the native species that rely on those forests. The grants awarded by the Longleaf Stewardship Fund in 2016 continue to build on the success of this public-private partnership, further expanding the longleaf pine ecosystem through collaborative and results-oriented actions.

By Troy Ettel, Council Chair, The Nature Conservancy

NEWS FROM THE LONGLEAF PARTNERSHIP COUNCIL

AN EXPANDED ROLE FOR PRIVATE WORKING FORESTS IN THE DRIVE TO 8 MILLION ACRES

Over the past year, the need to accelerate the pace of longleaf pine restoration in order to reach America's Longleaf Restoration goal of 8 million acres by 2025 has been a recurring theme that I have discussed in this space. With current longleaf acreage estimated at 4.7 million acres, there is a need to figure out the "how" and the "where" the remaining 3.3 million acres are going to come together. We have been reporting annual gains of around 150,000 acres in longleaf pine, but that does not tell the full story.

Longleaf regeneration at the Webb Wildlife Center in South Carolina. Photo by Gary Burger.

When losses of existing longleaf pine woodland are factored in, we are likely seeing gains in the tens rather than the hundreds of thousands. At the current pace, it will take us more than a century to reach 8 million acres. At the Longleaf Partnership Council (LPC) meeting in April on St. Simon's Island, members helped develop a list of 11 recommendations that can be explored to advance the pace and scale of longleaf restoration. There is broad recognition that we need some real "game changers" that can move the needle more rapidly towards 8 million acres.

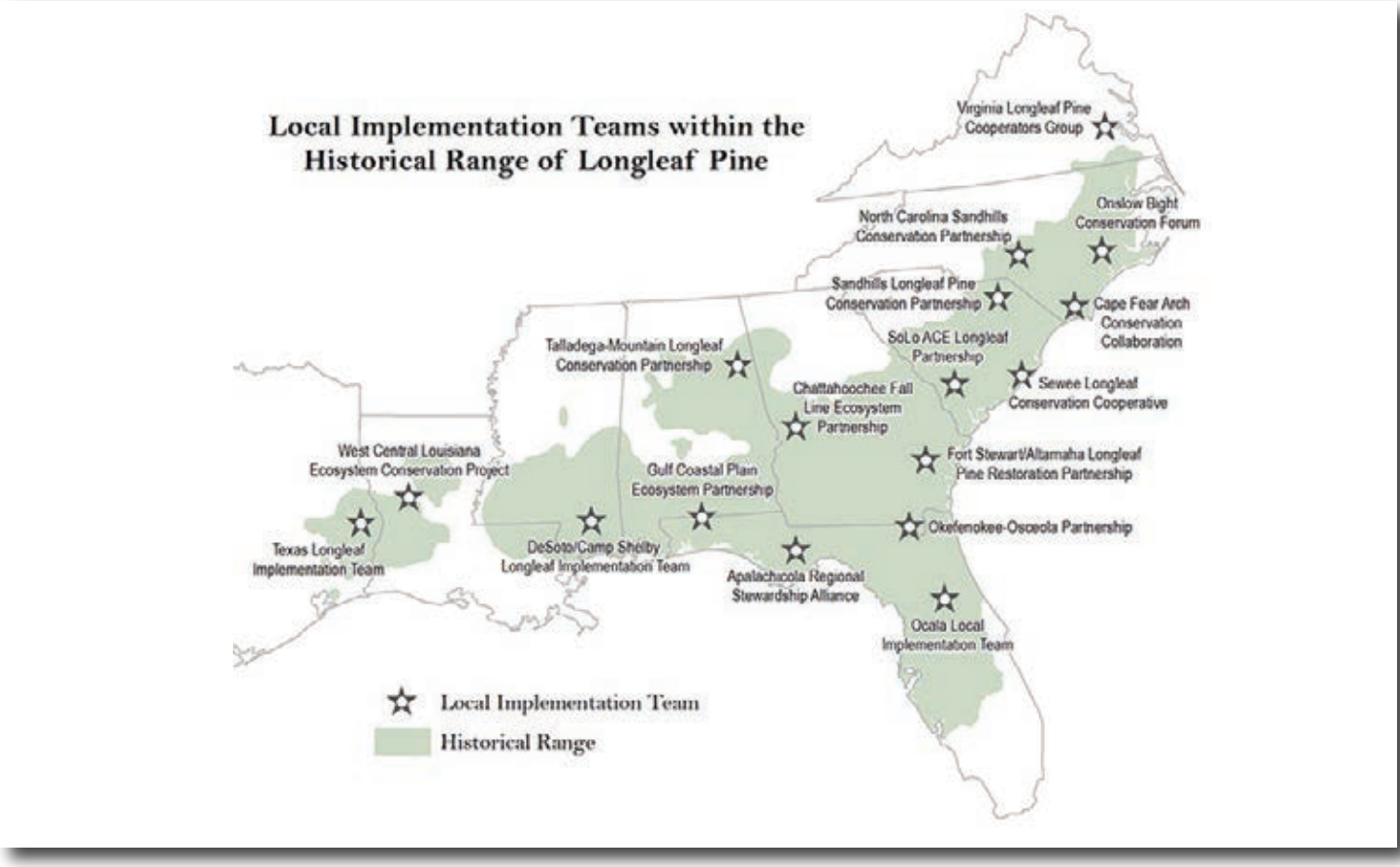
One of the recommendations listed as highest priority that harbors great potential is very connected to private working forests. Each year, restoration on private lands has been outpacing that on public lands. Cost share programs administered by the Natural Resources Conservation Service have been critically important in incentivizing the small private forestland owner to plant longleaf pine. These need to continue and be expanded as many states like Alabama receive far more applications for assistance than they have money to spend.

However, targeting small landowners alone won't add 3 million acres of longleaf to the landscape. Other opportunities with medium- to large-size landowners with timberland acreages that exceed 1000 acres might at least take a piece out of that goal. Currently, most are ineligible for cost-share programs. Yet, many, including investment trusts, family and corporate owners, have expressed or even demonstrated a willingness to plant longleaf pine if the federal assistance existed to do so.

Many longleaf Significant Geographic Areas encompass Real Estate Investment Trusts, Timber Investment Management Organizations, or family trust lands that exceed 10,000 acres. The 2014 Farm Bill limits eligibility to individuals and legal entities with average adjusted gross income (AGI) less than $900,000. In addition, the total payment received by forestland owners from EQIP, the primary program that funds longleaf restoration, may not exceed $450,000 over the 4-year span of the current Farm Bill (2014 – 2018). So, as a result, most medium and large landowners are ineligible for cost-share programs. Finding a way to extend financial assistance to these large landowners, in addition to the programs that are successfully targeting the smaller forest owners, could really be key to accelerating the pace of restoration.

Perhaps the best known example of this is RMS Private Timberland Investment Firm. RMS has put forth a project, known as the Coastal Headwaters Project, which seeks to create a landscape scale working longleaf pine forest of over 200,000 acres in the lower Alabama/Florida panhandle region. Two or three private landowner projects like Coastal Headwaters would go a long way towards moving the needle, while also preserving the landscape continuity that protects the ecological attributes of the longleaf ecosystem.

Past Farm Bills have granted NRCS the authority to waive the AGI limitation for projects of special environmental significance, but this was removed in the 2014 Farm Bill. The Regional Conservation Partnership Program (RCPP), specially created in the 2014 Farm Bill, does authorize NRCS to waive the AGI requirement for RCPP contracts that would further the purposes of the project. A hard look at broadening such a waiver in the next Farm Bill in 2018 will be critical to expand restoration on private land to include all landowners, both large and small, and maximize the return on investment in longleaf pine. In that way, this gives us the ability to build upon programs that are already successful by expanding their reach and delivery rather than building something from scratch. That is the intent of each of the recommendations that came from the LPC. We are doing a lot of things right and there is no reason to switch mid-stream. We just need to figure out how to do more of it.



ARSA Update: Adaptive Management in Longleaf Reforestation

By Brian Pelc, The Nature Conservancy

A contracted roller chopper knocked back shrubs in the take rows at Flint Rock WMA in advance of an herbicide site prep and seedling planting, scheduled for December 2016.Photo by David Printiss, 2016.

Take a minute and pull up Google Earth. Scroll your pointer to the following coordinates: 30° 09'55.31N 84° 03'17.58W and you'll be looking down on Florida's Flint Rock Wildlife Management Area. This 20,000-acre conservation property is cooperatively managed by several Apalachicola Restoration Stewardship Alliance (ARSA) members with the goal of reestablishing longleaf pine on a wet, former industrial slash pine forest that was long unburned. Though the image resembles Ruffles potato chips from 10,000 feet up, this "living laboratory" is helping ARSA members tackle a very squirrelly problem. Longleaf needs light and low competition, but clear cuts are often tough to burn in the early years after planting because of a lack of fine fuels, resulting in a dense shrub layer and stunted or perennial grass stage longleaf. We most commonly find this condition in long unburned, wet to mesic flatwoods where gallberry and titi have grown amok. Managers hope one answer lies in the ridges and valleys of a 4-2-1-2 thinning method that removes wide, linear alleys (4 row take) of off-site pine for longleaf restoration, bookended by leave rows that can continue to contribute needle cast all the way across the restoration lanes. However, like people, every site is unique and the team behind this project has developed a series of adaptive management tools to supplement fire and thinning. Single drum roller chopping, 5' band and broadcast herbicide applications, when prescribed to individual blocks, can level the playing field for seedlings. Burning the site hot as soon as possible and every 2-3 years thereafter, will lock in the trajectory to desired future condition. Seedlings planted in rows will also allow for future practices like herbicide release and mowing. Adaptive management tools like these have been essential to keeping broad plans on track and desired future condition in the cross hairs.

Learning to Love Longleaf Along the Chattahoochee Fall Line

By Catherine Young, The Nature Conservancy, GLOBE Intern

(l-r) LEAF mentor Anna Davis and interns Kristin Amadusun, Dalean Thompson and Nia Morrison taking a break on the truck tailgate at the Chattahoochee Fall Line Wildlife Management Area.

(l-r) LEAF interns Nia Morrison, Dalean Thompson and Kristin Amadusun used compasses, GPS and cameras to mark and document longleaf pine research areas.

The Nature Conservancy's Leaders in Environmental Action for the Future (LEAF) four-week residential internship program exposes students from environmental high schools to natural resources careers through hands-on conservation activities like invasive species removal, habitat restoration, and endangered species monitoring.

In summer 2016, three young women from Arabia Mountain High School in DeKalb County, Georgia learned about longleaf pine ecosystem monitoring with George Matusick, the Conservancy's Chattahoochee Fall Line forest ecologist. The students used compasses and GPS as they measured and photographed longleaf research plots. The data they collected will help determine future stewardship needs for the areas surveyed.

"Before this summer, I didn't know anything about longleaf pine," said Dalean Thompson, LEAF intern and rising senior at Arabia. "Now I know how important they are to ecosystems in Georgia and beyond. It feels good to be a part of something bigger than me, and I'm excited to go home and make a difference for nature in my own community."

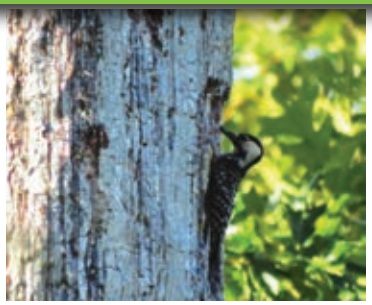
The interns also traveled to Alabama to monitor tree health in urban areas, and they learned about the role forests play in freshwater protection while working in Atlanta.

LEAF students also visit colleges, manage a budget together, and participate in outdoor recreation activities during their internship.

New Woodpecker in a 10-Year-Old Insert!

By Caroline Ritchey, The Nature Conservancy, Moody Forest Intern

This 10-year-old RCW cavity insert has just become occupied for the first time. Photo by Caroline Ritchey.



A red-cockaded woodpecker at Moody Forest Natural Area in Baxley, GA. Photo by Chuck Martin.

Exciting things are happening this summer at Moody Forest Natural Area on the Altamaha River. Jointly owned and managed by Georgia DNR and The Nature Conservancy (TNC) since 2001, Moody Forest is managed to preserve and protect longleaf pine old growth forests, which is ideal habitat for rare species such as gopher tortoises, indigo snakes, and red-cockaded woodpeckers (RCWs).

This year not only yielded another successful nest from the long-time resident birds, a single cluster, but also the exciting discovery of a new bird in an unexpected place. Recently, Joe Burnam and Phil Spivey with Georgia DNR discovered some flaking bark and new resin-wells around an old artificial cavity insert. Joe was assessing possible areas to install new RCW recruitment clusters. Since the insert itself is over ten years old, it was very unusual to find a new RCW using the cavity.

Chuck Martin of TNC was able to confirm that the RCW is in fact using that cavity as well as refreshing another insert nearby. It seems that the new bird is male and un-banded. If true, a new cluster of RCWs on Moody Forest has been started.

The area this bird has chosen for its new residence is one that experts would not expect. "It's been a difficult unit to burn and protect" says Martin. With trees perhaps 100 + years in age and historically tapped for pine sap to make turpentine, the stand can be sensitive to burn during one of the regular prescribed fires. "It takes a lot of manpower" says Martin as a lot of time is spent raking around or putting out trees, "however, it is rewarding to see the past several years of protecting the longleaf paying off." It appears that the new resident agrees.

GCPEP Receives NFWF Longleaf Stewardship Fund Grant

By Vernon Compton, The Longleaf Alliance

Prescribed Fire in the Blackwater River State Forest. Photo by Vernon Compton.

The Gulf Coastal Plain Ecosystem Partnership (GCPEP) partners were very pleased to be selected to receive a 2016 National Fish and Wildlife Foundation Longleaf Stewardship Fund Grant. The Longleaf Stewardship Fund public-private partnership includes the U.S. Department of Agriculture's U.S. Forest Service and Natural Resources Conservation Service, the U.S. Department of Defense (DoD), the U.S. Fish and Wildlife Service, and private funding from Southern Company, International Paper's Forestland Stewards Initiative, and Altria Group. It has played an important role in growing longleaf restoration efforts across the historic range of the longleaf ecosystem, and has been instrumental in continuing successes with restoration occurring in the GCPEP landscape.

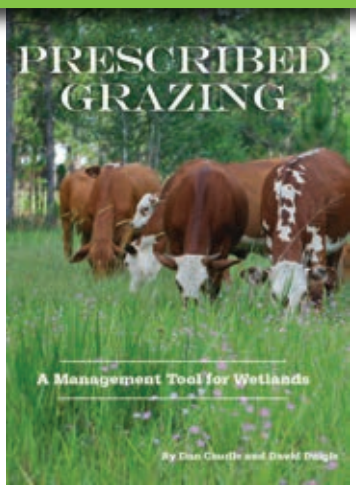
The 2016 Longleaf Stewardship Fund grant will allow GCPEP partners to collaborate and also work with private landowners to restore the longleaf ecosystem in the GCPEP landscape through longleaf plantings, prescribed fire, rare species recovery, and landowner outreach and technical assistance. 37,365 acres of longleaf pine will be impacted by the project through 374 acres of plantings, 371 acres of mechanical treatments, 20 acres of invasive species control, and 36,600 acres of prescribed fire on public and private lands. Rare species recovery efforts will center on the red-cockaded woodpecker, reticulated salamander, gopher tortoise, and the eastern indigo snake. Private landowner assistance will emphasize increasing support and coverage provided by The Longleaf Alliance Technical Service Providers, building upon the success of Alabama's Longleaf Ecosystem Restoration Team (ALERT) to establish a similar effort in northwest Florida, and leading a Longleaf Academy and Longleaf Field Day in the landscape.

The GCPEP partners thank the National Fish and Wildlife Foundation and the Longleaf Stewardship Fund public and private partners for their vision and support of longleaf restoration in the GCPEP landscape and across the entire longleaf range.

West Central Louisiana Ecosystem Partnership (WLEP) Update

By Dan Weber, The Nature Conservancy

Heifers grazing a longleaf savanna in SW Louisiana. Photo by NCBA/Baxter Communications.



Prescribed Grazing – A Management Tool for Wetlands by Botanical Research Institute of Texas Resident Research Associate Dan Caudle and David Daigle, Louisiana cattleman, conservationist, land steward, and consultant is a newly available guide for landowners interested in incorporating grazing as a tool to manage longleaf. Daigle is a longleaf landowner in the area of the Kisatchie/Fort Polk SGA and is active in the Longleaf Implementation Team known locally as the West Central Louisiana Ecosystem Partnership (WLEP). The book establishes that grazing has always been a factor in the longleaf ecosystem in the western portion of the range from the time of the buffalo and after when they were driven off and replaced by cattle as European settlers arrived. Guidance on determining stocking rates and carrying capacity is provided as are descriptions of the most historically significant vegetation types of the coastal plain. Grasses of the Longleaf Pine Bluestem range of the southeastern Unites States include bluestems, panicums, paspalums, and other miscellaneous grasses that are well suited to provide high quality and sustainable forage to livestock that graze these rangelands. The book is 31 pages, contains numerous high quality pictures, and a collection of 68 references relevant to current and historic longleaf management across the range. They can be obtained by contacting Caudle by email at lonestar5@charter.net. The book costs $3.00 per copy, with discounts for orders of 10 or more, and there are no shipping charges or other fees.

North Carolina Sandhills Longleaf Pine Project Update

Stephanie Wagner, Sandhills Area Land Trust

Consulting Forester assisting with a field day. Photo by Stephanie Wagner, Sandhills Area Land Trust.

As the first year of our NFWF grant comes to a close, the NC Sandhills Longleaf Pine Project has held seven events, providing over 400 landowners and community members a deeper connection to the need and methods for longleaf pine restoration. At the end of the summer, the Sandhills Area Land Trust and its partners hosted two longleaf pine field days. The first was for private landowners in Harnett County, which expanded outreach further east into the NC Sandhills. The second was held in Moore County and focused on minority landowners. Both events featured a structured indoor portion on all aspects of longleaf management and conservation, followed by field tours of private longleaf properties and a hands-on, peer-based look at prescribed fire as a forest management tool. Also on the agenda, was the premiere of a video produced with the NC Sandhills Prescribed Burn Association (PBA). This video is being used in person and online as an educational piece to build awareness of the PBA and its role of increasing capacity to accomplish prescribed burning through mentorship and resource-sharing. These events and materials are leveraging our NFWF grant thanks to funding from NC State Extension Forestry, NC Agricultural and Technical State University, and the NC Tree Farm Program.

Okefenokee/Osceola Local Implementation Team (O2LIT) News

By Hunter Bowman, The Nature Conservancy

Landowner Walter McDaniel and O2LIT Coordinator Hunter Bowman examine Walter's excellent young longleaf stand. Photo by Laura Bosworth, GFC Longleaf Forester.

The O2LIT had a busy summer fighting wildfires around the Okefenokee/Osceola yet also enjoyed some successes. In June, the O2LIT was invited to give a presentation on its activities to hundreds of youth at the Natural Resource Conservation Workshop, a weeklong camp for those interested in natural resource careers.

In July, the O2LIT was awarded another round of funding that will keep it working into 2018! The funding came from the National Fish and Wildlife Foundation's Longleaf Stewardship Fund, and the projects will focus on landowner outreach and building technical capacity.

July also saw an O2LIT quarterly meeting. At this meeting, the team discussed plans to create Fire Adapted Communities (FAC) all the way around the Okefenokee Swamp (where dangerous wildfires often begin) stretching from Baker County Florida (already a FAC) to Charlton, Ware, and Clinch Counties, Georgia, and Columbia County, Florida. Becoming an FAC would seriously benefit these counties in the event of a wildfire.

Moving forward, the O2LIT has much planned for the fall, including preparing for multiple plantings in the winter, as well as landowner oriented workshops. And of course, more prescribed burning!

Ocala Longleaf Pine Local Implementation Team (OLIT) Update

By Cheryl Millett, The Nature Conservancy

First Wildland Restoration International controlled burn for Ocala Local Implementation Team, a 210-acre restoration burn on private property on the Alachua-Levy county line!

The Northeast Ecosystem Restoration Team run by Wildland Restoration International hit the ground running even before the ink dried on our new agreement, conducting 776 total acres of longleaf management, including six controlled burns on six properties with five partners (772.5 acres) and one project thinning hardwoods on 3.5 acres. This is the beginning of a productive new partnership to get longleaf work done in the Ocala region.

In addition, we conducted herbicide treatment of encroaching oaks on 100 acres to restore longleaf sandhill at Camp Blanding Joint Training Center, with pre- and post-treatment surveys conducted to assess the effects on herbaceous groundcover to inform future land management.

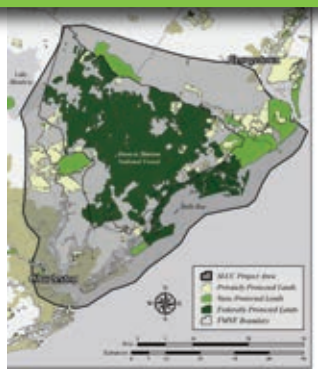
Conservation planning really hit its stride with partners drafting key and desired outcomes and plans to have a completed plan by the end of the year to guide our future work including mapping priorities.

The Ocala LIT is grateful to report the National Fish and Wildlife Longleaf Stewardship Fund awarded $250,000 to extend our longleaf restoration and maintenance work into 2018! This will support controlled burning by the Northeast Ecosystem Restoration Team, restore endangered red-cockaded woodpecker habitat, support longleaf planting on public lands, and restore and maintain longleaf on private lands.

Sewee Longleaf Conservation Cooperative: Making Largescale Impacts Through National Forest Plan Revisions

By Colette DeGarady, Sewee Longleaf Conservation Cooperative Coordinator

USFS field trip with the Federal Advisory Committee demonstrating partner collaboration in the forest plan process, led by Mary Morrison. Photo taken by Colette DeGarady.



Map of LIT geographic area.

Back in the Fall of 2012 when the Sewee Longleaf Conservation Cooperative (SLCC) was formed, the US Forest Service (USFS) was also beginning their management plan revision process for the Francis Marion National Forest (FMNF). This created a wonderful opportunity for members of the SLCC to become involved. The FMNF encompasses 260,000 acres of our 800,000-acre geographic area with approximately 400,000 acres in their proclamation boundary. We call the forest "the anchor" of our Local Implementation Team. These national forest management plans will impact the stewardship of this forest for a period of approximately 15 years. In the new FMNF plan (scheduled to roll-out Fall 2016) longleaf forest restoration is intended to increase from its previous goal of 53,000 acres to 91,000 acres. Tied to that is an increased burn program. Since January 2016 the USFS have accomplished 10,000 acres of first entry burns to forest stands that have not seen fire in a significant period of time. Along with these changes, USFS has increased their commitment to working with private landowners primarily with cross-boundary controlled burns. The USFS has welcomed partner input throughout this process. The SLCC was happy to play a role in creating such a robust and beneficial plan.

The Southern Low Country and ACE Basin Longleaf Partnership Update

By Bobby Franklin, The Longleaf Alliance

Summer has been hot and muggy in the Carolina Lowcountry and The Southern Low Country and ACE Basin (SoLoACE) Longleaf Partnership Region. The weather makes it rough doing field work, but our Partnership has been active in recruiting landowners for cost share, outreach, and planning for the upcoming Longleaf Regional Conference in Savannah.

A highlight of the late spring was the prescribed burning field day held June 2 at the Webb Wildlife Center in Hampton County. Forty-five landowners and managers who own or manage a total of 53,690 acres of land in the region attended the event. In addition, six South Carolina NRCS staff attended to learn more about prescribed fire. The event would not have been a success without the hard work and support of the Clemson Extension Service, Jeff Brown of Forest Resource Professionals, South Carolina Department of Natural Resources, South Carolina Forestry Commission, South Carolina Natural Resources Conservation Service, and the South Carolina Tree Farm Program.

In other exciting news, two of the eight RCW inserts that the SoLoACE Longleaf Partnership helped install last fall at the Aiken Gopher Tortoise Preserve now have occupants. A pair of red-cockaded woodpeckers have shown up and are using the cavities. They most likely dispersed 10-12 miles from an RCW cluster at the Savannah River Site, the closest known cluster.

We are also excited to announce the award of another National Fish and Wildlife Foundation Grant that will continue the work on the ground to plant and manage longleaf pine ecosystems in the ten county SoLoACE Region! We are grateful for the continued faith and support of our efforts!

SoLoACE Longleaf Partnership would not exist without the cooperation & teamwork from the following partners: The Longleaf Alliance, Beaufort Open Land Trust, Clemson University, Ducks Unlimited, The Hitchcock Woods, International Paper Company, Lowcountry Open Land Trust, National Fish and Wildlife Foundation, National Wild Turkey Federation, Natural Resources Conservation Service, The Nature Conservancy, Nemours Wildlife Foundation, South Carolina Audubon Society, South Carolina Department of Natural Resources, South Carolina Forestry Commission, U.S. Fish & Wildlife Service, U.S. Forest Service, Savannah River Forest Station.

Texas Longleaf Implementation Team (TLIT) Update

By Kent Evans, Coordinator

Wes Pruet, RMS, leading a discussion on prescribed burning in one-year-old longleaf stand to control woody competition. Photo by Kent Evans.

Resource Management Service, LLC (RMS) and the Texas Longleaf Team hosted a field trip east of Livingston June 22 to highlight restoration of longleaf pine habitat in northern Polk County. Forty-five landowners and consulting foresters, and 20 agency staff attended. Logistics were provided by Texas A&M Forest Service (TFS) and Natural Resources Conservation Service (NRCS). Lunch was provided by Capital Farm Credit.

RMS District Forester, Wes Pruet, led the discussions explaining their use of herbicides and burning to control yaupon. Some of their treatments had been implemented prior to the final harvest of a loblolly plantation. Attendees also saw a stand of first-year longleaf seedlings and stands where release treatments had been conducted using herbicides. Ecologists (Ike McWhorter, USFS; Wendy Ledbetter, The Nature Conservancy; and Ad Platt, The Longleaf Alliance) were onsite to interpret how the historic vegetative community was responding to the various treatments, including how these plants functioned in the fire regimen used for controlling yaupon. The group also visited lands owned by the Alabama-Coushatta tribe. Tribe member Elliott Abbey described their use of longleaf needles to construct traditional baskets. The tribe has over 400 acres of new longleaf, thanks to assistance by the NRCS and TFS.

The TLIT launched its website in August. Stephanie Hertz, Texas A&M University Institute of Renewable Natural Resources, led a working group from the TLIT and interested landowners in this effort. In addition to finding technical information, site visitors are able to watch video clips from interviews collected by the NRCS video team.

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.

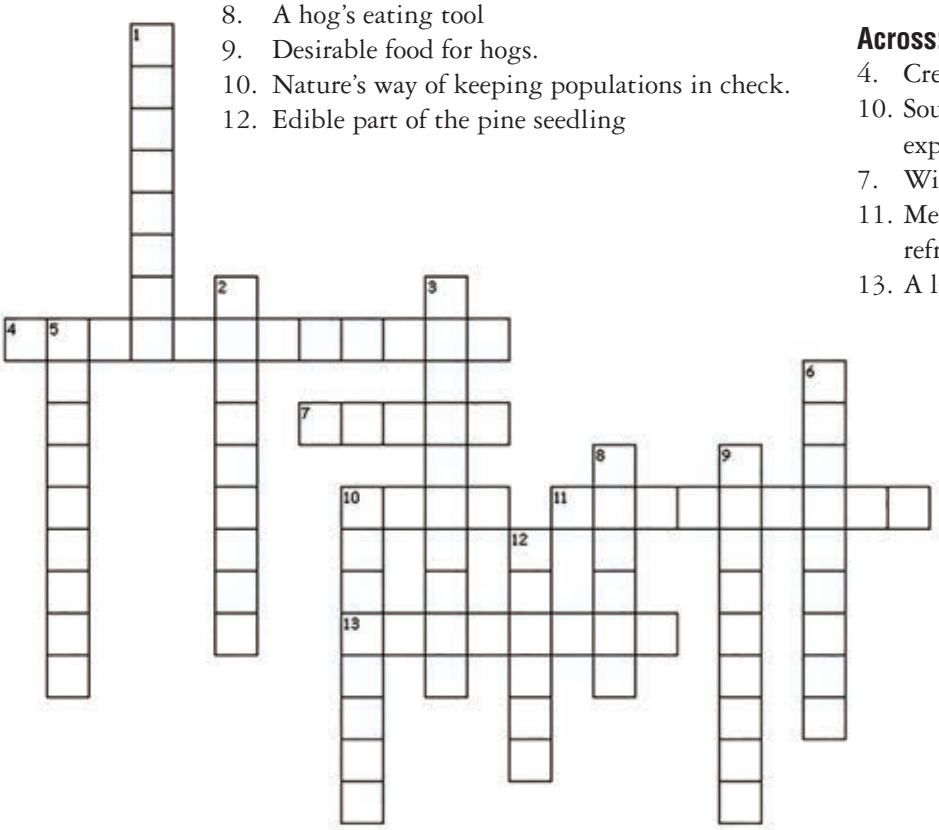
Lesson Twenty-one: Wild pigs eat countless numbers of young longleaf pine seedlings – earning them the nickname of the Piney-wood's Rooter. Use Lesson Twenty-one found on our website (www.longleafalliance.org/next-generation) to fill in the blanks and find the answers in the crossword puzzle. Answers can be found below the picture.

Down:

1. When non-native plants outcompete native vegetation.
2. Non-native plants and animals can have this effect on native ecosystems.
3. A common invasive plant in longleaf.
5. A large increase in a population
6. In the mid-1900s, an arch enemy of longleaf pine
8. A hog's eating tool
9. Desirable food for hogs.
10. Nature's way of keeping populations in check.
12. Edible part of the pine seedling

Across:

4. Creating a new forest.
10. Source of meat for early European explorer and settlers.
7. Wild
11. Method of keeping meat with refrigeration.
13. A landscape void of trees



Answer

Across: 4. Regeneration; 10. Pigs; 7. Feral; 11. Onthehoof; 13. Desolate.
Down: 1. Invasive; 2. Devastate; 3. Cogangrass; 5. Explosion; 6. Razorback; 8. Snouts; 9. Seedlings; 10. Predator; 12. Phloem.

LITERARY REVIEW

LONGLEAF by Roger Reid

Longleaf is a book by Roger Reid that has been used to introduce thousands of children and young adults to longleaf pine and the longleaf pine ecosystem.

In *Longleaf*, fourteen-year-old Jason Caldwell goes camping in the Conecuh National Forest with his parents. His herpetologist mother wants to study the frogs in the region, and Jason is glad to tag along. But before he even gets off the plane, Jason has already been the witness to a crime, and soon he'll find himself lost among the very longleaf pines that he and his parents had been flying over only days before. Now Jason and Leah—his new forest-smart friend—will have to use all their knowledge of the outdoors to outwit a trio of villains, navigate the labyrinth of longleaf pines, and make it home safely.

Set in the real-life Conecuh National Forest, *Longleaf* is a captivating adventure for middle-school aged students—and an excellent, accurate introduction to the plants and animals of the Conecuh region. Reid brings the region to life, advertising its wonders and its dangers, through the eyes of two likable teenaged protagonists. *Longleaf* is both an important learning tool and a guaranteed gripping read for adventure lovers of all ages.

This book makes a wonderful accompaniment to the lesson plans and the longleaf ecosystem prints that are available on The Longleaf Alliance website.

More information on *Longleaf* can be found at the web site www.LongleafBook.com. The Longleaf Alliance also carries the book in their store and will be available for purchase at the upcoming Longleaf Conference in Savannah.

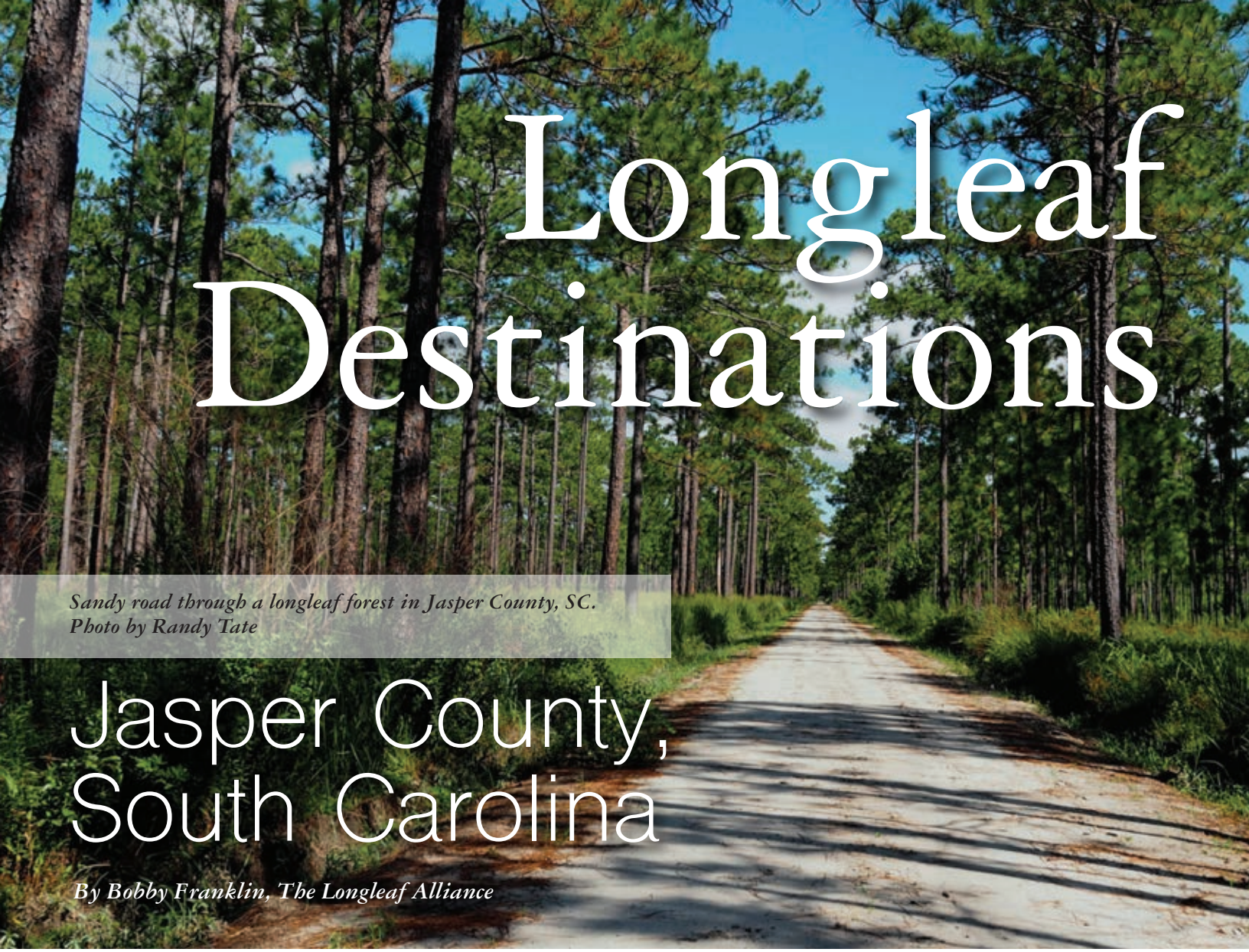
LONGLEAF ART SPOTLIGHT

The photo was taken on a brisk winter morning on the Sandhills Game Land, Scotland County, NC.

About the Artist: Brady Beck

Brady Beck was born in West Lafayette, Indiana. He moved with his family to Raleigh, NC in 1986, and earned a B.S. in Wildlife Science from North Carolina State University in 1992. Since then he has worked as a biologist for several conservation groups in the Sandhills region of North Carolina and currently works as a land manager and Wildlife Biologist studying red-cockaded woodpeckers. Brady's photography interests grew out of a desire to capture on film the unique habitats and animals he saw throughout his daily field work. He is passionate about conserving the remaining longleaf pine ecosystem in the Sandhills, as well as educating others about the beauty and diversity of plant and animal life that rely on a healthy ecosystem. Visit his website at www.bradybeckphotography.com.

Brady's work will be on display during the Longleaf Regenerated Exhibit that will be held during the upcoming Longleaf Conference in Savannah. Don't miss the opening night reception on November 1st!



Longleaf Destinations

Sandy road through a longleaf forest in Jasper County, SC. Photo by Randy Tate

Jasper County, South Carolina

By Bobby Franklin, The Longleaf Alliance

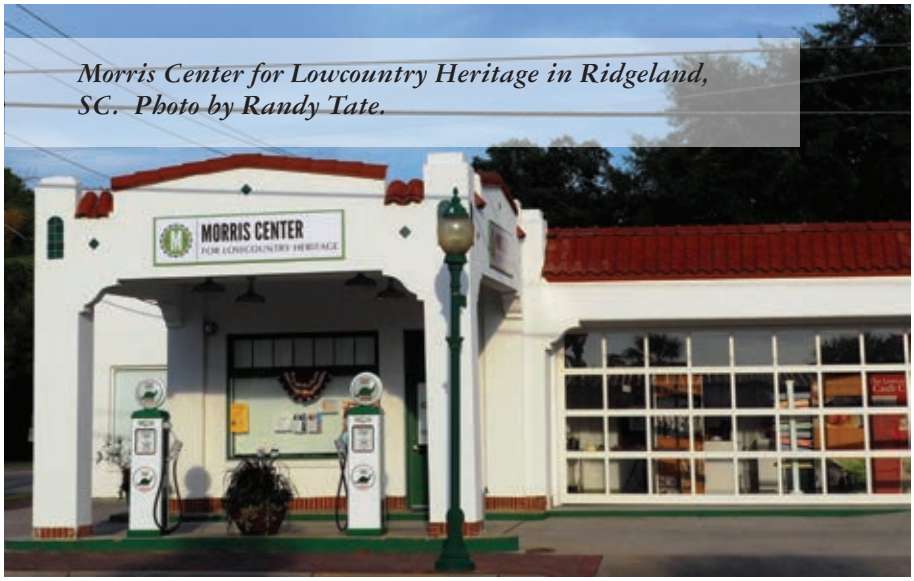
Attendees to the Biennial Longleaf Conference in November will get to enjoy the vibrant, historic city of Savannah, Georgia. However, if you'll take a little time, drive across the river and experience a taste of the South Carolina Lowcountry in Jasper County!

Jasper County is the youngest county in South Carolina, formed in 1912 from parts of Beaufort and Hampton Counties. It's named for Revolutionary War Hero, Sargent William Jasper, whose claim to fame was jumping up on the parapet of the fort during the Battle of Sullivan's Island in Charleston Harbor to save the fort's flag after it had been shot off the flag pole. The engagement occurred on June 28, 1776 when a band of Patriots in a palmetto log fort fought off an assault by British ships trying to capture Charleston. Word of the victory reached the Continental Congress meeting in Philadelphia four days later, encouraging them in their push to finalize the Declaration of Independence.

Today, Jasper County has a population of about 24,000. Ridgeland is the county seat, located just off I-95, about 25 miles north of Savannah. The town, renamed from Gopher Hill when the railroad came, is the highest point in elevation between Savannah and Charleston. The community's first name of Gopher Hill recognizes the gopher tortoise, once common in the region. A Galapagos tortoise sized statue of a gopher tortoise on West Main Street near the railroad tracks commemorates the early history of the town, which celebrates the Gopher Hill Festival each year in late September or early October. This year's 45th annual festival is September 29 – October 1.

You can still find gopher tortoises at the South Carolina Department of Natural Resources' (SCDNR) Tillman Sand Ridge Heritage Preserve, 13 miles west of Ridgeland. The preserve is part of the easternmost range of the gopher tortoise in the southeast. The property is open during daylight hours and admission is free. Hiking, camping, hunting (in season) is allowed. The property is part of a sand ridge that parallels the Savannah River. You will find typical sand hill habitat with longleaf and slash pine, wiregrass, and various scrub oaks. The

Gopher tortoise statue in Ridgeland, SC. Photo by Randy Tate.



Morris Center for Lowcountry Heritage in Ridgeland, SC. Photo by Randy Tate.

site was once an industrial forest that DNR is slowly converting back to a longleaf pine-wiregrass forest.

Another must see site while in the area is the Savannah River National Wildlife Refuge that straddles the Savannah River in Jasper County, South Carolina and the Georgia counties of Chatham and Effingham. The visitor's center is just off U.S. 17, south of Hardeeville, and a wildlife drive is just across the Savannah River on SC 170. The habitat on the refuge is primarily bottomland hardwoods along the river and remnant rice fields near the coast that are managed for waterfowl.

The major communities in Jasper County are Ridgeland and Hardeeville. Both small towns offer opportunities to enjoy a small town atmosphere by shopping and dining in family owned shops and restaurants.

Ridgeland, has a unique facility operated by the Jasper County Soil and Water Conservation District, the Blue Heron Nature Center. Housed in a log cabin on a ten-acre natural area just off I-95, the facility has a small natural history museum and learning center for educational activities. There is a walking trail around an adjacent pond where alligators, wading birds, and other critters common to the Lowcountry are often seen.

Also in Ridgeland is the Morris Center for Lowcountry Heritage, located on U.S. 17, Jacob Smart Boulevard. Housed in an old Sinclair Service Station, the center is a learning and education center dedicated to preserving the history and culture of Jasper County and the surrounding Lowcountry. Current exhibits at the Morris Center include R*oots: The Lowdown on Lowcountry Cuisine*, a traveling exhibit *The American Revolutionary War in South Carolina*, and a 3-D exhibit on the Civil War's Battle of Honey Hill which took place just to the east of Ridgeland.

There is so much history to experience in the area. Along the Savannah River near Hardeeville was the site of Purrysburg, a Swiss settlement that tried to commercial grow silkworms for the manufacture of silk. It was also the site of a Revolutionary War Battle. The area experienced the wrath of Sherman's March through the Carolinas during the Civil War in early 1865. Gillisonville Baptist Church is the only structure left in the

Longleaf woods in Jasper County, SC. Photo by Randy Tate.

county that predates the Civil War; the rest were all burned.

In nearby Beaufort County near Yemasee, are the ruins of Old Sheldon Episcopal Church. Predating the Revolutionary War, the church was burned by the British, rebuilt, and burned again by the Union troops during the Civil War.

The county claims as its own, Thomas Heyward, a colonial South Carolina leader who owned a rice plantation and was a signer of the Declaration of Independence. His tomb is located near the Old House community between Ridgeland and Beaufort.

Jasper County is richly blessed with natural resources. About 60% of the county is in large privately owned plantations. After the Civil War, northern industrialists came down and bought up property for winter recreational retreats featuring quail and waterfowl hunting. Unbeknownst to them at the time, they preserved outstanding examples of longleaf pine flatwoods and savannahs, maintaining them by using the local practice of prescribed burning, keeping the forests open for bobwhite quail and wild turkey. Today, some of the finest examples of longleaf pine forests are found on these private lands and are maintained by the stewardship of their owners.

We hope that if you attend the Longleaf Alliance conference in Savannah, you will take some time to travel across the river and enjoy the beauty, culture, and natural history of Jasper County!

The Longleaf Alliance Presents the Inaugural Biennial Longleaf Pre-Conference Auction

Sometimes, fundraising becomes something more. Something bigger. Something that can raise both money and awareness. And sometimes, these things can be a little fun. In an effort to include all LLA members and partners in the upcoming 11th Biennial Longleaf Conference in Savannah, we will open the auction a month early to all Longleaf Leader subscribers! The following unique and enticing experiences are on the auction block.

DON'T MISS THIS OPPORTUNITY OCTOBER 1-21!

***Wine Dinner for 8 at Peninsula Grill of Charleston*, provided by Dr. George Tyson:** Join us for a Tour de France tasting dinner in which we will sample each of five wines judged Premier Cru in the classification of 1855. Each course will be defined by one of these wines, and the Peninsula Grill's Chef will concoct small plates designed specifically to complement the essence of each wine. This one-of-a-kind experience can accommodate up to four couples. Please view sample menu and wine listing at www.longleafalliance.org and contact lynnsey@longleafalliance.org for more information.
Reserve Price: $8,000
Buy It Now: $12,000
Bids must be placed in $100 increments.

***Quail Hunt at Longleaf with Rhett Johnson*, provided by Rhett Johnson & Charley Tarver:** The one-day hunt will be for two guns (hunters), to be scheduled during January or February 2017. Guests arrive at Longleaf Plantation mid-afternoon on day one and shoot sporting clays and enjoy a "cocktails roosting" of Red Cockaded Woodpeckers. On day two, hunt from the mule-drawn wagon in the morning and afternoon. Depart after breakfast on day three.
Reserve Price: $2,500
Buy It Now: $5,000
Bids must be placed in $50 increments.

***3-Day Wild Turkey Hunt with LLA President, Robert Abernethy*, provided by Robert Abernethy:** The 3-day wild turkey hunt will take place in South Carolina, Georgia or Alabama (location to be determined) and will be for one gun (hunter). Hunt will be on private land with LLA President, Robert Abernethy, acting as your personal guide. All lodging and food will be provided. Licenses and transportation to the hunt location are not included. Hunt is for Spring 2017 or 2018 as can be scheduled.
Reserve Price: $1,500
But It Now: $2,000
Bids must be placed in $50 increments.

TO OBTAIN A BIDDER NUMBER & PLACE YOUR BIDS FROM OCTOBER 1-21 contact Development Director, Lynnsey Basala, at Lynnsey@longleafalliance.org or direct: (314) 288-5654. All bids are first come, first served. Pre-Conference Auction expires at 11:00pm ET on October 21, 2016. Items not sold during the pre-auction will be available onsite at the 11th Biennial Longleaf Conference in Savannah November 1-4.

A TRIBUTE TO A FRIEND

By Rhett Johnson, Beth Maynor Young, and Bill Finch

John Hall (2nd from right) with Longleaf: Far as the Eye Can See coauthors (l-r) Bill Finch, Beth Maynor Young, and Rhett Johnson. Photo by Hunter Nichols.

The Longleaf Alliance, Kathy and I, and anyone with an interest in the study and conservation of Alabama's natural resources lost an invaluable friend in May with the far too early death of John Hall. John was a geologist by training, but was a consummate naturalist and conservationist, with interests in virtually every aspect of the natural world. He used an enthusiastic and compelling curiosity about natural sciences and a love of history to stimulate students of all ages and backgrounds to appreciate and know more about the surrounding world. John was an avid re-enactor, easily taking on the persona of a Revolutionary War soldier for historical events and uncannily becoming William Bartram for many audiences, including the plenary session at the 2014 Longleaf Alliance Biennial Regional Conference in Mobile. I first met John several decades ago when he and I searched canebrakes at the Dixon Center for Swainsons warblers. His excitement at finding the bird was nearly rivaled by his pleasure in finding intact and fairly large native canebrakes. His absolute joy in life was infectious…it was impossible to not be made happy by John. We stayed in touch over the years, working together occasionally, but I really came to appreciate John when he, Beth Maynor Young and Bill Finch and I began work on our book, *Longleaf: Far as the Eye Can See.* John was already an accomplished writer when we began, particularly with the text of his first collaboration with Beth Maynor Young, *Headwaters: A Journey on Alabama Rivers.* That text is as readable as a novel, tremendously informative without being pedantic. I read the book cover to cover before I took the time to appreciate the photography. As we planned and worked on our book, John and his wife Rosa became regular companions and the best of friends. Even in the tense moments, with the funding and deadline challenges that accompany this kind of undertaking, John's constant optimism, enthusiasm, and good humor kept us all going. He loved to laugh, including at himself, loved

good spirits, and helped create and maintain the atmosphere of companionship that is essential to any collaborative venture. When we first unveiled the finished book at an event in Birmingham, I was able to say to the assembled crowd with absolute sincerity that the greatest reward I received from the experience was not the book, but the friendships I formed and cemented along the way. There was so much to this short round happy man that it is impossible to truly honor him here. He was a combat veteran early in his life, earning a Silver Star, a Bronze Star, and an Air Medal for valor as a Ranger in Viet Nam. He never talked about those experiences, but if you truly knew him, they were entirely in character with who he was and what he was made of. He was one of the few people in my life who always left me feeling better after spending time with him. It was impossible not to. The world is a poorer place with his loss, but was immeasurably enriched by his presence in it. – *Rhett Johnson*

One of those people you miss on a daily basis for a long time. It was so easy to inquire with a picture, or call with a question and end up with a laugh. John was fascinated by life and loved discovering what made things tick. He knew Alabama so well that he wrote *Headwaters* from the pictures. Rosa, his wife, is becoming an archivist. It seems there are some interesting collections still to sort and archive. John Hall stories will be told for many years – and there are a lot of stories to tell. His memorial service at Smith Hall was very fitting – close friends telling stories – that was one day everyone told the truth. We miss you John. – *Beth Maynor Young*

John's journey through Alabama was through space and time. He knew nearly every crossroads in the state, but he also knew nearly every crossroads in the state's history and geology. John wasn't just interested in what Alabama looked like now. He wanted to understand how it looked when Roland Harper saw it, when Bartram saw it, when the Great Miko of the Mauvillians saw it, and when there were no humans to see it at all. That's how he became so interested in longleaf and its impact on the South. He could see the ghosts of longleaf stalking through the land, even in places where the tree itself hadn't been seen for generations.

John appreciated, in ways few do, that the richness and beauty of this land and this forest existed long before we were born. He dedicated his life to making sure as much of it as possible survives long after we die. For this, we will all miss him. – *Bill Finch*

By Mike Thompson, The Longleaf Alliance

The Longleaf Alliance Welcomes New EST Team Leader

We are pleased to announce the recent addition of Lucan Furman to our team. Lucas holds a B.S. from the University of West Florida in Environmental Science, and a minor in Geographic Information Systems and Environmental Policy. Before joining The Longleaf Alliance, he previously served as an Environmental Specialist for the Florida Department of Environmental Protection in Northwest Florida, focusing on prescribed fire management. Some of his other professional experiences range from serving as a land management specialist for an ecotourism center, working as a contract GIS specialist for Escambia County, serving as a seasonal environmental technician for the Department of Defense, as well as a GIS and Water Quality intern for Escambia County, Florida. Favorite pastimes include conservation work, organic gardening, exploring the great outdoors, and traveling.

By Lynnsey Basala, The Longleaf Alliance

LLA Allocated 82% of Income to Programs and Services in 2015

This time of year is a celebration of generosity, a great American tradition. In the last few days you should have received the fall campaign letter; a piece we look forward to sharing annually with longleaf enthusiasts, members, and partners such as yourself. The letter allows The Alliance to summarize our collective successes in key areas and highlight your donor dollars in action. Thanks to the unwavering commitment of our partners, landowners and donors, the Alliance was able to make exciting progress in several key areas in 2015, including habitat protection, education, and restoration. LLA also allocated an astounding 82% of income to programs and services last year.

This year's fall campaign letter will shed light on significant progress achieved thus far in 2016 while providing a wonderful opportunity to make a meaningful monetary donation as a new or renewed member. We hope that we can count on you to help The Alliance achieve and surpass its $15,000 campaign goal by making a donation this year. Your support continues to be vital to our efforts. The fall campaign runs from October 1-January 1, and donations of $50 or more include a one-year membership in The Longleaf Alliance.

To double or possibly triple your contribution this year, be sure to mark your calendar for the annual Giving Tuesday campaign on November 29, 2016. #GivingTuesday has become quite the social, digital, and philanthropic trifecta in recent years. Please look into your company's matching gift program before donating as LLA is an eligible 501(c)(3). Make us your charity of choice this year, and be sure to post &/or Tweet your support with #GivingTuesday #LongleafAlliance in support of the longleaf ecosystem. Donations can be made at www.longleafalliance.org or (334) 427-1029.

Welcome to Our Newest Supporters!

Pat Godbold
Reid Farms, LP
The South Carolina Chapter of the Association of Consulting Foresters
James Wadsworth
Never Done Farm, LLC
Palmetto Garden Club
Matt Balding
Poarch Band of Creek Indians
The Nature Conservancy
Water's Edge Woods
James Zito
Enterprise Holdings Foundation
Matt Greene
John Matel & Christine Johnson
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Bert Campbell
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Pamela Crosby
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Growing a Legacy:
A Working Forest for the Long Run

Est. 1995

The Longleaf Alliance

11th Biennial Longleaf Conference
November 1-4, 2016
Savannah Marriott Riverfront
Savannah, GA

Visit www.ncsu-feop.org/LLA/ for more information and to register.

2016 Conference Sponsorship Opportunities

We cannot host this event without your support! This easy-to-read table highlights the various giving levels and incentives available on-site November 1-4, in addition to other added benefits throughout the year! For more information about becoming a sponsor or for special requests, contact Lynnsey Basala at lynnsey@longleafalliance.org or 314-288-5654.

		$10,000	$5,000	$2,500	$1,000	$500
Longleaf Leader						
	2 page Interview in Winter Edition					
	Listing in Annual Report in Winter Edition	X	X	X	X	X
	Ad in 4 issues	½ Page	½ Page	½ Page	¼ Page	
	Receive electronic version for internal company use	X	X			
	Quarterly issues	X	X	X	X	X
Biennial Conference						
	Invitation(s) to The Palustris Society/Board Social	1	1			
	Meal, Break, Art Exhibit/Reception, Awards Banquet, Celebration or Field Tour Sponsor (prominent logo placement provided at these events; exclusivity guaranteed for $10k+ sponsors)	Art Exhibit or Celebration Sponsor	Meal or Field Tour Sponsor	Break Sponsor (4 available)	Hospitality Room Sponsor	
	Logo on Brochure & Conference T-shirts (displayed in hierarchy)	X	X	X	X	X
	Complementary registration(s)	3	2	1		
	Complimentary Exhibit Space	X	X	X		
Media						
	E-blast to Alliance Database					
	Press release acknowledging company's significant contribution	X				
	Quote for company use	X	X	X		
	Check presentation, if requested	X				
	Company logo on website (displayed in hierarchy)	X	X	X	X	
LLA Programs & Services						
	Aluminum property sign (redeemable voucher(s) to be given)	4	1	1		
	Electronic banner placed at every Academy and LLA workshop, includes company logo and recognition onsite (restrictions may apply but is not anticipated)	X	X	X		

Reach a wider audience by joining these already committed Longleaf Alliance supporting partners

By Dr. Salem Saloom, MD

{ "There is a relationship that we do not allow ourselves to think and speak of frequently. That is the relationship between nature and our own God-given spirit, our soul." }

Prescribed burn on Saloom property. Photo by Salem Saloom.

Dr. E. O Wilson has so eloquently discerned our relationship of science/religion with nature. He offers in his book *The Creation*, "The more biologists learn about the biosphere in its full richness, the more rewarding the image. Similarly, the more psychologists learn of the development of the human mind, the more they understand the gravitational pull of the natural world on our spirit, and on our souls."

There is a relationship that we do not allow ourselves to think and speak of frequently. That is the relationship between nature and our own God-given spirit, our soul. Some would prefer calling it the psyche. We have strived for centuries to separate the two.

It is my intention to celebrate this relationship of our natural world, especially longleaf and its ecosystem's floral and faunal inhabitants, with our human existence. I believe as we work to conserve, reforest, manage, and practice good stewardship through our longleaf efforts, this relationship becomes more apparent. You can be sure that those managing for other species find the same commonality and purpose are inherent in their work, as long as one is intentionally observing and reflecting on its meaning in their lives. It takes this intentionality of thought and reflection to be able to discover those commonalities. Through our hands-on work we come to appreciate a sense of oneness and wholeness, if you will, a sense of belonging. Those that toil and sweat and work in our woodlands with its many wonderful facets, can find the most unique relationship with their inner being and with nature. This sense of belonging and common purpose is deeply rooted in sweat, elbow grease, and boot leather. We pleasantly come to the realization that nature is part of our own being as we allow ourselves to become immersed within our forests and the spirit of nature. We come to realize that special relationship with the One who created all things. We come to know a pronounced sense of belonging.

We find this belonging within our own spirit when we witness a prescribe fire and are able to see the resurrection of new life that abounds as a result. We experience this belonging in the glorious sunrise on a cool, crisp, calm early spring morning as life awakens in our forests. We experience this belonging through a moonlit, summer night as the breeze stirs

through the longleaf needles singing God's praises of His creation exclaiming "It was very good."

Dr. Wilson has encouraged those that see a division of philosophies of science and nature to come together and work congruently to save our world. We cannot do that by concentrating on those aspects that divide us, but by focusing on those commonalities—coming together and celebrating those aspects that unite us will be the only way to help save our future.

Managing and caring for our tree farm has produced an ever present closeness with nature and the One who created all of nature and mankind. For me, I cannot separate Darwinian thought and order with my own Christian faith. Some may disagree…I challenge those who disagree that they may be looking at the differences that separate us rather than those commonalities that bind us together. It is easy to look superficially and not deep enough within the biological order. I often miss out in the true meaning and purpose when I fail to discern deeper within my own heart. We are continually learning that we have to delve deeper and deeper. Most of the time it is not about the final result, whether right or wrong, but about the journey itself. We come to realize and eventually appreciate that this is a long journey. It is a journey well worth taking the risk to explore within our own being. We find that connectedness with the natural world.

As expressed, I cannot separate God from scientific nature. This truly is the heart of pine. It is more than that final wood product that comes out of the mill and made into "stuff" that we use every day. The essence lies deep within you and me, within our own human spirit connected. This is the common relationship that we share. The essence lies within the journey of working together toward a common purpose. Let's enjoy it along the way!

Dr. Wilson notes "that most people around the world care about the natural environment, but they don't know why they care, or why they should feel responsible for it." Most cannot articulate what stewardship of our natural resources personally means to them. I dare say, though, that I have yet to find in my travels and visiting tree farms and landowners across America who do not have a problem communicating the value of their stewardship. Just take a walk in the forest with those who are managing and working their forests. Their passion is infectious. Through these times together we begin building relationships. We shortly realize that we have more in common than not. Stewardship becomes palpable!

The Longleaf Alliance is such an important resource and partner for those who are managing longleaf and for those who are thinking about introducing longleaf to their woodlands. Our philosophy can transcend to other species that are more adaptable and integral in other specific geographies. The hub of the Longleaf Partnership Council helps all the partners focus on those commonalities that are important to the efforts of leading America's Longleaf Restoration Initiative to fruition. It is through the different ideas, objectives and perspectives that each partner brings to the table, that we can achieve our common purpose. There is strength and purpose through this diversity. Each common relationship substantiates the work that is being done throughout the Longleaf Community. Not only is the human-to-human relationship strengthened, so does our relationship with longleaf and the system we are improving through our management regimen. It is here that place of belonging is personified. Our own integrity of core values is strengthened as we slowly and unconsciously begin placing a nontangible value on the work we are doing. This work adds value to our lives. We come to intimately know the Spirit that lives within the ecosystem and that the Spirit that lives within each of us are connected and are one in the same Spirit.

Nature is one of those God-given creations that remind us of God's presence within us. This Presence is not only immanent, but transcendent and all-pervasive. Our closeness with nature helps us to better approach without fully knowing God's omnipresence. It is through this symbolic reflection and expression of God's Love that we find His creation within each of us as human beings. Nature becomes an icon to help us view God's pervading presence.

The variability and diversity of each one of us as human beings is not unlike the importance of the variability and diversity of the longleaf ecosystem. For me, all of the elements of this forest make up the oneness and what we all have in common.