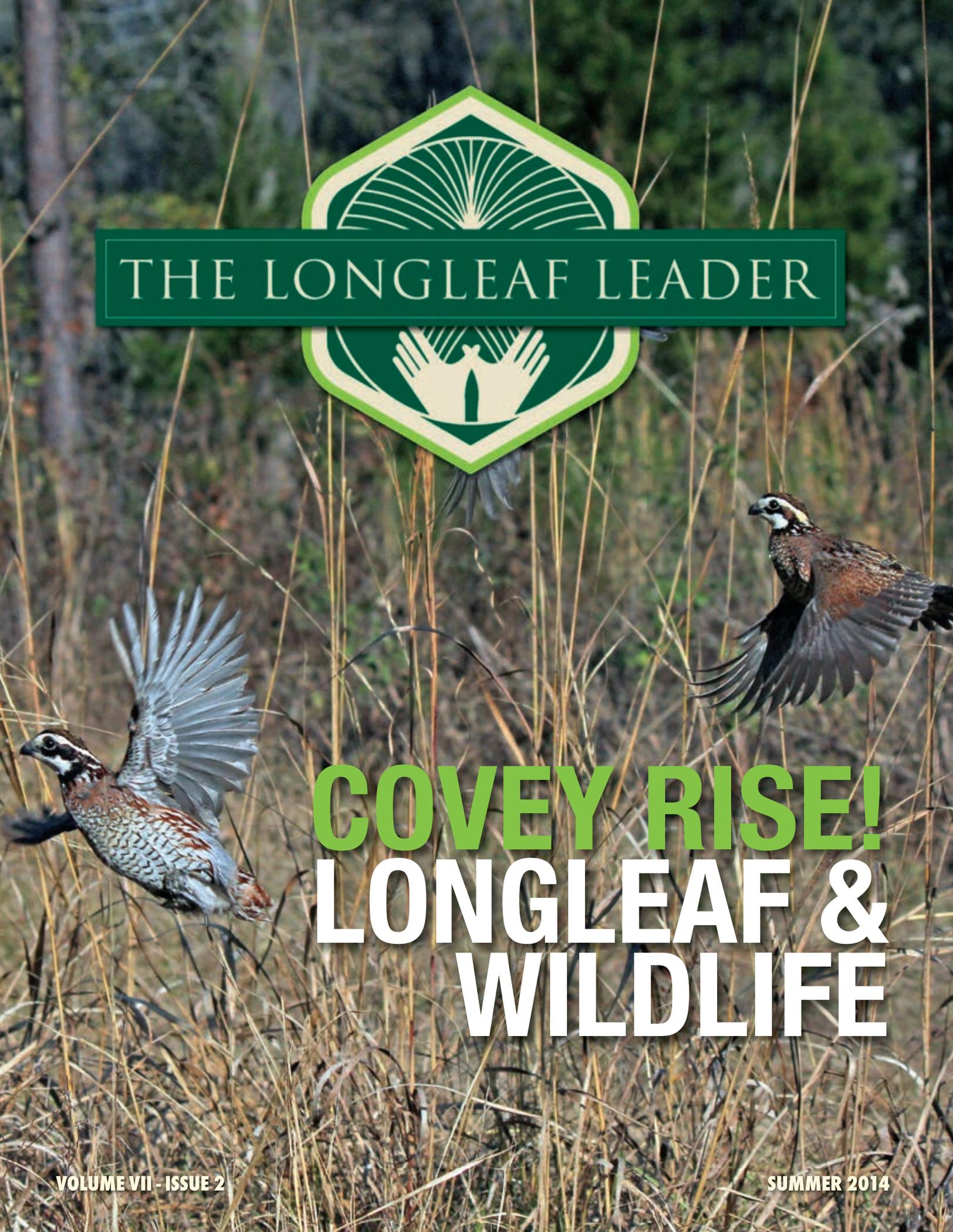




THE LONGLEAF LEADER



COVEY RISE!
**LONGLEAF &
WILDLIFE**

VOLUME VII - ISSUE 2

SUMMER 2014

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COVER The Summer of The Longleaf Pine. Photo by Tall Timbers Research Station
 (Correction: Last issue cover credit goes to Matt Greene)

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BY ROBERT ABERNETHY, THE LONGLEAF ALLIANCE

PRESIDENT'S MESSAGE

{ our mission }

To ensure a sustainable future for the longleaf pine ecosystem through partnerships, landowner assistance and science-based education and outreach.

That is our mission. And our commitment to you, our supporter, is if you choose to plant longleaf, we will help you be successful. This is why The Longleaf Alliance was established in 1995, and it remains our reason for being today. If you want to learn about longleaf, you can visit our website or call the office and we will respond to your questions. Attend a Longleaf Academy in your area or a workshop or field day. *The Longleaf Leader*, our signature magazine, is also filled with information and stories about people like you who are managing longleaf and improving family property. If you call us and we do not know the answer to your question, we will find someone who does. This is the beauty of partnerships.

As a founding member of the Longleaf Partnership Council, we work with the US Forest Service, the Natural Resources Conservation Service and the US Fish & Wildlife Service, as well as all the state agencies and a host of non-governmental organizations (NGO's) such as The Nature Conservancy and The National Fish & Wildlife Foundation. Many others are associated with us to ensure that you, the landowner, has the best, most accurate and current information to help you meet your objectives.

Toward that end, several years ago we started including updates from Local Implementation Teams (LIT's) that were being established all across the longleaf range. We now have

17 LIT's in place, and more are forming. An LIT is a partnership of state and federal agencies as well as NGO's and landowners that are committed to working together in a specific area centered around a large federal land base. The updates we include from the LITs are intended to keep you informed on what is happening in your area.

We want to keep *The Longleaf Leader* seasonal and a resource of timely information for your use within the following 3 -6 months. For instance, we have dedicated this summer issue to wildlife species and the management of their longleaf habitat. Whether you hunt, watch birds or want to be able to show your grandkids some animals while walking in the woods, I believe this issue will help you achieve those goals. Please let us know what you want to see within the pages of *The Longleaf Leader*. Tell us what you need to become a better and more informed land manager.

And lastly, mark your calendars for October 21 – 24, 2014. The Alabama Gulf Coast is the location of the 10th Biennial Longleaf Conference & 9th Eastern Native Grass Symposium. Plans are in place to discuss the pressing issues of the day affecting longleaf and grassland management. We will meet old friends and connect with new ones at the parties, meals, and socials. Have a wonderful summer and we look forward to seeing you in Mobile in the fall!

SUMMER MANAGEMENT CHECKLIST

- ✓ Secure soil samples for selected longleaf restoration sites
- ✓ Spray invasive species such as: kudzu, cogon grass, bermuda grass, bahiagrass, and fescue
- ✓ Inspect new longleaf plantings and plan future treatments if problems are noted
Mow or spray problematic species such as: crabgrass, coffee weed, partridge pea, hairy indigo, and other late emergent weeds
- ✓ Order longleaf seedlings and native grass seed for upcoming planting season
- ✓ Burn wiregrass and native groundcover to maximize fall seed production and viability
- ✓ Harvest wild dewberries, blackberries, blueberries, and elderberries
Count cones on mature longleaf
- ✓ Burn mature longleaf stands to prepare seedbed for natural regeneration

Register for upcoming 10th Regional Longleaf Conference & 9th Eastern Native Grass Symposium in Mobile! Dates for the conference are October 21-24.

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Conference on Ecological and Ecosystem Restoration
July 28-August 1, 2014
 New Orleans, Louisiana
www.conference.ifas.ufl.edu/CEER2014/index.html

Alabama Prescribed Fire Council Annual Meeting
August 28, 2014
 Columbiana, AL
www.alpfc.org/wp/homepage/

Georgia Prescribed Fire Council Annual Meeting
September 25, 2014
 Tifton, GA
www.garxfire.com/events.htm



Understory 201 Academy
September 30-October 2, 2014
 Solon Dixon Forestry Education Center
 Andalusia, AL
www.longleafalliance.org/events/2014-understory-201-academy
 The purpose of the Understory Academy is to demystify the process of understory restoration by helping landowners and restoration practitioners to familiarize themselves with some of the plants that occur on the forest floor and the processes that maximize understory diversity.

10th Regional Longleaf Conference & 9th Eastern Native Grass Symposium
October 21-24, 2014
 Mobile, AL
www.longleafalliance.org/events/2014-longleaf-alliance-regional-conference

Longleaf 101 Academy
November 17-21, 2014
 Chattahoochee Fall Line Conservation Partnership Area
www.longleafalliance.org/events
 This course will introduce the participant to the history and cultural significance of longleaf pine and provides the foundation for successful longleaf restoration and management.

Classroom exercises during the 2012 Understory 201 Academy in Tifton, GA. Photo by JJ Bachant-Brown.

By Vernon Compton, The Longleaf Alliance

STEVE BENNETT, ECOSYSTEM SUPPORT TEAM LEADER, ACCEPTS NEW POSITION IN COLORADO

Steve Bennett began with the Gulf Coastal Plain Ecosystem Partnership (GCPEP) on the Ecosystem Support Team (EST) as a burn crew member in 2008. He rose to the level of leader of the team due to his strong leadership skills and ability to facilitate partner projects across the GCPEP landscape. He advanced his prescribed burning skills by becoming nationally certified as a Type 2 Burn Boss and a Type 4 Incident Commander. In addition, his skills in facilitating collaboration among diverse partners were recognized and very much appreciated by the public and private partners in GCPEP and others who crossed his path. GCPEP and LLA staff and partners will miss Steve but wish him and his wife Heather the very best as they start a new chapter of their life together in Colorado. Thank you Steve for all you did to advance longleaf restoration and management and the Longleaf Alliance!



*Steve Bennett (third from left) with EST crew.
Photo by The Longleaf Alliance.*

By Rbett Johnson, Co-founder of The Longleaf Alliance

IN MEMORY OF DR. WILLIAM BOYER

The longleaf world, and all of us who love longleaf, recently lost a champion and a friend of the on-going efforts to keep longleaf ecosystems as a significant component in the southeastern forest landscape. Dr. William (Bill) Boyer died on April 13th after a long bout with leukemia. Bill continued to be productive until the end of his life and would have celebrated his 90th birthday in September. He served on several ships in the Merchant Marine service during and immediately after World War II before embarking on an extended career as a research forester with the U.S. Forest Service, primarily studying longleaf pine silviculture. After earning a degree at the Merchant Marine Academy, Bill entered the College of Environmental Sciences at the State University of New York at Syracuse University. While enrolled, he earned both a Bachelor's degree in Forestry and a Masters degree in Wildlife Management. These were followed by a Ph.D. in Forest Ecology at Duke University. After a brief stint on the Hoover Commission in D.C., Bill began his career with the Forest Service in 1955. Working often with colleagues Tom Croker and Bob Farrar at the Escambia Experimental Forest near Brewton, Alabama, Bill worked tirelessly to understand the longleaf pine ecosystem. Much of what we know now about longleaf pine silviculture and ecology is derived from this work. In 1975 he was transferred to the US Forest Service in Auburn where he continued his longleaf work until his retirement in 1998 after 43 years of service. He continued on as a volunteer, finishing projects he began prior to retirement. Bill is credited with over 100 publications, the majority of which are related

to the regeneration and management of longleaf pine. He was recognized many times with awards, including being elected to the Alabama Foresters Hall of Fame and as a Fellow of the Society of American Foresters. He was presented with a National Honor Award by the Secretary of Agriculture for his research accomplishments.

When I began my career as Director of the Solon Dixon Forestry Education Center, I became acquainted with Bill and Tom Croker through association with T.R. Miller Mill Company and the Escambia Forest. I learned virtually all I know about longleaf pine because of the incredibly generous sharing of their vast knowledge with me. Bill was patient, never condescending, and always supportive. Later, Dean Gjerstad, Mark Hains or I often experienced "Eureka" moments in the early years of The Longleaf Alliance. After rushing to share it with Bill, he often responded with, "You know, I published on that in 1963." It kept us grounded and respectful of how much we had known and forgotten about the species and ecosystem.

Bill was proud of his family, talking often of his wife, daughters, grandchildren, and even great-grandkids. He was active in his church and community and his absence will be felt. Much of his work continues to be the underpinning of what we know about longleaf today and is still relevant and ongoing. He was a kind, gentle, patient man and we are all proud and blessed to have known him and called him friend. Bill will always be greatly missed.



*Turkey Oak sprouting
after fire at Hitchcock
Woods in Aiken, SC.
Photo by Carol Denbof.*

PLANTING SCRUB OAKS

A forester working on public lands contacted us about planting a site being converted to longleaf from short rotation loblolly stands. The property in question is former industry land acquired by the state for conservation purposes. The forester explained:

“This land has just been site-prepped to death. There aren’t any oaks across a pretty large tract. We are trying to restore it to a longleaf ecosystem and I was thinking about including some scrub oaks in the planting. What do you think about planting 100 turkey oaks per acre?”

It is increasingly common for us to come across military and/or industry lands that have been denuded of most *Quercus* species (oaks). On many sandy, coastal plain soils, scrub oaks provide critical food and habitat requirements for many game and nongame wildlife species. Fox squirrels are a good example, and they are one of the most charismatic wildlife species found in the longleaf ecosystem.

If an upland site becomes dominated by oaks, particularly off-site laurel, water, or live oak, the more common gray squirrels tend to outcompete the fox squirrels. If the off-site oaks are eliminated or reduced through fire or mechanical methods, fox squirrel populations increase as their preferred, open pine habitat is restored. However, if all oaks are removed across large swaths of land, the fox squirrel may once again disappear or exhibit reductions in population size.

Fox squirrels depend on mast production from scrub oaks for a significant portion of their diet. Depending upon where on the landscape the forest is physically located, normal

components of upland longleaf forests include: turkey oak, bluejack oak, sand post oak, blackjack oak, runner oaks, and other *Quercus* species adapted to well-drained upland soils.

In healthy fire maintained stands of longleaf, scrub oaks grow to maturity in natural fire shadows. When planting scrub oaks for ecosystem restoration, it is probably best to plant these seedlings in patches and on portions of the stand where they won’t be burned as frequently or as intensely as the longleaf pine. It is more difficult to find and purchase scrub oak seedlings than it is to find longleaf, so plan and order seedlings well in advance.

Be especially careful when planting behind sites that have recently been prepared with an herbicide treatment. During site preparation on portions of a tract that will be planted to oaks, it is best to stay away from soil active herbicides such as imazapyr. Alternatively, triclopyr or Garlon® products target many waxy-leaf shrubs and these herbicides have very limited soil activity. Oaks could be planted very quickly behind Garlon® site prep treatments without negative impact.

On most properties, too many oaks is a much more common management concern than having too few. On occasions where we find oaks scarce, these properties are often relics of land managers seeking economies of scale in fiber production. I recall visiting one property southeast of Tallahassee where we drove more than two miles on private roads without seeing an oak large enough to produce acorns.

All things in moderation.

GREEN SIDE UP

Advice from Mark

TESTING THE SOIL

By Mark Hains, The Longleaf Alliance

Geneva County, AL site with high nutrient soils that are toxic to longleaf pine.. Photo by Mark Hains.

Many of the calls we receive concern management decisions that went bad. For about two decades now, a significant portion of my time has been allocated to diagnosing the reasons behind longleaf planting failures. The majority of these failures occur on agricultural sites, and as often as not, soil conditions played a role in seedling mortality.

One egregious case occurred in Geneva County, Alabama where a Conservation Reserve Program site was planted unsuccessfully three times before they did a soil test. When they finally got around to testing this tract, soil pH was in the acceptable range, but many of the soil nutrients were off the chart. This soil was toxic to longleaf, or for that matter, any other southern pine species. These high soil nutrient levels were the result of repeated applications of chicken litter.

A soil test may cost \$10-20. Planting one acre of longleaf may run \$200.00-\$500.00. Take a soil test before planting! One composite soil sample (6 to 8 one inch diameter cores to a 6 inch depth put in a soil box or bag from the Co Extension office or private lab with soil well mixed and up to the "fill" mark) per 5 to 10 acres is recommended. Collect at least 3

composite soil samples per 20 to 30 acres. You do not want to rely on one sample and one sample results. Take the bagged or boxed soil samples to your county extension office or mail to a private lab for a "routine" analysis that should include soil pH and available P, K, Ca, Mg, and some micro-nutrients. If soil pH is greater than 6.2 do not use Sulfometuron (Oust® or Oustar® and generic equivalents) over longleaf. If soil available P is greater than 300 lbs/ac then plant loblolly pine as longleaf pine plantings will most likely be failures.

Longleaf are adapted to very low nutrient soils, but we recently came across a soil whose phosphorous levels were too low, even for longleaf pine. In this case, the 200+ acre tract has a pile of boulders in the center of the field. For obvious reasons, this rocky area was not farmed or fertilized. After two plantings, most of the surrounding acreage on this large tract had a decent stocking of longleaf pine, but there were no surviving trees around the boulders. A soil test from this area revealed that P concentrations were at or below 6 lbs per acre.

After the landowner secured the soil tests, I called Dr. David Moorhead with the University of Georgia. He explained that

these soils were probably derived from the Citronelle Formation, and they are typically deficient in soil P. Once soil P dips below 6 lbs per acre, southern pine establishment and growth becomes very problematic. He recommended fertilizing this site with phosphorous.

If the soil is above 7.0 pH, the soil is described as "basic." Longleaf, and the other southern pines, are adapted to acidic soils (pH<7.0). If the soil is neutral (pH=7.0) or basic (pH>7.0), this is going to be a very difficult site to successfully establish longleaf pine. The Black Belt region of central Alabama has prairie soils that are basic. There are very few or no pines growing naturally on these soils. When artificial pine regeneration is attempted on prairie soils, pines are off-colored and unhealthy in appearance on soils with a pH around 7.1 or 7.2. Plantings on higher pH soils are usually complete failures.

Sulfometuron is one of the most commonly used active

ingredients (AI) in herbicides applied during longleaf establishment. Sulfometuron is the AI in Oust® and one of two active ingredients in Oustar®. Sulfometuron becomes more active as soil pH increases. We suspect that moderately high pH soils and sulfometuron applications have led to many planting failures. We recommend against the inclusion of sulfometuron herbicides during site preparation on agricultural fields. We also recommend avoiding herbicides with sulfometuron when surface (0-6") soil pH is above 6.2.

Many of our problematic agricultural sites were heavily fertilized through chicken-litter applications, dairy operations, or even applications of municipal sludge. As soil nutrient levels climb, we witness greater incidence of Fusarium infection (fusiform rust and pitch canker), increased insect problems (pine colaspis beetle, & red-headed sawfly larvae), and greater herbaceous competition during establishment.

When establishing longleaf, in general, lower pH is good and higher nutrient levels are problematic. Before planting any agricultural acreage to longleaf, be sure to determine the soil pH and nutrient levels. It's worth the investment.

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THE SONG OF THE LONGLeAF PINE

*High quality longleaf pine –
wiregrass habitat at the Wade
Tract. Photo by Tall Timbers
Research Station.*

By Theron M. Terhune, Tall Timbers Research Station

You've been there before...captured in the midst of a longleaf pine forest where the air is dense with the din of songbirds playfully flitting about while you frantically fumble for your binoculars in hopes of recording that "lifer" bird. The landscape appears frozen in time and you stand there awestruck in the middle of a sea of wiregrass and tall majestic, flat-top pines unaware of any other human existence. Indeed there was a time when this experience was quite the norm but I fear it is becoming more an anomaly with each passing day, and so the song of the longleaf pine is akin to that of many grassland birds that inhabit this forest.

Grassland, and early-successional birds, more than any other guilds of North American bird species, are a source of conservation concern because this group has been subject to severe population declines. These observed declines are alarming with respect to individual species, but, in reality, they are symptomatic of a bigger problem: the large-scale loss of an entire functional ecosystem – the longleaf pine forest. Considerable research, planning, and work on the part of many partners (including Partners in Flight, American Landbird Conservation Action Plan, and the National Bobwhite Conservation Initiative) have documented and outlined the reasons for these declines in habitat as well as put forth potential strategies for their recovery. However, despite this

wealth of knowledge, more species than ever are experiencing range reductions or becoming threatened and endangered.

Fragmentation, isolation, and loss or degradation of grassland habitat resulting from changes in land use have impacted a plethora of songbirds, such as the Bachman's sparrow, brown-headed nuthatch, and loggerhead shrike, to name just a few, by converting the forest to other uses. Ironically, the fate of these and many other species rest in the same hands that have been the cause of their deterioration, and so goes the song of the longleaf pine. If we are to conserve these bird species and preserve their habitats, such as the longleaf pine-wiregrass community, we must find a way to unify our conservation strategies and planning efforts to optimize conservation dollars and achieve success – we must find ways to engage more people as conservationists.

The historic lightning-ignited fires, once ubiquitous across the landscape, favored early-successional, grassland bird species as well as longleaf and shortleaf pines. However, the exclusion and suppression of fire over the past several decades has reduced the amount and quality of early-successional habitat conditions for fire-dependent songbirds and wildlife. Restoration and management of longleaf pine forests will be part of the solution for minimizing and reversing impacts on grassland plant and animal species.

A properly managed longleaf pine forest is in many ways functionally equivalent to a grassland ecosystem and the long-term monetary incentive of growing longleaf may prove the necessary value-added benefit that some landowners need. For instance, the longleaf pine is not only a highly valued, straight, dense, rot resistant wood product offering landowners a variety of profitable and flexible marketing options (e.g., poles, saw timber, pine straw), but also provides many environmental benefits as well. Alternative pine species (e.g., slash and loblolly), on the other hand, provide limited temporal benefit to grassland birds since they are more vulnerable to fire at early ages, and also result in canopy closure at a much earlier age compared to longleaf. In addition, the long-lived nature of longleaf can provide long-term sustainability for grassland song birds and wildlife. More than 85 total species of birds can be found in the longleaf pine ecosystem. Species of particular note include, Bachman's sparrow, brown-headed nuthatch, Henslow's sparrow, grasshopper sparrow, field sparrow, red-cockaded woodpecker and northern bobwhite (see northern bobwhite sidebar).

In order for longleaf pine systems to render greater conservation value to birds and other species, prescribed fire is essential. The proper use of fire can help to achieve ecosystem management objectives by shifting vegetation composition from non-native to native plant species, increasing spatial and temporal heterogeneity of grassland vegetation, and enhancing native seed production. Applying the appropriate frequency, season, and scale of fire is often all that is needed to maintain an understory favorable for birds and ensure ecosystem health. Of course, the most important thing is to burn, but knowing how often, when, and how large to burn can make dramatic differences on what birds respond and the relative long-term sustainability of these populations.

Fire return interval is a key factor in regulating plant succession. Application of properly timed fires can be very effective in restoring grass and forb communities that many birds require. It also provides good conditions for natural longleaf pine seedling establishment and, in particular, improved longleaf pine seed germination (Cox and Widener 2008) during years of bumper cone production. In contrast, research at Tall Timbers Research Station demonstrates that fire

exclusion and/or suppression from an area for 3 or more years will quickly result in degraded habitat and shift vegetation elements from early-succession and toward a shrubbier, structurally complex understory, to the detriment of scores of songbirds. Research shows that as early as 18 months after fire, habitat for Bachman's sparrow rapidly declines. This pattern holds for many other grassland species, especially those highly dependent on invertebrates for rearing young (e.g., northern bobwhite). Thus, it is recommended to maintain a high fire frequency (1 to 3 year fire return interval; with an

average of 2 years) to produce desired habitat conditions for many declining grassland birds. This fire return interval is consistent with historical, natural fire patterns among grassland and pine ecosystems and likely provides other integral ecosystems services (e.g., carbon sequestration).

Once the appropriate fire return interval is in place, management objectives can be more fully met through seasonal (dormant versus lightning season) variation of fire. For example, lightning-season fires are more effective at restoring grasses than dormant-season fires (Glitzenstein et al. 1995). Lightning-season fires also have many other benefits to some bird species. Brown-headed nuthatches tend to nest earlier than many other birds thereby dormant season burns may lead to destruction of many nests and may further result in poor survival of

adult birds (Cox and Widener 2008). In addition, the Bachman's sparrow is well-known to prefer recently burned sites for nesting and select those same burned sites for wintering cover. Dormant-season fires may also destroy much needed cover for wintering birds such as the Henslow's sparrow.

The scale of fire (i.e., size of burn) applied should be tailored to the individual species life-history to optimally benefit their movement, reproduction and survival. Northern bobwhites, for example, require small scale fires (40-70 acres) for maximum survival and reproductive output (see sidebar for additional information on bobwhite habitat management needs), whereas burn scale may not be as important for other species such as eastern meadowlark, horned lark or savannah sparrow.

Planting density and canopy closure also can impact understory quality. Periodic thinning may be required to retain stand openness and allow adequate sunlight to the forest floor. The recommendation of stand density needed to achieve this



Male northern bobwhite quail. Photo by Tall Timbers Research Station.

{continued on page 10}



may vary widely with the soil type but generally maintaining a basal area of 45 – 75 square feet per acre on average can produce quality habitat without excessive loss in timber revenue. When establishing new longleaf stands, the number of trees planted per acre will affect timber quality and production as well as understory cover. Typical plantation densities (>600 trees per acre) can create excessive shade (due to canopy closure) and root competition for herbaceous plants, reducing their abundance and diversity. This in turn yields reduced habitat quality and fewer birds. As such, to benefit wildlife species, it is recommended to plant at lower densities (<500 trees per acre), to delay crown closure. However, regardless of the planting density, active management of the stand is required to regulate the density of pines and limit hardwood encroachment to ensure a rich understory year after year.

The large-scale problem associated with the decline of both longleaf pine and grassland birds requires a large-scale solution. Approximately 26 million acres (nearly one-third of the historic longleaf pine range) was ranked by biologists with the National Bobwhite Conservation Initiative as high management opportunity for recovering longleaf, northern bobwhite and grassland birds. Aligning conservation objectives, strategies and on-the-ground efforts, and linking action plans and conservation dollars toward an end goal will help, as can your actions! If the nostalgia for a pristine, old-growth longleaf pine forest isn't enough to get you primed to action, perhaps recognizing conservation value to birds and ample other wildlife species will. Certainly, longleaf pines make their own music as the wind whirs through its long needles and horizontal limbs of flattened crown tops, but the melody of the longleaf forest is only truly complete when accompanied by resonating birds' songs. And so goes the Song of the Longleaf Pine.

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Pinus or Colinus?

Northern bobwhite quail (*Colinus virginianus*) are a socio-economically important species valued by many landowners. Across its range, this species has declined more than 5.4% per year since 1980. They are an indicator species, underscoring the importance of monitoring their status because many of the factors associated with their decline are linked to functional mechanisms affecting the integrity of the larger longleaf pine ecosystem. The bobwhite is known as the "fire bird" and management for them without the use of prescribed fire will likely result in failure.

Simultaneously optimizing both timber revenue and bobwhite abundance is a balancing challenge, and longleaf provide a perfect product to marry the two. The key to successfully managing this balance is appropriate management of timber density (45 - 65 square feet of basal area) and use of prescribed fire with the goal of maintaining a mixture (~ 1/3 to 1/3 to 1/3 ratio) of grasses, forbs and legumes, and woody (shrub-scrub) structure equally distributed over the landscape. Prescribed fire should be implemented on a 2-year fire return interval (i.e., every other year) and at a relatively small scale (40 - 70 acres) in a staggered, patch mosaic. In areas with a good site index, employing lightning-season fires will improve survival and produce desired insect habitat in the piney woods for broods. Depending on property size and location, properly managing southern longleaf forests can produce high quality bobwhite populations exceeding 1 bird per acre and providing a memorable hunting experience. With proper management, we can have both bobwhites and economic return from the land.

Longleaf Pines and Their Understory Plants Support Diverse Pollinators

By Nancy Adamson, NRCS/Xerces Society & Blair Sampson, USDA Agricultural Research Service

The beautiful diversity of the longleaf pine understory depends on many intimate connections, including visits to flowers by bees and many other pollinators. Pollinators need our help as much as we depend on them. By protecting natural longleaf habitat, enhancing the diversity of longleaf pine understory plantings, utilizing fire to invigorate plants, and avoiding deep tillage and pesticide use on agricultural lands, we support pollinating insects. They, in turn, ensure pollination, which produces seed, nut, and berry plants that provide food and shelter for the whole community. Greater plant diversity supports greater insect and other arthropod (such as spider) diversity. Insects and spiders eat one another, and make up the diet of many birds, mammals, amphibians, reptiles, and carnivorous plants.



Bumble bee, *Bombus pennsylvanicus*, on white wild indigo, *Baptisia alba* var. *macrophylla* by Larry Allain, USGS in Louisiana.

leafcutter bees (*Megachile* spp.), sunflower bees (*Eucera* and *Svastra* spp.), longhorned bees (*Melissodes* spp.), carpenter bees (*Xylocopa* and *Ceratina* spp.), and sweat bees (*Halictus*, *Lasioglossum*, *Agapostemon*, etc.). Except for bumble bees and a few other species, most of these are solitary. Solitary bees emerge from their nests and mate, then the females make and provision their nests alone rather than in colonies, though they may aggregate nests. About 70% of our native bees nest in the ground, many preferring well-drained sandy soils (common in longleaf forests) where fungus is less likely to envelop developing larvae. Longleaf forests are rich in heath plants (blueberry, huckleberry, deerberry, sparkleberry, and cranberry) which have a specialist pollinator, the southeastern blueberry bee, *Habropoda laboriosa*, who nests in the ground and eats primarily pollen from these

Across the southeast, we have about 400 - 500 species of native bees per state. A few studies investigating bee diversity in longleaf pine forests are included in the references. Common bee groups include mining and digger bees (*Andrena* spp.), mason and orchard bees (*Osmia* spp.),

plants in the blueberry family. Like other specialist bees, they may collect nectar from many plants, but because they eat pollen principally from heath species, they are especially effective pollinators of those plants. This also includes our commercial blueberries. Many other native bees are cavity nesters. The majority of those nest in existing cavities (pithy stems or cavities excavated by beetles) while only large carpenter bees excavate their own nests.



A female *Habropoda laboriosa*, southeastern blueberry bee, collecting pollen and nectar from a rabbit-eye blueberry flower, *Vaccinium virgatum*, by Blair Sampson, USDA ARC in Mississippi.



Sweat bee, possibly *Dialictus* sp., on white prairie clover, *Dalea candida*, by Larry Allain, USGS in Louisiana.

While bees are our most important pollinators in agriculture; wasps, butterflies, moths, flies, beetles, and many other small creatures pollinate and depend upon plants in natural habitats such as longleaf pine forests. All of these animals benefit from diverse habitats that we protect or plant with flowers in bloom through the growing season. In a study of arthropods available to red-cockaded woodpeckers in

longleaf pine forests, forester James Hanula and his colleagues (2000) note that a good part of the woodpecker's diet climbs up the longleaf trunks from the surrounding understory.

Fire is a fantastic tool for maintaining longleaf ecosystems. Groundnesting bees and other insects are relatively protected when we burn longleaf habitat, but butterflies (many nest in plant material) and other cavity or wood-nesting insects and spiders, are susceptible to fire. When planning burns or managing other disturbances to keep longleaf habitat healthy,

{continued on page 12}

{continued from page 11}

remember to disturb only one quarter or less at any given time. If you need to burn, mow, or otherwise reduce woody plant growth annually, spread disturbance through the growing season whenever possible. For example, aim to burn one quarter in late winter, one quarter just prior to bird nesting season, one quarter after bird nesting season, and the last quarter in late fall.

Bees and other insects often fly off when we approach plants, but if you hold still for a moment, you will see the tremendous diversity and beauty of the pollinators and other inhabitants our native longleaf pine habitats support.



Habropoda laboriosa, southeastern blueberry bee, on redbud, *Cercis canadensis*, by Nancy Adamson, Xerces Society.

Resources and References:

To learn more about native bees in the east, view a webinar at <http://www.conservationwebinars.net/webinars/common-bees-and-best-bee-plants-of-the-east/>.

For more on pollinator conservation, visit <http://www.xerces.org/pollinator-conservation/>.

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Nancy Lee Adamson (nancy@xerces.org) is an ecologist working with the Xerces Society for Invertebrate Conservation and the USDA Natural Resources Conservation Service's East National Technology Support Center in Greensboro, NC.

Blair Sampson is a research entomologist with the USDA Agricultural Research Service in Poplarville, MS.

Longleaf pine cone at the Solon Dixon Center.
Photo by The Longleaf Alliance

2014
Longleaf
Cone Crop
Prediction:
**VERY
GOOD!**

The USDA Forest Service recently published results of the spring 2014 cone production data collected from mature stands of longleaf pine across the range. The data indicates that the 2014 regional cone crop will be very good. The full report can be found on The Longleaf Alliance website: www.longleafalliance.org.

By Carol Denhof, *The Longleaf Alliance*

PLANT SPOTLIGHT

{ SPURRED BUTTERFLY PEA *CENTROSEMA VIRGINIANUM* (L.) BENTH. }



Image of spurred butterfly pea plant in flower. Photo by Karan A. Rawlins, University of Georgia, Bugwood.org



Distribution map for spurred butterfly pea. PLANTS Database.

Description

Spurred butterfly pea is a trailing or climbing perennial vine. Like many other legume species, this plant has trifoliate leaves with 3 leaflets. The leaflets are ovate to lanceolate in shape and can grow up to 7cm in length. Small, rough hairs can be found over the whole plant. The typical pea flowers emerge during the summer from June till August. The flowers are blue to lavender in color with a white center and back. The fruit is a long, slender legume that measures 7-14 cm in length and 3-4mm in width. When ripe, the pod twists upon opening to expose as many as 20 seeds per pod.

Distribution & Habitat

Spurred butterfly pea is normally found in woodlands with more mesic soils. You normally do not find this species in dry sites such as Sandhills, oldfields, and roadsides. The overall distribution ranges from Delaware to Missouri, south to Florida and Texas.

Wildlife Uses

The seeds of this vining legume provide a good food source for bobwhite quail as well as other songbirds. Deer will also feed on the foliage of spurred butterfly pea.

Other common species

Centrosema virginianum is often found growing along with a similar legume called Atlantic pigeonwings (*Clitoria mariana*). The texture of Atlantic pigeonwings is different in that the leaves have a thicker feel than the spurred butterfly pea. Also, the spurred butterfly pea is more vining than the Atlantic pigeonwings that has a more erect growth habit.

Commercial Availability

Plants of this species are hard to find in the nursery industry. However, Roundstone Native Seed is now selling southeastern ecotype seed of spurred butterfly pea. This is a great legume species to include in restoration seed mixes.

References

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By Doug Lurie, Alabama Private Landowner

A LANDOWNER'S PERSPECTIVE YOU CAN DO IT

One year old longleaf pine seedlings. Photo by Doug Lurie.

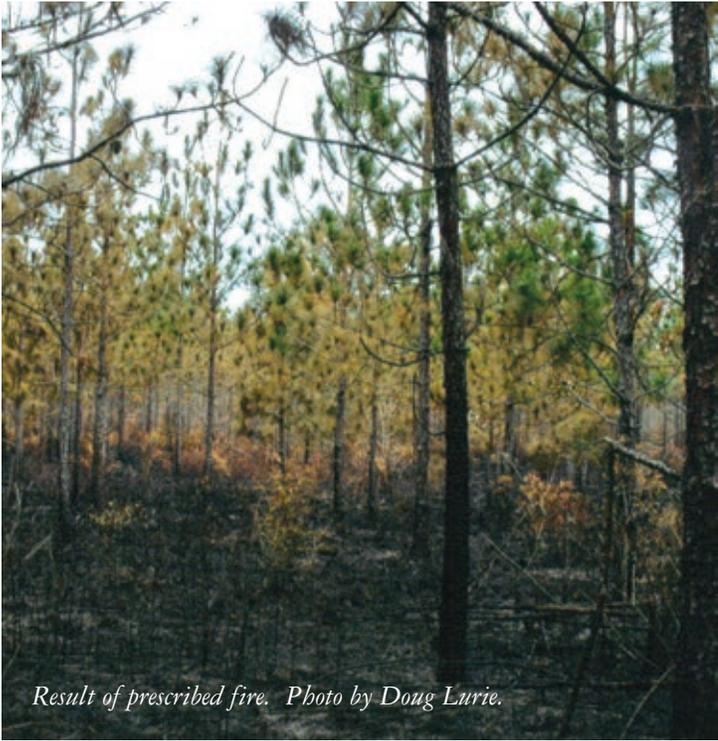
We used to own a business in Mississippi that we visited several times a year. One of the highlights was a nice restaurant, where the specialty was grilled pompano they had flown in from the Gulf coast. It was wonderful.

One day it occurred to me that with all the time I spent on the beach, I could catch my own pompano and enjoy them more often. It turns out to be the same with prescribed burning-- YOU can do it!

After depending on the Alabama Forestry commission for several years I realized I could do my own burning. It is serious business but it is not rocket science. With proper training and certification, landowners are able to learn how to effectively manage their lands with fire. Most landowners that do their own prescribed burning have an advantage in that they have the luxury of waiting for optimal conditions. Consultants that burn every day of the season sometimes have to work under less than ideal conditions because they have multiple tracts lined up to burn. Everything works better when all conditions are right. The key to a successful burn is following all the rules and cautions. Remember, "My fire, My smoke, My problem". With a well thought out burn plan and a successful prescribed fire, the results will make a landowner happy and proud. What else can you do as a steward of your own land that is better than prescribed burning?

Last year I attended a field day at an award winning farm not too far away from mine. The nice energetic landowners had a beautiful tree farm. During the tour, I did not see any evidence of prescribed burning. I asked, and the reply was they had done site prep burn on a 10 acre site, and that was the extent of their burning. They bush hogged, hand trimmed, and used chemicals that achieved good results, but the work was very labor intensive and expensive. All of these accomplishments could have been done in 1/10 the time and expense if they had used prescribed fire.

At one time the Certified Burn Manager course was expensive and you had to travel long distances to take it. Not so any more. Through the collaborative efforts of the Alabama Forestry Commission, NRCS and other agencies, the course is available several times a year in different locations. It is beneficial to take the course whether you are going to conduct your own burning or not. You will have a much better understanding of what is going on when the smoke is rising above your beautiful forest.



You may have heard the line, “I am from the government and I am here to help you.” From a silvicultural standpoint it is true. The Alabama Forestry Commission, NRCS, FSA, US Forest Service, NOAA, and the US Fish and Wildlife Service all have beneficial programs, monetary assistance, and plenty of good technical advice at your disposal. Use them and appreciate them. The Longleaf Alliance, Alabama Wildlife Federation, The Nature Conservancy, National Wild Turkey Federation, Quality Deer Management Association, and others also offer plentiful assistance. Presently I am participating in the Conservation Stewardship Program through NRCS (Natural Resources Conservation Services) that rewards me for prescribed burning and other conservation practices. I have planted about 200 acres of longleaf pine through WHIP and EQIP programs from NRCS since 1998. I would urge you to look into the many incentive programs and types of assistance that are available to private landowners managing longleaf. Additionally, when you work with partners and neighbors, you may find yourself with more time to fish, hunt, and enjoy your land.

Good luck and enjoy the results of controlled, prescribed fire on your land!

“Doug’s frequent use of prescribed fire has not only benefited his longleaf, but also the wildlife, including gopher tortoises, and pitcher plants. As a landowner, he sets an example of stewardship that has improved his timber and benefited the entire ecosystem.” commented Ryan Mitchell, Outreach and Technical Assistance Coordinator for the Alliance.

Palamedes Swallowtail is shown nectaring on Pineland Milkweed (Asclepias humistrata). Photo by Mary Ann Friedman

RECOMMENDED POLLINATOR PRACTICES

By Ad Platt, The Longleaf Alliance

from the Natural Resources Conservation Service

If you are like me, and have just read the article by Nancy Adamson and Blair Sampson about pollinators, you may also be wondering - how do I get started on my own property? If you are interested in promoting pollinators on your land, there is a lot you can easily do to achieve these management objectives. There is also help available in the form of incentives as well as technical assistance.

One source of potential assistance is through your local NRCS (Natural Resources Conservation Service) office. The NRCS has long recognized the importance of pollinators to our nation's biodiversity and also to our food security, understanding that fully a third of the food we eat is dependent upon animal pollinators, like bees, butterflies and moths, birds and bats, and beetles and other insects. Bees are disappearing, and bats are in decline due to habitat loss, disease, parasites, and environmental contaminants. Because over 2/3 of our fish and wildlife habitat occurs on private lands, it is important for NRCS in ranking applications to focus on assisting projects that can promote healthy populations of pollinators. Language in the Farm Bill makes pollinator habitat a priority for NRCS staff. Landowners who create or improve pollinator habitat as part of the EQIP program receive special consideration for



Frosted Elfin is shown on host plant Sundial Lupine (Lupinus perennis). Photo by Mary Ann Friedman

financial incentives. The Conservation Stewardship Program (CSP) provides incentives and technical assistance on a nationwide basis for landowners improving pollinator habitats.



*Juniper Hairstreaks are a pair in copula on their hostplant Red Cedar (*Juniperus virginiana*). Photo by Mary Ann Friedman*

The NRCS Plant Materials Program provides recommendations on plants that will enhance pollinator populations. These wildflowers, trees, shrubs and grasses are being used as part of the conservation practices that landowners install in their conservation plans.

Some important recommendations to consider include the following, gleaned from several NRCS pollinator webpages:

1. Know your own property and the habitats intimately. Know what is beyond your fence also.
2. As you learn where your pollinators live and forage, protect those sites from disturbance and pesticides.
3. Minimize tillage. Most of the best pollinators live underground for much of the year, often at the base of their food plants. Avoid turning over soil unless necessary.
4. Plant hedgerows and windbreaks with a variety of flowering plants, and protect natural areas. Abundance and variety throughout the year matter.
5. Allow crops and garden plants to bolt, providing additional food sources for pollinators.
6. Create bee blocks (tunnels drilled into wood or bamboo) to add additional habitat. Hang in sunny, dry locations.
7. If you must spray, use the least harmful formulations (granules or solutions). Spray on calm, dry evenings when bees are not active. Off-target drift can kill pollinators on nearby flowering plants, even beyond your boundary.

Who else can help? NRCS is one of 150 partners in the North American Pollinator Protection Campaign. This alliance coordinates activities related to pollinator research, conservation, education and policy. The US Forest Service, The US Fish and Wildlife Service, and many other partners have their own sites.

And we would also recommend to all: learn more about healthy understory conditions by taking the Longleaf Alliance Understory 201 Academy.

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Renaissance Riverview Plaza Hotel

The Longleaf Alliance is returning to Mobile, the site of our first regional conference, to celebrate 20 years of accomplishments and to honor those partners who have made it all possible. We are pleased to be hosting this year's conference in conjunction with the Eastern Native Grass Symposium.



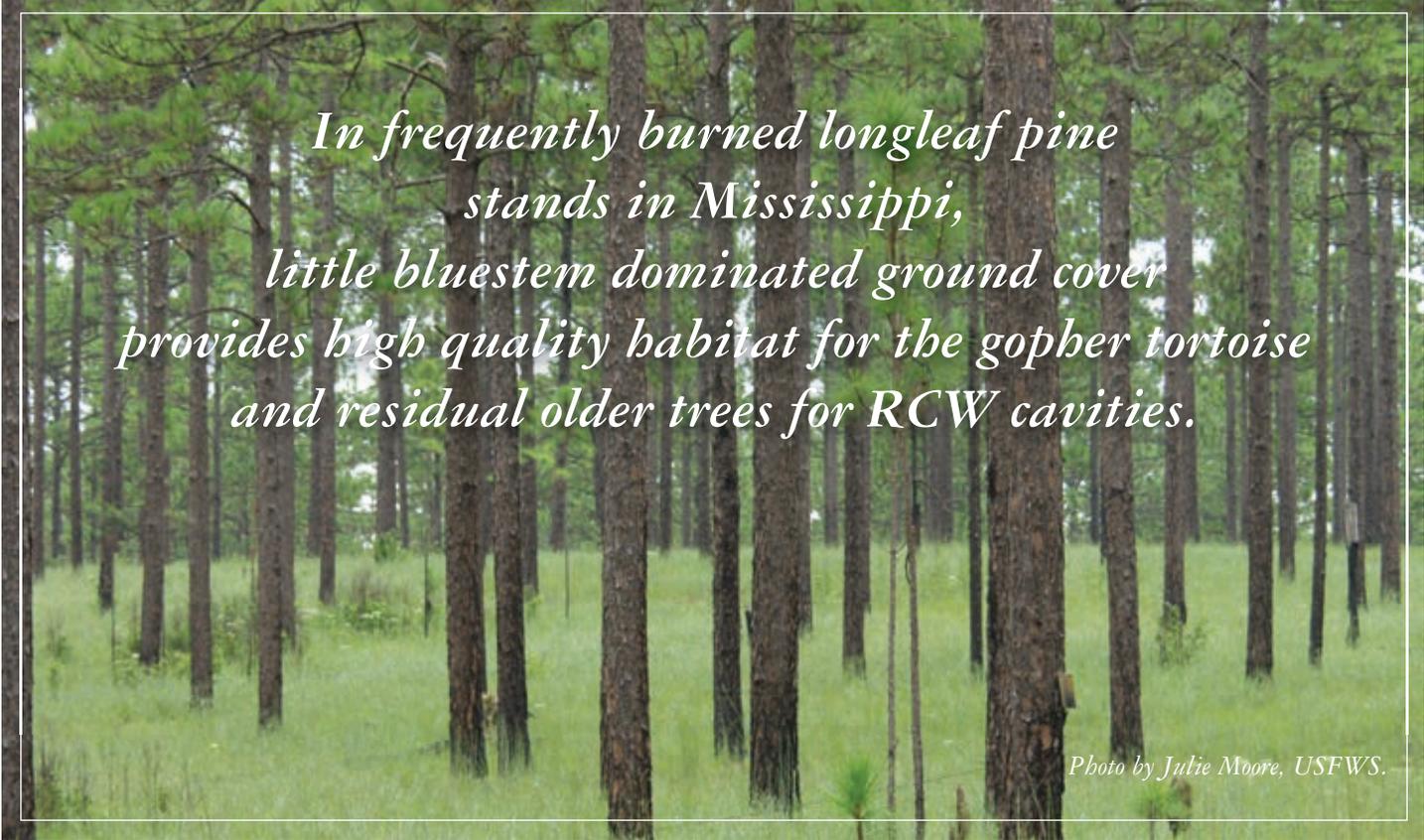
Cohosted by
The Longleaf Alliance and
The Eastern Native Grass Alliance

For more information and to register for the conference, visit The Longleaf Alliance website www.longleafalliance.org



Harboring Endangered Species: Longleaf & the Safe Harbor Program

By Julie Moore, US Fish & Wildlife Service



In frequently burned longleaf pine stands in Mississippi, little bluestem dominated ground cover provides high quality habitat for the gopher tortoise and residual older trees for RCW cavities.

Photo by Julie Moore, USFWS.

In the grassy ground cover beneath majestic longleaf pines, an ancient looking gopher tortoise rambles looking for a meal. He has been wandering these open, piney woods enjoying the tender vegetation that often follows a burn. He stays in the woods as long as there is tasty vegetation to eat and, on occasion, is known to wander the roads, perhaps looking for other tortoises. The damage done by Hurricane Katrina limited his travels for a while as did the salvage operations. This old tortoise has the good fortune to live in a longleaf pine forest covered by a Safe Harbor Agreement (SHA) that benefits both him, and the property's owner. And because the property is enrolled in a SHA, the owner isn't concerned about red-cockaded woodpeckers (RCWs) moving into the old longleaf and loblolly pines.

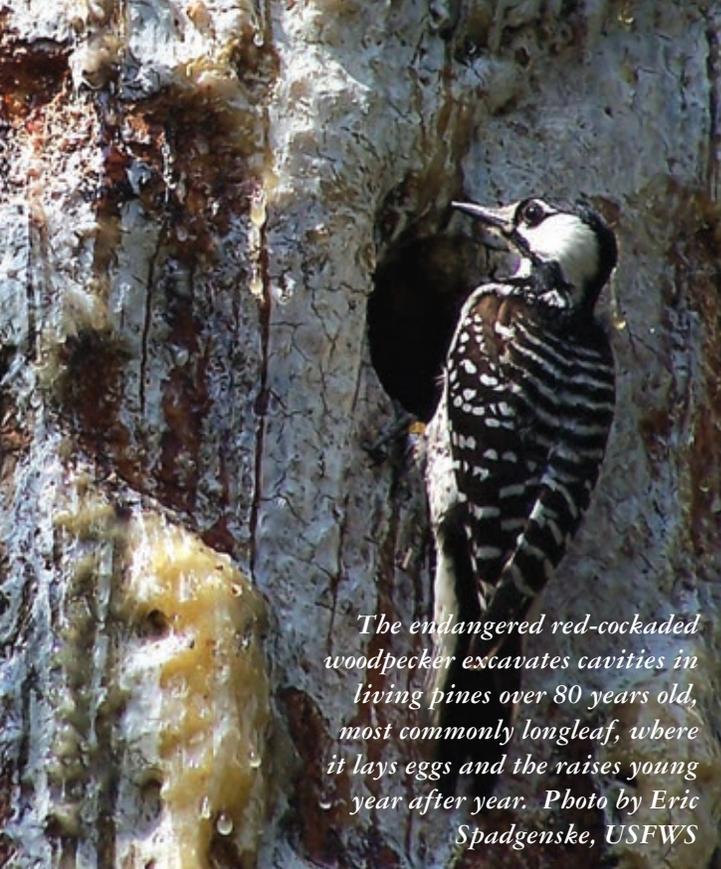
SHAs are voluntary agreements with the US Fish and Wildlife Service (USFWS) that provide regulatory assurances to landowners who aid in the recovery of species listed under the Endangered Species Act. Landowners voluntarily agree to implement management actions that will contribute to the

recovery of listed species for a specified period of time and collaborate with the USFWS to develop a management plan.

In return, the landowner receives regulatory assurances that he or she can at the end of the agreement alter or modify property enrolled in the SHA and return it to originally agreed upon "baseline" conditions, even if this means incidentally "taking" the covered species. Any take caused by agreed upon management actions is also covered by the enhancement of survival permit issued to the landowner.

Participation can be by any non-Federal property owner including corporations and communities. Whole parcels or portions of a property may be enrolled in a new individual or an existing programmatic SHA designed for a region or an entire state and administered by a state, local agency or other entity.

Over 560 landowners in 23 states are enrolled in 94 active SHAs on private, tribal, and state lands which address the habitat needs of 83 species listed as threatened or endangered, most of which have special requirements and require active



The endangered red-cockaded woodpecker excavates cavities in living pines over 80 years old, most commonly longleaf, where it lays eggs and the raises young year after year. Photo by Eric Spadgenske, USFWS



Regular burning of pine stands controls encroaching hardwoods and evergreen shrubs that can quickly create a dense thicket which shades out the herbaceous ground cover that tortoises feed on, and if hardwoods grow into a dense midstory, the RCW has difficulty reaching its cavities. Photo by Randy Browning, USFWS

Take is defined in the Endangered Species Act as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect any threatened or endangered species or to attempt to engage in such activities.

Safe Harbors provide habitat for 24 bird, 21 fish, 5 amphibian, 7 mammals, 4 mussels, 8 butterfly, 2 insect, 2 reptile, 1 crayfish, and 9 plant species.

management like control of invasive species. Properties in these SHAs vary in size from less than an acre to more than 1.5 million and total over 4.4 million acres and 213 linear miles of waterways.

The nation's first SHA was developed in 1995 by the USFWS and the Pinehurst Golf Club for the RCW in the North Carolina Sandhills. Its success has inspired seven state-wide, one regional, and several individual agreements specifically for the RCW. Over 370 landowners from southeast Virginia to east Texas have enrolled approximately 2.5 million acres of pine forest habitat, mainly longleaf, in programmatic SHAs to benefit this endangered bird. And the bird has responded with a 15% increase in groups of birds on these SHA properties since 1995.

Well-managed southern pine forests are by definition good candidates for SHAs. The SHA will describe the specific habitat requirements for longleaf denizens: RCW's need open pine forests with old living trees, while gopher tortoises prefer grassy ground cover and sandy soils to dig burrows. The landowner will need to maintain, or restore, these conditions by frequent burning, hardwood control, and carefully planned timber harvests that allow sunlight to reach to the ground and promote natural regeneration of pines.



The gopher tortoise is an ESA threatened species west of the Tombigbee - Mobile River in south Alabama, Mississippi, and Louisiana; it is a candidate for listing from the Tombigbee east to southeastern South Carolina. Photo by Randy Browning, USFWS.

Landowners in the southeast say that:

- Safe Harbors are good management and good business.
- A Safe Harbor is heading off problems before they occur.
- Safe Harbor Agreements are not onerous when good forest management is practiced.
- Safe Harbor removes liability for encouraging growth of the woodpecker population.

If you want to learn more about SHAs, contact your State Wildlife Agency or the regional office of the US Fish and Wildlife Service.

By Mike Black, National Bobwhite Conservation Initiative

News from the Longleaf Partnership Council

“ ACCOMPLISHMENTS AND CHALLENGES ”

In my view, the recent Longleaf Partnership Council meeting held in Biloxi, Mississippi was a turning point in the evolution and maturation of the effort to restore longleaf across the historic range. The early seeds were planted nearly 30 years ago and have ramped up at an ever increasing pace. A major initiative has been launched with the key components of the America's Longleaf range wide plan, updated strategic actions and priorities, the creation of a functioning partner forum with the Longleaf Partnership Council, a well organized Federal Coordinating Committee and a significant funding base with National Fish & Wildlife Foundation (NFWF), Southern Company, International Paper, and others that provide the dollars to make it all happen. Of top importance are the Local Implementation Teams that transfer objectives and dollars to work on the ground.

Because of the effort, the excellent funding and hard work at all levels, we have stopped the loss of overall longleaf acres and are now working towards meeting our restoration goals. The recent 2013 Range-wide Accomplishment Report outlines this success in detail, along with some challenges that lie ahead. Additionally, we are taking time as a group to promote our success to date with a series of 5 year celebrations coming up in Washington, D.C. as well as during the joint fall meeting of The Longleaf Alliance, Eastern Native Grass Alliance, and the Longleaf Partnership Council later this year.

So what are the challenges that lie ahead? In my mind we are at a turning point and it is time to adapt in order to continue to move forward with longleaf restoration.

First, we need to develop an effective communications strategy to effectively attract funding, set policy and accomplish efficient work on the ground. This effort is much more than a mere plan and a workshop was held the last week in May with the Longleaf Partnership Council in Atlanta to move forward with this project.

Secondly, we have to retain our current funding and also be constantly searching for new and innovative funding sources to

continue our restoration. Every time we plant additional longleaf acreage, we also have an inherent commitment for management of those acres with fire, invasive species control, etc. Therefore our management efforts increase in terms of acres treated on an annual basis and that leads to increased funding needs.

Third, we have made significant gains in longleaf restoration including identification of sites, thinning, prescribed fire, and understory treatments, but most of this work to date has been with the larger landscapes on public lands. Often there are dedicated resource managers already on site, prescribed burn crews, economy of scale and management objectives in place to move dollars to the ground for restoration and planting. Indeed, these areas were strategically targeted for management based on our restoration plan and objectives, including the focus on Significant Geographic Areas (SGAs). However, our greatest opportunity is on the landscape of private land with exponentially greater challenges particularly with the use of prescribed fire and economy of scale with all land management activities. I believe this is our greatest challenge in the future.

Fourth and finally – we need to be vigilant and mindful of both apathy and fatigue. Ignoring these symptoms can result in a decrease in momentum and subsequent restoration. Some individuals and organizations will see the increase in longleaf acreage as a success and can justify moving on to other challenges. Additionally, many that have worked tirelessly in this effort at all levels are often working based on passion and personal interest – far above and beyond what is funded or expected from their agencies, organizations and teams. It is important that we recognize these individuals, agencies and organizations for their efforts, and also continue to bring in new members with fresh ideas and interest to the Longleaf Partnership Council and the Local Implementation Teams.

A lot has been accomplished, but we must adapt to the new challenges that lie ahead.

Texas Longleaf Implementation Team Reaching Out to Landowners

By Kent Evans, Texas Longleaf Implementation Team



The Texas Longleaf Implementation Team hosted Mark Hains of The Longleaf Alliance for a workshop in May that allowed for small group discussions about specific silviculture challenges faced in restoring longleaf within the Longleaf Ridge Significant Geographic Area (SGA). Landowners are looking for guidance to reduce competition from yaupon and sweet gum using a variety of methods such as herbicides and prescribed fire. Others are looking for strategies to thin mature slash stands and then underplant with longleaf.

Texas Parks and Wildlife Department has been active in providing technical assistance to landowners, site visits, and financial assistance for practices such as burning, establishment, and stand enhancement. Agency biologists established monitoring plots and are tracking vegetation response to restoration treatments. They also set up annual bird census plots and have documented population increases from Bachman's sparrows in response to the ecosystem restoration efforts on private land.

In 2013, the U.S. Fish and Wildlife Service's Partners for Fish and Wildlife Program and The Longleaf Alliance initiated a cooperative agreement for 475 acres of longleaf pine restoration, 323 acres of longleaf pine enhancement, and 35 acres of associated riparian habitat enhancement. Work is underway over the term of this multi-year project which will focus on landowner actions within the Big Thicket SGA (195 acres) and the Longleaf Ridge SGA (638 acres).

Mississippi Longleaf Implementation Team Promotes Prescribed Fire

By Tamara Campbell, Mississippi Department of Wildlife, Fisheries & Parks



Prescribed fire workshop in south Mississippi. Photo by Melissa Moore.

The Mississippi Longleaf Implementation Team collaborated with the Mississippi Prescribed Fire Council to develop the important message of the relationship between longleaf restoration and prescribed fire. The Council conducted prescribed fire workshops in south Mississippi, where private landowners were introduced to prescribed fire ecology, fire weather, liability, and ignition techniques. Interested landowners were able to actively participate in a prescribed fire demonstration. Additional prescribed fire workshops for landowners are planned for this year.

The Fire on the Forty Program has continued to provide cost share to qualifying properties in focal counties, and to date has helped private landowners implement prescribed fire on more than 10,000 acres in south Mississippi.

Our statewide team meeting was held on May 1, 2014 in Hattiesburg, MS. Highlights of this meeting included: (1) Chris Erwin, Southeast Regional Director for American Forest Foundation, presented an update on the Piney Woods Project of MS; (2) Leah Bray of Natural Capital Development, Inc. made a presentation and answered questions on the Gulf Coast Fire Cooperative proposal submitted under RESTORE; and (3) the team discussed preparations for submission of the 2014 America's Longleaf Restoration Initiative Annual Range-wide Performance Report.

For more information about the Mississippi Longleaf Implementation Team, or to be added to the email notification list, contact Jim Hancock, Mississippi Forestry Commission, jhancock@mfc.state.ms.us or 601-720-0238.

GCPEP Partners Support Navy Burn

By Vernon Compton, *The Longleaf Alliance*



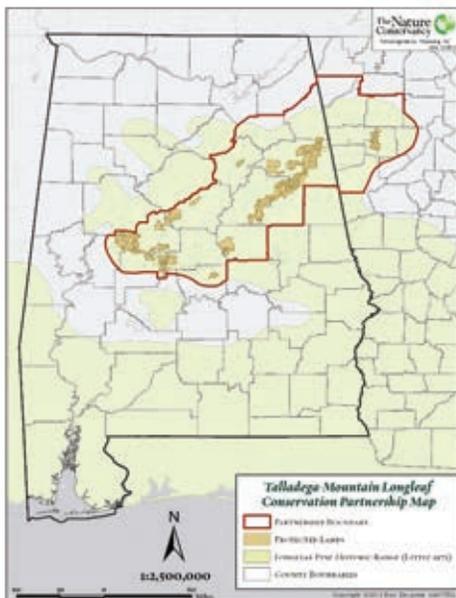
*Test fire for north unit of Navy prescribed fire.
Photo by Kurt Buhlmann.*

Planning a prescribed fire in a sensitive area often means one has an extremely limited number of acceptable fire days in a given year to accomplish the project. Taking advantage of such days is important if you hope to keep natural communities in a healthy fire rotation. One such prescribed fire was recently conducted in the Gulf Coastal Plain Ecosystem Partnership (GCPEP) landscape under the leadership of the Navy. One of the Out Lying Fields (OLF), OLF-Harold, is surrounded by Blackwater River State Forest. The Harold Field is an extremely busy helicopter training field. Because of its mission of importance, a prescribed fire was conducted on a federal holiday when the field was not in use. 272

acres were burned with a crew consisting of Naval Air Station (Pensacola and Whiting Field) natural resources staff, Gulf Islands National Seashore fire staff, members of the Harold Volunteer Fire Department, the NAS-Whiting Field Fire Department, Kurt Buhlmann with the Savannah River Ecological Laboratory, and the GCPEP Ecosystem Support Team (EST). All five members of the EST participated in the burn along with two pyro-tourists visiting from Washington state. The main objective for the burn was to continue with a 3-4 year fire return interval, thus improving overall habitat condition. The significance of the support provided by the EST is highlighted by Mark Gibson, Navy Natural Resources, "The Ecosystem Support Team is a Force Multiplier. Their wildland fire support to the Navy is exceptional. They are quick responding, professional, customer-focused, and safety-minded. They bring regional and national expertise to the ground level that has greatly increased our knowledge level and enhanced the ability of our natural resources to support the military mission. GCPEP and the EST have become our 'go-to' partner for wildland fire support."

Talladega-Mountain Longleaf Pine Conservation Partnership Defining Goals

By Keith Tassin, *The Nature Conservancy*



Map of Talladega-Mountain Longleaf Pine Conservation Partnership area.

The Talladega-Mountain Longleaf Pine Conservation Partnership was formed in April of 2013 and includes a large landscape from just southwest of Birmingham, Alabama to just northwest of Rome, Georgia and contains most of the montane region of longleaf pine. These unique habitats occur on the steep, rocky south and west facing slopes in the Southern Ridge and Valley. The steering committee and working groups are currently working to define goals and strategies for three primary focus areas within the project area. The primary focus areas include and seek to increase the restoration footprint of lands already in public ownership that are being managed for longleaf pine forests. Partners in this effort include The US Forest Service, US Fish and Wildlife Service, the Natural Resource Conservation Service, the Alabama Forestry Commission, Alabama Department of Conservation and Natural Resources, Georgia Department of Natural Resources, Jacksonville State University, and Berry College. Other valuable partners are The Nature Conservancy, The Longleaf Alliance, the Alabama Wildlife Federation, The National Wild Turkey Federation, and others. The partnership is currently seeking funding to hire a coordinator to implement on-the-ground projects and increase public outreach and education.

Apalachicola Longleaf Implementation Team (LIT) Members Hear the Vision and See the Results

By Brian Pelc, The Nature Conservancy



ARSA members pose for an Earth Day photo outside of Pitt Springs. This restoration project combines native habitat improvements with improved public access. Photo by Brian Pelc.

For over a decade, Apalachicola Regional Stewardship Alliance (ARSA) members have been getting together twice a year. These meetings give folks on the front lines of land management a chance to socialize and hear the regional agency news on longleaf pine.

ARSA members recently discussed the LIT's National Fish & Wildlife Foundation (NFWF) grant and the work already accomplished: 640 acres restored on two member properties as well as updates on upcoming longleaf private landowner workshops; invasive species control efforts; and the 2015 NFWF Longleaf Stewardship Fund proposal. Staff from the Water Management District also prepared facilitated discussions on an economic analysis of the 2012 and 2013 sandpine to longleaf conversion project on District properties in the area, and a proposed groundcover cooperative. In the same spirit of sharing

and crossing boundaries, this cooperative would screen surplus native seed mix for potential use on partner properties.

ARSA membership meetings generally wrap up with a guided tour of management work on the host property. Tour elements included a visit to the new NFWF funded longleaf site, several restored public access natural springs, and an 80 year old longleaf site. The next ARSA membership meeting will be in early October.

CFLCP Outreach Programs Reach Diverse Audiences

By LuAnn Craighton, Chattahoochee Fall Line Conservation Partnership



Prescribed fire lecture at the Columbus Museum. Photo by Amanda Snow

Recently, the Chattahoochee Fall Line Conservation Partnership (CFLCP) has worked collaboratively with several other organizations to conduct programs targeting a variety of audiences in the metropolitan Columbus, Georgia area. The purpose of these efforts is to expand the exposure of Columbus residents to the longleaf pine story.

A program entitled: "Fire in the Forest: Why prescribed fire is used in the Chattahoochee Valley" was presented by Malcolm Hodges, ecologist with The Nature Conservancy, as an evening lecture at the Columbus Museum. Despite the threat of snow and ice, over 85 participants attended the lecture.

"Nature on Fire," a family- focused event, was developed in collaboration with Oxbow Meadows Environmental Learning Center in Columbus, Georgia. The event featured: live reptile programs and agency exhibits on prescribed fire provided by Ft. Benning, Georgia

Department of Natural Resources, Georgia Forestry Commission, Southern Fire Exchange, The Nature Conservancy and CFLCP.

CFLCP also partnered with Trees Columbus to plant longleaf pine in urban locations. Elementary school students were teamed with high school servant leadership "buddies" and adult volunteers from Trees Columbus to install longleaf trees near Fox Community Center and along the Fall Line Trace (a rails to trails project). Each participating school was provided with resource material developed for students and teachers by The Longleaf Alliance to facilitate further study of the trees.



Planting longleaf in urban Columbus, Georgia. Photo by Amanda Snow

Off and Running: Ocala Longleaf Pine Local Implementation Team

By Cheryl Millett, *The Nature Conservancy*



Burning Red Cockaded Woodpecker clusters on the Ocala National Forest. Photo by Cheryl Millett.

The Ocala Longleaf Pine Local Implementation Team (OLIT) was recently organized through a January 2014 National Fish & Wildlife Foundation (NFWF) Longleaf Stewardship Fund grant. The OLIT region covers nearly 300,000 acres of longleaf pine and south Florida slash/longleaf pine habitat and encompasses critical wildlife corridors surrounding the Ocala Significant Geographic Area across north-central Florida. This region has a long history of conservation action, including the oldest and largest parcel in public ownership in Florida, the 389,000-acre Ocala National Forest, established in 1908 by Teddy Roosevelt as the first national forest in the Eastern United States. The OLIT is building

upon the already-existing Memorandum of Understanding for the North Central Florida Prescribed Fire Working Group.

A meeting in September 2013 introduced the LIT concept to the Group, collected protection priorities to contribute to a range-wide effort, and revised OLIT's boundaries. We've already hit the ground running to accomplish our goals of establishing 954 acres of longleaf pine habitat on private lands (through another grant with the Florida Forest Service), and enhancing or maintaining a total of 7,150 acres on private and public lands. By mid-April, the Northeast Florida Ecosystem Restoration Team had already conducted more than 20 controlled burns and removed non-native invasive species and encroaching sand pines. Go, OLIT, go!

Okefenokee/Osceola Local Implementation Team (O2LIT) Forms

By Alan Dozier, *Conservation Fund*

The O2LIT, initiated by The Conservation Fund and The Nature Conservancy, was formed in November 2013 with contracting of team coordinator, Alan Dozier. The team charter was approved in January 2014. Funded by a National Fish & Wildlife Foundation (NFWF) Longleaf Stewardship Fund grant, the team is funded through June 2015. Participation is high with 16 charter members and 5 partners.

Landowners in the Okefenokee/Osceola Significant Geographic Area (SGA) have been organized under the Greater Okefenokee Association of Landowners (GOAL) since 1994. GOAL has graciously accepted O2LIT as a working partner, allowing use of their organizational success to accomplish longleaf initiative goals.

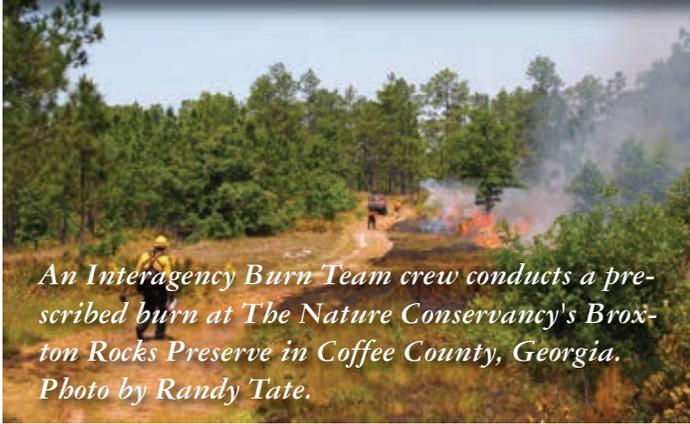
O2LIT held a meeting in February 2014 introducing private landowners to Dr. Gonzalez' growth and yield model, strategies for reducing costs of containerized seedlings and forest insurance concepts for well managed longleaf pine stands.

The second meeting of the O2LIT was held at John M. Bethea State Forest on March 18, 2014. Strategies for the Okefenokee/Osceola SGA Conservation Plan were developed at this meeting. The Conservation Plan was completed in April.

Between November 2013 and March 2014, partners in the O2LIT planted 1484 acres of longleaf and burned 41,247 acres. The SGA includes some 30,000 total acres of longleaf pine and 14,000 acres of mature mixed slash/longleaf.

The Ft. Stewart/Altamaha Longleaf Restoration Partnership Has Been Burn'n 'n Plantin'

By Randy Tate, The Longleaf Alliance



An Interagency Burn Team crew conducts a prescribed burn at The Nature Conservancy's Brixton Rocks Preserve in Coffee County, Georgia. Photo by Randy Tate.

As of this magazine's deadline, natural resource managers across the Ft. Stewart/Altamaha Longleaf Restoration Partnership (FSA/LRP) area were moving into spring burning even though vegetation "greened up" early this year. Dormant season burning has been successful across the Partnership area. The large amount of ground moisture has helped get burns in, except, of course, for when fire breaks could not be installed. Approximately 8,000 acres of longleaf pine (or areas to restore to longleaf) on private and state lands have been burned so far this season. Ft. Stewart Forestry staff have burned 91,695 acres since Dec. 1, 2013.

In other news from the FSA/LRP, 49,610 longleaf seedlings were planted in February at Magnolia Springs State Park, helping to restore an eighty-two acre tornado damaged area. The seedlings were kindly donated by the Arbor Day Foundation through a state-wide restoration project with The Longleaf Alliance. One hundred and sixteen acres of longleaf were planted at the Orianna Indigo Snake Preserve in Telfair County and 600 acres were planted at two GA DNR Wildlife Management Areas along the Altamaha River.

Sandhills Longleaf Pine Conservation Partnership – New Coordinator Position Filled in South Carolina

By Wayne Harris, US Fish & Wildlife Service



Photo of Jimmy Lisenby inspecting recently planted longleaf seedlings. Photo by Susan Griggs.

The Sandhills Longleaf Pine Conservation Partnership welcomed new hire Jimmy Lisenby on April 2, 2014. Jimmy will serve as the Partnership coordinator, providing assistance in longleaf pine management to private landowners in the local area. Jimmy began his career working with the South Carolina Forestry Commission (SCFC) as a nursery manager near Sumter in 1995 after graduating from Clemson University. In 2005, he transferred to the SCFC nursery in Trenton, SC. During his tenure as nursery manager and tree improvement horticulturist, he was responsible for growing and selling native understory species and a variety of trees, including hardwoods, loblolly and longleaf pine.

Funding for Lisenby's position was obtained from a grant awarded by the National Fish and Wildlife Foundation and is administered by the Chesterfield Soil and Water Conservation District. The grant will also provide cost share for prescribed burning and native understory restoration activities.

"Combined with USDA-Natural Resources Conservation Service and US Fish and Wildlife Service – Partners for Fish and Wildlife contracts, we have written cost share agreements to plant longleaf pine on nearly 8,000 acres of private land since 2010," commented USDA-NRCS District Conservationist Charles Babb. He added, "With Jimmy and our additional funding for prescribed burning, we have new tools

in our longleaf management toolbox for our landowners."

"I am excited to work with landowners interested in planting and managing longleaf on their property," commented Lisenby, who estimates he has grown over 30 million longleaf seedlings since 1995, "And now I'm getting to work with landowners as they restore the longleaf ecosystem with trees that I likely had in my nursery."

For more information on the Partnership or cost share assistance for landowners interested in establishing or maintaining longleaf on the property, please call 843-623-2187 x 3 or visit www.chesterfieldswcd.com/longleaf.

Sewee Longleaf Conservation Cooperative Develops Mapping Protocol

By Colette Degarady, *The Nature Conservancy*

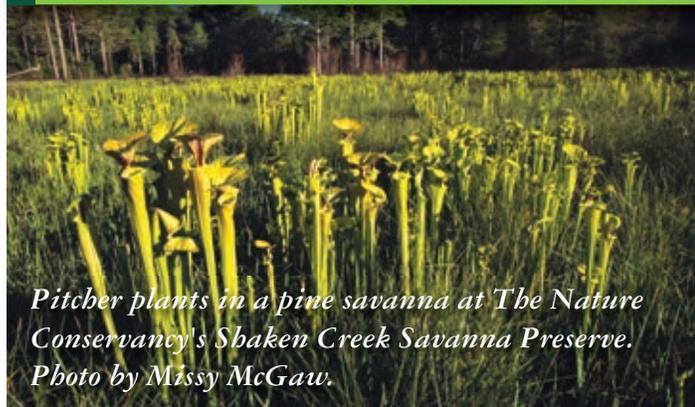


Priority mapping model used by SLCC.

The Sewee Longleaf Conservation Cooperative (SLCC) on the coast of South Carolina has developed a mapping protocol in ArcGIS to locate priority sites for longleaf restoration. In our 800,000 acre Significant Geographic Area, we targeted private lands around the 260,000 acre Francis Marion National Forest. This process uses aerial images, GAP data, Natural Resources Conservation Service (NRCS) soil data, and a pine data layer created by The Nature Conservancy through digitization. Other data considerations built into the model include percent canopy cover, existing red cockaded woodpecker clusters, and existing pine structure and maturity. Our effort has increased the knowledge of longleaf status in the area, particularly with respect to restoration potential and identification of suitable sites. The SLCC board will help decide next steps regarding the use of the data in our planning efforts for longleaf maintenance and restoration on the ground.

Onslow Bight Longleaf Implementation Team Longleaf Restoration Continues

By Hervey McIver, *The Nature Conservancy*



Pitcher plants in a pine savanna at The Nature Conservancy's Shaken Creek Savanna Preserve. Photo by Missy McGaw.

The Onslow Bight Conservation Forum partners continue to promote longleaf pine forests that gave the Tar Heel state its nickname. During the winter dormant season, longleaf restoration and prescribed burning accelerated primarily because of the critical support from National Fish & Wildlife Foundation's (NFWF) Longleaf Stewardship Program and US Fish & Wildlife Service's (USFWS) Partners for Fish & Wildlife grants. Partners burned over 5,000 acres on state and land trust lands and planted longleaf on approximately 65 acres.

The partners will meet in June to prioritize areas for private landowner outreach. We must improve our engagement with landowners to promote longleaf establishment and management. The National Wild Turkey Federation (NWTf) held a well-attended outreach workshop in 2012 where many people expressed interest in planting longleaf. The Nature Conservancy (TNC) wishes to partner with the NWTf to more directly engage landowners to enroll into EQIP farm bill programs and work with them to implement those contracts. The North Carolina Natural Resources Conservation Service (NRCS) has numerous longleaf contracts throughout the range; however getting initial prescribed burning done has been difficult. Many of the federal, state and non-governmental organization (NGO) partners are wrestling with structural problems behind the lack of fire on private lands and hope to overcome them by addressing various economic, regulatory, and technical issues.



Photo of Norah Weymouth at TNC's Shaken Creek Savanna Preserve. Photo by Jodie Lapoint.



Historical photo of Bagdad Mill.

History of the Bagdad Mill Site

By Joshua Wilks, Santa Rosa County Historian

Named after the city of Baghdad, Iraq because of its similarity of location at the confluence of two waterways - the Tigris and Euphrates Rivers in Mesopotamia - the village of Bagdad, Florida is located at the confluence of Pond Creek and Blackwater River in Santa Rosa County, Florida.

Established in the late 1820s when Native Americans still roamed the piney woods of the Florida Panhandle, the historic village of Bagdad is nestled quietly under the heavy canopy of live oaks and southern magnolias draped in Spanish moss. The village's history is told in many chapters, each tied together by the common thread of the Bagdad Mill Site - a 20-acre waterfront site where a variety of industrial activity took place for nearly 150 years. In the last decade the site has been designated as a passive recreational park, and has officially been named the Bagdad Mill Site Park—yet still remains unopened and under development.

The Bagdad Mill Site Park was once home of one of America's largest and longest-lived lumber mills. As early as the 1830s, the Bagdad Mill Site was already an active industrial site well-known throughout the American South for its production of pristine lumber. By the time of the Civil War, the mill had been operating for a generation and had established the small village of Bagdad as one of the most

important and prominent communities along the Gulf Coast. After the war, the Bagdad Lumber Mill reopened quickly because of the owner's foresight to invest in both Union and Confederate bonds.

Commonly known throughout its life as the Bagdad Lumber Mill, the operation that occupied the site for more than a century milled and shipped lumber to ports all over the world. Activities associated with the lumber mill created an infrastructure for housing, factories, exporting, and freight handling operations that sustained village residents for more than 150 years. The lumber mill remained vibrant and active throughout its life until the depletion of old growth pine and the effects of the Great Depression led to its closing in 1939. With the closing of the mill, the village of Bagdad became a ghost town with families moving away to find work and livelihoods elsewhere. Consequently, the once bustling Bagdad Mill Site was left vacant and silent for decades.

What remained in Bagdad after the mill's closing was the village's housing stock - a mix of architecture spanning a century of Creole, French, English, and Dutch influence. The village became a bedroom community for nearby Milton and Pensacola. The rich industrial, cultural, and architectural history of the village eventually led to its listing in the National Register of Historic Places in 1987.

It wasn't until the 1970s that the Bagdad Mill Site would be used again for industrial purposes when a concrete plant was established and began producing pre-stressed concrete products at the site. In the 1990s, an asphalt company used the site for production, but targeted with lawsuits for alleged pollution and destruction of protected natural resources, the company abandoned the site in 1999 because of unsuccessful attempts to acquire a submerged land lease needed for continued operation. As a part of a global settlement with the state, the company eventually donated the 20-acre waterfront tract to the State of Florida for use as a passive park, which would end its long tenure as an industrial site. Without funding or a development plan, the site remained littered with debris and abandoned buildings, and barricaded by tall fencing and locked gates for nearly a decade.

In 2005, Santa Rosa County leased the site from the State of Florida. Although it was agreed that the property would be developed for use as a passive park, two active hurricane seasons left the county with minimal resources to develop the site. In 2007, the Blackwater River Foundation and a group of concerned citizens sponsored a community-wide visioning process that identified the Bagdad Mill Site as a priority for

community redevelopment and neighborhood revitalization. Since that time, community residents have volunteered by raising money, writing grants, facilitating development plans, cleaning debris, eradicating invasive species, installing fencing, and planting trees at the site so its eventual grand opening will be graced with interpretative signage, tree-lined multi-use trails, boardwalks, piers, and picnic areas.

Today, nothing remains of the Bagdad Lumber Mill at the site except a large brick water wheel well located at the water's edge where Pond Creek meets the Blackwater River. The park boasts vistas of the picturesque watercourses and wooded islands along the Blackwater River and Pond Creek. Designated by the State of Florida as an Outstanding Florida Water worthy of special protection because of its natural attributes, the Blackwater River is one of the last remaining shifting white sand bottom river systems in its natural state in the world. Because of this and a host of other reasons, the Bagdad Mill Site Park will become a prime destination for locals and visitors to experience the area's overflow of nature, opening another chapter of history for the site and the village of Bagdad.

Santa Rosa County plans to open the park in mid-2015.



Bagdad Mill Site Park rendering. Courtesy of Santa Rosa County.

L I T E R A R Y R E V I E W

By Mark Hains, *The Longleaf Alliance*

Lyons Press published the most recent edition of Joe Hutto's book - *Illumination in the Flatwoods: A Season with the Wild Turkey*, as a 256-page paperback in October, 2006. Lyons Press publishes the works of numerous authors that focus on outdoor sports such as hunting and fishing in the U.S.

When it comes to literature about turkey hunters and turkey hunting, *Tenth Legion* by Tom Kelly is oft nominated as the definitive book in this genre. If, on the other hand, the reader hopes to learn more about the wild turkey, I would steer them towards *Illumination in the Flatwoods*. Joe Hutto provides wonderful insights into the eastern wild turkey's habits and biology. It is a testament to Mr. Hutto's writing that the initial edition was published in 1995, yet sales are still holding strong with subsequent editions.

From the viewpoint of a land manager, I have particular interest in the wild turkey's dietary preferences. A good portion of my educational and professional background is related to the botany of the longleaf ecosystem. Given the opportunity, I encourage land managers to preserve and manage longleaf forests for multiple values: economics, aesthetics, wildlife, and biodiversity.

To manage for all these values, one must be familiar with the plants of the longleaf ecosystem. After the big three plant families (grasses, legumes, asters), the Ericaceae or heath family grabs my attention like no other.

I bring this to attention because Mr. Hutto is a first-rate naturalist with an extraordinary grasp of Southeastern biota.

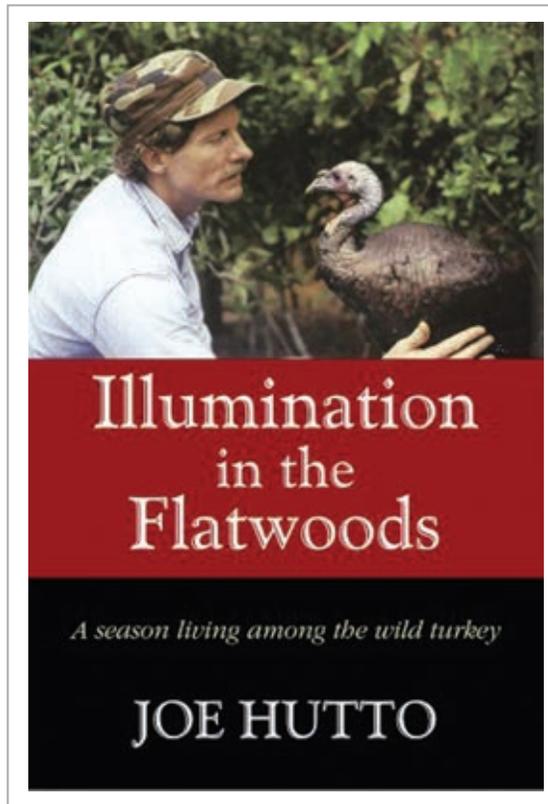
He describes many preferred foods, and he repeatedly witnessed turkeys consuming the fruit of deerberry (*Vaccinium staminium*) while following these birds through the fields and forests of north Florida.

Whether lecturing at Longleaf Academies or presenting a webinar on wildlife food plants, I often cite literature that the audience should consider adding to their library. *Illumination in the Flatwoods* is one book at or near the top of my recommended reading list.

Mr. Hutto tells a beautiful story and his personal connections to this flock remind me of my youth and attachment to an occasionally adopted wild animal.

I have always respected, and sometimes hunt the wild turkey, but after reading Mr. Hutto's book, I have a newfound admiration for the wild turkey's intelligence and curiosity. I

also have another great reason to encourage land managers to conserve the flora of the longleaf ecosystem.



By Philip Juras, Artist

LONGLEAF ART SPOTLIGHT

LONGLEAF OF WORMSLOE

As an artist inspired by ecology and history, I can think of no subject more captivating than the fire adapted landscapes that were once common in the South. Longleaf/wiregrass environments are especially rich in aesthetics with their abundant light and atmosphere, fine textured grasses, profusion of herbaceous species, and generously spaced, characteristic trees. To experience, or in this case imagine, such an environment is to journey back in time to the vast fire dependent landscape inhabited and managed by Native Americans before the arrival of Europeans.

This historic view shows the longleaf dominated woodlands and open understory that once graced the high grounds of historic Wormsloe on the Isle of Hope near Savannah, Georgia. To capture the colors and atmosphere of the marsh view, I began the painting on location at the Wormsloe State Historic Site in what today is a lawn bordered by second growth maritime forest. The longleaf forest has long since been cut. I completed it later in the studio where I added the historical elements of the longleaf ecosystem.

Longleaf of Wormsloe is part of my exploration of the South as naturalist William Bartram might have found it in the 1700s—also the subject of my 2011 Telfair Museum exhibition and

book *The Southern Frontier*. I continue to explore the presettlement history of southern landscapes, particularly those dependent on fire, and look forward to presenting this subject in October at the 10th Biennial Longleaf Conference.



Longleaf of Wormsloe, Isle of Hope, Georgia, 2012.

Oil on canvas by Philip Juras

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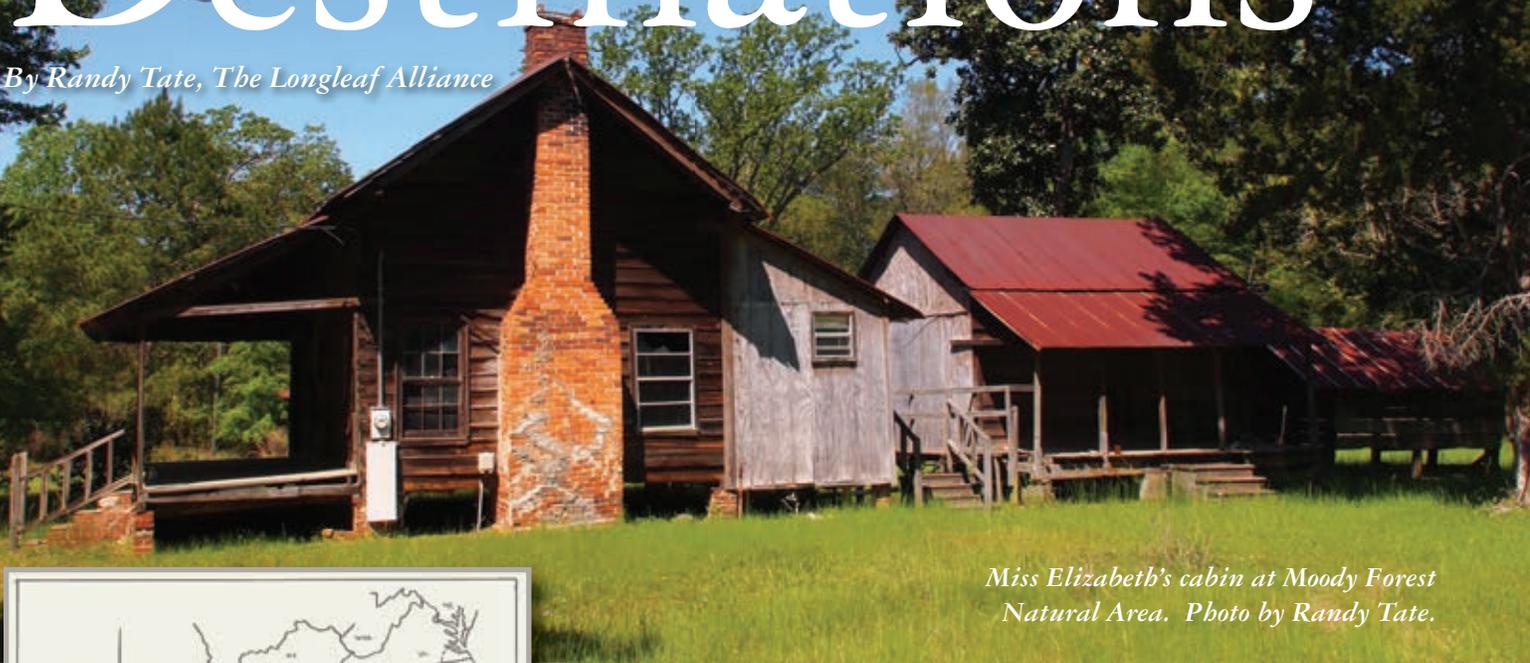
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Longleaf Destinations

By Randy Tate, *The Longleaf Alliance*



Miss Elizabeth's cabin at Moody Forest Natural Area. Photo by Randy Tate.



Moody Forest Natural Area and Southeast Georgia

A visit to Moody Forest Natural Area in Appling County, Georgia, is a trip back in time. The old growth forest there is likely what much of Southeast Georgia looked like a few hundred years ago. The 4,426 acre preserve is extremely diverse and protects both old growth bottomland hardwoods along the Altamaha River and old growth longleaf pine. These rare and unique habitats are home to many critters, including good populations of both gopher tortoises and Eastern indigo snakes. A family of red-cockaded woodpeckers makes its home in the old growth longleaf pine.

The story of how Moody Forest became protected is a good one. On the radar screen of conservationists and lovers of longleaf pine for many years, the land passed into the hands of 32 descendants of the original Moody family after the death of the final sibling. Soon after, the land sold in a sealed bid

auction in 2001, with The Nature Conservancy (TNC) the lucky bidder, outbidding a number of other buyers.

TNC then entered into a groundbreaking public/private partnership with the Georgia Department of Natural Resources (GA DNR) to own and manage the property. Two interpretive trails totaling over five miles are in place for hiking and nature study. GA DNR conducts sign-in hunts for both deer and wild turkey seasonally. (Dates are limited for hunting; please check the GA DNR website for season information.)

Just eight miles south of Moody Forest, Baxley, GA, is home to the Baxley Tree Fest each April. The Tree Fest honors Baxley's role in the timber industry. There is a long history of growing and harvesting timber in southeast Georgia. Additionally, there was a strong naval stores industry here. Many of the longleaf and slash pines at Moody Forest have been

tapped for resin, some on three or four sides! The Baxley area also has many blueberry and strawberry farms, many of them of the “pick-your-own” variety. Visiting when those fruits are ripe is highly recommended.

For longleaf pine viewing southeast Georgia offers many stops. Across the river from Moody Forest, longleaf can be viewed along a trail at the state-owned Big Hammock Natural Area. Big Hammock protects a spectacular riverine sandhill and is designated as a National Natural Landmark by the US National Park Service. Along the coast just south of Darien, GA, you can walk a trail through coastal longleaf flatwoods at Hofwyl-Broadfield State Historic Site.

The importance of southeast Georgia to longleaf pine conservation and restoration is noted by the designation of the Ft. Stewart/Altamaha area as a Significant Geographic Area according to America’s Longleaf Restoration Initiative. The recently formed Ft. Stewart/Altamaha Longleaf Restoration Partnership brings together 12 different agencies, organizations and private entities to help conserve and restore the longleaf ecosystem in this area.

Of course, any visit to southeast Georgia is not complete without a stop in Savannah. Here, too, you can see very old longleaf. The entire campus of Armstrong Atlantic State University is an arboretum and has several large, beautiful longleaf.

The recent growth of the Savannah College of Art and Design (SCAD) has reinvigorated Savannah and there is always

something to see and do. The Savannah Music Festival (March 19 – April 4, 2015) is in its 26th year and has become world famous. Every weekend brings some sort of festival to town. And, even on a quiet night you can always enjoy great dining. Savannah has numerous restaurants, cafes, and diners that are top notch. From the top end “Local” to the “Public”, both on Bull Street, to the River Street Seafood Festival (first weekend in May), food in Savannah makes a trip here worthwhile.

All of Savannah is an urban forest. The many big old live oaks provide welcome shade for a summer stroll around the historic city. But here, you may see more longleaf pine under your feet in the floorboards of the historic buildings than over your head. Savannah, like many of the South’s great cities, was built with longleaf pine. Had they not been cut long ago, those longleaf would now be about the age of those at Moody Forest.



Juvenile great horned owl at Altamaha Wildlife Management Area. Photo by Randy Tate.



Moody Forest Natural Area sign. Photo by Randy Tate.



Street scene in Savannah. Photo by Randy Tate.

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Visit the preserve and hike the trails of the 4,426 acre wilderness. Old-growth longleaf and slash pines rise to guard the misty waters of the Altamaha River as it carves through cypress & tupelo swamps. Sunshine filters through dogwoods and basket oaks, tossing light and shadows on fallen leaves. The sounds of nature are constant: the low call of wild turkeys, the echo of red-cockaded woodpeckers at work and the wind in the high canopy of longleaf pines.

View from Mobile Bay looking towards downtown Mobile, AL. Photo courtesy of Mobile Convention & Visitors Bureau.

SUPPORT THE ALLIANCE

By Tom Livers, *The Longleaf Alliance*

Going, Going, Almost Gone

The 10th Biennial Longleaf Conference held jointly with the Eastern Native Grass Symposium will convene in Mobile, Alabama October 21-24, 2014. We are meeting at the Renaissance Riverview Plaza Hotel in historic downtown Mobile (which was the site of the first biennial conference) to celebrate 20 years of accomplishments and to honor those partners who have made it all possible. We are honored to be hosting this year's conference in conjunction with the Eastern Native Grass Symposium. On-site registration opens on the afternoon of October 21st and the conference kicks off with a Welcome Reception at 6 p.m. The conference agenda is packed with multiple tracks covering a broad scope of longleaf and grassland topics. Two special tracks focus on landowner topics, both basic and advanced, which you will not want to miss. The silent auction will be held each night, and on Wednesday evening, a poster reception is scheduled. A special all-day field

trip is planned for Thursday, with a waterfront dinner in the evening. Friday morning sessions will feature regional and nationally-known speakers. Exhibitors will be available to meet and talk with attendees about their products and services throughout the conference. The Palustris Hospitality Suite, open each night till 10:00, will give the opportunity for networking with other attendees.

"Going, going, almost gone" is your chance to be a sponsor. We are anticipating approximately 350-450 attendees, and are seeking sponsors to help underwrite the conference. All sponsors will be recognized in the conference program as well as on the Longleaf Alliance website and in *The Longleaf Leader* winter edition that reaches over 2,000 readers. If you want to find out more or wish to become a sponsor, please contact me at 334-427-1029 or tom@longleafalliance.org.

Last but not least, I want to express my sincere appreciation to all the new supporters who have joined and helped us move the needle further toward the goal of 1,000. If you know of anyone who is passionate about longleaf, please give them the enclosed supporter form or perhaps you could gift them with a membership in their honor. You know how important it is to have a large supporter base from which we can reach out to more people about the joy of being involved with the longleaf ecosystem and the pleasure of seeing the wildlife and understory plant life flourish.

As a Longleaf Alliance ambassador, you can help tell our story of the longleaf ecosystem by following our Facebook page. Post your story and encourage your friends, family and co-workers to follow us too. It would be fantastic if we had 2,000 or more Facebook friends. And as always, thank you for your steadfast support of The Longleaf Alliance.

Welcome to our Newest Supporters!

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By Latimore Smith, *The Nature Conservancy*

RUMINATIONS FROM THE WEST:

exploring the meaning of “Longleaf Pine Restoration”

Latimore Smith at McCulla Field Project Area. Photo by Bill Rivers

I think a lot about habitat restoration. As the Director of Stewardship and Restoration Ecologist with The Nature Conservancy in Louisiana, one of my principal jobs is to figure out how to restore the habitats and species found on our lands. One of those habitats, and unequivocally one of my greatest passions, is the longleaf pine ecosystem (like Rhett says: “But honey, I love you more than loblolly”; a funny story for another day).

What do we mean when we say longleaf pine restoration? The word “restoration” in its most basic sense means putting something back the way it once was. To put something back the way it used to be obviously means that something has been changed. How much it’s been changed can be a little or a lot. In the case of longleaf pine, the changes from original conditions can vary from relatively minor deviations in remnant longleaf forests, to absolute elimination of any vestige of the original forest (such as agricultural fields). An example of the former would be longleaf pine forests present on many National Forests in the southeast. Even these best examples that either

regrew from seedlings left behind after virgin forests were harvested, or were planted in early reforestation efforts, are different from the original forests. These differences are due mainly to the lack of old trees and a heavy understory of brush uncharacteristic of the original habitat.

When we’re talking about longleaf pine restoration, the most basic definition may be to regrow longleaf pine where it once grew. However, I don’t think many of us promoting the recovery of the once great longleaf pine forests, woodlands and savannas of the south believe that we should stop with just planting trees. While the tree is absolutely the cornerstone of the system, and much loved by many for its regal stature and unrivaled heartwood (among myriad other reasons), there is much more to this incredibly diverse habitat than trees.

That leads me to a very important point that needs much more attention in our restoration efforts: replanting an agricultural field with longleaf pine and a few grasses/forbs, while certainly a worthy endeavor, does not have near the relative “restoration value” as rehabilitating an existing but

altered forest that used to be longleaf but now is dominated by other trees. Remnant but altered forests that were never converted to agriculture typically support a variety of desirable native ground cover species, present as living plants and seeds in the soil, whereas agricultural fields have very few if any still present. Restoring remnant altered forests will usually result in a much more diverse groundcover than is possible in an agricultural field without exceptional effort. In addition, remnant altered forests often still support other important native species groups, such as reptiles, amphibians, and invertebrates.

Actually, it seems to me the concept of restoration in any natural system may be thought of as a spectrum. This spectrum ranges from the simplest step of reestablishing only the few species that once dominated (e.g., longleaf pine and wiregrass or little bluestem), all the way to replicating the full range of structure (e.g., tree stocking density, age/size class distributions, amount of shrub cover, etc...) and composition (both plants and animals) that historically characterized the system in any

area. And what can be restored and at what cost will be dictated by the starting conditions of the area. Generally, the more altered the area, the greater the cost to restore a relatively diverse longleaf forest, woodland or savanna. The cost to “restore” depends on what the land owner/manager ultimately desires from the land. The gamut of desires is the primary driver of restoration decisions made by each land owner/manager.

Based on my experience, most landowners/managers interested in restoring longleaf pine have multiple desires for the forest they envision, and most contemplate an eventual monetary return. Carefully implemented revenue producing activities (e.g., timber, pine straw production) can provide income and accommodate many desirable amenities. However, accommodating the full range of species historically native to any place requires a very disciplined management scheme that does minimal damage to the soil and the low plants growing on it, the understory plant layer.

There's much more to explore about longleaf restoration, but that'll have to wait until another time....



Road Savanna preserve/restoration project in SW LA showing an “explosion” of flowers in October following an early June burn of that year. Photo by Latimore Smith.

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OCTOBER 21-24, 2014 MOBILE, ALABAMA
Renaissance Riverview Plaza Hotel

The Longleaf Alliance is returning to Mobile, the site of our first regional conference, to celebrate 20 years of accomplishments and to honor those partners who have made it all possible. We are pleased to be hosting this year's conference in conjunction with the Eastern Native Grass Alliance.



Cohosted by
The Longleaf Alliance and
The Eastern Native Grass Alliance

For more information and to register for
the conference, visit
The Longleaf Alliance website
www.longleafalliance.org

