



THE LONGLEAF LEADER



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THE LONGLEAF  
WOODLAND**



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ARE CREATED EQUAL.**



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**COVER** Female red-cockaded woodpecker nestling in tree cavity. Photo by Danny Bales.

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BY ROBERT ABERNETHY, THE LONGLEAF ALLIANCE



## PRESIDENT'S MESSAGE

# 2015 was a good year in the Longleaf World.

A recent publication by Anita Rose (USFS, Resource Update FS-36) entitled “Forests of South Carolina, 2013” compared Forest Inventory and Analysis (FIA) Data from 2011 and 2013. Based on 3,445 plots taken all across the state of South Carolina, it looks like longleaf/slash occurred on about 600,000 acres in 2013. What I found really interesting is the research also backed up what we are seeing all over South Carolina. The number of live longleaf trees increased 3% between 2011 and 2013 and has nearly doubled since 2001. As expected, nearly half the trees were in the smallest age class, 1-2.9 inches dbh. The report specifically mentioned that these increases are a testament to the planting efforts that have been taking place for a long time. The private landowners of South Carolina as well as the natural resource management agencies and non-profits that assist them are to be commended for this monumental effort. These increases are not just confined to this state but have occurred all across the South as we work together to restore the longleaf pine to a place of prominence on the landscape.

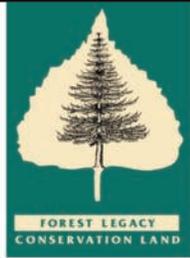
2015 was also a great year for The Longleaf Alliance (LLA). Between July 1, 2014 and June 30, 2015, we held 7 Longleaf Academies; 17 NWCG approved prescribed fire training courses, and welcomed 359 landowners and partners to the 10th Biennial Longleaf Conference in Mobile, AL. We added a Gopher Tortoise Academy, a Prescribed Fire Academy, and our staff assisted 414 landowners with technical assists. Our staff also gave 73 presentations all across the range and talked with over 2,800 partner representatives and landowners about

longleaf restoration and management. In total, over 4,300 individuals learned about longleaf through LLA staff and programs.

On-the-ground restoration also continued in 2015 where, working with partners like the USFWS, The Nature Conservancy, Arbor Day Foundation, American Forests, The National Fish and Wildlife Foundation, International Paper, The Southern Company, and the Department of Defense, we were able to help public and private landowners plant nearly 3 million longleaf seedlings and prescribe burn almost 70,000 acres of piney woods.

This past year, we also introduced a new method for those individuals capable of contributing significant financial resources to longleaf restoration to do more. The Palustris Society was founded by several of our board members who wanted to do more to conserve this great southern forest. Those individuals willing to pledge donations of \$10,000 or more will be recognized for their contributions. Members of the Palustris Society also have the option of dedicating a portion of their pledge to The Longleaf Alliance Endowment which was also established in 2015. If you are interested, please contact me or Lynnsey Basala, our Development Director.

Longleaf Alliance staff, members and partners are contributing and working from Texas to Virginia to educate people and conserve and restore the longleaf ecosystem. Together, we are striving to achieve the goal of the restoration of eight million acres of longleaf by 2025. Enjoy the winter and get out the drip torches!



## Forest Legacy Program

### *Protecting Forests through Partnership*

***The Forest Legacy Program protects private, working forests and provides multiple public benefits.***

The majority of the nations' forests are in private ownership and they are trending toward some type of non-forest conversion. These forests are key to providing timber products, wildlife habitat, scenic views and recreation. They help to protect soils and provide clean water.



To confront this problem the Forest Legacy Program was started with a mission to protect privately held forests. Administered by the USDA Forest Service, the Forest Legacy Program uses primarily conservation easements to ensure that protected forests will continue to provide their array of public benefits.

State agencies throughout the nation assist the Forest Service in locating land owners interested in protecting their forests for generations to come.

You can learn more about this program at our website <http://www.fs.fed.us/spf/coop/programs/loa/flp.shtml> which also contains a link to federal and state personnel (Federal and State Coordinators List) who could answer specific questions about participating in this program.

***Protecting Private Forest Lands from Conversion to Non-Forest Uses***



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## 2016

**Longleaf Academy: Longleaf 101**  
Woodworth, Louisiana  
**January 11-14, 2016**  
\*THIS ACADEMY IS FULL

**Longleaf Academy: Longleaf 101**  
Jasper, Texas  
**January 19-21, 2016**

**Longleaf Academy: Longleaf 101**  
Tifton, Georgia  
**February 17-19**

**Longleaf Academy: Longleaf 101**  
Tuskegee University, Alabama  
**March 8-10, 2016**

**Longleaf Academy: Longleaf 101**  
North Carolina (location TBD)  
**April 5-7, 2016**

**Longleaf Academy: Longleaf 101**  
Cheraw, South Carolina  
**April 26-28, 2016**

**Longleaf Academy**  
Georgia - Ft. Stewart/Altamaha LIT Area  
**May 16-18, 2016**

**Longleaf Academy: Longleaf 101**  
Alabama/Florida – GCPEP Area  
**June 7-9, 2016**

**Longleaf Academy: Understory 201**  
South Carolina (location TBD)  
**September 27-29, 2016**

**11th Biennial Longleaf Conference**  
Savannah, Georgia  
**November 1-4, 2016**

For more information about events please visit The Longleaf Alliance website ([www.longleafalliance.org](http://www.longleafalliance.org)).

## WINTER MANAGEMENT CHECKLIST

- **Site Prep Burns:** It is important to conduct a site prep burn prior to planting longleaf. Site prep burns remove logging slash, lead to better planting jobs, stimulate early growth by increasing available nutrients, and decrease hot spots that may kill young seedlings in subsequent burns.
- **Planting Longleaf:** To take advantage of the winter precipitation and maximize survival, planting early is almost always better than late planting. Remember to keep an eye on planting depth.
- **Prescribed Fire:** Winter is a prime time to conduct fuel reduction burns in mature or sapling stands. Late December through the end of winter is a good time to introduce fire in young longleaf stands to help control unwanted pine seedlings and other competition.
- **Evaluate Young Stands:** Evaluate young stands to determine one year survival and insure adequate stocking. Wait until after the first frost so the grass stage longleaf can be more easily seen.
- **Prune Longleaf:** In some stands that lack fuels or have a low stocking rate, mechanical pruning may be an option to avoid the “Old Field” growth form. Winter is the easiest time to prune and should be finished before the spring green-up. Pruning may not be practical in a large stand.
- **Plant Native Warm Season Grasses:** Later winter through early spring is the recommended time to plant our native understory species. Some plants require a cold-stratification period and need to be planted earlier.
- **Herbicide Treatments:** Basal bark and stem injection herbicide treatments are typically most effective at controlling unwanted or invasive trees and shrubs when applied during the dormant season.

*Thinning longleaf pine with a fuel chipping operation in Hitchcock Woods, Aiken SC. Photo by Gary Burger.*



**Q.** Dear Longleaf Leader,  
I have an 18 year old planted stand of longleaf pine. I was wondering if anyone could tell me when it should be ready to commercially harvest.

Sincerely,  
Wondering...

**A.** Dear Wondering,  
You have a question that more and more landowners are beginning to ask. When are my pines ready to thin? It's actually simple. In order to attract a logger, the stand needs to have trees large enough to commercially harvest. You don't want to take out your biggest and best trees. You want to cut the worst and leave the best. That said, the following criteria should be met:

- The average diameter should be six inches in diameter at breast height (DBH)
- Average tree height should be at least 40 feet tall to accommodate tree length logging.
- The first 16-18 feet of the tree trunks should be clear of any live branches. This is the first sawlog and will be the most valuable part of the tree for sawtimber.
- Stocking, as measured as basal area, should be 120 square feet per acre or greater. This may be a problem for some longleaf stands planted in some of the USDA Farm Bill programs that would only allow up to 500 trees per acre to be planted. Another way of looking at stocking is if the trees have completely shaded out the understory, it's time to do a thinning harvest.

In general, most longleaf pine plantations are usually thinned for the first time between ages 18-22. Trees harvested at this time go for pulpwood and fence posts. A second thinning is done about ten years later, with the trees being large enough for chip-n-saw, small poles and pulpwood. After ten years, thinnings that occur will yield sawtimber, poles, chip-n-saw and pulpwood. After this point, you need to decide if you will regenerate the stand by clearcutting and planting, natural regeneration, or continuing with selective thinnings and moving the stand to an uneven age structure.

Most stands will need to be at least 25 acres in size in order to attract a logger. If smaller in size, adjacent stands on the same property that can be logged will make the property attractive for logging.

These guidelines are in general. Actual timing will vary on site productivity, stocking and other factors. If you are considering thinning or harvesting longleaf pine on your land, it will be worth your while to retain a professional forester to assist you in marketing your timber, sale layout and monitoring the harvest.

For additional information, contact The Longleaf Alliance, your state forestry agency or a consulting forester.

Sincerely,  
The Longleaf Alliance

# GREEN SIDE UP

## LONGLEAF, IT'S WHAT'S FOR DINNER?

*By Mark D. Smith, Associate Professor/Extension Specialist, Alabama Cooperative Extension System, School of Forestry and Wildlife Sciences, Auburn University*



*Longleaf planting failure due to bog damage.  
Photo by Ryan Mitchell.*



*Wild pig (Sus scrofa) stop near the Kennedy Space Center Press Site on their daily foraging rounds. Photo by NASA.*

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Wild pigs are the ultimate opportunist when it comes to food, eating a variety of both plant and animal material. In fact, that's why they are one of the most invasive, destructive, and most difficult to control animal in North America. On average most (>80%) of their diet consists of plant material such as hard and soft mast, seeds, roots tubers, bulbs, grasses, and forbs including most agricultural crop plants. However, consumption of plant material will vary greatly (50-100% diet of plant material) through the seasons based on the local abundance and availability of specific plant foods. One such item on the wild pig's menu is longleaf pine seedlings.

Wild pigs eating longleaf seedlings, mainly the starchy root system of these young plants is nothing new. Back in the 1800s it was noted that wild (or possibly free-ranged domestic) pigs can significantly hinder natural regeneration of longleaf stands due to consumption of seedlings, and in some instances it can be quite severe. What was true back then is, unfortunately, true today. In areas with medium to high wild pig populations, many landowners have experienced this devastation on their longleaf pine plantings firsthand. For example, one study conducted in the late 1970s in South Carolina showed that natural regeneration areas that were fenced to keep wild pigs out produced about 500 seedlings/acre whereas unfenced areas where pigs had free access only produced 8 longleaf pine seedlings/acre. Regardless of whether it's natural regeneration or hand planted, wild pigs can easily cause complete crop loss.

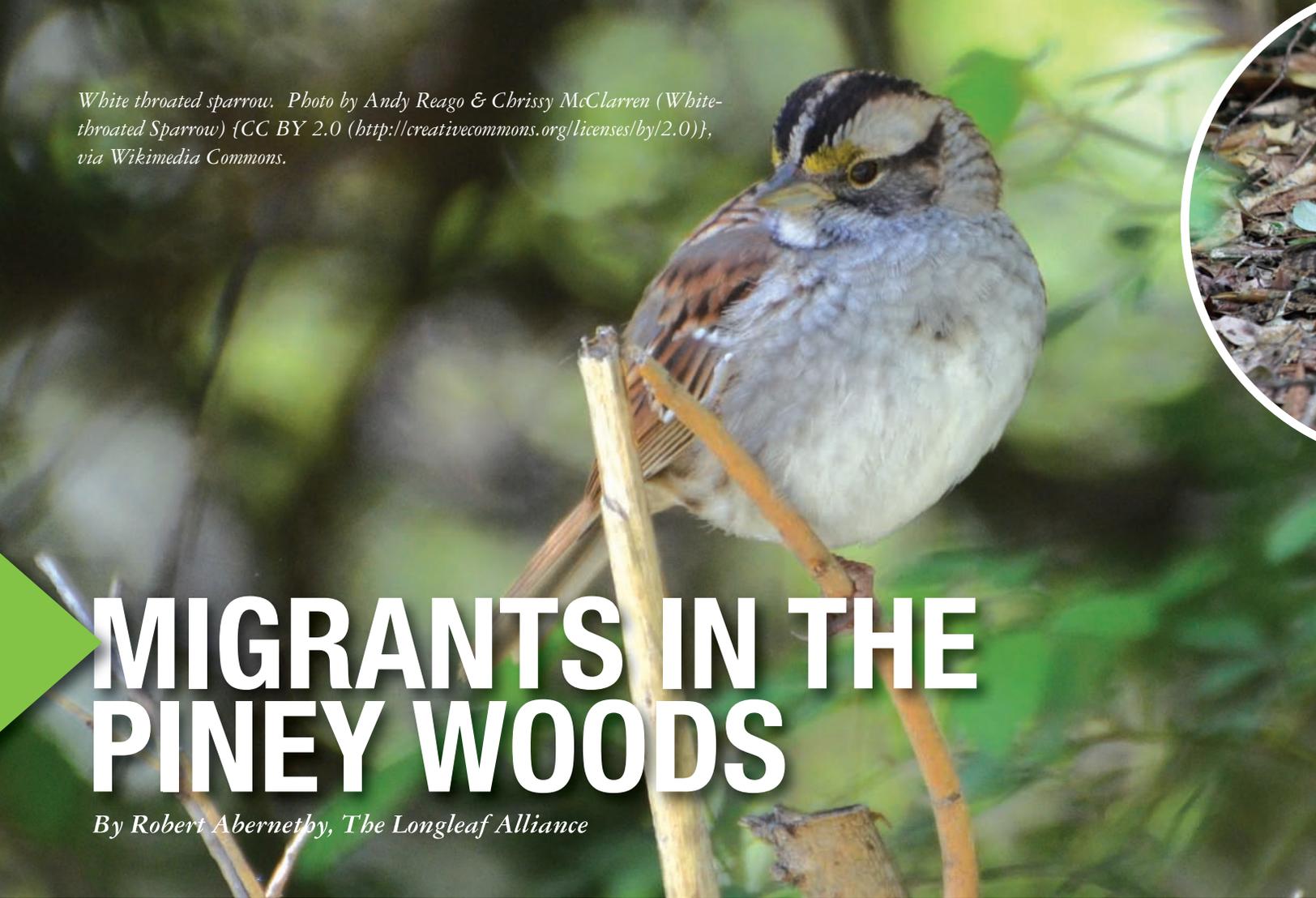
So how will I know if wild pigs will cause a problem to my longleaf seedlings? This is a difficult question to answer and will, unfortunately, depend on some factors. Obviously, if pigs

in your area have previously destroyed other longleaf pine plantings, it stands to reason they'll be back again to cause similar problems. However, in other areas the level of depredation on longleaf pine seedlings will depend upon the numbers of wild pigs in the area, the availability of other food items throughout the year, and the level of removal you and adjacent landowners are conducting to keep wild pig populations at a low level. Keep in mind, one wild pig is capable of consuming several hundred seedlings in a single day.

What can I do if wild pigs are causing a problem? There are only two practical options, neither of which is inexpensive. Keep in mind that in most cases you will only need to manage wild pigs for the first 2-3 years after planting longleaf seedlings. Once seedlings begin putting on some growth, wild pigs don't seem to bother them as much. Fencing, either electric or wire, can be used to exclude wild pigs from the area to be planted. Although this may or may not be a reasonable approach for all situations, 3-strand electric fencing is relatively inexpensive and could be a temporary solution worth considering.

The other option is to begin a concerted wild pig removal program using corral-type traps and shooting. Often, depending upon the size and location of your property, it will be best to coordinate your removal efforts with your neighbors. Remember, pigs can't read property boundary signs. Numerous resources about controlling wild pigs are available online or from your county extension office. However, before undertaking any wild pig control activities, consult your local conservation officer regarding legal means for controlling wild pigs on your property or for any special permits that may be required.

White throated sparrow. Photo by Andy Reago & Chrissy McClarren (White-throated Sparrow) {CC BY 2.0 (<http://creativecommons.org/licenses/by/2.0>)}, via Wikimedia Commons.



# MIGRANTS IN THE PINEY WOODS

By Robert Abernethy, *The Longleaf Alliance*

## IT IS THAT TIME OF THE YEAR. IN FACT, THEY HAVE BEEN HERE FOR A WHILE.

When the temperature dips below freezing at night and the north wind blows off the arctic, they pack up and head south. They travel light and they travel fast, often in a single night. I am not referring to the snow birds on Interstates 65, 75 and 95 with license plates from Illinois, Ohio, Ontario, and New York. I am talking about the real snowbirds, juncos and mallards, kinglets and nuthatches that spend their summers nesting and growing fat in the cool northern climates but head south with the first sign of snow. Some like the golden-crowned kinglets arrive in November and stay until April while others forsake their southern summer home for more exotic wintering spots in the Caribbean.

Some of the migrants are much sought after gamebirds such as the waterfowl, but many are the inconspicuous “LBJ’s” (little brown jobs) that sound like deer when they are scratching for seeds in the thicket behind your deer stand or the tweety birds that flit through the trees and add variety to a winter walk in the woods. Here are a few of the more common but inconspicuous species that migrate through our Southern Woodlands.

### **Golden-crowned kinglet, *Regulus satrapa***

The golden-crowned kinglet is one of our smallest birds. Only slightly larger than your thumb (3.25-4 inches), this tiny, mostly green bird can be seen flitting through the tree tops in search of insects. It is named for the gold crown of the female and the gold and orange crown of the male. They show up in the Carolina piney woods in mid-October and early November and stay until early April when they start drifting back to the higher elevations of the North Carolina mountains and all points north into Canada. They appeared in our South Carolina yard on a cold and dreary rainy day (November 9), a day after the second cold front of the year had descended, and the fireplace was roaring. As I looked out the window, the tree tops were absolutely alive with small quickly flying and flitting birds. Closer inspection with binoculars revealed a foraging guild or flock of golden-crowned kinglets, ruby-crowned kinglets, white breasted nuthatches, Carolina chickadees, and tufted titmice moving through the treetops examining every limb, twig, and leaf for chilled and rather slow insects which make up over 90% of their diet. They reminded me of a flock



*Chuck-will's-widow.* Photo by Dick Daniels (<http://carolinabirds.org/>) (Own work) {CC BY-SA 3.0 (<http://creativecommons.org/licenses/by-sa/3.0>) or GFDL (<http://www.gnu.org/copyleft/fdl.html>)}, via Wikimedia Commons.

of wild turkeys spread out and advancing across a field. I doubt if any insects escaped the three dimensional advance of these efficient predators. Watch for the kinglets and those species

but because they were not the bobwhites we were searching for, we moved on.

During the winter, several species of sparrows descend on the southern piney woods in search of seeds and insects and protection from the winter weather. One of the most common is the white throated sparrow. A large (6.3 to 7.65 inches) brown sparrow, it inhabits the same thickets and field edges as the bobwhite and is often pointed by bird dogs. They prefer the dense thickets for the seeds but also for protection from the avian predators that frequent well-managed piney woods. Dense plum thickets and blackberry canes will slow down Coopers hawks and sharp-shinned hawks long enough for most of the birds to escape.

The white-throated shows up in October and remains until mid-May when it heads back north to nest.

### **Chuck-will's-widow, *Caprimulgus carolinensis***

Some migrants winter in the Carolina pines while others prefer to seek relief from the winter's cold in South Florida, tropical islands, and even South America. The "other" Whip-poor-will is one such bird. I rarely know exactly when they leave. Usually one night, in late September or early October, I notice they are no longer calling. Many believe it is the Whip-poor-will that calls through the southern spring and intermittently during the hot southern summer but they are mistaken. If you listen carefully, you will discern the four note call of the Chuck-will's from the three note call of the Whip-poor-will. We have Whip-poor-wills within the range of the longleaf pine but only for a short time in late March and early April and then again when they pass through during the fall.

The Chuck-will's is a large bird, 11 to 12 inches long and feeds on the wing with its mouth wide open capturing moths, flying insects, and the occasional migrating small bird. They nest in the longleaf forest as well as the oak woodlands of the piedmont and mountains of the South and are rarely seen. They are most commonly seen, but rarely identified, as a brilliant red eye glowing in the middle of a lonely dirt road late at night. As you get closer, the eye simply vanishes as the Chuck-will's flies off. This coming March, as you are listening for that old gobbler to sound off, listen carefully for that Whip-poor-will calling nearby and you may discover he is saying, Chuck-will's-widow.

### **References**

- Robbins, Chandler S., Bertel Brunn, and Herbert S. Zim. 1983. *Birds of North America*. Golden Press, New York.
- Sprunt, Alexander and E. Burnham Chamberlain. 1949. *South Carolina Bird Life*. University of South Carolina Press. Columbia, SC.



*Golden crowned kinglet.* Photo by CheepShot (Golden Crowned Kinglet) {CC BY 2.0 (<http://creativecommons.org/licenses/by/2.0>)}, via Wikimedia Commons.

associated with them any day you are in the piney woods this winter. They tend to frequent the tops of the trees and can be difficult to see without binoculars.

### **White-throated sparrow, *Zonotrichia albicollis***

It was late winter, no leaves on the trees and our dogs were locked up at a dense plum thicket with blackberry canes so thick you could not see through them. As we moved in expecting the covey rise, we heard the rustling, and suddenly a flock of small brown birds flushed out of the thicket and flew away through the longleaf.

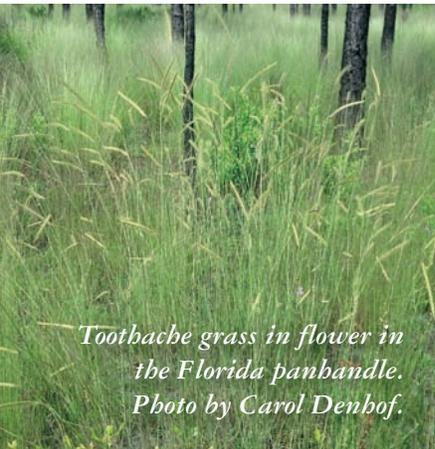
"Stink sparrows," my grandfather said in 1960, "just stink sparrows."

To many bird hunters of his generation, any small brown bird encountered on a day of quail hunting was classified as a stink sparrow. Some bird dogs pointed them (mine mostly),

By Carol Denbof, *The Longleaf Alliance*

# PLANT SPOTLIGHT

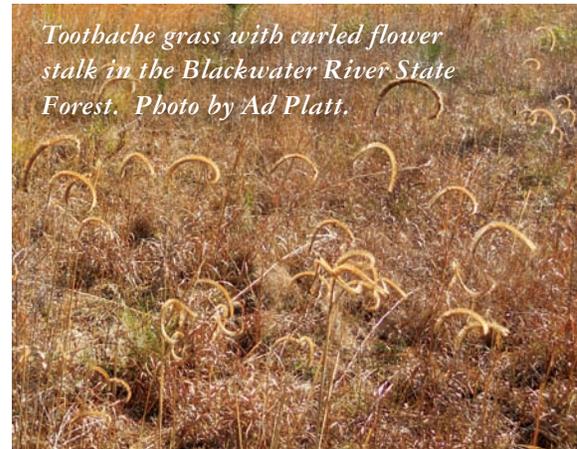
TOOTHACHE GRASS *CTENIUM AROMATICUM* (WALTER) WOOD



*Toothache grass in flower in the Florida panhandle. Photo by Carol Denbof.*



*Map showing distribution of toothache grass. USDA PLANTS Database.*



*Toothache grass with curled flower stalk in the Blackwater River State Forest. Photo by Ad Platt.*

## Description

This perennial grass is typically a bunchgrass and can usually be seed growing in clumps of plants. The plants are of significant size with leaf blades measuring up to 16" long and flowering stems rising up to 5'. The leaves are distinctive because the upper side is green and the lower side is more glaucous (blue-green) in color. The flowering stem, which appears in the fall, bears a terminal spike that resembles a comb. As the seeds are released from the stem, the spike starts to curl and will remain upright on the plant through the winter. These stems are sometimes collected to be used in dried flower arrangements.

## Distribution & Habitat

Toothache grass occurs throughout the longleaf range. You will find it growing in wet, fire-maintained longleaf savannas and embedded seepage slopes.

## Wildlife Uses

Specific wildlife value is uncertain, except for potential seed food source for songbirds. Toothache grass is especially notable for its isobutylamide chemical compound. This compound is found in the rhizome of the plant and causes numbing of the gums and tongue when eaten.

## Other common species

In Georgia and Florida, this species may be confused with Florida toothache grass (*Ctenium floridanum*). The latter species tends to grow in drier habitats and is more of a rhizomatous species as opposed to a bunchgrass. Florida toothache grass is also quite rare and is a protected species.

## Commercial Availability

Toothache grass has limited commercial availability. Seed and/or plants are available through Roundstone Native Seed, the Florida Wildflower Cooperative, and The Natives nursery.

## References

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

USDA, NRCS. 2015. The PLANTS Database (<http://plants.usda.gov>, 16 November 2015). National Plant Data Team, Greensboro, NC 27401-4901 USA.

By Catherine Rideout, US Fish & Wildlife Service

# WILDLIFE SPOTLIGHT

## BROWN-HEADED NUTHATCH *SITTA PUSILLA*

One of the many wonderful things about living in the Southeastern US is the fairly moderate climate of the winter months which allows us to get outdoors for hiking, birding, fishing and hunting. When you have the opportunity to take a walk in the woods at this time of year, one bird to listen for is the brown-headed nuthatch. This bird lights up pine habitats even on a cold winter day with a call note many describe as similar to a rubber ducky toy – “chee-da, chee-da”. It is difficult not to be charmed by this active and vocal bird.

The brown-headed nuthatch is endemic to the piney woods of the southeastern US and is a year round resident. It is observed in pine-dominated landscapes including both longleaf and shortleaf pine. The range of this bird lines up very closely with the distribution of these pine forests in the upper and lower coastal plains and the piedmont. This is one of four nuthatch species residing in the United States, including the widely distributed white-breasted and red-breasted nuthatch and pygmy nuthatch, which is similar in looks but dwells in western pine forests.

The brown-headed nuthatch is a small bird, measuring only 4.5 inches long and weighing only 10 grams, approximately the weight of an American half dollar. Despite their tiny size and tendency to spend much time high in the forest canopy, they nest lower in the forest which allows for their frequent observance. These small birds are quite striking with a gray back, wings, and tail. They have white underparts and a brown cap. Their slightly recurved bill allows them to forage on pine seeds and insects which dwell under tree bark. Unlike many other species, nuthatches have a notable tendency to creep along tree trunks and limbs, climbing up and then down in a zig zag fashion.

Many conservationists consider the brown-headed nuthatch as a high priority longleaf species because of its preference for large trees and snags, which are not always retained in our

woodlands and forests. These birds are cavity nesters and prefer well-decayed wood allowing them to excavate their nesting cavities. Nuthatches will also use existing cavities of other species and use nest boxes too. These birds can be seen in larger tracts of forest and woodlands but also reside in suburban areas and are a common visitor to seed and suet feeders.

Research has indicated these birds exhibit cooperative breeding. When adults raise young, ‘helpers’ occur at some percentage of nuthatch territories. Research by Jim Cox and Larry Slater indicates that helpers appear to be closely related to the breeders, potentially young of the previous year. They

assist with nest defense, nest construction, and feeding young of the year. Brown-headed nuthatches continue to be a well-studied bird, so it is likely we’ll continue to learn a great deal about them.

Whether you are a forestland owner or a resident in a suburban area, there are many things you can do to benefit brown-headed nuthatches and other birds. By managing your pine woodlands and implementing prescribed fire and forest thinning as needed, providing a diverse herbaceous and grassy understory, and retaining

larger trees and snags, you benefit nuthatches and other cavity nesting birds such as woodpeckers and chickadees, and other pine woodland species such as northern bobwhite and Bachman’s sparrows. As a suburban resident, providing food, water, and shelter in the form of native plants and a nest box, you can support a diverse number of species on your property. Get outdoors this winter and listen and look for the brown-headed nuthatch!

Reference: Slater, Gary L., and John D. Lloyd, and James H. Withgott and Kinberly G. Smith. 2013. Brown-headed Nuthatch (*Sitta pusilla*), *The Bird of North America Online* (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology.



# CLARIFYING THE BLACK PINESNAKE LISTING RULE

By Matt Hinderliter, U.S. Fish and Wildlife Service

*Well-managed longleaf pine habitat suitable for black pinesnakes.  
Photo by Matt Hinderliter (USFWS).*

On October 6, 2015, the U.S. Fish and Wildlife Service (Service) listed the black pinesnake as a threatened species under the Endangered Species Act (ESA). This species is native to the longleaf pine ecosystem in south Mississippi and southwestern Alabama. Much like gopher tortoises, black pinesnakes prefer upland, open-canopied longleaf pine forests with a reduced shrub layer, abundant herbaceous groundcover, and well-drained sandy soils. They are a secretive species, spending much of their time underground in stump holes and root channels of burned-out or rotted pine trees. The listing determination was primarily based on threats of habitat loss and fragmentation, occurring as a result of fire suppression and conversion of this ecosystem to densely stocked forests, or agricultural or urban land uses. Secondary threats include road mortality and intentional killing by people. There have been considerable advances in longleaf pine restoration across the Southeast; however, these efforts do not completely overlap the range of the pinesnake, and it may take years of active management for a newly established longleaf pine stand to become pinesnake habitat.

This listing rule includes exemptions from take as authorized under section 4(d) of the ESA, commonly referred to as a 4(d) rule. “Take” is a term used under the ESA to mean harming or killing a listed species. The 4(d) take exemptions were put in place to increase forest management flexibility, by allowing landowners to continue with most normal forestry activities without worrying about possible take of the black pinesnake. Exempted activities include herbicide application, prescribed burning, and most forest management and harvest activities. Such activities, while potentially resulting in harm to a black pinesnake, are much more valuable to the overall conservation of the species and its habitat than the loss of individual snakes.

However, all forest management activities could not be exempted, since to be included in the 4(d) rule, they have to be beneficial to the species’ conservation. Due to the pinesnake’s reliance on underground structures for shelter, activities that may cause significant subsurface disturbance, such as stumping, disking, and bedding could not be exempted. Additionally, since the snake is native to the longleaf pine ecosystem, remaining populations are located primarily in longleaf-dominated forests, and habitat loss is believed to be a major threat; further conversion of longleaf-dominated forests to other cover types could not be included in the list of exempted activities.

This list of exempted activities has caused some confusion among landowners, leading some to believe that if an activity is not exempted, it is prohibited. This is absolutely not the case. If an activity was not determined to be beneficial to the species, it only means the Service could not exempt that activity from take; it does not mean there are now restrictions on it. The Service wants to work with anyone who may be concerned with conducting an activity not exempted from take, to devise a plan to minimize impacts to the species and grant assurances that they are not vulnerable to causing take.

Another concern expressed is that longleaf pine restoration efforts will now be hindered since conversion of longleaf pine forest to other cover types was not an exempted activity. The bottom line is that the 4(d) rule was designed to acknowledge the beneficial management landowners are conducting, and this listing rule is actually less restrictive than previous rules that do not have such exemptions. This rule should have a minimal impact on landowners moving forward and should not impede future longleaf pine restoration. The Service is committed to working with landowners to keep forests working, in the same

way forestry has continued for the past 28 years since the gopher tortoise was listed (which shares similar habitat and geographic range as the black pinesnake). To address concerns that landowners will now be discouraged from converting to longleaf for fear that black pinesnakes may move onto their property, the Service is developing a programmatic Safe Harbor Agreement (SHA), specifically for those landowners whose habitat is not currently in a condition to support pinesnakes (what the Service calls “zero baseline”). Landowners signing up for SHA would agree to manage their lands to create suitable habitat for black pinesnakes, and in return would receive regulatory assurances that they could return to “zero baseline” even if pinesnakes moved onto their property in the future. Under SHA you could convert back to another forest cover type without worrying about take of black pinesnakes.



*Adult black pinesnake observed in a longleaf pine stand in south Mississippi. Photo by Tim Dickinson (MS Army National Guard).*

Others have expressed concern that listing this longleaf specialist species is a precursor for future positive listing determinations for other longleaf specialists. However, all listing determinations are an independent assessment of threats and their impact on that particular species. The needs of one species do not necessarily mirror the needs of another. By law, the Service must evaluate each species separately, based on the best scientific and commercial data available, and

make a determination based on that data.

If landowners need further clarification on any part of this rule, please don't hesitate to contact either Matt Hinderliter (601-321-1132; matthew\_hinderliter@fws.gov) or Stephen Ricks (601-321-1122; stephen\_ricks@fws.gov) with the U.S. Fish and Wildlife Service's Mississippi Ecological Services Field Office.

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*Red-cockaded  
woodpecker cluster  
& foraging habitat  
on Apalachicola  
National Forest.  
Photo by Joel Casto.*

## LONGLEAF ALLIANCE JOINS

# LONG-TERM RED-COCKADED WOODPECKER TRANSLOCATION PARTNERSHIP

As daylight turned to dusk with the setting sun, the capturing began in earnest. Seven months of hard field work and long hours were now paying off in the Northwest Florida October woods. Once again, for the 12th consecutive year, Joel and a cadre of visiting biologists were going to capture and translocate 10-20 red-cockaded woodpeckers (*Picoides borealis*) in one evening, something Joel and colleagues have accomplished 50 times since 2004.

In 1998, the U.S. Fish and Wildlife Service's (USFWS) Red-cockaded Woodpecker (RCW) Recovery Coordinator (Coordinator) established the RCW Southern Range Translocation Cooperative (SRTC). The SRTC's purpose was to more efficiently allocate the limited number of birds annually available for translocation to the numerous properties/populations (~30) requesting them. Original donor populations included Forts Benning and Stewart and the Apalachicola National Forest. In spite of all partners best efforts, the demand for birds always exceeded the supply – a good sign in one sense in that many entities in the private, state, and federal sectors in Florida, Georgia, Alabama, and Mississippi (SRTC original member states) were willing and able to participate in RCW recovery. The SRTC has expanded in recent years (2008-present) to include North and South Carolina and two new major donor populations, the Osceola National Forest and Eglin Air Force Base; Francis Marion National Forest was also a major donor from 2008-2010.



*Male fledgling red-cockaded  
woodpecker. Photo by Danny Bales*

*By Ralph Costa, Wildlife Biologist,  
RCWO LLC & Milliken Forestry Company, Inc.*

Significantly, several smaller populations, previous SRTC recipients, also became donors in recent years, e.g., Camp Blanding Training Center and Withlacoochee State Forest. See K. Zilliox's Longleaf Leader article (Volume VII Issue 4) for more detailed information on Eglin AFB's RCW translocation program and more specific details on translocation procedures.

Six years later, in 2004, the Coordinator received a significant phone call. Peter Stangel, then Eastern Partnership Office Director for the National Fish and Wildlife Foundation (NFWF) called to ask what could be done for RCW recovery if grant funds were available. Without hesitation, the response was, "...add another translocation biologist to the SRTC..." It was also suggested that the position be stationed on the Apalachicola National Forest, the largest recovered RCW population already serving as a donor but with more capacity for providing birds. The funds were available thanks to a generous contribution by the Southern Company (SoCo) to NFWF and the subsequent establishment of the Power of Flight (PoF) grant program with NFWF matching the SoCo contribution. Leslie Cox (formerly Montgomery), Environmental Stewardship Program Manager for SoCo, was the champion for helping establish the PoF grant program and subsequently, a key supporter of the RCW translocation component.

The USFWS applied for and received its first PoF grant in 2004 and hired Joel Casto, an experienced RCW wildlife



*8-day old red-cockaded woodpecker nestlings. Photo by Danny Bales.*

biologist for the job. In 2008 (after 4 years of 1-year grants), with the retirement of the Coordinator and ending of Joel's 4-year federal term appointment, the grant program was shifted to and continued with a new partner, Milliken Forestry Company, Inc. (MFC). Lamar Comalander, then Vice President for MFC and Angus Lafaye, then President of MFC, agreed to "host" the ongoing project. The translocation/grant program under MFC continued for 8 more years (2008 – 2015).

However, for the 2016/2017 PoF grant cycle, RCW projects were shifted to the NFWF Longleaf Stewardship Fund program and therefore required a non-profit partner, something not previously required for PoF grants. I, along with Joel, Lamar, and Angus, am pleased to announce that The Longleaf Alliance is our new non-profit partner for this very successful and critical long-term RCW recovery program! We are particularly excited about this partnership because the RCW translocation program funded by NFWF/SoCo has not only directly benefited RCW recovery but also substantially helped conserve, maintain, or restore ~39,600 acres of longleaf pine since 2004 (Table 1).

*Translocation biologist Joel Casto.*

Joel and his recipient population biologist partners were now fully engaged in the evening trapping event. Captured birds were all "juveniles" (aka "subadults") banded as 7-10 day old nestlings with unique combinations of colored bands in April and May. Joel had spent the last 4 months (June – September) determining which juveniles were roosting in what cavities, knowing that he needed 20 birds (10 males and 10 females) on this critical, "one-chance to get it right" capture night. Each bird captured would be placed in a transport box, translocated to its new forest that evening (typically in another state), placed and secured (screened) in an artificial cavity in a large mature pine tree, usually longleaf pine. The bird is released at dawn along with its new potential mate, an unrelated bird that was also translocated to the release cluster.

Success of these translocations is determined the following breeding season. In reality, few birds either remain at their release cluster or with their initial potential mate. However, on average and based on 6 years of SRTC translocation results, 50% of the

Metric	Result
RCWs Translocated	38 in 2014; 329 (2004-2014); x=30/Yr.
Total Increase for 21 Populations	219 to 717 territories (188% increase)
5-Year Average Annual Geometric Growth Rate for 21 Populations	7.6% (range 0.5-18.2%) vs. 5.0% recommended in recovery plan
Estimated Recovery Plan Population Goal for 2014	12 of 17 recovery populations meet or exceed 2014 goals; averaging 18.1 years "ahead of schedule"
"Off-line" Populations	17 of 41 (41%) of SRTC locations
Achieved 30 potential breeding groups or their stated population goal	12 of 17 (71%) are PoF sites
Longleaf Pine Acres Conserved, Maintained or Restored	39,600 acres

*Table 1: NFWF/SoCo recipient population accomplishments.*

birds remain on the recipient property (36% as breeders, 8% as solitary birds, 3% as helpers and 3% as floaters) albeit at a different cluster and with a different bird if it had formed a pair bond (Table 2).

Year (# recipients)	# RCWs (#/%) <sup>1</sup>	PBGs (#/%) <sup>2</sup>	Solitary (#/%) <sup>3</sup>	Helpers (#/%) <sup>4</sup>	Floaters (#/%) <sup>5</sup>
2007 (12)	76 (39/51.3)	32/42.1	1/1.3	2/2.6	4/5.3
2008 (19)	133(71/53.4)	43/32.3	20/15.0	2/1.5	6/4.5
2009 (15)	124 (68/54.8)	52/41.9	12/9.7	2/1.6	2/1.6
2010 (19)	157 (73/46.5)	51/32.5	11/7.0	4/2.5	7/4.5
2011 (14)	124 (63/50.8)	39/31.5	11/8.9	9/7.2	4/3.2
2012 (16)	124 (60/48.4)	47/37.9	9/7.3	4/3.2	0/0.0
<b>Means</b>	<b>123 (62/50.9)</b>	<b>44/36.4</b>	<b>11/8.2</b>	<b>23/3.1</b>	<b>23/3.2</b>

<sup>1</sup>Total # of RCWs translocated (# birds successful/% success). Success is determined the first breeding season post-translocation and defined as a bird becoming a breeder, solitary bird (occupying and defending a territory), a helper or a floater (an adult bird not associated with a breeding group)

<sup>2</sup># of breeding birds/% success; success is defined as the bird remaining with the same mate in the same cluster for at least 6 months including the breeding season, or there is evidence of nesting (eggs or nestlings present or adults provisioning nestlings).

<sup>3</sup># of solitary birds/% success

<sup>4</sup># of helpers/% success

<sup>5</sup># of floaters/% success

**Table 2: NFWF/SoCo recipient population accomplishments.**

After multiple years of receiving birds and in combination with natural reproduction, all NFWF/SoCo recipient populations have increased since 2004 (Table 3). In total, the number of active clusters (i.e., occupied territories) on the 21 (7 federal, 11 state, 3 private) recipient populations had increased from 219 to 717 by 2014. At least 3 recipient populations have been saved from extirpation and 3 new populations have been established. On average, since 2004, the NFWF/SoCo birds provided by the program have annually contributed 27% of the total SRTC available birds. Our goal from 2004 to 2013 was to provide 20 birds annually; Joel averaged an incredible 30! Based on those results we increased our annual goal to 30 birds for 2014 and 2015; Joel provided 38 in 2014! Our goals for the 2016 and 2017 grant with our new Longleaf Alliance partner are 30 birds annually.

This long term, dynamic NFWF/SoCo RCW recovery grant program has over the past 12 years achieved remarkable success. Recipient population accomplishments are summarized in Table 1. Additionally, the bird's conservation effect on overall RCW recovery has been substantial, including:

- Directly augmenting 14 recovery populations and 5 support populations

Agency	# of Populations	State
<i>Federal</i>		
U.S. Forest Service	5	AL, MS, FL
U.S. Fish and Wildlife Service	1	FL
U.S. Air Force	1	FL
<i>State</i>		
Florida Fish and Wildlife Conservation Commission	4	FL
Florida Forest Service	3	FL
Florida Department of Military Affairs	1	FL
St. John's River Water Management District	1	FL
South Florida Water Management District	1	FL
Georgia Department of Natural Resources	1	GA
<i>Private</i>		
Disney's Wilderness Preserve and Park	1	FL
Joseph W. Jones Ecological Research Center	1	GA
St. Joe Land and Timber Company	1	FL

**Table 3: NFWF/SoCo red-cockaded woodpecker recipient population.**

- Directly/indirectly augmenting 19 designated recovery populations and 11 support populations
- Contributing to down-listing objectives
- Consideration of their range-wide benefits in an ongoing Species Status Assessment

The indirect outcomes of NFWF/SoCo RCWs are also significant, including:

- Increasing total number of SRTC recipient populations served
- Reducing competition among recipient property managers for limited donor RCWs
- Relieving geographic-logistic constraints between donor-recipient populations

By 8:30 pm, Joel and his trapping teams had captured all 20 birds without incident. Final bird identification checks were completed, birds were “paired” with a potential mate (in separate boxes) and loaded into pickup truck cabs for the ride to their new homes; most would be “put to bed” between midnight and 2:00 am. Biologists snoozed for a couple hours somewhere and returned to their assigned cluster at dawn to simultaneously release the pair from their respective cavities; they will return in 6 months (April) to determine who is where and with whom as the birds first potential breeding season approaches.

As noted earlier, Joel, Lamar, Angus and I are honored and pleased to continue this long-term and highly successful NFWF/SoCo endangered species conservation program with our new partner, The Longleaf Alliance.



# VESTIGES OF VIRGIN LONGLEAF PINES

*Deadhead heart pine section with the logger brand. Photo courtesy of Jon Gould.*

*By Jon H. Gould, Private Landowner*

As a private landowner, part of the enjoyment taken from your land comes from exploring and discovering what the property “once was” and how it has been used over time. Figuring out these mysteries is so important in not only determining how the land should be managed going forward, but also to be able to appreciate the history of your property. Our family owns property in the Florida Panhandle on the Choctawhatchee River. Since acquiring the property in 1966, our family has discovered many pieces of the puzzle that reveal its history, some that have been quite surprising.

This is a property that, like many of the upland forests in the southeastern US, had at one time been filled with virgin longleaf timber. Soon after early settlers started occupying Virginia and the Carolinas they realized the value of the tall majestic native longleaf pines. As the forests of the Midwest and Northeast were over-harvested to build big cities like Chicago, Detroit, Boston, and New York, the northern lumber mills began looking at the Southeast to supply them with timber. Throughout the 1800s and well into the early 1900s nearly all of the virgin longleaf pines were harvested for lumber, starting in southern Virginia and North Carolina and

progressing south. By the late 1800s most of the longleaf were gone from their native Southeast, except for small protected areas of Georgia and the Gulf Coast states.

In Florida the virgin longleaf pines and cypress trees were being stripped from the woods and swamps. The two primary means of transportation of the massive logs was by rail or water. Where rivers and major creeks were nearby, it was common practice to float the logs downstream, tied together in large rafts, to ships waiting to load them for transport to saw mills. By the 1920s most of the virgin longleaf pines had been harvested from Northwest Florida. Many of the local families participated in the harvesting of the longleaf, as well as the cypress trees. In fact, for some of these families this was their livelihood for many years. One of these families was the Croftons who had moved down from south Alabama after the Civil War and settled in Washington County, along the Choctawhatchee River.

Mr. L.C. Crofton was Dad’s attorney when I was growing up in Titusville, FL in the 1940s and 50s. He was born in 1889 and raised in the backwoods of Washington County, FL. He graduated from the University of Florida with a law degree and



*Jon Gould standing next to a second generation longleaf. Photo courtesy of Jon Gould.*

served as a state representative for both Washington and Brevard Counties. Mr. Crofton used to reminisce about how his father and he and his brothers cut big virgin longleaf pines and cypress trees near the banks of the river in the early 1900s. He said that many of the longleaf pines and cypress trees were 3 to 4 feet in diameter at the butt. They cut logs 60 to 70 feet long and dragged them to the river with their two oxen. They would tie the logs together in a large raft and float them many miles down the river to Choctawhatchee Bay where they were paid a Silver Dollar for each log. One of his favorite places along the river that he often talked about was Lassiter Landing where they liked to camp. Dad had never been to the Florida Panhandle, so he was not familiar with any of the places Mr. Crofton talked about, but he enjoyed hearing about Mr. Crofton growing up in that wild country and how his family made much of their living from logging.

In the 1950s and 60s, the U.S. Government took all of our land on Merritt Island by eminent domain for the original Cape Canaveral Air Force Station and as it expanded the Merritt Island Launch Area for the space program. During that time Dad purchased a large timber tract in Dixie County and left

the Brevard County area. In 1965 a friend of his in real estate in north Florida asked him to ride along as he made a trip to the Panhandle to look at a timber tract he was considering buying. It was at this time that Dad was first introduced to the Panhandle and the Choctawhatchee River. His friend decided not to purchase the timber tract, but Dad liked the land and sale price and that it had a small house, so he purchased it. As he began exploring the property more closely and talking with local people whose families had lived in the area for several generations, he was told there was a boat landing on the property that had been used as a ferry crossing for stage coaches traveling between Tallahassee and Pensacola in the 1830s. When he learned the landing was called Lassiter Landing, named after the family that settled this land in the 1820s, he remembered Mr. Crofton telling stories about camping at this place with his family and rafting logs down the river.

Needless to say, there are no longer first generation virgin longleaf pines on any of this 174-acre timber tract. The natural regeneration and planted longleaf, loblolly, and slash pines have been harvested and replanted several times since the virgin

timber was harvested in the early 1900s. There are a few large (18 to 20 inch DBH) natural longleaf pines that may be second generation pines dating back to the 1930s. These trees are primarily located in about 10 acres of successional forest (likely disturbed little in the last 75 years) and along the edges of major drainage features and in the yard around our house. I have also found many old heart pine stumps of longleaf that once lived on our land. Most of these stumps suggest that the trees were harvested many decades ago utilizing hand tools like axes and two man crosscut saws. Most stumps also show scarring from fire. In most cases the stumps don't show the outline of the original stump, including the sapwood and bark. However, in those cases that do, some of the stumps at the ground surface measure 24 to 36 inches in diameter. One of our past foresters once told me that a good rule of thumb to estimate the diameter of a longleaf pine if only the heart pine remains is to assume that the heart pine is probably somewhere between 30 to 60% of the original diameter. Based on my limited number of measurements in the field, that seems to be a pretty good rule of thumb. I have measured several heartwood only stumps and determined that many of these longleaf pines must have had a DBH in the range of 30 to 48 inches. My

conclusion is that most of the larger stumps are probably the remaining heartwood of first generation virgin longleaf pines.

One of our friends who lives a few miles down the river was raised on the river fishing, hunting, trapping, and catching wild hogs with his specially trained dogs, and generally roaming and camping up and down the river. A few years ago, he got interested in "deadheading," removing the sunken logs of longleaf pines and cypress trees that had been lost while floating them down the river during the late 1800s and early 1900s. He purchased the equipment he needed and obtained the required permits and licenses. One day he called and said he had found a heart pine log at the bottom of the river next to our property. There was a brand on one end of the log which signified the harvester of the log. Many of the loggers would mark the logs they cut with their own brand, much as cattle are branded, so they could be easily identified when being paid.

He gave us a short section of the branded end of the log, and we have preserved it. After all of the years in the water, the brand is not very discernible, so we haven't been able to identify the harvester. I also don't know if the Croftons even had their own brand, but it made me think about their family rafting logs down the river about 100 years ago.

In researching the history of the Crofton family I have also learned that they settled on land only a few miles north of our property in the late 1800s, and also with four other people established Unity Baptist Church, which still has an active congregation. What a coincidence that after knowing Mr. Crofton many years ago on the other side of the state, Dad, and now my wife and I, should end up owning one of Mr. Crofton's favorite boyhood places on a river over 300 miles away. Dad would also live out the last many years of his life on this property, dying at the age of 95. He called this timberland along the river "a paradise" and one of his special places was Lassiter Landing.

Even though none of the virgin longleaf pines remain, we plan to protect some of their more interesting and larger heartwood stumps from future regeneration operations, harvesting of pines, and prescribed fire. These stumps can last for many years, as sort of tombstones reminding us of

the majestic virgin pines that once covered this land. We also plan to protect the remaining second generation longleaf pines, and will continue to plant longleaf seedlings that, hopefully, will someday be big beautiful pines that our children and grandchildren will enjoy and appreciate, as we do today.

People come into landownership from different directions. Some inherit the land, some purchase as a financial investment, and some purchase to invest in the future of a landscape. In our case, our family became forest landowners because of our love of the land and trees, especially pine trees. Regardless of how and why you own land, as a private landowner it's important to learn from the past, appreciate the history of your property, and determine how you can maintain your piece of the earth into the future.



*Large heartwood pine stump.  
Photo by Jon Gould.*

# DIGGING DEEPER: MANAGING A FOREST THAT INCLUDES GOPHER TORTOISES

By Ad Platt, *The Longleaf Alliance*

I still remember the first gopher tortoise I ever encountered, though it was many years ago. And each one I've encountered since, though there have been many of all sizes. For me and countless others, the gopher tortoise is one of those gateway creatures that connect many folks to the longleaf ecosystem. The gopher tortoise is also properly referred to as a keystone species, since the way they influence the ecology, structure, and function of their environment also makes it possible for over 360 other species to prosper.

This species is as much a southern icon as the longleaf habitat it prefers, though it can also do well in other managed pine stands. Fortunately, the gopher tortoise still survives across much of its former range and can be fairly common in some locations. But the 80% decline in populations led to formal protection in every state and a federal listing as “threatened” west of the Mobile and Tombigbee Rivers in Alabama. The good news is that protection of this tortoise need not be a problem, especially if a landowner is already actively managing their forest for other values. What benefits the gopher tortoise also benefits many other species of wildlife, especially quail, songbirds, and wild turkey.

The gopher tortoise's needs are basic and easily defined. In the simplest definition, they prefer sites with sandier soils which are well drained and easy to dig in and have an open pine canopy allowing considerable light to reach the ground. This abundant light, along with regular fire, maintains a diverse grassy and herbaceous understory that offers food throughout the growing season that is low enough for them to reach. As Rhett has been fond of saying in his talks, “the dinner table needs to be kept low, as tortoises just can't jump.” Longleaf offers several advantages over other southern pines. It allows more light through the open crown, is tolerant of fire at an early age, and its superior disease, insect and wind resistance enable longleaf stands to be carried into longer rotations.

For the forest manager or landowner, providing for tortoises is straightforward. Know your land, locate (GIS/GPS) and mark known sites so they can be protected. Communicate these



*Gopher tortoise browsing on silkgrass. Photo by Carol Denbof.*

locations with any contractors on site. Incorporate prescribed fire and other practices that will promote rather than simplify biodiversity and habitat. In any mechanical operations like mowing, harvesting, firelines or road work, keep machinery at least 25' away from burrows. If conducting broadcast herbicide applications on the tract, provide a buffer for their foraging needs, or consider banded applications that cost less and retain 50% of the food and habitat. Find and control exotic invasive species. Fortunately for this iconic species, these practices are easily incorporated and in many cases what you wanted to do anyway.

Gopher tortoises continue to decline overall, and their struggle to survive will require our help. They may live 60 or more years, but a low reproductive rate and continuing declines in habitat work against them. They typically lay only 4 to 8 eggs per year, from April to June, in the apron at the burrow entrance, and these take 80-100 days to develop. Mortality of eggs and hatchlings is often over 90%. Predators are everywhere, and include raccoons, foxes, opossums, armadillos, hawks, snakes, fire ants, coyotes, dogs, pigs, and humans. Invasive species such as cogon grass, kudzu, fire ants, and wild hogs are particularly problematic. Gopher tortoises can and will move to open areas

to avoid overly dense stands or declining habitat. Observing numerous gopher tortoises near your roads or food plots may not be a good sign; you may likely need to implement some practices to provide better habitat. Once you remove the midstory and provide more sunlight on the forest floor, tortoises will readily move away from openings and back into the stands.

An important opportunity to help also comes in the timing of forestry operations. Now that we know the breeding and hatching seasons, we can avoid them. In areas with high populations, log or thin in the winter when possible, buffering the burrows. Gopher tortoise habitat tends to be well suited for winter logging. Prescribed burning is normally conducted in the dormant season for fuel reduction, but transitioning to growing season is even better in longleaf and more effective in controlling hardwood competition and improving habitat. Using what we have shared in the Herbicide & Longleaf 201 Academy, apply your knowledge of herbicides, rates, and timing to deal with specific problems while also improving your habitats.

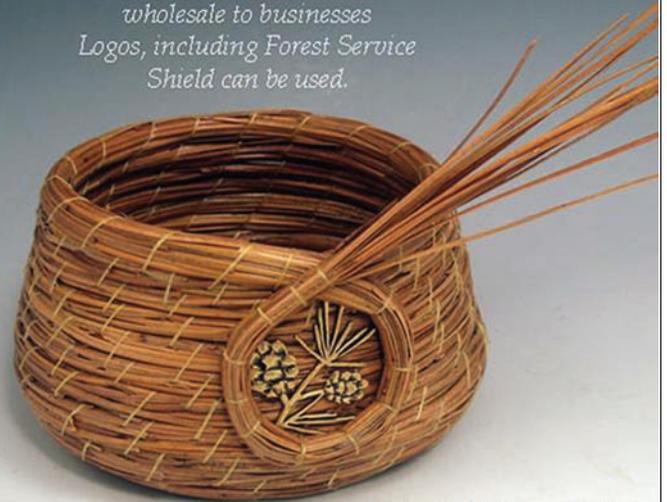
Having gopher tortoises on your land can be to your advantage, especially if you are interested in the numerous financial incentives that have been created to improve habitat conditions for this species. The NRCS has funded programs in each state of the gopher tortoise range (LA, MS, AL, GA, FL, SC) to assist landowners with practices, including longleaf restoration and prescribed burning, that benefit tortoise habitat. The USFWS also has assistance to offer, including the Partners program, and protections for landowners doing the right thing through Candidate Conservation Agreements with Assurances that provide certainty for the landowner while protecting future management options. State agencies across the gopher tortoise range also offer a variety of incentives to promote habitat improvements for this species in recognition of all it does for the longleaf system.

Even casual visitors to tortoise habitats can help. Gopher tortoises know their home well and will try to return if moved, even up to great distances. If you help a tortoise cross a road, try to move it in the same direction it was heading. Leash your dog in tortoise habitat if it shows an active interest before it can cause injury.

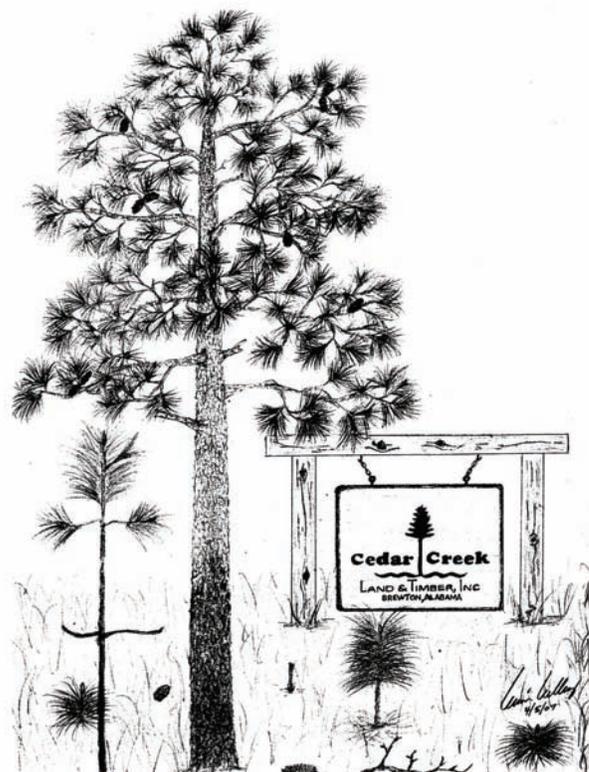
Enabling the gopher tortoise to thrive, rather than just survive, does a lot for a landowner. They perform a huge service in their movement of soil and seeds, while sheltering potentially hundreds of different species of life from heat, fire, and predation in their burrows. Both the tortoise and the many creatures they shelter catch the attentions of the young, or young at heart, and provide a powerful hook to that next generation of longleaf enthusiasts to continue your legacy.

# Splendor of the Longleaf Pine

*Baskets, art pieces, project kits, & jewelry.  
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Shield can be used.*



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By Troy Ettel, *The Nature Conservancy*,  
*Longleaf Partnership Council Chair*

# Longleaf Partnership Council Update

LOOKING FORWARD WHILE ACKNOWLEDGING WHERE WE HAVE BEEN: SOME THOUGHTS ABOUT THE JOURNEY TO 8 MILLION ACRES

Transition was the dominant theme of November's Longleaf Regional Partnership Council meeting in Baton Rouge, Louisiana. As I was ushered in as Council Chair for 2016, other impending changes too were on the minds of many.

The frenetic presidential campaign season is a constant reminder that the politics, from which longleaf pine emerged as a fairly constant priority, are changing. The America's Longleaf Restoration Initiative (ALRI) thus far has existed under only one presidential administration, one that prioritized the longleaf pine ecosystem, allowing the formation of the Longleaf Pine Federal

Coordinating Committee (FCC) with membership from the Departments of Defense, Interior, and Agriculture. The FCC members mutually agreed "to provide federal leadership to achieve the goals of America's Longleaf Restoration Initiative."

This leadership has been on display through progression of restoration and management on national forests, wildlife refuges, military bases, and through funding made available to engage private landowners in restoration as well. Although the federal partners have led the way, many state and nongovernmental agencies and private landowners stepped up too.

As we look to what we have accomplished, there is a lot that we should stop, take a deep breath, and appreciate. Today, ALRI rivals the best collaborative conservation initiatives anywhere on the globe. When ALRI was launched with the publishing of the Range-Wide Conservation Plan in 2009, it was generally accepted that only 3.3 million acres of longleaf pine remained across its historic range. Today, we are adding approximately 150,000 acres of longleaf pine range wide annually, a major achievement, with the majority of those gains (>75%) seen on private lands. The best, most recent estimates put current total longleaf pine forest acreage at approximately 4.7 million acres. So, the current pace, while laudable, will not allow the ALRI partners to reach our 8-million-acre goal by 2025.

What does that mean to the partnership and the future of



*Smoke rises during a prescribed fire in a mixed slash/longleaf pine forest on the Osceola National Forest in northern Florida. Using authorities like the Stewardship Authority and the Collaborative Forest Landscape Restoration Program, innovative managers like district ranger Ivan Green continue to accelerate longleaf pine restoration. Photo by Sherry Crawley – TNC.*

longleaf pine restoration, especially given this time of transition? Could the argument be made that the proverbial "low hanging fruit" is behind us? Will the next 3.3 million acres be harder to get?

First and foremost, we have to be thinking about a strategy for engaging the new administration; this must be a continual dialogue over the course of the next year. We cannot afford to miss our opportunity to keep the foot on the gas pedal. We have to listen to our federal partners to see how we can effectively and appropriately do that, and then we each must play our part. Secondly, we cannot just maintain our

foot on the accelerator; we have to push it down harder. All of us that are partners in the restoration and conservation of longleaf pine must ask what more can we do, within our agencies and ourselves, to dig a little deeper and find a way to increase the pace of restoration even above the impressive rate that we are at today.

This might require new programs, such as one that targets the rehabilitation of private forestland that has some longleaf component, but perhaps not a dominant one. Such forests can more quickly and affordably be steered in the right direction with management and fire. The strategy will also require public agencies to look more closely at how they can quicken the pace and advance restoration on acres appropriate for longleaf. Of course these things do not happen in a vacuum; we must all play a part.

I found that remarks made by Frank Beum, the Director of Forest Management for the Forest Service's Southern Region, provided a great example of what we all must do. Frank said that the Regional Forester, Tony Tooke, will be looking at ways to set stretch goals for restoration in the Southern Region for the next year that utilize existing authorities to accelerate the current pace. It won't be easy, but we need to look similarly at everything that we are currently doing for longleaf pine for opportunities that might allow us to do the same.

## Apalachicola Regional Stewardship Alliance (ARSA) Update: Local Conservation

Alliance Scores a Big Win in Washington *By Brian Pelc, Restoration Project Manager, The Nature Conservancy*



*Rep. Gwen Graham assists staff from USFS and TNC on a cooperative prescribed burn day at Apalachicola National Forest. Photo by D.Keller.*

Requests from the elected representative to the US Congress don't come every day, so when Rep. Gwen Graham wondered if a workday could be organized in the ARSA region the affirmative answer came fast. With only a couple of days' planning, three options emerged for the specified date including a prescribed fire on the Apalachicola National Forest, a wiregrass planting project, and a Longleaf Pine Landowner's Workshop. Rep. Graham was ultimately treated to great weather and an exciting day burning flatwoods on the Wakulla Ranger District. This was more than a feel good publicity stunt. Five days after Rep. Graham's day in the woods, she formally signed on to co-sponsor a reauthorization of the Land and Water Conservation Fund and has committed her support to the Wildfire Disaster Funding Act.

In other news, ARSA members are excited to offer a brand new resource: *Managing Longleaf Habitat: a North Florida Landowner's Guide*. This 75-page book lays out longleaf management for private or public managers and is free of charge thanks to the generous support of the National Fish and Wildlife Foundation and Southern Company through a grant from the Longleaf Stewardship Fund.

## Wilmington's "Fire in the Pines Festival" is Big Success

*By Debbie Crane, The Nature Conservancy*



*Smokey Bear watches a controlled burn at the Fire in the Pines Festival. Photo © Jessie Birckhead/TNC.*

Four thousand people learned about the importance of controlled burning during October's "Fire in the Pines Festival" in Wilmington, North Carolina. The highlight of the festival was a successful controlled burn, which was lit by local television meteorologist Gabrielle Deabler. Of course, another celebrity – Smokey Bear – was also on hand for the event.

This is the sixth "Fire in the Pines Festival," the second held at Halyburton Park in Wilmington. Organizers say moving the festival to a more urban setting has helped boost attendance. Originally, the festival was held in a smaller town about 30 miles from Wilmington.

The festival is a family event – including kid-friendly activities such as face painting, crafting, and hayrides as well as displays of live raptors and reptiles. The N.C. Forest Service provided some of the most popular displays – including a giant Smokey and a helicopter.

In return for a beach bike raffle ticket, attendees were encouraged to fill out a survey regarding their attitude toward controlled burning and how they found out about the festival. Nearly 90 percent of those surveyed agreed that controlled burns reduced wildfires, benefited plants and animals, and could be conducted

safely. Although organizers had paid for some print and radio advertising, the majority of attendees said they found out about the festival from a friend or via Facebook.

Event sponsors include The Nature Conservancy, National Fish and Wildlife Foundation, PepsiCo, International Paper, and the North Carolina Prescribed Fire Council. For more details about the event contact the Conservancy's Angie Carl or Zach West at (910) 395-5000.

## News from the Chattahoochee Fall Line Conservation Partnership (CFLCP)

By LuAnn Craighton, *The Nature Conservancy – Georgia Chapter*



*CFLCP Full Partnership Meeting participants discuss longleaf restoration strategies for a predominantly pastureland site. Photo by L. Craighton.*

In late August, the CFLCP hosted a Steering Committee meeting at Oxbow Meadows Environmental Learning Center in Columbus, Georgia. The agenda focused on discussing the best strategy and process to continue to develop the draft Conservation Plan for the CFLCP.

Following the morning Steering Committee meeting, the CFLCP hosted an afternoon Full Partnership Meeting. Nearly 60 participants, representing 26 organizations/affiliations attended. The goal of the annual Full Partnership Meeting is to incorporate an expanding affiliation of individuals and organizations into the current and future activities of the Partnership. The meeting agenda included updates on land protection, stewardship progress, outreach programs, and funding activities along the Chattahoochee Fall Line. Recently awarded National Fish and Wildlife Foundation (NFWF) funding will support the CFLCP working more actively in the Alabama region of the Fall Line. The Full Partnership meeting agenda reflected this expanding

group of partners and included presentations from Tuskegee University's Carver Integrative Sustainability Center and Tuskegee National Forest. Dr. Edward Lowenstein, School of Forestry and Wildlife Sciences-Auburn University, also reviewed Proportional-B, an Alternative Approach to Selection Silviculture.

The next morning, the Full Partnership meeting continued with a field trip to Oakland Farm, a landholding owned by The Nature Conservancy, which is a key "connector" tract or hub in the Army Compatible Use Buffer (ACUB) landscape around Ft. Benning. The meeting concluded with lunch at the new Chattahoochee Fall Line Wildlife Management Area (CFL WMA) with Georgia Department of Natural Resources staff providing highlights from the first year of operation. The CFL WMA opened in 2014, is co-owned and co-managed by the Georgia Department of Natural Resource and The Nature Conservancy and is managed with an emphasis on longleaf ecosystem restoration.

## Altama Plantation Permanently Protected by The Nature Conservancy and GA Department of Natural Resources

By Randy Tate, *The Longleaf Alliance*



*Gopher tortoise on Altama Plantation. Photo by Jacob Thompson.*

Several partners within the Ft. Stewart/Altamaha Longleaf Partnership have come together to complete another major land protection project along the Altamaha River. The Nature Conservancy, US Fish and Wildlife Service, US Marine Corps/Navy, GA DNR, and two private foundations have pooled resources to purchase and permanently protect Altama Plantation, a 3,986-acre tract that contains longleaf/wiregrass communities and a good population of gopher tortoises.

Altama Plantation is an important asset to Georgia's natural, outdoor and historical heritage. Altama consists of 1,800 acres of uplands, including 1,500 acres of longleaf pine –wiregrass, and flatwoods in near-pristine condition (and to be restored). Gopher tortoise and other important wildlife are common to the site. Also on site is 2,140 acres of pristine wetlands, including the globally rare tidal bottomland hardwood forest. Managed as a private hunting retreat since 1914, the public will be excited to access Altama's scenic forests and well maintained natural habitats. Located in Glynn County near Interstate 95, it will be easily accessible to the region's hunters and outdoor recreationists. Altama (an early spelling of Altamaha) and its owners' place in Georgia history are significant and noteworthy. Acquired first in 1763 via a Crown Grant of England to William Hopeton of South Carolina, it eventually was converted into an iconic southern plantation by James Hamilton Couper, complete with an intricate system of dikes, canals and tidal floodgates for growing rice and a moveable rail system for transporting crops. Couper became famous for scientific, cultural, architectural, and other contributions including leading the survey for the Georgia-Florida boundary and designing Christ Church in Savannah. The indigo snake's scientific name, *Drymarchon couperi*, is named for Couper, as the first recorded specimen was collected by him in 1842 on the grounds of Altama.

## Gulf Coastal Plain Ecosystem Partnership (GCPEP) Welcomes Resource Management Service as New Partner *By Vernon Compton, The Longleaf Alliance*



*A longleaf stand being managed with prescribed fire on RMS land in the GCPEP landscape. Photo by Jimmy Bullock, RMS.*

Partners were pleased recently to add Resource Management Service, LLC (RMS) as the 13th and newest partner to GCPEP. RMS becomes the largest private landowner in the partnership with 205,000 acres in a working forest called Coastal Headwaters Forest. The majority of the lands are in three contiguous blocks found in northwest Florida and south Alabama. With the addition of RMS to GCPEP, partners now have over 1.25 million acres enrolled in the collaborative conservation effort.

RMS is working with federal, state, and private partners in an effort to restore the Coastal Headwaters Forest back to longleaf pine through the use of conservation easements. Besides planting longleaf pine on appropriate soils, RMS plans to use prescribed fire and employ longer forest stand rotations, all while maintaining an economically viable forest with

the numerous jobs, markets, and local community benefits associated with it. Restoring longleaf on RMS lands would permanently protect a vast working forestland across portions of major watersheds in Alabama and Florida.

The Range-Wide Conservation Plan for Longleaf Pine recognized the very important role that private landowners would play in re-establishing longleaf pine across its historic range. It was also recognized that both small and large private landowners would be crucial in the recovery effort if the goal of 8 million acres of longleaf pine was to be reached. Restoration of longleaf on RMS lands would of course help to reach that goal, and would do so in one of the landscapes recognized as a priority for recovery of the species. In addition to longleaf recovery, other benefits would include maintaining an economically viable and sustainable working forest, protecting water quality and quantity, and enhancing and maintaining habitat for imperiled and at risk species. Benefits to one such species, the gopher tortoise, can already be seen through longleaf restoration efforts completed to date.

A hearty welcome to RMS and our thanks to RMS and the many partners already working in collaboration to assist with the recovery of the longleaf ecosystem on their lands. A special thanks to The Conservation Fund, the National Fish and Wildlife Foundation, and the Regional Conservation Partnership Program of the Natural Resources Conservation Service for the essential support they have provided to date in this important effort.

## Private lands conversion supported by National Fish & Wildlife Foundation (NFWF) and Louisiana Longleaf Implementation Team *By Dan Ryan, The Nature Conservancy*



*Mixed pine forest in transition to longleaf dominated stand. Photo by The Nature Conservancy.*

The West Central Louisiana Ecosystem Conservation Project (WLEP) initiated a partnership with The Ecological Forestry Center of Louisiana established by the A. J. and Nona Trigg Hodges Foundation (The Foundation). The Foundation has begun an aggressive restoration effort utilizing prescribed fire, reforestation, and herbicide on approximately 4000 acres of forest in Sabine Parish located in west central Louisiana. Formally longleaf forest, today slash and loblolly pine are being removed and replaced with longleaf. A cost share agreement provided to the Foundation by WLEP leveraged NFWF funds matched by the landowner to apply herbicide to heavy woody brush on 847 acres of emerging longleaf forest. The restoration effort is already paying off, and in some areas thousands of longleaf seedlings are observed in the ground layer.

The Foundation desires to make the forest available to research and for education at all levels. The Louisiana Chapter of The Nature Conservancy has established survey plots in the area to track the effectiveness of the treatment. The question of

how best to control undesirable brush while maintaining and promoting diverse, native ground cover vegetation in longleaf restoration is one that land managers in the region are attempting to resolve.

## Safe Harbor Program Celebrates 20th Anniversary

By Susan Miller, US Fish & Wildlife Service



*Attendees of the 20th Anniversary Safe Harbor Program event. Photo by Karen Anderson/USFWS.*

mature pine forests. Safe Harbor Agreements now help protect 5.2 million acres of habitat for nearly 90 species in 26 states. In addition to birds, these agreements also protect habitat for endangered and threatened mammals, fish, amphibians and reptiles, mussels, butterflies and other insects, and plants. All because of a program that began in the North Carolina Sandhills 20 years ago!

The U.S. Fish and Wildlife Service, landowners, and cooperators recently celebrated the 20th anniversary of the Safe Harbor Program, which began in the North Carolina Sandhills in 1995. That first Safe Harbor Agreement was designed to engage non-federal landowners in managing their longleaf pine habitat to benefit the federally endangered red-cockaded woodpecker. Safe Harbor was, and remains, a great idea – allowing property owners to enter into a voluntary agreement to protect habitat for a species listed under the Endangered Species Act without worrying that their management actions may lead to additional land use restrictions. Today 120 landowners have enrolled in the North Carolina Sandhills Safe Harbor Program, protecting more than 62,500 habitat acres on golf courses, town parks, residential areas, scout camps, horse farms, and school property. Range- wide, today seven Safe Harbor Agreements benefit this woodpecker which makes its home in

## It's a Zoo Out There!

Alan Dozier, Coordinator, Okefenokee and Osceola Local Implementation Team (O2LIT)



*The Pulaski Award trophy. Photo by Terri Jenkins.*

Based on a referral from The Longleaf Alliance, the O2LIT initiated outreach to the horticultural staff at the Jacksonville Zoo and Gardens. The intent was to facilitate a growing conservation effort on the part of the Zoo by pairing the horticultural staff with a conservation minded landowner interested in longleaf. Lucretia Norman owns a mostly loblolly pine plantation which she plans to gradually convert to longleaf ecosystem. Her desire is to have a natural forest suitable for both pollinators and to serve as an educational site for how to restore a natural forest. The Zoo offers their horticultural staff of 15 personnel with a diverse set of skills, funding, greenhouse and nursery plant propagation, and manpower for off- site projects including longleaf pine restoration. Staff at the Zoo were also very interested in learning about prescribed fire. The next step decided during the meeting is for Ms. Norman to invite the staff up for a visit on her next prescribed burn.

In other news, The South Georgia-North Florida Fire Initiative has been named recipient of the 2015 Pulaski Award. The Pulaski is awarded each year by the National Interagency Fire Center to recognize outstanding work in the field of fire management. Okefenokee National Wildlife Refuge manager Michael Lusk recognized the role of O2LIT in promoting longleaf pine and good fire management. The Greater Okefenokee Association of Landowners will conduct a presentation ceremony at their upcoming group meeting with the Department of

Interior's Director of the Office of Wildland Fire, Jim Douglas, presenting the award.

## Sewee Longleaf Conservation Cooperative Update

By Tom Dooley, *The Nature Conservancy*



*Longleaf restoration on TNC property certified by FSC in Berkeley County, SC. Photo by Colette Degarady.*

In 2014, The Nature Conservancy of South Carolina (TNC) certified more than 2,000 acres of forestland with the Forest Stewardship Council (FSC) on 3 tracts of land within the Sewee Longleaf Conservation Cooperative (SLCC). TNC partnered with International Paper's Certified Forest Management Group, LLC to certify the forestlands. Presently, more than 1,000 acres of longleaf pine forests are being actively restored across the three tracts. Certifying the forests was a sensible choice for TNC, as the mission and guiding principles of FSC Forest Management directly align with the practices involved in restoring longleaf pine forests across its historic range. Restoration and maintenance of longleaf pine forests is inherently responsible forest management. FSC sets standards for responsible forest management, ensuring forest products originate from forests that provide environmental, social and economic benefits.

FSC Forest Management certification allows for typical forest management practices associated with restoring and maintaining longleaf pine forests. These practices include the use of chemicals, planting practices, silvicultural treatments and, of course, burning. Based on TNC's experience, owning and managing a FSC-certified forest is no more onerous than a forest with no certification. Planning and documentation of activities are essential to ensuring FSC Forest Management Certification compliance, which is usual practice for many programs associated with longleaf pine forest management.

Increasing awareness and demand by consumers for sustainable, responsibly managed forest products have pressured many major companies to develop policies stating a preference for FSC-certified products. This demand will only grow over time. With the wave of longleaf pine forests being established in the southeastern U.S., certifying forest management practices is not only the sensible thing, it is the right thing.

## SoLoACE Longleaf Partnership Update

By Bobby Franklin, *The Longleaf Alliance*

So far fall has been uncharacteristically warm and wet in the Southern Low Country and ACE Basin (SoLoACE) Longleaf Partnership region. Early October saw us get part of the historic deluge that hit South Carolina with record flooding. Fortunately, most of the SoLoACE region was spared the severe flooding and road damage that impacted much of the coastal plain of South Carolina.

In August 2015, SC Department of Natural Resources (SCDNR) installed 13 artificial cavities in large longleaf pines at the Aiken Gopher Tortoise Heritage Preserve. This work was funded by a grant from the National Fish and Wildlife Foundation (NFWF), International Paper (IP), US Fish & Wildlife Service (USFWS), and Natural Resources Conservation Service (NRCS) and was administered by The Longleaf Alliance.

The September 23 field day at Clarendon Plantation in Beaufort County that we co-sponsored with the SC Prescribed Fire Council was attended by 90 landowners, land managers, and natural resource professionals. The next day's annual Fire Council meeting in Walterboro was attended by 150.

In addition, we have been awarded a Conservation Innovation Grant by the SC NRCS. Through this grant, we will be able to work with 20 landowners within the project area, assisting them with the training and logistics necessary to burn at least 25 acres of pineland on their property. We are also assisting the USFWS in administering the Partners Cost-Share Program for Longleaf Pine in the SC areas that are outside of the LITs. We are continuing to work with landowners to cost-share planting of longleaf pine and now cost-sharing of prescribed burning in longleaf pine forests.

We are grateful to SC NRCS, NFWF, IP, and USDA NRCS for the funding to make this work possible. SoLoACE Longleaf Partnership would not exist without the cooperation & teamwork from the following partners: The Longleaf Alliance, Clemson University, Ducks Unlimited, Hitchcock Woods Foundation, National Wild Turkey Federation, NRCS, The Nature Conservancy, Nemours Wildlife Foundation, Open Land Trust, SCDNR, South Carolina Forestry Commission, USFWS, U.S. Forest Service, and Savannah River Forest Station.

## Texas Longleaf Implementation Team Update

By Kent Evans, Coordinator, Texas Longleaf Implementation Team



Landowner Amanda Haralson and family (Tyler County, Texas) hosted a site visit by a cadre from our LIT: The Nature Conservancy, US Forest Service, Texas Parks and Wildlife, Texas A&M Forest Service, NRCS, International Paper and Resource Management Services

The Texas Longleaf Implementation Team is organized around a Declaration of Partnership by 15 conservation organizations committed to working together in accelerating longleaf restoration inside two significant geographic areas of east Texas: Longleaf Ridge and Big Thicket. Grants from National Fish & Wildlife Foundation (NFWF) and International Paper (IP) Forestland Stewards administered through Texas A&M Forest Service allow our team to provide technical assistance and cost share for landowners that will establish new stands of longleaf pine or enhance existing stands with burning and competition control. The soggy spring and scorching summer delayed some projects, but our team has completed numerous landowner site visits and workshops. Included in restoration efforts is the challenge for the Team and landowners to address how best to establish and enhance the desired herbaceous understory grasses and forbs native to east Texas. Landowners are benefitting by having a cadre from our team visit their land and exchange information and experience with them. Some visits are done in association with the draft review of a Forest Stewardship Plan prepared by Texas A&M Forest Service.

Those plans serve as excellent baseline documents for discussion on alternative ways to do site prep, enhance existing longleaf, or to develop a burn rotation. Several owners arranged for their consulting forester, biologist, and burn contractor to join our cadre visit to discuss challenges they are facing with restoration objectives. We have completed five site visits to provide assistance on lands that represent approximately 6,000 acres of private land in the Longleaf Ridge SGA.

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*Several members of a management team conducting longleaf new germinant counts in DeSoto National Forest, MS.*

*By Ryan Mitchell, The Longleaf Alliance*

# THE LONGLEAF ACADEMY PROGRAM

In 2008, The Longleaf Alliance introduced the Longleaf Academy program. Designed to better prepare natural resource professionals and private landowners, the course provided knowledgeable technical assistance in the areas of longleaf restoration, management, and management problems specific to longleaf forests. An additional focus was to create a uniformly well-informed network of longleaf managers to extend the reach of The Longleaf Alliance. This flagship academy, Longleaf 101, offers the essential foundation anyone investing in longleaf needs to know to ensure success. Three years later, in response to the demand from Longleaf 101 graduates, The Alliance began to develop in-depth academies focusing on single topics. Currently the advanced academies consist of three 201 level and one 301 level academy. These include Understory 201, Herbicides & Longleaf 201, Fire & Longleaf 201, and Gopher Tortoise 301. Understory 201 provides an introduction to some of the most important plant families of a healthy native understory and shares techniques for successful restoration and management. During Herbicides & Longleaf 201, attendees learn about herbicide selections and their respective use for ecological restoration specifically in longleaf pine forests. The Fire & Longleaf 201 academy was created to provide training in how to better apply fire for beneficial effect in managing longleaf systems. Finally, Gopher Tortoise 301 is conducted on a request only basis and covers the biological needs and management of the gopher tortoise, a keystone species.

At the end of fiscal year 2014, The Alliance had held a total of 46 Longleaf Academies, conducted in every state of the historic range of longleaf except Texas and Virginia. We began fiscal year 2015 with the goal of growing the program and conducting an unprecedented 10 academies to better meet the demands for training across the range. The Alliance partnered with different Longleaf Implementation Teams (LITs) to conduct some of these academies. The seventeen LITs are tasked with coordinating longleaf restoration efforts in their regions and have the best working knowledge of their local areas and the education and outreach needs, so partnering was a natural fit. We worked with the West-Central Louisiana Ecosystem Conservation Partnership, Ocala Local Implementation Team, Chattahoochee Fall Line Conservation Partnership (two academies), SoLoACE Longleaf Partnership (two academies), Mississippi Longleaf Coordination Team, and Talladega Mountain Longleaf Conservation Partnership during 2015.

With the recognized success of this training approach, The Longleaf Alliance received a generous grant from a private foundation in February of 2014 to expand our Longleaf Academy program. We have been able to apply a portion of this grant to each academy and extend the support from other partners (including the previously mentioned LITs). This unrestricted support allows The Alliance to hold academies in areas we may not have been able to reach otherwise, and to keep

the registration costs significantly lower. It is a great synergetic relationship that allows us to further longleaf restoration through outreach and education.

The inaugural debut of the Fire & Longleaf 201 academy was held in Garnett, SC this past August at the Webb Wildlife Center. We partnered with the SoLoACE Longleaf Partnership for this academy. This course was requested to help landowners and managers better apply prescribed fire for best effect in longleaf pine forests. The topics included: basics of fire physics, fire weather, burning techniques, useful tools to acquire, burning young longleaf stands, returning fire to long unburned stands, writing burn plans, and the basics of smoke management, among other topics. In addition to the in-depth



*The inaugural Fire & Longleaf 201 academy class immediately after the prescribed burn.*

classroom work, students were tasked with developing management plans for their 'landowners' during their Management Scenarios. The weather cooperated and the SCDNR staff was able to conduct a 62-acre growing-season prescribed burn during the field trip portion. This was the first time many of the attendees had observed a growing-season burn, and the feedback and evaluations showed it was a hit.

The Longleaf Alliance successfully held 10 academies this past fiscal year: five Longleaf 101 academies, three Herbicides & Longleaf 201 academies, one Understory 201 academy, and one Fire & Longleaf 201 academy. At time of press, The Longleaf Alliance had completed three academies in FY2016, with another eight scheduled (listed in sidebar). As landowner interest in longleaf restoration continues to grow, we continue to expand the training we offer to meet their needs. Our many great partners help make it possible. So 2016 will be a new record year if we can conduct all 11 planned academies.

We are currently developing the next Longleaf Academy, the Legacy 201, which will focus on techniques for successful generational transfer. Look for this academy to debut in late 2016.

## Upcoming Longleaf Academies

**Jan. 12-14, 2016** – Longleaf 101  
Woodworth, Louisiana - Full

**Jan 19-21, 2016** – Longleaf 101  
Brookeland, Texas

**Feb. 17-19, 2016** – Longleaf 101  
Tifton, Georgia

**Mar. 7-9, 2016** – Longleaf 101  
Tuskegee, Alabama

**Apr. 5-7, 2016** – Longleaf 101  
North Carolina

**Apr. 26-28, 2016** – Longleaf 101  
Cheraw, South Carolina

**May 17-19, 2016** – Longleaf 101  
Ft. Stewart, Georgia

**June 7-9, 2016** – Longleaf 101  
Alabama or Florida

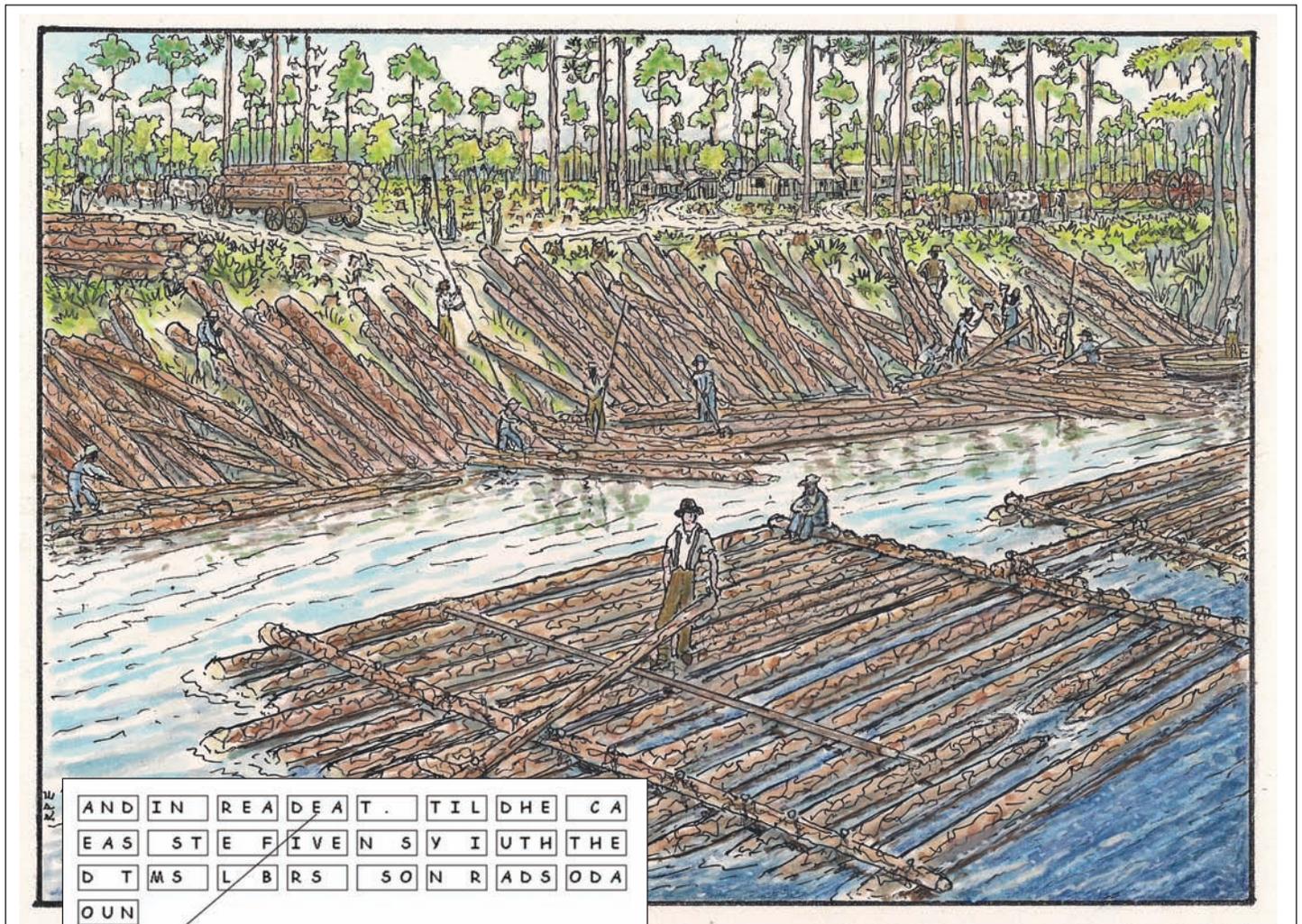
## Thanks to our Partners who made this possible!

National Fish and Wildlife Foundation  
Southern Company  
The Nature Conservancy  
South Carolina Forestry Commission  
Florida Forest Service  
Louisiana Department of Wildlife & Fisheries  
Meeks Farm & Nursery  
Mississippi State University  
National Wild Turkey Federation  
South Carolina Prescribed Fire Council  
South Carolina Tree Farm Committee  
US Army at Fort Benning

# While you're in the Grass stage...

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

Lesson Eighteen: A little over 100 years ago, there were no trucks and few railroads. Those roadways that did exist were often overused, dirt roads with many potholes. In those days, horses, carriages, and gopher tortoises were often the only traffic. When logging, heavy items like logs had to be floated or carried on boats if they were to be moved very far. Rivers were the highways of the time. Use Lesson Eighteen found on our website ([www.longleafalliance.org/next-generation](http://www.longleafalliance.org/next-generation)) to help unscramble the tiles to reveal the message. Answers can be found below the picture.



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Answer  
Deadheads can still be found today in rivers and streams  
in the Southeast.

## LITERARY REVIEW

By Robert Abernethy, *The Longleaf Alliance*

## Tar Heels: North Carolina's Forgotten Economy: Pitch, Tar, Turpentine & Longleaf Pines

By Kent Wrench

2014, CreateSpace, Charleston, SC.

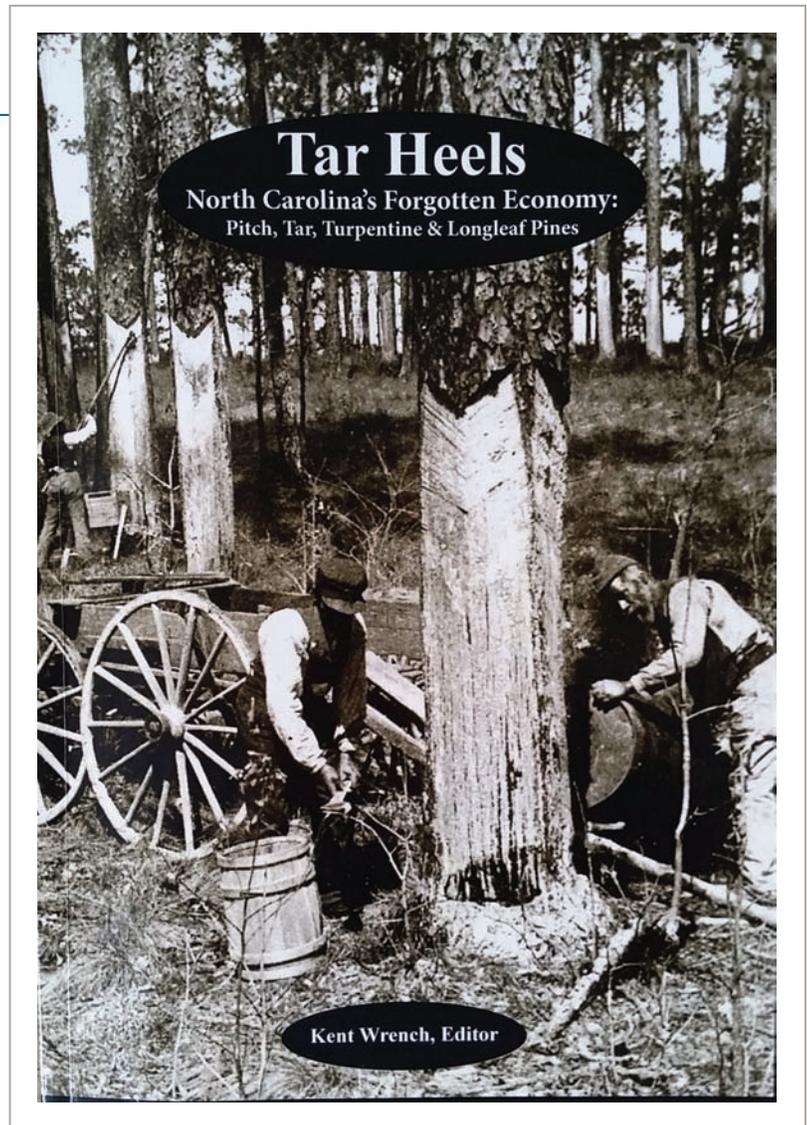
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I read *Tar Heels* while sitting in a deer stand adjacent to the Northeast Cape Fear River in Duplin County North Carolina, where 160 – 180 years ago tar, pitch, turpentine, and longleaf pine timber was floated down river to Wilmington and from there shipped to ports all over the world. In the early 19th century, this part of North Carolina was the center of the naval stores trade that was built on the destruction of the longleaf pine forests. Today, all that remains of this forgotten economy are the catfaced stumps, an occasional longleaf, and mounds surrounded by a circular depression indicating where someone burned a tar kiln long, long ago.

Kent Wrench tells this story masterfully through personal experience, family legends, old letters, and photographs. In this wonderful little book, completed just months before Kent died, we learn about Hugh Larkin Wrench (1819 – 1902), the author's great-great-grandfather, who was a turpentine, tar-maker, and timber man. We learn that the earliest record of the nickname "tarheel" came from a diary entry dated February 6, 1863 by Second Lieutenant William B. A. Lowrance of the 46th Regiment, North Carolina Troops while encamped in Pender or Onslow County North Carolina.

We learn that "gum" is what comes from the scarred longleaf pine and when distilled, produces turpentine in liquid form and rosin in solid form. We also learn how to lay a tar kiln that would produce tar and how to further refine the tar by burning off the volatile compounds to produce a thicker product called pitch. Turpentine, tar, and pitch were highly valued for waterproofing ship's hulls as well as decks, ropes, and sails. In 1850, 96% of the US naval stores production came from North Carolina. Without these products, the US navy would not have remained afloat.

As the trees were tapped out after the Civil War, they were cut and rafted downriver to Wilmington, where they were sawn



and sold throughout the Eastern Seaboard and Europe. River traffic was the only way the products from these massive trees could be moved until the railroad arrived in 1840.

In spite of several typos, I highly recommend this quick read for anyone wishing to learn more of the value the longleaf held for our country and how the naval stores were produced, refined, and shipped. It is a welcome addition to anyone's longleaf library.

By Carol Denhof, *The Longleaf Alliance*

# LONGLEAF ART SPOTLIGHT

## SOUTHERN PINE COMPANY

The Longleaf Art Spotlights in 2016 will showcase artists that will be taking part in the inaugural art show entitled "Longleaf Regenerated" at the upcoming Biennial Longleaf Conference to be held in Savannah, GA November 1-4, 2016. The show will be a celebration of the creativity that this landscape inspires in us all.

Southern Pine Company of Georgia

There is now great interest in using reclaimed wood products for functional structures such as flooring, furniture, and mantels. Instead of demolishing historic buildings & other structures without a thought, more people are coming to see the beauty in their parts and also the potential for rejuvenating this wood to create modern day heirlooms. One company who has been a leader in this industry for decades is the Southern Pine Company in Savannah, GA. For 25 years, they have been reclaiming, preserving, restoring and supplying vintage old growth wood for renovation and new construction.

A division of RK Construction and Development, Southern Pine Company grew from the dreams of its president, Ramsey Khalidi, of preserving the irreplaceable treasures of Savannah, Georgia's historic districts. A born preservationist, Ramsey was appalled at the destruction of historic properties



going on in Savannah in the 1980's. He was soon involved in rescuing buildings scheduled for demolition, moving many of them to new locations, restoring many in place, and salvaging the valuable materials from those that could not be safely moved or restored. Much of the wood that is pulled from these buildings is longleaf pine. The longleaf that was historically used for building all over the south has a very distinctive grain that lends itself perfectly to being shaped into extraordinary objects whether they be flooring, cabinets, furniture, or sculpture.

The products that they produce can certainly be seen as art. Their eye for seeing the potential of the wood, the expert craftsmanship, and their love for their work allow for not only making what is old new again but also creating a final product of unparalleled beauty and history.

# Longleaf Destinations

## Pensacola

*by the Sea:*

*White sands of Pensacola Beach.  
Photo by Carol Denhof*

## A Thriving City Once Again

How the verdant shore must have called to that Spanish explorer so long ago. There was deep water close to shore, a bountiful bay full of fish, and a gentle landscape of green, with virgin longleaf pines covering most of the land down to the sea.

As Don Tristan de Luna established the continental United States' first European settlement along Pensacola Bay in 1559, it was impossible to know that the harshness of a primitive life in the new world would bring a quick end. A hurricane struck one month later, sending ships and supplies to the bottom, and dooming the colony to a year and a half of struggle before abandoning the settlement.

Today, Pensacola takes pride in that early history that eventually led to a permanent Spanish settlement and a series of struggles among European colonial powers over this prized land and its deepwater access to the Gulf of Mexico. The city grew to be one of Florida's largest and most prosperous in those early years, and is undergoing a 21st Century renaissance as Americans are returning to cities to live and play.

Pensacola is still anchored by its downtown, with narrow streets lined by masonry buildings that once housed marine supplies, saloons, drug stores, and other more general needs of

a hard-working city. Following a long decline over the second half of the 20th Century, those same storefronts are now rejuvenated to serve-up a range of new urban needs--coffee, fine clothing, Pilates, art, distinctive foods, and the requisite drinking establishments that keep the sidewalks alive on weekend evenings.

Two distinctive public squares help to define the older area of the city. Plaza Ferdinand is surrounded by historic municipal buildings and was the sight for military parades during colonial times. Several monuments mark historic events, and in 1821 General Andrew Jackson and U.S. troops stood in the square to officially accept the West Florida territory from the Spanish. On the north side of the square is the old A&N National Bank Building, a product of Chicago school architecture that at ten stories was the tallest building in Florida in the early 20th Century before the boom years in South Florida.

The historic Seville neighborhood surrounds Seville Square just east of the heart of downtown and is populated by wood frame vernacular homes of the 19th Century. Each one is constructed from the virgin Southern pine that helped to build the city and also fueled its early economy. This is one of

Pensacola's most pleasant areas for walking, and includes a historic village administered by the University of West Florida.

While today's port is comparatively quiet, in the late 19th Century Pensacola was a major center for the shipment of pine lumber and naval stores as the lumber boom sent shiploads of virgin pine to the industrializing economies of the northeast and Europe. Along forgotten areas of the waterfront lie thousands of ballast stones, tossed out from wooden sailing ships taking on cargo in bygone days.

Following decades of decline and industrial pollution that fouled the once magnificent bay, people are coming downtown again. A large new waterfront park with a stadium housing the Pensacola Blue Wahoos minor league baseball team brings thousands for games and festivals, or just to stroll along the water. The City also converted one way streets to two way traffic, and narrowed another from four lanes to two—all of which slowed automobiles and has helped to bring out the pedestrians that have made downtown streets more alive than in decades.

Venturing out a bit from the downtown there's Belmont Devilliers, once the heart of the historically-black shopping and cultural district that is coming alive again with local restaurants and shops. Up the hill are the large homes of North Hill, where railroad and lumber tycoons displayed their wealth in fine homes along the city's highest ground.



*Longleaf-wiregrass habitat on Blackwater River State Forest. Photo by Carol Denhof.*

Other favorite nearby destinations include the Pensacola Lighthouse and its high perch overlooking the Pensacola Pass—the best view on the Gulf coast. Gulf Islands National Seashore offers miles of beautiful white beaches where nature ebbs and flows on its own terms. Thirty miles to the northeast is Blackwater River State Forest—Florida's largest—and its gently rolling hills of longleaf pine bisected by miles of streams lined by sandbars—ideal for swimming and canoeing.

Pensacola is a city thriving once again, advantaged with a beautiful coastal location and a lengthy and dynamic history. It's a city flowing with the energy of the millennial generation and the advantages of a well-designed urban form that connects people and places.



*Maritime Park in downtown Pensacola. Photo by The Pulse.*

*Bobby Franklin in a longleaf forest.  
Photo courtesy of Bobby Franklin.*



## LONGLEAF ALLIANCE STAFF RECOGNIZED

*By Society of American Foresters (SAF)*

Robert M. Franklin, CF, received on Nov. 4, a SAF Presidential Field Forester Award at the SAF National Convention in Baton Rouge, LA. The purpose of this award is to recognize foresters who have dedicated their professional careers to the application of forestry on the ground using sound, scientific methods and adaptive management strategies.

Presidential Field Forester Awards are presented to individuals who have displayed uncommon talent, skill, and innovative methods to achieve a record of excellence in the application of forest management. Through presidential direction, eleven members (one from each of the eleven SAF districts) are selected for these awards.



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By Lynnsey Basala, *The Longleaf Alliance*

## However You Choose To Donate, You're Furthering The Longleaf Alliance Mission

As we conclude another successful year and ring in 2016, I would like to take this opportunity to publically recognize and thank the dedicated and generous non-profit state and federal conservation partners, individuals and families, corporations, foundations and organizations that have allowed The Longleaf Alliance to make exciting progress in several key areas last year, specifically education, habitat management, and longleaf restoration. All of us share a core commonality: an affinity for the great southern longleaf forest. Whether you donated \$10 or \$10,000 in 2015, your contribution does not go unnoticed, and we are forever grateful for your trust and efforts to strengthen The Alliance mission which is to ensure a sustainable future for the longleaf pine ecosystem through partnerships, landowner assistance, and science-based education and outreach.



The complexity of contributions we received this fiscal year enabled LLA to reach beyond the traditional grants, contracts, and day-to-day operations of the organization. The Alliance received its

first memorial, collected seed money for an endowment, founded its first major gift initiative “The Palustris Society,” launched the vehicle donation program, recruited its first Sustainability Partner and was included in its first planned gift. It is because of our inventive members and partners in conjunction with steady monetary and in-kind donations, that we can humbly offer multi-channel giving vehicles to members and constituents for years to come. Together, we will continue to do good works for the longleaf pine ecosystem and inch closer to our goal of 8 million acres of longleaf by 2025.

Winston Churchill famously quoted, “We make a living by what we get, but we make a life by what we give.” Quite simply: Thank you for choosing to give your thoughtful donations to The Longleaf Alliance which allow us to work more aggressively to secure a sustainable future for longleaf pine ecosystems through more extensive research in the areas of forest restoration as well as converting lands back to the ecologically diverse and productive forests they once were.

This list contains those that contributed funds between October 1, 2014 and September 30, 2015. If you find that we have made an error, please don't hesitate to call or email us at [office@longleafalliance.org](mailto:office@longleafalliance.org) so we can correct our records.

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

*Private landowner and Longleaf Alliance Board Member Julie Moore.*

### Why did I include The Alliance in my will?

“LLA is the only conservation organization focused on helping the private landowner manage and conserve longleaf forests across its range from southeastern Virginia to east Texas. The longleaf ecosystem with its unique flora and fauna has been a focal point of my work with rare species and their habitats for over 35 years.

This urgent need to educate and assist timber owners about longleaf management led me in 1995 to join the then ‘infant’ Longleaf Alliance. I want to help the Alliance continue its mission and provide the up to date information and technical assistance that forest owners need to effectively manage and perpetuate this iconic forest and all its components.” –Julie Moore

Julie Moore grows longleaf on her family property in East Texas and currently serves on the LLA Board of Directors. Like Julie, if you would like to include The Longleaf Alliance in a planned gift, contact Development Director, Lynnsey Basala, at (314) 288-5654.

# 2015 SUPPORTERS

## The Palustris Society Founders

Earlier this year, several members of The Longleaf Alliance Board of Directors founded The Palustris Society to further the legacy that Rhett Johnson and Dean Gjerstad created to protect and restore longleaf forests. The vision is to create a group within The Longleaf Alliance comprised of dedicated conservationists who share our dream of restored and viable working longleaf forests by making a donation or pledge of \$10,000 or more to The Alliance. Commitments to The Palustris Society range from annual contributions of \$10,000 or more, to single commitments of \$10,000 including pledges paid over a period of up to five years. Donors may designate all or a portion of their contribution to be allocated to The Longleaf Alliance Endowment. These individuals are acknowledged below with an asterisk. For more information on The Palustris Society, contact Development Director, Lynnsey Basala, at 314-288-5654.

### \$50,000 Level

Barclay and Jane Perry McFadden  
Charles and Susan Tarver\*

Julie Moore  
Richard and Rita Porterfield\*  
Dr. Salem and Diane Saloom and Family\*

### \$10,000 Level

Lynda Beam\*  
Judd Brooke  
Angus and Cary Lafaye

Reese Jordan Thompson and Pam McIntyre Thompson  
Drs. George and Anne Tyson\*  
Marc and Penny Walley  
Phillip and Debbie Woods\*

## The Longleaf Alliance Endowment

The Longleaf Alliance Endowment was established in 2015 and is comprised of memorial and restricted Palustris Society pledge contributions. The endowment offers a unique opportunity to strengthen the Alliance's mission and ensure that the longleaf forest is conserved for our children and grandchildren to enjoy for generations.

### Dr. Douglas Tappan Memorial

J. Awkerman  
Center for Sight of Northwest Florida  
Dr. Downing  
V. Hudson  
Melanie Krebs  
Jessie Leonard  
D. Luce  
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W Smith  
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Susanna and Joe Watson

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John and Faye Vick  
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Enoch Timothy  
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 SC Forestry Commission - Taylor Tree Nursery  
 St. Marks National Wildlife Refuge  
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 US Department of Defense - Eglin Air Force Base  
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US Forest Service  
 US Forest Service - National Forests in Alabama  
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 The Skelton Foundation

### Longleaf Academy Graduates

David L. Adams, Jr.  
 Nigel Allecock  
 Sherri Boyd Amundson  
 Duane Andrews  
 Tony Artman  
 Colby Auckland  
 Daniel Barrineau  
 Daron N. Battle  
 Jared Beauchamp  
 Amy Bell  
 Brian Beter  
 Jonathan Bias  
 Ryan Bollinger  
 Daniel Booke  
 Jonah Boucher  
 Allen Brady  
 Bradley Breland  
 Susie Bridges  
 Roland Bridges  
 Michael Broom  
 Abigail Brown  
 Wes Brunson  
 Jody Burdette  
 Joe Butler  
 Holly Butler  
 Jared Bynum  
 Mark Byrd  
 Dale Caldwell  
 Chad Camp  
 Russ Carter  
 Cecil Chambliss  
 Benjamin Christensen  
 Brian Cobble  
 Allison Cochran  
 Joe Cockrell  
 Tracy Cole  
 Thomas Coleman  
 Gretchen Coll  
 Brandon Collins  
 Ryan Collins  
 Winston Collins  
 Claire Cox  
 John Crenshaw  
 Brandon Crummey  
 Luis A. Cruz-Arroyo  
 Tanya Culbert  
 Jeff Davis  
 Matt Davis

Mike Dean  
 Phil Delestrez  
 Jeff Dennis  
 Tim Dickinson  
 Kathy Duncan  
 Chris Dunn  
 Eddie Edwards  
 Michael Edwards  
 Theresa Edwards  
 James Ernst  
 David Findley  
 Susan Fischer  
 Derek Fogle  
 R. Larry Ford  
 James Fountain II  
 James L. Fowler, IV  
 Conrad Franz  
 Brannon Frazier  
 Edward Galmon  
 Jason Gardner  
 Blake Garner  
 Caleb Garrett  
 Jonathan Garrow  
 Joel Glover  
 Daniel Goins  
 Aubrey Greene  
 Tyler Greiner  
 Richard Hagerty  
 Jesse Hall  
 James Hampton  
 Cathy Hardin  
 Mike Harrison  
 Kate Hasapes  
 Ron Hasken  
 David Hayden  
 Richard Hayes  
 Stephanie Hertz  
 Tim Higginbotham  
 Amanda Hiott  
 Arthur Hitt  
 Sheena Holley  
 Ben Holten  
 Doug Hornbeck  
 Stephen Hudson  
 Michael Huffman  
 Thomas Hulsey  
 Terry Hurley  
 Jeff Hutcherson  
 Tommy Hutcherson  
 Henry Hutto  
 Calin Ionita  
 DW Ivans  
 Earlene Jackson  
 Porche Jackson

James Jenkins  
 Steve Johnson  
 Richard Johnston  
 Steven Jones  
 Kyle Jones  
 Justin Kania  
 Ben Kendall  
 Daks Kennedy  
 Jamey Kent  
 Steve Kerlin  
 Robert Kerr  
 Barry Kesler  
 Donald King  
 Skip Kizzire  
 Marc S. Krider  
 Joyce Lane  
 Cody Langford  
 Robert Larimore  
 Jason Launius  
 Kori Legleu  
 Joseph Lemeris  
 Telma Leonard  
 Terrence Lewis  
 Kandra Lewis  
 Doug Linden  
 Jaqueline Lintzenich  
 Frank Lipp  
 RT Lumpkin  
 TJ Lyell  
 Chelsea MacKenzie  
 W. Tom Mallett  
 Kyle Marable  
 Tim Marston  
 Joel Martin  
 Mike Mathis  
 Jack McClung  
 Paul McCoy  
 Suella McCrimmon  
 Paul McDaniel  
 Thomas McDaniel  
 Babe McGowan  
 Tom McNeil  
 Scott Mellard  
 Ben Miley  
 Lucas Miller  
 Jay B. Mitchell  
 Kevin Mock  
 Joseph Moore  
 George (Buddy) Mzingo  
 Matthew Mrizek  
 Mark Musselman  
 Stephen Musser  
 Mitchell Newman  
 Joyce Nicholas

Katrina Noland  
 Lucretia Norman  
 Lynn Norman  
 Darrell Odum  
 Dixon Olive  
 Anthony Page  
 Matt Pardue  
 James Parker  
 Greg Paschal  
 Chris Pearce  
 Mike Perot  
 Ryan Phillips  
 Rusty Plair  
 Jonathan Poe  
 David Poletti  
 Chris Potin  
 Dustin Potter  
 Frank Range  
 Bobby Joe Ray  
 Todd Reynolds  
 Cecilia Richmond  
 Tommy Riley  
 Jordan Robitaille

Jacob Schimph  
 Jim Schrenkel  
 Robert Scoggin  
 Adam Z. Sconyers  
 Linda Scovanner  
 Marcus Shorter  
 Charles Simon  
 Gary Skaar  
 Peggy Skaar  
 Matthew Skinner  
 Phillip Slater  
 Brant Slay  
 Michael Small  
 Ronald Smith  
 Robert Smith  
 Clayton Smith  
 Bobby Solomon  
 Hannah South  
 Aaron J. Souto  
 Matthew Stoddard  
 Rodney Stone  
 Ian Stone  
 Eric Strickland

Scotland Talley  
 Eric Taylor  
 Lee Taylor  
 Keri Teal  
 Nathaniel Tetakis  
 Jared Teutsch  
 Sara Thames  
 Reese Thompson  
 Roderick Mark Thornton  
 Paul W. Trawick  
 Tyler Trent  
 Keith Tribble  
 Darrius Truss  
 Sandra Vardaman  
 Alex Varner  
 Fernando Vazquez  
 Brian Waldrep  
 Corey Walk  
 Tom Waller  
 Derek Ware  
 Larry E. Warren  
 Tracy Watson  
 Cody Watts

Shannon Weaver  
 George F. Weick, Jr.  
 Nikesha Wells  
 Walter Whetstone  
 John White  
 William Whitley  
 James Wildasin  
 Bradley Williams  
 Tim Williams  
 Daniel Williams  
 Keith Williamson  
 John Willis  
 Maria Wilson  
 Ryan Witt  
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 Andrew Woodham  
 Frank Wooten  
 John Yeiser  
 Matt Young

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Got a vehicle you don't need anymore? Donate your car, truck, boat, motorcycle, tractor, jet skis, or farm equipment to the Longleaf Alliance. Your donation will help support the Alliance's mission.



Simply go online to the website at [www.1car1difference.com](http://www.1car1difference.com) or call 877-557-1CAR. It is easy and quick. They will pick up the vehicle, handle all the paperwork, auction it and send the proceeds to the Alliance. You receive a receipt for tax deduction purposes. Thank you for making a difference!!!

# Sleeping Gardens

*By Carol Denhof, The Longleaf Alliance*

*Planted wiregrass and longleaf pine.  
Photo by Carol Denhof.*

I am a gardener. I am in my happy place when I am on my knees in the garden, with dirt under my finger nails and a garden tool in hand. To me, there are few things more rewarding than digging your hands into the soil, preparing a space, and then transforming that space with plants. The textures, the fragrance, the colors all blend together to form a beautiful landscape that can at once inspire creativity, provide needed solace, and supply a feast for wandering wildlife.

My gardens are not generally filled with vegetables, but instead are filled with flowering perennials of all shapes, sizes, and colors. I especially like those “tough as nails” plants that can make it through our harsh summers with ease. They remind me of plants that you can find in our much loved longleaf ecosystem. I’m always amazed at how these species have adapted to deal with extreme climates and have shaped their morphology to both attract and repel insects and other critters to insure survival and regeneration. There can truly be no more beautiful a place than a longleaf forest at the peak of fall blooming. The

purple, gold, and white color assemblage is breath taking. The abundant flowering species that comprise the groundcover layer is certainly reflected in my garden projects. My ultimate aspiration is to capture just a hint of this in my own personal space.

I’m currently planning a new garden on the Georgia coast. This garden will be much different from my urban space in Atlanta. My palette of plants to choose from has expanded greatly. The soils are sandy, temperatures are warmer, and we tend towards more tropical rain patterns. The consideration of these factors, among others, is so important in determining what will grow and flourish here. I admit, there may be a fair bit of trial & error these first couple of years.

As the “growing season” comes to a close though, planning and installation will go into full swing. If you are a gardener, you know exactly what I’m talking about. Your coffee table is littered with seed & plant catalogs. Your shovel stands at the ready for moving plants from one spot to another and dividing those plants

that have grown a bit out of control. The cooler months are used to clean up, sort out, and establish plants without the stress of heat and drought. This is not unlike what happens in our longleaf forests.

It may not be a commonly shared view, but I'm always reminded of gardening when I think of the work we are doing to restore longleaf. Just as gardeners care for small scale spaces, forest owners and managers are also tasked with creating and shaping a landscape, but on a much larger scale. We are always looking forward: making plans on how to manage existing forests, setting burn prescriptions, and planning out how to establish the trees and native groundcover that make up this system. As we restore longleaf habitats, we have to remain



cognizant of the natural variation that occurs across our southeastern landscape. Much the same as in a garden setting, soils, hydrology, and climate all must be considered when attempting to reestablish native species for habitat restoration.

A gardener friend once told me that in planting a garden, “the first year plants sleep, the second year plants creep, and in the third year plants leap.” I've always found assurance in this saying. As I watch either newly planted gardens or newly established longleaf species for signs of growth, I am able to remain patient and know that with time and careful tending, these spaces will start to take shape and begin to resemble the landscapes that inspire us all in different ways. No matter the size of your “garden”, wait and watch for the much anticipated leap, as our sleeping and creeping gardens approach spring.

*Brown-eyed Susan in the garden. Photo by Carol Denhof*

**Instagram**  
**Photo Contest**  
#RestoreLongleaf

To enter, simply follow these instructions:

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

Awards will be given out at The Longleaf Alliance's Biennial Conference in Savannah November 2, 2016.  
Contest ends Friday September 30, 2016 at Midnight.

Per Instagram rules, we must mention this contest is in no way sponsored, administered, or associated with Instagram, Inc. By entering, entrants confirm they are 13+ years of age, release Instagram of responsibility, and agree to Instagram's term of use. By submitting an entry, you are allowing The Longleaf Alliance to use the images with full credit to the entrant in future publications or materials to promote longleaf restoration.

SAVE  
THE  
DATE

11th Biennial Longleaf Conference

November 1-4, 2016

Savannah Marriott Riverfront  
Savannah, GA



THE LONGLEAF LEADER