

ALABAMA'S

# TREASURED FORESTS

A Publication of the Alabama Forestry Commission

*Fall/Winter 2016*

# Message from the *STATE FORESTER*

**W**ith a new year, there comes an opportunity to look back and reflect on the successes of the past year. A couple of stories in this issue of Alabama's TREASURED Forests discuss the various successful partnerships in which the Alabama Forestry Commission co-operates, particularly in issues of water quality and endangered species, ultimately to provide assistance to landowners.

A different set of partnerships resulted from the 'historical' year of prolonged drought and wildfires that affected the lives of many Alabamians. For the last quarter of 2016 our state experienced 2,317 wildfires burning 30,182 acres. Quite a contrast to that same period in 2015 when 326 wildfires burned only 2,374 acres. For the entire year of 2016, a total of 3,746 wildfires burned 50,582 acres, meaning 62 percent of the fires and 60 percent of all acres burned occurred during the two months of October and November!

In addition to the sheer number of fires our crews were battling, several difficult large wildfires made it necessary to move resources from other parts of the state to the northern one-third of Alabama. In DeKalb County, the Fox Mountain Fire burned 930 acres, and then a couple weeks later the Lookout Mountain Fire burned 2,096 acres, requiring National Guard and ALEA helicopters be activated to drop water to save homes in a few close calls. Other large fires included a 1,308-acre fire in Walker County, a 502-acre fire in Coosa County, and a 387-acre fire in Blount County.

The wildfire outbreak actually started in late September. In October we progressed from a Fire Danger Warning to a Fire Alert, and we eventually asked the Governor to issue a Drought Emergency 'No Burn' Order for the northern half of the state. This 'No Burn' was extended statewide in early November. We are appreciative not only of the efforts of volunteer fire departments who protected their communities and actually helped combat the fires, but also the Governor's Office, Alabama Emergency Management Agency (AEMA), the Alabama Law Enforcement Agency (ALEA), the National Guard, the U.S. Forest Service, and local sheriff and city police departments, along with the State Fire Marshal's Office for working in conjunction with our agency not only to enforce the No Burn Order but with arson investigations as well. Governor Bentley also offered a \$5,000 reward for anyone providing information leading to the arrest and conviction of persons responsible for setting wildfires.

Before the rains eventually came, we experienced a historic day on Monday, November 28, regarding the number of active wildfires burning in the state during a 24-hour period: Alabama Forestry Commission firefighters responded to a RECORD 107 wildfires that burned over 3,000 acres. On that day, there were seven fires in Wilcox County alone, all at once, burning over 700 acres! Across the state, at least eight fires exceeded 100 acres in size: a 400-acre fire in Marengo County, a 357-acre fire in Russell County, and a 235-acre fire in Jefferson County. This was the same day that the Gatlinburg, Tennessee wildfire claimed the lives of 14 people.

Such situations present real manpower challenges with our workforce including only 183 firefighters, spread over 67 counties. Additionally, the AFC is an ALL-HAZARD response agency responding to many types of emergencies and disasters. At the end of October, our firefighters also responded to fires sparked by the Colonial Pipeline explosion that occurred in Shelby County. Then, when the tornados hit as rains ended the drought, our crews were out clearing roads with dozers and chainsaws. In the last couple of years, we've responded to everything from train wrecks to helicopter crashes.

Our normal wildfire season is yet to come. Most of Alabama's wildfires usually don't occur until February and March. The Spring of 2017 could be interesting if the drought continues.

Finally, with the beginning of a new year, one looks ahead for opportunities that will present themselves. One of those is the promising new partnership with PRT, a company that will re-open one of our closed nurseries and grow containerized seedlings for sale to Alabama landowners. [See the story on page 29.]

The challenges continue, but this is what we do in completing our agency's mission of serving protecting and sustaining Alabama's forest resources. We are the Alabama Forestry Commission.



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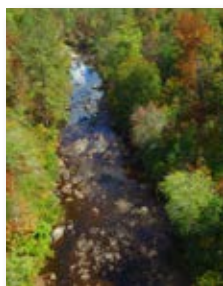
The Alabama Forestry Commission supports the Alabama Natural Resources Council's TREASURE Forest program. *Alabama's TREASURED Forests* magazine, published by the Alabama Forestry Commission, is intended to further encourage participation in and acceptance of this program by landowners in the state, offering valuable insight on forest management according to TREASURE Forest principles. TREASURE is an acronym that stands for Timber, Recreation, Environment, and Aesthetics for a Sustained Usable REsource.



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**Cover:**  
*Fall colors in Coosa County captured aerially by AFC drone.*



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# Cedar Creek Plantation

*A Century in the Good Hands of the Boutwell Family*

*By Paul E. Hudgins*

*Registered Forester & Soil Conservation Technician, USDA Natural Resources Conservation Service*

**C**edar Creek Plantation is truly family land, and has been for nearly 100 years. O.L. ‘Boss’ Boutwell, the grandfather of John Boutwell and his sister, Peggy Autrey, purchased the original 39 acres of the ‘home place’ in 1917 when their father was not even 2 years old. The family continued to live in the house located on the property until 1963.

From 1917 through 1951, Boss purchased six additional tracts of land bringing total acreage to about 1,750 acres. Boss and his son were cattlemen and farmers – timber and wildlife were secondary. A perimeter fence encompassed the whole place (about 20 miles total), and a cow-calf operation was the main farm enterprise. Corn and hay was grown to support the cattle operation and some cotton was grown as a cash crop.

In the second generation, John’s father worked for the Soil Conservation Service and was interested in other benefits of the land – timber, wildlife, and water. In 1961, the Boutwell property was inducted into the Tree Farm program.

As time went by, John and Peggy’s grandparents and parents passed away. The cows were sold, and timber became the primary crop of the land. All this happened over several years, with much planning and preparation. John and his wife, Ann, purchased three adjacent tracts which brought the total acreage of the TREASURE Forest to approximately 1,867 acres.

Third-generation John attended Auburn University, graduating with bachelor’s and master’s degrees in Agricultural Economics in 1973 and 1975. Since then he has enjoyed a long career as the farmer and land manager of a total 5,000 acres of family land . . .

in addition to Cedar Creek Plantation, he also manages property owned by his wife, Ann, her sisters and brother.

John oversees all of the management activities on the entire property including timber sales, reforestation, timber improvement practices, road maintenance, wildlife plantings, and much more. Other than plantation planting, occasional mechanical site prep, and helicopter spraying, all management activities are performed by John and his family. Ann, along with their two sons and one daughter, and his sister, Peggy, are all active participants in decision making and carrying out the work.

## **TIMBER**

Timber production is the primary objective of Cedar Creek Plantation. The soils are diverse – both lower coastal plain and black belt soils are present. John’s key to timber management and species selection lies in recognizing and respecting the difference in soils and their productivity. In general, pine is grown on the ridges while hardwood is grown in the bottoms.

Timber management is not without risks and challenges. The Boutwells have



lived through two devastating events on their property. In the early 1990s, they experienced a terrible pine beetle epidemic. During this infestation, 100 acres was clear-cut and all replanted the following year. Beetle-damaged wood was sawn into lumber and repurposed into a beautiful cabin in 2002 that serves as the family's recreational centerpiece of the property.

Then, in 2004, the 90-plus mile-per-hour winds of Hurricane Ivan destroyed or damaged much of their mature timber. Over 1,000 acres were salvaged, with 140 acres so severely damaged they had to be cleared and replanted following the storm. Most harvests made today are a result of understocked stands due to Ivan.

One of the main challenges the Boutwells face is finding logging crews willing to perform select cuts on small areas. Invasive plants are also an ongoing challenge, and John chemically controls them annually as they often re-sprout after burning.

## WILDLIFE

Wildlife is plentiful and varied on this land, because much effort is expended to make them feel welcome. About 75 acres of wildlife openings are devoted to winter and summer food plots. Winter plots are planted in small grains, clovers and brassicas, while summer plots contain corn, milo or soybeans. Eleven hard-mast bearing orchards provide food in the fall and winter, and a soft-mast orchard of apple and pear trees bears fruit in late summer. Supplemental protein feed is provided for the deer herd in mid-summer.



Delayed spring cutting in the hay fields permits turkey hens to successfully nest, and not cutting in August protects new born fawns. Open fields of native grass, low density longleaf plantings, and liberal controlled burns provide good habitat for quail. Mature hardwoods are a favorite of squirrels, and briar patches are plentiful for rabbits.

Non-game species aren't overlooked. Hollow trees are used by bats, and houses are provided for blue birds and wrens. Plentiful dead snags are available for woodpeckers. Bobcats, foxes, and otters are occasionally seen. Black bears were spotted near the property in 2014. John has even had two sightings of what he believes is a family of jaguarundi.

The other 'non-game' species is the resident cabin deer herd. A dozen or two does and fawns feel safe around the cabin, visiting each afternoon during the winter for a snack of shelled corn. They also appreciate azaleas, as well as anything grown in the summer garden!

There are no threatened and endangered species known to be present on Cedar Creek Plantation per the Natural Heritage Program's list for Butler County; however, stream zones protect any aquatic associated species that may be present, and unique limestone rock/cedar areas that are home to many wildflowers are left undisturbed. Both red cockaded woodpecker and gopher tortoise habitats are present, but none have been observed.

From 2002, John began a commercial hunting operation on the property, with wildlife habitat becoming an important management objective. In 2012, John ceased commercial hunting, and the property was leased to two individuals for hunting and recreation. This move freed him to devote more time to the upkeep of the property and timber development.

## FAMILY USE

Family use of the TREASURE Forest centers on the cabin which John and his family built from the beetle-damaged trees. Cedar Creek and many other streams on the land are also focal



points. The Boutwells spend many weekends at Cedar Creek Plantation, and especially delight in celebrating a family Christmas at the cabin each year. John and his sons enjoy deer, quail, and turkey hunting in season. Seven grandchildren have a grand time just being in the great outdoors and playing in the water. They also spend considerable time with John, learning invaluable lessons in land ethics, as well as sustainable forest and wildlife management, all the while having fun without electronic devices.

Peggy's family also enjoys camping out on the land and riding ATVs over the many trails. Meanwhile, Peggy is content to stay in the cabin!

It's a perfect place to get away – no power lines, no television, and no phone service. Their friends sometimes ask when they are coming back to civilization, and the Boutwells respond, "We *are* in civilization. Where are you?"

*(Continued on page 6)*

## Cedar Creek Plantation

(Continued from page 5)

Time spent at the property also means work. The family plants orchards and wild flowers, and cleans up the area around the cabin. If orchard trees are planted, the grandkids' job is to spit in the holes so the trees will grow!

### OUTREACH

The Boutwells engage in many types of outreach. John and his family are very willing to reach out to others to demonstrate what hard work and sustainable management practices can produce on family forest land. They have hosted numerous activities on their TREASURE Forest and Tree Farm for large landowner group tours, including the Alabama Natural Resources Council South Regional Forestry Field Day both in 2009 and most recently in 2016.

Over 400 boy scouts and adult leaders experienced the diversity of Cedar Creek Plantation in 2014 during the Tukabatchee Area Council Boy Scouts Camporee. In 2001 and 2002 the Alabama Forestry Commission staged fire plow training exercises for new employees on the property.

John is also known for his willingness to take time to show and tell interested adults about his property one-on-one. Active in advocacy and media communications, he has written several articles for the Alabama Forestry Association's magazine on his views about being a tree farmer [see story on page 16]. He is



often sought after to work on political policies that support programs that positively impact healthy forests, forest industry, and forestry programs.

The Boutwells have participated in the Alabama TREASURE Forest Leadership Program and the Aldo Leopold Foundation's Land Ethic Workshop. They also attended National Tree Farm Conventions in 2010, 2013, and 2014. John is a member of the Butler County Forestry Planning Committee as well as the Autauga Forestry & Wildlife Stewardship Council. He is a board

member of the Butler County Soil & Water Conservation District and has been active with the Alabama Natural Resources Council's Annual Awards Banquet and Symposium.

### FUTURE OF THE LAND

As TREASURE Forest landowners, John and Ann, Peggy, and their families are shining examples of what it means to be good stewards of the land. Accolades include being named 2012 Alabama Tree Farmer of the Year, 2015 Southern Regional Tree Farmer of the Year, 2015 Finalist for National Tree Farmer of the Year, and 2015 Helene Mosley Memorial TREASURE Forest Award Winner.



Because of the family's love of and commitment to this land, and their desire for the land to remain intact for future generations, the ownership of John and Ann's land has been placed in a family partnership and is being transferred to their three children. One son, Andrew, has degrees in both forestry and business management, and can handle the business decisions. Another son, Thomas, is qualified to operate and service all the machinery needed to maintain the farm, and can handle the wildlife management decisions. Their daughter, Katie, an ordained Methodist minister, will pray for her brothers and put the fear of God in them if needed!

As complex as the history of Cedar Creek Plantation may be, the property also has a bright future. John and Ann Boutwell are confident this land is in good hands. 🌲





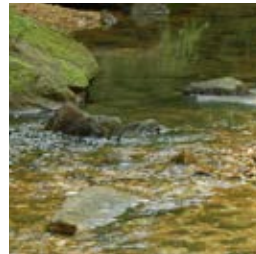
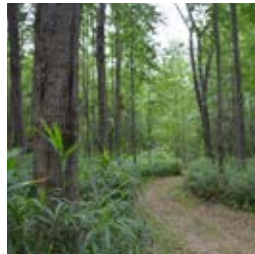
# ALABAMA NATURAL RESOURCES COUNCIL

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## *Playing with the Hand Dealt – Managing the Existing Forest*

### **Outreach Symposium & Awards Banquet Friday, February 17, 2017**

Bryant Conference Center | 240 Paul W Bryant Dr., Tuscaloosa, AL 35401



#### **Symposium**

**9:00 am – 11:45 am**

- Perspectives on Prescribed Fire and Hardwoods
- Wildlife Values in Pine Hardwood Mixed Forest
- What Makes a ‘Grade’ Log

**2:00 pm – 4:45 pm**

- The Importance of Shortleaf Pine
- Managing T&E Species in Your Forest & Stream
- Managing Rather than High Grading Hardwoods

#### **Awards Banquet**

**5:00 pm – 8:00 pm**

Reception & Dinner | Keynote Speaker  
Awards Presentation



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# Water Resources — It's All about Partnerships in Alabama

*By James P. Jeter, Registered Forester, Alabama Forestry Commission*

Alabama is blessed with 132,419 miles of streams, rivers, and reservoirs. The mission of the Alabama Forestry Commission is to protect and sustain Alabama's forest resources using professionally applied stewardship principles and education. We will ensure our state's forests contribute to abundant timber and wildlife, clean air and water, and a healthy economy.

In today's economic environment, one agency cannot expect to accomplish such a mission without the help of others. As with many states, the Alabama Forestry Commission relies on its various partners, while establishing new partners to maintain this commitment. Partners consist of other state agencies, federal agencies, non-governmental organizations, local chapters of stakeholders (friendly and adversarial), corporations, associations, and especially landowners.

To accomplish our mission of protecting and sustaining the state's waters, the agency's Best Management Practices (BMP) section (basically a one-person shop) must engage these partners. We need the support of the Alabama Forestry Association, which represents the second largest manufacturing group in the state — forest industry. We need the support of landowner organizations such as the Alabama Forest Owners Association. Why, one may ask? Alabama has 23.1 million acres of forestland, 95 percent of which is privately owned. We also need the support of the Alabama Farmers Federation, another group that not only represents farmers but also 'TREASURE Forest' landowners.

We are engaged with our regulatory partners as technical advisors. This includes the Environmental Protection Agency, the U.S. Army Corps of Engineers, and the Alabama Depart-

ment of Environmental Management. In addition to protecting and sustaining state and federal waters, we are engaged with the U.S. Fish and Wildlife Service when it comes to Threatened and Endangered Species, especially riparian and aquatic dwelling species.

Partnerships are needed with local and state stakeholders such as the Alabama River Alliance, river basin groups, the Alabama Water Agencies Working Group, as well as the Alabama Rivers and Streams Network.

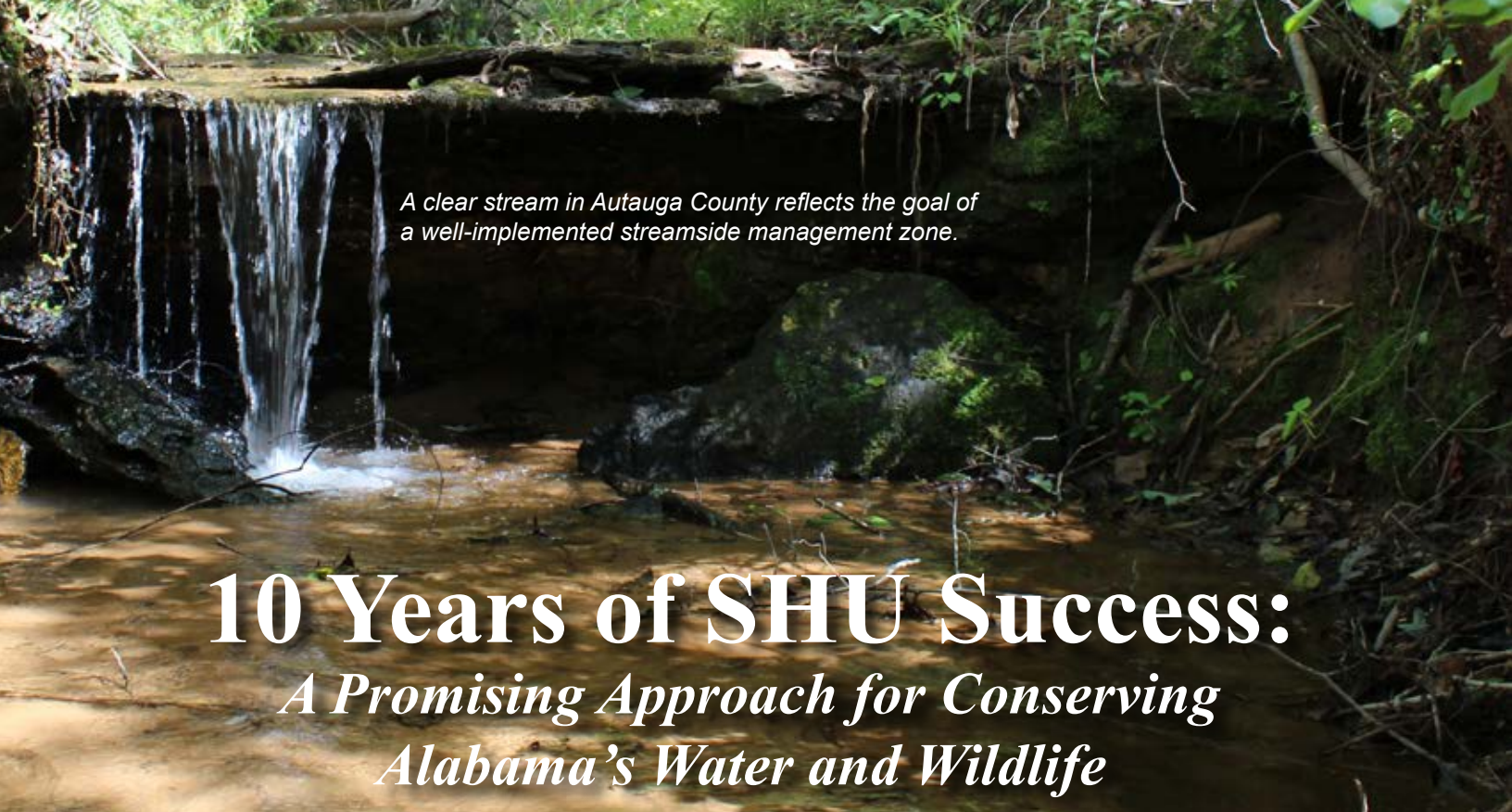
Our agency works closely with the USDA Natural Resources Conservation Service and Farm Service Agency, as well as Alabama Soil & Water Conservation Districts, as technical advisors when dealing with cost-share practices that benefit water quality.

As the need arises, we also work with Auburn University and the Alabama Cooperative Extension System, the 'go-to' folks for offering educational courses such as BMPs for landowners/stakeholders or training for professional logging managers. For research and information, we rely on groups such as the National Council for Air and Stream Improvement as well as the Water Resources Committee of the Southern Group of State Foresters.

We also must continue to engage new partners such as the Southeastern Partnership for Forest and Water, reaching out to stakeholders that may not realize the importance of forested watersheds.

As one can see, the task is huge. The Alabama Forestry Commission is not a stand-alone island, but an active member in a network of different partners that have the same mission — protecting and sustaining the waters of the state. ♻️





*A clear stream in Autauga County reflects the goal of a well-implemented streamside management zone.*

# 10 Years of SHU Success: *A Promising Approach for Conserving Alabama's Water and Wildlife*

*By Rebecca Ann Bearden*

*Biologist, Ecosystems Investigations Program, Geological Survey of Alabama*

Combine Alabama's number one aquatic biodiversity status with a pressing need to better understand the state's water resources, and the result is a collaborative watershed-management approach that uses applied science to successfully assess, restore, recover, and monitor the state's vital aquatic resources.

"Clean water is everyone's responsibility," says Jim Jeter, Best Management Practices (BMP) Coordinator for the Alabama Forestry Commission. "In a state where the majority of the land is privately owned, forest landowners play a huge role in protecting our water resources."

In light of the recent Environmental Protection Agency (EPA) decision not to regulate forest road discharges under the Clean Water Act, the state of Alabama is one of many success stories regarding the willingness of forest landowners to implement BMPs that feature guidelines for streamside management zones, stream crossings, forest roads, timber harvesting, reforestation, stabilization, and other methods intended to prevent erosion in order to protect water quality.

"It's been both a pleasure and great learning experience working with forest landowners and managers across the state," says Jeff Powell, Deputy Field Supervisor, U.S. Fish and Wildlife Service, Alabama Field Office. "As you might expect, nearly everyone I've come in contact with has a strong environmental stewardship attitude and wants to do the right thing."

Since 2006, that willingness to protect Alabama's water resources has served as the driving force for the creation of a group of volunteer landowners, agencies, non-government organizations (NGOs), and industry representatives, known as the Alabama Rivers and Streams Network (ARSN), that has used a coopera-

tive, watershed-based framework to focus conservation activities on more than 225 listed and imperiled fishes, mussels, snails, and crayfishes in Alabama.

ARSN considers the number and presence of federally listed and state priority species to designate 59 high priority watersheds as Strategic Habitat Units (SHUs). These areas feature essential habitat components required by species of concern. ARSN's work includes establishing the population status for species of concern, outlining the number and magnitude of threats, such as barriers and dams, and determining the presence of designated critical habitat and key habitat requirements for individual species.

"The SHU model is a great alternative to improving the stream environment," says Abner Patton of Patton Geologics, an environmental consulting firm based in Tuscaloosa. "It's a reverse way of attacking a problem and protecting aquatic species. It uses the approach of 'Let's find the best stream habitat and try to protect it and make it expand.'"

This approach seeks to protect and restore habitat in order to keep species from being listed under the Endangered Species Act (ESA) and even down-list species where habitat has improved. To date, ARSN's cooperative efforts have included more than 200 fish surveys, over 2,000 stream crossing surveys, three dam removals, and a 1,069-ton sediment reduction project through the implementation of BMPs in Tuscaloosa and Fayette counties.

The result of these efforts is a testament to the success of the model. As of this year, 15 species of mussels and snails have been reintroduced in 15 rivers, five crayfish species have been precluded from listing under the ESA, and one snail species has been down-listed.

*(Continued on page 10)*



*This modified stream crossing structure was designed by Westervelt staff to allow heavy equipment access to timber tracts while also maintaining the integrity of the stream.*

## 10 Years of SHU Success

*(Continued from page 9)*

“You cannot have that kind of success without the cooperative, volunteer efforts from forest landowners who are willing to implement BMPs,” says Jeter, who reviews implementation and success of BMPs statewide for Alabama and is pleased with the proactive approach Alabamians have taken. “I have seen measured progress in the last 40 years, and it continues to improve. This past year we found that for 255 sites, BMPs were implemented over 98 percent of the time.”

Jeter views the SHU model as an ideal approach for helping forest landowners understand why BMPs are important. “You have to start out with the basics of biology,” Jeter continued. “You have to help them understand how the reproductive cycle of mussels is dependent on certain host fishes, how an improperly installed culvert can be a fish barrier, and how sediment affects aquatic life. It’s simplistic, but people need to know that they are an integral part of this equation. If we want clean water, then every little piece of the puzzle needs to fit.”

According to Jeter, the SHU model is also a solid way to combat the current mistrust of federal government and the ‘heartburn’ associated with the pending ‘mega-listing’ by the U.S. Fish and Wildlife Service. This mega-petition is the result of a 400-species petition filed with the Service in 2010 and 2012 by the Center for Biological Diversity. In order to address the merits of this petition, the Service needs the help of everyone to adequately address species’ threats and most importantly, determine where they occur on the landscape.

“The beauty of the SHU model is that federal, state, and local agencies are working together to foster public trust instead of using fear to accomplish goals,” Jeter says. “One of the goals of the SHU project is to determine how we can protect threatened and endangered species and maintain commercial forestry.”

That desire to both protect species and be profitable is echoed by John Pirtle of Pirtle Forestry Services, LLC, based in Billingsley. His small staff of foresters manages 90,000 acres of timber in Shelby, Bibb, Chilton, Autauga, Elmore, Coosa, Tallapoosa, Dallas, Pickens, and Chambers counties.

“I’m an environmentalist,” Pirtle says. “I care about water quality and habitat, and I want to manage land as a good steward. I’ve been doing this for 38 years, and I always explain to landowners why I manage for multiple resources. I’m a licensed

forester, and I cannot violate the Federal Clean Water Act. There is a big misconception now among landowners regarding environmental impacts. We want them to understand that it is not against the law to cut trees, but we cannot negatively impact water quality in the process. There are guidelines, not rules, for how that should be done.”

Pirtle’s clients agree to his terms regarding management, which includes a minimum of three years of project monitoring, tracking progress from the timber consultation to the sale to harvest to reforestation. “We are fully engaged with our clients. We help them understand why BMPs are necessary. We have found that most do care about their land and don’t want to harm the environment.”

Pirtle ensures that his clients understand the varying cost and complexity of BMP installation and maintenance. “Erosion control is a big job. Streamside management zones, temporary culverts, temporary crossings, silt fences, turnouts, water bars – they all have one primary goal: stabilize the soil. Every situation is different. There is no cookie cutter recipe. One thing is for sure, you don’t fight Mother Nature. You have to work with the water.”

Understanding how water moves throughout the landscape is beneficial when considering which BMPs are most sustainable, according to Jonathan Lowery, Forest Sustainability and Policy Manager for Westervelt. “BMPs are site dependent,” Lowery says. “You must consider factors such as soil type, topography, slope, flow activity, and watershed sensitivity when determining what water bars, turnouts, broad based dips, and stream crossings work best for soil stabilization and water diversion off the road.”

Pre-planning is also a big part of successful BMP implementation, according to Bryan Hulka, Southern Timberlands Environmental Management System Manager for Weyerhaeuser Timberlands. “An ounce of prevention is worth a pound of cure,” Hulka says. “Roads can potentially be a source of sediment, so road design and placement are key. Making sure that temporary roads are closed out properly is important, as well as determining whether seeding and mulching, slash placement, or water bars are required.”

The power of BMPs to make a measurable difference in water quality was illustrated most recently by the ARSN group during



*Steep road approaches can present erosion control challenges that can be minimized by the installation of multiple water bars and by eliminating exposed soil through planting grass seed.*

a project in the North River watershed in Fayette and Tuscaloosa counties, the location of a stretch of river cited for sediment impairment on the 303d list by the Alabama Department of Environmental Management.

ARSN member Patton Geologies spearheaded the installation of simple rock check dams that slowed the sediment moving along the ditches of county dirt roads that crossed streams in the North River watershed. “We started building 10 of these in 2011, and immediately they started decreasing sediment levels,”



*Simple rock check dams such as this one in Tuscaloosa County have captured over 1,000 tons of sediment from dirt roads and are easy to install.*

commented Patton. “Turbidity levels also dropped in nearby Bay’s Lake, the drinking water source for the town of Berry.”

Subsequent to the installation of BMPs within the Bay’s Lake Drainage Basin, the cost of water treatment for the town of Berry was reduced by 46 percent. “They told us, ‘We don’t know what you’re doing, but keep doing it,’” Patton continues. “Any kind of money savings for a small community is an improvement.”

Powell says this kind of success is a shining example of what ARSN is trying to accomplish across Alabama. “Although an economic benefit can quickly be recognized and felt by a community at this scale, we can also recognize the mutual benefit to imperiled animals that live in streams. Being able to document these types of mutual successes is exactly what we need to show in order to remove species from the Endangered Species Act, or better yet, avoid the need to list them in the first place.”

North River is now off the 303d list, and Patton and his team finished installing their final rock check dam this past July, for a total of 66 BMPs that have removed 1,069 tons of sediment.

“We had landowner permission to work in Tuscaloosa County, and those BMPs were the most successful ones because they were bigger, some 75 feet wide, and better at water retention,” says Patton.

Though armed with the knowledge of how successful BMPs can be, some forest landowners may still be hesitant to commit because of cost concerns for erosion control measures or loss of timber sales from SMZs.

“Prevention is much cheaper,” Lowery says. “You may view it as a cost initially, but if you’re preventing topsoil from washing into the creek, you’re increasing the productivity of your land

in the long run. It will cost you more if you have to repair the damage.”

Lowery is keenly aware of the responsibility of larger landowners like Westervelt to set a good example for the forest industry to follow. “We’re doing a better job than decades ago. Logger and landowner training is key. Through the Sustainable Forestry Initiative (SFI) standards certification, we must adhere to third party auditing for our BMPs. To whom much is given, much is expected. The expectations are there for certified content, and we have to deliver.”

Hulka also agrees that larger timber companies like Weyerhaeuser positively affect how BMP implementation is perceived through their influence on the market. “We can effect a real change in the mindset of landowners. Through logger training courses, we are encouraging loggers to get training and maintain training so that at least one crew member is present to both help protect the water and to know when to stop and ask questions. In this way, loggers help educate landowners, creating that ethic within them to respect water quality.”

Through Weyerhaeuser’s involvement with smaller landowners, Hulka says he’s seen the biggest change on private, non-industrial land because of the continuing education credit requirements and the cooperation with the state forestry commission. “It’s not a hard sell. Most of these people are hunters and fishermen who enjoy and appreciate the outdoors.”

According to Jeter, keying in on Alabamians’ inherent pride in their natural resources is the best approach to take when considering education options. “Leading people to the trough can be a slow process. The average landowner may not understand what’s wrong with certain forestry practices or what options are available,” continues Jeter. “They won’t see how these practices are important unless we get the message to them in a way they won’t tune out. In order for this to be successful, we have to have willing participants.”

Small and large forest landowners agree that there is room for improvement regarding BMP implementation if the forest industry in Alabama is going to continue to avoid federal regulation. “We’re not regulated, so let’s not become regulated,” says Lowery. “The BMPs help you be covered and not break the Clean Water Act.”

If habitat protection and regulation avoidance are not enough to convince landowners to implement BMPs, Jeter believes that the economics of clean water might seal the deal. “From an economic standpoint, a healthy watershed is a lot cheaper than one that has to be treated,” says Jeter. “For forest landowners, the SHU model helps people recognize the value of having a healthy watershed with healthy critters. It comes full circle.”

Powell says that kind of increased awareness is key to ensuring that ARSN efforts continue to be successful. “The attitude and examples set forth by our colleagues at Weyerhaeuser, Westervelt, Pirtle Forestry Services, and the Alabama Forestry Commission are integral to ensuring our sensitive water resources are protected into the future. Even if your highest priority isn’t protecting a mussel or fish, everyone should care about clean water for themselves, as well as protecting soil quality to sustain farms and forest lands for future generations – and that’s what ARSN brings to the table – a place where concerned stakeholders can work together in a respectful manner to help educate one another and provide a brighter future for Alabama.”

# Why It's Worth Your While to Consider Riparian Forest Buffers and the Environmental Quality Incentives Program

## Do you own and manage land that includes forestland?

Consider applying for the Natural Resources Conservation Service's Environmental Quality Incentives Program (EQIP) with a focus on retaining riparian forest buffers. Forest landowners in Alabama can receive additional ranking points in the EQIP program for leaving an extra wide riparian buffer.

## What is a Riparian Buffer?

Riparian areas are lands that occur along water courses and water bodies. In Alabama, the Best Management Practices state a minimum of 35 feet must be maintained as a streamside management zone or buffer. The NRCS is encouraging landowners to consider leaving a wider buffer of 70 feet to increase these benefits to our valuable resources.



**Healthy riparian areas reduce risks to water quality.**

## Benefits to a Wider Buffer

Riparian areas contain specialized plant and animal communities. Wildlife use the riparian areas for travel corridors, directly increasing wildlife benefits. Buffers also reduce rainwater runoff and sedimentation. Healthy riparian areas are reservoirs of biological diversity that reduce risks to water quality and can support certain economic activities, such as hunting, fishing, bird watching, and boating.

**Contact your local USDA-NRCS field office or visit 'NRCS Alabama' for more information on EQIP and applying for financial assistance.**

*USDA is an Equal Opportunity Provider, Employer and Lender.*

# The Endangered Species Act



What is it and how does it impact Alabama forest landowners?

By Ray Metzler

*Certified Wildlife Biologist/Threatened & Endangered Species Specialist, Alabama Forestry Commission*

Most everyone agrees that protecting threatened or endangered species is a good thing to do for our nation's watersheds and terrestrial landscapes. Everyone likes that warm, fuzzy feeling he or she gets when doing something positive for an animal. However, forest landowners are sometimes confused and fearful they might suffer some type of government intervention or loss of land if a threatened or endangered species is found on their property. For this reason, they often think twice about conducting activities or sharing information to benefit threatened and endangered species. In reality, there has never been an instance in Alabama where a landowner lost their land as a result of the Endangered Species Act (Act).

## History of the Endangered Species Act

President Richard Nixon signed the Act into law on December 28, 1973. The legislation's primary goal was and still is to prevent the extinction of plant and animal life. It also seeks to restore the health and maintain the viability of endangered species by minimizing threats to their existence and habitat(s).

Oversight and enforcement activities related to the listing of freshwater and terrestrial species are primarily entrusted to the U.S. Fish and Wildlife Service (Service). Federal agencies or projects with a federal nexus are required by law to consult with the Service to determine if their

planned activities will have an impact on threatened and endangered species or their habitat. Projects on private lands without a federal nexus are required to consider and manage threatened and endangered species appropriately, but are not mandated to consult with the Service unless federal funds are used for implementation of the project. However, it would be prudent for private landowners to contact the Service if they know a threatened or endangered species occurs on their property.

Currently, 1,597 species are listed as threatened or endangered, with approximately 127 occurring in Alabama. Only California and Hawaii have more listed threatened and endangered species. Alabama is the fifth most biodiverse state in the nation and has more aquatic species than any other state. A total of 741 aquatic species call Alabama home!

There were more than 1,000 petitions to list an organism as threatened or endangered between the years of 2007 and 2012. This overwhelming number of petitions is more than was submitted in the previous 30 years of the Act. One of the most historic petitions was the result of a settlement between the Service and the Center for Biological Diversity and Wild Earth Guardians in 2011.

Lawsuits filed by various environmental groups have resulted in placement of an additional 117 Alabama species on the list of 'proposed' species to include as threatened or endangered. Although the highest priority species will be addressed as soon as

*(Continued on page 14)*

### Number of Alabama species on the Endangered Species list by taxa:

Birds	4	Fish	16
Insects	1	Mammals	7
Mussels	53	Plants	23
Salamander	1	Shrimp	1
Snails	12	Snakes	2
Tortoises	1	Turtles	6

### Number of aquatic species that occur in Alabama by taxa:

Native Fishes	310
Mussels	180
Snails	160
Crayfishes	91



Photo courtesy of Alan Cressler

*Photographed in Cherokee County, this green pitcher plant is on the threatened or endangered species (T&E) list. It is known or believed to occur in Blount, Calhoun, Cherokee, Cleburne, Dekalb, Etowah, Jackson, Marshall and St. Clair counties in Alabama. The green tree frog is not listed as a T&E species!*

## The Endangered Species Act

*(Continued from page 13)*

practical, the Service has until 2027 to make final determinations on all the remaining petitions as to whether or not these species warrant formal protection under the Act.

## The Data Gathering Process

Whether to list or not to list a species is a determination the Service must make based on the best scientific and commercial data available to them at the time of the decision, therefore the data-gathering process is very important. Since most of the land in Alabama is in private ownership, access to and/or current data gathered in a scientific manner from these lands is critical to making an informed decision. This is where the conflict arises for many private landowners. The dilemma is whether or not to cooperate with the Service in order for them to gather data on the distribution and status of a species that may potentially be listed as threatened or endangered in the future.

Providing insight into these dilemmas presented by the Act are preliminary results from a study conducted through the University of Georgia, with the assistance of non-industrial private forest (NIPF) landowners in many southeastern states. The study

indicates that the loss of private property rights and special interest groups using the Act for political purposes are items of concern. Survey respondents indicated they provide habitat for endangered species but fewer reported they are actively trying to attract endangered species to their property. The study also indicates that sustaining economic losses due to Act regulations is a concern that might possibly be offset by offering compensation or tax credits in exchange for managing for endangered species.

Recovery of additional species will continue to provide challenges for the Service and NIPF owners until issues highlighted in the study can be overcome. Developing and maintaining a level of trust and cooperative spirit between the Service and NIPF landowners will be necessary to gather the best scientific data available prior to future listings. Service employees in the Daphne, Alabama, Ecological Services office understand the dilemmas they face and have expressed their interest in working cooperatively with state agencies, conservation organizations, NIPF landowners, and others to more effectively implement the Act to hopefully preclude the need to protect additional species.

## Impacts to Management Activities

The vast majority of the 127 currently listed and 117 'proposed for listing' species in Alabama are associated with aquatic, wetland, or other habitats in which logging activity is typically excluded as a result of adhering to Alabama's Best Management Practices for Forestry (BMP). The most important facets of BMP compliance and aquatic species revolve around maintaining adequate flow, unimpeded passage up and downstream, a stable water temperature, and limiting siltation. Maintaining riparian resources and stream crossings as outlined in the BMPs is critical. Several plant species occur on terrain such as bluffs, overhangs, and slopes adjacent to rivers and streams with little opportunity for harvesting under BMP guidelines. In these instances, private forest landowners can avoid most perceived scrutiny or government intervention by simply following the BMPs.

Habitat loss due to industrial and residential development, as well as conversion of forestlands into agriculture and/or other forest types are primary causes of listing for several terrestrial species. Industrial and residential development are facts of life in a country with an ever increasing population base. Several of the terrestrial species currently on the threatened and endangered species list are associated with old growth longleaf pine habitat that has diminished in the past decades. Efforts to restore longleaf pine and the management regime needed to maintain itself are underway throughout the southeastern coastal plain region. The immediate future may not be 'rosy' for many of these longleaf-associated species, but with time, this habitat type and the species it supports will be more prevalent in our ever-changing world.

Several recent listings under the Act have included special regulations, known as 4(d) rules, which provide guidelines for forestry operations in habitat or locales used by the particular species. Forest management agencies and companies work cooperatively with the Service during the rule-making process to develop rules that allow working forests to continue their active management practices. The Service and the forestry community recognize that maintaining a working 'managed' forest is more beneficial to our country's natural resources, as well as the economy, than sitting idle in a state of preservation. For the most part, there is a degree of compromise used by both sides, but occasionally rules are developed that increase the level of discomfort in the forestry com-

munity. Recent rulings have contained language that excluded use of certain forestry practices within part or all of the range of the particular species proposed for listing. Limiting some forestry practices may be beneficial for the species, but it also can make it more difficult for a forest owner to effectively manage his or her property.

Plants are not given the same level of protection under the Endangered Species Act as animals, except on federal lands. Forestry operations on private lands can be conducted legally in areas where listed plant species occur. The landowner is not required to conduct any type of survey or limit forestry operations based on the presence of listed plant species. For the record, many listed plant species occur in wetlands or other habitats that will be protected by simply following BMPs. But when feasible, pre-harvest plans should include a strategy to be as environmentally friendly as possible to sites with known threatened or endangered plants. Location of skid trails, loading decks, roads, and other high-use areas should be carefully planned to minimize negative impacts.

## Recent and Future Successes

Once a species is designated as threatened or endangered, the vast majority are never removed from the endangered species list for many reasons. However, recent success stories of the Endangered Species Act in the Southeast include the removal of the bald eagle and Louisiana black bear from the list of species being formally protected, as well as the down-listing of the Tulotoma snail in Alabama. Five freshwater crayfish species were also removed from the petition list because the Service was able to work with state agencies and private landowners to gather enough information that allowed the petitioner to withdraw the petition.

Ongoing efforts in Alabama by agencies such as the Division of Wildlife and Freshwater Fisheries, Alabama Forestry Commission, Alabama Geological Survey, the Service, and many private resource-based partnerships, companies, and individuals are having a positive impact on the distribution and status of other listed and ‘proposed for listing’ species.

Development in 2006 of the Alabama Rivers and Streams Network – a consortium of agencies/groups/individuals focused on recovery and restoration of aquatic habitat and species – was a great step in moving forward with improving aquatic habitats and populations of imperiled species. This group identified 59 areas called strategic habitat (SHU) units or strategic river reach units (SRRU) to focus conservation activities for managing, recovering, and restoring populations of rare fishes, mussels, snails, and crayfishes. The watershed-based units comprise a significant portion of Alabama’s remaining high-quality water resources where these rare species occur currently or historically. SHUs and SRRUs were selected based on the presence of federally-listed and state-imperiled species, threats to the species, designation of critical habitat, and the best available information about the essential habitat components required by these aquatic species to survive. The purpose of designating SHUs and SRRUs is to facilitate and coordinate watershed management and restoration efforts as well as to focus funding to address habitat and water-quality issues.

Continued success in the future will rely heavily on additional partnerships and the continued dedication of many people who are concerned about our natural resources legacy. Hopefully, these ongoing efforts will lead to the removal or preclude the need to list additional species on the threatened and endangered list. 🏠

*The lagniappe crayfish is one of many species that were formerly included in petitions to list as threatened or endangered. However, a collaborative effort between state and federal agencies and other scientific experts provided enough evidence in 2014 to preclude the need to list five crayfish species. Although the **Procambarus lagniappe** pictured here can only be found in three localities in Sumter County in Alabama, it is also found in Mississippi in tributaries of the Tombigbee River (Kemper and Lauderdale counties) as well as the middle reaches of the Sucarnoochee River system. Several crayfish experts have been surveying rivers and streams throughout Alabama and have identified at least one new species in the recent past.*



Photo by Susan Adams/USFS



*Forty years ago, our national symbol was in danger of extinction throughout most of its range, including Alabama. Habitat protection, banning of DDT, and population restoration efforts by fish and wildlife agencies as well as many conservation-minded individuals and groups resulted in the bald eagle’s removal from the threatened and endangered species list on August 9, 2007. When delisted, Alabama had more than 100 nesting pairs of eagles. Populations are now stable. During winter months, many more eagles call Alabama home and are quite common on some of our large reservoirs. The Alabama Division of Wildlife and Freshwater Fisheries conducts mid-winter surveys to monitor eagle activity and populations, but no longer conducts flights to observe nesting activity.*



# I Am a Tree Farmer

*By John Boutwell  
Butler County TREASURE Forest/Tree Farm/Stewardship Landowner*

I am a tree farmer. I plant trees, I grow trees, I harvest trees, and I sell trees. I am a tree farmer and I have the best job on earth!

Like most tree farmers in our state, I love my work and thoroughly enjoy trying to make our little corner of God's world a better place. My tree farm has a lot of diversity of both terrain and soil types. It has limestone outcrops that will only grow red cedar or a chinkapin oak. Within 100 feet can be another soil that has a 105 loblolly pine site index. Are the rock outcrops worth less? No, because in late spring when they are full of wildflowers, they feed my soul. The loblolly site feeds my bank account.

You see, unlike most private woodland owners in Alabama, growing and selling trees is all I do. I'm not talking about a hobby or something I do on weekends ... this is my 'day job.' Trees have to pay the bills. In addition to paying for forestry expenses, they have to pay for my lights, gas, groceries, and overpriced health insurance. Continued income from timberland is my retirement plan. This is why I'm all about growing and selling trees.

Admittedly, some things I do on the farm cost more than they return, but in the end my tree farm as a whole has to make a profit to support my family. Maybe this gives me a little different perspective on timber growing. I want to share some of my 'worries' about the future of our industry and my way of making a living.

First, I worry about the loggers who harvest and haul our timber to market. There are not enough to go around now, and the number of logging crews are fewer every year.

Most crews have gotten bigger and more mechanized to survive. They need to produce 50-100 loads per week to pay their bills (the biggest of which are the equipment note and fuel bill). They also need short hauls so that their limited trucks can make three runs per day. Small, mixed product timber tracts have become harder to sell and some of the best specialty markets are over 70 miles away. I'm afraid that harvesting and selling our timber is not going to get any easier.

I worry about our government when it is more concerned about getting re-elected than fixing a broken economy. We are six years into a recession and all we get is more regulation and interference to inhibit a free market economy. Don't hesitate to communicate with Washington and Montgomery. We are lucky to have organi-





zations such as the American Forest Foundation and the Alabama Forestry Association to help fight our legislative battles. I encourage you to support organizations such as these because there is strength in numbers.

To get better log prices, the home building industry must have a robust demand for plywood and 2x4s. That's why I worry about our sick economy. I would worry about our paper and pulp industry in light of the trend toward a 'paperless' communication world, but thankfully the general population of China and India are discovering toilet paper, feminine hygiene, and disposable diapers! Our 'fluff' mills need to gear up to supply that demand because it will become huge.

I have several other worries. After thinking about them, they all fit under one broad category – our industry's perception with the general public. Somehow during the past 50 years, we have gone from being hardworking friends of the forest, to the evil destroyers of the environment, and the enemy of 'helpless' trees. We must turn this perception around to survive legislatively.

Recently we received a catalog selling little bundles of fat lightwood. In bold print in the middle of the ad was the following statement: "No live trees were harmed in the harvesting of this product." Fat lightwood comes from the heartwood of dead old growth pine trees, or from old pine fence posts, or floor joists from an old house. By definition of the product, surely no live trees were harmed. But, the catalog company still felt the need to emphasize that to their customers!

There are few people who like to look at and appreciate big old trees more than I do. If I could reach around them, I might hug them. But I can show you numerous examples where I chose not to cut big trees for esthetic purposes and they are now dead by no fault of my own – lightning strikes, bugs, disease, or just old age. Most of my harvests are timber stand improvement (TSI) cuts. These simply improve the health of the forest by thinning an overcrowded stand. When I do need to clear-cut a mature stand, I typically harvest 50-75 trees per acre. Within one to three years, I replant 700 seedlings per acre.

Harvest one mature tree ... plant ten new trees. Am I really the forest's worst enemy? I think not, but how do I communicate this?

The U.S. Green Building Code (USGBC) considers concrete and steel to be 'greener' building materials than wood. Go figure out that logic! Trees are renewable – remember, harvest one, plant ten. A few years ago I had an audit done on carbon sequestration for my tree farm. The audit revealed that on my pine plantations, they sequestered (or captured) over 6½ metric tons of carbon dioxide per acre per year. I'm greener than Al Gore! But does the general public know this? No! We have to make them aware of all the benefits we provide.

As you can see, we in the timber industry do have a perception problem. I think that we are still the hardworking friends of trees and protectors of the environment, but we have to convince the public of this. I do believe there is power in numbers. If you feel as I do, join a forestry group and tell others about the good we do.

I am a tree farmer. I plant trees, I grow trees, I harvest trees, and I sell trees. I am a tree farmer and I have the best job on earth! 🌲

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# *Winter is a good time to* **Mark Your Property Boundaries**


*By David Mercker, Ph.D.  
Extension Forester, University of Tennessee*

**I**n a sound forest management program, few things are more important than clear delineation of your property boundaries. Land ownership begins with knowing what you own . . . not only the *assets* (your timber), but also the *area* (your boundary). Management plans cannot be created nor inventories conducted without first confirming the bounds of that to be examined. So when forestland is purchased, inherited, or gifted, priority one is marking your boundary.

Winter is an ideal time to identify and mark property boundaries. Foliage is gone, allowing for more easily locating landmarks. In some cases, property boundaries may be clear, such as with an existing fence, road, or creek. In other cases, the lines may be vague or nonexistent. When a boundary is not obvious, the landowner (or designated forester) should meet with adjoining landowners and agree on a location. When this action fails, a survey will be necessary.

The property boundary must be clearly designated with highly visible paint or flagging. Paint is best, because of duration, and it should be reapplied in three to four year intervals. You may also wish to post your property against trespass.

A marked boundary helps in your management planning, and allows loggers who are unfamiliar with your property to remain on the specified sale area. This will minimize cutting or damaging neighbors' timber. Many states impose penalties, referred to as *timber trespass*, for accidentally or intentionally cutting timber that belongs to someone else.

As always, landowners are encouraged to seek assistance from professional foresters and surveyors prior to engaging in forestry activities that may involve property boundary disputes. Doing so can help avoid unnecessary conflict that might result from overstepping your bounds. 

# Where have all the trappers gone?

By Steve Perdue  
Forestry Specialist, Butler County, Alabama Forestry Commission

Where have all the trappers gone? That is a question I have asked myself, and have been asked many times by other people. Of course I know a couple of old trappers that live in Butler County that still run trap lines, but they usually only do it part-time.

So what about the younger generations, why don't they trap?

There are several reasons I think the number of trappers has dropped in Alabama over the years. One reason is the stigma of trapping. Some people think that trapping is cruel and inhumane. But what they do not realize is that throughout the United States, trapping has helped bring back certain animal populations that were once threatened or endangered. Trapping also helps the ecosystem by maintaining the natural balance between different species of wildlife.

The second reason might be the stereotyping of people that trap. What do you think of when somebody mentions trappers? I've heard all kinds of stereotypes: lazy, out-laws, poorly educated, and smelly (this one can be true if met at the right time), just to name a few. These descriptions come from people who have never set a trap line. Setting traps can be hard work, and most of the trappers I know are well educated; some even have degrees in guess what? . . . wildlife management!

Probably the main reason we don't have many younger trappers today can be traced back to the early-to-mid 1980s. In the late '70s to early '80s when fur prices were high, the sale of trapping licenses rose to over 6,000 in Alabama. Then around 1985, prices of fur dropped and people lost interest. By 2003 to 2004, trapping license sales dropped to just below 400. When fur prices dropped, the trappers didn't see a need to teach the younger generations.

The last reason is the category into which I fall. As a kid, I always had an itch to learn how to trap, but never had any one to teach me. My uncle trapped raccoons in the early '80s, but I never really had the chance to go with him to check his traps because he ran them in the morning while I was in school. I do remember seeing his traps in the creeks where I hunted and the pans covered with aluminum foil to attract raccoons (he didn't use bait for fear of catching somebody's dog).

So, I never got into trapping. That is, until 2008, when Mike Sievering, wildlife biologist retired from the Alabama Department of Conservation and Natural Resources (ADCNR), conducted a youth trapping workshop in Butler County. Still having that

itch some 30 or more years later, I volunteered to cook lunch for the kids and mentors just to see if it was something that I might finally learn. Two years later, I signed up my daughter for the class and my wife came along as well. We have been trapping as a family ever since. For the last three years I have been a mentor, taking a group of youths out into the field and showing them how to set water traps along with a few land traps.

While I was asking myself the question about trappers, Mike

Sievering was asking the same question. He realized that the art and pleasure of trapping was being lost to a whole generation. Mike has been a trapper for many years, even stating that trapping helped pay his way through college. So in 2007 Mike started a youth trapping workshop with 20 kids in attendance. The next

(Continued on page 20)

*When Europeans first started settling in North America, part of the attraction was abundant fur bearing animals. Influenced by European fashion and clothing, the fur trade was very profitable at that time in history.*



## Some Misconceptions about Trapping in the South

### The fur you catch pays for your trapping expenses.

Unfortunately, southern fur bearing pelts are not very valuable. If you consider the amount of time spent trapping, skinning, preparing, and shipping the fur to market, you wouldn't make enough money to pay for your gas. Some of the older trappers and even a few younger ones still prepare fur for market, but this is just an added bonus. Most trappers make their money from a 'bounty' or a flat rate they are paid.

### Trapping is easy; all you have to do set traps.

Well, there's a little more to it than that. First, you need to learn about the specific animal you are trying to trap, such as what they like to eat, how they travel, what kind of attractants are best suited for them, what is the best trap for them, and what is the best set-up for that animal. Once all these considerations have been determined, you still have to actually set the traps. Land trapping is time consuming because you have to make each set for the trap. You also have to consider that when setting water traps, you are wading up to your hips in water or walking in deep mud, carrying all your trapping equipment. Personally, I enjoy water trapping. If I set ten conibear traps out in one area, for me, that is a lot of traps.

### Trapping is a cruel way to catch animals for fur or remove unwanted animals.

You may be surprised to learn that laws and modern traps developed by trappers prevent unnecessary injury to animals. Foot-hold traps used today have smooth jaws (no teeth) and just hold the animal's leg. If checked every 24 hours (as required by law), the animal can be released with no harm done most of the time. I've walked up on several animals caught in leg hold traps that are sleeping beside the trap. Conibear or body grip traps are similar to big mouse traps that dispatch caught animals very quickly. Some trappers use live or cage traps to catch nuisance animals or to move threatened/ endangered species to a new location.

### Trapping is not needed any more.

Trapping is actually one of the most cost-effective and efficient means to remove unwanted or nuisance animals. The practice has been around for a long time, but was mostly focused on beaver, one of the most destructive nuisance animals. Every year, beavers cause millions of dollars in damage to timber, roads, and pond dams. Nowadays with urban sprawl and people moving into the country, natural habitat is being lost and encounters with wildlife such as coyotes and raccoons is occurring more often. When these encounters happen too close to home, the homeowners want the animals removed and the only way is to trap them. Trapping has also been used as a means to repopulate animals that are plentiful in one part of the country to another area where the population is low. 🏠

## Where have all the trappers gone?

(Continued from page 19)

year he conducted four workshops scattered throughout Alabama. In 2015, six youth workshops and one adult workshop were conducted.

These workshops cover the basics of trapping such as trapping history, trapping laws, ethics, different types of traps, and how to set the traps. This is a three-day class with the first day spent in the classroom, and the second day spent in the field learning how to make sets and determine where to place them. On the last day, the students go out to check their traps and bring back their catch. Once back at the rendezvous site, instructors teach the kids how to properly skin the animals and prepare the hides for market or tanning.

Seven years later I'm still trapping. I might not be the best, but I enjoy getting out into the swamps and beaver ponds setting traps for North America's largest rodent or the occasional otter. My wife and daughter still enjoy sloshing around setting their traps where they think a beaver might swim. Trapping for us is just an excuse to turn off the television, put down the cell phone (you do not want to drop it in a beaver pond), and get out of the house. Yes, it can be hard work but it is also very enjoyable. I mainly trap for the pleasure of trapping, or to help a friend with beaver problems, or to make a little extra money.

If you are interested in attending one the trapping workshops, or have kids aged 6 to 18 years of age that might be interested in trapping, visit the ADCNR web page ([www.outdooralabama.com](http://www.outdooralabama.com)) for trapping workshop dates and locations, or call (205) 339-5716. Another good source for trapping information in our state is the Alabama Trappers and Predator Control Association ([www.atpca.org](http://www.atpca.org)). 🏠



# Southern Pine Beetle *(Dendroctonus frontalis)*

## Results of the 2016 Alabama Aerial Surveys

By Dana Stone

Forest Health Coordinator, Alabama Forestry Commission

The Alabama Forestry Commission conducted Southern pine beetle (SPB) detection flights from May through September 2016 for all 67 counties in the state. As predicted in the spring SPB pheromone survey, there was an overall increase in beetle infestations across Alabama with numbers quite high in certain areas of the state. Separate aerial detection surveys were conducted over the Talladega National Forest, Oakmulgee District, where the results indicated there would be a significant number of infestations.

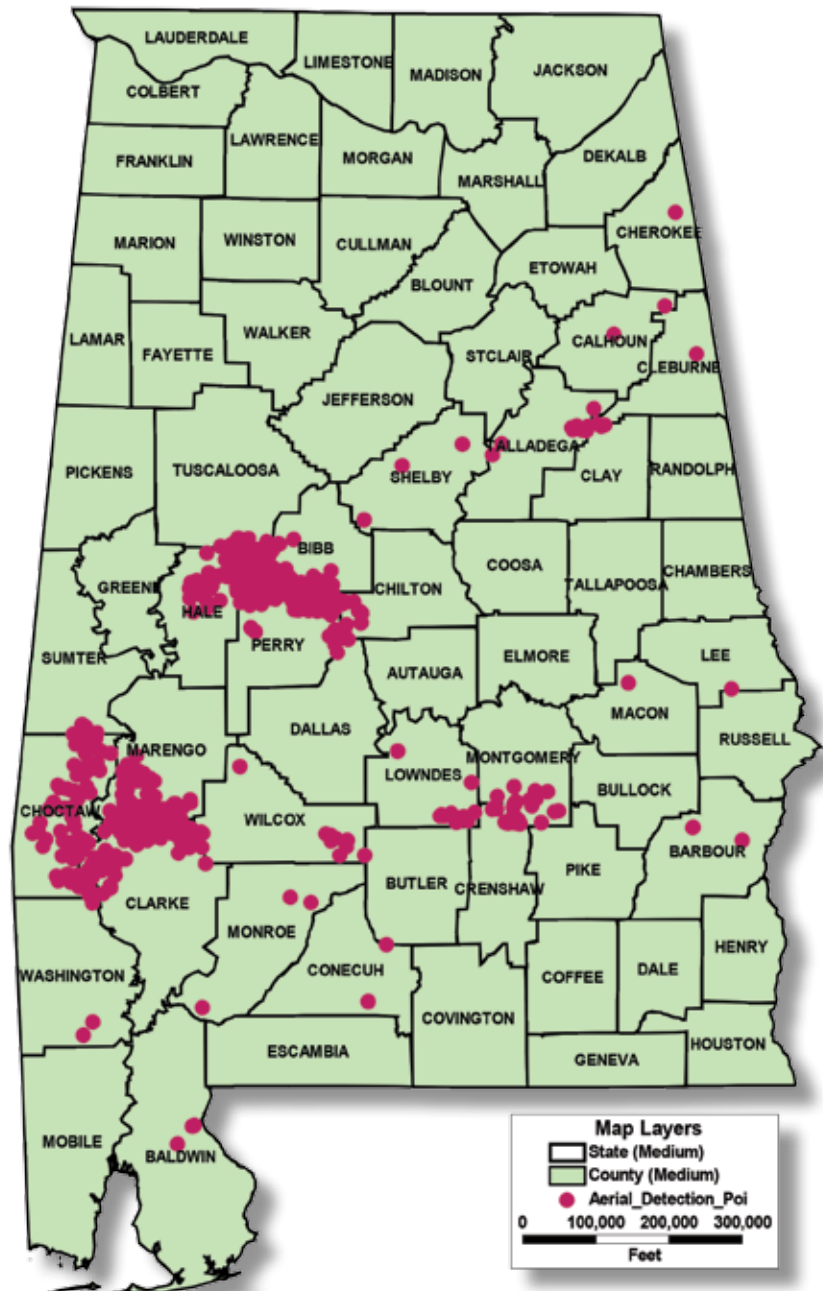
By late summer, Alabama started experiencing complications from a drought which has continued well into the fall season causing additional stress on residual pines. Supplemental SPB aerial surveys scheduled for October were ceased because of the heightened number of wildfires resulting from the drought situation.

From the combined SPB aerial surveys conducted in 2016, the total number of spots detected was 691, infesting 36,346 trees. Some of these beetle infestations detected were caused by the pine engraver beetle.

### 2016 SPB AERIAL SURVEY REPORT

Region	Infested Counties	Detected Spots	Infested Trees
North	0	0	0
Northwest	6	346	19,169
Northeast	6	19	380
East Central	5	61	1,227
Southeast	2	6	215
Southwest	8	259	15,355
<b>Total:</b>	<b>27</b>	<b>691</b>	<b>36,346</b>

NOTE: The totals in this table also include spots detected from aerial surveys conducted for the Talladega National Forest, Oakmulgee District.



2013: 109 aerially detected spots infesting 14,620 trees

2014: 168 aerially detected spots infesting 18,785 trees

2015: 378 aerially detected spots infesting 23,545 trees

2016: 691 aerially detected spots infesting 36,346 trees



# Prescribed Fire Improves Quail and Red-cockaded Woodpecker Habitat at Enon-Sehoy Plantation

*By Holly Campbell, Extension Associate,  
Southern Regional Extension Forestry*

**L**ocated in Alabama's upper coastal plains near Hurtsboro is Enon-Sehoy Plantation, a recreational, quail hunting property renowned for its open-story pine trees and diverse wildlife. This 27,500 acre, privately-owned property contains widely-spaced longleaf, shortleaf, loblolly, and slash pine forests (basal area of 15-60 square feet per

acre) with diverse understory grasses and forbs such as bluestem, switchgrass, and the federally-endangered American chaffseed. The forests and understory vegetation support abundant wildlife, including deer, turkey, and quail, as well as the threatened Bachman's sparrow and the federally-endangered red-cockaded woodpecker. Within four years, the property's red-cockaded

woodpecker population grew from just three clusters to 29 potential breeding groups.

Prescribed burning is the primary land management technique used to maintain the open-canopy landscape and diverse wildlife at Enon-Sehoy. Since optimizing quail habitat is the main objective for the property, a careful prescribed fire plan must be used to provide the food, shelter, and breeding grounds necessary for quail survival. This presents a challenge.

Grasses and other understory plants regenerated by prescribed fire provide not only vegetation, seeds, and insects necessary for quail nutrition, but also shelter from predators. Quail habitat is restored by fire, but quail are susceptible to predators without the protective cover of vegetation removed by fire. To achieve both goals of restoration and shelter, the property is burned every two years in a mosaic of 40-50 acre blocks. Burning a patchwork of smaller areas is more time consuming, but enables regeneration of important quail habitat while maintaining sufficient shelter.

Maintaining the Enon-Sehoy landscape with prescribed fire every two years lends added benefits to surrounding communities. Dangerous wildland fire vegetation fuel is kept to a minimum through regular burns, thus protecting surrounding communities from wildland fire hazard. Less understory vegetation also equates to lower smoke production, a primary complaint by the public regarding prescribed fire management.

The plantation placed 18,000 acres in a conservation easement, which provided federal funding to assist in management of this portion of the property. In addition, Enon-Sehoy thins or clear-cuts 10,000 tons of wood per year on average. Forest har-



Photo by John Stivers

*Prescribed burning at Enon-Sehoy Plantation in Alabama.*

vests create and maintain additional quail habitat as well as generate income to continue management of the property.

In 2016, five new individuals joined as co-owners of 15,800 acres of the Enon-Sehoy Plantation. The new owners support the vision of managing the mature pine savanna landscape with fire and optimizing wildlife habitat. Their support is invaluable for continuing forest management objectives currently underway on the property.

Frequent prescribed fire at Enon-Sehoy has created not only a unique, treasured hunting preserve, but also a diverse habitat containing abundant wildlife and vegetation. 🌲

*Editor's Note: This 'Success Story' was written in support of the National Cohesive Wildland Fire Management Strategy, representing two national strategic goals: improving wildfire response and promoting resilient landscapes. To learn more, visit [www.southernwildfire.net](http://www.southernwildfire.net).*



Photo by John Stivers

Photo by John Stivers

*An example of a widely-spaced, or low basal area, pine forest managed for quail habitat at Enon-Sehoy Plantation, one to two seasons following a prescribed burn.*



# A Fire Runs Through It: The Longleaf & Canebrake Landscape

By Rachel E. Conley, Associate Biologist,  
Westervelt Ecological Services

Where drought, hurricanes, insects, and fire excluded so many other plant species, longleaf pine (*Pinus palustris*) thrived as an avant-garde pioneer in the harsh, uplands of the southeastern United States. Over untold decades, these trees would take root and form a sweeping forest witnessed by early explorers to the region.

Down slope of these forests, in the oft-flooded bottomland and riparian buffers, the system was too harsh even for the hardy longleaf pine. However, it was within this dominion that a 'sibling' habitat known as canebrake (*Arundinaria spp.*) would gain dominance and also become wide-spread. Though not as easy to navigate as the open and airy longleaf pine forests, the same early explorers made frequent accounts of immense 'canebrakes' separating these islands of longleaf pine like vast bodies of water. Occupying slightly different ecological niches, both habitats were vital to the biodiversity of the Southeast. Furthermore, amongst and

between the longleaf pine forests and canebrakes, an expansive assemblage of plants and animals could be found.

Fire once spread across the longleaf pine uplands with great frequency. Lacking artificial fire breaks, it would also move into the adjoining cane habitat. These canebrakes further carried fires, thriving under conditions that frequently burned. It was fire that was able to connect these siblings and create a resilient and diverse ecosystem known as the longleaf pine and canebrake landscape.

Today, vestiges of both habitat types can be found scattered across the land. Though the focus over the past decade has been on longleaf pine restoration, a ground-swell of interest in canebrake restoration is emerging. The challenge in either restoration initiative is the tendency to view these two siblings as unrelated. In the classic novel *A River Runs Through It*, Norman Maclean wrote, "Eventually, all things merge into one, and a river runs through it." For effective conservation of these Southern landscapes, restoration initiatives should include managing both habitats simultaneously and allowing a fire to run through it.

## Canebrakes: The Forgotten Grassland

Stands of native cane, also called rivercane, formed extensive, uniform stands known as canebrakes that stretched for miles across the landscape. Rivercane was often a heavy component of wet bottomland hammocks or pockets of riparian forest-buffering drainages that were interspersed throughout the extent of the adjacent longleaf pine forests. This rivercane is actually a woody grass, or bamboo, and canebrakes are therefore considered grasslands.

Canebrakes occurred from Florida to eastern Texas and Oklahoma and northward to southeastern Missouri and Virginia. Recently, canebrakes have been found to occur as far north as Pennsylvania. Depending primarily on where they are located, rivercane can be divided into three distinct species: *Arundinaria gigantea*, *A. tecta*, and *A. appalachiana*. The largest canebrakes occurred on the natural levees in alluvial floodplains that were often referred to as 'cane ridges.' However, in today's highly altered landscapes, rivercane is commonly found growing diffusely under forest canopies and forms small stands in forest gaps, along forest edges, and along riparian areas.

Rivercane, like most bamboos, flowers gregariously and in an irregular pattern of up to 30-40 or more year intervals, typically resulting in massive, vegetative die-offs. Due to its infrequent flowering events, cane production relies heavily upon underground growth via rhizomes, or underground stems. Disturbance appears to play a large role in rivercane ecology, particularly large-scale disturbances such as fire and windstorms through creation of forest openings.



Canebrakes provide unique habitat for an abundance of wildlife including various songbirds such as the yellow-rumped warbler, Carolina wren, wood thrush, and hooded warbler. Prior to their extinction, passenger pigeons used canebrakes as stopovers during migration and Carolina parakeets used them for nesting habitat. Perhaps the most interesting wildlife association was that of Bachman's warbler, a cane specialist prior to its almost certain extinction that used canebrakes as breeding grounds.

Bobcats and white-tailed deer are found in canebrakes regularly. Historically, bison, as did black bears and cougars, used them as a natural corridor across the landscape. With stems as close together as 2-3 inches, a vast array of wildlife avoid predators by hiding in densely-packed canebrakes. Small mammals such as short-tailed shrews, least shrews, southern bog lemmings, golden mice, rice rats, harvest mice, and cotton rats escape from predators in cane. Species of conservation concern such as swamp rabbits or 'cane-cutters,' Swainson's warblers, and timber rattlers (often referred to as 'canebrake rattlesnakes') also seek refuge in canebrakes.

Cane-obligate butterflies including the Creole pearly eye, southern pearly eye, southern swamp skipper, cobweb little skipper, yellow little skipper, and the cane little skipper must use cane as their larval host. A new cane-dependent Lepidoteran species has recently been discovered from hill cane habitat in the lower Appalachians. In total, nearly 70 species have been documented using and/or inhabiting canebrakes.

Rivercane had ethnobotanical significance and a deep history with southeastern Native Americans including the Cherokee, Creek, and Choctaw tribes. Because cane was pervasive in tribal life, it was considered appropriate for them to be labeled as a 'bamboo society' and in 1946, ethnologist John Swanton considered it to have been one of the most important plant resources for Southeastern tribes. Rivercane was used for a variety of cultural items such as baskets, ceremonial flutes, tools, food, torches, furniture, medicines, housing, and mats. Cane was particularly valuable to the basket trade of Native Americans, where it served as the principle construction material until its decline made it difficult to obtain. As valued hunting lands, Native Americans burned canebrakes every 7 to 10 years to maintain and expand them by eliminating competing woody vegetation. Furthermore, rivercane was termed the 'inner chamber of the great hunting ground.'

European explorers noted the extensive presence of cane throughout the South, particularly along river systems and riparian areas. Canebrakes initially expanded following abandonment of Native American agricultural clearings; however, they rapidly declined throughout the Southeast upon European settlement. Canebrakes were particularly expansive in Alabama up until the mid-19th century. During that period, Hale, Marengo, Perry, and parts of Greene and Sumter counties came to be known as 'The Canebrake' with the hub being the junction of the Tombigbee and Black Warrior rivers near Demopolis. It was here in 1775 that botanist William Bartram noted rivercane "thick as a man's arm, 3-4 inches in diameter."

The intrinsic value of these canebrakes increased as demands for deer skins climbed sharply during the buckskin trade of the 17th and 18th centuries. However, with a handsome bounty on green deer hides and other fur bearers, canebrakes lost much of their ecological value as a haven. Following the Creek Wars of the 1810s and the subsequent Alabama land rush to cultivate cotton, canebrakes declined precipitously. European farmers target-

ed canebrakes as indicators of fertile soil, and subsequently cleared rivercane and its rhizomes from new agricultural fields for decades until the few rivercane propagules that remained stood around the margins of fields and forest edges. The July 1, 1905 issue of the *Montgomery Advertiser* headlined, "Canebrake an Ideal Field for Farming." Europeans' more permanent style of agriculture hindered canebrake development and further fragmented the ecosystem, leading to diffused patches of rivercane, weakened by a lack of disturbance, particularly fire.

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*"The canebrakes stretch along the slight rises of ground, often extending for miles, forming one of the most striking and interesting features of the country."*

*~ Theodore Roosevelt in 1907*

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Rivercane was a mainstay of early American agroforestry due to its excellent forage quality and the shelter it provided throughout the winter, characteristics that most co-occurring forages could not provide. However, year-round grazing by large amounts of cattle eventually lead to unsustainable overgrazing of rivercane. Where overgrazed, it was not unusual for a new non-

*(Continued on page 26)*



Photo by Rachel Conley

*A prescribed burn conducted in a canebrake.*



*A picturesque canebrake with longleaf overstory found at the Solon Dixon Center in Andalusia, Alabama.*

## *A Fire Runs Through It*

*(Continued from page 25)*

native plant by the name of Chinese privet (*Ligustrum sinense*) to takes its place. In most of these instances, rivercane was never able to outcompete the privet and reclaim its prominence in the environment.

Regionally, canebrakes have been reduced to less than two percent of their former range. Their ultimate decline is attributed to land conversion for agriculture, fire suppression, exotic plant infestation, and habitat fragmentation.

### **Longleaf Pine Forests: A Grassland with Trees**

Standing tall above the rivercane in the surrounding uplands was the longleaf pine. A long-lived giant that could survive for 500 years, this pine forest hosted a wide assemblage of wildlife species, many of which are exceedingly rare today. Perhaps the most notable is the federally-endangered red-cockaded woodpecker, the only bird that excavates live trees for its home and brooding cavities. Another is the federally-threatened gopher tortoise which creates burrows that are home to over 360 other wildlife species. The eastern indigo snake, recently re-introduced to Conecuh National Forest in lower Alabama, is considered the longest snake native to the U.S. and is known to eat venomous snakes. Others include the fox squirrel, Bachman's sparrow, northern bobwhite quail, and the flatwoods salamander. Most longleaf-associated wildlife are species of concern due to their limited, available habitat, and need for a frequently burned understory. In fact, nearly two-thirds of the declining, threatened,

or endangered species in the southeastern United States are associated with the longleaf pine ecosystem.

Though they may look like a simple patch of trees overtopping manicured pastures, the longleaf pine forest has a tremendously diverse understory. Intact longleaf pine forest understories are predominantly covered by native warm season grasses, with species varying from wiregrass (*Aristida stricta*) to various blue-stems (*Andropogon* spp.) across its botanical range. Grasses served as the primary fuel, along with fallen needles, to carry fire long distances across the longleaf landscape. However, the comingling of its frequent woody grass counterpart, rivercane, is often neglected in natural history books.

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*"Longleaf pine might have once been the most abundant tree in the United States and was certainly the most abundant tree in Alabama."*

*~ Roland Harper, in the 1920s*

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The Southeastern Coastal Plain region was dominated by longleaf, along with intrusions into the Piedmont, Cumberland Plateau, Ridge and Valley, and Blue Ridge physiographic regions. Montane longleaf was found in northern Alabama as well as west-central Georgia. Much like rivercane, longleaf had a wide tolerance of soil types and elevation, solidifying it as the most ecologically resilient of the southern pines.

Longleaf has long been considered a superior timber product to all other southern pines. Pharmacist and amateur naturalist Charles Mohr of Mobile stated in 1897, “The longleaf pine is the tree of widest distribution and of greatest commercial importance in the Southern Atlantic forest region of eastern North America.”

Roland Harper [early staff botanist for the Geological Survey of Alabama] noted, “Longleaf had more uses than any other tree in North America, if not the whole world.” Of all the timber wealth of the U.S. during the time, longleaf pine paid the greatest price for this sudden surge toward an industrial society due to its extensive commercial uses and products.

Most notably, longleaf oleo-resin was harvested for tar, pitch, and timber for naval stores in the 1700s for the British Navy. Tar was used to preserve and grease working parts of the ship, while it was boiled down to pitch to ‘water-seal’ the wood of the outer parts of the ship. Large longleaf timbers were used for ship masts and spars.

Later, in the 1800s, spirits of turpentine and rosin became the new longleaf product on the market for a variety of medicinal uses and paint manufacturing. This mass production of longleaf products was initially made possible by the creation of water-powered mills that facilitated the beginning of the American commercial lumber industry. In 1833, the steam-powered engine brought the railroad to South Carolina providing the infrastructure necessary to transport lumber easily across state and regional lines. The steam boom swiftly followed from 1850-1870 that gave rise to steam-powered saw mills and skidders. From 1870-1930 intense logging was practiced throughout the Southeast, leveling millions of acres of longleaf pine savannas. The 1870s ushered in national fence laws that reduced the size of natural fire compartments, further pressuring the longleaf pine savanna.

Early scientists such as Harper in 1913 swiftly recognized the extreme toll that alterations in fire regime had taken on longleaf. The region-wide failure of natural regeneration from a combined death sentence of strict national fire suppression policies and seedling depredation by wild pigs solidified the ultimate decline of the longleaf pine.

The demise of longleaf pine forests has been widely documented over the past 20 years. In short, longleaf pine was once the largest temperate forest in North America; now very little of it remains.

### Restoration Efforts of Longleaf and Canebrakes

Longleaf and rivercane, combined with frequent fire events, shaped much of the historic Southeastern landscape. Because of the similar fire ecology and dependence that longleaf and rivercane demonstrate, the adoption of a paired-species management and restoration philosophy incorporating a frequent fire regime is essential to sustaining these two botanical treasures.

Propagation for longleaf pine restoration is dominated by planting trees. The vast majority of pine seedlings are containerized seedlings due to their superior rate of survival and planting window flexibility. Longleaf thrives at fire return intervals of anywhere from one to four years, depending on its life stage and site conditions. Rivercane will thrive under very similar fire regimes, particularly fire return intervals of three to five years. Fire simultaneously stimulates vigorous resprouting of new riv-

ercane culms, returns nutrients to the soil, and reduces competition from other plants.

As canebrakes have specialized habitat requirements, it is unlikely the system will rejuvenate without human intervention. Like longleaf, natural regeneration of rivercane is extremely limited due to its infrequent and largely unpredictable flowering. No true, large-scale progress has been made to-date on rivercane seed collection and germination. The most promising method is macropropagation, a process in which underground rhizomes are divided in the winter months and grown in containers for a growing season. Some success has been seen in macropropagules outplanted after one year with dibble bars similar to hand planting pine seedlings. A quicker but more laborious method to establishing mature cane on a restoration site is to conduct clump division, or direct transplantation of approximately 18-inch diameter and 8-inch deep intact soil masses of rivercane culms and rhizomes with hand tools. While easily desiccated during travel, rivercane is a relatively hardy plant that may be transferred readily in covered vehicles or trailers.

Many of the processes in propagation and restoration of longleaf and rivercane are similar in nature and should be jointly harnessed to produce a more complete restorative package of the southeastern Coastal Plain piney woods. Instead of discerning these ecosystems as separate entities and excluding them from each other, we should consider the two as siblings that can be restored simultaneously and support each other ecologically. In longleaf and canebrakes alike, a fire runs through it. 🌿



Photo by John McGuire/Westervelt Ecological Services

Rachel Conley of Westervelt Ecological Services conducting a prescribed burn in a canebrake in gopher tortoise habitat.

# In Their Own Words ...

## Letters to the AFC

14 April 2016  
To the Editor

Thank you for the excellent work the Alabama Forestry Commission does to manage and protect our best natural resource.

Sincerely,  
M. M. Nonnemacher  
St. Augustine, Florida



To John Goff  
Montgomery, Alabama:

As the Communications Unit Leader for the 'Rising Angel' event in Hanceville, I would like to thank you for providing resources and personnel to accomplish the interoperable communications. Brad Smith acted as communications technician for the event and performed exceptionally in the role. We could not have provided reliable interoperable communications for the public safety personnel from the many local, state, and county responders without Brad's outstanding support.

Again thanks to you and the Alabama Forestry Commission for the outstanding support for 'Rising Angel.'

Sincerely,  
Ernie Blair  
Chief Executive Officer  
Director, Radio Infrastructure  
Huntsville-Madison County 9-1-1 System  
Huntsville, Alabama



To Paul Williams  
Heflin, Alabama:

You and your staff have been on our property over a half dozen times during the three years we have owned it, and each time you left a thing of beauty! An improved road that needed water bars, a prescribed burn done right, or a new fire-

April 2016

break /road that we could now use for hiking/hunting and with our off-road vehicles. All this by your men and their big JD machines . . . a big 'thanks' to Richard McCain and James Barker!

And early on in the first year, you, Paul, reviewed our entire 300 acres and prepared a comprehensive Forest Stewardship Plan that we have used to administer our tree farm and our stream-side management zones [SMZs]. We are following it to a 'T' and it has paid off! We were honored to receive a Forest Stewardship Certification in September 2015 for our efforts.

All we did is follow your plan and from time to time get some extra advice from one of you . . . always freely given and 'spot on' with practical, easy-to-follow professional guidance. The relationship we have now with you and your team has now been added to that 'thing of beauty' that I mentioned earlier!

Sincerely,  
E. B. L.  
Cleburne County Forest Owner



17 June 2016

To Alabama Emergency Management Agency (AEMA) and Balsie Butler, AFC:

[Following activation of AFC Chambers County Forestry Specialist James 'Moto' Williams by Alabama Emergency Management Agency (AEMA) to deliver tarps to the St. Clair Correctional Facility for damages to several roofs at the facilities resulting from straight line winds.]

We know we can always count on AEMA and our state, local, and private partners to assist with our 'gaps' during emergency situations in such an expedient manner. Director Faulkner commented as we departed the Shoals yesterday... "No other state stands as ready and capable as Alabama during times of emergency." So true. Forestry is the agency (Balsie Butler arranged it) which trekked the mountain

in Cahaba Heights a couple of years ago during the ice storm and rescued the stranded Birmingham work-release inmates abandoned by their employer, one of which was a diabetic with a broken leg.

Steve Watson  
Department of Corrections



May 2016

To Sammy Holdsambeck (Bibb County AFC), Juan Merriweather and Jeffery Baity (Dallas County AFC)  
Brent, Alabama:

Thank you tons for participating in this year's FAWN! We loved your presentation, as did the kids. Hope to see you next year!  
Oakmulgee Ranger District  
USDA Forest Service



June 2016

To the Bibb County AFC  
Brent, Alabama:

Thank you for your support in making the Central District FFA Eliminations a tremendous success. Through the giving nature of many individuals and groups, we were able to impact over 950 members, advisors, and supporters of Agriscience Education and FFA. I truly appreciate the part you played in making this event a success. I look forward to working with you again in the future. Thank you so much for your support of the Central District FFA.

Sincerely,  
Andy Chamness,  
Central District FFA Advisor  
Alabama FFA Association  
Agriscience Education  
Montgomery, Alabama



# International Corporation to Supply Forest Seedlings from South Alabama Nursery



Officials with the Alabama Forestry Commission (AFC) have recently announced a lease agreement on property owned by the state agency in Escambia County with PRT USA Inc. (PRT), the U.S. subsidiary of a Canadian company that produces container-grown forest seedlings. The two entities signed a long-term lease which includes land, buildings, and infrastructure suitable to establish a nursery for containerized forest seedling production at the former E.A. Hauss Nursery site located in Atmore.


According to PRT executives, the company will immediately commence construction of container growing facilities on the site, which it intends to expand over time in response to customer needs. In order to serve forest landowners and other customers in the Southeast, PRT's forest seedling product offering will include longleaf, slash, and loblolly pine, along with other species. Construction is anticipated to be completed in early 2017, with sowing of seedlings to occur in the spring for shipping to customers during the 2017/18 planting season.

"We are always proud to have companies make investments in Alabama, but we are excited for this redevelopment project as we partner with PRT to put life back into the Hauss Nursery site," Governor Bentley said. "Forestry is one of Alabama's largest commodities and essential to sustaining a strong economy in our state. We look forward to a long and prosperous relationship through this new venture."

"We consider it our good fortune that this international corporation was interested in establishing a presence in Alabama," remarked interim State Forester Gary Cole. "Having remained vacant for several years, this AFC nursery property was avail-

able, and we're pleased that PRT realized its potential. In addition to being a much-needed seedling source for forest landowners in southwest Alabama, this operation will also provide jobs for the area. The lease is a win-win situation for all involved."

PRT President and CEO Rob Miller commented, "With establishment of this facility, PRT will take another step towards our goal of better serving our customers in the Southeast. This region is an important forestry market in North America, which is poised to grow as the forest industry economic recovery continues and as more customers embrace the advantages of container grown seedlings. An Alabama-based nursery will allow us to make PRT's containerized forest seedlings available for quick and effective turnaround deliveries during the fall and winter plant period starting in 2017." Miller continued, "We have worked diligently with the State of Alabama in order to arrive at this mutually agreeable arrangement for the former E.A. Hauss Nursery. We recognize and respect the legacy of this nursery to the State and the history of forestry in the region. We look forward to continuing this legacy by working with customers throughout the Southeast and being an integral part of their successful reforestation efforts now and in the future."

Based in Victoria, British Columbia, the PRT group, through affiliates PRT USA Inc. and PRT Growing Services Ltd, is a forest seedling propagator and the largest producer of container-grown forest seedlings in North America, currently growing more than 180 million seedlings annually and operating a network of forest seedling nurseries in the U.S. and Canada. For further information, please see PRT's website at [www.prt.com](http://www.prt.com). 

# TREE SEEDLING SOURCES

Successful tree planting not only requires good planning, skillful site preparation, correct handling, and proper planting, but it also helps to have a reputable and reliable tree seedling source. To assist in this process, a list of southeastern tree seedling nurseries that serve Alabama landowners is presented here. This alphabetical listing is in no way an endorsement of any particular company or product.

The Alabama Forestry Commission also maintains a list of tree seedling nurseries on the agency website at [www.forestry.alabama.gov/seedling\\_search.aspx](http://www.forestry.alabama.gov/seedling_search.aspx). Qualified tree seedling vendors that market to Alabama landowners and wish to be added to this list should call (334) 240-9326. ☎

## **Advantage Forestry**

Peter Frankowski  
302 South Main Avenue  
Demopolis, AL 36732  
Phone: (334) 341-2059  
[www.advantageforestry.net](http://www.advantageforestry.net)

## **ArborGen - Alabama SuperTree Nursery**

Larry Foster  
264 County Road 888  
Selma, AL 36703  
Phone: (800) 222-1280  
[www.supertreeseedlings.com](http://www.supertreeseedlings.com)

## **ArborGen - Bellville SuperTree Nursery**

Steve Cantrell  
P.O. Box 56  
Bellville, GA 30414  
Phone: (877) 833-4760  
[www.supertreeseedlings.com](http://www.supertreeseedlings.com)

## **ArborGen - Georgia SuperTree Nursery**

Jim Crittenden  
78 Supertree Lane  
Shellman, GA 39886  
Phone: (800) 554-6550  
[www.supertreeseedlings.com](http://www.supertreeseedlings.com)

## **ArborGen - South Carolina SuperTree Nursery**

Gary Nelson  
5594 Highway 38 South  
Blenheim, SC 29516  
Phone: (800) 222-1290  
[www.supertreeseedlings.com](http://www.supertreeseedlings.com)

## **Baucum Nursery**

Krys Newnum  
3821 West Roosevelt Road  
Little Rock, AR 72204  
Phone: (501) 907-2485 or 2486  
[www.forestry.arkansas.gov/Seedlings](http://www.forestry.arkansas.gov/Seedlings)

## **Bell Brothers, Inc.**

Danny or Gary Bell  
5619 Highway 169 South  
Claxton, GA 30417  
Phone: (912) 739-2273

## **Blanton's Longleaf Container Nursery**

C.J., Jay, or Jason Blanton  
1091 Northeast Daylily Avenue  
Madison, FL 32340  
Phone: (850) 973-2967

## **Buckeye Nursery**

Clinton Keen  
1490 Buckeye Road  
Perry, FL 32347  
Phone: (850) 838-2680

## **Chestnut Hill Nursery & Orchards**

15105 Northwest 94 Avenue  
Alachua, FL 32615  
Phone: (800) 669-2067  
[www.chestnuthilltreefarm.com](http://www.chestnuthilltreefarm.com)

## **Chiappini Farm**

150 Chiappini Farm Road  
Hawthorne, FL 32640  
Phone: (800) 293-5413

## **Deep South Growers**

Rick or Candi Reed  
1535 Harvey Vickers Road  
Douglas, GA 31534  
Phone: (912) 384-5450

## **Delta View Nursery**

659 Burdette Road  
Leland, MS 38756  
Phone: (800) 748-9018  
Alt. Phone: (662) 686-2352

## **Flatwood Natives**

905 Bennett Road  
Ona, FL 33865  
Phone: (863) 735-0085  
[www.flatwoodnatives.com](http://www.flatwoodnatives.com)

## **Florida Forest Service**

**Andrews Nursery**  
Steven Gilly  
9850 Northwest 42nd Court  
Chiefland, FL 32626  
Phone: (352) 493-6096  
<http://www.freshfromflorida.com>

## **Georgia Forestry Commission**

**Flint River Nursery**  
Jeff Fields  
9850 River Road  
Byromville, GA 31007  
Phone: (229) 268-7308  
[www.gaseedlings.org](http://www.gaseedlings.org)

## **International Forest Company**

Wayne Bell or Chris Johnston  
1265 Georgia Highway 133 North  
Moultrie, GA 31768  
Phone: (800) 633-4506  
Alt. Phone: (229) 589-7142  
[www.internationalforest.co](http://www.internationalforest.co)

## **K&L Forest Nursery, Inc.**

Ken Singleton  
3782 Hwy 41 South  
Buena Vista, GA 31803  
Phone: (229) 649-6572

## **Liner Tree Farm, Inc.**

4020 Packard Avenue  
St. Cloud, FL 34772  
Phone: (800) 330-1484  
Alt. Phone: (407) 892-1484

## **LTF Greenhouses, LLC.**

Neal Kicklighter  
195 Ty Ty Omega Road  
Tifton, GA 31793  
Phone: (229) 382-4454  
[www.lewistaylorfarms.com/ltf-greenhouses-llc](http://www.lewistaylorfarms.com/ltf-greenhouses-llc)

## **Meek's Farm & Nursery, Inc.**

Mickey Parker  
187 Flanders Road  
Kite, GA 31049  
Phone: (850) 572-3932  
Alt. Phone: (887) 809-1737  
[www.meeksfarms-nurserys.com](http://www.meeksfarms-nurserys.com)

## **Native Forest Nursery**

11306 Highway 411 South  
Chatsworth, GA 30705  
Phone: (706) 483-3397  
[www.nativeforestnursery.com](http://www.nativeforestnursery.com)

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**E-mail changes of address to: [tfmag@forestry.alabama.gov](mailto:tfmag@forestry.alabama.gov)**

### **North Carolina Forest Service Claridge Nursery**

762 Claridge Nursery Road  
Goldsboro, NC 27530  
Phone: (919) 731-7988  
[www.buynctrees.com](http://www.buynctrees.com)

### **North Carolina Forest Service Linville Nursery**

6321 Linville Falls Highway  
Newland, NC 28657  
Phone: (828) 733-5236  
[www.buynctrees.com](http://www.buynctrees.com)

### **Plant World Nursery**

7509 Lee Road 146  
Opelika, AL 36804  
Phone: (334) 745-0459  
[www.plantworldal.com](http://www.plantworldal.com)

### **Ray Bracken Nursery, Inc.**

Michael Phillips  
460 Woodville Road  
Pelzer, SC 29669  
Phone: (800) 992-4321  
[www.raybracken.com](http://www.raybracken.com)

### **Rayonier Seedling Division Elberta Nursery**

29650 Comstock Road  
Elberta, AL 36530  
Phone: (251) 986-5210  
[www.rayonierseedlings.com](http://www.rayonierseedlings.com)

### **Rutland Forest Nursery**

Terrell Rutland  
502 Owen Medford Road  
Lenox, GA 31637  
Phone: (229) 382-5504

### **Sanctuary Timber & Wildlife**

Skye Fuller  
7509 Lee Road 146  
Opelika, AL 36804  
Phone: (334) 782-2360  
[www.stwildlife.com](http://www.stwildlife.com)

### **South Carolina Forestry Commission**

#### **Taylor Nursery**

53 Girl Scout Camp Road  
Trenton, SC 29847  
Phone: (803) 275-3578  
[www.state.sc.us/forest/nur.htm](http://www.state.sc.us/forest/nur.htm)

### **Superior Trees, Inc.**

Alan Webb  
P.O. Drawer 9400  
12493 East US Highway 90  
Lee, FL 32059  
Phone: (850) 971-5159  
[www.superiortrees.net](http://www.superiortrees.net)

### **Tennessee Department of Agriculture-Division of Forestry East Tennessee Nursery**

P.O. Box 59  
Delano, TN 37325  
Phone: (423) 263-1626  
Alt. Phone: (877) 868-7337  
[https://agriculture.tn.gov/  
OnlineSeedlingSales/Default.aspx](https://agriculture.tn.gov/OnlineSeedlingSales/Default.aspx)

### **The Wildlife Group**

Allen Deese  
2858 County Road 53  
Tuskegee, AL 36083  
Phone: (800) 221-9703  
[www.wildlifegroup.com](http://www.wildlifegroup.com)

### **Wadsworth Christmas Tree Farm**

3071 Dexter Road  
Wetumpka, AL 36092  
Phone: (334) 567-6308  
[www.wadsworthchristmastrees.com/](http://www.wadsworthchristmastrees.com/)

### **Warren County Nursery**

Jeffery Hobbs  
6492 Beersheba Highway  
McMinnville, TN 37110  
Phone: (931) 668-8941  
[www.warrencountynursery.com](http://www.warrencountynursery.com)

### **Weyerhaeuser**

Kimmie VanWyck  
3890 Highway 28 West  
Camden, AL 36726  
Phone: (800) 635-0162  
<http://www.wy.com/index.php?CID=199>

### **White City Nursery**

707 County Road 20 West  
Verbena, AL 36091  
Phone: (334) 365-2488  
[summithelicopters.com/  
whitecitynursery/home](http://summithelicopters.com/whitecitynursery/home)

### **Whitfield Farms & Nursery**

F. Bennett Whitfield  
2561 Lambs Bridge Road  
Twin City, GA 30471  
Phone: (912) 682-4948  
[whitfieldpineseedlings.com/](http://whitfieldpineseedlings.com/)

### **Zellner Farms**

Bob Zellner  
385 Zellner Road  
Culloden, GA 31016  
Phone: (770) 283-7187



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## AMERICAN MISTLETOE (*Phoradendron leucarpum*)

By Fred Nation, Environmental Services, Baldwin County

American mistletoe is a woody shrub that grows directly on the limbs of many woody dicot trees. Also called oak mistletoe, it is often seen throughout Alabama growing on red oak species, such as water oak (*Quercus nigra*) and Darlington oak (*Quercus hemisphaerica*). Individual shrubs are brittle, dull green, more-or-less globose in outline, to 3 or 4 feet in diameter. The evergreen, ovoid leaves are thick and leathery, up to about 3 inches long, 2 inches wide.

Because it has green leaves that conduct photosynthesis, mistletoe is a hemi- or semi-parasite, and it 'steals' water and nutrients directly from the vascular systems of host trees. Yes, it does hurt the tree. Oaks sometimes become so heavily infested that they look like evergreen 'mistletoe trees.' That much water and nutrient loss will weaken and eventually kill the tree.

Mistletoe is dioecious, which means that each plant is all male or all female. Only the females produce the sticky white fruits, which play a critical role in an ingenious seed transport strategy. When birds eat the berries, some of them stick to their bills, which they scrape off on limbs as they fly from tree to tree. If a seed is deposited onto a suitable host tree, it sprouts directly into the limb to make a new plant, and the tree becomes infected with a destructive parasite. There is good evidence to suggest that damaged or weakened trees are susceptible to mistletoe infestations.

All parts of American mistletoe, especially the berries, contain toxic alkaloids. Despite this dangerous toxicity, mistletoe was a highly regarded historic herbal remedy for such diverse maladies as epilepsy, tumors, high blood pressure, and cardiac arrhythmia. American Indians reportedly made a tea from the berries to stop

bleeding after childbirth.

European mistletoe (*Viscum album*) looks similar, has the same habits, and is in fact closely related to the American species. Because of this similarity, the extensive European folklore, customs, and herbal uses have become closely associated with our native species. Mistletoe appears to grow spontaneously, between the

earth and the sky, on the limbs of trees. Our ancestors revered these mysterious, rootless woody shrubs, which seemed to be 'not of the earth.' Our festive holiday mistletoe is an ancient symbol of welcome and good fortune, with origins far older than Christmas or Christianity.

The scientific name is interesting and descriptive: the genus, *Phoradendron*, is from two Greek words that mean 'tree thief,' and the species name, *leucarpum*, means 'white fruit.' Most American mistletoe that is sold for holiday use is collected out West, in Oklahoma and Texas. It is the floral emblem of Oklahoma, and the larval host for the beautiful purple hairstreak butterfly.

Though it is undeniably destructive, mistletoe does have an interesting story to tell, and it is a native member of our natural forest communities in Alabama. 🌿



Photos by Fred Nation