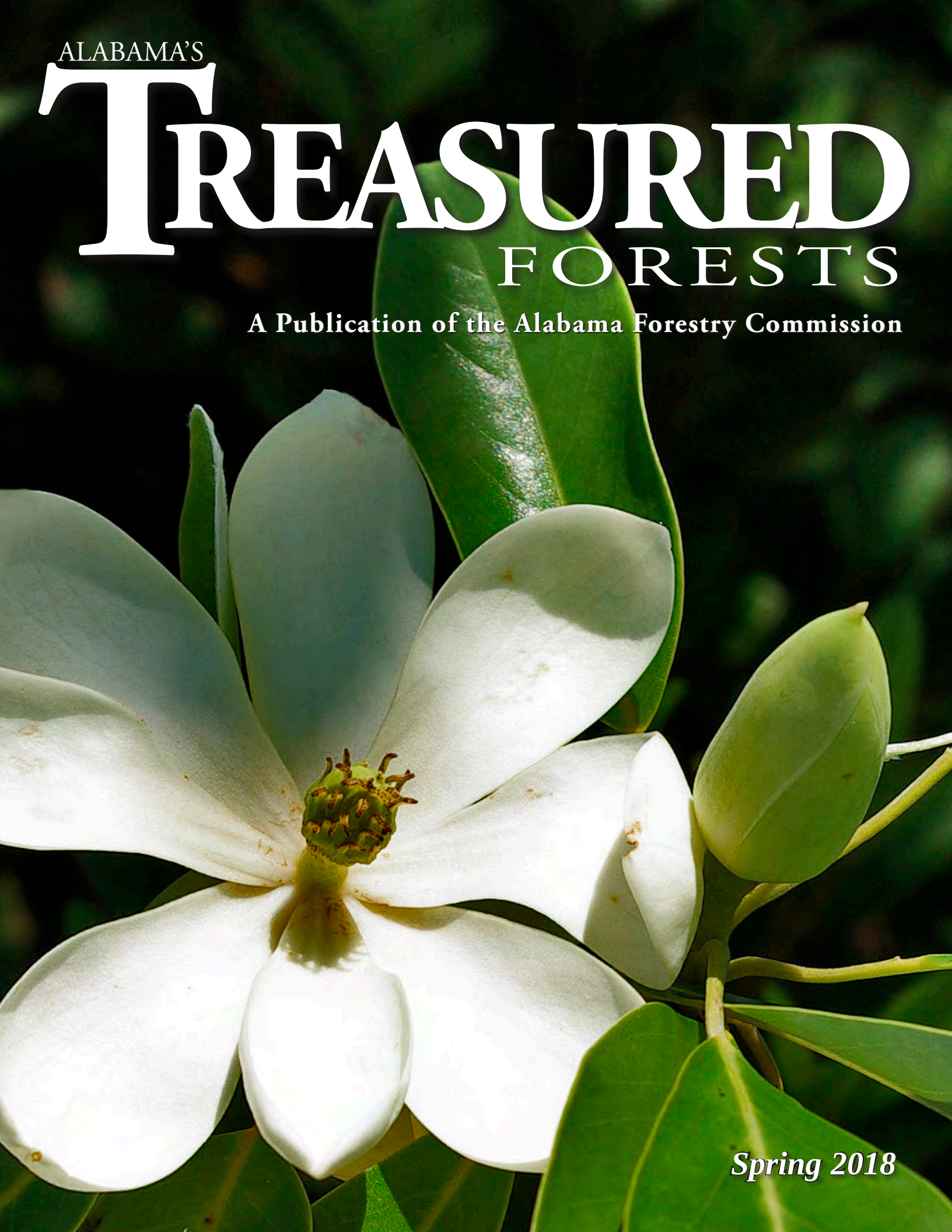


ALABAMA'S

TREASURED FORESTS

A Publication of the Alabama Forestry Commission

Spring 2018

Message from the *STATE FORESTER*

Whereas, prescribed burning is the skilled application of fire under planned weather and fuel conditions to achieve specific management objectives; and … Whereas, a key tool in the management of Alabama's woodlands, grasslands and wildlife, prescribed fire is the most effective, natural and economic protection against wildfires through the reduction of fuels which have accumulated in the absence of fire and is critical to the ecological integrity of our natural resources; and … Whereas, prescribed fire is a traditional land management tool and is part of Alabama's heritage and culture; … Now, therefore, I, Kay Ivey, Governor of Alabama, do hereby proclaim March 2018 as

'Prescribed Fire Awareness Month'

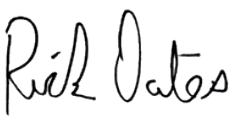
With these words, Governor Ivey declared March as a time to recognize the value of this important tool to help manage Alabama's woodlands. If you are a forest landowner or a forester, I'm probably preaching to the choir when I talk about how important it is that we take advantage of the Alabama laws which promote your right to use one of the most effective forest management tools there is: fire.

You know that this tool gives us the ability to manipulate habitat, clear land, reduce competition, and prepare a site for reforesting. It is the easiest, quickest, and cheapest way to make a significant change to the forest. In fact, some forests can't get properly established without the use of fire. So, check your management plan. If it recommends a change that can be accomplished with fire, make plans now to get it done.

As it says in Ecclesiastes, "To everything there is a season, and a time to every purpose under the heaven." Yes, there are seasons in which prescribed burning is more prevalent, but there are windows that open up throughout the year to accomplish specific management goals on your property using this tool. It is important that we recognize the benefits of prescribed fire and apply it within the window that nature provides to use this tool.

Earlier this year I had the opportunity to participate in the Learn & Burn class conducted by the Alabama Prescribed Fire Council and led by Mr. John Stivers. Despite 25 years of involvement in forestry, I had not helped conduct a prescribed burn since my days in silviculture class. I'd forgotten how exciting it can be to light a fire and watch it accomplish the planned task. If you haven't been through that class and need some experience burning, I urge you to check it out. Also, be sure to look into the Certified Prescribed Burn Manager's course which will be offered this summer (see page 30). This class teaches you how to burn safely, and provides some liability protection if you complete the course and become a certified burn manager. You can find more information about these classes on the AFC web site, www.forestry.alabama.gov.

I am glad that our state's CEO recognizes the value of using fire to manage forests. I am glad our legislature has established laws supporting prescribed burns which encourage landowners and resource professionals to take advantage of this tool in a responsible manner. I am glad Alabama landowners understand, and occasionally tolerate a little smoke, in order to have better-managed forests that lessen the risk of wildfire. I am glad Alabama has a heritage and culture that recognizes the benefits of prescribed fire to the environment.



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 **T**imber, **R**ecreation, **E**nvironment, and **A**esthetics for a **S**ustained **U**sable **RE**source.

ALABAMA'S
TREASURED FORESTS
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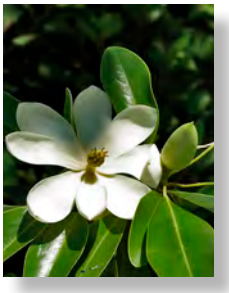
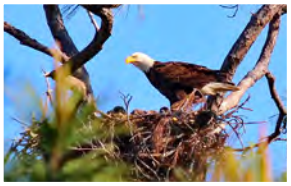
table of CONTENTS

Vol. XXXVII, No. 1 Spring 2018



On the Cover:
Read more about American beauty, sweetbay magnolia *(Magnolia virginiana)*, on page 32.
Photo by Fred Nation



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Greenebriar: *Something of the Divine*

By Robert Loper, TREASURE Forest Landowner

A native of Tuscaloosa, Alabama, I have spent most of my life here. Although our family did not own forest land, I spent a lot of time in the woods and developed a deep fascination with the forest at a young age. My grandfather was a logger, and my dad, Jack Loper, was a registered forester. He managed land acquisition at Gulf States Paper, and luckily, I had many opportunities to visit different forests across Alabama with him.

After graduating with three degrees from the University of Alabama, I began a career in the chemical industry. My work turned into a technical sales job, which required me to travel extensively. I decided it might be good to purchase some timberland for investment purposes, and also to give me an outlet for the stress of travelling. My brother-in-law's aunt, Mary Morgan, owned some property in Greene County. Since she was an absentee landowner, I inquired about purchasing a portion of the land.

There was interest in selling, so my father helped me evaluate the tract and present a fair offer for it. As my resources were limited, I purchased only the north portion of the property comprising 286 acres. Here the story of 'Greenebriar' began. The name comes from Greene County, and the amazing number of briars on the land!

In the beginning, the farm was open with about 85 percent old agricultural fields. The other areas were primarily in bottomland hardwoods. I had been attracted to this property because of the approximately three-quarters of a mile frontage on the beautiful Sipsey River on the northern border. Brush Creek, which feeds into the Sipsey, also flows through the tract. My new investment faced several challenges: the fields were beginning to become overgrown, some areas of timber had been high-graded, and the roads were poor or non-existent. Since I had a limited budget, my first purchase was a 1964 John Deere 400 industrial-grade tractor for $4,500. I used this old tractor to start maintaining the property and establishing roads.

The turning point for what would eventually become a TREASURE Forest came in 1991 when I married Kathryn Hall (Loper). Kathy was a veterinarian and expressed a true love for the land. Her first request after our marriage was to purchase the remaining lands owned by Mary Morgan. This brought the size of Greenebriar to a total of 522 acres. At this time, Kathy became my equal partner in setting the direction for the management of the property.

Kathy's philosophy was that we were stew-

ards of the land. We tried to uphold that responsibility by following forestry best management practices, and making plans to also enhance the wildlife habitat so the farm could be used by all types of non-game and game species. She also wanted this to be done in economical ways that caused the least impact on the environment. We have continued to do most of the work on the farm ourselves, assisted by our friend Jim Jeter (a forester now retired from the Alabama Forestry Commission).

Our primary TREASURE Forest management objective is timber production for income, and to improve the health of the stand as an investment. The secondary emphasis is wildlife habitat enhancement for recreational purposes such as hunting as well as viewing non-game species of wildlife. Utilizing the 'MyLandPlan.org' website, I maintain a running journal of all activities on the property.

Forest Management Accomplishments for Timber

We converted 85 percent of the land from open, soybean fields to loblolly pine plantation, mixed hardwood and loblolly pine, and solid hardwood. After initial establishment of loblolly, we began harvesting blocks to break up the homogeneous nature of the stands. Over a 30-year span, we've conducted three thinnings. Over the last 15 years or so, we have made 'selective cuts' to create different-age class stands of timber. To preserve natural regeneration, no site prep was used on stands where three species of oaks and loblolly pine are planted. All hardwood bottoms along the Sipsey River and Brush Creek have been retained. We're real proud of the cypress which will probably never be cut.

A prescribed fire regime consists of burning all pines on a three-year rotation to reduce fuel and undesirable species. We burn three to four stands each year, but no more than 100 acres per year.

Cogongrass has been eradicated on three sites, while privet was controlled through a USDA Natural Resources Conservation Service (NRCS) Environmental Quality Incentives Program (EQIP) cost-share on two stands totaling 30 acres.

Approximately 8 miles of all interior roads have been 'daylighted' and sprayed to promote herbaceous understory. Road grades are maintained to ensure water drainage. All boundary lines are well marked and tagged with signs.

Forest Management Accomplishments for Wildlife

All stands have fire lanes that double as linear food plots and natural forage. Another 20 acres of openings are maintained as food plots. Of that, we typically plant about 12 acres every year, spread among 16 or so food plots. We've actually seen a huge quality increase in the deer population, because there were not many when we first acquired the property. We have even noticed that antler growth is better, and the health of does and fawns has improved.

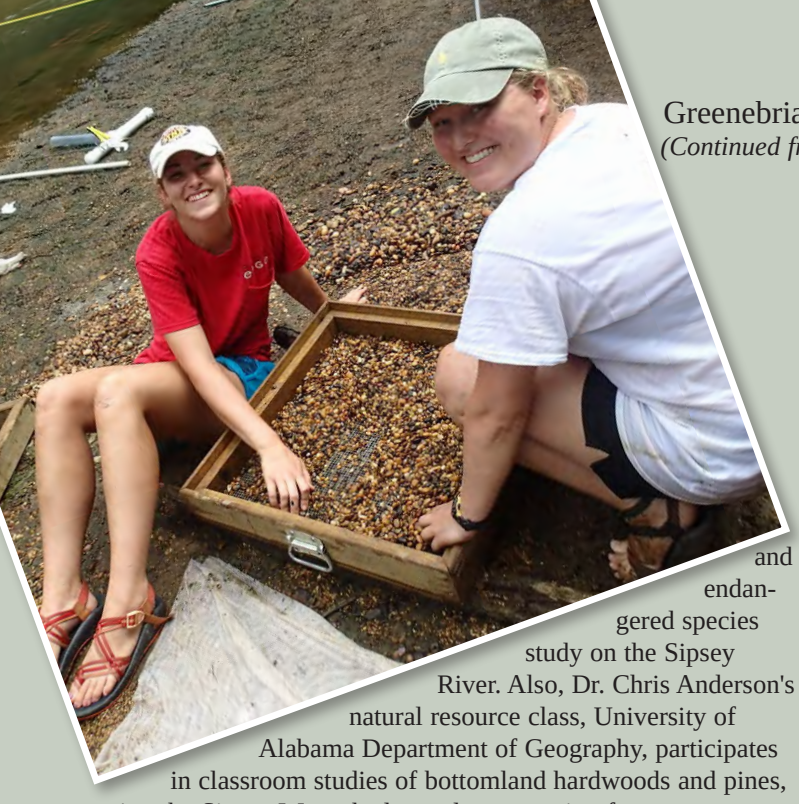
Although I do not hunt, I enhance established habitat to support wild quail covey population. This is accomplished by implementing a strict prescribed burning regime and thinning operation. Strip disking is utilized in these plots to help partridge pea and other natural seeds reproduce, promoting healthy quail habitat. Selective mowing provides bugging habitat for turkeys and foraging habitat for quail. Young plantations and created edge provide cover and nesting habitat. I also participate in the 'Wildpower' program to plant and maintain transmission lines.

Education

We eventually built a home and workshop on the farm. Kathy and I encouraged people to visit Greenbriar and see the types of things we were doing as stewards of the land. Annually, we hosted several groups for various educational or recreational purposes. The Tuscaloosa Natural Resources Planning Committee hosted a field day in 2009 to demonstrate forest management techniques. We've also held wildlife management seminars and controlled burning demonstrations. Most recently, I became involved with forest technology, and have conducted GPS (global positioning systems) workshops for landowners and loggers to use in the forest.

Other groups that have utilized the farm include the Audubon Society, which has hosted a number of events for bird watchers. Over the past several years, Dr. Carla Atkinson, University of Alabama Department of Biology, has participated in a threatened

(Continued on page 6)



Greenebriar: Something of the Divine

(Continued from page 5)

and endangered species study on the Sipsey River. Also, Dr. Chris Anderson's natural resource class, University of Alabama Department of Geography, participates in classroom studies of bottomland hardwoods and pines, using the Sipsey Watershed as a demonstration forest.

'UKirk' students from the Presbyterian ministry at the University of Alabama, as well as high school students from the 'Deutch' youth group of First Presbyterian Church in Tuscaloosa, enjoy the property as a youth retreat to hike, shoot clay pigeons, and have games.

Kathy and I also endeavored to join several professional organizations including Tree Farm, Alabama Forest Owners Association (AFOA), Deer Management Assistance Program (DMAP), and the National Wild Turkey Federation (NWTF).

Sadly, Kathy lost a brief battle with cancer on May 15, 2014. She had encouraged me to continue with the implementation of our plans at Greenebriar. Honoring her request, Kathy was cremated and her remains are scattered under an ancient huge pecan tree at the farm.

During her memorial service at First Presbyterian Church, Dr. Charlie Durham said something that was so true about Kathy: "She added her touch to everything . . . Greenebriar, the Loper retreat in Greene County, was where Kathy could go to take it all in: the sound of birdsong, the call of turkeys, deer running through the field behind their home there. It was a thin space for her and for their family. It was one of many places where God's touch was evident. And Kathy didn't want to keep that to herself. Our campus ministry was invited every fall to Greenebriar, and the youth spent time there, too, so that we could all experience something of the Divine."

That pretty much sums up our forest stewardship philosophy. I am continuing in Kathy's work with the farm and trying to use her vision and guidance in my planning. Our children have always been very involved in the property and understand its value. It was Kathy's wish and mine that they continue this legacy in the future.

Congratulations to Robert Loper and Greenbriar on receiving the Helene Mosley Memorial TREASURE Forest Award in 2017!

New 'Purple Paint Law' Protects Forestland from Trespassers

By Ray Metzler, Forest Management Division, Alabama Forestry Commission

Prior to 2016, Alabama law required landowners to either: 1) mark their property 'in a conspicuous manner,' or 2) personally communicate a 'no trespassing' message to a potential violator or intruder if they wanted to keep individuals from entering their property. Typically, landowners used yellow plastic signs with a 'Posted – No Trespassing' message placed on trees and/or fence posts to notify individuals they were not welcome on their property. Most individuals are familiar with these types of signs that appear throughout Alabama's rural and suburban landscape.

Alabama lawmakers and governor approved a 'Purple Paint' law during the 2016 Legislative session. The purpose of the law was to amend the definition of 'trespassing' found in the Code of Alabama, Title 13A, Chapter 7, Section 1. The new law allows landowners to use vertical stripes of purple paint on trees or fence posts along the property line to mark an area to warn potential intruders they will be trespassing if they enter the property. Properly posted 'No Trespassing' signs remain legal.

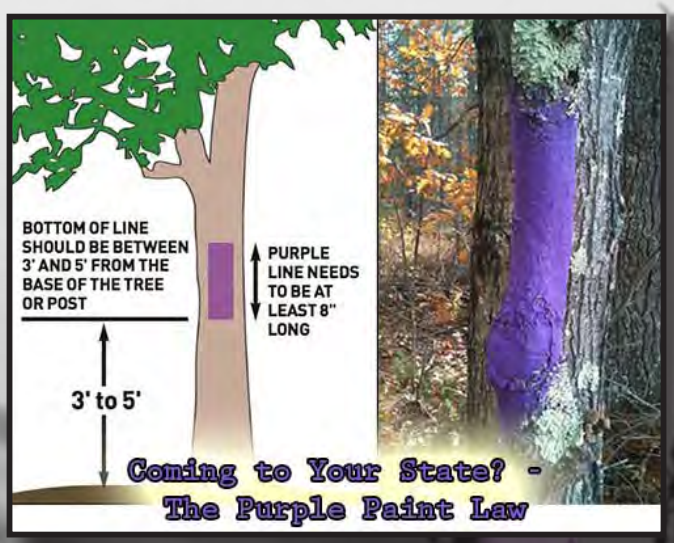
The revised law states the purple paint marks must meet the following requirements:

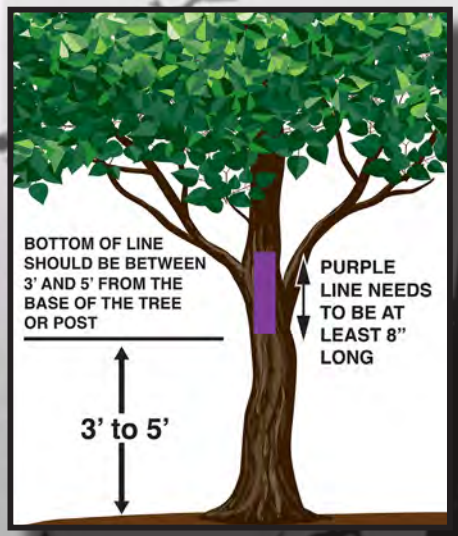
- Are vertical lines of not less than eight inches in length and not less than one inch in width.
- Are placed so that the bottom of the mark is not less than three feet from the ground or more than five feet from the ground.
- Are placed at locations that are readily visible to any person approaching the property and are no more than 100 feet apart on forestland, or 1,000 feet apart on land other than forestland.

Alabama is one of several states adopting the purple paint rule as an option for landowners. The advantages of purple paint include low cost, high visibility, and difficult removal. Plastic signs are highly visible, but have a tendency to be torn down by intruders or fall down as a result of normal tree growth.

Some states have even adopted a purple paint law to notify hunters they are about to enter property on which the landowner does not want uninvited guests. However, the requirement to conspicuously mark a property line did not and still does not apply to hunting in Alabama as all land in Alabama has been 'posted by law' for hunting purposes since 1907. Alabama hunters are required to obtain and carry written permission prior to hunting on any property in Alabama. Hunters are also expected to know the property lines and be aware of whose property they are on while hunting – whether marked or unmarked.

Marking property lines is highly recommended for several reasons. In the past, many Alabama landowners have used red, yellow, orange, or blue paint along with the highly visible plastic signs to mark their property lines. They can now use purple paint to mark their lines and at the same time warn potential trespassers.





How to Inventory your TIMBER

By Bruce Springer, Alabama Registered Forester, Alabama Forestry Commission

To determine the amount of timber volume, weight, and value on a property, professional foresters conduct a timber inventory or 'cruise' of the forest. It is extremely important to hire a professional forester to conduct a timber inventory if you plan to sell your timber or timberland, if you need to know the estimated value for tax or financial planning purposes, or if you are planning to purchase forestland. But what if you are just curious as to what your timber is worth? This article explains the process to conduct your own timber inventory on your property. Put on your boots, let's go cruise your timber!

Preparing for Your Timber Inventory

Get ready for some number crunching, because that is basically what timber inventories are about! Because it is not feasible to measure every tree in a forest, foresters take samples of your trees. This process can be very technical. However, the following procedures are extremely simplified for 'do-it yourselfers,' but with the downside of producing very generalized results.

First, you need a map of your property, and you need to determine your property acreage. There are many websites that display aerial property maps you can print. Alabama Forestry Commission county staff will also print a map for you. You will need to know the scale of your printed map.

Next, you need to purchase or make a Biltmore Stick.

The Biltmore Stick is a special forestry tool used to measure tree diameter and height. To find a vendor who sells this tool, search for 'Biltmore Stick' on the internet. You can purchase a simple Biltmore Stick for under $40. (While ordering, also order a compass if you don't already have one.) It doesn't matter if you choose just the simple English stick (shown here) or one with Scribner, International, or Doyle Log Rules, as you will not use those log rules with the following procedures.

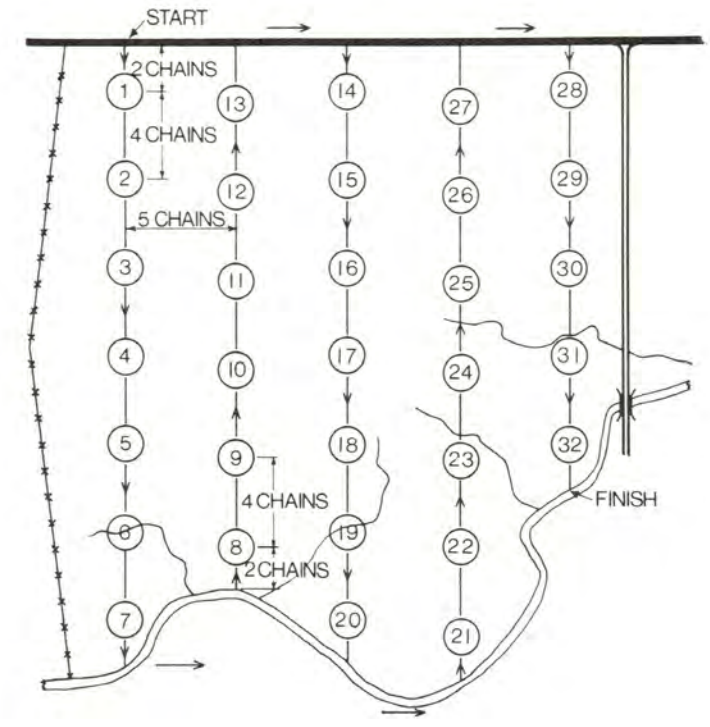
To learn how to use this new tool, search for the phrase *'How to measure trees with a Biltmore Stick'* on the internet. YouTube® has several good instructional videos.

Finally, you need a compass, a measuring tape at least 100 feet long, and a ruler.

The next step is to layout the locations of inventory cruise lines and sample plots on your property map. Start at one corner of your property, and draw cruise lines either north-south or east-west. Draw cruise lines every 5 chains (330 feet) apart on your map. A chain is a forester/surveyor's measurement that equals 66 feet. (There are 80 chains in a standard mile and 10 square chains in an acre.)

Then, mark sample plots along each cruise line every 4 chains (264 feet) apart on your map. Your sample plots should generally be located on a 4-by-5-chain grid, which equates to a 264-by-330 foot grid. Notice how the first sample plot and the first cruise line are only half the distance from the starting point, which tends to center everything a little better.

As an example, on the property map shown here, inventory cruise lines start at the northwest corner of the property. You would walk south for the first seven plots. Once you reached the end of the cruise line, i.e. the property line, you would walk 5 chains east to the next cruise line on the map. On the second cruise line, walk north for plots 8-13, then move east 5 chains,



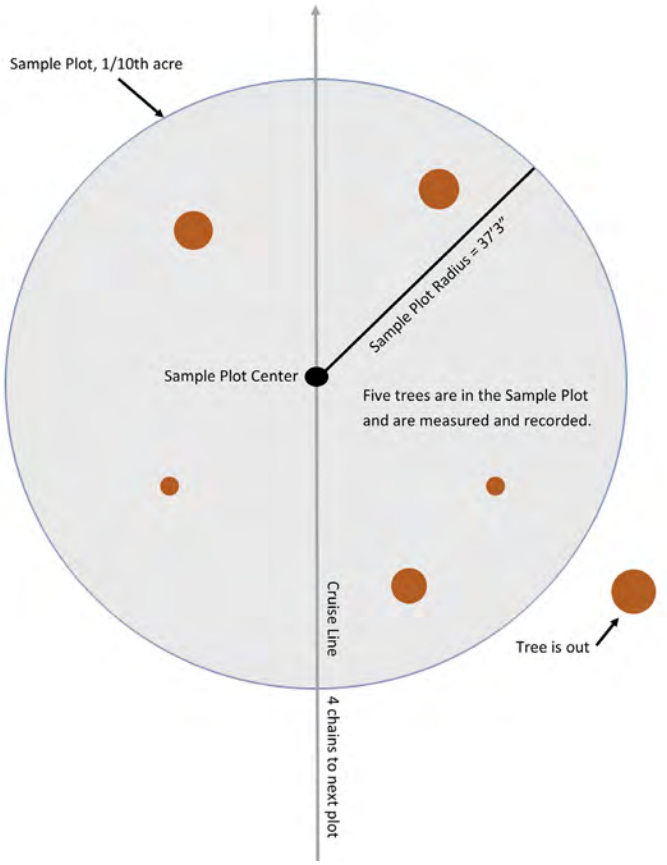
then walk south for plots 14-20, then move east 5 chains, then walk north for plots 21-27, then move east 5 chains, and then walk south for plots 28-32. You would stop to record sample plot measurements every 4 chains along each cruise line. The last plot, number 32, is near the southeast corner of the property.

Your sample plot size is one-tenth acre. Since you recorded 32 plots, the total area sampled is 3.2 acres. Each sample plot represents the surrounding 2 acres. The entire tract is 64 acres. Therefore, this inventory would measure 5 percent of the entire property (3.2 acres/64.0 acres = 0.05, or 5%). This is sufficient for obtaining a 'ballpark' estimate of your timber's value. (For greater accuracy, foresters usually conduct a 10 percent forest inventory when evaluating timber for harvest or land sales.)

Measuring Trees within Each Sample Plot

Enough homework, let's go play in the woods! While walking along the cruise line using your compass to stay true on direction, stop every 4 chains (264 feet) to measure and record all the sample trees within each one-tenth acre sample plot. (Using your 100-foot tape, you will need an assistant to 'pull tape' to be sure you stop at the correct distance.) Each stopping point is considered a **Sample Plot Center**. Because the sample plot is a circle, you use a radius to determine whether a tree is within your sample plot. Measure and record each tree of which the main stem (trunk) is within 37 feet, 3 inches of your Sample Plot Center. It is considered a Sample Tree.

You must record each tree as to product: pine pulpwood, pine sawtimber, hardwood pulpwood, or hardwood sawtimber. Pulpwood must be at least 6 inches in diameter. Sawtimber must be at least 10 inches in diameter for pine, and 12 inches in diameter for hardwood. If a sawtimber-sized tree doesn't have a clear main stem because of numerous limbs, branching, or is not straight enough to make at least one 16-foot board, then record it as pulpwood. (Foresters are trained in determining whether a tree is pulpwood or sawtimber, but you must use your best 'guestimate.')

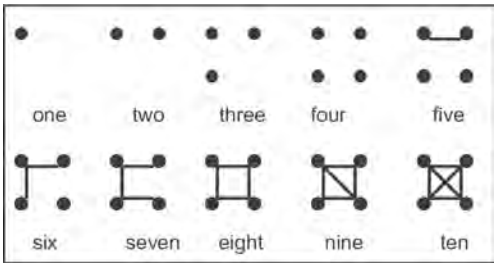


To inventory your timber, you will measure each sample tree's diameter and merchantable height using the Biltmore Stick. Measure and record the tree's diameter at 4.5 feet above the ground. Diameters are recorded in 2 inch increments. (For example, record as a 12-inch diameter any tree with a diameter ranging from 11.0 inches to 12.9 inches.) You will also measure and record the tree's merchantable height. For pulpwood, measure to a 4-inch top diameter. For sawtimber, measure to a 6-inch top for pine, or to a 9-inch top for hardwood.

Recording Sample Plot Trees

As you measure sample trees, you must record them using the **'1/10-ACRE TREE TALLY SHEET'** as shown on the following page. (For your future use, a blank Tally Sheet is located on page 12.) Each sample tree is recorded as PINE or HARDWOOD. Each sample tree is also recorded as pulpwood (PW) or sawtimber (ST). To distinguish, pulpwood is recorded by 30-foot, 40-foot, or 50-foot merchantable heights, while sawtimber is recorded by one, two, three, or four 16-foot logs.

Record all the trees within the sample plots on the same form. With this tally sheet, it is easiest to use a dot count recording system, as shown to the right. This is your **Tree Tally.**



Stand at the plot center and rotate 360 degrees as you record sample trees. Remember your starting point or first tree. (I always forget!) Measure and record all the trees within the sample plot's 37 feet, 3 inch-radius of the Sample Plot Center.

After completing each sample plot, mark through the next plot number at the bottom of the form **('Number of Sample Plots')** to keep up with how many plots you have recorded. Do this even if you did not record any trees.

For example, on your sample plot, you recorded five trees that are within the sample plot's radius of 37 feet, 3 inches, three pulpwood trees and two sawtimber trees, as follows:

- *You record two Pine Pulpwood trees as PINE, 6" diameter with 40' merchantable height, and PINE, 8" diameter with 50'.*
- *You record one Hardwood Pulpwood tree as HARDWOOD, 12" diameter with 50' height because it does not have a clean, straight stem that would make a 16-foot log.*
- *You record two Pine Sawtimber trees as PINE, 14" diameter with 3 logs, and PINE, 16" diameter with 3 logs.*

After you complete all the sample plots, it is time to go back to the house to summarize the results.

(Continued on page 10)

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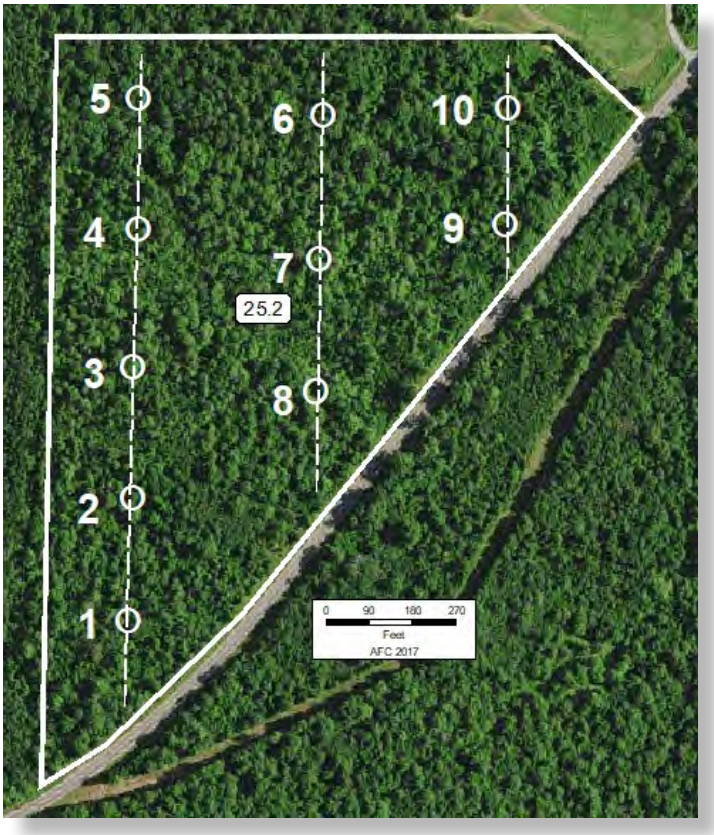

Calculating Tree Weights

Once back home, it is time to complete the final steps of your timber inventory.

STEP 1: For each diameter and merchantable height, multiply your accumulated **Tree Tally** by the **'Weight per Tree (Tons)'** that is shown on the row immediately below your tree tally. Record to three decimal places. Record the result on the row, **'Total Weight of Trees Sampled.'** Do this for every diameter and merchantable height for PINE. Then, do the same thing for the HARDWOOD.

STEP 2: For each diameter and product (Pulpwood or Sawtimber), first sum the **'Total Weight of Trees Sampled.'** (For example, for the 10" diameter class, sum the weights for the 30', 40', and 50' heights). Multiply the result by 10, and then divide that number by the **'Number of Sample Plots'** that you recorded on your tally sheet. This represents the **Weight per Acre** for that diameter and product (i.e. Pine Pulpwood, 10" using the above example). Record this in the spaces provided to the right of 'Pine Pulpwood' or 'Pine Sawtimber.' Do this for every diameter and product for PINE. Then, do the same thing for the HARDWOOD.

STEP 3: Finally, sum the results across to obtain each product's **'Total Weight per Acre (Tons).'**

1/10-ACRE TREE TALLY SHEET

Pulpwood (PW) / Sawtimber (ST)	6" 30	6" 40	6" 50	8" 30	8" 40	8" 50	10" 30	10" 40	10" 50	10" 1	10" 2	10" 3	10" 4	12" 30	12" 40	12" 50	12" 1	12" 2	12" 3	12" 4	14" 30	14" 40	14" 50	14" 1	14" 2	14" 3	14" 4	16" 30	16" 40	16" 50	16" 1	16" 2	16" 3	16" 4	18" 30	18" 40	18" 50	18" 1	18" 2	18" 3	18" 4	20" 30	20" 40	20" 50	20" 1	20" 2	20" 3	20" 4
	PW			PW			PW			ST				PW			ST				PW			ST				PW			ST				PW			ST				PW			ST			
PINE																																															
Weight per Tree* (Tons)	0.065	0.085	0.105	0.142	0.187	0.231	0.232	0.306	0.379	0.219	0.398	0.557	0.731	0.340	0.448	0.555	0.551	0.787	1.015	0.466	0.614	0.760	0.396	0.727	1.040	1.342	0.611	0.805	0.997	0.502	0.925	1.324	1.710	0.775	1.022	1.268	0.620	1.144	1.639	2.117	0.959	1.284	1.566	0.750	1.384	1.985	2.584
Total Weight of Trees Sampled	1.690	0.595	0.105	0.426	4.488	4.389	1.160	3.060	6.064			0.557		2.240			0.602	5.510	2.361	0.614			0.396	2.181	1.040		0.805	0.805			2.648						1.639	2.117									
	(Total Weight of Trees Sampled x 10) / Number of Sample Plots = **Weight Per Acre** (record below)																																													TOTAL WEIGHT PER ACRE (Tons)
Pine Pulpwood:	2.390			9.303			10.284							2.240							0.614							0.805																			25.636
Pine Sawtimber:										0.567							8.473						3.617							2.648						3.756											19.061

	6" 30	6" 40	6" 50	8" 30	8" 40	8" 50	10" 30	10" 40	10" 50	10" 1	10" 2	10" 3	10" 4	12" 30	12" 40	12" 50	12" 1	12" 2	12" 3	12" 4	14" 30	14" 40	14" 50	14" 1	14" 2	14" 3	14" 4	16" 30	16" 40	16" 50	16" 1	16" 2	16" 3	16" 4	18" 30	18" 40	18" 50	18" 1	18" 2	18" 3	18" 4	20" 30	20" 40	20" 50	20" 1	20" 2	20" 3	20" 4
HARDWOOD																																															
Weight per Tree* (Tons)	0.055	0.072	0.089	0.119	0.157	0.193	0.199	0.261	0.322					0.295	0.387	0.478	0.338	0.575	0.787	0.983	0.409	0.537	0.662	0.447	0.762	1.043	1.304	0.542	0.710	0.877	0.569	0.972	1.332	1.667	0.693	0.908	1.121	0.705	1.207	1.654	2.070	0.863	1.132	1.397	0.855	1.464	2.008	2.514
Total Weight of Trees Sampled	1.155	0.216		0.952	0.785	0.386	0.995	0.966						0.885	1.548	2.390	0.338	1.725			0.818	1.611			1.524	1.043		0.542	1.754			4.860	3.996					3.621	4.862	2.070	0.863				1.464	6.024	
	(Total Weight of Trees Sampled x 10) / Number of Sample Plots = **Weight Per Acre** (record below)																																														TOTAL WEIGHT PER ACRE (Tons)
Hardwood Pulpwood:	1.371			2.123			2.744							4.823							2.429							2.296															0.863					16.649
Hardwood Sawtimber:																		2.063					2.567							8.856						10.653									7.488			31.627

Number of Sample Plots: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

Property: Example

10 plots

1/10-Acre Plot Radius is 37' 3"

Pulpwood: Height to 4-inch merchantable top (i.e. 30, 40, or 50 feet).
Sawtimber: Height in 16-foot logs to a 6-inch top for pine or a 9-inch top for hardwoods (i.e. 1=16 feet, 2=32 feet, 3=48 feet, 4=64 feet)

* ***Weight per Tree is highly variable.*** *These weights are based on averages calculated by Clark and Saucier - USDA Forest Service.*

File: tallysheet-Simple.xlsx Revised: 11/17/2017

TREE TALLY SHEET SUMMARY

Property: Example

	TOTAL WEIGHT PER ACRE (Tons)		UNIT RATE (Per Ton)		PER ACRE VALUE ($)
Pine Pulpwood:	25.636	x	9	=	230.72
Pine Sawtimber:	19.061	x	24	=	457.46
Hardwood Pulpwood:	16.649	x	7	=	116.54
Hardwood Sawtimber:	31.627	x	30	=	948.81

Total Per Acre Value:	1,753.53
x	
Property Acres:	25.2
=	
Total Estimated Timber Value:	$44,188.96

Calculating Tree Value

The final step is to calculate your property's timber value based on your timber inventory cruise. Using the '**TREE TALLY SHEET SUMMARY'** form, first transfer the **'Total Weight per Acre (Tons)'** from the Tally Sheet to the first column.

To calculate your timber value, you must estimate current unit rates for the four products. These are the rates that buyers are paying landowners for their standing timber, commonly referred to as the 'Stumpage Price.' These are highly variable, depending on buyer needs, market trends, your property conditions, and your timber characteristics. Check with some local timber purchasers to get the most accurate rates. Or you can use market averages. (Timber-Mart South® is a service that publishes average market rates. While this is a fee-based service for specific locations, the service currently publishes averages for the Southeast on their website, **http://www.timbermart-south.com/prices.html**®. Use with caution as these rates may not reflect the unit rates a buyer would offer for your timber.)

STEP 4: Once you have determined the appropriate unit rates (dollar per ton), multiply the **'Total Weight per Acre (Tons)'** by the **Unit Rate (Per Ton)** and record the result in the last column, **'Per Acre Value ($).'**

STEP 5: Sum these values for all four products and record as **'Total per Acre Value'** for the timber on your property. Multiply this amount by your **'Property Acres'** and record as the **'Total Estimated Timber Value.'**

Review the example above to further see how all the calculations are made.

That is all there is to it! Now you have a general estimate of what your timber is worth.

As previously mentioned, it is highly recommended that landowners use the services of a consulting forester who has training and professional expertise in evaluating timber weights and values, if they want to sell their timber or need estimates for financial planning or tax purposes. You may locate these professionals by visiting the Alabama Forestry Commission's website, ***www.forestry.alabama.gov***.

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Clark, Alexander III, Saucier, Joseph R., and McNab, W. Henry. 1986. "Total-Tree Weight, Stem Weight, and Volume Tables for Hardwood Species in the Southeast." Georgia Forest Research Paper #60. Georgia Forestry Commission, Research Division.

PHOTO CREDITS:

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1/10-ACRE TREE TALLY SHEET

	6"			8"			10"							12"							14"							16"							18"							20"						
	30	40	50	30	40	50	30	40	50	1	2	3	4	30	40	50	1	2	3	4	30	40	50	1	2	3	4	30	40	50	1	2	3	4	30	40	50	1	2	3	4	30	40	50	1	2	3	4
Pulpwood (PW) Sawtimber (ST)	PW			PW			PW			ST				PW			ST				PW			ST				PW			ST				PW			ST				PW			ST			
PINE																																																
Weight per Tree* (Tons)	0.065	0.085	0.105	0.142	0.187	0.231	0.232	0.306	0.379	0.219	0.398	0.567	0.731	0.340	0.448	0.555	0.301	0.551	0.787	1.015	0.466	0.614	0.760	0.396	0.727	1.040	1.342	0.611	0.805	0.997	0.502	0.925	1.324	1.710	0.775	1.022	1.266	0.620	1.144	1.639	2.117	0.959	1.264	1.566	0.750	1.384	1.985	2.564
Total Weight of Trees Sampled																																																
	(Total Weight of Trees Sampled x 10) / Number of Sample Plots = ***Weight Per Acre*** *(record below)*																																															**TOTAL WEIGHT PER ACRE (Tons)**
Pine Pulpwood:																																																
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Weight per Tree* (Tons)	0.055	0.072	0.089	0.119	0.157	0.193	0.199	0.261	0.322					0.295	0.387	0.478	0.338	0.575	0.787	0.983	0.409	0.537	0.662	0.447	0.762	1.043	1.304	0.542	0.710	0.877	0.569	0.972	1.332	1.667	0.693	0.908	1.121	0.705	1.207	1.654	2.070	0.863	1.132	1.397	0.855	1.464	2.008	2.514
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Hardwood Pulpwood:																																																
Hardwood Sawtimber:																																																

Number of Sample Plots	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

Property: _____

1/10-Acre Plot Radius is 37' 3"

Pulpwood: Height to 4-inch merchantable top (i.e. 30, 40, or 50 feet).
Sawtimber: Height in 16-foot logs to a 6-inch top for pine or a 9-inch top for hardwoods (i.e. 1=16 feet, 2=32 feet, 3=48 feet, 4=64 feet)

* ***Weight per Tree is highly variable.*** *These weights are based on averages calculated by Clark and Saucier - USDA Forest Service*

File: tallysheet-Simple Revised: 3/26/2018

The White Oak Initiative

By Dan Chappell,
Forest Inventory & Analysis (FIA) Coordinator,
Alabama Forestry Commission

There is a new focus being placed on hardwood management across the Southeast. Over the past year, I have heard this comment time and again from many different people. One evidence of this emphasis is the 'White Oak Initiative.' I had to educate myself about the issues involved, and have been very surprised by what I found.

White oak seems common enough in the forest. The large trees are always easy to spot, so I have always taken them for granted. However, what I did not take into account is that the large white oaks we see today on good sites are a legacy of past land-use practices, such as frequent fire to keep the forest open. The tree also benefitted from the loss of the American chestnut, and was able to fill canopy space left by the demise of that species.

For many decades now, fire exclusion has been the rule for the vast majority of hardwood forests of the eastern United States. Trees that are intolerant of fire but tolerant of shade, such as red maple and yellow poplar, are increasingly filling these forests, shading out and out-competing young white oak. So while you will still find large oaks in the forest, the fear is that as these mature logs are harvested or lost to natural mortality, there is an insufficient amount of oak regeneration to compensate. This phenomenon has been known and studied for a long time, but little action has been taken up until now.

That is where the White Oak Initiative comes in. This effort is designed to unite universities, industry, large investment landholders, non-industrial private landowners, conservation organizations, the Forest Service, and state forestry agencies in seeing what steps can be taken to reverse the decline of this key species. A three-day symposium was held in Knoxville, Tennessee, in October 2017 to discuss the latest research into the tree's silviculture. Efforts are underway to secure grant funding for landowner outreach and education, as well as efforts to secure Farm Bill funding for landowner cost shares that will benefit white oak. I recently attended a meeting in Louisville, Kentucky, where this issue was discussed in detail, and there is a lot of momentum being placed behind the effort.

As this previously-mentioned new emphasis is being placed on hardwood management across the Southeast, you can expect to hear more about opportunities being provided through the efforts of the White Oak Initiative.

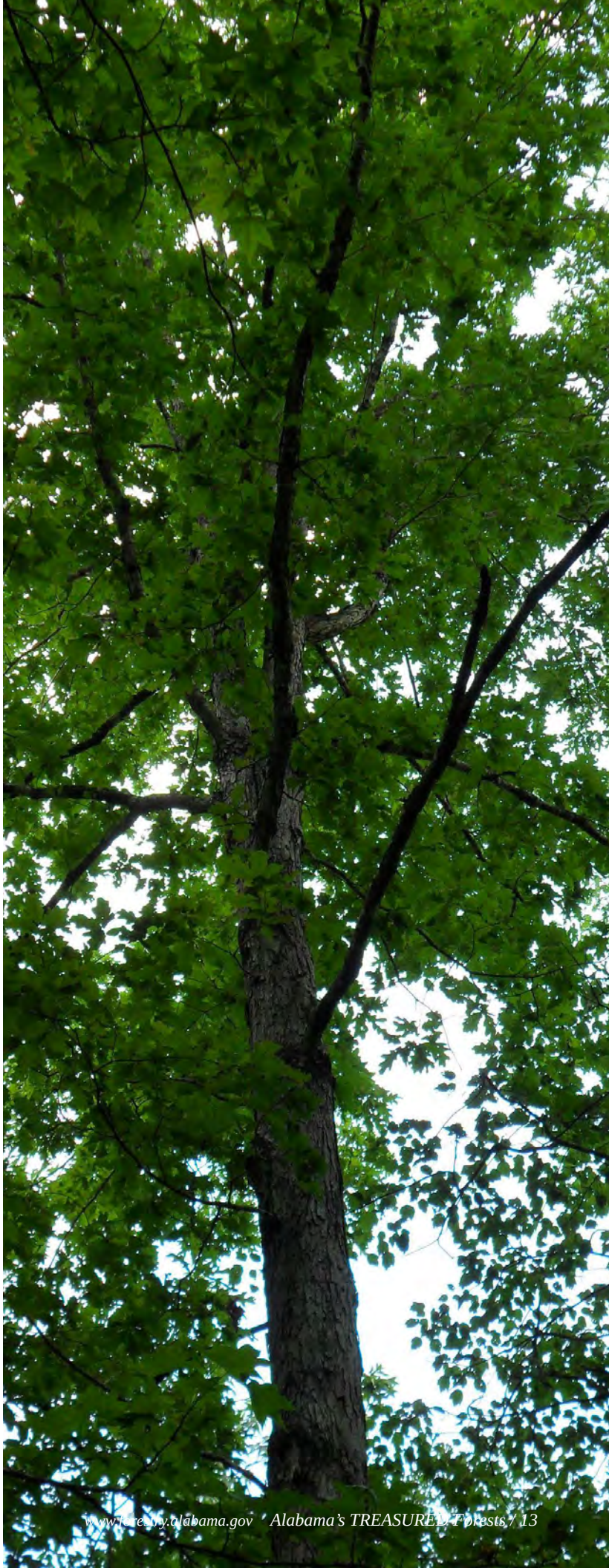

Photo by David Stephens / Bugwood.org

Another Day at the Office

By Johnnie Everitt, Franklin County Work Unit Manager
Alabama Forestry Commission

One morning a few weeks ago, I was sitting with my son deer hunting. It was cold and dark when we first arrived on our stand. However, as the morning wore on, he pointed out how the forest came to life. He noticed the small birds rustling the leaves, searching for small seeds and insects. He commented on the squirrels who kept him on his toes, making him think a deer was approaching our stand. While his enthusiasm kept him warm, I froze in my hunting coveralls.

His enthusiasm for being outdoors got me to thinking. It reminded me of my days as a kid walking in the forest. It reminded me of how much I liked to hunt and fish while growing up. It reminded me of a time when an Alabama Forestry Commission employee came to my high school during a career day program to speak about forestry as a profession. In fact, I was so impressed with this presentation, I went by the old Jefferson County AFC office in Forestdale to speak with foresters Phearthur Moore and Larry Wright about their jobs. Their advice, as well as that of former supervisors George Wood and Rick Johnson, would eventually lead me to become a forester.

Through the years, I've had a great career. I could not have made a better choice for myself than becoming a forester. After working with a private forestry company in Mississippi, in 1993 AFC District Nine Forester Gerald Steeley gave me an opportunity to work with the Alabama Forestry Commission. As with any job, there was a learning curve. The rangers in the office – Wayne Winsted, David Reid, and Willie Pride – patiently showed me the ropes, for which I'll always be thankful. It is true that the Alabama Forestry Commission is a family.

Unbelievably, my forestry career is approaching 25 years. My training was with a compass, pacing, and topographic maps. Today it's satellite imagery and global positioning systems. Tracts that we originally planted, I am now seeing being harvested and reforested. Landowners I've been fortunate to meet have become personal friends. I've watched colleagues who mentored me retire and pass the torch to another generation.

My son's comments struck me. Perhaps, I had become jaded and could not see the forest for the trees. Over time I have seen so many incredible properties while working with the AFC's TREASURE Forest program, maybe nature was taken for granted.

He reminded me of the enormous trees that I had assisted in being declared State Champions. My youngest daughter was so impressed by my description of one of these giants that she asked to see it for herself. We still have the pictures she made with the tree . . . an oak so large its trunk-like branches almost touched the ground. She asked me how old the tree was. I could only speculate to its age, and just what events that tree may have witnessed from its place on earth.

All of this reflection has brought about a re-awakening of sorts for me. It has reminded me of the joys of being a forester, and having the opportunity to work with such incredible people as those found in the TREASURE Forest program.

It also reminded me of just how important environmental education programs are to our young people. You cannot tire of asking them about their experiences with the forest and wildlife, and not be impressed with their answers. Unfortunately, in today's world, a walk in the forest often takes second place to video games. However, I have never witnessed a child whose eyes did not light up at the sights and sounds encountered in a forest. I would venture to say, they will long remember nature hikes over video games as they grow up.

This notion is something that should make every TREASURE Forest landowner proud. In my career, I have never heard of a TREASURE Forest landowner turning down the idea of an educational tour, FAWN, or 'Classroom in the Forest' program. Each one of you wants to give back to the younger generation your appreciation for all nature's wonders. It's almost as though your property belongs to us all.

We did not see any deer moving that particular morning. My son was a little disappointed. Without any words being spoken, he did not realize his gift to me. As he grows older, he will experience many hunts. He and his sisters will continue to enjoy the great outdoors with which our state is blessed. As for my Alabama Forestry Commission and TREASURE Forest family, it's just another day at the office.


EARTH
DAY

Bald Eagles

No Longer Listed, but Still Afforded Protection!

Photo by Saffron Blaze

Photo by Drew Senter

By Ray Metzler, Wildlife Biologist, Alabama Forestry Commission

America's national bird, the bald eagle, has undergone many trials and tribulations during the past 60 to 70 years. It has been afforded protection under several federal laws during the past 100 years, and was officially declared an endangered species in the United States in 1967.

The use of the pesticide DDT was especially detrimental to bald eagle populations during the mid-20th century. DDT caused females to lay eggs that were brittle, thinner, and unable to support the weight of a brooding adult. Their inability to reproduce successfully led to significant population declines across North America. DDT was completely banned in the United States and Canada by 1989, but had not been routinely used since the late '70s. Population restoration efforts in many states, including Alabama, were instrumental in increasing populations across the country.

The bald eagle was officially down-listed from 'endangered' to 'threatened' on July 12, 1995, by the U.S. Fish and Wildlife Service (the Service). Restoration efforts continued and it was officially delisted by the Service on June 28, 2007. In Alabama, the bird is found statewide throughout the year but is concentrated along rivers and large bodies of water. Alabama populations have improved to a point now that annual monitoring of nest sites is no longer necessary. There may be as many as 200 pairs of nesting eagles in Alabama annually!

Although the bald eagle is no longer considered a threatened or endangered species, it still receives protection under the Bald and Golden Eagle Protection Act (BGEPA) and the Migratory Bird Treaty Act (MBTA). These two acts provide protection from potentially harmful actions. The Service published the "National Bald Eagle Management Guidelines" (Guidelines) in 2007 to advise landowners, land managers, and others who share public and private lands with bald eagles, when and under what circumstances the protective provisions of the BGEPA and MBTA may apply to their activities. These Guidelines were developed by the Service based on many years of behavioral observations, science, and conservation measures to avoid or minimize adverse impacts to bald eagles and help avoid violations of federal laws. They are easily obtainable by performing an internet search for "National Bald Eagle Management Guidelines."

In Alabama, bald eagles typically nest in large pine trees near streams and large bodies of water where they can search for and capture fish – their favorite prey item. However, our state's bald eagles also feed on other items opportunistically, as well as nest in areas miles from a water source. The nest tree may or may not be located within a streamside management zone. Forestry activities may already be limited if the nest **is** in a streamside management zone and *Alabama's Best Management Practices for Forestry* are implemented.

The Alabama Forestry Commission received two phone calls from loggers and foresters in the past year inquiring about harvesting operations in an area containing an eagle nest. The following are recommendations regarding forestry activities as outlined by the Service in the Guidelines:

Avoid clear-cutting or removal of overstory trees within 330 feet of the nest at any time.

Avoid timber harvesting operations, including road construction, felling, and loading activities during the breeding season (December-May in Alabama) within 660 feet of a nest.

(Continued on page 18)

Bald Eagles – *No Longer Listed, but Still Afforded Protection!*

(Continued from page 17)

Selective thinning and other silviculture management practices designed to conserve or enhance habitat, including prescribed burning close to a nest tree, should be conducted outside of the breeding season. Raking leaves and other potential fuels from around the nest tree prior to prescribed burning is critical to prevent crown fire or fire climbing the nest tree.

Avoid construction of log transfer facilities and in-water log storage areas within 330 feet of a nest.

One might ask, "Why is it important to minimize logging activities around a nest site?" Nests are large structures (weighing up to 2,000 pounds). They can make the tree top-heavy when exposed to additional storm and wind damage that occurs when adjacent overstory trees are removed. The Guidelines were established to protect the integrity of the tree and provide a buffer zone from storm and wind damage. This buffer zone also creates additional perching habitat for eaglets as they are learning to fly, feed, and become eagles.

The Guidelines also provide information regarding off-road vehicle use including all-terrain vehicles (ATVs) and motorized watercraft, non-motorized recreation, and human entry. These activities are generally not limited except during the breeding season.

Activities are typically limited within 330 feet or 660 feet, depending on the timing and season of the year. A circle with a radius of 330 feet or 660 feet is about 7.85 acres or 31 acres, respectively. The Service strongly encourages adherence to these Guidelines to ensure that bald and golden eagle populations continue to be healthy. However, the Service realizes there may be impacts to some birds, even if all reasonable measures are taken to avoid such impacts.

Official Service websites indicate that it cannot absolve individuals and entities from liability under the BGEPA or the MBTA, but the Service exercises enforcement discretion to focus on those individuals, companies, or agencies that take migratory birds without implementing appropriate measures recommended by the Guidelines.

Landowners with an eagle nest on their property should consult with a Service biologist from the Daphne field office during the pre-harvest planning process to discuss their management objectives and methods to maximize revenue while minimizing negative impacts to Alabama's growing bald eagle populations.

Photo by Saffron Blaze

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Where there's Smoke, there's Life:
the Role of Fire on Alabama's Wildlands

Part One of a Two-Part Series

By John McGuire, Vice President, Attack-One Fire Management

At one time, endless herds of bison roamed the Central Plains. In the Midwest, the skies were blackened and trees cracked under the weight of innumerable flocks of passenger pigeons. There are many examples of wild animals that were once so abundant they shaped the land and the people. The same was true in Alabama. However, unlike the bison or the passenger pigeon, the wild creature of Alabama was fire.

At all times of year, fire would come to life in Alabama's wilds, breathe in the air, feed along the grasses and brush, and migrate day and night to cover immense areas. Over the centuries and millennia, plants adapted to its presence by forming unique habitats and cultures. Today, wild roaming fire in Alabama has been tamed. We've largely removed it from the woods, constrained it, and kept it in places like pizza ovens and fireplaces. On rare occasions, foresters will let it loose in the woods, but kept on a tight leash else the fire may try to rediscover its wild roots.

Like the former animals described, as fire has blinked out, our landscapes and cultures have changed. Today's forests in Alabama are primarily comprised of plants and animals ill-suited for frequent fire. Similarly, our culture has evolved from one that largely understood the natural role of fire to one that is alarmed simply by the smell of its smoke.

As the dialogue about the role of fire in our nation's wildlands reaches a fevered pitch, Alabama finds itself in a unique position. With its favorable laws, numerous trained professionals, and abundant rural areas, Alabama could be a national leader in restoring fire to the landscape. This transition can be made, in part, by a better understanding of what exactly has been lost since we removed fire from its natural range.

With the spread of fire largely dictated by changes in weather patterns and occasional swamps, rivers, and valleys, it is difficult to fathom the degree of promiscuity that fire historically carried across Alabama's landscape. If conditions were right, fire could carry in any direction from the point of ignition; day or night. If it hit impediments such as streams or swamps, the flames would feed around said impediment, jump across, or stop altogether. Sometimes, the fire would bed down in the swamps only to re-emerge weeks or even months later in the drier, upland areas when conditions were once again favorable for its spread. An initial approximation is that Alabama historically contained somewhere between 25-29 million acres of habitat experiencing high fire frequency (one to seven year return interval). To sustain such acreage, 3½ to 4 million acres would have burned, on average, in Alabama annually. Unlike today, in the not-so-distant past, it was more a question of what *wasn't* burning in Alabama than what *was* burning. Most of the state was on fire. Because of this, numerous, unique habitats adapted.

In this two-part series, we'll look at a list of the major forest types that once saw fire with regular occurrence in Alabama. Embedded within these are a number of fire-dependent habitats that, due to subtle differences in soils and hydrology, resulted in slightly different community types and response to fire.

Longleaf Pine Forests

The most well-known fire-adapted forest of Alabama once covered between 10-13 million acres of the state. Most of this forest burned no more than every three years. Fire kept shrubs and other fire-intolerant hardwoods low in stature, giving the forest a park-like appearance. Longleaf pine forests are typically dominated by that species, but they can also be found in areas with other pine species (such as slash and shortleaf) and, in some cases, fire-tolerant deciduous trees such as blackjack oak, post oak, or turkey oak. Longleaf pine forests were found in a variety of landforms from deep sandhills to mountain ridges up to 1,500 feet in elevation. The interest in planting longleaf pine has grown substantially the past 15 years. Even so, the amount of necessary burning to restore all of this forest's attributes is lagging significantly behind.

The term 'pine barrens' is one that has been used so universally that it has lost much of its original meaning. In Alabama, the term was used primarily to describe the longleaf pine forests in our two maritime counties of Baldwin and Mobile, and was meant to describe a longleaf pine forest that from a distance looks so structurally simple that it was deemed devoid of diversity. As noted by Mobile, Alabama botanist Charles Mohr in 1901, "the pine forests are open. The crowns of trees scarcely

touching one another … the floor of these open pine forests is covered with a carpet of grasses and other herbs, mostly perennials, which, under the mild climate of this zone, retains its verdue for the better part of the year."

The conditions described by Mohr are as much of a grassy savanna as they are a forest. Regardless of nomenclature, fire swept through these pine barrens with low intensity, but high occurrence. The result was a forested savanna that upon closer examination was not barren at all, but rather one of the most diverse understory plant communities in the entire country. Related to this groundcover is the 'Wiregrass Region' of southeast Alabama. Although this area takes on more of a cultural reference today, it was originally named for its once plentiful fire-dependent, grassy ground cover. Without fire, there would have been no wiregrass for which to name this region.

Historically, one of the more noteworthy longleaf pine forests was an isolated stand in the Cumberland Plateau of Walker County, Alabama. This stand was said to be approximately one township in size (about 23,000 acres). Its uniqueness attracted many, including a Dr. Carl Schenck that visited on behalf of Gifford Pinchot [first Chief of the U.S. Forest Service]. Though this well-stocked longleaf pine forest had many features of stands found further south, it also possessed unusual prairie attributes such as the presence of prairie plants such as *Helianthus mollis*, commonly called ashy sunflower. Though scientists have no explanation for the presence of this isolated forest in the Cumberland, it would have needed fire on a regular basis to maintain itself. Unfortunately, no features of this forest can be found today.

Another interesting longleaf pine site were those collectively and locally known as the 'Salamander Hills' outside of Tuscaloosa near Lock 14 on the Warrior River, where an intrepid population of pocket gophers was discovered. Unlike the pocket gophers seen in the sandy soils of the longleaf pine forests of south Alabama, these could be found on the gravelly ridges where longleaf pine and several fire-tolerant oak species grew. In 1912, Roland Harper [staff botanist for the Geological Survey of Alabama] declaimed the "interesting relations between salamanders and forest fires" in *Science* magazine. This area today is owned by a timber company and bears no resemblance to the forest described 100 years ago by Harper. Pocket gophers have been undetected in this area for decades, likely due in large part to changes in land use facilitating a multi-generational exclusion of fire.

Loblolly Pine Forests

Loblolly pine is the most widespread pine species in Alabama today. Piecing together the extent of loblolly pine in Alabama's historically fire-dominated landscape, however, is more challenging. At young age classes, loblolly pine is susceptible to fire. Similarly, older loblolly is much more susceptible to heat in the forest crown than longleaf, slash, and shortleaf pine.

Quoting botanist Charles Mohr again from 1901, he stated that loblolly pine was "confined to the narrow bottoms along the banks of streams." By this, he suggested loblolly was more or less restrained to nature's firebreaks. For the large part, Mohr was correct; fires burning into streamside edges, swamps, sheltered hill slopes, mires, and such were sporadic which allowed loblolly to become established in said areas. However, loblolly pine is tenacious and possesses many qualities of invasive, aggressive plants. Besides growing rapidly, it produces large quantities of seed annually. For this reason, loblolly pine was frequently found as a minor component in other forest types. This is particularly true in shortleaf pine forests. In some cases, loblolly pine could be found in upwards of 20 percent of the forest cover in shortleaf pine forests.

One exception was an approximately 215,000-acre area found in portions of Limestone and Madison counties described as a 'loblolly pine and hardwood forest' in a 1936 U.S. Forest Service survey. However, the Forest Service further qualified this classification with "the aggregate volume of pine in this area is not great; however, as most of the land is cultivated, the pine trees appear usually as scattered individuals." In this situation, it is possible the fragmented landscape was sufficient enough to act as fire breaks that allowed loblolly pine (commonly known as 'old field pine') to become established in higher abundance. In many situations today, reintroducing fire to loblolly plantations can be destructive and is often not applied until well after the first thinning. This same mentality is currently applied (falsely) to longleaf pine plantations.

(Continued on page 22)

Where there's Smoke, there's Life:
the Role of Fire on Alabama's Wildlands
(Continued from page 21)

Slash Pine Forests

Through afforestation over the past several decades, the range of slash pine has greatly expanded in Alabama. Historically, slash forests were largely restricted to wet pine flatwoods in Alabama's two coastal counties covering perhaps 1.5 million acres. Frequent fires approximately every four to five years allow slash pine to flourish in pure stands or to mix with longleaf pine. The groundcover was usually a mix of grasses and forbs. Many waxy-leaved shrubs were present; however, frequent fires relegated them to low stature. In some cases, slash pine forests' tree density can be very low (less than 10 trees per acre) and grade more into a (wet) prairie system. In other areas, the slash pine forest can have a high density of pines. In the absence of fire, waxy-leaved shrubs will dominate the midstory and present a significant concern for large conflagrations.

Shortleaf Pine/Fire-Dependent Hardwood Forests

The extent of shortleaf pine forests in Alabama is just beginning to come to light. Covering about the same amount of Alabama as longleaf pine once did, these forests were found

across 10 million acres in an array of various landforms. Comparatively less fire-tolerant at smaller sizes than longleaf pine, the average fire return interval in this forest type was likely five to seven years. Though these forests could be found in pure stands of shortleaf pine, it was most often found amongst other deciduous trees such as post oak, white oak, scarlet oak, and various hickories that were tolerant of frequent fire.

This forest type is most abundant north of the Fall Line with one significant exception: the area around the Union Springs area known as the Chunnenugge Ridge. Ironically enough, although historically this area around Union Springs was a relatively small forest outlier, today it hosts some of the best-managed shortleaf/hardwood forests remaining in Alabama.

Another notable location is an area of the nine northernmost counties of Alabama, where upwards of 50 percent of the landscape was described as shortleaf pine forest. For example, the area known colloquially as the Red Valley Lands (or simply 'Red Land') was found across several northern Alabama counties and is thought to have covered approximately 1.56 million acres. As its name implies, these forests were largely found in the broad (non-riparian) areas of North Alabama between mountain peaks. Shortleaf pine was the dominant tree species, though loblolly pine could also be found within the stand. Fire-tolerant hardwoods including various hickory species, red oak, black oak, white oak, blackjack oak, and post oak composed the balance of the stand's species diversity. The extent to which this forest subtly transitioned to our current oak-hickory forests can only be speculated, but it most certainly did occur. A frequent, low-intensity fire cycle moved across this landscape every five to seven years. Only with more recent fire exclusion has this region transitioned into mesophytic (less fire-tolerant) forest structure dominated with trees species such as red maple, American beech, sweetgum, etc.

Fire-Tolerant Hardwood Forests

As the appreciation of fire in hardwood forests continues to blossom, so too does the recognition of this unique forest type historically found in the Tennessee Valley and Coal Region of Alabama. The role of regular fire in this region has received scant attention within Alabama, despite that we know approximately 40 percent of Alabama's northern nine counties were once fire-tolerant hardwood forests. What little we do know about fire effects in this region has been gathered from studies in Tennessee and elsewhere in the Appalachians.

We know within certain, shaded ravines, coves, and stream terraces that fire played a smaller role due to less-frequent return intervals and subsequently long-standing exclusion. This allowed less fire-tolerant trees such as American beech, basswood, ash, and red maple to dominate. In those areas, many fire-sensitive plants species thrived. Fire was irregular in these areas and oftentimes catastrophic when it occurred. With that said, conversely there were large areas where fire was a regular occurrence that resulted in a hardwood forest comprised primarily of fire-tolerant tree species.

At least three, large regions in this area of Alabama contained hardwood forests with an active fire cycle (burning every several years) at a regular frequency. These frequent fires resulted in a forest of approximately 50 percent fire-tolerant oaks and another 25 percent fire-tolerant hickories. Trees that marginally tolerated fire such as tulip-poplar, sweetgum, and loblolly pine balanced this stand's composition. One glaring exception was the occasional notation of American chestnut by Alabama's early naturalists. Like other members of the beech family, the thin bark of American chestnut meant the tree was fire-sensitive. Paradoxically, American chestnut quickly re-sprouted following fire, a feature shared with many fire-tolerant tree species. Today,

we can only conclude that the interaction between fire and American chestnut was one of complexity.

The Barrens (known colloquially as the High Plain) was a historic region of Madison, Limestone, and Lauderdale counties that covered approximately 582,000 acres. Described as a curious combination of prairie and forest, this area was likely akin to areas currently found in the Midwest known as oak savannas. Its open canopy (approximately 50 percent coverage) contained fire-tolerant hardwoods such as post, southern red, scarlet, and (occasionally) blackjack oak as well as various hickory species including mockernut and pignut. The fire ecology of these hardwood 'barrens' is under-studied in Alabama. However, it can be presumed that fire likely carried every five to seven years along the groundcover dominated by a carpet of 'coarse grass' such as big bluestem (*Andropogon geradii*) and Indian grass (*Sorghastrum nutans*). Shrubs capable of producing soft mast following fires are also found in abundance including blackberry (*Rubus* spp.) and huckleberry (*Gaylussacia* spp.). Additionally, gooseberry (*Ribes* spp.) was observed by early naturalists, but its role in the fire landscape is still uncertain.

Another noteworthy fire-influenced hardwood forested area was known as the Little Mountain region. This region largely rests on Hartselle sandstone and it was not uncommon to see 'prairies' (glades) embedded within the forest. This forest extended from Morgan to Lawrence and Colbert counties covering roughly 345,600 acres. Many of the same fire-melded forest structures found in the oak-hickory forest type were found in this region. It is important to note, however, that for reasons not entirely explained by soil, shortleaf pine forests were also integrated in the Little Mountain Region with one, large section historically found on Little Mountain in Lawrence County.

One of the more enigmatic forest regions in Alabama was known as the Coosa Flatwoods. Found in the valley regions predominantly stretching from the Gaylesville to Gadsden area (up to 350,000 acres), the original forest structure has been largely eliminated by fire suppression, timbering, agriculture, urban development, etc. Ecologists have speculated the Coosa Flatwoods forest was the historic home to one of Alabama's currently most endangered plants: the Alabama leatherflower (*Clematis socialis*). Moderate disturbance, predominately fire, is necessary to abate herbaceous competition that otherwise overtakes the leatherflower. With this is mind (along with some of the other fire-dependent micro-habitats described in this area such as bogs, Coosa Prairie, and cedar glades), it seems improbable that these historic flatwoods were predominated by less fire-tolerant red and silver maples and fire-intolerant oaks such as shumard, cherrybark, and willow oak as oftentimes purported by ecologists today. Instead, the forest was likely that as described by State Geologist Eugene Smith in 1884 as post oak, shortleaf pine, red oaks (southern red and scarlet), and blackjack oak. The type of forest described by Smith had a fire cycle of approximately every five to seven years.

It has only been through multi-generational fire suppression, that mesophytic (less fire-tolerant) tree species have invaded these historic fire-dependent oak-hickory forests vastly changing the overall structure of these forests. It was largely conditions just like these that fueled the catastrophic 2016 wildfires in Gatlinburg, Tennessee.

Today, Alabama annually sees about 820,000 of its acres burned annually by wildfire and prescribed burning cumulatively. In other words, only a mere 20 percent of what historically burned in Alabama is burned today. This figure could be discounted if Alabama had lost approximately 80 percent of its historic forests and prairies to agriculture and development; however, Alabama still retains approximately 23 million acres of timberland, which suggests that no such level of forest cover loss has occurred. Those numbers imply that significant advances can be made to restore fire-dependent biodiversity within the state. Much like restoring the Great Plains, success can only be achieved when the community's keystone animal has also been restored. In Alabama, that keystone animal is fire. Despite this, a dangerous folly is to assume that without actively restoring fire to those 23 million acres of timberland, they will not burn otherwise. This is simply not our reality.

Multi-generational exclusion of fire throughout Alabama has only created favorable conditions for catastrophic fires to occur. Now is the time for Alabama to emerge as a national leader and to reignite the flame that historically bound our state's exceptionally diverse habitats.

Tax Tips for Forest Landowners for the 2017 Tax Year

By Dr. Linda Wang, National Timber Tax Specialist, U.S. Forest Service

Specific federal income tax laws and rules apply to timber-related income and expenses. The tax tips provided in this bulletin are intended to assist timber owners, foresters, loggers and their tax preparers in filing the 2017 tax returns. This material has been prepared for informational purposes only, and is not intended to provide tax, legal, or accounting advice. Please consult your own tax, legal, and accounting advisors before engaging in any transaction. The information is current as of September 30, 2017.

Timber Property for Tax Purpose

For federal individual income tax purposes, there are three types of timber properties: 1) property held mainly for personal-use purpose (for personal enjoyment, not for income generation), (the deductions are generally limited for personal-use property); 2) property held as an investment (generating profit from growing timber or asset appreciation); or 3) property held as business (with regular, active, and continuous commercial timber activities). Timber businesses can deduct expenses, but are subject to passive loss rules (where passive loss cannot be used to offset non-passive income). If the profit motive is not met, your timber may be considered a hobby rather than business (losses from hobby activities are not deductible). Finally, timber is generally not treated the same as a business of farming for tax purposes. Certain tax provisions for farming may not be available for timber.

Example 1: Mr. Anderson replanted his 30-acre property after the timber sale. He reports his timber as an investment property.

Example 2: Mr. Smith owned his woodland primarily for personal vacation property. Expenses may not be tax deductible for personal-use property.

Timber Expenses and Property Taxes

Expenses paid for growing timber for profit are deductible. For example, expenses may be paid for services of forester, attorney, or accountant; firebreak maintenance; overnight travel; vegetation competition control; insects, disease, and fire control; pre-commercial thinning; and depreciation from equipment used. Investment timber expenses are deductible on Schedule A, subject to a 2 percent of adjusted gross income (AGI) floor. Business timber expenses are deductible in full for 'material participants' on Schedule C. State and local property taxes are fully deductible on Schedule A (investment) or Schedule C (business) and are not subject to the 2 percent AGI floor.

Example 3: Mrs. Walters grew timber for profit as an investment and paid $1,500 timber management expenses. Her AGI was $50,000. Her timber expense deduction is $500 ($1,500 – 2% x $50,000 AGI) after the 2 percent AGI floor.

Timber Sales and Form 1099-S

Sales of standing timber held as an investment are taxed as capital gains rather than ordinary income. If you own the timber for more than one year before the sale, the sale is eligible for long-term capital gain, which is taxed at lower tax rates than ordinary income. Report the sale of standing investment timber on Form 8949 and Schedule D. Sales of standing timber by a business qualify for long-term capital gain (Sec. 1231 gain) if the timber has been held for more than one year (Sec. 631(b)). Report the sale on Form 4797 and Schedule D. Timber sale expenses, such as fees paid to foresters, are deductible from the sale proceeds. Form 1099-S is required for lump-sum and pay-as-cut standing timber sales, except corporate and high-volume business sellers.

Example 4: In 2017, Mrs. Young sold pine standing timber held as an investment for $9,000. Its adjusted basis was $3,000. The selling expenses are $1,000. She reports $5,000 ($9,000 – $3,000 – $1,000) as a capital gain on Form 8949 and Schedule D.

Special rules apply for the following type of sales: if you cut your own timber or have it cut by a contractor working at your direction, and sell the cut timber products or use the products in your business, the gains are ordinary income unless you elect to use Sec. 631(a) on Form T, Part II.

Example 5: Mrs. Henderson manages her timber farm as a business. In 2017, she hired a logger to cut her timber and sold the log products to the mill she selected for $10,000. She paid $4,000 to the logger. The fair market value of the standing timber on January 1, 2017 was $3,000 and her timber basis was $2,000. Under Sec. 631(a) election, gains of $1,000 ($3,000 – $2,000) from standing timber are capital gains and the $3,000 ($10,000 – $3,000 – $4,000) from the sale of log products is ordinary income. Without a Sec. 631(a) election, the gains of $4,000 ($10,000 – $2,000 – $4,000) are ordinary income.

Timber and Landscape Tree Casualty Loss

Timber and landscape trees destroyed by a casualty event such as hurricane, fire, earthquake, tornado, hail, or ice storms may be tax deductible. But the amount of deduction varies depending on the type of properties. Deductible casualty loss for timber held for business or investment purposes is the smaller of the adjusted basis of timber, and the difference of the fair market value of the timber immediately before and after the casualty in the block. Salvage sale of timber is reported separately and a taxable gain may result if the salvage sale exceeds the adjusted basis of the timber and related selling expenses.

Example 6: A hurricane damaged Mr. Smith's woodland tract, resulting in $8,000 fair market value loss of his timber. Assuming his timber basis is 2,000, the amount of casualty loss deduction is only $2,000, not $8,000.

For landscape trees in the private residence, deductible casualty loss is subject to a $100 limit per casualty and 10 percent AGI floor. However, for taxpayers affected by Hurricanes Harvey, Irma, and Maria, the 10 percent AGI floor was eliminated. The requirement for taking 'itemized deductions' is also eliminated.

Installment Sales

An installment sale allows you to defer tax by spreading your gain over two or more years. Interest is charged on deferred payments and is ordinary income.

Example 7: You sold $10,000 of timber ($7,500 after deducting timber depletion and sale expenses) in 2017. Your gross profit percentage is 75 percent ($7,500 ÷ $10,000). The buyer paid you $6,000 in 2017 and you took a note payable in 2018. Report a $4,500 gain ($6,000 x 75%) for 2017, using Form 6252.

Reforestation Costs

Taxpayers may deduct up to $10,000 per year ($5,000 for married couples filing separately) of reforestation costs per qualified timber property (QTP). Any amount over $10,000 per year per QTP may be deducted over 84 months (amortized). Trusts are eligible for amortization deduction only.

Example 8: Assume you spent $17,000 to reforest, deduct $10,000, plus 1/14th of the remaining $7,000 ($500) in 2017. Deduct 1/7th of the $7,000 ($1,000) for 2018 through 2023 and the last 1/14th ($500) in 2024. For investment timber, report the reforestation deduction as an adjustment to gross income on the front of Form 1040. For business taxpayers, report it on Schedule C. Elect to amortize and take amortization deductions on Form 4562. Attach a statement to your return showing the date, location, and amount of the expenditure.

Timber Basis and Depletion Deduction

For purchased property, the timber basis is the amount you paid for it. For inherited property, the basis of timber is its fair market value on the decedent's date of death.

Example 9: You inherited a woodland property five years ago. Your forester provided a retroactive appraisal of the timber quantity and value on the date of the decedent's death. Your timber basis was set up as: $25,000 for 100 thousand board feet of pine sawtimber and $4,000 for 200 cords of pine pulpwood.

Example 10: You sold 50 thousand board feet of sawtimber in 2017. Your depletion deduction from the sale is $12,500 ($25,000 of total timber basis ÷ 100 thousand board feet of total volume x 50 thousand board feet of timber sold).

Depreciation and Sec. 179 Expensing

For timber held to produce income, you may take depreciation on the assets used such as logging equipment, tractor, computer, car, bridge, culvert, fence, temporary road, or the surface of permanent road. For example, logging equipment and light-duty trucks are depreciated over five years. Land, however, is not depreciable. Also, business taxpayers may deduct up to $510,000 in the first year for qualifying property in 2017, subject to a $2,030,000 annual phase-out and business taxable income limitation (Sec. 179 expensing). Separately, business taxpayers may take bonus depreciation equal to 50 percent of the cost of qualifying new business property.

Net Investment Income Tax

For single taxpayers with AGI over $200,000 (or 250,000 for couples), investment and passive business timber sales are subject to a 3.8 percent net investment income tax.

Example 11: Mr. and Mrs. Walters' AGI is $270,000, including a $40,000 capital gain from their investment timber sale. The timber gain of $20,000 ($270,000 – $250,000, which is less than the $40,000 gain) is subject to the 3.8 percent tax ($760 tax), in addition to the capital gain tax on the sale.

Cost-share Payments

If you receive a payment from a qualified program, you may exclude part or all of the payment from your income if the cost-share payment is used for capital expenditure. Otherwise, it is ordinary income. Qualified federal programs for income exclusion include the Forest Health Protection Program, Conservation Reserve Program (CRP), Conservation Security Program, and Environmental Quality Incentives Program. Several state programs also qualify for exclusion. The excludable amount is the present value of the greater of $2.50 per acre or 10 percent of the average annual income from the affected acres over the last three years.

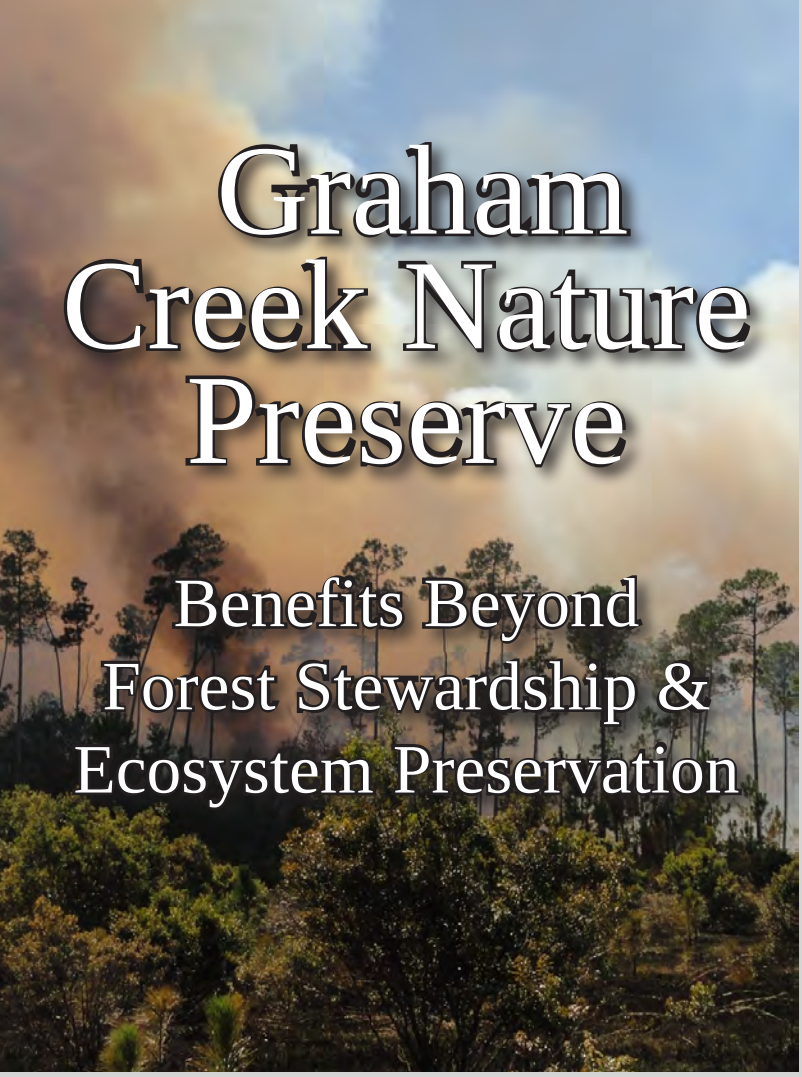
Example 12: The CRP paid you $6,000 as cost share for your qualified capital expense in your timber property. If you had no income from the property in the last three years, you could exclude up to $6,250 (($2.50 x 100 acres) ÷ 4%) from your income. The interest rate is from the Farm Credit System Bank. If you had $9,600 of income from the property in the last three years, you could exclude up to $8,000 ((10% x ($9,600 ÷ 3)) ÷ 4%). Attach a statement to your tax return describing the cost-sharing program and your exclusion calculations.

Filing Form T (Timber)

You must file Form T (Timber), Forest Activities Schedule, if you claim a timber depletion deduction, sell cut products in a business (under Sec. 631(a)), or sell outright timber held for business use. However, if you only have occasional timber sales (one or two sales every three or four years), you are not required to file.

Conservation Easement

Donors of qualified conservation easements can take a tax deduction. The deduction is up to 50 percent (or 100 percent for qualified farmers and ranchers including forest landowners) of the taxpayer's AGI in a year. Any excess donation over the 50 or 100 percent limit may be carried forward to 15 years.



Graham Creek Nature Preserve

Benefits Beyond Forest Stewardship & Ecosystem Preservation

By Rickey Fields, Baldwin County Forester, Alabama Forestry Commission and Leslie Gahagan Lassiter, Environmental Manager, City of Foley

The Graham Creek Nature Preserve was purchased in 2004 by the City of Foley in Baldwin County for valuable aquifer resources located within the 484 acres. City employees soon discovered within this property an amazing pine savanna ecosystem with rare plants and animals. By 2008, a master plan had been developed to promote conservation of these natural resources, while offering the public educational and passive recreational opportunities. Following the advice of local botanists and wetland scientists, a strategy for habitat management was developed to include removal of exotic, invasive plants, as well as the introduction of prescribed fire.

The Alabama Forestry Commission partnered with the City of Foley in 2010 to help improve the Graham Creek Nature Preserve through sound stewardship practices. The goals of the Nature Preserve were twofold. One was habitat management for minimization of undergrowth for the enhancement of native fire-dependent species, which in turn showed an increase in native wildlife. Approximately 300 acres of pine savanna and pine forest habitat have been burned. There are now extensive populations of rare plants including white top pitcher plants, purple pitcher plants, shortleaf rose gentian, grass pink orchids, yellow butterwort, crested fringed orchids, rush featherling, and bog buttons. Since the introduction of fire, populations of turkey, dove, and quail have also been documented.

The Nature Preserve's other goal was aesthetics and education, as this is a park area. Visitors learn the benefits of prescribed fire through educational signage as well as visibly seeing the positive results of the burns with flowering plants. Neighboring communities have also received valuable education on the benefits of these burns to minimize the risk of wildfire.

Meanwhile, although the main objective was to improve the delicate pine savanna ecosystem within the Nature Preserve, the Alabama Forestry Commission (AFC) saw greater benefits beyond simply improving the native ecosystem. The agency envisioned more than implementing a prescribed burning regimen and non-native plant species eradication. In addition to the opportunity to educate the surrounding communities, Graham Creek was the perfect area to train alongside other state and city first responders.

Centered between three large subdivisions and an 18-hole golf course, Graham Creek Nature Preserve is two miles north of the densely populated city of Orange Beach. The Nature Preserve assists in educating the community in several different aspects. It helps the AFC demonstrate the strategies of wildland fire prevention in an area that has witnessed an increased amount of urban sprawl in recent years, as well as stress the importance of implementing Wildland Urban Interface activities in the surrounding communities.

Just a few years ago, when we first implemented the prescribed burning regimen at Graham Creek Nature Preserve, we witnessed firsthand the local population trembling in fear when they saw plumes of smoke rising into the air. Now that we have been able to educate the public as to why we are conducting these burns, the local community embraces our efforts and is extremely grateful for our wildfire prevention activities. The Nature Preserve has allowed us to conduct several field trips for area schools both during and after prescribed burns. It's an awesome feeling to load kids onto a tour trailer and allow them to watch in awe as we conduct a prescribed burn right in front of their eyes. We are providing memories these kids will have for years!

Graham Creek has also given the Forestry Commission an opportunity to train not only our own personnel, but also the City of Foley Fire Department and the Alabama Law Enforcement Agency (ALEA) in readiness for large scale wildfires and other natural disasters. We use prescribed burning activities as a source of real-life training opportunities to be better prepared when the next natural disaster impacts this area. It allows ALEA helicopter pilots to practice making water drops with the 'Bambi' bucket so they are more experienced for future wildland fire suppression activities. It also provides AFC personnel the chance to train and educate our local structural firefighters on wildland fire suppression techniques.

In essence, the Graham Creek Nature Preserve allows for several state and local agencies to train together. These training activities have greatly improved cohesion between separate first responder entities that will now be able to work together much more efficiently and effectively when the next inevitable natural disaster impacts our great State of Alabama.

Alabama's Grand Bay Savanna

Contributed by The Nature Conservancy

The Grand Bay Savanna is one of the largest remaining expanses of Gulf Coast wet pine savanna in the world. Located in southern Mobile County in Alabama and southeastern Mississippi, the iconic savanna is a jewel of the greater Gulf Coast. With only three percent of this ecosystem remaining across its historic range, it is important to conserve and restore this unique and beautiful landscape.

Thanks to committed partners, this area is now protected forever and will be open to the public to enjoy. A unique public-private partnership between The Nature Conservancy, the National Fish and Wildlife Foundation (NFWF), and the State of Alabama means more than 26,000 acres of key coastal lands in Alabama and Mississippi will remain as they are, with beautiful open-pine savanna that remains healthy because of prescribed burning. These park-like forests then transition into salt marsh finally yielding to the Gulf of Mexico.

With Governor Kay Ivey as special guest, The Nature Conservancy and partners announced the acquisition of 2,460 acres in south Mobile County in October 2017.

"Our great state, bless it, we are so blessed with abundance of natural diversity. From the Gulf Shores beaches, all the way to the lower Appalachian Mountains," Ivey said. "Alabama is truly blessed with natural resources and diversity. This natural beauty and our abundant wildlife and outdoor resources, very definitely, positively impact our economy. And today, I am honored to be with you to celebrate The Nature Conservancy's recent acquisition of more than 2,400 acres here in south Mobile County," said Ivey. "This addition serves as a keystone piece for the Forever Wild Land Trust's remarkable Grand Bay Savanna Complex. And, this project truly exemplifies how wonderful Forever Wild program has been for the great State of Alabama since being established in 1992. Furthermore, this project is the culmination of decades of persistent partnerships between state agencies, federal partners, and conservation groups."

Acquired through funds from a National Fish and Wildlife Foundation (NFWF) grant under the Gulf Environmental Benefit Fund, the 2,460 acres will eventually be transferred to the Alabama Department of Conservation and Natural Resources (ADCNR) Forever Wild Land Trust.

***The Nature Conservancy** is a 501c3 non-profit conservation organization working in all 50 states and around the globe. Our conservation goals focus on protecting biodiversity, native habitats, and resources for the benefit of people and nature. In Alabama, The Nature Conservancy helps conserve and manage the most biodiverse state east of the Mississippi River.*

The Nature Conservancy
Alabama

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SUSTAINABLE FORESTRY INITIATIVE

FOREST HEALTH COOPERATIVE

School of Forestry and Wildlife Sciences, Auburn University

By Dr. Lori Eckhardt, Director

Organized in 2008 by Drs. Lori Eckhardt and Scott Enebak at the Auburn University School of Forestry & Wildlife Sciences, the goal of the Forest Health Cooperative is to bring together interested parties from forest industry, consulting companies, timber management companies, as well as state and federal forest agencies throughout the southern United States that were interested in maintaining forest health, productivity, and sustainability. In our ninth year of operation, the Forest Health Cooperative (FHC) includes members from forest industry, federal and state agencies, and private entities. The Cooperative's mission is to address important, current, and relevant forest health issues that include disease, insect, and invasive species, in a way that addresses real world management problems in the southern United States.

Bringing their expertise in pathology, entomology, silviculture, genetics, plant physiology, and invasive plants, several School of Forestry & Wildlife Sciences faculty members work with the FHC in the establishment of research projects, technology transfer, continuing education, and timely publications. The amount of time each person allocates to FHC activities is related to his or her own discipline and interest in forest health work. These activities fall into three general areas: research, technology transfer, and cooperative development.

The Forest Health Cooperative already has an active research program that involves eight **research** projects falling into several general areas: disease development, pathogen ecology, insect ecology, insect and disease management, and invasive species management (both insects and plants). Examples of current and past research projects include potential invasive insect pests that may impact the southeast forest industry, quantification of the impact of root disease on tree growth/survival, and invasive plants that impact the health of a stand.

Membership is offered at four levels: Full, Associate, Maintaining, and Sustaining. To ensure that members are kept up to date on any new research or developments in forest health that may affect them, the Forest Health Cooperative has an active **technology transfer** program and offers short courses on forest health as well as insect and disease identification. A newsletter that includes research updates, articles, and technical reports in sent to members every spring and fall. An advisory meeting is held each June at which time accomplishments, research reports, and new research project proposals are presented.

Differing levels of membership allow organizations and persons to join at the level of their interest. Benefits vary among membership levels, but include access to the Forest Health Cooperative webpage, annual newsletter, research and technical reports, email and telephone consulting, and participation in workshops. Full members serve on the advisory council, vote, and direct research direction and budgetary decisions. In addition to funding travel, installation, and analysis of cooperative-sponsored research, membership dues go toward the salaries of one full-time research associate, an office administrative assistant, as well as M.S., Ph.D., and undergraduate students.

To learn more about the Forest Health Cooperative, visit our website at **http://www.auburn.edu/academic/forestry_wildlife/foresthealthcooperative**/ or contact Dr. Lori Eckhardt at (334) 844.2720 or **eckhalg@auburn.edu.**

Alabama Certified Prescribed Burn Manager
2018 Training Schedule

Instructor: John Stivers, RF, CF, CPBM

- *Who should take the CPBM Certification COURSE? Any forest landowner, forester, wildlife biologist, consultant, contractor, or agency employee who is interested in the use of prescribed wildland fire as a management tool and who is seeking certification should attend. Out-of-state participants are welcome. Details about the Alabama Forestry Commission's Certified Prescribed Burn Manager certification program may be found at* ***www.forestry.alabama.gov/PrescribedBurnCertification.aspx***
- *Who should take the CPBM Recertification WORKSHOP? Any current Alabama Certified Prescribed Burn Manager who needs the required 6 CEUs every five years for recertification should take the workshop. More information about the Alabama Forestry Commission's Certified Prescribed Burn Manager re-certification program may be found at* ***www.forestry.alabama.gov/prescribed_burn_manager_re.aspx****.*
- *These courses/workshops are sponsored and funded by the Alabama Forestry Commission. However, due to a reduction in government grant funding, a participation fee will now be charged to partially cover the cost of the training sessions.*

Registration

PRE-REGISTRATION IS REQUIRED. Seating is limited to 40 participants for courses and 40 participants for workshops.

Please visit ***classes.forestry.alabama.gov/cpbmclasses.aspx*** to register online. Registration fees can be paid in advance by mailing a check or money order to:

Alabama Forestry Commission
Forest Protection Division ATTN Marti Davis
PO Box 302550
Montgomery, AL 36130-2550

Registration fee for certification courses is $150. Registration fee for recertification workshops is $100. For those who do not pay in advance, payment by cash (exact change) or check only will be accepted on the first day of each course and at the beginning of each workshop prior to the start time. Only paid attendees will be allowed to participate in the training sessions. For more information on registration, contact Marti Davis at (334) 240-9332. (DO NOT CONTACT THE COURSE/WORKSHOP LOCATION REGARDING REGISTRATION OR COURSE DETAILS.)

Certification Courses

Auburn University Forestry & Wildlife Science Building | July 31- August 3, 2018 | Tuesday through Friday
Sign-in starts at 7:30 am | Class starts at 8:00 am
602 Duncan Drive, Auburn University, AL | Latitude 32.594639, Longitude -85.487844
Park at the South Quad parking deck ONLY on the 3rd or 4th level - No permit required on these levels this week only.

Alabama Fire College | September 18-21, 2018 | Tuesday through Friday
Sign-in starts at 7:30 am | Class starts at 8:00 am
2501 Phoenix Drive, Tuscaloosa, AL | Latitude 33.120747 N, Longitude -87.571192 W
Parking lot at the western end of the fire college facility; sign will be posted at the building where class will be held.

Recertification Workshops

Auburn University Forestry & Wildlife Science Building | Monday, July 30, 2018
Sign-in starts at 8:00 am | Class starts at 8:30 am
602 Duncan Drive, Auburn University, AL | Latitude 32.594639, Longitude -85.487844
Park at the South Quad parking deck ONLY on the 3rd or 4th level - No permit required on these levels this week only.

Alabama Fire College | Monday, September 17, 2018
Sign-in starts at 8:00 am | Class starts at 8:30 am
2501 Phoenix Drive, Tuscaloosa, AL | Latitude 33.120747 N, Longitude -87.571192 W
Parking lot at the western end of the fire college facility; sign will be posted at the building where class will be held.

You must make your own lodging arrangements.
Breaks and lunch provided for all courses and workshops at no cost to participant.

SAVE THE DATE!

ALABAMA LANDOWNERS CONFERENCE 2018

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Stumped???

This question was recently submitted from Larry in Shelby County:
"I recently bought a drip torch to do some burning on my property. What is the recommended drip torch fuel mixture rate?"

Dear Larry,

Mixing rate is somewhat a trial and error experience. Ignition fuels (what's on the ground) are an important part of mixing fuel. The diesel carries the fire, and the gasoline ignites the fire. I recommend starting with a 4:1 diesel to gasoline mixture. In the event of higher humidity and cold temperatures, a 3:1 diesel to gasoline is recommended.

More experienced burners have used a 50/50 mix, termed 'hot mix,' due to its high combustion. This mixture rate should be used with caution and only by experienced burners. There are other mixtures out there using kerosene, but kerosene is expensive and not readily available. This is also a great way to get rid of old gasoline! Happy Burning!

Brad Lang
Alabama Registered Forester #1910
Warrior Work Unit Manager
Alabama Forestry Commission

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TREES OF ALABAMA

Sweetbay Magnolia

By Fred Nation, Environmental Services, Baldwin County

Sweetbay was the first American magnolia to be exported to Europe, dating from 1688 in England. The tall, straight habit; attractive evergreen foliage with contrasting colors; handsome, fragrant flowers and red seed cones have made sweetbay a popular landscape tree on both sides of the Atlantic for more than 300 years.

Magnolia virginiana is a medium to large tree that is frequently seen in swamps, pine flatwoods, flood plains, and on stream and river banks throughout most of Alabama. It has the largest distribution of the eight native American magnolia species. The range is from Long Island, down the Atlantic coastal plain, through Florida; west through the Gulf Coast states to southeast Texas. A deciduous, multi-stem, shrubby form occurs in northern parts of the range, but in Alabama our sweetbays are the arborescent form that matures into stately canopy trees.

Photos by Fred Nation

The leaves are evergreen or nearly so, alternate, elliptical, without teeth, up to about 8 inches long, 2 inches wide. Upper surfaces are dull green, hairless; the distinctive undersides are usually finely hairy, chalky or pale bluish white. The bark is smooth, gray-brown; on old trees developing a gravelly texture, with shallow, irregular vertical furrows. All parts of the trees, including the bark and foliage, are aromatic, with a pleasant spicy fragrance.

May to June, sweetbay flowers are fragrant, to about 4 inches across, with 8 to 12 creamy white petals (tepals). The fruits are pink or red, cone-like, developing in the centers of the flowers. The seeds, with fleshy, bright red or orange coverings, ripen and drop from the fruits in the fall. They are avidly foraged by birds and squirrels, who contribute to dispersal strategies by transporting and dropping the seeds over wide areas, often some distance from the parent trees. Though it is a wetland species, once established, sweetbay is tolerant of the drier conditions found in most landscapes.

Medicinal applications of sweetbay and other American magnolias were well established by Eastern American Indian tribes when the first Europeans arrived. From the Indians they learned the uses of sweetbay for treatments of rheumatism, fevers, coughs, and eventually malaria, which was a 16th century introduction to the New World. Magnolia bark extract and capsules are still sold as dietary supplements to treat colds and other bronchial problems.

The Alabama State Champion *Magnolia virginiana* is 11.5 feet in circumference, 98 feet tall, with a crown spread of 53 feet. This forest giant can be seen at Historic Blakeley State Park in Baldwin County.