

ALABAMA'S
TREASURED

FORESTS

A Publication of the Alabama Forestry Commission

SUMMER 2004



- **TREASURE Forest/Landowner Conference Information**
- **Low-Cost Property Access**
- **Forest Owners Assistance Resources : CRP, FLEP, & SPB**
- **Sudden Oak Death**
- **Black Ducks**

A MESSAGE FROM . . .



TIMOTHY C. BOYCE
State Forester

A few years ago, an effort began to establish TREASURE Forest landowner chapters in each county across the state. Currently there are 50 county chapters where landowners are working together to promote sound forest management practices through the TREASURE Forest program.

Some of the county chapters have become extremely successful with extensive local memberships providing educational courses for landowners, forestry and wildlife tours, newsletters, web pages, and school programs. One of the most important aspects of the chapters is bringing people together at the grass roots level so they can share information with one another. Mentoring other landowners has a positive impact on landowners through their encouragement and support.

Part of the success of the program has been the involvement of local and state entities that have provided assistance, technical expertise, and resources to assist the chapters. The Alabama Farmers Federation (ALFA), the Alabama Forestry Association, and the Alabama Cooperative Extension System have assisted with leadership workshops and training for local chapters. These same agencies, along with Soil and Water Conservation Districts, the Alabama Forestry Commission, and timber companies have provided meeting space, literature, technical assistance, and other resources to help chapters meet their goals.

Over 200,000 forest landowners throughout the state are working to keep our forests healthy and productive. These landowners manage their forests not only for themselves but for their children and grandchildren as well. Everyone can take an active role in TREASURE Forest chapters by becoming involved, whether providing resources or volunteering in your county. By working with chapters, we can play a major role to assist our state's landowners in managing their land to ensure that Alabama is made better today and tomorrow through forestry. ♣

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CONTENTS

- 4 Growing More Than Trees in Randolph County: Hendons Continue Commitment to Stewardship by Coleen Vansant**
- 7 Sudden Oak Death by Bruce Springer and Jim Hyland**
- 8 Enjoy Every Acre: Affordable, Permanent Stream Crossings by Tilda Mims**
- 14 Black Ducks by Steve Lyda**
- 16 21st Annual Alabama Landowner & TREASURE Forest Conference Information and Registration**
- 18 The Conservation Reserve Program by Madeline Hildreth**
- 20 Alabama Southern Pine Beetle Prevention Program by Jim Hyland**
- 24 Forest Land Enhancement Program by Walter E. Cartwright**
- 26 A Partnership for the Future: The AFC & the Federation of Southern Cooperatives/Land Assistance Fund by Deron Lacey**
- 28 Building Partnerships by Bob Bendick**

DEPARTMENTS

- 2 Message from the State Forester**
- 12 THREATENED & ENDANGERED SPECIES: Alabama's Red-Bellied Turtle by James Masek**
- 13 HIDDEN TREASURE: Silvopasture Works on Sudduth Farm by Tilda Mims**
- 23 LEGISLATION AND POLICY Legislative Profile: Thomas Jackson by Coleen Vansant**
- 32 TREES OF ALABAMA: Sweetleaf by Fred Nation**

Cover: The voice of the tiny barking tree frog, a well-established resident of Alabama forests, can be heard on a typical summer evening.

Photo by Mark Barnett

Background this page: Beautiful daylillies blooming along the edge of the summer forest.

Photo by Dr. Harold Raleigh

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Growing More Than Trees in Randolph County: Hendons Continue Commitment to Stewardship

Photo by Coleen Vansant

By *Coleen Vansant*, Information Manager, Alabama Forestry Commission

Tommy (left) and John Hendon stand under one of the sawtooth oaks they planted eight years ago. The trees are now around 30 feet tall.

Over the years one of the favorite things about my job has become visiting landowners on their property for the interviews for the feature story of this magazine. I have always felt so welcome and I really enjoy touring the property in a very relaxed atmosphere, not so much talking to the landowner but letting the landowner talk to me. Just asking a few questions now and then to make sure I have the facts right. As much as I enjoy these visits, unfortunately for the majority of them it is the only visit I have the privilege to experience. Seldom do I get to return to see the growth and changes that have been made over a period of years.

Recently however, I had the pleasure of “re-visiting” a landowner after many years. I really enjoyed seeing the property again and seeing what changes had taken place in seven years. But the thing that I was the most impressed and delighted with was the change that had *not* taken place . . . there has been no decline in this landowner’s enthusiasm for what he was

doing and his commitment to his stewardship ethic.

I first had the honor and privilege of visiting Tommy and John Hendon on their farm in Randolph County in 1997 when I did an interview for a “Hidden TREASURE” story for this magazine. A year later I was there again with the Commission’s video crew during the filming of his video when Tommy won the Helene Mosley Award for the Northeast Region. His son John had just graduated from high school the year before.

According to Tommy, he began in the late 1980’s looking for land to purchase for himself and his young son to hunt on. For decades local hunting lands had been open to almost anyone for the asking, but in recent years this same land was now either being closed to hunting or was being leased to out-of-town paying clients. He and John looked in earnest for a piece of property that they could afford to buy and manage for the purpose of hunting.

In 1990 they finally found what they had been looking for — an 85-acre tract of land near Wedowee in Randolph County. Three years later they acquired an adjoining 42 acres, and this year Tommy purchased an additional 40 acres. He also purchased a one-acre easement for a total of 168 acres.

Making Every Bit Count

Timber and wildlife are the two management objectives and the Hendons carry out a very intensive forest management program. Their goal is to create a “stair-step” forest with all age levels and species of trees from 50 acres of 4-year-old pine to mature natural stands. Tommy has always conducted a prescribed burning program and is currently working in a three-year rotation for burning. He has thinned his natural pine stand twice for a total of about 7-8 acres. Tommy and John have also installed access roads throughout the property and have experimented with both fertilization and pruning.

“We don’t let anything go to waste,” says Tommy. When Hurricane Opal

blazed through several years ago, the Hendons were left with extensive hardwood damage. Tommy and John salvaged around 150 loads of firewood and barbecue wood. They also salvaged around 15,000 board feet of logs, which were used to build a cabin on the property. After salvaging everything they could, the next year they had the land sprayed with Arsenal, prescribe burned for site prep, and then had 32,000 trees hand planted. Each year the pair cuts around 75-100 loads of firewood. This year they have already cut about 35 loads.

Wildlife a Priority

Aside from no material going to waste, no space goes to waste either. When the planting crew missed several rows while planting the last pine seedlings four years ago, the Hendons turned the open space into a wildlife food plot. They have planted sawtooth oak, crabapple, and Chinese chestnut on the space, and this year planted corn, watermelons, and cantaloupe for the deer and other wildlife.

They have other food plots, one that is about three acres on a power line right-

of-way that they have planted in clover, and this next year they are going to try biologic (similar to rape). Also on this food plot are several sawtooth oaks of which the Hendons are very proud. The trees are eight years old and are approximately 30 feet tall. Tommy says he and John have fertilized the trees twice a year and the extra effort has paid off with growth and acorn production. They have also planted a small grove of crabapple trees. A corn feeder on the site this summer kept the deer coming up so that the family could enjoy watching them.

On another large food plot they have planted crabapples, Bartlett and Keiffer pears, and Yates and Black Arkansas apples. On the upper portion of the site they plant wheat, oats, and rye, and on the lower end they plant rape.

About ten years ago the pair planted bicolor lespedeza around the edges of the property. At this particular plot Tommy tells a wonderful wildlife story. He said he watched a couple of deer knocking the Yates apples from the tree. As soon as they would hit the ground a fox would come from the edge of the woods, steal an apple, return to the woods edge, then hold it between his paws and eat it.

Over the years they have constructed and installed bat houses, squirrel nesting boxes, wood duck boxes, bluebird houses, and hung purple martin gourds. They have several wildlife observation towers on the food plots – the latest being built off-site in sections from wood (studs, lumber, and door) cut from the property. The sections were then transported to the farm where they were rejoined.



Photo by Coleen Vansant

Deer are enjoying the cantaloupe and watermelon planted on one of the food plots.



Photo by Coleen Vansant

This sign was built by Tommy and John.

Tommy smiles when he says that when he and John first began managing the property there were no turkeys. This year they killed their first two and now the turkeys are nesting and raising young on the property, making all of the hard work over the years worthwhile.

Helping Others

The Hendon property was certified as a TREASURE Forest in 1993. In 1996 they were awarded the Tree Farmer of the Year Award, and in 1998 they received the prestigious Helene Mosley Award.

Since then, the Hendons have continued to be actively involved in the TREASURE Forest program locally and statewide. Tommy is a long-time member of the Randolph County Forestry Planning Committee and currently serves as its chairman. He is a member and past president of the county TREASURE Forest Association chapter and is also a member of the Alabama TREASURE

(Continued on page 6)



Photo by Coleen Vansant

Forest Owners Association statewide organization.

Because of his outstanding work as a TREASURE Forest landowner, Tommy has been called on to mentor other landowners in their forest management activities. Several years ago I was a witness to his commitment. Tommy and Clay County TREASURE Forest owner Don East were in Blount County at a trade show manning a TREASURE Forest Association booth. They talked to a local gentleman about his land for a few minutes and then both of them left to go with the man to look at his property. According to Tommy, "I like helping a guy out now and then."

Along with mentoring, education is a big part of the Hendons' landowner ethic. Many times over the years they have hosted landowner groups and school children on their property for tours and outdoor classroom programs.

Although now seven years later John has grown into a big, tall handsome young man of 27 years, his interest in conservation and forestry has been a long-time commitment. When in high school he won many honors including the Alabama FFA Forest Management Award

Top: This wildlife observation tower was built by Tommy and John, partly from materials harvested from the farm. Right: Natural pine stand has been thinned and burned.

in 1995 and the Alabama FFA Wildlife Management Award in 1996. He was the recipient of the Southwire Corporation's Community Environmental Award, the 1996 Governor's Youth Conservationist Award, and the 1997 Alabama FFA Soil Conservation Award. Also in 1996 he was the winner of the National Wildlife Management Award.

It was so good to visit the Hendons again and see the changes that have been made on their property and the growth that has taken place. But the best thing to witness again was the enthusiasm they still have for their stewardship ethics and their commitment to the TREASURE Forest program. These values have grown along with the trees and the wildlife.

Hopefully one day in the future we will see John making his way to the front of the auditorium to accept his Helene Mosley Award. He has purchased 84 acres of land near his father's farm and is currently in the process of nurturing it to a TREASURE.

One of the mottos of the TREASURE Forest program has always been that we are "keepers of the land for the next generation." Tommy Hendon has passed his love of the land to his son and now is in the process of passing that same ethic to another generation – he already talks about bringing his nine month-old grandson to the farm. 🙏



Photo by Coleen Vansant

SUDDEN OAK DEATH

By *Bruce Springer*, Forest Management Division Director
and *Jim Hyland*, Forest Health Specialist,
Alabama Forestry Commission

The first positive sample of Sudden Oak Death (SOD) (*Phytophthora ramorum*) was confirmed in central coastal California in the summer of 2000. This previously unknown pathogen has caused dieback since 1995 of several oak species in 12 California counties, which were placed under "Regulated County Status." The most lethal result is trunk cankers, which eventually girdle and kill the trees. Other symptoms manifest themselves on the leaves and twigs, but generally do not kill the host.

Mortality is most often associated with oaks, especially southern and northern red oaks. The fungus spreads by air, soil, water, and root transportation. This fungus grows much faster in humid conditions, which is why there is so much concern with keeping it out of the Southeast.

The spread of SOD in the past three years has largely been kept in check to California, Oregon, and Washington locations. However, camellias infected with SOD were found in a nursery, Monrovia Growers (Azusa, Los Angeles County), which is one of the largest commercial

nurseries in the country. They shipped host material to over 1,700 nurseries in as many as 40 states. Another mail order nursery, Specialty Plants, Inc., also shipped 3,500 suspected plants from the San Marcos area. Since the discovery, all positively sampled nurseries have agreed to not ship host or associated host plants. States have placed "Emergency Rule - Stop Sale Orders" for anyone receiving plants from infected nurseries. Furthermore, all shipped materials are being collected and destroyed where possible. Alabama received 2,002 of these plants.

The Eastern Region of the US has 37 establishments that tested 76 positive samples. There were 406 nurseries that received 30,803 host plants from Monrovia. Approximately 28,026 plants were destroyed and 2,291 samples taken for DNA testing. Approximately 321 nurseries have been released.

Because SOD is a regulated pest, the USDA Animal and Plant Health Inspection Service (APHIS), Plant Protection and Quarantine Section, has the lead responsibility for its detection and treat-

ment at the federal level. State departments of agriculture have the responsibility at the state level. The USDA Forest Service and state forestry agencies typically become more involved when the problem affects forested areas. Because this is a relatively new pest, national standards were recently developed entitled, "Early Detection and Rapid Response Protocol for Forest and Landscape Environments with Plants Infected with *Phytophthora ramorum*." This protocol sets standards for all activities associated with the pest. While this

(Continued on page 22)



Intervein leaf lesions on buckeye due to Sudden Oak Death (*P. ramorum*).



Leaf lesions due to Sudden Oak Death (*P. ramorum*) on *Camellia japonica* variety Silver Waves.



Several years after onset of infection, rapid browning and death of all leaves occurs in some oak trees infected with *P. ramorum* canker disease.

Summer 2004

Enjoy Every Acre:

Affordable, Permanent Stream Crossings

By *Tilda Mims*, Information Specialist, Alabama Forestry Commission

Photo by Jim Lacefield

Sandstone slabs from Cane Creek were hand stacked around spillway sections formed of concrete to span larger streams with deeper streambeds.

Most Alabama landowners easily develop a useful trail system to provide access for harvesting timber, monitoring the growth and health of the forest, exercising, recreation, education, and observing nature. However, many trails eventually cross streams and creeks, and development becomes a little more complex. Providing access to and through forestland and other natural resources safely and inexpensively may seem impossible.

Fortunately, whether you want to move heavy equipment over a stream or simply extend your walking path to the far side of the lake, there are innovative approaches available at a reasonable price. This article discusses designing affordable stream crossings to facilitate travel, reduce erosion, and protect plants, animals and scenery. It takes a close look at two TREASURE Forests with innovative bridges of natural and recycled materials that provide uninterrupted scenic corridors in the natural landscape.

Crossing structure designs vary, depending on the length and height of the crossing, amount and weight of traffic, and the needs of the landowner.

LOW-WATER CROSSINGS —

Low-water bridges provide a solid route across muddy, rocky, or unstable streams during all but times of the highest floods. They are slightly raised above streambeds to allow floodwaters to pass easily over them, carrying downed trees and debris with little damage to the structure. They usually incorporate culverts or other drains. If designed well, the bridge's surface will remain above water level for better than 95% of the year, making crossing easy on equipment and vehicles.

Dr. Jim Lacefield constructed several low-water stream crossings on his Colbert County TREASURE Forest, Cane Creek Canyon Nature Preserve, using concrete and natural stone that blend beautifully into the natural landscape.

Footbridge – The footbridge that crosses just above a big waterfall gets people safely across a solid rock creekbed that is usually very slippery. During a low

water period, Jim placed a pair of heavy 5/8-inch bolts into holes pounded into the sandstone creek bed using a small sledgehammer and a concrete bit. The holes were drilled eight feet apart to help anchor the bridge. He then placed 8x16-inch concrete blocks over the bolts with their narrow end pointed toward the current, leveled, and filled with concrete. Similar anchors were placed in the creek bank. Concrete – tinted to match the surrounding sandstone – was molded around the blocks to create rounded, naturally shaped pedestals for the footbridge.

When the concrete set, he placed a pair of treated landscape timbers between each pedestal. Finally, two rough-sawn red oak 2x12-inch boards were placed end to end on top of the landscape timbers, centered, and attached to the timbers with large deck screws. This bridge has now survived a number of major floods and is still in place.

Materials: \$30. Advantages: aesthetically pleasing, blends with the environment. Disadvantages: somewhat labor intensive, potentially vulnerable to large

debris washed downstream during floods. Maintenance: future maintenance may be required.

For bridges large enough to carry vehicles, low water bridges have distinct advantages over truss-type bridges. They are less costly to build, less vulnerable to damage during major flood events, blend well with the environment, can be constructed with natural materials found on the spot and, if carefully constructed, can have very few long-term maintenance problems.

Concrete Culvert Bridge – The Lacefields used a simple culvert bridge on rocky and uneven area for vehicle crossing. During low-stream flow, three sections of 12-inch diameter concrete culverts were placed end-to-end, straightened to align with the creek flow, and held in place by placing rocks under their edges. A second set of culverts was set in place nearby. Sandstone slabs and cobbles from the creek bed – stacked around the culverts to each bank – outlined the shape of the bridge.

The concrete was mixed from a combination of clean sand and gravel from the creek and Portland cement. The natural ratio of gravel to sand in this creek was about right for producing high quality concrete, so it was easily produced on the spot, far from any improved road. A 1/3 cubic yard portable concrete mixer powered by a small tractor was used to stir the mixture.

Jim uses an acrylic concrete additive in his pours to make them more durable and to help them cure better and stronger. If the current in the stream is not too strong,



Photo by Jim Lacefield

An acrylic concrete additive in this simple footbridge makes pedestals more durable and helps them set better and stronger.

concrete can be poured right into the form in the water. Concrete actually cures better under water than when exposed to drying, but you have to be careful not to pour into water so swift that the concrete powder is separated from the aggregate.

According to Jim, a good quality concrete mixture that should test well over 3,000 pounds per square inch can be made by mixing three parts gravel to two parts sand to one part Portland cement. Blending five parts gravel, three parts sand, and one part Portland cement makes a less expensive (but still quite strong) mixture, useful for many purposes.

Materials: \$140. Advantages: less expensive, well protected from flood damage, low maintenance. Disadvantages: somewhat crude appearance, requires a lot of hand labor stacking rocks.

Formed Concrete Curving Bridge –

A formed, curving low-water bridge crosses a rough and uneven area prone to rare, extreme floods. It contains three small cul-

verts that allow normal flows to pass beneath the surface of the bridge which remains dry 95% or more of the year.

Three 10-foot long, 4-inch diameter PVC pipes were placed in the stream channel during a low-flow period and aligned with the stream direction of flow. A box form built around them was filled with high strength concrete to a depth of four inches deeper than the top of each pipe. On each side of this center bridge section, curving outer sections were formed using flexible concrete siding board. Both sides were measured to slope downward toward the middle section containing the drainpipes, and a slight, banked curve was built into the design to accommodate a curve in the access road at the point of the creek crossing. Three hand-mixed pours were required to complete the bridge.

Materials: \$250. Advantages: looks good, well protected against even extreme floods, very durable, low maintenance. Disadvantages: requires careful measurement and forming slope, labor intensive.

Stacked Stone Bridges – Sandstone slabs from Cane Creek were hand-stacked around spillway sections formed of concrete to span larger streams with deeper streambeds. These low-water bridges still let most flood water pass over the top, but are raised up higher from the streambed to accommodate steeper banks. Spillway sections were formed of plywood and poured before the broader portions were stacked and poured. Each has a bridge surface of placed and troweled hand-mixed concrete.

Materials: \$325. Advantages: hand-stacked stone results in massive structure well protected against floods. Disadvan-



Photo by Jim Lacefield

Concrete culverts are a mainstay of forest trail construction and with a little imagination, they easily blend into natural surroundings.

Summer 2004

(Continued on page 10)



Photo by Jim Lacefield

This curved low-water bridge contains three small culverts that allow normal flows to pass beneath the surface of the bridge, which remains dry 95% or more of the year.

tages: labor intensive, periodic cleaning of debris that collects around the spillway area during floods.

WIDE OR DEEP WATER

CROSSINGS — Wider or deeper areas may be crossed with several permanent bridge designs. Many landowners find sturdy recycled materials to be excellent choices, such as flatbed truck trailers and utility poles.

Flatbed Truck Trailer – On Mike and Cathy Strong’s TREASURE Forest in Shelby County, a 45-foot flatbed truck trailer purchased for \$600 stretches across 40 feet of Yellow Leaf Creek. The heavy-duty construction of the trailer, rated for 45–50,000 pounds, allows the Strongs to move trucks, dozers, and other equipment used for routine farm work with no problem. It also increases accessibility of fire suppression equipment into all parts of the farm.

The construction began by imbedding two steel I-beams into the banks on each side of the creek and securing them with concrete to form a foundation. Cables attached to the trailer allowed it to be pulled into place by a loader. The wheels were removed from the trailer with a torch before placement. Mike says it is very important to weld the trailer onto the I-beams to hold it in place and resist damage from floating debris.

Bridge decking of 3x10-inch creosote boards is topped by steel straps the length of the bridge. Every third board was drilled to accept 6 to 8-inch carriage bolts

that pass through steel washers, the steel strap, the creosote boards, and into the strap holes on the underside of the trailer.

Materials: Mike estimates an investment of \$1,500-1,800 in materials beyond the cost of the trailer more than eight years ago. Advantages: very sturdy, and at certain times of the year, water is over the bridge by as much as five feet. Does not collect debris from the stream. Disadvantages: none. Maintenance: minimal.

Telephone Poles – In another area of their farm, a spillway area was easily spanned with a structure made of surplus 18 to 20-inch telephone poles. For only about \$500 in supplies, a 40-foot bridge makes it a snap to cross the area, even during wet weather.

A local sawmill removed a 6 to 8-inch strip on each of three main support poles for attaching floor timbers and sawed other poles into 3x8-inch flooring. Poles extend about 36 inches into either bank to hold the bridge in place. Flooring was attached with countersunk bolts. Unopened bags of Kwikrete wedged into areas between the bridge and the bank keep water from eroding the soil at the ends of the bridge. As the bags absorb moisture, they harden and, as the bags disintegrate, they resemble a boulder that matches the landscape.

Materials: \$500. Advantages: less expensive than traditional concrete culverts, very sturdy – carries up to 14,000 pounds. Disadvantages: none. Maintenance: a wood preservative on the bridge yearly.



A 40-foot bridge made of surplus 18 to 20-inch spillway area, even during wet weather.

Photo by Tilde Mims



Photo by Jim Lacefield

These low-water bridges still allow most flood water to pass over the top, but are raised up higher from the streambed to accommodate steeper banks.

A 4x50-foot swinging footbridge made of old cable and scrap wood already on the farm allows attractive, economical access to a small island on another area of the farm. Two 8-inch steel poles were sunk in about three feet of concrete on each bank. Flooring of 1x6 pressure treated wood was connected to steel cables with conduit brackets and pulled into place with a tractor. The cables were pulled taut and are held in place with cable clamps. Loops in the cable were retained for tightening the cables as needed.

Materials: items already on the farm.
 Advantages: attractive and economical.
 Disadvantage: not accessible for disabled guests. Maintenance: none.

An arched 40-foot wooden bridge near the Strong's home was a reasonable investment for multi-functional access. It



Photo by Tilda Mirns

The swinging footbridge makes it easy for Rocket to explore the island when he doesn't feel like swimming.



Heavy-duty utility poles makes it a snap to cross the

completes the walking trail around the farm and allows ATV travel. Its high arch allows bass boats to pass underneath accessing all parts of the lakes.

Two arches of 2x12s were constructed in the barn in about four days. They are made of straight boards cut to be an arch. They were moved into place and attached to pressure treated 6x6-inch posts in concrete footings. The decking of 2x6 lumber completes an overall bridge length of 40 feet.

Materials: \$1,200-1,500. Advantages: multiple function, height allows boat access. Arching shape adds interest to the landscape. Disadvantages: none. Maintenance: minimal.

Stream crossings discussed in this article have a sturdy grounded feel – as if they are natural parts of the farm. Simple lines, heavy timbers, and use of natural

materials such as native stone integrate them into the landscape.

In most cases, the structures make crossings accessible for those with a variety of disabilities including sight, hearing, mental, heart or lung disease, and ambulatory limitations. Visually-impaired users benefit from definite edges such as sturdy handrails or tire rubs. Decking boards placed perpendicular to the trail path, with gaps between boards not exceeding 3/8-inch, ensure safe passage for visitors in wheelchairs.

Hiking, nature observation, hunting, horseback riding, and afternoon strolls are only a few of the opportunities that a stream crossing may provide. They also furnish access to monitor forest conditions and identify problems, helping develop a foundation for long-term forest management.

A carefully planned crossing structure is more than a connection between two points. It is a means of bringing you, your family, and guests in contact with the forest – and making it an enjoyable journey. ♣

Resources:

Rails to Trails Conservancy

Trails, Bridges and Boardwalks
www.extension.uf.edu

USDA Forest Service, Wood in Transportation National Information Center
<http://wit.fsl.wvnet.edu>

USDA Forest Service, Forest Products Lab
<http://www.fpl.fs.fed.us/wit/>

Recreational Trail Design and Construction at www.extension.um.edu



Photo by Tilda Mirns

The heavy-duty construction of the trailer allows safe passage of heavy equipment used for routine farm work.

**THREATENED
& ENDANGERED
SPECIES**

Alabama's Red-Bellied Turtle



Photo by Roger Clay

By *James Masek*, Wildlife Biologist, Division of Wildlife and Freshwater Fisheries,
Alabama Department of Conservation and Natural Resources

Most Alabamians know the official state bird is the yellowhammer. Likewise, it is well known that the official state tree is the longleaf pine, but I doubt many are aware of Alabama's official reptile. Considering this hard-shelled reptile exists only in the Mobile-Tensaw River Delta, it is not surprising that so few know its name. As a matter of fact, our state reptile is so rare that in 1987 the U.S. Fish and Wildlife Agency designated it as an endangered species.

The official reptile for the state of Alabama is the Alabama red-bellied turtle (*Pseudemys alabamensis*). The female adult turtle is slightly larger than the male at 13 inches. The adult male's average length is 12 inches. The upper shell color may be greenish to dark brown or black with yellowish or reddish vertical markings along the sides. The under shell is pale to yellow or red with or without dark markings. The young turtles exhibit the bright red or orange undershell (belly). The legs and head are dark with yellow stripes.

The Alabama red-bellied turtle's home range is exclusively in the Mobile-Tensaw River Delta in Mobile and Baldwin counties. The Delta's freshwater streams, rivers, and bays with shallow-to-moderate depths and extensive beds of



Photo by Roger Clay

Alabama red-bellied turtle hatchling in shallow water.

aquatic vegetation are preferred by the Alabama red-bellied turtle. One other place it has been found is the Little River in Monroe County.

The diet of the Alabama red-bellied turtle consists of vegetative matter, pri-

marily pond weed, wild celery, duckweed, and the introduced Eurasian water-milfoil.

Nesting of the Alabama red-bellied turtle occurs from May through July. The female turtle locates a sandy site near the water and lays four to nine eggs in a shallow nest. The hatchlings usually emerge in late summer.

Life as a turtle is difficult from the very beginning: fish crows, raccoons, and feral swine feed on the eggs of the turtle nest. The young turtles are preyed upon by snakes, large fish, and wading birds. Even adult turtles bear tooth scars on their shells from alligator attacks.

Considering the many obstacles the Alabama red-bellied turtle faces throughout its life cycle and its limited range, it is unlikely this reptile will ever reach populations high enough for removal from the endangered species list. However, understanding the difficulties the Alabama red-bellied turtle faces daily should provide every Alabamian with a greater appreciation of our little known official state reptile. ♣

Silvopasture Works On Sudduth Farm

By *Tilda Mims*, Information Specialist, Alabama Forestry Commission

John and Mary Sudduth of Winston County took multiple-use forest management to the next level when, in 1985, they introduced silvopasture to their Double Springs farm. Almost 20 years later, Charolais cattle successfully graze in a healthy pine plantation, increasing productivity of both practices.

Although some form of silvopasture – the combination of trees with livestock production – has been practiced for centuries worldwide, woodland grazing declined in the South during the last 30 years. Timber growers felt that growing trees alone was more economical than a multiple-use system.

The Sudduth family experimented with managing timber and pasture as a single integrated system and demonstrated that, if managed properly, forage production can be maintained while producing high value timber. Scientists in this field consider silvopasture successful when more production is obtained by the trees and livestock than could be obtained on the same piece of land with only a commodity. For John and Mary Sudduth, the integrated system has produced a “double crop.”

“People in the community were curious and thought it odd at first, but it worked out fine for us,” John said. The Sudduths allow 60 registered Charolais cows and heifers freedom to graze on about one-third of their 300-acre TREASURE Forest. He notes that although the cows graze the areas under the trees last, preferring the pasture grass, they make good use of the silvopasture over time. “We have a double crop and both are doing well,” he stated.

The Sudduths began buying land in 1975 to make a home for their children – Johnny, Sanda, and Carla – and to manage for timber and recreation. In 1985, John noticed an area in a thinned pine

plantation open enough to graze cattle and he decided to plant pasture grass for grazing. As an agri-business teacher at Winston County High, he had frequent access to specialists at Auburn University, learning from their research.

Silvopastures may be developed by (1) introducing forage after a thinning to reduce tree canopy or (2) establishing trees in open fields. The Sudduths converted a thinned pine plantation into a silvopasture. Loblolly, longleaf, and slash pine are compatible with forage production and livestock grazing when properly managed because they adapt to diverse



John and Mary Sudduth are retired teachers from Winston County High School.

growing sites, respond rapidly to intensive management, and permit more light to reach the forest floor.

Trees are widely and evenly distributed over the area to optimize growing space and light for both trees and forage. Lower tree densities allow forage to grow longer into the timber rotation. Young trees often benefit from two to three years of vegetation control after planting. Some silvopastures group trees into rows or clusters to concentrate shade and roots while providing open spaces for pasture production. Either way is acceptable.

Once the terminal bud of the trees is above the grazing height of livestock (six to eight feet), grazing can proceed without damage to the trees.

John carefully disks lightly around the pines to protect roots from damage. He recommends fescue, orchard, and pasture grasses as the forage component because it is productive under partial shade and moisture stress, responsive to intensive management, and tolerant of heavy utilization. Research indicates that some forage species tend to be lower in fiber and more digestible when grown in a tree-protected environment.

The Sudduth’s silvopasture system enhances productivity of several aspects of their TREASURE Forest: Grazing controls competition for moisture, nutrients, and sunlight. Production of both crops is sustained while conserving soil and water resources. Potential fuel hazards are removed; fire ladder fuel conditions are eliminated. Trees use fertilizer applied for forage. Agroforestry scientists claim wood production may increase by 20 to 30 percent in response to fertilizer management for forage production. Livestock manure recycles nutrients to trees and forage. Promotes park-like appearance – perfect for

annual Capture the Flag games hosted for FFA and church youth groups. Forage attracts white-tailed deer, turkey, rabbit, and bobwhite quail.

Just as a TREASURE Forest system is more productive than managing for a single objective, forage productivity of silvopastures may substantially exceed that of pastures grown alone. The Sudduth family’s silvopasture has been successful for almost twenty years because they are equally committed to forage, livestock, and timber management. 🌲

Sources:

www.unl.edu/nac/silvopasture.html
www.agroforestry.et

BLACK DUCKS

By Steve Lyda, Alabama Forestry Commission

Photo by Dan Brothers. Used with permission of the Alabama Bureau of Tourism and Travel

The Alabama Piedmont is comprised of four or five counties in the northeast portion of the state – the most notable being Etowah and Cherokee counties – for it is clearly evident that here you are in the southern Appalachian foothills. As improbable as it sounds, mallards, wood ducks, and occasionally migrating Black Ducks have traded southeast through the tight ridge and valley corridors for hundreds of years using these secretive hide-aways and small isolated ponds, engineered by one of North America's most maligned rodents. Largely left to his own

devices in the past century, beaver have continued to build dams, back up creeks and streams, gnaw down willow and cottonwood saplings, and cause general misery to eastern landowners who prefer leather uppers to knee-high rubber boots. As a practicing forester, I am sympathetic; but to his credit, the adroit little beaver is a master in creating and maintaining waterfowl habitat.

These impoundments are numerous in the boreal forest breeding grounds in Nova Scotia and Quebec, and as far north as Labrador. Winter quarters in the southern states however, consist of widely dis-

persed ponds ranging in size from half-acre kills to five-acre green timber sprawls. The American Black Duck, *Anas rubripes*, faces serious gene pool dilution from hybridizing with mallards and they will simply not exist in the future as a distinct species without water in the woods. Long ago I stopped setting conibear-traps and breaking dams because an acre of timber has no spiritual comparison to Black Ducks.

By late fall, water in the northern latitudes begins to lock up and birds start moving south. The Appalachian Trail runs more than twenty-one hundred miles along America's eastern seaboard from Maine to Georgia, and it shadows the Black's broad southern migration path from saltwater marsh to the mountains' gentle east face and down through New England farmland and the North Carolina hills. My guess is that a portion of these birds cross a historic gap between Hiwassee and Springer Mountain in North Georgia to find their way to a broad plain or geologic table in North Alabama between Wheeler National Refuge and the Coosa River. Their course takes them over tall church steeples in Scottsboro and high above the German dairy farms scattered around the communities of Hokes Bluff, Leesburg, and Ballplay. Here, they settle out and scatter into even smaller family groups at Will's Creek and to the southeast along Black Creek Swamp, where Nathan Bedford Forrest decided to ford the river on the heels of Streight's U.S. Cavalry. After they cross this line, west of the mountain pass, the *Royal Blacks* of the famed east coast marshes become aloof and wary highlanders, puddle jumping the many miles of backwoods sloughs. Few of them will be seen or heard from again until their safe arrival in the spring in southern Canada.

The beaver ponds and creeks in Alabama's piedmont region are tucked away in steep hardwood coves; they are difficult to locate without an Indian guide, and a true adventure to reach at night. If you arrive at the little shore in time for coffee and sunrise, you're already late because unlike mallards that leisurely visit well into the warm morning when the frost and raccoons have retreated home, wood ducks and especially Black Ducks, are early flyers. Having met their obligation to fly over silver ridge tops and

down through darkened timberland, they're in for the day.

Most certainly an angry wind will keep them stirring around, but they prefer to spend daylight to dusk in backwater button brush feeding on beechnuts, acorns, and soft mast from the gum trees. Of course there is other business to tend to such as preening, courting, and pre-nuptial displays, then budget enough time for loafing, and the day is pretty well gone. All of this activity or inactivity is carried out as far from predators as possible, as is their right. The security of remote beaver ponds is very high on the Black Ducks' priority list and the only phenomena that moves them south – for they are hardy ducks and notoriously slow to migrate – are appalling winter storms with freeze-ups and the slightest amount of hunting pressure. The echo of gun shots rolling through the deep hardwood bottoms will have Blacks Ducks on the doorstep saying goodbyes to their host and anxious to find new neighbors.

Technically, this part of the state is in the Mississippi flyway but its close proximity to the eastern fringe tends to mix birds. On high visibility days, I have chosen to sit it out until late morning and spotted the silver bellies and glints of greenheads very high above the tree lines. They're flight ducks quickly moving south on a cutting north wind, and fly they can – with purpose. I've wondered if the birds have flown straight through the

New England night with icy air flowing over sleek lines and contour feathers, forming fast crystals on their forward expressions. These small flocks of mallards are often associated with several Blacks at the front of the formation and their dark creosol bodies are contrasted by the flaring white under linings of powerful wings as they most often break ranks with the pack to avoid spiraling down in haste and misgiving. The Black is a hard bird to decoy, an extremely tough customer in all respects. With such low probabilities, they are not hunted in this area as an exclusive species, but rather as an incidental to mallards. After all his accolades, he is just that – a black mallard, but quite a diamond on a heavy duck strap of greenheads at the close of a morning hunt.

I know a couple of locations where an annual showing is probable at best, the exercise all you can stand, and the late-winter beauty exceptional. The area has a system or chain of beaver ponds and the landscape has changed very little since I was old enough to tote sacks of duck decoys up and down ridges. I was lucky on two consecutive mornings that arrived with snow and mallards on the same canvas. It was also here that I witnessed my first and only pure flock, a dozen Black Ducks, being driven in by a winter gale that would rival anything in the northern

(Continued on page 30)



Photo by Larry Ditto

The American Black Duck faces serious gene pool dilution from hybridizing with mallards and they will simply not exist in the future as a distinct species without water in the woods.

Summer 2004

Timber and Pond Management for Waterfowl

No one can control the weather, which determines the seasonal migration patterns of black ducks, wood ducks, and mallards – but a landowner who provides optimum habitat will usually be rewarded by late winter in Alabama. If a landowner is working with existing beaver ponds or enhanced waterfowl habitat in the form of flooded green tree reservoirs, controlling water levels is the most important key. The hydrologic characteristics of small watersheds can be modified by the ability to flood and drain them. Draining ponds in the growing months provides opportunities for native vegetation to flourish, and in some cases, the supplemental plantings of mudflats to Japanese millet or Egyptian wheat.

The two most common drainage devices are the three-log drain and the beaver pond leveler developed by Clemson University. In the southeast, hard mast such as acorns and beechnuts along the shallows are excellent energy foods for waterfowl. Large mature timber along the water line should be retained, and if the pond is relatively new, it should be drained in mid-March to prevent these trees from dying, and allowed to re-flood by rainwater in the dormant months from October to February.

Dabbling ducks prefer water levels less than 18 inches, so a landowner does not have to invest in expensive pumps. In some cases, ponds with an abundance of immersed plants like smartweed, arrowhead, and spike rush and floating aquatics such as common duckweed and watermeal are best left undisturbed.

After beavers have created permanently flooded wetlands, some inferior trees will die and the canopy opens, making suitable conditions for the growth of native plants, invertebrates, and semi-aquatic vegetation. This successional pattern leads to a well-developed shrub layer with seed production and standing snags that provide roosting habitat for ducks at night. The wetland complex or mosaic created by beaver, combined with thoughtful vegetative manipulation by land managers, can easily turn a liability into an early morning sky of whistling wings. ☪

“ECONOMIC FUTURE OF OUR FOREST RESOURCES”



21ST ANNUAL ALABAMA LANDOWNER & TREASURE FOREST CONFERENCE

**OCTOBER 28-29, 2004 TUSCALOOSA, ALABAMA
FOUR POINTS SHERATON**

Registration fee of \$75 includes lunch/tour, banquet, indoor sessions, and luncheon.

THURSDAY, OCTOBER 28

10:30 a.m. - Forestry Tour with Lunch. Buses will load and depart from the Four Points Sheraton. The Bunn and Lee families will host the tour on their TREASURE Forest. Violin/Fiddle entertainment provided by the Lamb family.

- Pond Management - *Ben Dowling*
- Timber Management for Profit and Wildlife - *Monty McKinley*
- Deer Management - Pros and Cons of a High Fence - *Kevin McKinstry*
- Predators are Costing You Money - *Syd Coleman*
- Champion Retriever Exhibition - *T.J. Bunn and Jeff Horsley*

6:45 p.m. - Awards Banquet followed by a Dessert Social

FRIDAY, OCTOBER 29

8 a.m.-11:45 - Indoor Sessions

- Economic Future of Our Forest Resources - *Dr. Ken Muehlenfeld*
- Cahaba: An Alabama Treasure - *Earl Bailey*
- GPS - Introduction and Application - *Milam Cain*
- How Far In The Future Can We See - *Dr. Sam Addy*

12:00 p.m. - Alabama TREASURE Forest Association Luncheon

SILENT AUCTION

Don't miss the 8th Annual Silent Auction sponsored by the Alabama TREASURE Forest Association. Bids will be received until lunch on Friday and items awarded to the highest bidders that afternoon.

Forest Master Credits may be earned by attending the tour and indoor sessions. CEUs are available for registered foresters and PLM loggers.

Please use the form on the reverse side to register for the conference.

**21ST ANNUAL ALABAMA LANDOWNER
& TREASURE FOREST CONFERENCE**
OCTOBER 28-29, 2004 TUSCALOOSA, ALABAMA
FOUR POINTS SHERATON

REGISTRATION FORM

Name of Attendee(s):

Will Attend Tour on Thursday:

1. _____
 2. _____
 3. _____
 4. _____

Yes No
 Yes No
 Yes No
 Yes No

Company: _____

Bus transportation will be provided for the tour. No personal vehicles can be driven.

Address _____

City _____ State _____ Zip _____

CATEGORY(IES) OF ATTENDEES (Check one category only)

Total # attending tour _____

#1	#2	#3	#4	
___	___	___	___	TREASURE Forest Landowner
___	___	___	___	Government Agency/TREASURE Forest Landowner
___	___	___	___	Landowner
___	___	___	___	Government Agency/Landowner
___	___	___	___	Government Agency
___	___	___	___	Private Forest Industry/Consultant
___	___	___	___	Other

I am attending the conference and enclosing:

\$75 pre-registration x _____ attendee(s) =\$ _____

NOTE: Registration includes lunch/tour and banquet on Thursday; indoor sessions and lunch on Friday.

CONFERENCE INFORMATION

- °Thursday, Oct. 28: Registration will begin at 9 a.m. in the lobby of the Four Points Sheraton.
- °Thursday, Oct. 28: Buses will depart for the lunch and tour at 10:30 a.m. from the parking lot of the Four Points Sheraton. **Please dress appropriately and wear comfortable shoes.** Buses will return to the hotel in time to change clothes for the banquet that evening.
- °Thursday, Oct. 28: Banquet begins at 6:45 p.m., followed by a dessert social to honor award winners.
- °Friday, Oct. 29: Indoor sessions begin at 8:00 a.m.; a separate agenda will list meeting rooms and session topics.
- °Friday, Oct. 29: Luncheon begins at 12:00 p.m.
- °Exhibit space is available. Contact ATFA 1-888-240-4694 or Romaleta James (205-926-7782).
- °Pre-registration fee for the conference per person if postmarked by October 14 is \$75.
- °Registration fee for the conference after October 14 is \$85.
- °No refunds will be made after October 22.
- °Mail upper portion of form and fee payable to Alabama Forestry Planning Committee to:
 Fran Whitaker, Alabama Forestry Association, 555 Alabama St., Montgomery, AL 36104
 Phone: 334-265-8733 Fax: 334-262-1258

HOTEL INFORMATION

- °Room rates: Four Points Sheraton \$79 Hampton Inn \$79 (after 9/27 \$105)
- °Please specify that you are attending the TREASURE Forest Conference when you make your reservations.
- °Blocks of rooms will be held until the cutoff date of September 27.

Four Points Sheraton, 320 Bryant Drive, Tuscaloosa, AL 35401, 1-800-477-BAMA
Hampton Inn - University, 600 Harper Lee Drive, Tuscaloosa, AL 35404, 205-553-9800

The Conservation Reserve Program

By *Madeline Hildreth*, Management Specialist, Alabama Forestry Commission

The Conservation Reserve Program (CRP) is an environmental improvement program administered by the USDA's Farm Service Agency. The program, which has its roots in the 1956 Soil Bank Act, has evolved over the years. The

Dust Bowl devastation in the Midwest in the 1930s focused attention on eroding cropland. The Soil Bank Act was an effort to prevent future devastation and brought about the planting of grasses or trees on many acres of marginal cropland.

The agricultural boom of the 1970s resulted in many fields and pastures being converted to cropland. Concern over damage caused by erosion and water quality degradation, coupled with falling agricultural prices, caused Congress to establish the Conservation Reserve Program in 1985. The program is voluntary, providing landowners an annual rental payment on highly erodible or environmentally sensitive cropland. Up to half the cost of establishing permanent cover (grass or trees) is also provided.

The Conservation Reserve Program has evolved from a soil erosion prevention program into one that protects the total environment, including water quality, wildlife, air quality, and other environmental benefits. Only the most environmentally sensitive land is accepted into the program.

Conservation Priority Areas

Conservation Priority Areas (CPAs) are regions targeted for CRP enrollment. There are only five national CPAs. Alabama, along with other southeastern states, is in the Longleaf Pine region. This program focuses on re-establishing the diminishing longleaf pine ecosystem. Because all environmental benefits are given consideration, emphasis is also given to wildlife practices. While converting marginal cropland to longleaf is the primary goal, wildlife habitat enhancement is addressed as well. Tree planting is done at fewer trees per acre and prescribed burning is encouraged, creating better wildlife habitat.

CRP Practices

If accepted into the program, the landowner follows a plan developed for the conversion of cropland to a less intensive use. The landowner receives annual rental payments, but must assist with the cost, establishment, and maintenance of the conservation practices.

The Conservation Reserve Program has sign-up periods for certain practices.



For some high priority conservation practices, there is no announced sign-up or waiting period. Eligible acreage can be accepted at any time for these continuous sign-up practices. The continuous sign-up accepts relatively small amounts of environmentally desirable land that serve much larger areas, such as filter strips, riparian buffers, and grass waterways.

There are specific sign-up periods for other practices. As with the continuous sign-up, eligibility must be determined before acreage is considered for the program. The environmental benefits for the land establish its ranking in comparison to other offers. Some practices are given priority. Each practice has various point values determining the intensity of the program. Of course, the higher point values, the greater the environmental impact and thus, a better chance of being accepted. For example, a CP3 (tree planting) in the 10-point category will allow trees to be planted at a higher density. The 50-point category requires trees planted at a lower density and openings.



Photo by Madeline Hildreth

Along with other southeastern states, Alabama is in the Longleaf Pine region, a Conservation Priority Area targeted for CRP enrollment. This program focuses on re-establishing the diminishing longleaf pine ecosystem.

The most common CRP practices approved in Alabama are listed in the table below. ☪

Source:

USDA Farm Service Agency, PA-1063, rev. June 1999.

CRP Practice	Purpose
CP1	Establish a permanent vegetative cover of introduced grasses and legumes.
CP3	Establish a stand of trees (usually slash or loblolly); wildlife openings are often required.
CP3A	Establish a stand of predominantly hardwood trees or establish a stand of longleaf pine trees.
CP4D	Establish a permanent wildlife habitat cover.
CP10	Re-enroll land that was previously enrolled in CP1; maintenance of the cover is required.
CP11	Re-enroll land that was previously enrolled in CP3 or CP3A; maintaining timber stand is required; thinning trees and/or establishing wildlife openings may be required.
CP12	Establish annual or perennial wildlife food plots. This is done in conjunction with one of the above practices.
CP21 (Continuous sign-up)	Establish and maintain filter strips, areas of grass, legumes, and other non-woody vegetation at the lower edge of a field or adjacent to bodies of water. Filter strips significantly reduce the amount of sediment and nutrients entering the water.
CP22 (Continuous sign-up)	Establish riparian buffers and areas of trees and/or shrubs next to ponds, lakes, and streams or wetlands. The buffers filter out pollutants, provide shade for fish, and also provide food and shelter for wildlife.
CP29 (Continuous sign-up)	Establish a wildlife habitat buffer adjacent to water by restoring the native plant community on marginal pastureland. The buffers will assist in stabilizing stream banks, reducing flood damage impact, reduce runoff, and restore and enhance wildlife habitat.
CP30 (Continuous sign-up)	Establish a wetland buffer on marginal pastureland. The buffer will enhance water quality, reduce nutrient and pollutant levels, and improve wildlife habitat.
CP31 (Continuous sign-up)	Establish bottomland timber on wetlands. The timber, primarily bottomland hardwood, will help restore flood plains on land located within the recognized 100-year flood plain for a river or stream with permanent flow.

Alabama Southern Pine Beetle Prevention Program

By Jim Hyland, Forest Health Specialist, Alabama Forestry Commission

After completing SPB Prevention guideline thinning, this plantation now has a low SPB Hazard rating.

The Southern Pine Beetle (SPB) is the number one killer of pines in Alabama. Unmanaged and overcrowded stands of loblolly and shortleaf pines are susceptible to attack. Epidemic populations of this bark beetle have occurred in eight of the last ten years in Alabama. Expanding populations, if not controlled, may devastate entire forests causing millions of dollars in damage. Technical assistance and financial incentives are now available under the Southern Pine Beetle Prevention and Restoration Project to help forest landowners in Alabama implement prevention practices.

Prevention through good forest management is the best approach for protecting your pine forests from bark beetle attacks. A professional forester can advise you about recommended practices to maintain healthy forests and reduce the susceptibility to bark beetles. Your forester can also determine if you qualify for financial assistance under this program.

Certain pine forests are more likely to suffer from SPB infestations than others.

The SPB most commonly infests stands that consist of:

- Loblolly or shortleaf pine older than 10 years of age
- Unmanaged natural stands or plantations that are over-crowded and slow growing
- Over-mature stands with declining radial growth
- Dense pine stands that are rated as medium to very high, using the Alabama SPB Hazard Rating system.

This project provides information on how to recognize high-hazard conditions and describes those forestry practices that qualify for federal cost-share assistance. In the short term, these incentives are designed to offset some of the costs private landowners must make to install prevention measures. The long-term goal is to reduce the susceptibility of Alabama forests to future SPB outbreaks.

How to Reduce SPB Hazard

Thinning of overly dense, slow-growing pine stands will stimulate growth and

vigor in young stands and reduce the SPB hazard. Private forest landowners are encouraged to work with an Alabama Forestry Commission forester or a consulting forester to determine if pine stands on your property have an SPB hazard score of 100 or more (very high, high, or medium). They can also develop a TREASURE Forest plan for your property. Any plan with pine stands must incorporate SPB hazard rating and stand management practices to protect the forests from future SPB outbreaks. Landowners should follow their TREASURE Forest plan in order to reduce the SPB hazard on their pine stands. In the case of bark beetles, good forest management is good pest management.

Purpose: To lower the Southern Pine Beetle hazard by improving tree vigor, growth, and stand quality. This is done by removing diseased trees, less desirable trees with poor form, forked trees, slow-growing trees, and other trees that compete with the best trees in the stand for sunlight, water, and nutrients. Trees that have less competition for water and nutri-

ents are healthier and have a lower SPB hazard risk

Commercial Thinning: There is a variety of thinning for commercial timber stands. A combination of row thinning and selective thinning is strongly recommended. This method removes every third, fourth, or fifth row entirely, plus selectively removes trees from between the unthinned rows. Removing rows creates corridors that make equipment use easier and helps minimize damage to the residual crop trees. Undesirable trees between the unthinned rows are then harvested. Another less desirable method includes simple row thinning, i.e. removal of entire rows with no thinning between rows. This method is simple, but offers no opportunity to favor good trees over bad trees and does not effectively create free-to-grow conditions for the trees that remain. Another method is selective thinning, i.e. selecting each individual tree for harvest with no row thinning. This method allows full control to free up the best trees in the stand, but equipment operation can be difficult in dense stands, and damage to leave trees can be significant. *For Commercial Thinning, the SPB hazard rating should be reduced to a score of below 100 with a minimum of 65 square feet of basal area per acre left after the commercial thinning is completed*

Pre-Commercial Thinning: Pre-commercial thinning is used to release overcrowded stands, which contain trees that are still too small to have any commercial value in order to prevent stagnation and increase growth on the remaining trees. Thinning can sometimes be delayed until the trees are large enough to make fence posts or pulpwood, if a market is available. However, the growth loss from delayed thinning will probably be greater than the income received for low-value products. Pre-commercial thinning, plus cull tree removal of large hardwoods can result in a significant investment return in dense, young pine stands. This type thinning produces no immediate income for the landowner, but the cost can be justi-

fied by the value of increased residual timber growth.

Unwanted trees can be removed with herbicides, mechanical equipment, or by cutting. Thinning can be done by hand, using chainsaws, brush-hooks, axes or mechanical equipment, such as heavy-duty bush-hogs, or other mechanical thinning systems. Row thinning removes all trees in strips six to eight feet wide, with six to eight-foot wide uncut strips between. Strips can run in one direction, or cross in a checkerboard fashion. *For Pre-commercial Thinning, approximately 300 trees per acre should be left after the thinning is completed (+/- 25%) based on 1/10th-acre check plots.*



Loblolly pine plantation with a very high SPB Hazard rating.

Photo by Jim Hyland

Annosus Root Rot (ARR) Treatment: When thinning on ARR High Hazard soils, Borax must be applied on all freshly cut pine stumps within 24 hours of cutting. Cover the freshly cut stump with about 1/8-inch Borax powder. The best method of application is to sprinkle the material "salt-shaker" style on the freshly cut stump surfaces. "Shaker-Top" applicators are available in most farm or garden type stores in one or two pound sizes. At the proper rate of application, one pound of product will adequately cover 50 square feet of stump surfaces (or approximately 260 six-inch stumps, 158 eight-inch stumps, 80 ten-inch stumps, or 60 twelve-inch stumps). Remember that this site will always be classified as High Hazard for ARR and any future partial cuttings will need to be treated with Borax after any harvest.

Borax Specifications: Borax (Sodium Tetraborate Decahydrate) is sold under several Names: Borax, Sporax (Wilbur-Ellis), Twenty Mule Team Borax, etc. It usually comes in 50 to 25-pound bags as a powder.

Conducting The Sale And Harvest:

It is strongly recommended that you use a Registered Consulting Forester to handle your thinning harvest operation. A consulting forester can inventory and mark the stand, contact and solicit bids from potential buyers, develop written harvest contracts that protect your personal interests, and oversee the thinning operation for satisfactory performance. Consulting forester fees are handled in different ways

such as a percentage of the timber sale income, flat per-acre fees for marking, or other arrangements suitable to both parties. Studies have shown that using a consulting forester often results in higher revenues to the landowner, even after consultant fees are paid from the sale proceeds.

If you choose to handle the sale yourself, consider hiring a consultant to mark the stand, solicit as many bids from potential buyers as possible, and **always** use a written contract. In the contract, be sure to stipulate the thinning requirements that must be followed, specifically those that relate to the residual SPB

hazard rating, Annosus Root Rot recommendations basal area, and number of trees per acre that must remain following the thinning.

Environmental Considerations: All practices performed must follow Alabama's Best Management Practices for Forestry and have no adverse effect on threatened or endangered species or their habitat.

2003-2004 SPB Prevention Project: Of the 404 landowners that applied for SPB Prevention, 198 landowners were funded. These approved practices totaled \$550,000. All approved practices were Pre-commercial Thinning for a total of 12,665 acres.

Parting Words: Southern Pine beetles **can be** prevented by the use of sound Forest Management practices. ♣

Sudden Oak Death

(Continued from page 7)

Courtesy of Plant Health Progress



Sudden Oak Death (P. ramorum canker) on coast live oak. Outer bark shows rust-colored seepage.

protocol is very detailed, here are a few key points.

Suspect positives detected outside regulated areas and more than 25 miles from a generally infested area will trigger state action and federal notification.

APHIS or state agencies will put a hold on further shipments/sales by issuing an "Emergency Rule - Stop Sales Order" until test results are completed. The Alabama Department of Agriculture and Industries issued an emergency rule on March 24, 2004.

A positive confirmed detection will trigger the collecting, DNA sampling, and destroying of all infected host-plant material. Eradication measures require the removal and destruction of all affected host material and all host plants in a surrounding buffer zone of 100 feet. In forest settings, stumps should be treated with a chorine bleach mixture. Monitoring will be conducted for three consecutive years.

In areas where the host range is unknown, a delimitation survey will be conducted. A quarter-mile buffer will be surveyed where host plants exist.

Equipment on site and within a quarter-mile buffer will be decontaminated prior to movement to other sites.

The lead state agency in Alabama in the handling of plants is the Alabama Department of Agriculture and Industries. The Division of Plant Industry is in charge of undertaking an intensive survey for SOD, which encompasses all nursery growers and nursery dealers within Alabama. There are 750 nursery growers and over 2,200 nursery dealers in the state.



To date, in Alabama, the Division of Plant Industry found three plants that were confirmed to be infected with SOD. These three confirmed plants and any host material within ten meters were doubled bagged and incinerated or carried to a Schedule D landfill and buried under the supervision of the Division of Plant Industry. Following the destruction of the plants, a sterilization of the area where the plants were located was conducted, including the interior and exterior of the nursery and the soil under which the plants had been harbored.

All 13 southern states are involved with delimiting surveys. The USDA Forest Service is working with APHIS and Alabama to conduct surveys of high-hazard forests near SOD-infected nurseries. They have allocated approximately

\$4 million to detect and control the pest. The Office of Management and Budget (OMB) has also approved \$15.5 million for APHIS. See the accompanying SOD risk hazard map that the Forest Service published.

The Southern Research Station and the Forest Health Section of the Forest Service are conducting the southern survey. Mississippi State University is under a contract with the Forest Service to survey forested areas adjacent to suspect nurseries and locations where infected plants were delivered in Alabama. The USDA Center for Plant Health Science and Technology and Mississippi Forestry Lab test DNA for positive samples. So far they have not found any further infestations of SOD.

The Alabama Department of Agriculture and Industries has taken a very aggressive approach to SOD, and with the support of the Alabama Nurserymen's commitment to excellence, it is safeguarding against infestation of SOD and other exotic pests.

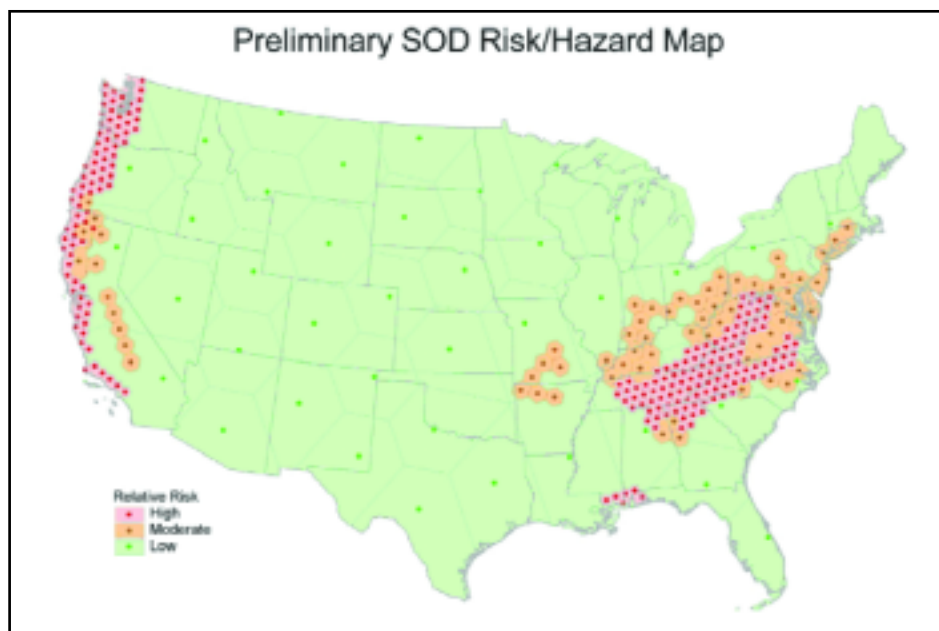
Next year, the plan is for the nurseries and the surrounding forests to again be surveyed. The Division of Plant Industry will handle the nurseries and the Forest Service will contract with either the Alabama Forestry Commission or Mississippi State University to handle the forest survey.

Additional information can be found on the following websites:

www.suddenoakdeath.org

www.aphis.usda.gov/ppq/ispm/sod

<http://www.na.fs.fed.us/spfo/fhm> 📄



Courtesy of Plant Health Progress

Legislative Profile

By *Coleen Vansant*, Information Manager, Alabama Forestry Commission



Thomas E. Jackson
Democrat
68th District
*(Choctaw, Clarke, Conecuh,
Marengo, and Monroe)*

Representative Thomas Jackson is currently serving his third term as representative of the state's 68th district. He lives in his hometown of Thomasville with his wife Dorothy. They have four children (Kimberly, Terence, Thomas III, and Trumaine) who, according to Jackson, are "grown but not gone." He also has one grandson, Elijah, who is three years old.

Following high school, he attended Selma University before receiving his B.S. in psychology from Knoxville College and his M.A. in Education and Counseling from Alabama State University.

Representative Jackson has worked for seven years as Director of the Upward Bound Program for Alabama Southern College. This program provides assistance to first generation low-income

students with the potential for going to college. Aside from his work, he serves as associate minister of the Church of God in Christ. Representative Jackson has been a lay speaker for approximately 18 years.

In the House of Representatives, Jackson is known as a strong supporter of forestry and the rural volunteer fire departments. He is Chair of the Agriculture, Forestry and Natural Resources Committee and Vice-Chair of the National Conference of State Legislatures for Forestry and Agriculture Committee. Jackson also serves on the House Health Committee.

The veteran statesman serves on the Board of Directors of Todd-Town Community Development Corporation, the Board of Directors for the Southwest Alabama Boys and Girls Club, and is Coordinator of the Thomasville Precinct of the Alabama Democratic Conference. He is a member of Kappa Alpha Psi, the National Black Caucus for State Legislators, both the Alabama and National Education Associations, and the Kiwanis Club. Representative Jackson has also served as past Vice-Chair of the Clarke County Democratic Conference, and as Past President of the Clarke County Education Association.

In 2003, the State Employees Association honored Representative Jackson with the "Legislator of the Year" Award. "Public service is honorable and I am proud to serve the people that live in my district. They have put their trust in me," he stated. "This job is one of fulfillment and I will continue to have an open mind in serving the people of this state and the people of District 68."

Jackson stated that one of the jobs he takes very seriously is making sure that volunteer fire departments are funded. Borrowing from the *Wide World of Sports*, he said that there was a "Thrill of Victory" this past legislative session

when the legislature was able to restore some of the funding to volunteer fire departments that had been taken out the previous year. Recently he assisted in identifying grant money from Homeland Security that would provide as much as \$75,000 to qualifying departments, "so that they can go out and protect and serve." He stressed the importance of volunteer fire departments in rural communities, adding that they "serve a very important role" in the structure of a small town. "They put their lives on the line out serving the public," he commended. "I am very proud of the work they do, not only in this area but across the state."

Jackson added a special "thanks" to the Alabama Forestry Commission for the efforts provided each year by its associates in the suppression of wildfire. He said he also appreciates the way the Commission assists landowners in managing their land, especially through the TREASURE Forest program. Jackson added that Alabama does not have wildfires like some other states because of good forest management.

Representative Jackson also commended the Alabama Forestry Commission for its other "fine work." He explained that the Commission always provides legislators important information "with clarity and understanding of what the situations are." He also praised the Commission's Outreach Program for minority landowners.

In concluding, Jackson said another "Thrill of Victory" was having a part in and working with the Agriculture and Forestry Program at Alabama A&M University (AAMU) in Huntsville, AL. He added that Alabama should be very proud of this program because it is the only certified forestry program in the United States that is located at a Historical Black College or University (HBCU.) ♣

**Visit the AFC website at
www.forestry.state.al.us**

Forest Land Enhancement Program

By *Walter E. Cartwright*
Forest Management Assistant Division Director,
Alabama Forestry Commission



Photo by Madeline Hildreth

The Forest Land Enhancement Program (FLEP) provides financial, technical, and educational assistance to non-industrial private landowners. Authorized under the Cooperative Forestry Assistance Act of 1978, as amended by the Farm Security and Rural Investment Act of 2002, FLEP was established to provide additional financial assistance through State Foresters to encourage the long-term sustainability of non-industrial private forestlands (NIPF). Through FLEP, the Secretary of Agriculture will achieve the federal objectives of this program: to invest practices that establish, restore, protect, manage, maintain, and enhance the health and productivity of the NIPF lands in the United States. Protected resources include timber, plant habitat, soil, water, air quality, wetlands, and riparian buffers (streamside management zones).

Alabama has the second largest commercial forest in the nation with three-fourths of the State (22 million acres) covered in forests. This natural resource, most of which is owned by private landowners (75%), is important to the people of Alabama, providing wood, products, jobs, recreation, and environmental benefits. Forests provide homes, food, and shelter for an abundance of plants and wildlife, including a variety of threatened and endangered species. They also provide filtering mechanisms for the purification and protection of Alabama's soil, air, and water resources. There is significant public interest in encouraging and promoting good stewardship of Alabama's natural resources, which are among the most diverse in the nation. Because private landowners play the pri-

mary role in maintaining and enhancing these forestlands, it is extremely important that these landowners are supported in carrying out proper land management in meeting their objectives.

Alabama has developed a State Priority Plan, which sets forth the administrative procedures that the Alabama Forestry Commission (AFC) will utilize to implement FLEP to promote well managed, sustainable forest management practices on non-industrial private forestland. The resource management technical assistance, education, and financial cost-share assistance provided under this program will complement existing state and federal programs currently providing assistance to NIPFs. The FLEP program may be used to augment the existing state cost-share program and would provide cost-share funds for multiple-use practices currently not funded or under-funded in the state program. Initially cost-share would not be a part of the program offered to landowners. However, needs for this assistance will be monitored and re-evaluated annually. The plan outlines program policies, priorities, and procedures necessary to accomplish the objectives. The State Forester and the Alabama State Stewardship Advisory Committee have developed this priority plan. The Alabama State Stewardship Advisory Committee set the following priority areas:

Technical Assistance

- Partner with other organizations/professionals to provide technical assis-

tance (consulting foresters, biologist, ecologists, and the cooperative extension service)

- Provide invasive plant control recommendations
- Provide multiple-use management recommendations
- Increase the number of resource professionals available to assist private landowners

Landowner Education

- Pine plantation management (existing and future) with emphasis on forest health, productivity, wildlife habitat, and biodiversity
- Education for resource professionals and landowners
- Establish demonstration sites
- Address the issue of pine plantation management in current markets
- Expand existing education programs (such as Forest Mentors and Forest Masters)
- CD ROM for landowners
- Provide multiple-use management education
- Provide wood products education for landowners

- Forestry tours, demonstrations, and publications
- Uses of biomass products as an energy source
- Economic opportunities available to landowners
- Specialized vendor lists

FY 2003 FLEP Grants

AFC Technical Assistance & Education Programs for Landowners —

Some of these funds will be used by the AFC to provide additional technical assistance and educational programs to landowners. This may include educational workshops and printed publications. The AFC will also assist other organizations and agencies to provide some of this assistance, while providing landowner tours (reported in number of attendees), and stand management recommendations (reported in acres) to landowners as a part of this component.

Forestry Consultant Assistance for Landowners — Under this agreement, Alabama Registered Foresters that attend two training workshops would provide technical and educational assistance to non-industrial private landowners. A Longleaf Pine Management Workshop will be held at the Solon Dixon Center in Andalusia and a Hardwood Management Workshop would be held in Selma to train Registered Foresters to provide landowners with a written management prescription for longleaf pine and hardwood management.

Develop a Resource Book, “Managing Sustainable Forests in Alabama” —

A book about forestry will be developed for landowners to serve as a reference book to help them better understand the advice they receive from foresters. It should supplement the work done by professional foresters and will not be intended to replace the involvement of a professional forester in managing private lands. These topics might include such things as: managing forests for game and non-game species; benefits of different types or harvesting and regeneration methods; the use and benefits of prescribed burning; economic considerations and many other topics.

Wildlife Biologist Assistance to Farm Forest Landowners — The Alabama Farmers Foundation will employ a wildlife biologist to provide forest landowners and farmers in Alabama with

much needed professional assistance in managing their wildlife resources and promote landowner stewardship. The biologist will work with farm-forest landowners to help them better understand how to improve economic returns through more intensive wildlife management. A 20-25 minute video will be produced that will outline wildlife management practices that farm-forest landowners can implement to increase wildlife populations in row crop and cattle production areas. A Microsoft PowerPoint presentation will also be developed for landowner wildlife education meetings.

Invasive Plant Species Council —

This funding will further provide forest landowners in Alabama with much needed professional assistance focused on identification and control of non-native invasive species that threaten Alabama’s natural heritage. Presentations and training workshops on non-native invasive species would be conducted to educate landowners and support statewide initiatives such as the Alabama Invasive Plant Council. Goals are to promote and encourage land management and restoration activities that will improve native biological integrity and water quality in Alabama’s rivers and streams. Information about various tools and mechanisms available to control and eliminate non-native species would be prepared and distributed to landowners.

Early Successional Habitat Management (training and publication materials) —

Throughout the Southeast, many wildlife species associated with early successional habitats have declined to historical lows. For example, in Alabama, bobwhite quail populations have declined at a rate of nine percent over the past decade. Although these declines have been attributed to a variety of factors such as coyotes, fire ants, and hawks, the primary cause has been the effects of landscape level deterioration of quail habitat associated with maximizing land use. Several training sessions, two days each, will be provided for Natural Resource Professionals with AFC, WFF, and NRCS and others to provide understanding of the range of wildlife species that benefit from early successional habitat, and discussion of management actions that increase early successional habitat. To familiarize landowners with these management prescriptions, a reference guide will be developed and printed.

The guide will contain wildlife species associated with early successional habitats and their life history, population trends based on breeding bird surveys, species distribution maps, and habitat management practices.

Providing Forest Management to Underserved Landowners —

Many minority landowners do not fully appreciate the benefits and opportunities of their forestland. They do not always see forestland as an investment or are not aware of how to manage their property for multiple use and benefits. Additional information and educational assistance would be provided to minority landowners through training workshops and technical assistance.

Management of Riparian Forests in Alabama (brochure) —

The AFC would enter into an agreement to produce a brochure presenting information relating to the management of riparian forests in Alabama. The brochure will show the different types of streams and riparian areas and the geographic extent of riparian forests in Alabama. It will present the valuable functions that riparian forests provide, such as improved water quality, floodwater storage, aquatic integrity, wildlife habitat, and aesthetics. Finally, the brochure will present the proper management recommendations for riparian forests, including identifying and maintaining streamside management zones, silvicultural practices, regeneration systems, and their implications regarding future land use trends. This brochure will be a handy guide for the landowner to use in managing their property. All practices funded would follow FLEP guidelines and specific funding amounts would be tracked and reported. Eligibility requirements, procedures, reporting, and recapture of payment will be the same as currently outlined in the existing program guide. Depending on the total allocation to the state, approximately 15% of the funds will be used for program administration. The administrative costs include program oversight, processing grant applications, issuing payments, and maintaining program records and documentation.

Legal Authority: (1) Farm Bill, Title VIII – Forestry, Subtitle A – Cooperative Forestry Assistance, Act of 1978, Sec. 4(b)(1).

(2) Identified as a top priority by the Alabama Stewardship Advisory Committee. ♻️

A Partnership for the Future:

The Alabama Forestry Commission and The Federation of Southern Cooperatives/ Land Assistance Fund

By *Deron Lacey*, Alabama Forestry Commission

Since 1996, the Alabama Forestry Commission (AFC) has worked closely with the Federation of Southern Cooperatives/Land Assistance Fund (Federation/LAF) Rural Research and Development Center in Epes, Alabama to deliver much needed technical information and services to Alabama's low-income landowners in rural communities.

Minority Outreach is a strategic goal of the Alabama Forestry Commission, and in the past few years it has been one of the most aggressive state forestry agencies in the south in identifying and providing technical assistance to minority and underserved landowners. Since 1967 the Federation has continued to educate and inform landowners in rural commu-

nities across the Southeastern United States. With a current membership including over 12,000 rural landowners, the Federation/LAF brings to the AFC opportunities to help landowners restore, manage, maintain and/or develop their forestland.

Education and Technical Assistance

One of the tools used in the AFC/Federation partnership to inform and educate landowners about available programs is seminars on proven forestland management techniques. Workshop topics during 2003 included permanent firebreaks, estate planning, and prescribed burning.

A permanent firebreak seminar was taught by Autauga AFC County Manager, John Pirtle. Information provided included: the merits of permanent firebreaks, firebreak construction, property access using permanent firebreaks, and a live demonstration of firebreak construction.

An estate planning seminar entitled "The Importance of Securing Your Estate for the Next Generation" covered heir property, allocating assets to heirs and potential consequences, current tax laws, and alternatives to estate planning. Michelle Cole of Diversified Forest Operations, LLC, and Miessha Thomas of the Federation/LAF were among the instructors who provided information and answered questions from concerned landowners.

During the Forestry Tour, the topics addressed were natural pine stand management, nature trail/pond management, silvopasturing with meat goats, reforestation and wildlife, and sustainable agriculture.

The Forestry Commission also hosted a week-long forestry camp in 2003 for ninth through twelfth graders across the state. The camp originated in 1997 and was designed for students interested in pursuing a career and/or education in the field of forestry. The camp featured visits to Gulf States Corporation's Westervelt Lodge and Sawmill, Moundville Archeological Park, and Charles A. Farquhar State Cattle Ranch. A College and Career night was held where college recruiters and industry professionals were on hand to discuss forestry and answer questions students had about different occupational and educational requirements. The AFC's outreach foresters directed the camp.



In 2003, ninth through twelfth grade students from across the state interested in pursuing a career and/or education in the field of forestry participated in a week-long forestry camp.

Transfer of Information for Success

The Federation assists landowners – who may know little about forestry and forest management – through the process of forest management practices before they acquire the technical support of a professional forester. This education allows them to be more able to set goals and manage their property to their personal satisfaction.

One of the areas the Federation/LAF has been involved in is landowner education in the area of silvopasture for goat production. This includes the feasibility of a marketing co-op for the sale of goats, appropriate goat-fencing techniques, and meat goat production. Managing for goats can provide several benefits including the control of many of the invasive and noxious weeds that grow in young timber stands and on idle land. Goats can be rented out for use on other fenced tracts or sold when they reach marketable age. Goat by-products such as chevron (goat meat) and manure also can be marketed, offering economically distressed landowners options they can begin to use immediately.

The Federation also assists landowners in the areas of property values, site-specific crop selection, wildlife management, goal setting and accomplishment, where to go for technical and financial assistance, and harvesting and marketing timber. The Federation has published several brochures on topics such as “What Every Landowner Should Know” and “Land Loss Prevention Training Manuals” which inform landowners of the legal rights and obligations involved in land management. They also have brochures available covering the following topics: Adverse Possession, Basic Information on Real Property, How to Find a Deed, How to Select a Lawyer, Mineral Rights, Tax Sales, and Wills and Estate Planning. Many problems landowners face stem from a lack of information regarding the possible opportunities available to them. The Federation/LAF’s expertise in working with landowners in the southeast is critical for the implementation of these forums and the dissemination of useful land management and general self-sufficiency information to individuals, families, and communities within Alabama.



AFC Outreach Forester Lakedra Byrd demonstrates paper making for students and teachers at the Ujima Math and Science Fair in Birmingham.

Reaching Out

In 2003, the Commission created and produced a publication totally dedicated to Minority Outreach. This 12-page full-color booklet gave a history of the working partnership between the Commission and the Federation, outlined the goals of the Minority Outreach Program, and featured minority landowner success stories.

State Forester Timothy C. Boyce continues to work closely with the Outreach Advisory Council he created in reaching landowners and identifying areas of both concern and success in the area of minority landowner outreach.

As the old saying goes, “a problem is only as great as its most simple solution.” Together with the Federation of Southern Cooperatives/Land Assistance Fund, the Alabama Forestry Commission is offering solutions which empower landowners in our state to be as good as they can be, today, and in the future.

For more information about the Alabama Forestry Commission, the Federation of Southern Cooperatives, their services or other topics, call Gus Townes, Alabama Forestry Commission, at (334) 240-9320; or Amadou Diop (AH-muh-doo DEE-opp), Federation of Southern Cooperatives, (205) 652-9676; or contact your county Alabama Forestry Commission office. ♣

Upcoming Tour

ALABAMA PROVISIONAL CHAPTER - THE AMERICAN CHESTNUT FOUNDATION

The Alabama Provisional Chapter of The American Chestnut Foundation is sponsoring a tour featuring the American chestnut experimental work of Dr. Jim Maddox. The tour will be held at the Tennessee Valley Authority (TVA) Research Farm on Second Street in Muscle Shoals, AL, from 1:00 – 3:00 pm on Saturday, September 25, 2004. This tour is free and open to the public.

Dr. Maddox is a plant physiologist and has worked for the TVA for 29 years. He began working on American chestnut silviculture about ten years ago and started a breeding program in 2003. Dr. Maddox has an agreement with The American Chestnut Foundation in which he has access to the Foundation’s genetic material.

For more information about the tour, contact Dr. Maddox at 256-386-3096; Les Tate at Lrtate@comcast.net, 256-764-5608; or Kathy Wallace at kwallace@fs.fed.us, 205-489-3712, ext. 133. ♣



Photo by Bruce Springer

Building Partnerships

By *Bob Bendick*,
Southeast Regional Director, The Nature Conservancy

Editor's Note: The following excerpts, from a presentation by Bob Bendick at the 2004 Southern Group of State Foresters' meeting, portray a sense of urgency and need for cooperation among all landowners, leaders, and landscape planners. How will the rapidly changing Southern landscape affect our future? How should leaders of the forestry community respond to these changes? These are important issues, and your input is critical. Even if you do not agree with Mr. Bendick's proposals, hopefully you will gain a better understanding of the issues at hand. How would you respond?

I am here today to explore with you the possibilities for non-profit conservation groups and other interests to work more closely with State Foresters to meet the almost unprecedented threats and challenges now facing the forests of the South.

I have great respect for State Foresters and for state forestry agencies and their staffs. Before coming to the Conservancy in Florida 8.5 years ago, I was a natural resource and environmental manager in state government for 18 years.

I am sure most of you have had some contact with The Nature Conservancy, but here's just a brief update as context for the rest of my talk. The Conservancy was founded more than 50 years ago to protect habitat for the diversity of plants and animals. I have heard a story recently that one of the key events that inspired the Conservancy's founders was the disappearance of the ivory-billed woodpecker here in the South as a result of the loss of too much of its primary habitat.

Today the Conservancy has chapters in 50 states and programs in 27 countries.

It is known for buying land to protect habitat either for our own preserves or in partnership with government. We also acquire conservation easements by donation and purchase. We have conserved millions of acres through acquisition in this country and many millions more around the world through a variety of techniques.

Managing our own lands (the largest system of private nature preserve on Earth) has given us both important on-the-ground, practical natural resource experience and deep roots in many com-

munities. In recent years we have grown from these roots to think much more about conserving not just pieces of land where rare species are located, but whole functioning landscapes including both land and water.

Landscape scale conservation requires significant long-term investment by us, and, by public and private landowners, and so to better direct where we invest our time and money, we have developed a conservation planning approach that uses what we call eco-regional planning to identify the most biologically important areas for conservation. We now work on marine and freshwater issues, on land management including fire and invasive species and pathogens, on landowner incentives, cooperative forest management, and in some places on land use planning.

The findings of the Southern Forest Resource Assessment, along with our own observations in the field, gave us a sense of a dramatic acceleration of change in southern forests. Working with other organizations like the Southern Environmental Law Center and Environmental Defense, we used this analysis to define what we thought were the most critical threats. [See sidebar.]

In response to these threats, we identified some overall forest conservation strategies that made sense to us in guiding our work:

- Planning by public agencies and private landowners to identify which forestlands are best suited for which purposes.
- Creating more and better funded incentives for management of private non-industrial lands including finding ways to compensate private landowners for the benefits to society their forestlands provide, such as carbon mitigation and watershed and habitat protection.
- Raising public conservation capital for acquisition in fee or easement of the forestlands most significant for outdoor recreation, biodiversity protection, and protection of water resources.
- Mobilizing private capital for the purchase of land for long-term forest management, often in conjunction with public conservation dollars.
- Using several approaches to addressing altered hydrology, particularly for bottomland sites.

- Creating more forest management partnerships and networks like the Gulf Coastal Plain Eco-system Partnership, which involves ten landowners in the Florida panhandle who together manage more than a million acres.
- Encouraging cooperative fire planning and management particularly to restore more natural fire regimes while at the

Threats to Our Forests

- Fragmentation of forests from the sale and subdivision of land, road building, and development. The widespread and rapid divestiture of large amounts of forestland by industrial forest landowners is accelerating this process.
- The conversion of forestland to urban land uses (estimated by the SFRA at a million acres a year)
- A lack of funding to support technical advice and other incentives to assist the private, non-industrial landowners who control the great majority of land in the South with planning and management
- Altered hydrology in bottomland hardwood systems
- Fire exclusion, particularly in long-leaf and oak/pine systems
- Inappropriate forest practices in some areas
- An increasing lack of contact with and understanding of forests by the people of the South
- The loss of forest industry to other places in the world
- Invasion of our region by new waves of exotic pathogens, pests, and plant species

same time reducing hazards to people and communities.

- Increasing public awareness of forest issues.

We then joined with other groups including Environmental Defense, the National Wildlife Federation, and the Southern Environmental Law Center to further discuss these strategies as a first step in engaging in discussions with

many more stakeholders. The National Wildlife Federation was important to help relate to the many hunting and fishing groups that have traditionally been so important to conservation in the South.

As in the case of so many things, we realized that implementing forest conservation strategies comes down to money. And since the state governments in the South don't have much money and non-profits have even less, we thought about Federal programs, and recognized what many others have said, that over the years the South has gotten shortchanged in federal funding for its forests with much more attention having gone to other parts of the country.

After discussion with people and groups who we felt might have other perceptions from ours — industry representatives, groups representing small landowners such as the American Forest Foundation; the USDA Forest Service; your chair, Bob Schowalter, and some other state foresters, we figured that the most useful thing to do was to look at federal programs already on the books, but that had no or insufficient funding, to see if we could work with many other partners to build a coalition in support of funding these programs in a way that would better protect the multiple values of Southern forests.

So I am here to talk to you, the leaders of forestry in the South, on behalf of our partner organizations, about seeking common ground with a broad range of interests in supporting expanded funding for several existing federal forestry programs that can help address the threats facing Southern forests in a rapidly changing world. I will detail those programs in a minute, but my experience suggests that building coalitions means first agreeing or, at least discussing, principles that can create the foundation for further progress. So here are the principles that I'd suggest underlay our proposals:

(1) Conservation groups recognize that we represent only some of many stakeholders; that we must find common ground with others if we are all to address the rapid change now facing the forests of the South. State forestry agencies play a central role in every aspect of forest conservation and management.

(2) We should have a broad, long term vision for the future of our forests and

(Continued on page 30)

Black Ducks

(Continued from page 15)

reaches of the flyway. The little ponds are precisely a mile and a half from nowhere and a few hundred yards beyond that. In other words, I like to think they are mine alone, a jeweled necklace of water, deep in a seamless tract of hardwood hills where sometimes the ducks come hard at angles down through a tangle of beech and ash at deceptive speed. Sometimes they hang suspended at gun range above bare and powerful oak arms that pierce a blue curtain of January sky. Sometimes they don't come at all.

Successful or not, I cannot remember "a good walk wasted" in Black Duck country. The solitude and quiet of the piedmont hills is broken only by the

reedy calls and chatter of heavy dark ducks at first light. Much later, the low rumble of GM&O freight moving somewhere in the distant Coosa Valley reminds me of the long haul out to Anderson Bluff. I retrace my steps and move around the blackberry and greenbrier thicket that I waded through in early black robed confusion. Last month's autumn color lays in heaps on the forest floor and sounds like piles of cornflakes assaulted by heavy boots. Chickadees, juncos, and flickers escort me upslope as a gray squirrel barks General Forrest's orders for me to press on. But I stop . . . a last drink of cold winter air.

Once more, the woods are still. ☪

References

*Clemson levelers and wood duck nest boxes can be obtained through the U.S. Fish and Wildlife Service program: **Partners in Wildlife**.*

*For more extensive information refer to: **Managing Wildlife**, Alabama Wildlife Federation, Greg and Deborah Yarrow, 1999, or **Managing Beaver to Benefit Waterfowl** 13.4.7, James Ringelman, Colorado Division of Wildlife, 1991.*

Building Partnerships

(Continued from page 29)

that vision should respect both their economic and their ecological viability.

(3) In the more than 200,000,000 acres of Southern forestland there is enough space to meet many objectives to protect multiple forest values. Intensive forestry, protected areas, and the diverse forest management approaches of non-industrial owners all have their places. There is no need to pit conservation against production forestry. Conserved areas function most effectively in a larger forested landscape. Keeping forests as forests should be our underlying and unifying goal.

(4) We should think long term — 50 years or more — if we are to protect the values of Southern forests.

(5) We should think about conservation strategies and incentives at a landscape scale if we expect forests to survive over that long term.

(6) We must respect the equity of landowners and the values of communities in developing improved forestry programs.

So with these threats, strategies, and principles in mind, our groups are respectfully proposing the following short-term agenda for action on several important federal forestry programs. As I noted earlier, we recognize that the state foresters and others are more important players than we are, but we hope to cre-

ate a coalition that is more effective than any of us working on our own.

•**The Forest Land Enhancement Program (FLEP)**, can be effective because it works through your agencies, is the only Farm Bill Program specifically directed toward the tens of millions of acres of privately owned forestland, and is desperately needed

to assist the growing number of non-industrial private landowners in managing their land for multiple purposes.

•**The Forest Stewardship Program** is critical to supporting sound forest management by the 5.5 million landowners who own 89 % of the forestland in the South. [We should

(Continued on page 31)



Photo by Bruce Springer

continue to promote funding for the Stewardship Program.]

- **Forest Legacy** is also a partnership with states in this case in acquiring easements or land outright. [Forest] Legacy is particularly important at this time when millions of acres are for sale in the South. Legacy easements can be used in tandem with private capital to support long-term forest management and maintaining working forests. The land sales now going on are an opportunity that will not come around again.
- The South is clearly facing a growing number of insect pests and pathogens like hemlock wooly adelgid, sudden oak death, and emerald ash borer. We urge funding of the **Forest Health Management** Budget of the Forest Service and implementation of more comprehensive long-term monitoring and management programs in partnerships with the states.
- **The Land and Water Conservation Fund** should receive some reasonable level of support to pay for additions and inholdings to National Forests and Wildlife Refuges. The vast majority of land in the South will always be in private hands, but the region faces growing recreational needs for its expanding urban populations and growing threats to its exceptional biodiversity. As in the case of Forest Legacy, we now have a once in a lifetime opportunity to acquire land long sought after to round out existing federal forest tracts.
- Bottomland hardwoods and other forested wetlands occupy less than 20% of their original range. The **Wetland Reserve Program** provides funding for the protection and restoration of bottomland hardwoods, farmed wetland, riparian corridors, and other wetland areas.
- **The Healthy Forest Restoration Act** passed earlier this year is designed to provide financial, technical, and education assistance for forestry practices to protect, manage, and restore water quality on non-federal forested and potentially forested lands. The Act [also] intended to support management agreements and the acquisition of easements to create partnerships between the NRCS [Natural

Resources Conservation Service] and private landowners to protect critical habitat for important and threatened species. This program is well suited for longleaf pine, and we suggest that the [amounts] authorized in the Act be appropriated to support several pilot projects.

- We support **National Fire Plan Implementation** with more attention to Southern forests.

Not part of this short-term agenda, but something requiring longer-term attention, is the need for incentives to retain forest-based industry in the South. As you know, without healthy wood markets, we will damage the ability of landowners to manage and retain their holdings over the long term and that will further accelerate the loss of forestland through fragmentation and development.

I fully realize that not everyone is likely to support each one of these proposals equally, and my conservation group colleagues and I recognize that some may think it presumptuous for us to even put forward this kind of agenda. But we do so with a sense of humility. We do so in the spirit of trying to create a constructive dialogue among groups that may not have talked together or worked together effectively before. We do so in the hope of finding common ground among those deeply interested in the future of Southern forests at a time when those forests face unprecedented and threaten-

ing change. We do so in the hope that such change also offers new opportunities for shaping the future and that by working together we can get the attention of Washington and our state capitals in a way that will make a lasting difference to our Southern forest heritage. ♣

For current information on the Southern Pine Beetle situation in Alabama, visit the Alabama Forestry Commission web page at: www.forestry.state.al.us

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Sweetleaf

Symplocos tinctoria

By Fred Nation, Educator, Baldwin County

Sweetleaf is a semi-evergreen shrub or small tree that occurs in the understory of mixed hardwood forests in the southeast, from Delaware, through northern Florida, to east Texas. In Alabama it can be found on moist wooded sites and along stream banks throughout the state. Another frequently heard common name is “horse-sugar,” a reference to the sweet-tasting leaves, which are eagerly browsed by whitetail deer, cattle, and horses.

The leaves are simple, alternate, somewhat leathery, to about six inches long, with pointed tips. Leaf margins are entire, or sometimes with a few small, blunt teeth. During the growing season the bright yellow midveins on fully developed leaves can be used as a field-mark to quickly distinguish sweetleaf from persimmon, hollies, and other species with similar leaves. The bark is thin, gray, initially smooth, eventually developing long, shallow, vertical splits on large stems.

Flowers, developing in the early spring before the new leaves emerge, are



small, slightly fragrant, creamy yellow, in dense showy clusters on twigs of the previous season. Fruits are oblong, green, one-seeded drupes, about one half inch long, becoming dry and dark brown or black when ripe. The flowers provide an early nectar source for butterflies, and the leaves are a larval host for the promethia moth, one of our largest and most spectacular moths.

The species technical name, *tinctoria*, from the Latin, means “used as a dye.” In colonial and early American times, the leaves and twigs of *Symplocos tinctoria* were boiled to obtain a beautiful yellowish-green fabric and yarn dye. This use explains another folk name, “dyebush,” which is sometimes seen in old references. The bark and bitter, aromatic root were sparingly used medicinally in colonial times as a tonic to reduce fevers.

The small habit, nearly evergreen foliage, shade tolerance, and handsome early spring flowers are desirable characteristics that would make our native sweetleaf a desirable ornamental landscape tree. Unfortunately, it is difficult to reliably propagate from stem cuttings or from seeds, and is very seldom seen in the nursery trade. The Alabama State Champion *Symplocos tinctoria* is 34 inches in circumference, 50 feet tall, with an average crownspread of 22 feet, found in Marion County. 🌳



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