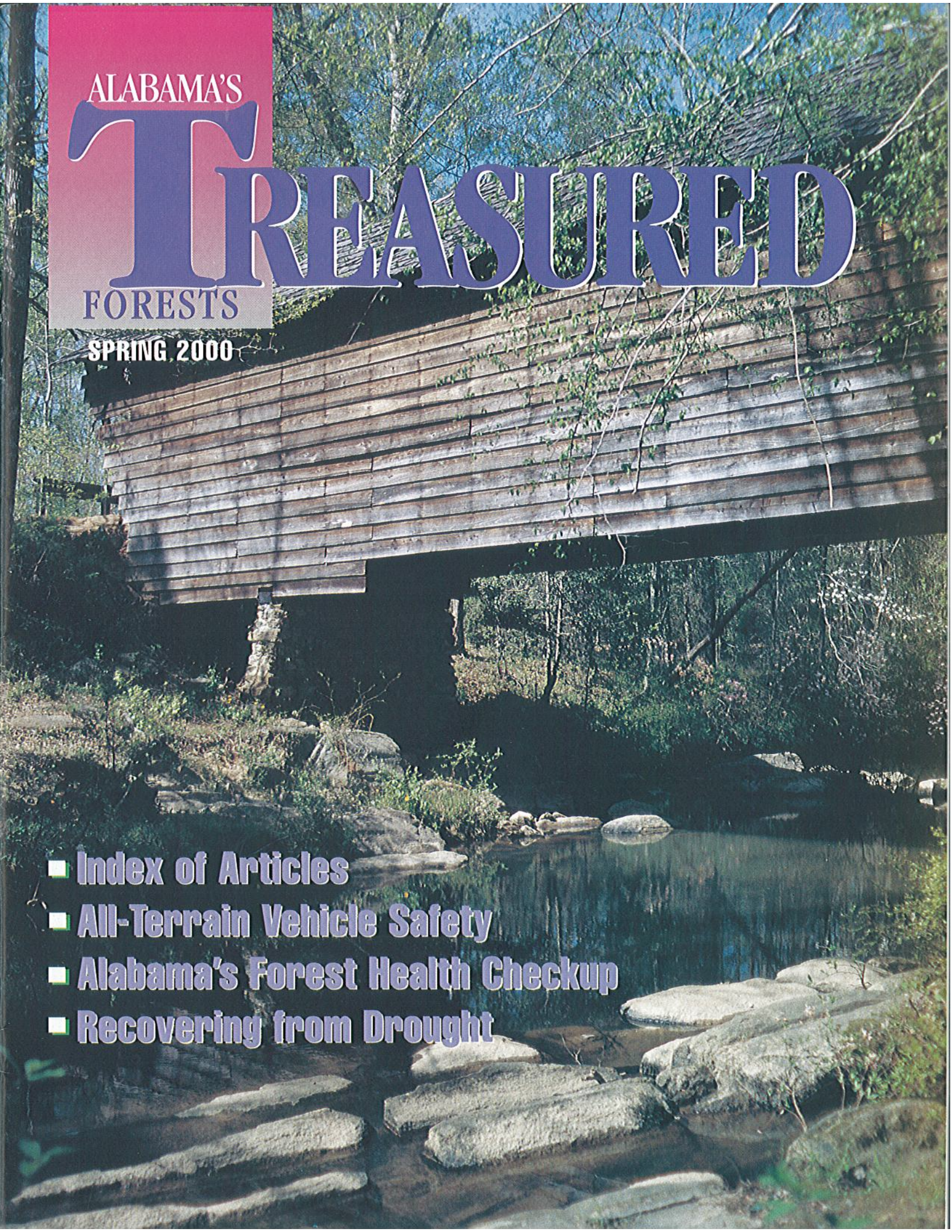


ALABAMA'S TREASURED FORESTS

SPRING 2000

- Index of Articles
- All-Terrain Vehicle Safety
- Alabama's Forest Health Checkup
- Recovering from Drought

DON SIEGELMAN
Governor, State of Alabama

TIMOTHY C. BOYCE

State Forester's Message

By TIMOTHY C. BOYCE
State Forester

I'D LIKE TO take this opportunity to let you know about an exciting multi-media educational campaign being launched called "Alabama Forests Forever." The Alabama Forests Forever Foundation is the chief sponsor. The foundation is comprised of the Alabama Forestry Association, the Alabama Forestry Commission and the Auburn University School of Forestry and Wildlife Sciences.

Campaign components will include television and radio spots, a promotional video that can be used at civic club and other types of meetings, outdoor billboards and a CD-ROM with an instructional guide. The components emphasize three aspects of Alabama's forests: environmental benefits, forest products and recreational opportunities.

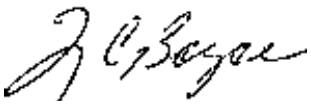
The primary teaching resource developed for the campaign is the interactive Alabama Forests Forever CD-ROM that explains the value of Alabama's forests and why it is important to take care of them. Students are able to tour a "virtual forest" where they can learn more about the animals that live in the forest. They can also play a game, "I Wood if I Could," in which they learn about many products that are made from trees. In addition, students will also learn about some of the techniques used by foresters and landowners to care for Alabama's forests. Although it is geared toward middle school students, all ages can learn something from the exercises contained on the CD-ROM. This CD-ROM offers both teachers and their students a fun, high-tech method to learn about our forests.

Along with members of the Forests Forever Foundation, the Alabama State Department of Education was instrumental in the development of the CD-ROM. The CD-ROM and instructional guide are available by calling the Alabama Forests Forever Foundation at 334-265-8733. The cost for both items is $18, which includes shipping.

You can learn more about the Alabama Forests Forever campaign by visiting its Web site: www.alaforestsforever.org.

I'm excited about this wonderful opportunity to inform the public about Alabama's greatest natural resource–our forests.

Sincerely,



TIMOTHY C. BOYCE
State Forester

ALABAMA'S TREASURED FORESTS

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COVER: Oakachoy covered bridge was built in 1916 to connect two county seats, Rockford in Coosa County and Dadeville in Tallapoosa County. It is located in southeast Coosa County near Equality. Photo by Kim Gilliland.

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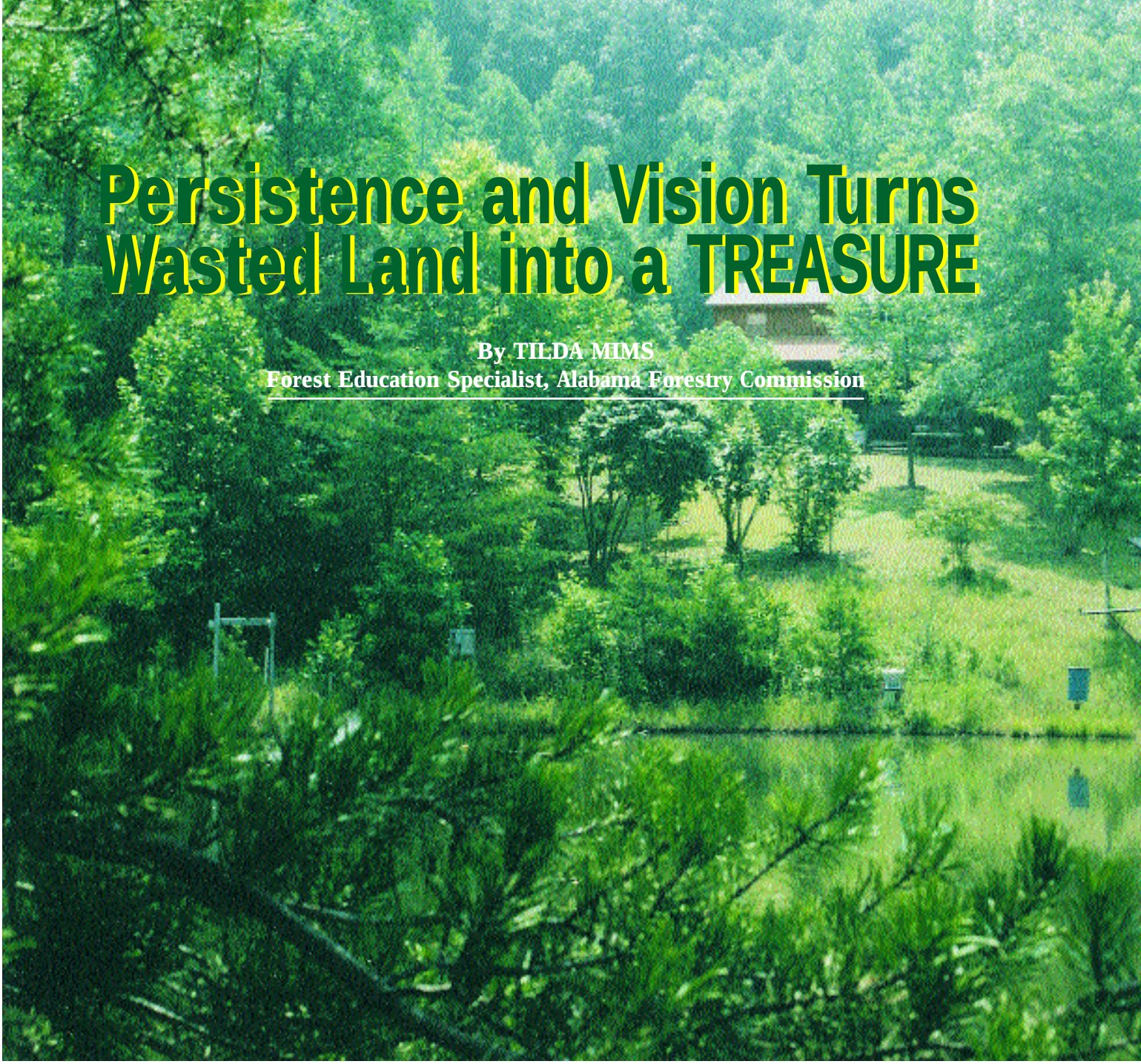
Persistence and Vision Turns Wasted Land into a TREASURE

By TILDA MIMS
Forest Education Specialist, Alabama Forestry Commission



Three ponds have been constructed on the property and are stocked with bass.

WHEN BOB MATHEWS began talking to his wife Leta about buying a tract of forestland in Colbert County, she was reluctant. "I was never against it, I just thought we couldn't afford it because we had only been here a short time. We had young children, had just bought a home and were in the process of setting up a medical practice."

She agreed to visit the property, however, and recalls the first time Bob took her out to see it. There was a huge mud puddle near the entrance, so large they couldn't get a pickup truck through it. They had to walk along rutted roads and across land thick with old logging debris.

The land had been idle since a timber harvest four years earlier, and the result was rough, raw land. Yet, she too was captivated by the promise it held. "Once he brought me to see it, I could see how beautiful it was and I wanted it too," she said.

The young couple's ability in 1976 to envision what the property could become with a lot of hard work resulted in one of Alabama's most impressive TREASURE Forests and the 1999 Helene Mosley Winner for the Northwest Region.

Getting Started

One of the first steps Bob made was to contact then county manager Tommy Patterson for assistance. They worked together to draw up a management plan with primary objectives of timber production and recreation, and secondary objectives of wildlife, erosion control and aesthetics. Tommy also helped them sign up for cost-share assistance through the WRAP program in 1977.

Bob and Leta Mathews enjoy a walk.

The Mathews transformed idle land into a picturesque, productive TREASURE Forest.

Indian blanket is one of the many kinds of wildflowers found on the property.

Mast-producing hardwoods provide food for wildlife.

In the fall of 1977, Bob signed up for FIP cost-share to establish a 73-acre pine plantation. After looking at another plan prepared by the Soil Conservation Service, he decided to scale back the pine plantation to 49 acres and devote the remaining 24 acres to wildlife food plots, green fields, a small pond and a fruit orchard.

They plowed firelanes around the 49 acres and used a prescribed burn to site prep the area before planting loblolly pine in the fall of 1977. A severe winter storm in early 1978 killed more than 80

percent of the seedlings. Undaunted, he applied for additional cost-share and replanted in 1979.

Some years later, Virginia pines and scrub oaks in another area were cleared with a shear blade and replanted in pine. Unfortunately, another a severe ice storm in the mid 1990s crashed it all to the ground. Bob recalls they had more than 90 trees on the roads that had to be cleared and 60 loads of debris to be hauled off. So, again, they cut, burned and replanted.

Becoming a TREASURE Forest

"I saw an article in the local paper about TREASURE Forest and got in touch with the local Forestry Commission office," Bob said. "They helped me get started in the program and I was certified in 1979." The Mathews were pioneers in the program with TREASURE Forest #72.

They took the initial 232 acres of cutover land and converted it into productive woodland managed for timber production, recreation, wildlife and aesthetics, while keeping most of it as natural as possible.

Today the tract is 412 acres and all areas are well stocked with a diversity of irregularly shaped stands of loblolly pine, bottomland hardwood and an upland hardwood/pine mix. Hardwood tracts are scheduled for harvest to provide different age classes of timber. Den trees and selected mast-producing trees are excluded from cutting.

The rutted log road impassable in 1976 is now part of an excellent road system. Early on they spent about $5,000 to $7,000 annually on nothing but gravel and regrading of roads throughout the tract. Today a network of wood roads in chert or gravel, and culverts and water turnouts–critical on steep terrain–have been added.

The scenic, winding driveway to the cabin is almost a mile long. When they first bought the property, it initially took 52 loads of gravel just to get it into shape. Now they have paved the drive and riprapped the ditches. They are adding another chert road so they can travel the whole place without unlocking a gate.

Wildlife Habitat Enhancement

The North Alabama terrain is hilly but that has not impeded the Mathews' efforts to provide substantial wildlife habitat enhancement. "We have green plots, food plots, autumn olive and other berry-producing trees for quail, turkey and other species," Bob notes. "We've seen deer, bobcat, rabbits, doves and songbirds. Also, big black cats. This isn't hearsay, we've really seen big cats."

In addition to mast-producing hardwoods, Bob and Leta have developed a fruit orchard with apple, peach, pear, persimmon, pecan, hazelnuts, walnuts and filbert trees. Plots of bicolor lespedeza and sawtooth oak have also been planted, and firebreaks are planted in wildlife foods.

They also cleaned up an old farm site and set aside 15 acres to plant in trees not indigenous to Alabama or that are no longer common here. There are chinquapins, different types of hickories and a monkey puzzle tree from Chile as well as others. A small grove of beech trees along Cane Creek is also preserved. Three ponds have been constructed around the property and are stocked with Florida bass. Solar feeders keep them fed and provide great entertainment for guests.

The welcome you receive as a guest of Bob and Leta Mathews is genuine. They like to bring children who have never really been in the woods to see their first wild animals or catch their first fish. Leta says one of their favorite things to do is invite young children out and tell them they are going to turn out all the lights for a little while. The children are always amazed at how dark it is and how bright the moon and stars are.

Getting Assistance

Bob and Leta do the major portion of the work on their property. Two of Bob's friends enjoy working around the place and neighbors that have lived on the mountain for years help, too. "For big projects, I call on the Forestry Commission," said Bob. "If I were going to give a forest landowner one piece of advice, it would be to contact the Forestry Commission. They've been very helpful over the years. Wayne Winsted, Johnnie Everitt and others have really helped me. Also, you need to read a lot and learn about forest management for yourself."

Future Plans

The family is developing an extensive walking trail with tree identification signs behind the lake and up toward the bluff. They are also continuing all projects for planting, fencing, lake management and maintenance of existing stands.

Bob and Leta are very fortunate to have children that enjoy the land as much as they do. Although both children are very busy with school and careers, they love to visit the property when their schedules allow.

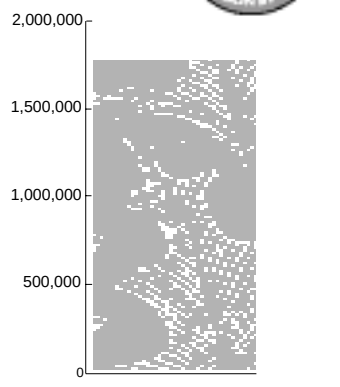
Their son, David, recently graduated from the University of North Alabama with studies in history and economics. Brian graduated from the University of South Alabama Medical School in May and is beginning a residency in internal medicine. His wife Scarlet is a physical therapist.

"Our sons have the same commitment we do," Bob says. "We feel they will want to hold on to this property and continue as TREASURE Forest landowners. There will be definitely be two generations, and hopefully beyond that."

The promise of productive, scenic forestland has been fulfilled on Hawk Pride Mountain under the careful hands of Bob and Leta Mathews. The hard-scrabble land they bought in 1976 has bloomed into a picturesque gem of healthy, productive forestland filled with the sights and sounds of the best Alabama forests have to offer.

U P D A T E

The TREASURE Forest Program has set a goal of having 2 million acres in the program by the end of the year 2000. The chart below shows the number of acres currently enrolled in the program.



Q&A About TREASURE Forest

By TIM ALBRITTON,
Forest Operations Specialist, Alabama Forestry Commission and
PAT BUTLER, Alabama TREASURE Forest Association

QUESTION: My family and I have owned a certified TREASURE Forest for many years. However, over the years our primary and secondary objectives have changed. How can we change our primary and secondary objectives on our TREASURE Forest management plan and still have them acceptable with the state TREASURE Forest committee? What is involved?

ANSWER: The primary and secondary objectives can be changed at any time. The landowner must still select one of the five objectives: Timber, Wildlife, Recreation, Environmental Education and Aesthetics. The easiest way to make this change is during the reinspection process. A TREASURE Forest is reinspected every five years. This would give both the inspecting forester and the wildlife biologist an opportunity to discuss the changes with the landowner and possibly make some recommendations.

QUESTION: How much of my management plan has to be accomplished before I can be nominated and approved as a certified TREASURE Forest by the state committee?

ANSWER: To quality for TREASURE Forest certification, a landowner must have one primary objective and at least one secondary objective. With the landowner's objectives known, the natural resource professional can refer to the appropriate minimum standards and basic guidelines. Though a landowner may do much more than the criteria listed, certification will be determined upon these minimum standards. In addition, a special category called "non-objective accomplishments" is listed. Regardless of a landowner's objectives, these criteria must be met for certification. For a detailed copy of these guidelines, request the brochure entitled "TREASURE Forest: Program Information and Basic Guidelines" from your local Alabama Forestry Commission office.

QUESTION: How long does it normally take to go through the TREASURE Forest certification process–from the time you inform your county Alabama Forestry Commission personnel that you want to have your land in the TREASURE Forest program until you are actually certified?

ANSWER: The length of time to become a certified TREASURE Forest can vary depending on the landowner and the amount of time it takes to set in place the accomplishments for his property. The certification process has several steps that must be followed. These steps can take from three to six months to complete. The TREASURE Forest Subcommittee meets once a quarter to review the TREASURE Forest nominations that have been submitted from the four regions of Alabama.

QUESTION: How long does it normally take to get a management plan completed?

ANSWER: The workload from county to county can vary, and many times county personnel will be working on one or more management plans at the same time. A landowner requesting a plan may have to be put on a waiting list for assistance. Depending on the size of the property and the landowner's diversity and objectives, a plan can be worked out in as little time as a week or two, or as long as a couple of months, once the process for writing the management plan has begun.

QUESTION: If I am a certified TREASURE Forest landowner, am I automatically a member of the Alabama TREASURE Forest Association (ATFA)?

ANSWER: No. The ATFA is a nonprofit organization that you may voluntarily join whether you are a certified TREASURE Forest landowner or not. All new TREASURE Forest landowners will receive an invitation to join the organization. The TREASURE Forest Subcommittee sends a list of all new TREASURE Forest landowners to the ATFA upon certification vote. The ATFA, in turn, sends a letter of congratulations to the newly certified TREASURE Forest landowners with an invitation for them to join the ATFA.

6 Steps to Success

Anyone owning 10 or more acres of forestland can be considered for the certified TREASURE Forest award. To be eligible, a landowner must do the following with respect to all their forestland in Alabama:

1. Identify one primary and at least one secondary management objective for the property based on the following list of choices: Timber Production; Wildlife; Recreation; Aesthetics; Environmental Education.

2. Possess or acquire a written multiple-use management plan for the property. Your local Alabama Forestry Commission office can help you identify options for obtaining a written management plan if one does not exist.

3. Actively practice multiple-use management on the property. Your local office of the Alabama Forestry Commission can supply you with information on the level of management activity necessary.

Once these items are in place, the following must occur to earn the award:

4. The property must be nominated by someone associated with one of the member agencies or groups of the Alabama Forestry Planning Committee. You may contact them and suggest a nomination if you feel your property or that of someone you know qualifies for the award.

5. The property must be inspected by a registered forester and wildlife biologist. Your local Alabama Forestry Commission office will arrange the inspection.

6. The nomination and inspection report must be submitted to the TREASURE Forest Subcommittee of the Alabama Forestry Planning Committee for review and approval.

7. If you would like to be considered for the certified TREASURE Forest award, or know of someone else who may qualify, contact your local office of the Alabama Forestry Commission or other member agency/group of the Alabama Forestry Planning Committee. These organizations are listed on page 2 of this magazine. They will be happy to assist you with the certification process.

Alabama s Forest Health Checkup

By JIM HYLAND

Forest Health Specialist, Alabama Forestry Commission

FORESTS dominate the landscape of Alabama. Sixty-eight percent of the land is forested—some 21.9 million acres. These forested acres are diverse—hardwood forests presently count for the largest share of Alabama's timberland base, 45.7 percent. Only 16 percent of Alabama's forest is planted pine. These forestlands are owned by over 214,000 individual private landowners. These forested acres are important to the citizens of the state because they provide clean air and water, wildlife habitats, recreational opportunities, and wood for lumber, pulp, and fuel. Forest industry accounts for 67,000 jobs in Alabama.

Forest Health Monitoring

Because forests are critical for both economic and social benefits in Alabama, the health of the forests is important. In 1991 the state of Alabama joined the national Forest Health Monitoring program. Forest Health Monitoring is designed to annually collect, analyze, interpret, and report on the condition of all forests in the United States. The basis for Forest Health Monitoring is a set of detection plots distributed on a systematic grid across the entire state. These plots are visited annually and sets of core measurements are taken.

Measurements on the Forest Health Monitoring detection plots include many major groups or indicators. These indicators are mensuration (including tree growth, mortality, and regeneration); tree crown conditions; tree damage symptoms; ozone; soil characteristics and chemistry; and lichen communities and populations, which are useful in characterizing air pollution exposure.

Mensuration provides a record of stand dynamics: growth, mortality, and regeneration. Mensuration is also used to quantify each site in terms of stand variables, such as forest types, stand age, size class, stand density, and disturbance history. Finally, mensuration provides the basic framework for all other indicators, a description of each detection plot, and it ties the FHM plots to the larger set in Forest Inventory and Analysis (FIA) plots.

Tree crown condition rating quantifies tree vigor by assessing the visible conditions of each tree–amount of crown dieback, foliage condition, or transparency, and crown density. Tree damage symptom assessments provide a record of visible damage that may affect the ability of a tree to survive.

Additionally, tree damage symptoms can be used in many cases to determine the presence of certain insects and diseases on a plot.

Ozone is an air pollutant found in the lower atmosphere formed from gases released from automobile engines and various industrial processes. Plants that are sensitive to ozone (evidenced by visible injury) are referred to as bioindicators. Ozone bioindicator plants are evaluated on or near the detection plot for the presence of ozone injury symptoms. Plants that have shown to be sensitive to ozone are blackberry, black cherry, yellow poplar, sassafras, and sweetgum. The purpose of the lichen community indicator is to use lichen species and communities as biomonitors of change in air quality, climate change and/or change in the structure of the forest community. Lichen communities are excellent indicators of air quality, partially long-term averages of sulfur dioxide concentrations.

Results and Conclusions Thus Far

The overall health of the forests of Alabama is good. In spite of the relative good health of the forests, a variety of insects and diseases and human-caused impacts continue to threaten the state's resource. The following is a list of some of those health indicators and their impact, both good and bad:

- The stand density has increased and the mean diameter of all trees also has increased. This shows the trees are growing—a healthy sign, but also the increased density of pine will increase the hazard to Southern pine beetle.
- The average number of snags per acre increased, which could provide for increased wildlife habitat.
- In general, crown densities are high. A high crown density equates to a greater amount of foliage that is pre sent for photosynthesis. An exception to this was Virginia and shortleaf pines, which had lower crown densi ties, and this lessening of "vigor" may have shown up as increased attack by the Southern pine beetle.
- Hardwoods had more recordable dam age than softwoods, with indicators of decay the most commonly recorded damage to hardwoods. The most com mon damages in loblolly pine were cankers and galls (fusiform rust).
- Ozone levels on the FHM plots were

nonexistent. There were, however, some levels detected on USFS ozone plots on National Forests. Ozone damage is not a problem in the forests of Alabama.

- Southern pine beetle continues to be the major problem for Alabama pines. In 1999 there were 56 counties with SPB infestations and 41 of those counties were epidemic. Statewide there were over 5,000 individual infested spots causing over $25 million in mortality.
- Dogwood anthracnose disease has killed the majority of the dogwoods in the forests located in elevations above 800 feet.
- Acid rain has not been found to be a problem in Alabama.
- The average acres burned and average size of fires continues to be reduced annually.

Summary

Forests are made up of stands of trees, whether pines or hardwoods. Although the forests as a whole are healthy, some stands within these forests are not healthy. As a rule, managed stands are healthy and unmanaged stands are not.

Unmanaged stands are those that the landowner harvests and regenerates naturally, letting trees come back that will sprout or seed in by themselves, or artificially, by planting seedlings in rows. Either way, nothing further is done until 25 to 30 years later when the stand is cut. These stands are rated "high hazard" for fire, Southern pine beetle, annosus root rot, fusiform rust, etc. The vast majority of mortality that occurs in the overall forests of Alabama is usually associated with these unmanaged stands.

Managed stands are those where the landowner has a written management plan on property that is harvested and regenerated by either natural or artificial means. But, unlike unmanaged stands, the owners install integrated pest management techniques. Hazard ratings are made on each stand and incorporated into the written plans. And as the rating of a stand begins to climb toward high classes, prevention techniques such as the following are taken:

- Firebreaks are made to prevent fires.
- Roads are planned in advance and kept open and grassed to allow access.
- When the fuel builds up, prescribed fire is used to reduce the fire hazard and at the same time increase wildlife habitat and food supply.
- When pine stands begin to close in on themselves and the Southern pine beetle hazard increases, the stands are thinned to reduce the beetle hazard.
- During thinning, the pines with fusiform rust are cut to reduce future infection.
- On sandy soils, annosus root rot prevention is used to save the remaining trees from infection.

When these managed stands of trees are combined into forests, that is when a landowner has a truly healthy forest. This comes about by planning, writing a forest management plan that speaks to not only the timber resource but to all the other resources—wildlife, water, air, aesthetics, soil, etc. The goal of most managed forests is to leave the land in better shape than it was found so future generations will be able to enjoy it.

In summary, the forests of Alabama are healthy and an early warning system is in place that will allow forest landowners to be proactive in keeping a world class forest resource.

What is a Natural Heritage Program?

By JAREL HILTON
Director, Alabama Natural Heritage Program℠

NATURAL HERITAGE PROGRAMS are unique public-private partnerships dedicated to gathering and maintaining the best scientific information on biological diversity to help guide conservation decisions. Natural Heritage Programs were conceived by The Nature Conservancy to meet the organization's need for sound science information as well as to help guide the broader and growing public constituency interested in conserving biological diversity. In 1974 the South Carolina Department of Wildlife and Marine Resources and The Nature Conservancy launched the first Natural Heritage Program. Since 1974, there are now over 85 programs, called Natural Heritage Programs domestically and Conservation Data Centers internationally. These programs make up the Heritage Network and include 50 U.S. states and the District of Columbia, five Canadian provinces, 12 countries of Latin America and the Caribbean, and a host of other programs situated in federal agencies.

How Natural Heritage Programs Work

Natural Heritage Programs use a standardized information management system to track important biological data including taxonomy, distribution, population trends, habitat requirements, relative abundance, quality, condition, and viability. Critical non-biological information is also tracked such as land ownership type, land use and management, distribution of protected areas, and threats to species or their habitat. The information management system has three major components: structured paper files, geographic files (maps and geographical information systems), and a computerized database that integrates the biological and non-biological information.

Natural Heritage Programs have three broad functions: (1) to collect information on the status and distribution of species and natural communities from as many sources as possible (museums, experts, field inventories, published and unpublished literature); (2) to manage this information in a standard way; and (3) to disseminate this information to a wide array of users. Typical program staff may include a director, zoologist, botanist, ecologist, science information manager, and a GIS technician.

The Biological and Conservation Data (BCD) System is computer software designed specifically for use by Natural Heritage Programs and Conservation Data Centers. Developed by The Nature Conservancy over 25 years of testing and refinement, BCD is a fully relational database management system containing 36 files and more than 2,000 fields for linking essential information. Use of standard methods and software allows exchange of information among programs and the aggregation and analysis of data across administrative and geopolitical boundaries. This means that an occurrence for a red-cockaded woodpecker in Georgia is documented in the same way as an occurrence for one in Alabama, which allows us to compare populations across the species' ecological range. We can then target the healthiest and most viable occurrences for conservation action so that limited dollars are spent in the best way possible.

The Nature Conservancy and the Natural Heritage Network are currently pooling information on conservation targets like the red-cockaded woodpecker across defined ecological regions. Alabama shares a portion of five of the 64 ecological regions identified by The Nature Conservancy for the United States. A plan for each region is being designed to conserve the characteristic biodiversity of that region through an identified set of conservation sites. The end result will be a blueprint for conservation for our entire country.

Status of the Natural Heritage Network

Today, the majority of Natural Heritage Programs reside as part of their state government's Department of Natural Resources, but some programs exist in universities, state parks, state fish and wildlife departments, and a few are still maintained by The Nature Conservancy. The Nature Conservancy plays a critical role in this public-private partnership through establishment, development, and ongoing support of the Natural Heritage Network. The Nature Conservancy maintains the central databases, regular computerized data-exchanges, training and technical support in standard methodology, database management, GIS and related technologies, national vegetation classification, and program administration. Continued development and documentation of standard methods including software applications is a key role for The Nature Conservancy that helps keep the Network at the forefront of biodiversity information technology.

The Natural Heritage Network has become well established and responsibilities for its maintenance are great. Coordinating the many public-private partnerships and focusing on the mission to supply and disseminate the best information on the world's biological diversity has become overly burdensome for The Nature Conservancy in addition to its mission to conserve and protect the land and waters necessary for the diversity of life on earth. The Association for Biodiversity Information (ABI) is an international conservation organization that formed to focus on the unification, support, and representation of the Natural Heritage Network in the mission of collecting, interpreting, and disseminating ecological information critical to the conservation of the world's biological diversity. The Nature Conservancy and ABI have agreed to work together to create a new non-profit organization whose goal is to become the authoritative source of information on the conservation of elements of biodiversity. The Nature Conservancy is providing funding, expertise, and biodiversity information to help

Continued on page 13

All-Terrain Vehicle Safety

By DAVID E. BAKER and **RUSTY LEE**
Department of Agricultural Engineering, University of Missouri-Columbia

SINCE THEIR introduction, the use of all-terrain vehicles (ATVs) has increased dramatically each year. In addition to widespread recreational use, the agricultural sector has realized the value of the ATV as a workhorse. Unfortunately, fatalities and injuries involving ATVs are occurring at an alarming rate. Knowing and following a few steps for safe ATV use could have prevented many of these needless accidents.

Protective Gear

The nature of ATV riding demands that you wear protective clothing. Knowing what to wear and how to wear it can reduce the chance of an injury and make you more comfortable when you ride.The following protective gear should be worn every time you ride an ATV:

- **Helmet**–your helmet is the most important piece of protective gear for safe riding. A helmet can help prevent a serious head injury. Selecting the right helmet is important and easy if a few basic tips are kept in mind. Select a helmet that bears the label of the Department of Transportation, the American National Standards Institute or the Snell Memorial Foundation. The helmet should fit snugly and be securely fastened. Full-face helmets protect your face as well as your head. Open-face types are lighter and cooler, but should be used with a chin guard that will offer chin and mouth protection.
- **Eye protection**–eye protection is a must. If an object hits you in the face, such as a rock, branch or even a bug, it will distract you and may cause blindness if it hits you in the eyes. Regular sunglasses do not provide adequate protection. The helmet's face shield or a pair of riding goggles will protect your eyes properly. Select well-ventilated goggles that can be securely fastened and are free from scratches.
- **Gloves**–gloves provide protection from abrasions and help to keep your hands from getting sore, tired or cold. Off-road style motorcycle gloves provide a good combination of protection and comfort.
- **Boots**–at a minimum, riders should wear a pair of boots that lace above the ankle for ankle support, with low heels to help prevent the boot from slipping off the footrests.
- **Shirt and pants**–at a minimum, a long-sleeved shirt and long pants should be worn to reduce abrasions on the body.

Pre-ride Inspection

Inspecting the mechanical condition of your ATV before each day's use is important for minimizing the chances of injury or becoming stranded. The fact that you can ride farther in an hour than you can walk in a day emphasizes the need to maintain your ATV in peak operational form. The owner's manual should be used to ensure proper understanding of all critical points on your machine.

Check the following components before using your ATV:

- **Tires**–always maintain the recommended tire pressure consistently in each tire. If the tires on your ATV have unequal pressure, the ATV will pull toward the tire with the least air pressure gauges will not accurately mea-sure the low pressure typically used in ATV tires. A gauge designed for low pressure should be used. Wheel lug nuts should be checked to make sure they are tight. Grasp each tire at the front and rear, and then try to rock the tire on its axle to check for worn-out axle bearings and loose nuts. Always use a torque wrench while following the tightening procedures and specifications for all fasteners outlined in your operator's manual.
- **Throttle**–Check throttle operation while moving the handle bars fully to the left and then fully to the right. An accumulation of mud and dirt can restrict cable movement and prevent the throttle from closing.
- **Brakes**–Your brakes are a crucial part of riding and they must always be in top condition. Make sure they work smoothly and that they are in adjustment according to the instructions in the owner's manual.
- **Light and switches**–Be sure all lights are working. Check engine stop switches by switching them off and on during the warm-up period.
- **Oil and fuel**–Check the oil and fuel with the engine off. Look for fuel or oil leaks.
- **Drivetrain and chassis**–Inspect your chain for proper adjust ment, adequate lubrication and signs of wear. If your ATV is equipped with a drive shaft rather than a chain, check for oil leaks and maintain its oil supply as outlined in your owner's manual. Rough terrain will loosen chassis parts. Look and feel for loose parts while the engine is off. Shake handlebars, footrests and other similar components before each ride, and periodically check major fasteners with a wrench. The operator's manual should be read and under stood before attempting to operate your ATV. It will contain specifications and procedures that apply directly to your model and should be considered as the final authority for safe operation of your ATV. Such information may include tire inflation pressures, torque specifications for fasteners, oil types and service intervals, battery maintenance, or brake adjustment and service.

Operating Your ATV

Turns–most ATVs have solid rear axles, which turn each of the rear wheels at the same speed. This requires special turn ing skills, which primarily involve shifting your body weight. Low-speed turns require that you shift your body weight for ward and to the outside of the turn as you turn the handlebar. The objective is to reduce weight on the inside rear wheel. For

turns at higher speeds, you must lean your upper body toward the inside of the turn while keeping your weight on the outer footrest. This balances the higher cornering forces as vehicle speed increases. If your ATV starts tipping during a turn at any speed, lean your upper body farther into the turn while gradually reducing the throttle and making the turn wider.

Braking–Begin the braking process by releasing the throttle and shifting to a lower gear well in advance of the intended stopping point. With this method, the engine helps to slow your ATV. Applying brakes smoothly and evenly will bring your ATV to its quickest stop. Apply brakes lightly on slippery surfaces. When descending a hill, shift to a lower gear for engine braking rather than riding the brakes for an extended period of time.

Climbing–The first rule to remember is to stay off hills too steep for your ability or that of your ATV. When approaching a hill, you should keep both feet firmly on the footrests and shift your body weight forward by sliding forward on the seat. For steep hills, stand on the footrests and lean forward to shift as much weight forward as possible. To reduce the chance of stalling the engine, climb hills in a low gear. If the engine does stall, you must apply the brakes before the forward motion stops. If your ATV stalls and then rolls backward, apply brakes slowly. Rapidly applying brakes during a backward roll can cause a rear overturn.

Descending–Before descending a hill, you should shift the transmission into a low gear and point the ATV directly downhill. Keep both feet firmly on the footrests and slide back on the seat to increase your stability and the effectiveness of the brakes.

Riding across slopes–Avoid crossing steep slopes and slopes where there is slippery or bumpy terrain. If you do ride across slopes, keep both feet firmly on the footrests and lean your body uphill. If the ATV begins to tip, turn the front wheels downhill. If the terrain prohibits your turning downhill, dismount on the uphill side immediately.

Additional equipment–Many operators are taking advantage of the additional equipment available to increase the uses of their ATVs. This equipment can be divided into two categories: that which is rigidly mounted on the ATV and pull-type equipment that is towed by the ATV's drawbar. While this equipment can increase your machineís uses, it imposes some new operating restrictions that must be followed for safe operation.

Rigid mount equipment is usually bolted to the front or rear of the machine and includes luggage racks to transport feed or supplies, broadcast seeders and wick applicators for chemical weed control. This type of mounting places the entire weight burden on your ATV. You should realize that this will have a significant impact on the weight and balance of your machine. The center of gravity may be moved to a position of lessened stability. Mounting on the front can make steering more difficult and decrease traction on the rear wheels. Mounting on the rear can increase the chance of a rear overturn.

Either mounting can increase the chance of a side overturn and requires added caution when operating on level as well as sloped ground.

Pull-type equipment attached to the drawbar varies from a wagon of firewood to a row-crop sprayer. This type of mounting also affects an ATV's stability. As the amount of drawbar pull required for the load increases, so does the tendency for the

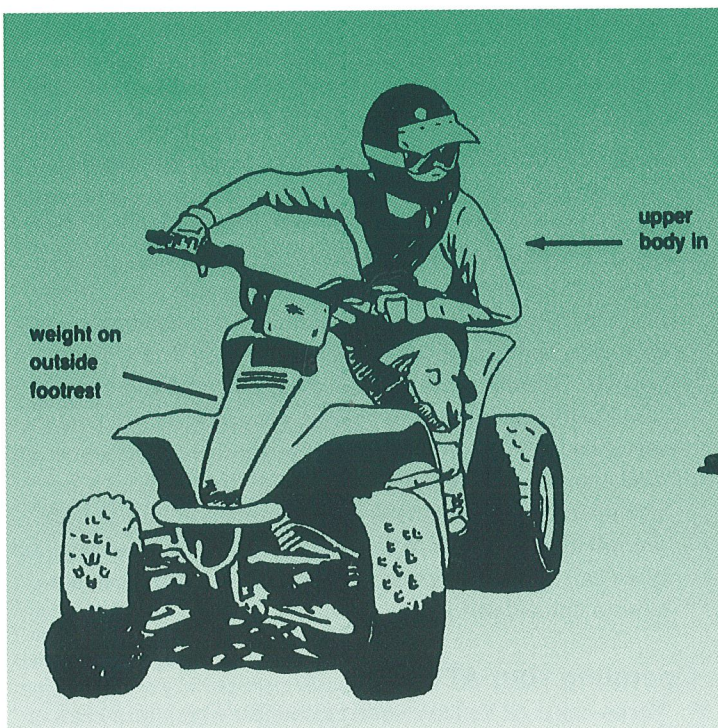


Figure 1. When turning, lean your upper body toward the inside of the turn while keeping your weight on the outer footrest.

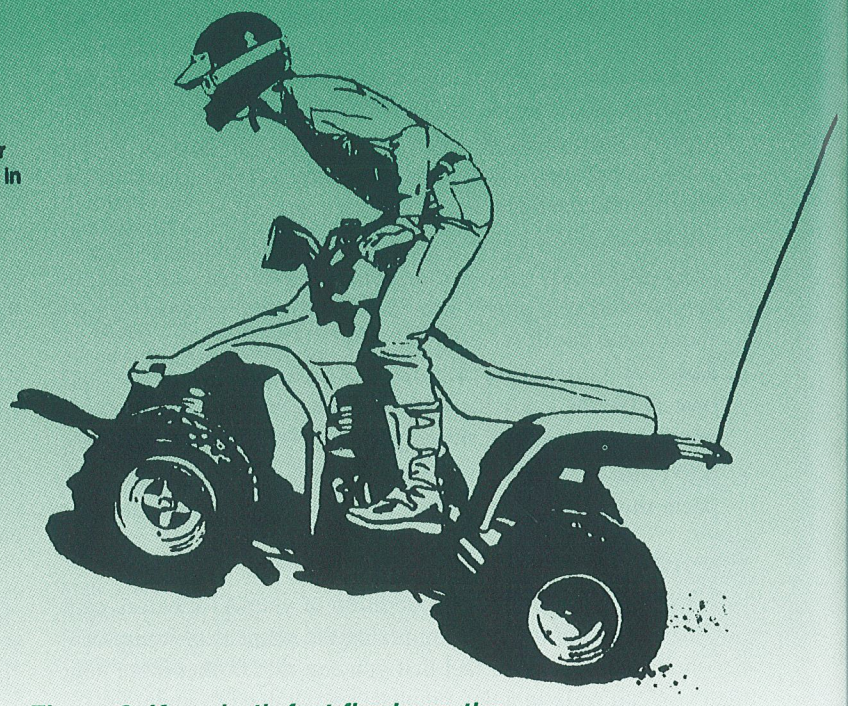


Figure 2. Keep both feet firmly on the footrests and shift your body weight forward when climbing a hill.

front end of the ATV to rise. Caution should be used not to expect more from your ATV than it can safely provide.

Whenever equipment is added, counterweights can be used to offset the load and improve the new balance of your machine. Be careful not to exceed the weight limitations set forth by the ATV manufacturer. Remember, just because your ATV can pull a heavy load does not mean it can safely stop it.

Additional equipment may also require additional protective gear for the operator. Examples of this include protection from objects thrown by a mower and chemical protection from the drift of sprayers.

Training Course

Four major U.S. ATV distributors established the Specialty Vehicle Institute of America (SVIA) in 1983 to support the safe and responsible use of ATVs. Current membership includes Arctic Cat, Bombardier, Honda, KTM, Kawasaki, Suzuki and Yamaha, the leading U.S. distributors of all-terrain vehicles. In 1988 the SVIA formed a new division, the ATV Safety Institute (ASI), to expand the availability of the ATV *RiderCourse*.

ASI offers free training to purchasers of new ATVs and their eligible immediate family. The ATV *RiderCourse* is a half-day, hands-on safety training program. The program includes pre-ride inspections, starting and stopping, turning, operation on hills, emergency stopping and swerving, and riding over obstacles. It also covers protective riding gear, environmental concerns, local laws, and safety techniques. The training course is taught by licensed instructors at hundreds of locations across the United States.

This article was adapted from University of Missouri-Columbia Extension Publication G1936, "All-Terrain Vehicles." Reprinted with permission.

Heritage

Continued from page 10

launch the organization. ABI, the current membership organization for the Natural Heritage Network, is restructuring itself to become the new organization. This new arrangement will overcome the problems currently encountered by the fragmented responsibilities of ABI, The Nature Conservancy, and individual Network programs in developing, managing, and aggregating Network data. More importantly, it will place leadership for the Network in the hands of an organization dedicated solely to furtherance of the Network and the application of Heritage data to biodiversity conservation. If you would like to know more about the Natural Heritage Program in Alabama contact:

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Huntingdon College
1500 East Fairview Avenue
Montgomery, AL 36106-2148 334-834-4519
jhilton@zebra.net.

To learn more about the Natural Heritage Network, check out the Web site at www.hertitage.tnc.org.

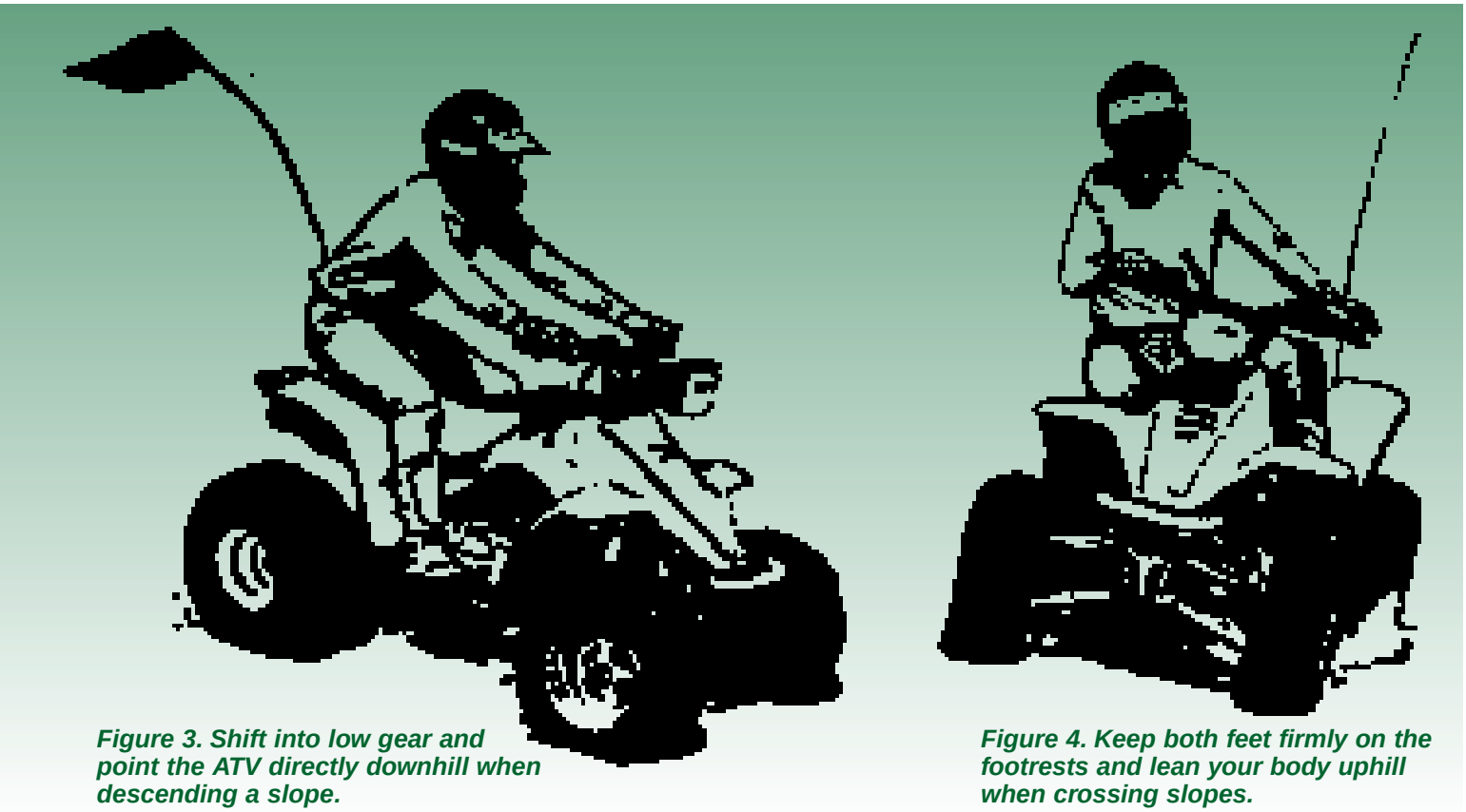

Figure 3. Shift into low gear and point the ATV directly downhill when descending a slope.

Figure 4. Keep both feet firmly on the footrests and lean your body uphill when crossing slopes.

Alabama's Treasured Forests

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Industry Leaders to Award Farmers for Wildlife Stewardship Practices

Four leaders in the outdoors industry have teamed with *Progressive Farmer/ Rural Sportsman* magazine to recognize the contributions of private landowners to the future of hunting and fishing.

Simmons Outdoor Corp., Wrangler, Stren Fishing Lines and Benelli are the 2000 category sponsors of the Wildlife Stewardship Farm™ Awards Program. The awards were established to identify farms where lands and lakes/streams are managed to benefit wildlife and made available for public use.

A "Farm of the Year" will be honored for exemplary wildlife and habitat management in each of four categories: Big Game, sponsored by Simmons; Waterfowl, sponsored by Benelli; Farm Pond/Stream, sponsored by Stren; and Upland Game, sponsored by Wrangler. Any farm or ranch in the U.S. that allows hunting and fishing by the public on some basis, either commercially or otherwise, may be entered.

Rural Sportsman editor J. Wayne Fears points out that an estimated 66 percent of wildlife habitat is privately owned, with 80 percent of the wildlife found on that 66 percent. Also, private lands are home to an estimated 2.5 million ponds. In 1991, 10.6 million anglers fished on private ponds measuring 10 acres or smaller. "The farmer has long been the unsung hero in the field of wildlife management," said Fears. "Many landowners and leaseholders serve as wildlife stewards and work hard to pass on these renewable resources to future generations. It's time they received the recognition they deserve."

Eligible entrants will be the actual stewards of the lands, those responsible for planning and implementing management practices whether or not they own the land. A farm or ranch may be entered into one or more categories.

To enter the awards program, the steward must complete an entry form provided by *Rural Sportsman* and submit photographs that illustrate the management practices. Entries must be received by *Rural Sportsman* no later than May 31, 2000. Winners in each category will receive products from the sponsoring company, a plaque, a farm sign, and an expenses-paid trip for two to Birmingham, Alabama, for an awards presentation.

To request further information and entry forms, write to Becky Granzow, Rural Sportsman, P.O. Box 2581, Birmingham, AL 35202; fax to 205-877-6860; or e-mail to becky_granzow@spc.com.

17th Annual Alabama Landowner and TREASURE Forest Conference

October 5-6, 2000

Governors House Hotel and Conference Center Montgomery, AL

Mark your calendar! Details and registration form in the summer issue of ***Alabama's TREASURED Forests***

MEMORIAL

Lee W. Pershke, 49, of Killen, Ala., passed away February 17, 2000. He was a true friend to the forestry community. Lee was employed by DuPont as the forestry representative in several states. He will be greatly missed by his family, friends and co-workers.

Visit the Alabama Forestry Commission Web Page:
www.forestry.state.al.us

Harvesting with a Purpose

Part II: Final Harvests

By BILLY RYE, R.F.
Forest Management Specialists, Florence, Alabama

Editor's note: Part 1 of "Harvesting with a Purpose" appeared in the Winter 2000 issue of *Alabama's TREASURED Forests.*

AS WE DISCUSSED in "Part 1: Intermediate Harvests," it is recommended that all harvesting efforts be coordinated by a written forest management plan. This plan should be prepared with the landowner's best interests in mind by a competent resource professional, and should be customized to meet the individual landowner's unique combination of objectives and resources. In this article, we will focus on the types of final harvests available to forest landowners.

Final Harvests

The timing and method of final harvest is arguably the most important decision that a landowner will make during the life of their forest stand. This is due to the fact that the final harvest usually yields more money than intermediate harvests and that the quality of final harvest will determine the quality of the next stand. The type of final harvest implemented in a forest also determines the age structure of the trees present in the next stand. Foresters refer to this age structure as a silvicultural management system. Silvicultural management systems are classified as either even age or uneven age.

Even Age

Under the even age management system, most of the trees in the upper canopy are the same or almost the same age. Forests in our area tend to occur naturally in even age systems. Usually there is some type of disturbance (wildfire, wind storm, flood, etc.) whereby all or most of the forest canopy is destroyed.

Trees that originate from seed, seedlings already in place, or sprouts then "battle it out" to determine which trees will occupy the canopy of the next forest. Theoretically, the trees that have the best combination of genetic capability and site quality will be the ones that win this race. Trees that do not have the genetic potential to grow fast or out compete other trees for sunlight do not survive or become suppressed. Over time, this method has the potential to improve both the quantity and quality of wood present within a forest. Forests managed under even age systems also tend to yield higher rates of return than those managed as uneven aged. Therefore, the even age system is the most common management system in the South. There are three types of harvesting used to establish an even age system: 1) Clearcut, 2) Seed tree, and 3) Shelterwood.

Clearcut–A clearcut occurs when the entire stand is removed in one cutting. Clearcutting is by far the most common method of harvesting used in the South.

A silvicultural clearcut occurs when all trees larger than 1 inch in diameter are removed to facilitate regeneration of the next stand. A commercial clearcut occurs when only the merchantable products are harvested. However, with improved utilization, enough trees are normally removed during most commercial clearcuts to facilitate regeneration of the next stand.

Seed tree–Another method of establishing an even age stand is by conducting a seed tree harvest. Under this type of harvest, the old stand is removed in one cutting, except for a small number of seed trees evenly distributed across the stand. In the South, this method is most often used to regenerate Southern yellow pines or other light-seeded species. Six to 10 of the best trees per acre are retained to establish seedlings and a prescribed burn is usually conducted to prepare the seedbed. Seed trees are usually retained for two to four years or until an adequate stand of seedlings is established, at which time they are removed. The advantage of this method of regeneration is that it has no direct cost. However, there are indirect costs associated with this method, such as the loss of seed trees to lightning and wind throw. It is also impossible to control the stocking of the seedlings that become established, and money must often be spent to conduct a pre-commercial thin to reduce the number of seedlings per acre.

Shelterwood–This method is similar to the seed tree method with the exception that the old stand is removed in a series of harvests. Under the shelterwood method, trees are removed in a series of three to four harvests. While this type of harvest/regeneration has been successfully implemented in Southern yellow pine, it is most often successful in establishment of bottomland oaks. The U.S. Forest Service has successfully utilized the shelterwood method in Crossett, Arkansas, and the Wheeler Wildlife Refuge in north Alabama has had success with establishing Nuttall oak using this method.

Uneven Age

With this silvicultural management system, the mature timber is removed–usually the oldest or largest trees–either as single scattered individuals or in small groups at relatively short intervals, repeated indefinitely. This way the continuous establishment of reproduction is encouraged and an uneven aged stand is maintained. Under this type of management system, trees from each diameter class must be removed in proper proportions and at regular intervals.

Landowners using this method of management should seek the assistance of a professional forester to mark the trees to be removed and monitor the harvesting activities.

Stands managed under the uneven aged system will typically yield lower timber revenues and will incur greater costs over the life of the stand. All of this adds up to lower rates of return when compared to even age management systems. If an economic rate of return is not a primary objective and a landowner has access to a professional forester who is

Clearcutting is the most common method of harvesting used in the South.

In a seed tree cut, six to 10 of the best trees per acre are retained to establish seedlings and a prescribed burn is usually conducted to prepare the seedbed.

familiar with this type of management system, uneven aged stands can be accomplished and successfully maintained in most areas of the South.

Landowners should be cautious of the "diameter limit" method of harvest. Under this method, only trees of a predetermined size or larger are removed. According to the forest inventory conducted by the U.S. Forest Service, the amount of land classified as "hardwood" in the Tennessee Valley has increased over the last 60 years. However, the amount of quality hardwood has decreased. While widespread uncontrolled burning of Southern forests has contributed to this phenomenon, most foresters believe the primary cause for the reduction in quality is the diameter limit harvesting method.

Until the mid to late 1980s, the primary harvesting method in the Tennessee Valley was a selective harvest (diameter limit). Typically, a timber purchaser would convince the landowner to harvest the larger, older trees and the smaller, younger trees would then be free to grow and take their place. Using this rationale, there would be a perpetual forest and income would be realized at regular intervals rather than once every 40 years. While this method sounds logical, it tends to work against the forest's natural tendency. Forests in North America tend to be even aged (recall the earlier discussion). Most of the trees that are larger are not older; they simply have a better combination of genetic capability and a quality site.Therefore, if the trees with the best genetic potential are removed repeatedly, the potential for the forest to produce quality timber diminishes with time. This type of harvesting is known to foresters as "high-grading" and is not recommended.

Summary

Harvesting can either be applied to an existing stand or used to establish a new one. The best method and timing of harvesting is dependent upon a landowner's objectives and the resources that are available. By understanding the various types of harvesting and obtaining a written forest management plan, a landowner is much more likely to "Harvest with a Purpose."

Reference

Smith, David M. **The Practice of Silviculture**: 8th Edition. New York: John Wiley & Sons, 1986.

Recovering from Drought Preparing for the Next

By TILDA MIMS
Forest Education Specialist, Alabama Forestry Commission

WHEN FALL RAINS began in 1999, firefighters in the Forestry Commission, forest industry and volunteer fire departments across Alabama breathed a sigh of relief. After many weeks of wildfires fanned by dry winds and low moisture, rainfall signaled the official end of the Drought Emergency declared by Governor Seigelman.

While wildfire risk was relieved by adequate precipitation, the most damaging effects of drought take longer to appear. Drought-stressed seedlings may die outright, or be weakened and attacked by insects or diseases. Stressed seedlings grow slowly and are often less effective than surrounding vegetation at competing for limited moisture. Established pine trees stressed by drought are more susceptible to attack by Southern pine beetle, as well as many other insects and diseases.

Drought Recovery

There are few immediate solutions for drought damage to newly planted stands. You may, however, receive help in reforestation costs. If you planted trees under a cost-share program and the seedlings died due to drought, you may apply for additional cost-share assistance for reforestation. Contact the Natural Resources Conservation Service for information on Forest Incentive Program (FIP) funds and contact your local Soil and Water Conservation District for cost-share through the Alabama Agricultural and Conservation Development Commission Program (formerly ARCP).

You may recover some of your planting expenses by reporting the loss on your income tax. The "Forest Owner's Guide to the Federal Income Tax" states that drought-induced losses of planted tree seedlings may qualify for a business loss deduction. The loss is deductible in the year the seedlings died.

Drought Strategies and Planning

Drought often prompts a crisis management, rather than risk management, approach. Today, however, many forest managers are taking a proactive approach by incorporating strategies to minimize drought damage when developing management plans. By anticipating the inevitable–that drought will come and go–forest landowners may minimize its damaging effects.

Healthy stands are your best defense against drought. Forest landowners that seek professional forestry assistance and follow a sound forest management program realize more net profit and incur less loss.

Stand Establishment—While an extreme drought may kill young seedlings, total failure usually results from a combination of factors including poor site preparation, poor seedling quality, poor seedling handling practices, lack of competition controls, improper planting, or planting the wrong species on a given site.

For best results a forest management plan should include:

- Improving soil moisture conditions by eliminating competing vegetation.
- Selecting species well adapted to the geographic area and soil type.
- Obtaining high quality seedlings from a reputable source. Seeded stands are more susceptible to drought and early competitions than stands planted with seedlings.
- Protecting unplanted seedlings from direct sun, high temperatures and freezing when transporting and in the field during planting.
- Planting at the correct time of year. Research has proven that late fall and dormant season planting gives superior results. If you must plant in late spring or early summer, containerized seedlings result in better survival than bare-root.
- Avoiding reforestation immediately following a clearcut to avoid risk of pales weevil.
- Planting during optimum conditions of temperatures between 35 and 60 degrees Fahrenheit, relative humidity above 40 percent, and wind speed less than 10 mph.

Established Stand Management— Research has found that drought is often the final stress factor that weakens overstocked or overmature stands so severely that trees cannot fend off insect or disease attack. Regular prescribed burning and timely thinning will reduce competition and facilitate vigorous growth in pine stands. Healthy trees can often resist or rapidly recover from such attacks.

Forest landowners should inspect their forests frequently and move quickly to salvage or renovate stands where excessive mortality has occurred. Timber killed or weakened by insects, diseases, drought or all three may be sold in a salvage sale. While forest landowners need to salvage quickly because insects and fungi cause rapid deterioration of wood quality, a hasty decision can also be a costly one. Consult a professional forester before marketing timber under any circumstances.

Planning for Change

The *Old Farmers Almanac 2000* predicts drought in parts of the Deep South for April and May, above normal rainfall

in September and a return to drier than normal conditions for October. The Climate Prediction Center of the Ntional Oceanic and Atmospheric Administration also reports that drought is expected to continue through mid-2000.

A forest's best bet for surviving too little rain, too much rain, ice storms, tornadoes, wildfires, insects and diseases is to stay healthy enough to resist damaging effects of change. The forest landowner's best insurance policy is to seek professional forestry assistance, develop a sound management plan and follow that plan "come rain or come shine."

Sources of Information

University of Georgia College of Agricultural and Environmental Sciences Georgia Cooperative Extension Systems

Forest Owner's Guide to the Federal Income Tax 1995

North Carolina Cooperative Extension Service publication numbers AG-519-9, AG-519-3, AG-519 and AG-518-2

Old Farmer's Almanac 2000

Educational Grant Proposals Being Accepted

Forestry tag sales continue to be successful, which results in monies available to fund forestry educational projects. The Forest Stewardship Education Committee is now accepting grant proposals through May 25, 2000. **Grant proposals must be postmarked no later than May 25, 2000.**

Since the forestry tag went on sale January 1, 1997, the Committee has approved more than $480,000 in grants for various forestry projects throughout the state. If you know of groups or organizations that need financial assistance in implementing forestry programs, you can request a grant proposal form by sending your name and address to Anita W. Benton, Forestry Tag Coordinator, P.O. Box 302550, Montgomery, AL 36130, or you can e-mail her at BentonA@forestry.state.al.us.

NEWS BRIEFS

USDA-NRCS

Robert N. Jones has been selected State Conservationist for the USDA Natural Resources Conservation Service (NRCS) in Alabama. In the position, Jones will be responsible for the agency's natural resource conservation activities in partnership with Alabama's 67 soil and water conservation districts. Jones replaces Ronnie Murphy, who retired from the agency in October 1999.

Alabama Department of Conservation and Natural Resources

The Game and Fish Division has officially changed its name to the Division of Wildlife and Freshwater Fisheries. The name change was made to more accurately reflect the work performed by the division. For many years the division was involved primarily with enforcement, game management and restocking programs. Today, they are involved in nongame protection and proliferation, conservation education and outreach programs, hunter safety education and many other projects. Since the division is not involved in saltwater fisheries management, the distinction needed to be made between fresh and saltwater fisheries.

In another announcement, M.N. "Corky" Pugh has been named as head of the Division of Wildlife and Freshwater Fisheries. Pugh, who had served as assistant director since 1993, replaces long-time director Charles Kelly, who retired last year.

USDA-Forest Service

Jim Gooder, a 22-year veteran of the Forest Service, has been named as the new forest supervisor for the National Forests in Alabama. The National Forests in Alabama includes the Bankhead, Conecuh, Talladega and Tuskegee National Forests. Gooder replaces John Yancy, who accepted a position with the U.S. Park Service last year.

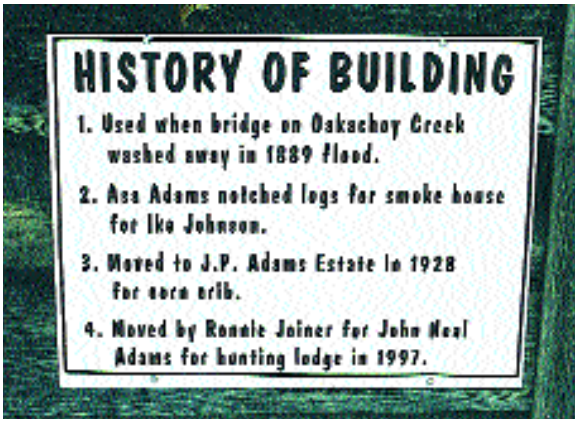
Cabin Reveals Durability of Natural Resources

By JOEL D. GLOVER
Alabama Department of Conservation and Natural Resources

IF YOU TRAVEL through eastern Coosa County on Alabama Highway 259, you might see a log cabin sitting just off the road with a sign that reads: "Adams Hunting Club." As you might guess, it is not at all unusual to see hunting camps in this rural county, which is abundantly blessed with natural resources. This hunting camp sits on and is surrounded by the J.P. Adams Estate TREASURE Forest. That in itself is not unique, but the cabin is.

The cabin is constructed of heart pine, which was a common building material in this area many years ago. This cabin, however, was constructed in 1997. Did the owner find the lumber drying in a barn somewhere? No, these logs are well traveled and if they could talk they would have an interesting story to tell.

Running across the Adams property and under Highway 259 is the historic Oakachoy Creek. In 1889 the creek decided it would flood the road and decided to take the heart pine bridge with it. The logs were carried downstream and deposited there. Shortly thereafter Mr. Acie Adams pulled the abandoned logs from the stream and used them to build a smokehouse. The large timbers weren't easy to handle, but once built, the smokehouse functioned well for many years. The fine heart pine outlived the usefulness of the smokehouse and in 1928, John Preston Adams converted the old smokehouse into a corncrib. The heart pine corncrib served the Adamses well until their vocations changed and it was no longer needed. It stood dormant for many years until another Adams, John Neal, decided it would make a good hunting cabin. He contacted Ronnie Joiner, a local restorer of old structures, and contracted with him to create the Adams hunting camp cabin.



Before being used for this cabin, the wood was once a bridge, a smokehouse and a corncrib.

Today the Adams hunting camp occupies a place of honor on the J.P. Adams Estate. The camp house stands as a testimony to the durability of our natural resources and as a reminder that if we will take care of the land, the land will take care of us. Of course, this is also the TREASURE Forest message. Proper management of our natural resources will provide for many generations to come. Sadly, John Neal Adams passed away last year. Mr. Adams had been an active member of the Coosa County Forestry Planning Committee for several years. He was the driving force that resulted in the certification of the Adams Estate as a TREASURE Forest. His driving force was the future generations of his family. He had repeatedly shared with me that his earnest hope was that the younger members of the family would develop a love of the outdoors and nature like he possessed. I was delighted that many of the family members were present when we awarded their TREASURE Forest certificate and sign in 1997. It is my earnest hope that each TREASURE Forest landowner will share with their younger family members what it means to properly care for our natural resources. Do it today, while you have the chance!

Rare Orchid Finds Safe Haven

By TILDA MIMS
Forest Education Specialist
Alabama Forestry Commission

THE WHITE FRINGELESS or "monkey-face" orchid *(Platanthera integrilabia*) is native to the southern Appalachians and is considered one of North America's rarest terrestrial orchids.

For terrestrial orchids, the soil means the difference between life and death. The white fringeless orchid prefers an area with black, mucky, acidic, organic soil found most frequently in bogs at the head of streams or seepage slopes. These mucky areas need to be wet nearly all of the year and over most years.

On the August day that County Manager Tony Avery and I visited Wayne Holcombe's TREASURE Forest in Marion County, Alabama was suffering from another sweltering summer day of a drought. Sun-baked roads and a dry creek bed did not bode well for the rare orchid discovered a few years earlier on Wayne's place.

However, as Tony cut a path through dense foliage, we noticed the ground becoming spongy, mossy and thick with moisture. As we stepped under a canopy of deciduous trees with filtered sunlight, we were soon rewarded with the unexpected beauty of the white fringeless orchid in bloom.

Finding the orchid on his property was a "pleasant surprise," said Holcombe. Tony had been reading about the plant and thought there was a good possibility that it existed in the swampy area on Wayne's TREASURE Forest. He talked to Wayne about it and, sure enough, they found a healthy population there a few years ago.

A status survey of the plant in 1991 found only 30 populations remaining from the original 65 sites first identified from literature and herbarium specimens. These 30 populations are in five states: Alabama, Georgia, Kentucky, South Carolina and Tennessee. Ironically, the site-specific plant was spared in Marion County only because a prior landowner found the land too wet for logging equipment.

The white fringeless orchid is one of North America's rarest terrestrial orchids.

Wayne Holcombe with Marion County Manager Tony Avery.

Known in the Cumberland Plateau as "Ole Monkey-face," the plant was first recognized as a distinct species and genus in 1941, when Dr. Donovan Correll published "Two New American Orchids" The new identity contributed to its first brush with extinction as botanists rushed to collect hundreds of flowering specimens of the "new" plant for herbariums.

In a February 1996 *Orchids* magazine article, Dr. Lawrence Zettler discussed the mystery behind the disappearance of the white fringeless orchid. "By 1950, the orchid had become noticeably scarcer and during subsequent decades had been exploited by nurseries. Other factors were habitat destruction, invasion by kudzu and browsing by deer and feral hogs. Further complicating the problem is the orchid's dependence on a single fungus species (sphagnum moss) to complete its life cycle in the natural habitat."

A perennial herb that grows from a single tuber, it has two to three large strap-shaped leaves, largest at the base and then decreasing in size as they ascend to the smooth light green stem. White flowers grow in a loose, round to elongated cluster at the top of the stem. There are normally six to 15 flowers in each cluster. Flowers are white with a distinctive smooth lip and very fragrant sweet scent.

This orchid is typically found in red maple/black gum swamps and along sandy, damp stream margins; also on seepy, rocky thinly vegetated slopes. Leaving a streamside management zone when harvesting timber is critical to its habitat.

Wayne Holcombe's 80-acre TREASURE Forest is southwest of Hackleburg in the Rocky Top community. Purchased in 1995, it is part of the original home place and adjoins his parent's TREASURE Forest. It had been cutover when he bought it, so an aggressive management plan was in order. He now has a healthy combination of pine plantations, mixed hardwood stands and several acres of food plots, SMZs, roads and firelanes. Timber is his primary objective and wildlife habitat enhancement is secondary.

On that hot August afternoon, Mr. Holcombe was pleased to see that the delicate plants were not only surviving the drought, but also were blooming abundantly. Though not required to preserve the plant, he is easily able to provide it safe haven simply by following Alabama's Best Management Practices for Forestry, which recommend adequate streamside management zones in all future thinnings and harvests.

SMZs are buffer zones of vegetation along water bodies that collect sediment from soil disturbance, keep water shaded and provide shelter to wildlife. Voluntary compliance with this practice will pay great dividends to any forest landowner and may offer protection to a true "Hidden Treasure" on your property.

LANDOWNERS
LEGISLATIVE • ALERT

by **JAY JENSEN**
Washington Office
National Association of State Foresters

THE battle for next year's federal appropriations has begun on Capitol Hill. The President released the administration's budget for fiscal year 2001 in February, which included some promising numbers related to the USDA-Forest Service's State & Private Forestry programs.

Unfortunately, the administration did not propose an increase for the primary forest landowner assistance program in the country, the Forest Stewardship Program. The two other forest landowner assistance programs vital to the non-industrial private forest landowner, the Stewardship Incentives Program and the Forestry Incentives Program, are both struggling to stay above water.

Forest Stewardship Program

The Forest Stewardship Program (FSP), delivered through the state foresters, provides technical forest management assistance to the non-industrial private forest landowner. In other words, FSP gives the private forest landowner access to a forester who will draft a forest management plan according to the landowner's priorities and objectives. In Alabama, the Forest Stewardship Program is called TREASURE Forest.

The national program has seen slow but steady increases over the past couple of years and now stands appropriated at $29.43 million for fiscal year 2000. The administration is supporting the same figure for FY 2001.

The figure is somewhat surprising considering the findings of a recent study conducted by Northern Illinois University, "Evaluating the Forest Stewardship Program through a National Survey of Participating Forest Land Owners." The study surveyed over 1,200 landowners that have participated in the FSP and have a stewardship plan in place. In the words of the study's lead author J. Dixon Esseks, "The bottom line here is that we have a program that seems to work!"

The primary finding of the study is that the program encourages landowners to more actively manage and invest in their forestland. With the technical and cost-share assistance provided through the program, it was found that landowners were three times more likely to begin implementing the FSP plan and one-and-a-half times more likely to apply new conservation practices they had not implemented on their lands before. The study also found that, on average, landowners were willing to invest more of their own money into land conservation measures on their property.

The study shows that federal money invested in helping private landowners leverages significant state AND private resources to accomplish private landowner objectives. These objectives benefit the nation as a whole with an increased available timber supply, cleaner air and water and more abundant wildlife. The state foresters will take this message to Capitol Hill this year to seek an increase of just over $7 million for the Forest Stewardship Program in fiscal year 2001. The state foresters feel that a level of $36.5 million better meets the needs of the over 9 million non-industrial private forest landowners in the country.

Stewardship Incentives Program

The Stewardship Incentives Program is the cost-share compliment to the FSP. SIP is structured to provide incentive for landowners to implement conservation practices to reinvest in, reforest, and manage their lands. Pressures from development, land cost increases and the frequently associated tax increases, and pressure to meet the market demand for wood products in the wake of supply reductions from federal public lands are all converging on private woodland owners. These factors all encourage the landowner to make poor land management decisions that could potentially lead to resource impairment that can take decades to repair.

Unfortunately, support for SIP in Congress and the administration has dwindled over the past two years and has resulted in the zeroing out of the program. Although the administration has chosen to support the program at a woefully inadequate $3.25 million in fiscal year 2001, the state foresters will be directing energy toward the formulation and development of a new nationwide cost-share program. In the meantime, the state foresters will continue supporting the Forestry Incentives Program.

Forestry Incentives Program

The Forestry Incentives Program (FIP), used primarily in the Southern U.S., has limped along near the $6 million level for the past few years. Support in Congress, and in particular the administration, remains disappointing and FIP survives only with the help of a few key Southern legislators. In Fiscal Year 2001, the administration has not proposed any funding, even though a significant customer base exists for this timber cost-share program. Again, the state foresters will be seeking to incorporate a new cost-share program in the 2002 Farm Bill that will provide the reforestation flexibility that FIP has provided to its customers.

Partnership Formed to Assist Private Landowners with Wildlife Management

A NEW Land Stewardship Biologist position has been filled through a partnership between the Alabama Forestry Commission, the Alabama TREASURE Forest Association (ATFA), and the Alabama Wildlife Federation (AWF). Claude Jenkins, formally of Petal, Mississippi, has been hired to fill this position. Claude holds a B.S. degree in Wildlife and Fisheries Science from Mississippi State University and an A.A.S. degree in Forestry Management Technology from Jones County Junior College.

The purpose of the partnership is to promote natural resource stewardship and encourage participation in the TREASURE Forest Program. Also, the ATFA and AWF will use this new position to increase involvement in their organizations.

Claude's primary responsibility will be to provide on-site wildlife management assistance, free of charge, to private landowners. Some examples of the management assistance Claude can provide are the following:

- General property/tract wildlife habitat and management assessments.
- Supplemental planting evaluation/ troubleshooting.
- Treatment recommendations sufficient for inclusion in TREASURE Forest management plans.
- Completion of appropriate portions of TREASURE Forest nomination forms for qualified candidates.
- TREASURE Forest inspections.

To be eligible for assistance, you must be a non-TREASURE Forest landowner and own 10 or more acres of forestland.

The Alabama Forestry Commission is excited about this partnership and we recognize the tremendous benefits all Alabamians receive from wildlife. If you meet the criteria and would like assistance from Claude, please complete and mail the form below.

Wildlife biologist Claude Jenkins, left, meets with Colbert County landowner Robert J. Osborne, Jr.

Request for Wildlife Assistance

Name: _____

Address: _____

City/State/Zip: _____

Day Phone: _____ Evening Phone: _____

Fax: _____Email: _____

County where land is located: _____

Mail the form to:

Alabama Forestry Commission
Attention: Tim Albritton
P.O. Box 302550
Montgomery, AL 36130-2550

TREES OF ALABAMA

CHINESE TALLOWTREE

By TIM ALBRITTON, Forest Operation Specialist, Alabama Forestry Commission

THE CHINESE TALLOWTREE (*Sapium sebiferum*) was introduced as an ornamental. Although native to China and Japan, this tree has naturalized in the Southeast from South Carolina to Florida and as far west as Louisiana and Southeast Texas.

This is a moderate-sized tree usually reaching heights of 30 to 40 feet. The leaves usually turn a beautiful red or yellow color in the fall. The fruit is a rounded three-lobed capsule that splits open in the fall revealing three white, waxy-coated seeds. From a distance they resemble—you guessed it—popcorn; thus, the tree has become known by the common name "popcorn tree."

The sandy soils and warm climate of the coastal plains make an ideal habitat for this fast-growing weed tree. The tallowtree can become readily established on a site and root sprouts usually help it to dominate an area.

This tree has very little, if any, commercial value and can pose a problem if it becomes established, forming thickets. In Florida some extensive eradication

efforts have been tried. When managing your forest for pines, the tallowtree can be controlled with a variety of herbicides. Arsenal and Roundup are two popular herbicides that are effective in controlling tallowtree. However, most of the chemicals that work well on the tallowtree also kill many other primary hardwoods, making control more difficult when managing for hardwoods.

The tallowtree can be an asset or a liability depending on where it sprouts up. It can be an asset in an urban setting. Its fast growth and colorful leaves are characteristics most people want in an ornamental. The tallowtree is also tolerant of droughts and other extreme conditions. And since it seeds in naturally, you can find it growing in many yards.

When I lived in Pensacola, my mother transplanted a tallowtree sprout, about 4 feet tall at the time, to a sunny space in the yard and began watering and nurturing it. Within three to four years, it had grown approximately 30 feet, providing shade and color to our yard. Every October my family enjoys the brilliant red color of a tallowtree in our front yard in Elmore County.

Tallowtree can also be a liability in an open field or in forestland settings. Because of the poor commercial viability of the tree it becomes a problem, forcing the landowner to consider some type of control measure to recapture the site. And in most cases the sooner the tree is controlled, the better.

So take a look around your neighborhood; chances are, there's one "popping" up near you.

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