

ALABAMA'S  
**TREASURED**

FORESTS

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**SUMMER 2006**



**23rd Annual Alabama Landowner  
& TREASURE Forest Conference**  
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**On the Cover:** Sunflowers, often planted to attract birds and other wildlife, also appeal to butterflies and bees. *Photo by Coleen Vansant*

**Background this page:** See the story on page 32 about the delicate beauty of the two-winged silverbell, a small tree found in Alabama. *Photo by Fred Nation*

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# *Mountain Shadow Farm* Reclaiming What Once Was . . .

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

**T**he phrase “reclaiming what once was” may not make a lot of sense to many people, and it probably violates more than one journalistic rule. But that was the goal of Jerry Jones Sr. and Jerry Jones Jr. of Blount County when they began their wildlife management efforts on their farm. Everything they did was not only an attempt to bring their property back to where it was as both father and son remembered it growing up, but also to make it better than it was before.

Although Mountain Shadow Farm is situated in the rolling hills northwest of the town of Blountsville, the name didn’t come from its topography. Jerry Sr. said, “Back when I was a youngster I saw a movie, a western. The ranch in the movie was *Mountain Shadows Ranch* and that just stuck with me.”

According to Jerry Sr., his dad bought the original 20 acres in 1945 and made his living as a crop farmer – primarily cotton and corn. The small acreage wasn’t enough to feed a family, and he rented more farmland in the area in order to

make a “meager living.” In the late ’50s, the family purchased an additional 40 acres, and a few years later another 115 acres was added. The farm now covers 175 acres between the two men, and they manage it together as a TREASURE Forest.

The objectives on the farm today are wildlife management and recreation, with the main emphasis on bobwhite quail. As long as the farm was in row crops the quail population thrived, but in the early ’80s when the farm was converted to cattle the quail population began to decline. The quail population dropped from eight coveys to zero in just a few years. It has been the goal of Jerry Sr. and Jr. to manage the farm in order to re-establish the native quail. “For a long time you could hunt all day and never find a bird,” according to Jerry Sr. “It was a sad day when quail disappeared from this property.”

Jerry Jr. agreed, saying he remembers tagging along with his father, grandfather, and uncle when he was young as they hunted quail on the property. It was

a sport loved by everyone in the family and when they began to manage the farm, quail was one of the priorities.

The entire farm is dedicated to wildlife, and the purpose of every activity done on the property is to enhance the wildlife habitat. The twelve food plots scattered around the farm are actively planted in warm and cool season foods including corn, soybeans, grain sorghum, millet, clover, wheat, sunflowers, and other things. These are either all left standing or mowed for wildlife. Chestnuts, bicolor, vitex, and autumn olive have been planted as well to provide for the many species of wildlife that have been attracted to the farm.

In recent years the two have experimented with a vine called “lab lab.” Out of Texas, this plant (*Lablab purpureus*, also called hyacinth bean, Indian bean, and Egyptian bean) is more digestible than kudzu and has a protein content of around 25 percent. One of the great things about lab lab is that it is not invasive like kudzu.



his wife witnessed a deer grazing on morning glory vines, they have let these grow along the edges of their fields as well.

The greatest obstacles the Joneses have faced are getting rid of the bermuda and fescue grasses that were left over from the days when the farm was in cattle, and they have a constant battle with privet hedge. They have also instituted measures to eliminate beaver and the many, many tame and wild domestic cats that frequent the farm for an easy meal.

Although the Jones family began managing to enhance the quail population, they soon realized that the practices they were implementing were benefiting many more species as well. They say now as many as 30 different species can be found on the property from time to time, with a lot of them being “residents.” Rabbits are plentiful along with numerous species of non-game birds, foxes, coyotes, hawks, and deer. Father and son are actively involved in both Ducks and Quail Unlimited.

“In the mid-’40s there were no whitetail deer in this area,” said Jerry Sr. He laughs when he describes the first one he ever saw. He was bird hunting when his dog pointed something in the brush. A big buck jumped up, and he says he doesn’t know who was the most frightened, him or the dog. This past year the first deer (an 8-point) was harvested on the property, and they will probably begin to harvest more to keep the population manageable. There are six wildlife observation houses on the farm, along with several tree stands to accommodate hunters.

Everything they plant on the property is done by soil sampling. Proper care is given and fertilizers are distributed according to soil samples. This provides for a healthier crop, along with cutting down on the cost of applying a fertilizer that a plant doesn’t need.

Prescribed burning, a key forestry tool, is a necessity on the property for wildlife habitat. Fire is used to keep plants and shrubs from being overgrown, as well as to stimulate natural vegetation and regeneration. The Joneses are currently on a three-year prescribed burn rotation and it is working well for them.

Along with all of the food plots and planting that the pair have done, they also take advantage of what nature has provided on the property. Many of their management practices are designed to enhance the native vegetation on the



*Opposite and top: Corn planted this year will provide food for the many wildlife species at Mountain Shadow Farm. Above: Jerry Jones Jr. (left) and Jerry Jones Sr.*

*Photos by Coleen Vansant*

farm. Everywhere you look there are waves of yellow partridge pea blooms, one of the native plants to benefit from prescribed burning. They also maintain and fertilize other natural growers like honeysuckle, native grasses, and native shrubs. The native blackberries on the place are nurtured by fertilizing and mowing, with a great effort not to let them get too old and grown over. Both of the men’s wives also take advantage of the berries for jelly. Since Jerry Jr. and

**Wildlife Preserve**

For several years the pair ran a “pay to hunt” program on the property. They established a quail hunting preserve, complete with a log cabin to house hunters and a dog kennel on site. Although there were not enough native quail to sustain the paid hunt program, they released quality pen-raised quail to

*(Continued on page 6)*



*Native partridge peas are encouraged to grow around this pond.*

supplement the program. Both say they were not necessarily interested in operating a paid hunt business, they just wanted to let people come in to hunt, work with good dogs, experience being outdoors, and have a good time.

What revenue they generated went back into the property for habitat improvements. They used this opportunity to help offset some of the costs of the constant upkeep of the property. After a few years, health problems for both of the men prohibited them from continuing the program. Now the two take pleasure in hunting for themselves, as well as allowing friends and family members.

The Joneses still keep dogs on the property, four Brittany spaniels and one German shorthair, and they do all of the training themselves. They have taken the dogs to several schools and civic groups, talking about hunting and demonstrating how the dogs work. Both men enjoyed participating in a Boy Scout Camporee with around 700 scouts.

### Recreation and Education

Recreation is also important at Mountain Shadow Farm. Along with providing hunting opportunities, there are also four ponds for fishing. Family and neighbors enjoy picnicking, walking or riding horses on the roads and trails, bird and wildlife watching, and just enjoying the numerous wildflowers on the place.

Because of its diversity and beauty the farm has also hosted garden club meetings, Master Wildlife programs,

“Forest in the Classroom,” Bassmasters, a local archery group, and the county TREASURE Forest Chapter.

### TREASURE Forest

Mountain Shadow Farm was certified as a TREASURE Forest in 2003 and won the prestigious Helene Mosley Award in 2004. The Joneses said they were thrilled and surprised to win the award and were greatly honored by being recognized for their stewardship efforts. They agree that the thing that attracted them to the TREASURE Forest program was that it was not about growing trees. “I thought it was about tree growers,” stated Jerry Sr. “When you read their aim and what they’re looking for, it was what we were trying to do. It was a perfect fit.”

Jerry Jr. says that they had been practicing good stewardship for a long time when they picked up a brochure on the program at a wildlife show in Birmingham.

“When I first heard about it, I thought you had to be a timber producer. We’re not interested in trees, except for the wildlife and aesthetic value.” He adds that what he liked most about the program was that it fit with the goals for their property and not the other way around.

Both men are active members of the Blount County Chapter of the Alabama TREASURE Forest Association. Jerry Sr. is now on the Board of Directors, and Jerry Jr. has served on the Board of Directors and is currently the organization’s president.

### Conclusion

Both Joneses are retired but say they probably do a lot more work now than when they went into the office every day. The difference is, now they get up every morning and enjoy doing what they want to do.

In regard to the future, “it will keep getting better, and better, and better,” says Jerry Sr. “I’ve got somebody [Jerry Jr.] that will carry on the tradition and hopefully the grandkids will do the same.” ☘



*This area has been prepared to plant a winter food crop.*



# Drought and How It Affects Trees

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

**W**ith the hot dry summer we've had, most of us have at least one tree in our yard or on our property that is showing the strain. From curling brown or yellowing leaves, to fruit drop, or no leaves at all, most trees have suffered in one way or another from lack of rainfall. Although that pretty little dogwood or maple may look like it has

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seen better days, don't do anything drastic at this point. Chances are your tree will come back this spring as beautiful as ever.

## WATER

Water is essential to tree life. It is the most limiting of all essential tree resources. Trees have developed special-

ized organs, processes, and surfaces to use and conserve water. It is the single most important molecule in trees and the ecological system that supports trees. Water is the starting point for photosynthesis, capturing energy from the sun.

The mass of a growing tree, whether the tissue is living or dead, is usually between 70 and 90 percent water.

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## Drought and How It Affects Trees

(Continued from page 7)

Water stress affects most of the physiological processes involved in plant growth. The symptoms of drought injury to trees may be sudden or may take several years to be noticeable by homeowners or landowners.

### SYMPTOMS OF DROUGHT STRESS

Plants draw in water from the soil, use it for plant growth, then release it from stems and leaves through a process called transpiration. When a tree or plant does not receive enough water, the results can be leaf wilt, leaf scorch, early fruit drop, curling at the edges, yellowing, brown outside edges or browning between the veins, stem dieback, and sometimes plant death if the dry conditions persist. Leaves may be smaller than normal, drop prematurely, or remain attached to the tree even though they are brown.

Pines and other evergreen trees normally won't wilt from drought stress.

### DROUGHT-RESISTANT TREES FOR ALABAMA

(common names)

- Maples (boxelder, red, silver)
- River Birch
- Hickory (pignut, shagbark, mockernut)
- Catalpa
- Hackberry
- Redbud
- Hawthorne
- Cypress
- Persimmon
- Green Ash
- Ginkgo
- Honey Locust
- Holly
- Black Walnut
- Mulberry
- Tupelo
- Ironwood
- Hop Hornbeam
- Pines (shortleaf, slash, spruce, longleaf, loblolly, Virginia)
- Sycamore
- Oaks (scarlett, southern red, turkey, laurel, overcup, bur, blackjack, chinkapin, willow, chestnut, shumard, post, live, black)
- Black Locust
- Willow
- Sassafras
- American Elm



Photo by Coleen Varsant

Pine trees usually retain their needles for about two years. During a period of drought, the second year needles may turn yellow, red, or purple and begin to drop prematurely. If you observe this condition, don't become alarmed – although the tree is under stress, it is going through a natural process.

Both hardwoods and pines may be more susceptible to insects and diseases when they are under drought stress. Loss of defensive capabilities and food supplies due to water and heat stress allows many pests to attack trees.

Browning and leaf shedding are not necessarily symptoms that your tree is dead. Although these drought responses reduce photosynthesis and detract from the visual appeal of a tree, brown or missing leaves do not lose water to the atmosphere. Even plants that are completely defoliated by drought often recover and eventually resume normal growth once the stress is relieved. It is best to wait until the following spring before removing a drought-damaged tree or shrub. If the stems are still pliable there is always a chance that the plant will produce a near-normal set of leaves the following season.

### UNDERLYING FACTORS

Soils can both reflect and absorb heat. The feeder roots of a tree that absorb moisture and nutrients are in the upper 12-14 inches of soil. Excessive amounts of heat can cause water to evaporate more rapidly than normal, and heat directly affects how much water can be absorbed by the soil.

Soils with high clay content will hold water better than sandy soil. Trees that grow in clay soils are usually shallower



rooted than trees growing in loamy or sandy soils.

The aspect of a slope or hill can also affect trees during times of drought. South and west-facing slopes are usually hotter and drier than north and east-facing slopes. This can directly affect a tree's ability to absorb and maintain water.

The species of tree or plant can have a large impact on its ability to survive drought conditions. Many plants are considered drought-resistant because they have characteristics that help them adapt to dry conditions by using water efficiently. Native species adapt to local soil, moisture, climate, and pests better than exotics. Early to mid-succession species (trees and plants that colonize old fields and disturbed sites) use resources such as water more effectively than late-succession species.

Trees that develop leaves and branches throughout a deep crown are best. Multi-layered canopy trees are more water-efficient than mono-layered canopies. Multi-layered trees include oaks, pines, some maples, ash, hickory, gums, walnut, poplars, and birches. Some mono-layered trees are beech, sugar maple, magnolia, and sourwood. Other characteristics to consider when selecting a more drought-resistant species include tall trees with cone or cylinder-shaped crowns and trees with deeply-lobed leaves.

## THE SCOOP ON WATERING

Before beginning a watering regime, apply two to four inches of mulch around

the base of the tree and spread it towards the drip line, making sure it doesn't touch the trunk of the tree. This will ensure that the water you apply stays in the soil longer.

Water when your soil is so dry that it cannot be formed into a ball, when you see your plants beginning to wilt, or when the needles of conifers turn a dull green-to-yellow color. A thorough watering every few days is better than a sprinkling every day. A mature tree needs one to three inches of rain a week. For large trees, coiling soaker hoses several times under the drip line of the tree or hooking up a lawn sprinkler and letting it run at night may be better than using a water hose. For newly planted and smaller trees, hand water them with a soft spray nozzle on medium pressure.

Water early in the morning or late in the evening to avoid evaporation from daytime heat. You want as much water as possible to get to the roots of the tree. Water plants slowly so that it soaks into the dry soil rather than running off.

Over-watering your trees can be as harmful as lack of water. Keep a record of natural daily rainfall in your area and only water when the tree needs it.

## LONG-TERM EFFECTS

The severity of the dry conditions could determine how much damage is done to your tree. Although some symptoms are very obvious and instantaneous, many others may take months to detect. Some long term effects from drought stress may include: increased threat of

## THINGS YOU SHOULDN'T DO

- Avoid over-watering during a drought period.
- Do not fertilize during drought conditions. It's a waste of fertilizer and puts an already stressed tree under further stress.
- Some pesticides can be harmful to trees during dry periods. Be cautious when applying pesticides to drought-stressed trees.
- Avoid green wood pruning during periods of drought.

attack by insects and diseases, root death, decreased winter hardiness, dieback and death of branches and twigs in the upper canopy, and eventual plant death.

## CONCLUSION

If you have trees around your home or property that are showing symptoms of drought stress, wait until spring before you get out the chainsaw. Your tree may just be going through its natural process of self preservation. With a little maintenance and care, you could help it survive to give you many more years of enjoyment. 🌳

## RESOURCES:

- <http://txforestservation.tamu.edu/shared/article.asp?DocumentID=341&mc=urban>
- <http://fcgov.com/horticulture/tree-care.php>
- <http://agebb.missouri.edu/hort/met/archives/v9n9/met1/htm>
- [www.forestry.uga.edu/efr](http://www.forestry.uga.edu/efr)
- <http://aginfo.psu.edu/news/april00/drought.html>
- <http://www.coopext.colostate.edu/4DMG/Trees/caring.htm>
- <http://warnell.forestry.uga.edu/warnell/service/library/foir99-024/index.html>
- <http://www.upenn.edu/paflora/plantclinic/drought.htm>



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# Changes in *ADEM Summer Burning Regulations*

By Coleen Vansant, Public Information Manager, Alabama Forestry Commission

**T**wo significant changes have been made in the summer burning regulations issued by the Alabama Department of Environmental Management (ADEM) that may affect many landowners across the state.

Four counties have been added to the list of counties included in this summer burning ban: DeKalb, Etowah, Russell and Talladega. They join the eight counties previously listed in the program including: Baldwin, Jefferson, Lawrence, Madison, Mobile, Montgomery, Morgan, and Shelby.

In addition, the burn ban has been extended one month. The program now lasts from May 1 of each year through October 31. This applies to all 12 counties enrolled in the program.

In a story published recently by *The Gadsden Times*, the reason for the addition of these four new counties was because of fine particles that had been measured in the air by monitoring equipment. The measured particles are so small they can only be detected with an

electron microscope. Sources of fine particles include all types of combustion such as motor vehicles, power plants, residential wood burning, forest fires, agricultural burning, and some industrial processes. Open burning creates smoke containing fine particles that contribute to respiratory distress. Although the particles measured were not dangerously high, they were close to the limit established by ADEM regulations.

According to the Alabama Forestry Commission's (AFC) Assistant Fire Division Director Lou Hyman, the summertime burning restrictions from ADEM will warrant some changes in the Commission's outdoor burning permit program. No permits for miscellaneous burns will be issued by the AFC in these 12 counties during the summer months. However, permits can be issued for specific types of burns that include: fuel reduction, wildlife, hardwood control, other understory, piled debris, scattered debris, and agriculture.

No permits of any kind will be issued in Jefferson County during the summer

months because it is under the jurisdiction of the Jefferson County Health Department.

The following is the actual excerpt from the ADEM open burning regulation.

## **ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT Air Division Chapter 33533 Extract Control of Open Burning and Incineration**

**335-3-3-.01(2)** Open burning may be conducted for the purposes listed below and if it meets all the requirements of this paragraph. Authority to conduct open burning under the provisions of this paragraph does not exempt or excuse a person from the conse-

quences, damages, or injuries which may result from such conduct, nor does it exempt or excuse a person from complying with all applicable laws, ordinances, regulations, and orders of governmental entities having jurisdiction, even though the open burning is conducted as specified in this paragraph.

(a) Open burning of vegetation or untreated wood may be conducted if it is generated by clearing or maintaining land, or from demolition or operations conducted for any of the following purposes:

- Erection of any structure;
- Construction of any transportation, utility, or communications line;
- Maintenance of rights-of-way;
- Development or modification of a recreational or commercial area;
- Plant husbandry practices.

Open burning authorized by this paragraph shall comply with the following conditions:

1. The burning must take place on the property on which the combustible fuel originates;
2. The location of the burning must be at least 500 feet from the nearest occupied dwelling other than a dwelling located on the property on which the burning is conducted;
3. The burning must be controlled so as to avoid creat-

ing a traffic hazard on any public road, street, or highway as a result of the air contaminants emitted;

4. Only vegetation and untreated wood may be burned. It is unauthorized to open burn heavy oils, asphalt products, plastics, vinyl materials, insulation, paper, cardboard, natural or synthetic rubber, salvage or scrap materials, chemicals, garbage, treated or painted wood, or any trash;

5. Initial burning may be commenced only between the hours of 8:00 a.m. and 3:00 p.m. No combustible material is to be added to the fire between 3:00 p.m. and 8:00 a.m. the following day;

6. Burning shall be conducted only when there is good ventilation and when the prevailing wind direction is away from any built-up area in the vicinity. No burning shall be

conducted in areas under a current air stagnation advisory issued by the National Weather Service or during a "Drought Emergency" declared by the Governor;

7. The fire shall be attended at all times.

(b) The Director or his authorized representative may impose additional conditions to cover specific open burning situations where additional controls or requirements are deemed necessary to minimize air pollution.

(c) Permission to open burn under the provisions of this paragraph is revoked during the months of May, June, July, August, September and October in Baldwin, DeKalb, Etowah, Jefferson, Lawrence, Madison, Mobile, Morgan, Montgomery, Russell, Shelby and Talladega counties. ☹



Photo by Jason Gillikin & Charles W. Squires

# Wood Biomass Powers Truck

## (How to Get More Mileage on Less Gas!)



Photo by John Pirle

By *Allen Varner*, Stewardship Forester,  
Alabama Forestry Commission

**W**ayne Keith believes that this country needs to reduce our dependence on foreign oil and fossil fuels. Using good old-fashioned American ingenuity, Keith has converted his 1984 diesel truck to run on *wood*. As gasoline prices rise toward \$3.00 per gallon, alternative fuels are becoming more attractive. **Solid biomass** which in part consists of wood, switchgrass, corn, or even chicken litter (manure) may prove to be part of a growing number of viable alternatives to gasoline.

Using a technology called **gasification**, solid biomass is placed in a container called a “down-draft gasifier” installed in the bed of the truck and ignited. The amount of oxygen is

restricted in the system so instead of producing carbon dioxide and water vapor as normally occurs in regular combustion, the gasifier produces a mixture of carbon monoxide and hydrogen known as synthesis gas.

The synthesis gas is cooled down as it is directed through a gas radiator behind the cab and condensed into a liquid. The synthesis gas passes through a series of filters in front of the hood, and directly to the carburetor where it burns almost as well as gasoline. The engine is usually started with gasoline but is switched to synthesis gas after the engine warms up.

“It takes about 20 pounds of wood to do what one gallon of gas will do,” Keith said. “But when I burn off the wood, you get the same emissions you’d

get if the wood just deteriorated on its own. You can’t say that about fossil fuels.”

This is known as carbon recycling which occurs naturally in the environment and in this form is less polluting than hybrid cars.

“I don’t think you’ll ever see many vehicles using this process,” he stated. “Maybe some farm trucks. But we could use the system for co-generation of heat and electricity such as heating chicken houses and other buildings. I heat my home with it.”

Solid biomass such as wood debris probably will not power our pickup trucks in the near future. More than likely there will be an increase in the availability and use of ethanol, a fuel also



Synthesis gas – produced from solid biomass by a technology called **gasification** – passes through a series of filters in front of the hood, and directly to the carburetor where it burns almost as well as gasoline.

produced with agricultural products. Most ethanol is made with corn. However, other crops such as switchgrass or even wood debris from logging activities are possible options. Many fueling stations in the Midwest already sell ethanol. In Hoover, Alabama, the entire police force – 92 vehicles – runs on E-85, a mixture of 85 percent ethanol and 15 percent gasoline.

On a national perspective, Alabama Senator Jeff Sessions sees Alabama playing a key role. Senator Sessions is a member of a bipartisan caucus that last November introduced the Vehicles and Fuel Choices for American Security Act. If passed, it would require the U.S. government to reduce the country’s daily oil consumption 2.5 million barrels per day by 2016 and promote the use of advanced field technologies such as ethanol and hybrid vehicles.

“Researchers at Auburn University believe up to 1,000 gallons of ethanol can be produced from a single acre of switchgrass each year,” Sessions said.

**“Timber products, paper, and pulp** also seem promising. The Energy Policy Act that was signed into law last summer mandates that 7.5 billion gallons of ethanol be produced annually, and Alabama is rich with the biomass materials that will be needed to meet this goal. Nothing will slow us down unless the production costs just turn out to be too high.”

America is known as the land of opportunity and we have always believed that necessity is the mother of invention. As foreign oil and fossil fuels become more expensive, the development of alternative sources of energy will increase and the utilization of solid biomass will become an increasingly viable option. Alabama is blessed with nearly 23 million acres of forestland, and by more completely utilizing our vast renewable resource we have the potential to possibly *grow* our way out of our foreign oil dependence. ♻️



Photo by John Pirtle

# The Pileated Woodpecker:



## Life History & Management

By *Philip Smith*, Etowah County Manager, AFC;  
*Brandon Hunnicutt*, Madison County Manager, AFC; and *Dan Green*, DeKalb County Manager, AFC

**T**he pileated woodpecker (*Dryocopus pileatus*) is one of the largest woodpecker species in North America. Only the imperial woodpecker and the ivory-billed woodpecker are larger. Fully grown, it reaches 15-19 inches in length, or about the size of a crow. Its wingspan varies from 26-30 inches, and it weighs about 8-12 ounces. Northern birds tend to be larger in size than birds in other populations.

### Appearance

It has a very prominent red crest at the rear of the head with a white throat and mostly black plumage. Contrasting white lines of feathers extend from the bill down the sides of the neck to the bird's upper flanks, with white underwing covert feathers. The adult male has a red forehead, with a red malar area, while the adult female of the species has

a black forehead and black malar stripe. The bill is thick and silvery gray, with yellowish feathers over the nostrils. The eyes of the adult bird are yellow in color. The juvenile is similar to the adult in appearance, but has a shorter crest with brown eyes.

### Range & Life History

The range of the pileated woodpecker covers many parts of Canada and the United States. It reaches from western Canada and northern California, east across Canada to Nova Scotia, along the east coast of the United States, down to the southern U.S. including Alabama. It is found in both deciduous and coniferous forests where large trees are present. This bird occupies areas where a lot of dead trees, or snags, are present. The woodpecker's diet consists mainly of insects, wild fruits, and nuts. It feeds especially on carpenter ants, and wood-

boring insect larvae. It obtains its food by scaling bark off trees and creating excavations to expose ant galleries. It uses its long tongue to extract its food.

The pileated woodpecker nests in dead snags by excavating cavities. These cavities are so large that many other animals, including other woodpeckers and small mammals, will use the cavities for both feeding and nesting. A new cavity is excavated each spring. A monogamous species, pileated Woodpeckers will stay with the same mate for life. They have one brood per season during the spring. A typical clutch size is four to six eggs, with both male and female sharing the work of incubating the eggs, feeding the young, as well as creating and maintaining the nest cavity. Young typically fledge the nest after 24-30 days. This timeframe differs with different latitudes and locations. After fledging, the young depend on their parents for several more

months while they are learning to acquire food on their own. In the fall of the year, the young leave their parents and wander until spring. They will nest at this time and acquire their own territories.

### Conservation & Management

Natural predators of the pileated woodpecker include hawks, owls, and other raptors, as well as weasels, squirrels, and snakes such as the black rat snake. It depends on a mature forest habitat with many dead snags for nesting. When harvesting timber, leaving some dead snags and hollow trees may be beneficial to cavity nesting birds such as the pileated woodpecker. Areas damaged from lightning, insect infestation, or other natural mortality also provide necessary habitat. This bird was consid-

ered rare prior to 1900, as the result of habitat loss and hunting. It is no longer listed as a threatened or endangered species and although it is currently a protected species, its population is generally considered stable.

In managing forest resources and wildlife, it is often difficult to create a balance between the forest's needs and those of game and non-game wildlife. If you are interested in more information on multiple-use management of your property, including species such as the pileated woodpecker, please contact your local county office of the Alabama Forestry Commission. 🦉



Summer 2006



USDA Forest Service - North Central Research Station Archives, www.forestryimages.org

# 23rd Annual Alabama Landowner & TREASURE Forest Conference

October 5-6, 2006

Embassy Suites Hotel & Conference Center  
Montgomery, Alabama

## *“Managing Threats to the Small Family Farm”*

### Thursday, October 5, 2006

- 9:00 am Registration (hotel lobby)
- 10:30 am Buses leave hotel for Barnett and Edna King’s TREASURE Forest  
Lunch will be served during drive  
(Tours will switch so attendees can visit both sites)
- |                                    |  |
|------------------------------------|--|
| <b>Tour A “Home Place”</b>         | <b>Tour B “Fern Valley Walking Tour”</b> |
| • Timber Thinning                  | • Timber Salvage/Regeneration            |
| • Pine Straw Vegetation Management | • Pond Management                        |
- 6:45 pm Awards Banquet followed by dessert social

### Friday, October 6, 2006

- 8:00 am Indoor program sessions
- Controlling Invasive Species – *Mark Thomas, Forestry/Wildlife Integration*
  - Annosus Root Rot Management – *Vic Ford, MeadWestvaco*
  - Benefits of Prescribed Burning – *John Pirtle, Alabama Forestry Commission*
  - Protecting YOUR HOME from Wildfires – *Lou Hyman, Alabama Forestry Commission*
  - Habitat Management for Wildlife – *Joel Glover, Alabama Wildlife & Freshwater Fisheries*
  - Maintaining Bird Habitat – *Allison Vogt, East Gulf Coastal Plain Joint Venture*
  - Cost Share Assistance – *Susan Trantum, Farm Service Agency and Tim Albritton, Natural Resources Conservation Service*
  - Wood Collecting – *Dan James, International Wood Collectors Society*
- 11:45 TREASURE Forest Association Luncheon

#### **TREASURE Forest Association SILENT AUCTION**

*Don't miss this year's annual silent auction sponsored by the Alabama TREASURE Forest Association. Bids will be received on items during indoor sessions until break on Friday. Items awarded to high bidder will be announced during the luncheon, and should be picked up immediately after lunch.*



23rd Annual Alabama Landowner &  
**TREASURE Forest Conference**  
 October 5-6, 2006      Montgomery, Alabama  
 Embassy Suites Hotel And Conference Center

Name of Attendee(s):	<u>Tour on Thursday</u>	<u>Lunch on Friday</u>
1. _____	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. _____	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
3. _____	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
4. _____	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No

Company \_\_\_\_\_  
 Address \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 Email \_\_\_\_\_

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

CATEGORY OF ATTENDEE (mark category of each attendee)

#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:  
 \$85 pre-registration x \_\_\_\_\_ attendee(s) = \_\_\_\_\_

\*NOTE: Registration includes tour & lunch, banquet on Thursday; indoor sessions and lunch on Friday.



### CONFERENCE INFORMATION

- Thursday, Oct. 5: Registration will begin at 9:00 am in the lobby of the Embassy Suites Hotel.  
 Thursday, Oct. 5: Buses will depart for the lunch and tour at 10:30 am from the parking lot of the hotel. **Please dress appropriately and wear comfortable shoes.** Buses will return to hotel in time to change clothes for the banquet.  
 Thursday, Oct. 5: Banquet begins at 6:45 pm followed by a dessert social to honor award winners.  
 Friday, Oct. 6: Indoor sessions begin at 8:00 am; a separate agenda will list meeting rooms and topics.  
 Friday, Oct. 6: ATFA Luncheon begins at 11:45.

Pre-registration fee is \$85 per person if postmarked before September 29.  
 Registration fee for conference after September 29 is \$95.  
 No refunds will be made after September 29.  
 Mail upper portion of form and fee payable to "ANRCC" to:  
 Fran Whitaker, Alabama Forestry Association, 555 Alabama St., Montgomery, AL 36104  
 Phone: (334) 265-8733    Fax: (334) 262-1258    email: [fwhitaker@alaforestry.org](mailto:fwhitaker@alaforestry.org)  
 EXHIBIT SPACE IS AVAILABLE. Contact Jeff Thurmond at (334) 887-4510.

### HOTEL INFORMATION

Room Rate: Embassy Suites Hotel    \$129.00  
 Please specify that you are attending the TREASURE Forest Conference when making your reservations.  
 Hotel cut-off date is September 16, 2006.

**Embassy Suites Hotel**  
**300 Tallapoosa Street**  
**Montgomery, Alabama 36104**  
**(800) 362-2779 or (334) 269-5055**

# Forest Edges, Gaps, and Clumps

By Dr. David Mercker, Extension Forester, The University of Tennessee

Photo by John Pirtle



This photo illustrates both a “hard edge” and a “soft edge” of a forest.

The practice of forestry entails much more than knowledge of trees. How the trees are formed, arranged, and displayed can be interesting, too. To demonstrate this, let’s examine some less-used forestry terms: edges, gaps, and clumps.

In the environment, an **edge** is an obvious line of separation between two or more stands or habitat types. An example of an edge, often referred to as a “hard edge,” is the point where a row crop field meets a forest. Here the line of intersection (the edge) is obvious. A variation is the “soft edge.” Soft edges occur when an intermediate successional stage exists at the hard edge – for instance a swath of briars and smaller tree seedlings growing between a field and forest. The line of intersection is more gradual, but still distinguishable. *Within a forest setting*, however, a stand edge can be more difficult to detect. A forest stand edge is observed when the structure of the trees on either side of the edge is distinctly different, for instance in age, species, growth rate, density, etc. Typically an edge is caused by variations in soil and microclimate, and by previous disturbances to the site (such as harvesting, wind, agriculture, etc.).

Forest **gaps** are created when individual trees or small groups of trees are removed from a stand either by harvesting, blow-down, or mortality. New trees that initiate within gaps will have uniform structure (species, age, height, etc.) but will be noticeably younger and shorter than the surrounding trees. Each gap has a distinct edge, though much smaller than the edge that surrounds an entire stand. Trees found within smaller-sized gaps typically show poor growth characteristics, especially when the crowns of adjacent overstory trees aggressively grow into the gap, thereby capturing the sunlight and shading the newly formed trees.

A **clump** is the converse of a gap. As with a gap, clumps are small areas of uniform trees, except the trees are much taller, and normally older, than their surrounding trees. Collectively, the area



Photo by John Pirtle

Trees within smaller-sized gaps typically show poor growth characteristics, especially when the crowns of adjacent overstory trees shade them.

of a clump is too small to be classified as a separate stand and is thus “clumped” in with the surrounding trees of the existing stand. An example of how clumps form is a clearcut harvest, where small and scattered one-quarter-acre areas are left within the clearcut for wildlife. The new forest that develops following the harvest simply surrounds, then encapsulates, these clumps.

Spend some time searching the forest for edges, gaps, and clumps. The forest is a striking show, and it stands ready to reveal how it is formed, arranged, and displayed. 🌲



Photo by John Pirtle

Clumps form where small and scattered one-quarter-acre areas are left for wildlife within clearcut harvest.



# Foxes of Alabama

By *Randall A. Seal*, Wildlife Biologist, Alabama Forestry Commission

**F**oxes are among the most widely distributed animals on earth. Foxes are native to five of the seven continents and inhabit areas from the arctic tundra, arid deserts, grassland prairies, and steppes, to boreal and tropical forests; they can inhabit virtually any environment humans inhabit. There are over twenty-two species of foxes in the world, and Alabama is home to only two of them: the red fox (*Vulpes vulpes*) and the gray fox (*Urocyon cinereoargenteus*). The red and gray fox – both members of the dog family (*Canidae*) – are secretive by nature and are seldom seen during the day. Sightings typically occur either early in the morning or late in the evening.

## Distribution

The red fox is the most widely distributed carnivore in the world. It occurs throughout Canada, Europe, Asia, the

Summer 2006

former USSR, and the United States. Some speculate that the red fox might not have been native to the United States, but originated from the European fox that was introduced into the south-eastern U.S.

The gray fox occurs in much of eastern North America and extends into Mexico, Central America, and Venezuela. The gray fox does not extend into the mountainous areas in the north-west United States and Canada, parts of the Great Plains, or eastern Central America.

## Description

The red fox is the larger of the two foxes found in Alabama. The most recognizable fox species, it is identified by its bright reddish coat with a white underbelly, chin, and throat. Its key characteristic is the white tip on the end of its bushy tail. The lower legs, feet, and back

of ears are usually black. In the northern parts of the United States and Canada, the red fox can be black, silver, or bluish gray in color.

The gray fox is slightly smaller than the red fox, and there is little color variation within this species. Gray foxes have a gray coat with buff underfur and rusty yellow sides, legs, feet, and backs of the ears. The bushy tail with black stripe and black tip is a key characteristic to identifying this species. Gray foxes can be mistaken for red foxes due to the reddish coloration on their sides. They can also be mistaken for coyotes with their gray coat and bushy tail, especially if seen from a distance.

## Biology & Life History

The red and gray fox form monogamous pair bonds during the breeding season, with both parents caring for the  
*(Continued on page 20)*

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# Foxes of Alabama

(Continued from page 19)



Jim Thiele, USFWS

The most recognizable of the species, the red fox is identified by its bright reddish coat with a white underbelly, chin, and throat. Its key characteristic is the white tip on the end of its bushy tail.

young. Primary den sites for the red fox are usually underground, whereas the gray utilize above-ground sites such as brush piles, rock crevices, and thickets. Den sites are usually located within their territory for raising pups or kits when they are born. The male will defend its

territory and bring back food for the female until the pups are old enough to be left alone; at this time both parents will hunt for food. After two to three months, the pups have been weaned and can venture outside the den.



Photo by Harold Raleigh

Photo by Harold Raleigh

Mixed pine/hardwood environments are utilized by both red and gray foxes for their daily habitat requirements.



Photo by Elishia Ballentine

Open habitat distributed within a diversity of upland pine and mixed pine/hardwoods can provide both red and gray foxes with suitable reproductive and foraging environment.

## Habitat

The red fox inhabits a wide range of environments. They are known to live in coniferous and deciduous forests, marshes, desert shrub lands, on prairies, and arctic tundra, not to mention their familiarity in suburban and urban environments. These animals are not common in extremely dense forests, rather preferring the boundary areas between woods and open fields. Farmland near wooded areas provides excellent fox habitat, as do urban parks and golf courses. Since human settlement in North America has greatly increased the amount of such spaces over the last two hundred years, the number of red foxes has increased as well.

The gray fox's habitat ranges from rain forest to the eastern forests of the United States. It prefers more densely wooded areas than the red fox, probably because of its ability to climb. The grey

fox population is now lower than before the first European settlers arrived, although it can still be seen through much of its original range.

## Management

Most landowners and land managers in Alabama do not directly manage their habitat for foxes, but foxes benefit indirectly through management of game species in Alabama. Management practices that promote deer, turkey, rabbit, and quail will also benefit that of both red and gray foxes. Establishing fallow fields provides an abundance of insects, cover, brood rearing, and nesting habitat to game species and at the same time provides the fox with an abundant supply of insects and small rodents. Managing for mixed-pine hardwoods by thinning and establishing a burn rotation will also improve habitat conditions for foxes, especially the gray fox since it has adapted to woodland habitats.

Foxes may be either beneficial or harmful, depending on your perspective. While a poultry farmer would consider the fox a nuisance for preying on his chickens, a farmer planting agricultural crops might appreciate it for controlling mice, rats, and other agricultural pests. There is no question that foxes are efficient predators and will prey on domestic and game species, but the percentage taken by fox predation is small compared to the losses sustained due to loss of habitat. Research studies have suggested that red fox predation in the prairie-pothole region of North America is an exception where it may be partly to blame for poor reproductive success in nesting waterfowl.

Landowners interested in managing for game species should hunt and trap foxes, in keeping with state regulations to hold them below habitat carrying capacity. Regardless of your opinion of foxes, they do play an important role in the environment, and there is still a lot to learn about the role they play in the ecology of our forests.

## Population Status

The future population of the red fox is uncertain. With the nationwide expansion  
*Summer 2006*



Gary M. Stolz, USFWS

*Gray foxes can be mistaken for red foxes due to the reddish coloration on their sides. The bushy tail with black stripe and black tip is a key characteristic to identifying this species.*

of the coyote in the early 1970s, coyotes have also expanded throughout much of Alabama. The red fox and coyote occupy similar habitat, and according to field

studies, red foxes avoid coyote ranges and coyotes exclude red foxes from the majority of their range. If these studies are correct, the population of red foxes in



USFWS

Alabama may slowly start to decline over the next several decades as coyotes occupy more available habitat. Areas of the state that have low density of coyotes should have stable populations of red foxes.

The status of the gray fox is characterized by widespread, healthy populations in most areas. Habitat availability may limit its distribution, but lack of habitat does not appear to pose an immediate threat. ♣

	<b>Red Fox</b>	<b>Gray Fox</b>
Breeding Season:	Dec-Feb	Feb-March
Gestation:	51-54 days	51-63 days
Home Range:	500-2000 acres	640-1280 acres
Litter Size:	1-10(5)*	1-10(4)*

\* Average Litter Size

## References

Yarrow, G.K. and D.T. Yarrow. 1999. *Managing Wildlife*. Sweetwater Press. 11: 241-243. (<http://www.outdooralabama.com/watchable-wildlife/what/Mammals/Carnivores/rf.cfm>) ([http://en.wikipedia.org/wiki/Red\\_Fox](http://en.wikipedia.org/wiki/Red_Fox))

# Maintaining a Healthy Forest Can Help You Maintain Good Health

By Dana McReynolds, Forest Health, Alabama Forestry Commission



Photo by LaKedra Byrd

*Ms. Ellen Byrd keeps fit by working on her property.*

**W**hat a great combination – a gathering that combined the health of the forest and the health of the individual. Ms. Ellen Byrd, the owner and operator of the *Black Freedmen’s Living Historical Farm for Children* in Furman, Alabama (Wilcox County), recently hosted a “Wellness Enhancement Gathering.” Over twenty people were in attendance. Generally, this farm for children presents educational programs that inform the community about environmental issues and forest management, but this time there was a twist from the norm. This gathering focused on

health; not necessarily the health of the forest, but the health of the individual. A healthy forest cannot be maintained without a healthy landowner.

The Wellness Enhancement Gathering was presented by *The Purification Garden*. Topics provided to attendees included meditation and proper breathing techniques, massage therapy, skin care, and nutrition.

In order to enjoy and work our land, it is important for landowners to remain active and practice a healthy lifestyle. 🌱

# Understanding the Wildland/Urban Interface

## What YOU Can Do to Help with Interface Issues

By Stanley R. Anderson, Fire Prevention/WUI,  
Alabama Forestry Commission

Larry Korthak-Interface@South

**M**ost counties in Alabama have been experiencing a population increase during the past 30 years after losing population during much of the first half of the 20th Century. In March 2006,

Baldwin County became Alabama's lone representative on a new list of the 100 fastest-growing counties in America. The U.S. Census Bureau showed that Baldwin County gained about 6,000 new people between July 2004 and July 2005

for a 3.8 percent growth rate. Other Alabama counties are also experiencing high population growth.

Fast growth and development creates changes in land use. Much of this growth is spreading from the cities and towns into subdivisions which join forestland and agricultural lands. This *wildland/urban interface (WUI)* is defined as the line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or natural areas.

This influx of population has created challenges for landowners, residents, and government officials. New residential and commercial development demands new roads, schools, supporting infrastructure, and other challenges.

### The WUI is Growing

Alabama continues to experience changes in private forestland ownership. Large blocks of industrial and non-industrial forest ownerships are being sold and divided into smaller parcels, complicating forest management and potentially affecting their viability for a number of

#### 10 Fastest-Growing Counties

County	Population Change
Shelby	44.2
Baldwin	42.9
Elmore	33.9
Lee	32.1
Blount	30.0
St Clair	29.5
Autauga	27.6
Bibb	25.6
Cherokee	22.7
Chilton	22.0

#### 10 Fastest-Declining Counties

County	Population Change
Sumter	-8.5
Perry	-7.0
Dallas	-3.7
Macon	-3.3
Calhoun	-3.3
Wilcox	-2.8
Marengo	-2.4
Butler	-2.3
Greene	-1.8
Dale	-1.0

Changes in Alabama Population 1990-2000

US Census Bureau

(Continued on page 24)

# Understanding the Wildland/Urban Interface

(Continued from page 23)

functions and values. Land transactions involving large tracts that are sold to multiple owners are referred to as *land parcelization*. These large areas of land now have multiple parcels. For example, while many of these may remain predominantly forestland, the owners' primary objective might shift from timber production to wildlife management or recreation. This may be hardly noticeable except for more (or fewer) roads, harvesting activities, and gates. In other cases the large tracts are broken into many small tracts which are subsequently subdivided and developed.

*Forest fragmentation* takes place where forested areas are broken into smaller patches and interspersed with non-forest areas. It occurs when large, continuous forests are divided into smaller blocks, either by roads, clearing for agriculture, industrial, or residential development. Both terms (land parcelization and forest fragmentation) reference changes in the forest structure; for WUI proposes these changes are simply referred to as fragmentation. South-wide, 60 percent of the forest still exists in blocks greater than 100 acres where fragmentation is less of an issue.

## Development is Increasing in Forest Fire-Prone Areas

As development expands into forested areas of the state, there is an increasing forest fire risk due to human factors, particularly in those parts of the state which have high fire potential. Residents in the WUI must become **Firewise** in order to protect their homes and property.

## Predicting Development's Net Effect on Forestland

Homeowner demands for more space and a favorable economy stimulate real estate development. Across the nation, however, only a small percent of forestland will become interface. One must be careful not to become alarmed by what they see regarding development when looking out the windshield while traveling. Most of the developments we see or hear about are concentrated along coasts, in the Piedmont, and around major metropolitan areas. It is estimated that about 11 percent of all wildland (forestland, agricultural land, and rangeland) will experience interface. Total U.S. forestland in 2002 was 746.9 million acres. The estimated net loss of forestland to development and other land use

changes is 31.0 million acres by 2050. This calculates to only 4 percent net loss of forestland.

## What Lands are Being Developed?

Alabama is experiencing more forestland being developed than other states on the average. This might be expected considering the state is 71 percent forested.

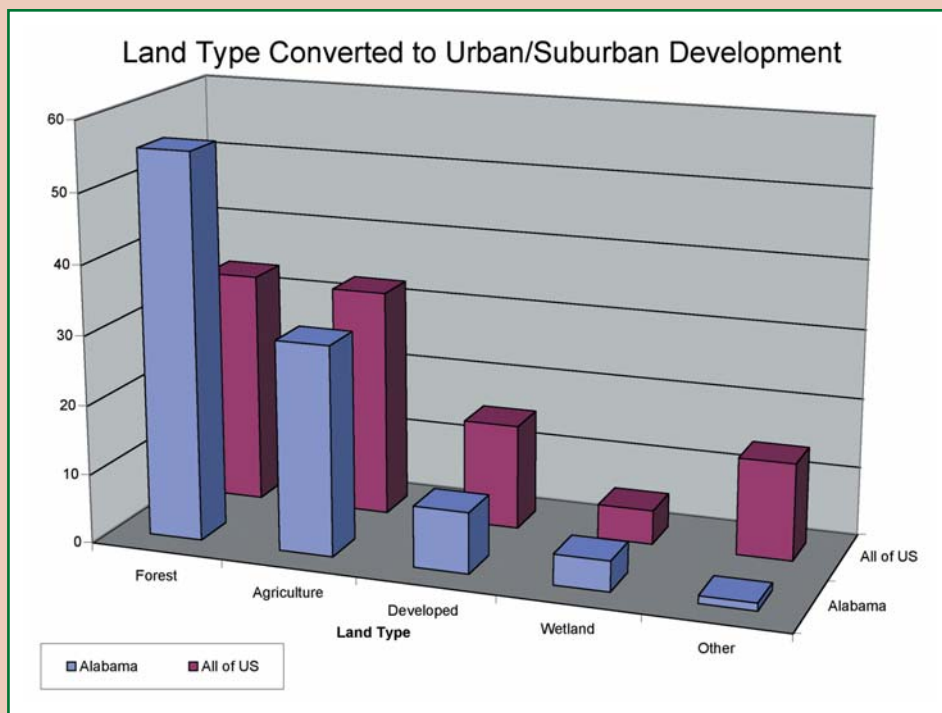
## What Will the Interface Demographics Look Like?

Expansion of the WUI is creating new challenges and opportunities. Demographics of the people moving out of the cities and into the WUI will determine their attitudes about forestry. Consider these projections for the years 2000-2030:

- The population is expected to increase 24 percent,
- Percentage of Hispanic, African-American, and Asian population is increasing,
- The number of people aged 65 and older will double, and
- New landowners of different age and ethnic groups may differ in opinion in how they value and use natural resources compared to those of traditional landowners.

## Interface Issues

In 2003, key WUI issues were examined in six southern states by twelve focus groups (173 participants) representing natural resource management, industry, development, conservation, planning, and other related fields. Common themes included: increasing land development, transportation issues, challenges to managing natural resources, changes to ecosystems, ineffective planning, and conflicting perceptions and values. The focus group representing the Birmingham area cited lack of vision and leadership; lack of comprehensive planning; water quality and quantity; and education of homeowners, developers, and decision makers.

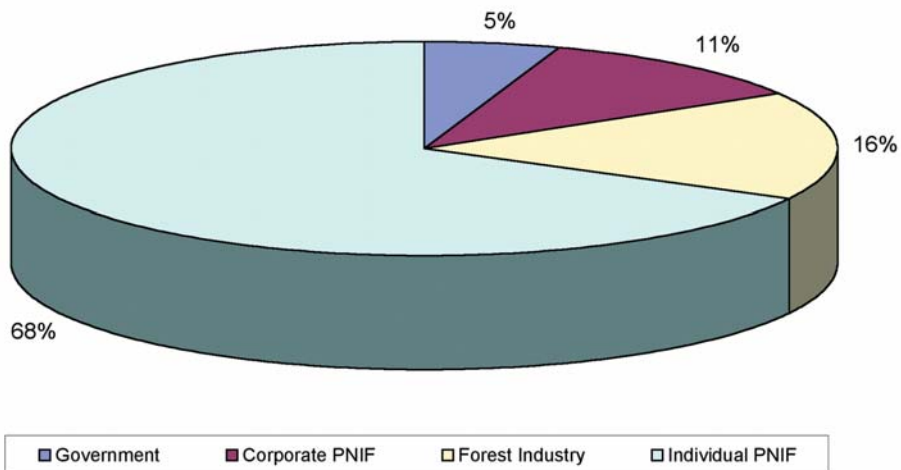


Percent of Total Urban Growth

USGS 2003



## Timberland Ownership in Alabama



Percent of Alabama Timberland by Ownership Class

USDAFS 2000

### Interface Concerns

Just how are we experiencing the effects of this wildland/urban interface? These concerns differ based on landowner perceptions. The list includes:

- water quality/water quantity,
- non-native invasive plants,
- nuisance wildlife,
- forest fragmentation,
- prescribed burning,
- air pollution,
- groundwater recharge,
- timber harvesting,
- urban heat island effect,
- wildfire,
- increasing land value,
- sprawl,
- endangered animals and plants,
- new road construction,
- hunting regulations,
- increased taxes, and
- wildlife habitat loss.

### Who Are These New Interface Landowners?

It will help to understand who the new interface landowners are by looking at who owns the forestland now. In Alabama, 68 percent of the forest is owned by small and large private owners, most of which is family owned – farmers, families, individuals, partnerships, and trusts. Forest industry owns just over

16 percent, corporations own 11 percent, and government owns 5.3 percent of the state's forestland.

Across the South, most of the family forest owners hold less than 50 acres. The majority of these, 56 percent of the total family landowners, own less than 10 acres. These small tract owners own only 6 percent of the total family forestland, but South-wide they number 2.4 million strong. Who will represent the interests of Alabama's new interface landowners – the Alabama TREASURE Forest Association, Alabama Forestry Association, Alabama Forest Owners Association, Alabama Farmers, or some new group? Are these landowners significantly important to forest sustainability? What bearing will the new interface

landowners have on other forestry issues? What type of professional services and agency programs would best serve interface landowners?

These small tract landowners are not adverse to forest management. They are however more concerned about protecting amenities and ecological qualities than maximizing timber income. These new interface landowners are willing to harvest timber and manipulate vegetation, but they are particularly interested in enhancing the environment, aesthetics, privacy, and a better quality of life. Almost half of the new interface landowners would be willing to accept less money from a timber sale if the logging actions protected other forest qualities.

New small tract owners fall into six markets according to forest ownership needs and abilities. The following is a description of people who recently bought small acreage forests (2 to 50 acres) in Virginia. These patterns are relevant throughout the south:

- Absentee investors** (9 percent) – the group least likely to manage their land and will probably sell it in less than seven years.
- Career professionals** (13 percent) – own an average of 17 acres, are highly educated and likely own other tracts of land, but are not actively involved in forest management.
- Wildlife enthusiasts** (16 percent) – are concerned about wildlife, with little interest in managing or cutting timber, owning an average of 32 acres.

*(Continued on page 26)*



Larry Kormak-InterfaceSouth

# Understanding the Wildland/Urban Interface

(Continued from page 25)

- **New pioneer farmers** (21 percent) – are eager to engage in forest management, but only 50 percent do so; average holdings are 40 acres.
- **Planners** (21 percent) – the wealthiest group, usually politically connected, average 70 acres and actively manage their land, are prime candidates for the services of consulting foresters.
- **Young families** (19 percent) – desire a family and community life, own an average 14 acres, and are willing to pass land on to the next generation.

Forestry professionals and associations desiring to address the interface concerns might consider: new methods of reaching these landowners, working to develop trust, finding tools to produce amenities and ecological quality, working with landowners to develop a management plan for their property, helping small tract owners find producers and a fair market for their harvested products.

## How Difficult Will It Be to Maintain Forest Sustainability in the WUI?

There are many challenges facing both large and small landowners in and around the interface. To the new interface, small tract landowners: limited small-scale management options, limited markets for traditional forest products, and lack of information and assistance from agencies. To forest managers: limited use of prescribed fire, concern with smoke and liability issues, increased wildfire occurrence, and a need for new methods of hazardous fuel reduction.

**Recreation** concerns: more people in the interface bring on more people seeking recreation in adjacent forestland from diverse users; there is a need to provide more recreation opportunities for these

users on public lands with the potential for conflict between different user groups.

**Wildlife** concerns include: maintaining and restoring wildlife habitat, and balancing the desire for wildlife contact with wildlife nuisance complaints. Deer and black bear often conflict with human activities in the interface areas where populations of these species are present in the adjacent wildlands.

In some locations, **economic and tax issues** are a concern: ad valorem taxes tend to increase in developing areas

Another means a seller may take is to sell land while *retaining oil and mineral rights*. This may discourage subdivision.

Some larger industrial forest landowners may sell large tracts of timber with *fiber supply agreements* attached. The agreements may call for long-term fiber supply guarantees.

Another alternative for large landowners to keep large tracts of forestland natural is by selling the land with agreements that the land will be managed to the standards of the *Sustainable Forestry Initiative (SFI)* program.

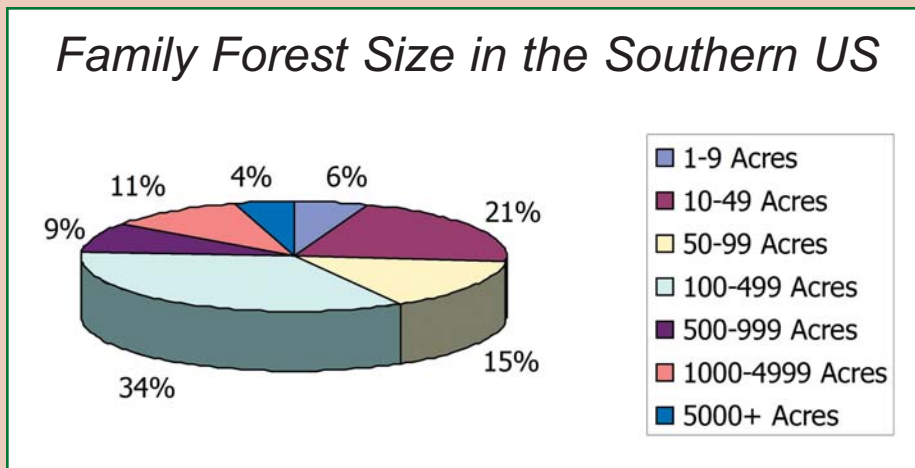
Private landowners may choose to allow some of their land to remain natural in perpetuity by entering it into a *conservation easement*. A conservation easement is a voluntary, legally binding agreement that limits certain types of uses, or prevents development from taking place on a piece of property now and in the future.

Another factor which may slow

wildland development is the increasing cost of gasoline. Larger numbers of urban residents may choose to remain in cities.

One way to address urban sprawl is by **Smart Growth**. It directs development towards existing communities already served by infrastructure. Smart Growth seeks to utilize the resources that already exist in neighborhoods, reducing greenfield development pressure into forests or farmland. Smart Growth developers also consider brownfield development of older suburbs and abandoned industrial areas. Smart Growth is more town-centered, transit and pedestrian-oriented, and provides for mixed use: housing, commercial, and retail. These residents travel shorter distances for most of their work, shopping, and cultural activities.

An important factor for promoting Smart Growth is *home rule* - local gov-



Percent of Acres Owned by Size Class

Source: Family Forests in the South - 2003, Butler and Leatherberry

thereby affecting the ability of the forest landowner to manage or retain their forests. Heirs are sometimes forced to subdivide or sell family land in order to pay estate taxes.

## How Forest Owners Can Help Slow Urban Sprawl

Forest ownership changes do not necessarily cause land use changes. The sale of timberland to *conservation groups and non-profits* is one way to ensure land will remain natural.

Landowners wishing to sell their land and desiring to see it remain natural may consider selling it to *other large landowners* who also desire to keep it natural. Although there may not be any guarantees, the best to consider might be large estates, large pension funds, or financial groups interested in timber, wildlife, and recreation.

ernments handle local matters in planning, infrastructure, and urban zoning – with fewer limitations by state legislatures.

What is significant about all of this is that we as landowners, land managers, and resource professionals should be aware of what is taking place and strive to work with planners, government officials, and developers to ensure that interface development is done in a responsible manner. As urban communities and their associated developments expand into the forests, management decisions concerning fire protection, recreational uses, wildlife, and environmental issues become more complex. We can help by encouraging developers to minimize conflicts with forest management.

### What Can Forest Landowners Do?

As landowners we must continue to promote the use of prescribed burning and herbicides. We should also continue with voluntary best management practices to maintain water quality and strive to protect private ownership rights. We must educate the public on the benefits of these practices and principles for forest sustainability.

We can help further if we:

- Maintain an active membership role in a landowner association.
- Develop an understanding of WUI issues and their interrelationships.
- Provide science-based information about potential natural resource consequences of land use decisions.

- Become aware that urban and new interface constituencies will have an increasing influence on state policies affecting land and forest management.
- Familiarize ourselves with growth and development ordinances in our own areas.
- Become part of the land use decision-making process.
- Support tax incentives to forest landowners in order to keep ad valorem and estate taxes low, thereby helping ensure forest sustainability.
- Work with a variety of audiences to build partnerships.
- Resolve conflicts by translating forestry into familiar terms.
- Encourage improvements in the urban environment in order to slow the expansion of population into the natural areas.

We all desire to keep our forest resources healthy and productive. There are lots of things we can do - whether or not development is headed our way. ☪

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### References and Suggested Reading:

Butler & Leatherberry. *Family Forests in the South*. 2004.

Jacobson. *Communication Skills for Conservation Professionals*. 1999.

Springer, Bruce. "Get Involved with Urban Planning." *Alabama's TREASURED Forests* (Spring 2004): 12-15, 30-31.

Macie & Hermansen. *The Southern WUI Assessment*. 2002.

Monroe. *The Moving Edge: Perspectives on Southern WUI*. 2003.

*Human Influences on Forest Ecosystems*. USDA Forest Service Report, 2003.

*Strategic Factors Driving Timberland Ownership Changes in the Southern U.S.* USDA Forest Service and University of Georgia, 2005.

Nowak, Walton, Dwyer, Kaya, and Myeong. "The Increasing Influence of Urban Environments on U.S. Forest Management." *Journal of Forestry* (December 2005).

Kendra and Hull. *Motivations and Behaviorism of New Forest Owners in Virginia*. 2005.

[www.firewise.org](http://www.firewise.org)

[www.interfacesouth.org](http://www.interfacesouth.org)

[www.smartgrowth.org](http://www.smartgrowth.org)

**For current information on the Southern Pine Beetle situation in Alabama, visit the Alabama Forestry Commission web page at: [www.forestry.state.al.us](http://www.forestry.state.al.us)**



Larry Korfmak-InterfaceSouth

# Seedling Sources for Alabama Landowners

The Alabama Forestry Commission is no longer operating a seedling nursery. Below is a list of private vendors that can supply seedlings to the public. The list is in alphabetical order, and is in no way an endorsement of any company or product. This list is being provided as a service to landowners who are looking for a seedling source.

If you are a company that is not listed below and you would like to be, please contact the Alabama Forestry Commission Forest Management Division at 334-240-9332.

#### **Alabama SuperTree Nursery**

264 County Road 888  
Selma, AL 36703  
Toll Free: (800) 222-1280  
Fax: (334) 872-2358

#### **American Tree Seedling, Inc.**

401 Industrial Blvd  
Bainbridge, GA 31717  
Phone: (229) 246-2662  
Fax: (229) 256-4787  
Email: CustomerService@  
americantreeseedling.com

#### **Andrew's Nursery Florida Division of Forestry**

P. O. Drawer 849  
Chiefland, FL 32644-0849  
Phone: (352) 493-6096  
Fax: (352) 493-6084

#### **Augusta Forestry Center Virginia Department of Forestry**

P. O. Box 160  
Crimora, VA 24431  
Phone: (703) 363-7000  
Fax: (703) 363-5055

#### **Baucum Nursery Arkansas Forestry Commission**

1402 Hwy 391 N  
North Little Rock, AR 72117  
Phone: (501) 945-1755

#### **Beauregard Nursery Louisiana Dept of Agriculture & Forestry**

P. O. Box 935  
DeRidder, LA 70634  
Phone: (318) 462-2711

#### **Bellville Tree Nursery Union Camp Corporation**

P. O. Box 56  
Bellville, GA 30414  
Phone: (912) 739-4721  
Fax: (912) 739-1861

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

1091 NE Daylily Avenue  
Madison, FL 32340  
Nursery at Madison, FL  
Outside sales office at Brewton, AL  
Phone: (850) 973-2967  
Email: blantonsnursery@earthlink.net

#### **Buckeye Nursery, Inc.**

P. O. Box 450  
Perry, FL 32347  
Phone: (850) 838-2680  
Toll Free: (800) 838-2218  
Fax: (850) 838-2681

#### **Carolina Forest Tree Nursery International Paper**

2341 Redmond Mill Road  
Swansea, SC 29160  
Phone: (803) 568-2436  
Fax: (803) 568-2718

#### **Central Florida Lands and Timber**

Route 1 Box 889  
Mayo, FL 32066  
Phone: (904) 294-1211  
Fax: (904) 294-3416

#### **Chestnut Hill Nursery, Inc (fruit and nut trees)**

Route 1 Box 341  
Alachua, FL 32615  
Toll Free (800) 669-2067  
Phone: (904) 462-2820  
Fax: (904) 462-4330

#### **Chiappini Farm**

P. O. Box 436  
Melrose, FL 32666  
Toll Free: (800) 293-5413  
Phone: (904) 475-5413

#### **Clairidge Nursery**

762 Clairidge Nursery Road  
Goldsboro, NC 27530  
Phone: (919) 731-7988  
Fax: (919) 731-7993

**Columbia Nursery**  
**Louisiana Dept of Agriculture & Forestry**  
P. O. Box 1388  
Columbia, LA 71418  
Phone: (318) 649-7463

**Comfort Seed Orchard**  
**Weyerhaeuser Co.**  
250 Weyerhaeuser Lane  
Trenton, NC 28585  
Phone: (910) 324-1116  
Fax: (910) 324-2038

**Container Corp of America**  
Archer, FL  
Phone: (904) 495-2660

**DeepSouth Pine Nursery, Inc**  
5500 Boomerang Road  
Bascom, FL 32423  
Phone: (850) 569-2488  
Toll Free: (888) 839-2488  
Email: dpsofor@surfsouth.com

**Delta View Nursery**  
*(hardwood seedlings)*  
Route 1 Box 28  
Leland, MS 38759  
Toll Free: (800) 748-9018  
Email: hardwoods@tecinfo.com

**Dixie Green**  
P. O. Box 262  
Centre, AL 35960  
Toll Free (800) 526-6121  
Phone: (256) 927-5185  
Fax: (256) 927-8546  
Email: dginc@dixiegreen.com

**Dwight Stansel Farm and Nursery**  
5553 164th Street  
Wellborn, FL 32094  
Phone: (904) 963-2827

**Fred C. Gragg SuperTree Nursery**  
**International Paper Company**  
Route 2 Box 23  
Bluff City, AR 71722  
Phone: (501) 685-2562  
Fax: (501) 685-2825

**Flint River Nursery**  
**Georgia Forestry Commission**  
Route 1 Box 40  
Byromville, GA 31007  
Phone: (912) 268-7308

**Florida Division of Forestry**  
3125 Conner Blvd  
Tallahassee, FL 32399-1650  
Phone: (850) 488-4274

**Forestry Division**  
**Riverwood International USA**  
P.O. Box 35800  
West Monroe, LA 71294  
Phone: (318) 362-2824  
Fax: (318) 362-2272

**Fratesi Nursery**  
*(hardwood seedlings)*  
122 Plantation Drive  
Leland, MS 38756  
Phone: (662) 379-3129

**Future Forest Seedlings**  
*(hardwood seedlings)*  
7361 Browning Road 520  
Greenwood, MS  
Phone: (662) 453-8589

**Garland Gray Forestry Center**  
**Virginia Department of Forestry**  
19127 Sandy Hill Road  
Courtland, VA 23837  
Phone: (804) 834-2855  
Fax: (804) 834-3141

**Gilman Paper Company**  
Day, FL  
Phone: (904) 294-1266

**Georgia SuperTree Nursery**  
Route 1 Box 1097  
County Road 3  
Shellman, GA 31786  
Toll Free: (800) 554-6550  
Fax: (912) 679-5628

**Glennville Regeneration Center**  
**Rayonier, Inc.**  
Route 2 Box 1975  
Glennville, GA 30427  
Phone: (912) 654-4065  
Fax: (912) 654-4071

**IP Nursery**  
Route 6 Box 491  
Livingston, TX 77351  
Phone: (409) 563-2302  
Fax: (409) 563-4574

**Indian Mound Nursery**  
**Texas Forest Service**  
P. O. Box 617  
Alto, TX 75925-0617  
Phone: (409) 858-4202  
Fax: (409) 858-4303

**International Forest Company**  
Contact: Wayne Bell  
1265 GA Hwy 133 N  
Moultrie, GA 31768  
Phone: (229) 985-0321  
Toll Free: (800) 633-4506  
Fax: (229) 985-0567

**Inverness Tree Nursery**  
**International Paper**  
Route 1 Box 244  
Union Springs, AL 36089  
Phone: (334) 474-3228  
Fax: (334) 474-3247

**Joshua Timberlands (Elberta Nursery)**  
**(MTM) Molpus Timber Management**  
29650 Comstock Road  
Elberta, AL 36530  
Phone: (251) 986-5210  
Fax: (251) 986-5211

**Keen Forest Management**  
Route 1 Box 782  
Mayo, FL 32066  
Phone (386) 294-2234

**The Liner Tree Farm, Inc.**  
P. O. Box 1369  
St Cloud, FL 34770  
Toll Free: (800) 330-1484  
Fax: (407) 892-3593

**Louisiana Forestry**  
P. O. Box 1628  
Baton Rouge, LA 70821  
Phone: (225) 925-4500  
Fax: (225) 922-1356

**Magnolia Nursery**  
**Weyerhaeuser Company**  
2960 Columbia 11 E  
Magnolia, AR 71753  
Phone: (501) 234-3537  
Fax: (501) 234-7918

*(Continued on page 30)*

# Seedling Sources

(Continued from page 29)

## **MeadWestvaco Tree Nursery**

P. O. Box 1950  
Summerville, SC 29484  
Phone: (803) 556-8391  
Fax: (803) 556-8391

## **Meeks' Farms & Nursery**

187 Flanders Road  
Kite, GA  
Phone: (877) 809-1737  
www.meeksfarms-nurserys.com  
Contact for Alabama: Peter Frankowski in  
Demopolis - Phone: (888) 397-0166

## **Meeks' Farms & Nursery, Inc.**

Mickey Parker, Seedling Sales  
4145 Montalvo Drive  
Pensacola, FL 32504  
Phone: (850) 476-4815 or (850) 438-2619  
Mobile: (850) 572-3932  
Fax: (850) 476-4831

## **Waynesboro Nursery**

### **Mississippi Forestry Commission**

Phillip Wilson, Nursery Manager  
1063 Buckatunna-Mt. Zion Road  
Waynesboro, MS 39367  
Phone: (601) 735-9512  
Toll Free: (866) 295-6279  
Fax: (601) 735-3163  
Email: pwilson@mfc.state.ms.us

## **The Natives**

2929 Carter Road  
Davenport, FL 33837  
Phone: (941) 422-6664

## **Oberlin Nursery**

### **Louisiana Dept of Agriculture & Forestry**

P. O. Box N  
Oberlin, LA 70655  
Phone: (318) 639-2911  
Fax: (912) 427-0816

## **OK Forest Regeneration Center**

830 NE 12th Avenue  
Goldsby, OK 73093  
Phone: (405) 288-2385  
Fax: (405) 288-6326

## **The Plum Creek Timber Company**

### **Jesup Nursery & Seed Orchard**

1689 Nursery Road  
Jesup, GA 31545  
Phone: (912) 427-4871  
Fax: (912) 427-0816

## **The Plum Creek Timber Company**

1444 Shubuta-Eucutta Road  
Shubuta, MS 39360  
Phone: (601) 687-5766

## **The Plum Creek Timber Company**

### **Pearl River Nursery**

1032 Camp Lane  
Hazlehurst, MS 39083  
Phone: (601) 894-1072  
Fax: (601) 894-3477  
Email: tom.anderson@plumcreek.com

## **Procter and Gamble Cellulose**

Perry, FL  
Phone: (850) 584-0231

## **Quail Ridge Nursery**

**Weyerhaeuser Co**  
169 Weyerhaeuser Rd  
Aiken, SC 29801  
Phone: (803) 649-0489  
Fax: (803) 649-0997

## **R. E. Mitchell Nursery**

**MacMillian Bloedel, Inc.**  
P. O. Box 336  
Pine Hill, AL 36769  
Phone: (334) 682-9882  
Fax: (334) 682-4481

## **Smurfit-Stone Container Corporation**

### **Rock Creek Nursery**

Doug Shelburne  
4346 Parker Springs Road  
Brewton, AL 36426  
Phone: (251) 867-9480  
Toll Free: (866) 407-9556

## **South Carolina SuperTree Nursery**

### **International Paper Company**

5594 Hwy 38 S  
Blenheim, SC 29516  
Phone: (803) 528-3203  
Fax: (803) 528-3943

## **Speedlings, Inc.**

Sun City, FL  
Phone: (813) 645-3261

## **Superior Trees, Inc.**

### **Lee Nursery**

P. O. Box 9325  
U. S. 90 East  
Lee, FL 32059  
Phone: (850) 971-5416

**Taylor Nursery**  
**South Carolina Forestry Commission**  
Box 116  
Trenton, SC 29847  
Phone: (803) 275-3578  
Fax: (803) 275-5227

**Tennessee Department of Agriculture**  
**Division of Forestry**  
**East Tennessee Nursery**  
P. O. Box 59  
Delano, TN 37325  
Toll Free: (877) 868-7337  
Phone: (423) 263-1626  
Fax: (423) 263-9322  
Email: nursery@state.tn.us

**Texas SuperTree Nursery**  
Route 1 Box 314A  
Bullard, TX 75757  
Phone: (903) 825-6101  
Fax: (903) 825-2876

**Tree Nursery**  
**Weyerhaeuser North Carolina**  
Route 2 Box 339  
Washington, NC 27889  
Phone: (919) 946-7718  
Fax: (919) 946-2218

**The Treehouse**  
**Florida Fancy, Inc., Home Office**  
P. O. Box 439  
Parrish, FL 34219  
Phone: (813) 722-1441  
Fax: (813) 729-5487

**Union Springs SuperTree Nursery**  
686 Bullock County Road 28  
Union Springs, AL 36089  
Toll Free: (888) 888-7158

**Walker Nursery**  
**Georgia Forestry Commission**  
HC01 Box 217  
Reidsville, GA 30453  
Phone: (912) 557-6821

**West Texas Nursery**  
**Texas Forest Service**  
Route 3 Box 216  
Lubbock, TX 79401  
Phone: (806) 746-5801

**Weyerhaeuser**  
**Pine Hill Nursery**  
3890 Hwy 28W  
Camden, AL 36726  
Toll Free: (800) 635-0162  
Phone: (334) 682-9882  
Fax: (334) 682-4481

**White City Nursery**  
*(bare root & container seedlings:  
loblolly & longleaf pine/hardwoods/wildlife)*  
707 County Road 20 West  
Verbena, AL 36091  
Phone: (334) 365-2488  
Email: wcnursery@bellsouth.net  
Web site: www.summithelicopters.com

**The Wildlife Group**  
Contact: Allen Deese  
2858 County Road 53  
Tuskegee, AL  
Toll Free: (800) 221-9703  
Fax: 334-724-9300  
Email: wildlifegroup@mindspring.com  
Web site: www.wildlifegroup.com

**Winona Nursery**  
Route 3 Box 41  
Winona, MS 38967  
Phone: (601) 283-1456  
Fax: (601) 283-4097

**Woodland Specialists**  
11306 Hwy 411 S  
Chatsworth, GA 30705  
Phone: (706) 334-2422  
Fax: (706) 334-4212

**Yazoo Hardwood Nursery**  
*(hardwood seedlings)*  
Mark Yarbrough  
Merigold, MS 38759  
Phone: (877) 726-2564  
Fax: (662) 748-2887 ☎

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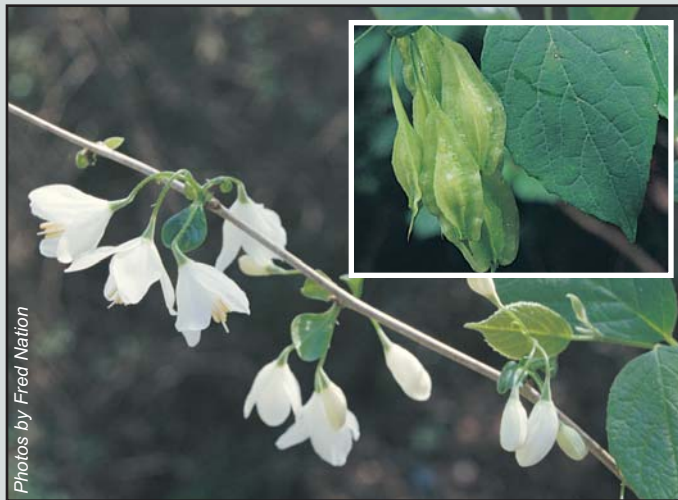
# Two-Winged Silverbell

(*Halesia diptera*)

By Fred Nation, Educator, Baldwin County

For most of the year, two-winged silverbells are ordinary-looking small trees. But in the spring, when they come into bloom, masses of pure white, bell-shaped flowers transform the silverbells into some of the showiest and most conspicuous trees in the understory of our southern forests.

*Halesia diptera* is deciduous, with yellow foliage in the fall. The leaves are alternate, to about 5 inches long, oval in outline, with an abruptly tapering tip. The edges (margins) of the leaves have a few blunt, irregular teeth, and the stalks (petioles) are about 3/4 inch long. The bark is brownish gray, rough and scaly, eventually developing ridges and furrows. Flowers are very showy, bell-shaped, to about 3/4 inch long, white, with four distinct petals, borne on long stalks in clusters of four or five, in March or April. Golden yellow stamens, which protrude slightly from the centers of the flowers, are reminiscent of "bell clappers." The unusual fruits are flat, oval-oblong, pale green as they develop, to about 2 inches long, with two broad membranes or "wings" along the edges.



Since silverbells are native members of our southern forested communities, they are of value to a variety of wildlife species within these systems. Squirrels are reportedly quite fond of the fruits, which turn dark brown and develop a large seed when mature. An old folk name for two-winged silverbell is squirrel bread! Bees are often seen around the flowers, gathering nectar and pollen. When the trees grow near water, beavers seem to be especially fond of the bark.

Though in most areas it is not a common species, two-winged silverbell occurs in a surprising variety of habitats, including mixed upland forests, rich wooded bluffs, and river floodplains. The native range is from extreme southern South Carolina, along the gulf coastal plain, into east Texas. In Alabama, two-winged silverbells are most often seen in the southern half of the state, occurring as occasional small trees in the understory of mixed or hardwood forests where fire is infrequent or rare.

*Halesia diptera* and the similar but somewhat larger and more rare Carolina silverbell, *Halesia carolina*, are becoming quite popular in southern landscapes, where there is great demand for small ornamental trees that grow well in a variety of lawn conditions. Both silverbell species are widely available from nurseries and garden centers, and both grow quite well in cultivation throughout Alabama in broken shade from the larger canopy species in the landscape.

The Alabama State Champion two-winged silverbell is in Wilcox County, measuring 38.5 inches in circumference, 76 feet tall, with an average crown spread of 36.5 feet. 🌳



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