

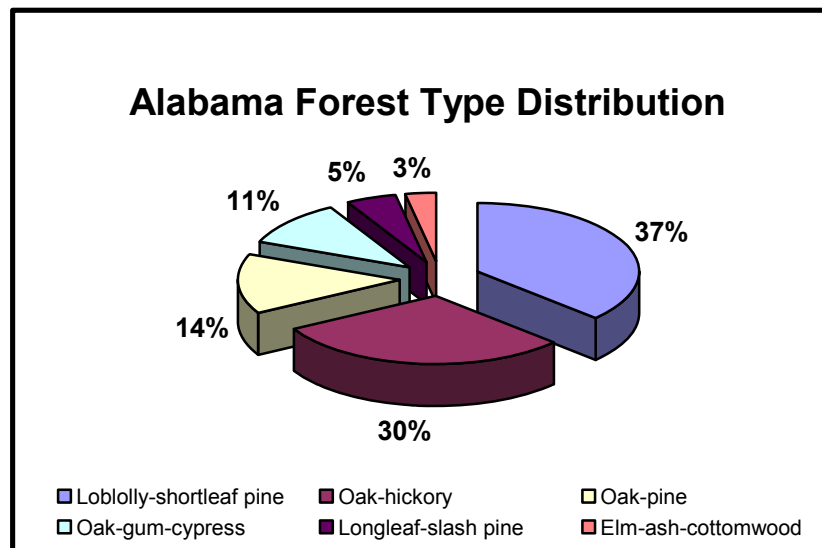
# Alabama



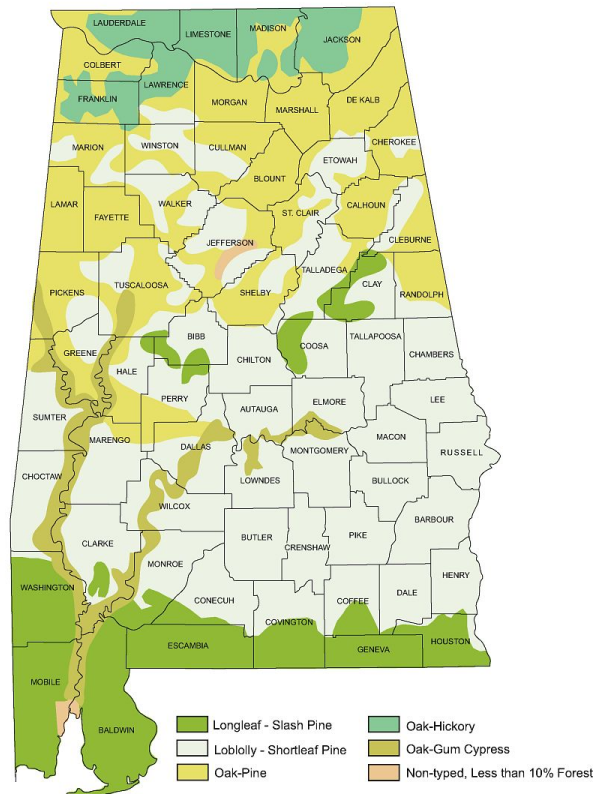
## Forest Health Highlights 2008

### The Resource

Alabama's forest resource has been fairly consistent throughout the years. Still maintaining the status of being the second largest commercial forestland in the nation, Alabama's forests cover 22.6 million acres. The majority, 79%, is owned by private, non-industrial landowners. The amount of forestland owned by forest industry has decreased, but only slightly from last year, to 15% due to divesting of property. The amount of public forests, primarily National Forests, remains relatively constant at approximately 6% of the total forestland in the state. From the Appalachian Mountain plateaus of the northeast to the flat sandy beaches of the Gulf Coast, Alabama illustrates a continuous example of scenic diversity through sustainable forestry. The state's resource goal coincides with the Alabama Forestry Commission's mission statement, "We will serve Alabama by protecting and sustaining our forest resources using professionally applied stewardship principles and education. We will ensure Alabama's forests contribute to abundant timber and wildlife, clean air and water, and a healthy economy." To completely visualize the diversity that exists in the Alabama landscape, a graph is presented illustrating the major forest types in the state. The forest type distribution has changed dramatically since historical times, with longleaf-slash pine forests being severely reduced. The current distribution of forestland types has generally remained the same for the last several years.



## Alabama Forest Types



Produced by: Cartographic Research Lab  
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## Forest Influences and Programs

**Southern pine beetle (SPB)** continues to remain a dominating forest pest in Alabama. With improving weather conditions in 2008, the state progressively recovered from the severe drought of 2006 and 2007. As a result, SPB infestations statewide continued to decrease. Analyzing the statistics of the last flight period of August-September, only 222 spots were detected infesting 4,985 pines, a significant decrease of last year's August-September flights of 591 spots with 32,405 infested trees. During all four flight periods this year, there were no epidemic counties reported. The Northeast and East Central Regions surprisingly had the most detected spots during the latter part of 2008, which is a noticeable change in the trend since Alabama usually has more SPB infestations in the Southwest Region of the state.



**Pine engraver beetle** infestations decreased significantly in 2008. The obvious decrease was recognized during the second, third and fourth flight periods where no engraver beetle infestations were detected by aerial methods. There were, however, a few infestations reported during the last part of the year by ground surveys. The number of beetle infestations during the last few months of 2008 was so few that no official record was documented. The dramatic decrease in beetle infestation assumingly was a result of improved weather conditions that existed throughout the year.



**Black turpentine beetle** infestations are not nearly as prevalent as the SPB or the pine engraver beetle infestations, but do sometimes damage pines in Alabama. Every year, there are a few isolated cases of black turpentine beetle infestations, especially in pines injured by logging or storms. This past year was no exception. Even with the mild weather conditions, black turpentine beetle infestations were reported, one in particular occurred in Jefferson County (Birmingham, Alabama).

**Fusiform rust** is a common disease in Alabama, especially on pine trees in the upper coastal plain and the lower piedmont areas of the state (generally known as the Black Belt region). Genetic improvements of pine seedlings, however, have reduced occurrences of fusiform rust. Although this fungus known to exist mainly on loblolly and slash pines, an unusual case occurred this year on several longleaf pines in Mobile County.

**Pine decline**, a disease complex, is relatively new, somewhat controversial, and periodically detected in Alabama. During the last period of the 2006-2007 drought, several landowners had concerns about pine decline and reported possible infections in their stands. With increased interest and occurrences of this disease complex, Auburn University initiated a Forest Health Cooperative. This newly developed cooperative will research the most common forest pests in the state, with a focus on pine decline. From the research, more definitive answers will be sought about the origin, effects and management of this disease. The Forest Health Cooperative officially started in 2009.

**Annosus root disease** occurrences have been steadily low for the last few years. The Alabama Forestry Commission places strong emphasis on awareness to landowners about the importance of monitoring pine stands for annosus root disease. As a result, pertinent information about and good management practices for pine stands (harvesting during the summer months, the use of borax treatment after harvesting, etc...) contributed significantly to the prevention of annosus root disease in the state.



**Weather** conditions in 2008 were relatively mild for Alabama. With significant amounts of precipitation and no major damaging storms to report, the state gradually, but not completely,

recovered from a devastating two-year severe drought. Because of the mild weather, beetle infestations decreased significantly in 2008.

**Sudden oak death surveys** were conducted again in Alabama during the early spring of 2008. The surveys were conducted in watersheds and drainages associated with horticultural nurseries that received potentially infected stock from California nurseries. Traps baited with rhododendron leaves were deployed in streams neighboring the selected seven nurseries. Samples were collected from these locations and analyzed. The results from the samples in 2008 indicated that the pathogen, *Phytophthora ramorum* was not detected in Alabama.

**Cogongrass** is still one of the most recognized non-native, invasive plant species in Alabama. Because this noxious weed occupies many areas in the state, the Alabama Forestry Commission decided to aggressively assess and control cogongrass. Broad establishments occur in the southwestern part of Alabama and in other areas of neighboring southeastern states. Because the range of cogongrass is so extensive, a federally-funded, multi-state competitive grant was approved for 2008. This Invasive Species (Cogongrass) Grant has three major components: to assess cogongrass abundance, to educate the public, and to control established infestations. Also, several Cogongrass Task Force groups were established to create a collaborative effort to eradicate this noxious weed. From these groups, a Cogongrass Memorandum of Understanding was created to place in writing the objectives, the goals, and the standards for the individual members of the Task Force.

**Emerald ash borer** is a non-native, invasive insect that is causing havoc on ash trees in the mid-western states. Because of limited control methods, the emerald ash borer is spreading rapidly to neighboring states, mainly by the transportation of untreated and unregulated ash firewood. Besides existing in Michigan, Illinois, Indiana, Ohio and Pennsylvania, this non-native insect spread to Maryland, West Virginia, Missouri and Wisconsin in 2008. The alarming news this past year was the discovery of this invasive insect in one of the southeastern states, Fairfax County, Virginia. With this unexpected and serious situation, the southeastern states started emphasizing public awareness of the emerald ash borer and how to prevent its spread. For the first time this past year, Alabama deployed emerald ash borer detection traps throughout high-traffic, forested areas in the state. The Alabama Department of Agriculture and Industries conducted these surveys in the fall of 2008, placing traps mainly in state parks. From the surveys, no emerald ash borers were detected in the state.

**The Southern Pine Beetle Thinning Cost-Share Program** is a federal/state program available to non-industrial, private forest landowners designed to reduce the risk of infestation in susceptible, dense pine stands. Through this program, financial assistance is provided to encourage timber stand improvement practices, such as thinning, to reduce the susceptibility of attack. For the 2007-2008 SPB Thinning Cost-Share program, 57 landowners completed a total thinning of 3,236 acres.

## **Future Concerns**

On June 3, 2008 several engineers hosted a review of the recently completed woody biomass project at Alabama Power's Plant Gadsden. The project evaluated the results of co-firing wood with coal for power generation at Plant Gadsden. Moisture content and relative size of the wood chips were analyzed for the efficiency of burning wood boilers. With participants at hand, Plant Gadsden engineers also evaluated changes in sulfur, mercury and nitrous oxide emissions at various levels of wood with coal. From the Alabama Forestry Association's newsletter, Plant Gadsden completed this woody biomass project.

As reported in the *Montgomery Advertiser* on June 15, 2008, the Governor of Alabama discussed with researchers and experts at Auburn University about building a \$300 million plant in the Black Belt to turn sugar cane into jet fuel for the U.S. Air Force. This possibility could become reality since several counties in Alabama have soil and climate suitable for growing sugar cane. Experts have developed an inexpensive process to turn sugar cane syrup into large volumes of jet fuel, but the sugar cane must grow within 20 miles of the plant. In

order for the plant to produce fuel from sugar cane, it would require 150,000 acres of the crop. Sugar cane is expensive to plant, but it grows back rather easily. The good news about this alternative fuel is that the blend would reduce the nation's dependency on foreign oil, is better for the environment and would help stabilize the price of fuel.

### **Forest Health Assistance in Alabama**

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