

Alabama

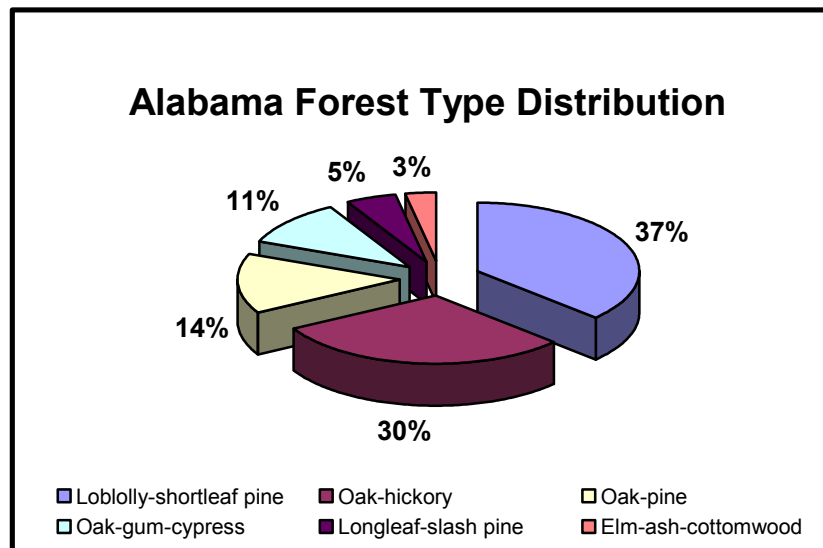


Forest Health Highlights

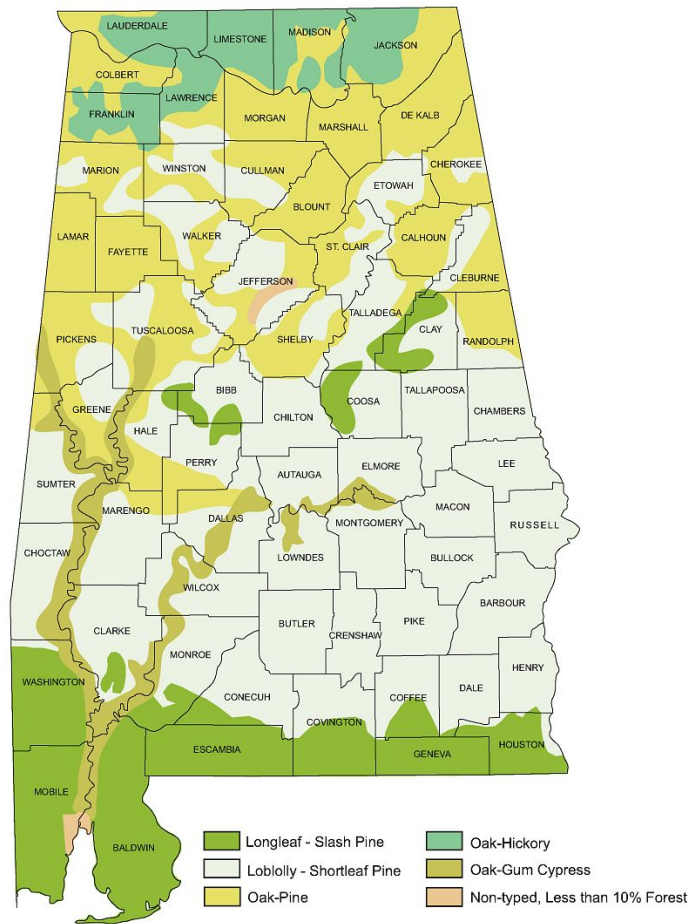
2007

The Resource

Alabama's forests cover 22.6 million acres, covering approximately 71% of the state's land, making Alabama the second largest commercial forestland in the nation. The majority of the state's forestland, approximately 79 percent, is owned by private, non-industrial landowners. Forest industry owns approximately 16% of the forestland, but this percentage is decreasing because many companies are divesting themselves of properties. Public forests, primary National Forest lands, consist of approximately 5% of the total forestland in the state. Alabama's forests are prized for their diverse scenic beauty, supporting tourism and outdoor recreation. Alabama's emphasis on sustainable forests and wildlife habitat is evident from the Appalachian Mountain plateaus of the northeast to the flat sandy beaches of the Gulf Coast. Major forest types in the state include oak-hickory, loblolly-shortleaf pine, mixed oak-pine, elm-ash-cottonwood, and oak-gum-cypress. Longleaf-slash pine forests, historically much more wide-ranging, now comprise only 5% of the state's forests.



Alabama Forest Types



Produced by: Cartographic Research Lab
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Forest Influences and Programs

Southern pine beetle (SPB) is Alabama's most problematic forest pest. SPB infestations surprisingly decreased in 2007 by approximately 48 %. The last SPB flight completed in 2007 was the August-September flight. During this flight period, the statewide total was 591 beetle spots infesting 32,405 pines. The total number of epidemic counties was 11. The NE region had the greatest number of spots with 233, infesting 6,520 pines. Both the NE and the NW regions had 4 epidemic counties. A total of 50 counties was inspected during this flight period with 34 counties having beetle activity.



Pine engraver beetles (*Ips spp.*) activity remained steady in 2007 with a slight decrease statewide from last year. Three consecutive years of adverse abiotic conditions (hurricane damage in 2004 and 2005, drought in 2006) caused a significant increase in pine engraver beetle infestations in 2006. Because of the health concerns of Alabama pines, the engraver beetle infestations were monitored in 2007. With the drought continuing in 2007, the prediction was that the pine engraver beetle infestations would progressively increase. That was not the outcome in 2007; the overall number of infestations actually decreased.



Fusiform rust is most prevalent in the upper coastal plain and the lower piedmont areas of Alabama (sometimes referred to as the blackbelt region). Genetic improvements of pine seedlings have reduced the occurrence of fusiform rust; however, it still causes serious infections on pines each year.

Littleleaf disease and **loblolly decline** cause losses in shortleaf and loblolly pine stands in Alabama. There continued to be recognitions of loblolly decline in 2007. This disease complex appeared in specific areas of the state, often associated with eroded, clayey soils. There was, however, no reported change in littleleaf disease in Alabama.

Annosum root disease infections remained steady in Alabama. Good management practices in pine stands (harvesting during the summer months, the use of borax after harvesting, etc...) contributed significantly to the prevention of annosus root rot disease. With two consecutive years of drought (2006 and 2007) an anticipated increase in annosus root rot disease was anticipated but didn't materialize.

Dogwood anthracnose is a disease of cool, moist areas in the higher elevation forests of northern Alabama. Levels of disease have remained fairly steady. No significant increase in dogwood anthracnose or tree mortality occurred in 2007.

Weather often impacts Alabama's forests. Hurricanes of 2004 and 2005 caused significant damage and weakened many trees. Alabama experienced the opposite situation in 2006 and 2007 —drought. Drought was a primary abiotic condition that increased tree mortality statewide.

Sudden Oak Death surveys were initiated in Alabama in 2003 and were conducted for 3 years by pathologists from Mississippi State University. The surveys were focused on the perimeters of horticultural nurseries that received potentially infected stock from nurseries in California. The pathogen, *Phytophthora ramorum*, was not detected in Alabama. In 2007, a survey technique was implemented where streams (draining areas with nurseries or developed areas where nursery plants were likely installed) were baited with rhododendron leaves that can become infected by the pathogen from spores disseminated in waterways. All of the samples from the selected Alabama bait locations were negative the presence of the pathogen.

Cogongrass has become the most concerned invasive, non-native plant species in Alabama. Cogongrass has an adverse affect on timber management, seedling survival, and wildlife habitat. Like most invasive species, cogongrass is difficult to control or eradicate. The largest areas of infestation occur in the southwestern part of the state. To address proliferation of this plant the Forestry Commission initiated the Invasive Plant Cost-Share Program which ran from 2005-2007. Since cogongrass is a major multi-state problem, a federally-funded competitive grant was approved in 2008 for selected southeastern states to partner together in controlling and eradicating cogongrass.

The Southern Pine Beetle (SPB) Thinning Cost-Share Program is a federal/state program available to non-industrial private forest landowners to initiate preventive measures against future SPB infestations and restore forest lands that have been impacted by recent SPB activity. Eligible landowners approved for cost share can receive funding not to exceed \$5,000 for a single or combined selected management activity: precommercial and first thinnings. This program will also fund annosus root rot (borax) treatment. Other considerations included in the program are encouraging landowners to decrease residual basal area in pine stands and to regenerate the stands with species specific for the site. The program started its third sign-up in 2007.

Forest Health Monitoring (FHM) activities are cooperative efforts between the USDA Forest Service and the Alabama Forestry Commission. The FHM program in Alabama includes periodic measurement of fixed plots as well as regular aerial and ground surveys to detect forest damage.

Future Concerns

The state of Alabama is engaged in a discussion about building an [electricity/pulp plant](#) in Linden, Marengo County. This new economic endeavor will create 400 new jobs. To supply this plant, however, 30,000 acres of bamboo (*Arundo donax*) must be planted in the area. The main concern is that *Arundo donax* is a non-native invasive species which could spread outside planted areas and pose a threat to forestland, agricultural lands and wildlands. There is not enough research to know the effects (adverse or otherwise) this species will impose on Alabama's forests. The opposition for this project is as great as the support for it. Thus, the final decision of establishing this electricity/pulp plant in Linden is yet to come.

Alabama may receive its first [ethanol plant](#) in the latter part of 2008. Since the country's goal is to reduce its dependency on foreign oil, relying on alternative fuels are of great interest. Plans were discussed in early 2007 to build a 55-million gallon ethanol facility in Dadeville, AL. This plant is projected to cost \$135 million to complete and will be one of the first in the country to run entirely on renewable energy sources. The facility will be designed to use approximately 20 million bushels of corn each year to produce ethanol.

Forest Health Assistance in Alabama

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