

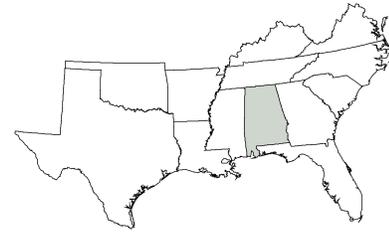
Forest Health Monitoring Southern Regional Program



Fact Sheet Series



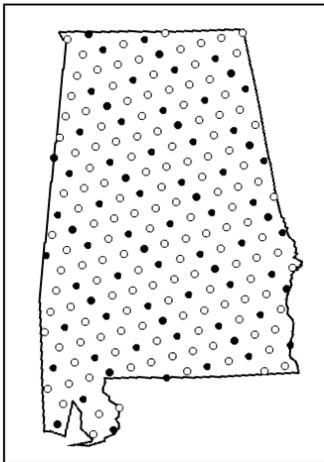
Alabama (1998)



Sampled Forest Conditions

Alabama has almost 22 million acres of forest land; based on the 1992 Alabama inventory. These forests are important to the citizens of Alabama because they provide clean air and water, wildlife habitat, and are sources of recreation and timber.

Forest Health Monitoring Sites, 1998



Sampled Year	Number of Sites
● 1998	71
○ Previous	137

Land Use	%
Forested	61
Non-forested	39

Alabama has participated in the FHM Program since 1991. Although there are 208 total plots in Alabama only 71 are measured in any year. The distribution of plots by various forest stand descriptors is listed below.

How Forest Stands are Distributed

Forest Types	%	Origin	%
Loblolly-Shortleaf Pine	31	Natural	75
Longleaf-Slash Pine	6	Planted	25
All Softwood Types	37		
Oak-Pine Types	25		
Oak-Hickory	22	Age (years)	%
Oak-Gum-Cypress	14	0-20	37
Other Hardwoods	2	21-40	30
All Hardwood Types	38	41-60	28
		60+	5

Forest type groups with a pine component as a majority account for over 60% of the forest type groups in Alabama. Oak-Gum-Cypress forest type group is more common in Alabama than any other current state in FHM. Only 5% of the forested stands are over 60 years old; while one-quarter of the forested stands are planted.

How Trees Rank in Abundance

Tree Species	Seedlings	Saplings	Live Trees	Dead Trees	Cut Trees
	----- rank -----				
Loblolly Pine	7	1	1	1	1
Longleaf Pine	*	*	7	4	9
Shortleaf Pine	*	*	*	8	*
Virginia Pine	*	*	10	5	4
American Holly	*	*	*	*	8
Birches	*	*	*	6	10
Black cherry	*	*	*	10	*
Blackgum	4	10	*	7	*
Flowering Dogwood	8	6	*	*	*
Elms	9	*	*	*	*
Hickories	5	7	6	9	3
Oaks, Red	1	2	2	2	7
Oaks, White	6	8	3	3	2
Red Maple	2	5	9	*	6
Sweetgum	3	3	4	*	5
Sweet Magnolia	*	4	8	*	*
Yellow-poplar	10	9	5	*	*

* Not among the top ten species.

Loblolly pine ranks number one in all tree abundance categories except seedlings, whereas the red oaks are the most abundant hardwood species. Yellow-poplar is ranked number five in live trees ≥ 5.0 inches in diameter, but is not ranked in the top ten for dead trees. This can be explained that yellow-poplar has very few natural insect and disease pests and is moderately resistant to other stresses. Longleaf pine is relatively abundant although the Longleaf-Slash forest type only accounts for 6% of the forest type groups. Although dogwood anthracnose (a foliar disease) is found in Alabama, flowering dogwood is ranked number eight in seedlings and six in saplings.

Crown Conditions of Living Trees

Selected Tree Species *	Crown Dieback	Crown Density	Foliage Transparency
<i>percent of trees in poor condition</i>			
Loblolly Pine	0.2	2.7	0.5
Longleaf Pine	0.0	2.0	2.0
Virginia Pine	3.3	18.0	4.9
Hickories	1.2	4.8	0.0
Oaks, Red	0.5	4.7	0.9
Oaks, White	1.5	4.7	0.8
Red Maple	0.0	2.0	0.0
Sweetgum	1.7	4.4	0.0
Sweet Magnolia	0.0	0.0	0.0
Yellow-poplar	1.2	1.2	1.2

* Species among the top ten in abundance of live trees.

Virginia pine had the largest proportion of trees in poor crown condition for the three crown rating variables. The poor crown classes for Virginia pine has been noted in other southern states although the percentages were not as high. Sweet magnolia was the tree species with the best crown conditions, as evidenced with 0% for all crown variables in the poor condition class.

Frequency of Damage on Living Trees

Selected Tree Species *	Trees with any Damage	Most Frequently Observed Damage	
		percent	percent
Loblolly Pine	12.9	Cankers	9.2
Longleaf Pine	8.2	Decay	6.1
Virginia Pine	9.8	Cankers	3.3
Hickories	14.5	Decay	10.8
Oaks, Red	20.1	Decay	11.7
Oaks, White	16.3	Decay	10.1
Red Maple	22.5	Decay	14.3
Sweetgum	23.5	Decay	11.3
Sweet Magnolia	17.0	Decay	17.0
Yellow-poplar	7.4	Decay	3.7

* Species among the top ten in abundance of live trees.

Decay was the most common damage in all hardwood tree species. Cankers were the most common damage in loblolly and Virginia pine, which is the characteristic symptom of fusiform rust, a disease common on pines in Alabama. Yellow-poplar was the least damaged tree, which is reflective of the moderately resistant nature to insects, diseases, and other stresses.

Forest Influences

Insect Pests and Diseases

In 1998, south central Alabama was one of the few areas in the South with significant southern pine beetle activity. Forty-two of Alabama's sixty-seven counties were in outbreak status at some time during the year, comprising some 5,000 infestations. Fusiform rust continued to plague all Alabama land ownership categories, with an estimated 1,711,000 acres infected.

Other perennial problems such as annosum root disease and littleleaf disease on pine contributed to growth loss and mortality on susceptible sites. Drought predisposed both hardwoods and pines to inordinate stress, thereby resulting in attacks by secondary pests such as pine engraver beetles and hardwood borers. Eight Alabama counties are infected with dogwood anthracnose.

Among sampled plot trees, Virginia pine, hickories, and oaks, were the only species reflecting relatively poor crown condition. This could be symptomatic of the drought, since these species often inhabit relatively dry ridges where drought conditions tend to be most pronounced. Damage across species lines is consistent with anecdotal and condition-specific surveys. Sweet Magnolia and red maple, two trees notorious for their propensity for fire-caused butt rot, showed 17% and 14.3% affected by decay, respectively.

Additional Information

For more information on forest conditions in Alabama or Forest Health Monitoring, please contact:

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