

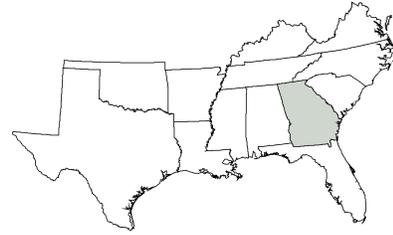
# Forest Health Monitoring Southern Regional Program



Fact Sheet Series



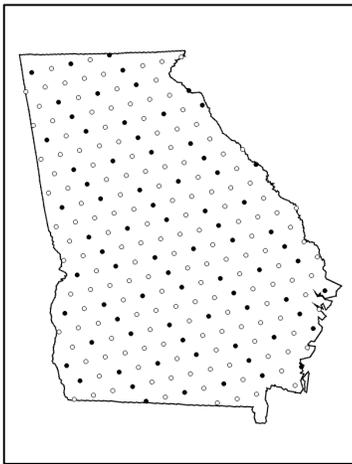
## Georgia (1998)



### Sampled Forest Conditions

Georgia has greater than 24 million acres of forest land; the most of any state in the southern U.S. These forests are a source of clean water, various timber products, and many recreation opportunities for the citizens.

### Forest Health Monitoring Sites, 1998



Sampled Year	Number of Sites
● 1998	76
○ Previous	158

Land Use	%
Forested	63
Non-forested	37

Georgia has participated in the Forest Health Monitoring Program since 1991. Although there are total of 234 plots in Virginia, generally only 76 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	30	Natural	72
Longleaf-Slash Pine	21	Planted	28
<b>All Softwood Types</b>	<b>51</b>		
<b>Oak-Pine Types</b>	<b>16</b>		
Oak-Hickory	19		
Oak-Gum-Cypress	13		
Other Hardwoods	1		
<b>All Hardwood Types</b>	<b>33</b>		

Age (years)	%
0-20	41
21-40	16
41-60	23
60+	20

Two-thirds of the forest type groups in Georgia are dominated by types with a pine component. Oak-Hickory is the most common hardwood forest type group in Georgia. Slightly less than half of the forest stands are greater than 40 years old.

The most abundant sapling and live tree (> 5.0 inches in diameter) was loblolly pine, which is expected as the loblolly-shortleaf forest type group accounts for nearly one-third of the stands in Georgia. The top five trees that were cut in Georgia were softwood species. This is not surprising given the importance of the softwood timber industry in the state of Georgia. Although softwood species rank high in most categories, the top five species for seedlings are hardwoods.

### How Trees Rank in Abundance

Tree Species	Seedlings	Saplings	Live Trees	Dead Trees	Cut Trees
	----- rank -----				
Loblolly Pine	7	1	1	1	2
Longleaf Pine	*	*	9	*	5
Shortleaf Pine	*	*	10	4	4
Slash Pine	10	3	2	5	1
Virginia Pine	*	*	*	8	3
Amer. Hornbeam	*	8	*	*	*
Black Cherry	8	*	*	*	*
Blackgum	6	7	*	*	*
Flowering Dogwood	*	5	*	*	*
Elms	*	*	*	10	*
Hickories	5	10	*	6	*
Oaks, Red	1	2	3	2	7
Oaks, White	3	*	4	3	6
Red Maple	2	6	8	7	8
Sweetgum	4	4	7	*	9
Swamp Tupelo	*	*	6	*	10
Yellow-poplar	9	9	5	9	*

\* Not among the top ten species.

American elms ranked number ten in abundance of dead trees, most likely due to the presence of Dutch elm disease in the 1960's and 1970's. Both red and white oaks are generally well distributed throughout most tree categories in Georgia; as is red maple which has very few native insect and disease pests.

## Crown Conditions of Living Trees

Selected Tree Species *	Crown Dieback	Crown Density	Foliage Transparency
<i>percent of trees in poor condition</i>			
Loblolly Pine	0.4	1.2	0.7
Longleaf Pine	0.0	0.0	0.0
Shortleaf Pine	0.0	6.8	0.0
Slash Pine	0.0	3.0	1.1
Oaks, Red	4.1	2.9	2.3
Oaks, White	1.0	1.9	1.0
Red Maple	1.1	1.1	1.1
Sweetgum	1.3	2.6	0.0
Swamp Tupelo	0.0	0.0	0.0
Yellow-poplar	0.0	0.0	0.0

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

Longleaf pine, yellow-poplar, and swamp tupelo were the three tree species that had no trees in any of the poor crown condition classes. The red oaks generally ranked the lowest in all crown condition classes. The 6.8% of the shortleaf pine with poor crown density is partially due to the presence of littleleaf disease in Georgia.

## Frequency of Damage on Living Trees

Selected Tree Species *	Trees with any Damage	Most Frequently Observed Damage	
		percent	percent
Loblolly Pine	13.6	Cankers	9.7
Longleaf Pine	19.2	Decay	7.7
Shortleaf Pine	11.4	Decay	4.6
Slash Pine	15.5	Cankers	10.3
Oaks, Red	21.6	Decay	13.5
Oaks, White	13.3	Decay	10.5
Red Maple	29.2	Decay	22.5
Sweetgum	27.3	Decay	16.9
Sweet Magnolia	27.3	Decay	22.4
Yellow-poplar	13.9	Decay	11.1

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

Decay was the most common damage on hardwood tree species in Georgia. Cankers were the most common damage on loblolly and slash pine, which is expected due to the incidence of fusiform rust in Georgia. As in other southern states, red maple had the highest damage incidence.

## Forest Influences

### Insect Pests and Diseases

A myriad of problems affect Georgia's forests, largely because of varied terrain and forest types combined with heavy forest cover. Nevertheless, southern pine beetle activity was minor in 1998, with only 264 spots reported statewide, and no counties in outbreak status. Fusiform rust affects Georgia more severely than any other state, with 4,594,000 acres infected. This is consistent with the 9.7% sampled loblolly pine and 10.3% sampled slash pine showing cankers on FHM plots.

Since its initial Southern U.S. discovery in the Georgia mountains in the late 1980's, dogwood anthracnose has spread and intensified throughout 36 counties in the state, mostly in the north where the host type is concentrated. Littleleaf disease continues to cause significant growth loss and mortality in shortleaf and loblolly pines in the Georgia Piedmont.

Decay is common on Georgia hardwoods, especially in bottomland sites. Sweetgum, magnolia, and red maple both showed over 22% affected. Such decay often develops as an aftermath of fire, which provides infection locations. Crown conditions among both pine and hardwood were relatively good. The 4.1% of the red oaks showing a high incidence of dieback, poor crown density and high transparency probably reflects the impact of the recent drought on upland species.

## Additional Information

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

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