



**Roots and  
Resiliency -  
Fostering  
Forest  
Stewardship in  
a Canopy of  
Change-  
Envirothon**

**2/25/2025  
Brandon Merz  
Brian Tate**

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**GEORGIA FORESTRY  
COMMISSION**



# GFC Services

## Forest Fire Protection and Prevention Utilization & Marketing Reforestation Forest Management Sustainable Community Forestry Program



**Georgia Forestry Commission Services**

**Forest Fire Protection and Prevention**

- Wildfire detection and suppression
- Run permit distribution and administration for land clear activities
- Run permits, visit [GaForest.org](http://GaForest.org) or call 877-682-8239. For permits for machine sites or average fees, contact your local GFC county office.
- Firewise planning (see below)
- Prescribed burning assistance (see below)
- Prescribed burning training and education
- Wildfire mitigation advice and risk assessments for homes and communities
- Community wildfire protection planning
- Firewise construction and practices guidelines
- State Wildland Firefighting and National Incident Management System training
- Rural Fire Defense Program equipment leasing
- Wildfire prevention strategies, programs and education
- Emergency management support during disaster events
- Weather forecasting at [GaForest.org/Weather](http://GaForest.org/Weather)

**Forest Services, Utilization & Marketing**

- Structure of wood-using industries
- Economic impacts of forest industry
- Forest value chains & analysis
- Business models
- Emerging markets, products and reporting
- Logistics services
- Community Forestry Registry
- Analysis of forest resources for forest products, forest services, wood-based, biomass, bioenergy and recreational trade shows
- Timber production
- Financial and economic analysis - growth and yield
- Business information databases research

**Reforestation**

- Price and hardwood seedlings sales - prices and species at [GaForest.org](http://GaForest.org)
- Tree breeding and testing
- Seed production contracts

**Forest Management**

- Advice and plans for reforestation, timber stand improvement and harvesting
- Forestry Best Management Practices (BMP) monitoring and education
- Forest plans and wildlife species location
- Multiple-use Forest Stewardship Plans
- Forest water quality and wetland compliance investigation and evaluation
- Assistance with federal cost share and conservation programs
- Forest health information, education and training
- Forest Legacy Program administration and conservation assessment assistance
- Direction for consulting foresters, forestry service contractors, timber buyers and processors, wildlife, Christmas tree and pine straw producers
- Forest security risk assessment
- Equipment rental (tree planters, chainsaws, etc.)

**Sustainable Community Forestry Program**

- Ask the Arborist
- Making the Green Great Program
- Tree CityUSA Campus USA
- Community forest administration
- Community forest land conservation
- Direct labor activities
- Urban Forest Sticks Team
- Web-based Smart Landscaping/Community Forest Management tool: [GaForest.org/SmartLandscaping](http://GaForest.org/SmartLandscaping)

**Forest Management and Stewardship services**

Area 1 (Savannah)	202.262.0271
Area 2 (Columbus)	706.241.2622
Area 3 (Macon)	706.241.2710
Area 4 (Waynesboro)	706.266.2623
Area 5 (Waynesboro)	706.266.2623
Area 6 (Waynesboro)	706.266.2623
Area 7 (Waynesboro)	706.266.2623
Area 8 (Waynesboro)	706.266.2623
Area 9 (Waynesboro)	706.266.2623
Area 10 (Waynesboro)	706.266.2623
Area 11 (Waynesboro)	706.266.2623
Area 12 (Waynesboro)	706.266.2623

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# Forest Facts

- #1 Forestry State in the Nation

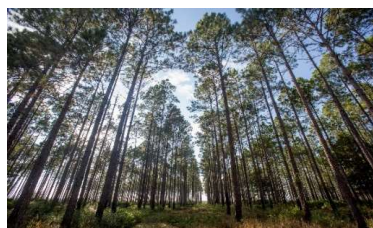
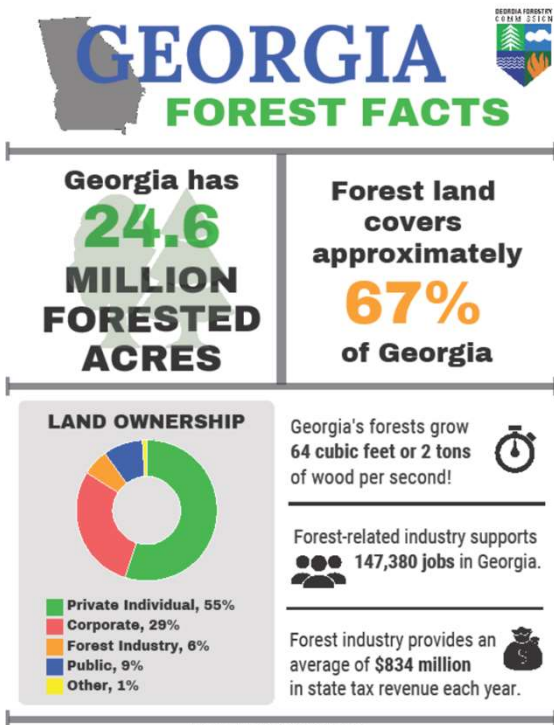
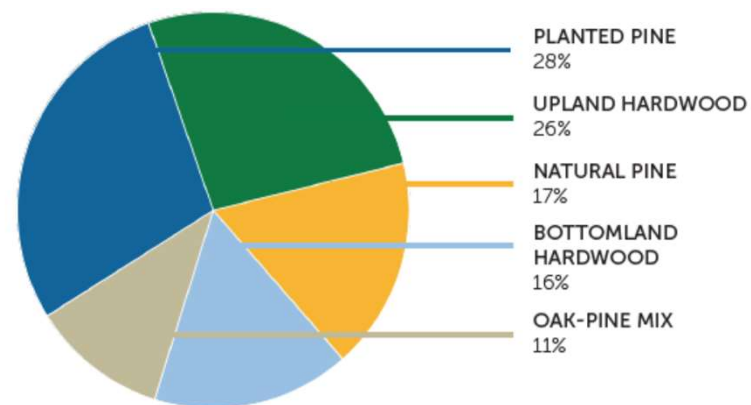


FIG. B  
**GEORGIA FOREST TYPES BY GROUP<sup>2</sup>**



# Forest Facts

Economic Impact  
\$36 billion

Jobs  
Forest Products  
BioEnergy



Ecosystem Services  
\$37 billion

Clean Air  
Clean Water  
Recreation  
Wildlife Habitat



# Forest Threats

- Threats to forestry
  - Land Use Change & Fragmentation
  - Wildfire
  - Invasive Insects
  - Invasive Plants
  - Native Insect Outbreaks
  - Sedimentation from Harvest Operations
  - Extreme Weather
  - Market Drivers

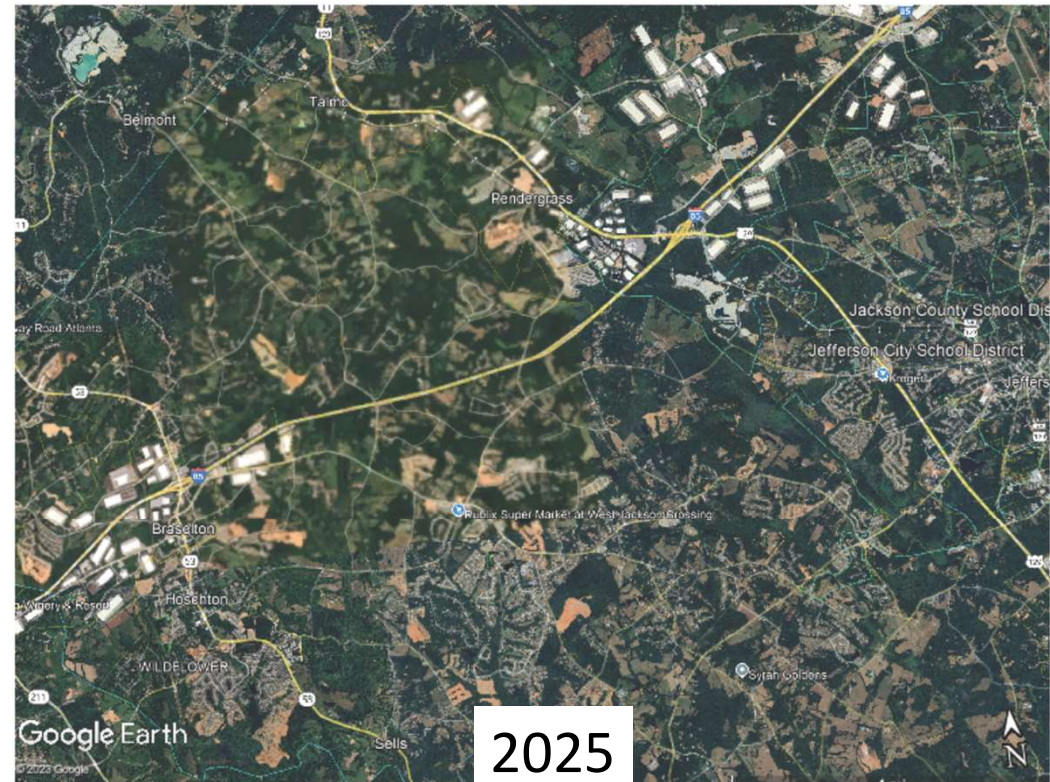
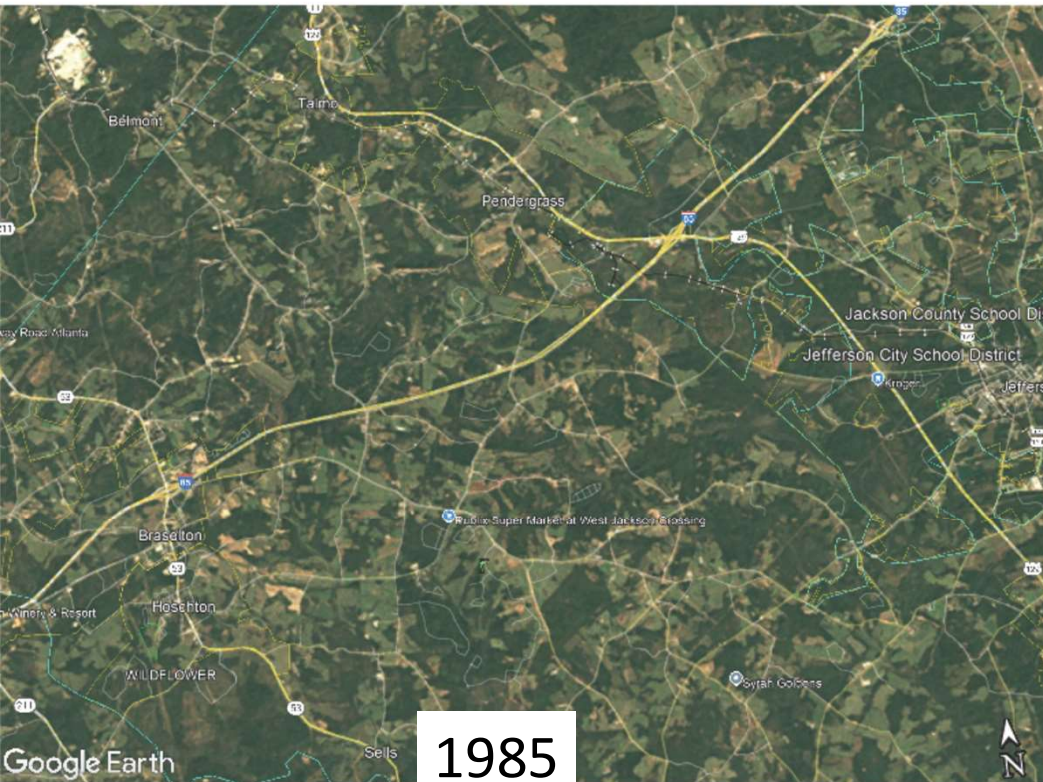
# Forest Threats

## Land Conversion and Fragmentation

- Challenge
  - Forest land converted to other uses (development, chicken houses, cow pastures, etc.)
  - Large acre forest stands subdivided into smaller, disconnected areas
- Management Options
  - Assistance with reforestation
  - Cost share incentives for forestry
  - Conservation programs

# Forest Threats

## Land Conversion and Fragmentation



# Forest Threats

## Wildfire

- Challenge
  - Human caused wildfires
  - Wildland Urban Interface (WUI)
  - Protection of structures and forest stands
  - Resource availability (firefighters and equipment)
- Management Options
  - Fuel reduction
  - Community outreach-Firewise program
  - Cost share incentives for prescribed burning



# Forest Threats

## Wildfire



UGA5208026



5207066



UGA5207064

# Forest Threats

## Invasive Plants

- Challenge
  - Disrupt native ecosystem
  - Costly to remove
  - Difficult to eradicate
- Management Options
  - Education on identifying invasives
  - Provide information on treatments
  - Suggestions for native plant alternatives
  - Cost share incentives for treating invasives

# Forest Threats

## Invasive Plants



**FOREST HEALTH**  
**Top Twelve Nonnative Invasive Plants**  
*(Using Forest Inventory and Analysis Data in Acres)*  
**2021 Dirty Dozen List**

Rank	Species	2013 - 2019			Trend	
		2019 Acres	2017 Acres	2015 Acres		
1	Non-native pine	736,930	644,217	719,311	693,386	Stable
2	Northeastern white pine	93,118	96,204	106,194	96,583	Stable
3	Chinese tallowtree	54,990	47,737	38,864	33,684	Stable
4	Non-native loblolly	47,870	35,862	44,373	42,634	Increasing
5	Baldcypress	32,838	30,761	34,768	33,293	Stable
6	Chinese saltcedar	32,290	34,221	19,724	21,443	Increasing
7	Non-native cypress	24,728	19,436	22,431	22,249	Increasing
8	Japanese climbing fern	20,280	19,979	19,724	19,994	Stable
9	English ivy	16,680	12,901	12,744	14,133	Increasing
10	Wisteria	14,000	7,874	9,982	10,382	Increasing
11	Mimosa (Chinese silk tree)	10,170	11,447	11,180	12,212	Decreasing
12	Callery Pear (Bradford Pear)	10,040	3,400	1,623	1,680	Increasing
Cyclopsgrass Control Efforts * (Acres)(17/18/2021)		418	248	303		Stable

\* 17 counties have had cyclopsgrass detections since 2007, and to date 14 of the 17 counties have an active cyclopsgrass. Georgia's proactive treatment program meets benchmarks across the state, and 81% of all acres containing spots in Georgia are considered healthy. The Georgia Forestry Commission documents all known cyclopsgrass infestations.

Invasive Species: Any plant or animal that has been introduced and aggressively competes with and displaces local native communities, normally having no native enemies to limit reproduction and growth.

The Dirty Dozen List of Non-native Invasive Species is ranked by the total acres occupied according to Forest Inventory and Analysis data. Slower Spreads and Pines are not included in this list. Credit for the data used to make this list is the US Forest Service Forest Inventory and Analysis Program and The Georgia Forestry Commission FIA Foresters.



# Forest Threats

## Invasive Insects

- **Challenge**
  - Native trees rarely have defenses
  - Often cause tree mortality
  - Few native predators
- **Management Options**
  - Trapping projects for early detection
  - Landowner education on identification and treating infestations

# Forest Threats

## Invasive Insects



European (*Lymantria dispar*)

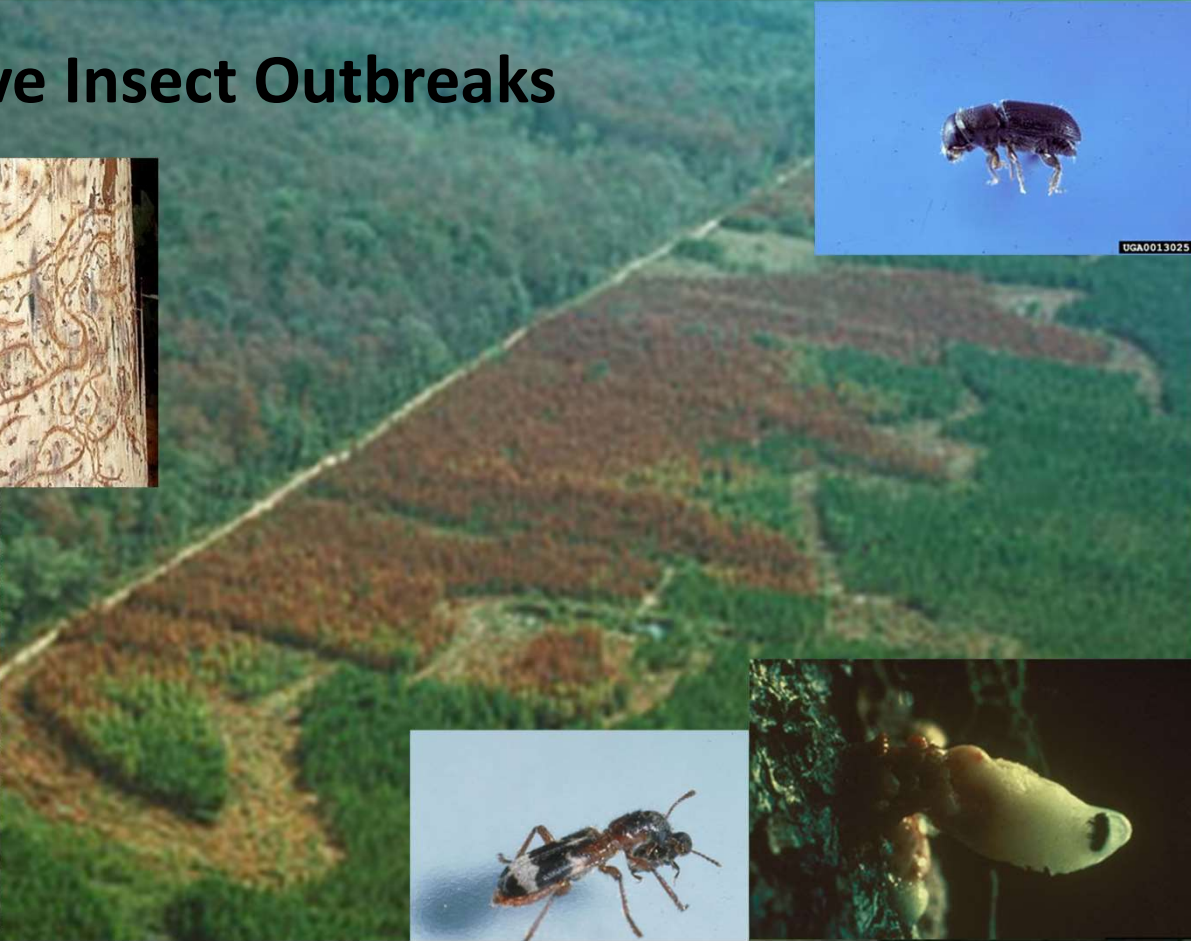
# Forest Threats

## Native Insect Outbreaks

- **Challenge**
  - Native pest populations can exponentially increase when favorable environmental conditions occur
  - Can be sudden and unpredictable (weather influenced)
- **Management Options**
  - Proper and timely management (thinning, Rx burning)
  - Cost share incentives for Southern Pine Beetle prevention

# Forest Threats

## Native Insect Outbreaks



# Forest Threats

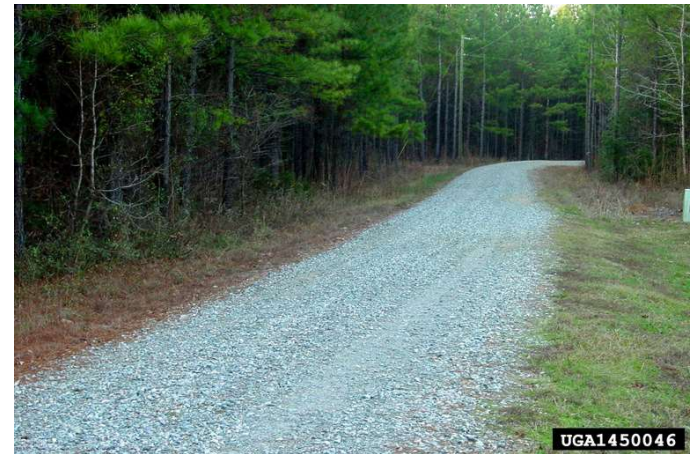
## Sedimentation

- Challenge
  - Human activity resulting in erosion and sedimentation into waterways
  - Can occur during harvesting operations
- Management Options
  - Best Management Practices for Forestry
  - Annual BMP Survey
  - Investigation of logging complaints
  - BMP trainings for loggers



# Forest Threats

## Sedimentation



# Forest Threats

## Weather

- Challenge

- More extreme weather events
  - Hurricanes
  - Ice storms
  - Flooding
  - Tornadoes/severe thunderstorms
  - Drought

- Management Options

- Choose appropriate tree species for site and location in Georgia
- Cost share incentives for storm damage debris clean up and reforestation

# Forest Threats

## Weather



# Forest Threats

## Market Drivers

- Challenge
  - Decreasing trend in use of paper/lumber products
  - Increasing supply of timber
- Management Options
  - Mass timber- buildings using engineered wood materials (store carbon)
  - Use renewable paper and wood products (e.g. paper bags over plastic)
  - GFC Utilization Department working with industry to promote forest products

# Forest Threats

## Market Drivers

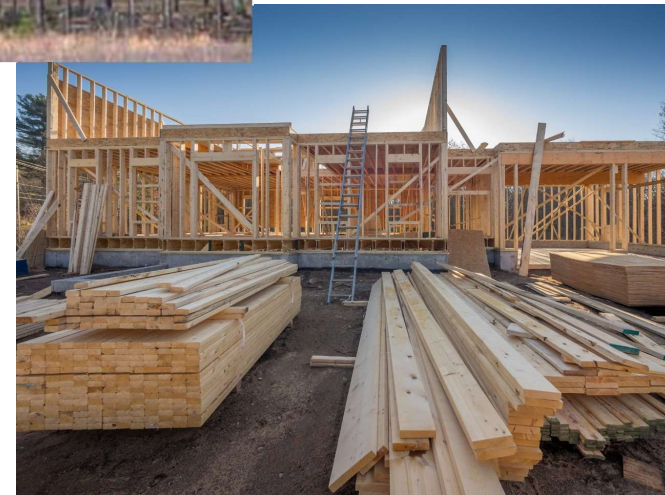
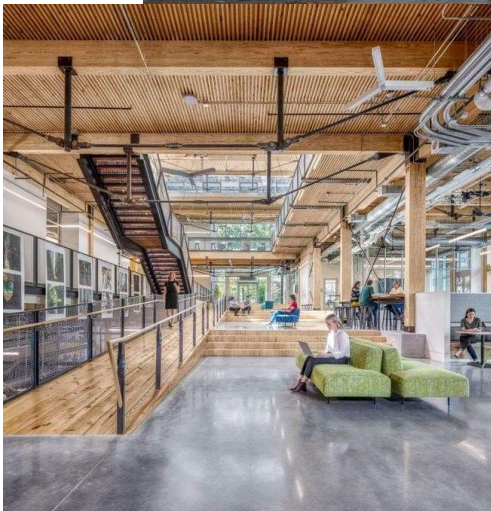


Image: Thomas Jefferson University

Questions?

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