

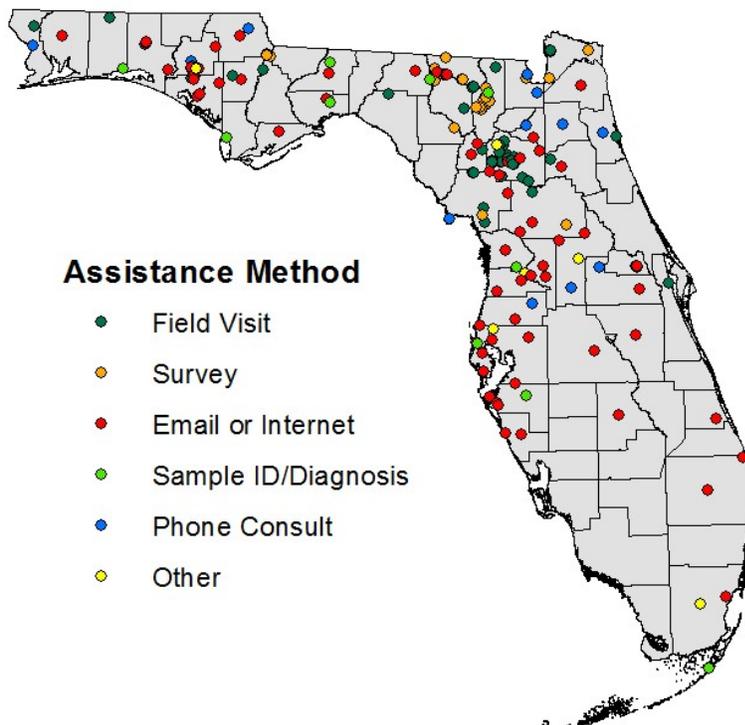
Florida Forest Health Highlights 2017

Forests of Florida

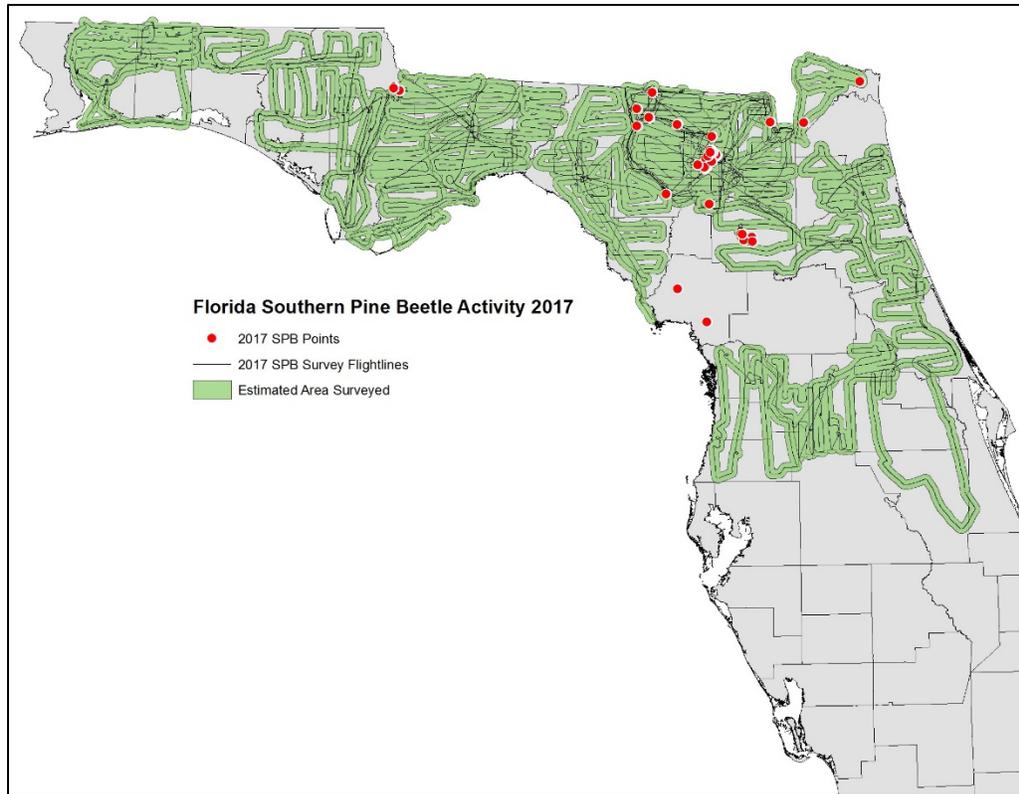
Florida's forests are expansive and diverse and include subtropical systems, baldcypress wetlands, pine flatwoods, pine-oak scrubs, gum-cypress swamps, coastal mangroves, isolated hardwood hammocks, and more extensive upland hardwoods. The state's mild climate, tourism industry, and many ports of entry also make it particularly vulnerable to the introduction and spread of non-native invasive species. Challenges to forest health in the Sunshine State are therefore myriad and complex. What follows are only a small sample of notable examples of Florida's forest pest and disease-related activities and scenarios from 2017.

Forest Health Section

The Florida Forest Service's Forest Health Section staff is constantly involved in countless technical assistance requests from a wide variety of recipients. This recipient list includes but is not limited to The International Society of Arboriculture, The University of Florida and the Cooperative Extension Service, The Division of Plant Industry, FFS personnel, Forest Industries, the Society of American Foresters, The Florida Forestry Association, Florida A&M University, Private Landowners, and others. The FH Section offered at least 16 presentations and training seminars in FY 16/17, to approximately 509 attendees. This included a series of 9 forest health training workshops, offered to field staff from FFS and other state agencies. The FFS Forest Health Section staff also provided identifications, diagnoses, and management recommendations regarding over 289 forest-health-related incidents statewide. In addition, the FH Section is in the process of developing and revising several new and existing publications for public education and outreach regarding forest pests and diseases.



to notify them of infestations and advise them on suppression activities. The earliest infestations were detected in February, following periods of unseasonable warm winter weather. As the summer temperatures peaked in mid-August, reports of new infestations slowed down, with a few smaller infestations detected in October.



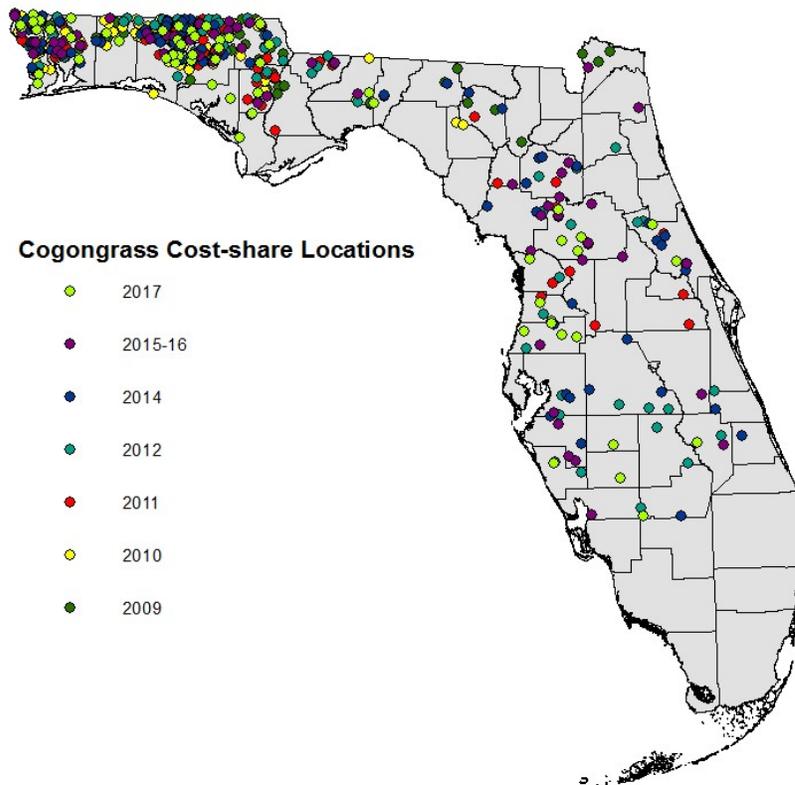
Cogongrass

Cogongrass (*Imperata cylindrica*) is almost universally regarded as one of the most damaging invasive plants in the Southeast. Its rapid and aggressive growth, ease of propagation from rhizomes, tolerance of drought and poor soils, and fire-adapted traits have allowed it to invade into a wide variety of sites in Florida, greatly complicating land management. Once established on a site, cogongrass often requires multiple years of aggressive treatments to eradicate.



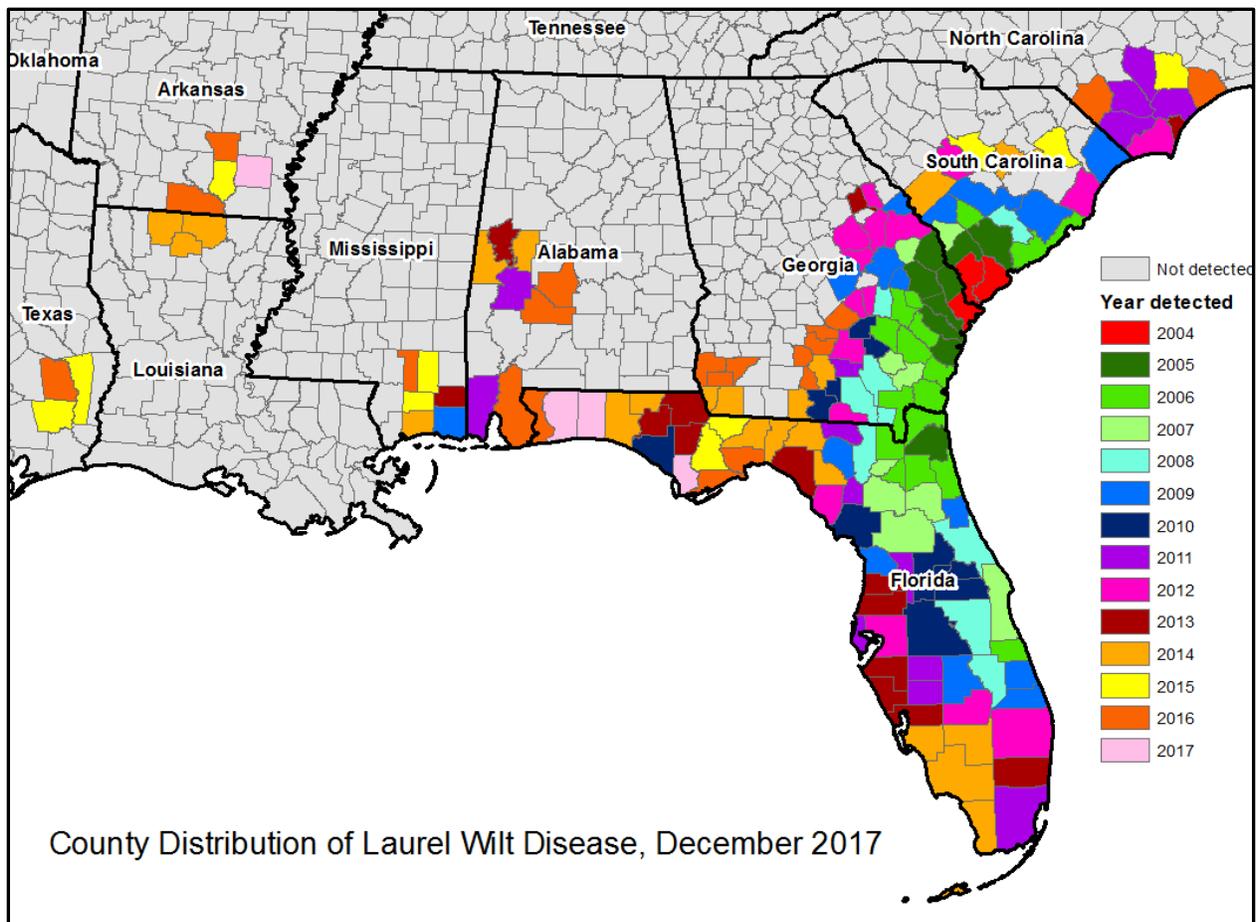
Although public conservation area managers are generally engaged in combating cogongrass, much of Florida's invested area is on private land. In 2009, The Florida Forest Service began offering a cost-share program to non-industrial private landowners, to assist with the cost of treating cogongrass infestations with herbicide.

Cogongrass eradication efforts continue for 2017, funded by a series of multi-state landscape-scale restoration redesign grants (awarded in 2008, 2011, 2014, 2015, and 2016). Applications were again accepted from July through October 2017. Since the program's inception, a total of 580 contracts have been awarded to treat roughly 6,400 acres of cogongrass on private lands in Florida. Initially only offered in counties along the northern border of the state, the program is now offered statewide.



Laurel Wilt Disease

The non-native redbay ambrosia beetle (*Xyleborus glabratus*), and the pathogenic fungus it carries (*Raffaelea lauricola*), together cause laurel wilt (LW), a lethal disease of tree and shrub species in the laurel family (Lauraceae). Since it was first detected in Duval County in 2005, LW has been devastating populations of redbay, swamp bay, sassafras, and several other native species as it spread through the state. In addition, it has become an important disease of avocado trees, which are a significant commercial crop in South Florida. The year 2017 marked an unfortunate milestone, as laurel wilt disease has been confirmed to be present in all counties in Florida.



Sandhill Tree Mortality

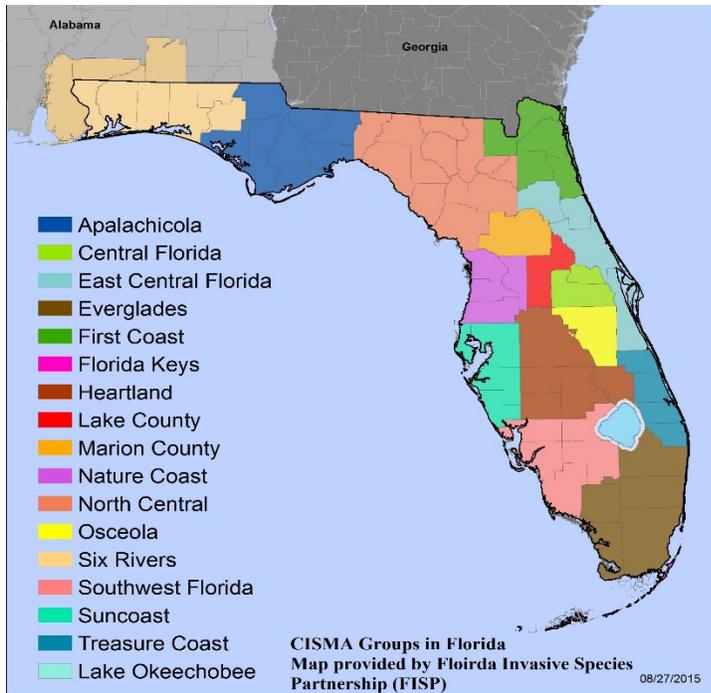
A widespread tree mortality event occurred in Florida’s northwest (Panhandle) region from 2016 to 2017. Large areas of trees were observed rapidly declining and dying in scattered areas across at least 5 counties, without an obvious or immediate cause. This scenario occurred in upland areas with deep, sandy soils, and primarily affected tree species that are well-adapted to such sites (such as sand pine, longleaf pine, sand live oak, turkey oak, and Darlington oak).

Sampling surveys of these areas found only activity of pest and pathogen species (such as *Ganoderma* root disease, hypoxylon canker, and ambrosia beetles) that are typically secondary to some other disturbance or stressor. FFS Forest Health specialists developed a working hypothesis that this mortality may be a delayed response to the extreme rain event that occurred in this region in April 2014, which caused widespread flooding at that time. This may have damaged root systems and initiated root disease in tree species that are adapted to well-drained soils. When severe drought conditions occurred in 2016, this may have prompted the rapid decline of trees that were living with compromised root systems.



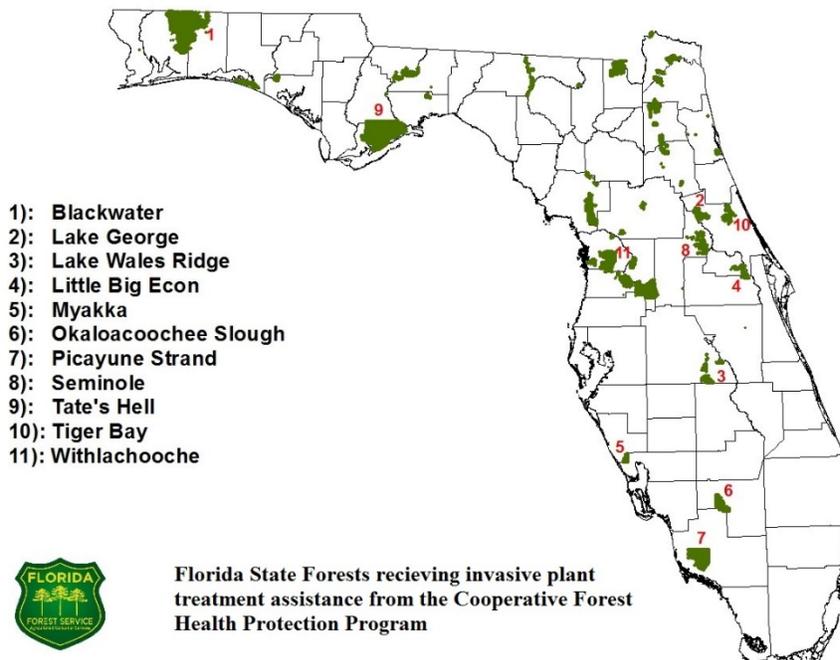
Non-native Invasive Plants

Non-native invasive plant species represent a substantial threat to forests and other lands in Florida; they can reduce forest productivity and diversity, degrade the value of the land for wildlife habitat and recreation, and increase the risks and effects of wildfires. As invasive plant problems often cross property boundaries, the Florida Forest Service advocates a partnership approach, cooperating with other public agencies and private land managers to address invasive plant problems across the landscape. This is exemplified by Florida's Cooperative Invasive Species Management Areas (CISMAs), representing voluntary regional partnerships between many public and private stakeholders, with the common goal of reducing the distribution and future spread of invasive species. These groups are supported at the state level by the [Florida Invasive Species Partnership](#).



Invasive Species Treatments

Funding from the Cooperative Forest Health Protection Program is used to support invasive plant survey and suppression efforts on selected State Forest lands. Exotic plant crews treated at least 13,249 acres of invasive plant infestations in Fiscal Year 2016/17. Cogongrass (*Imperata cylindrica*) and Japanese Climbing Fern (*Lygodium japonicum*) continue to be the most troublesome weeds in a majority of State Forest lands treated.

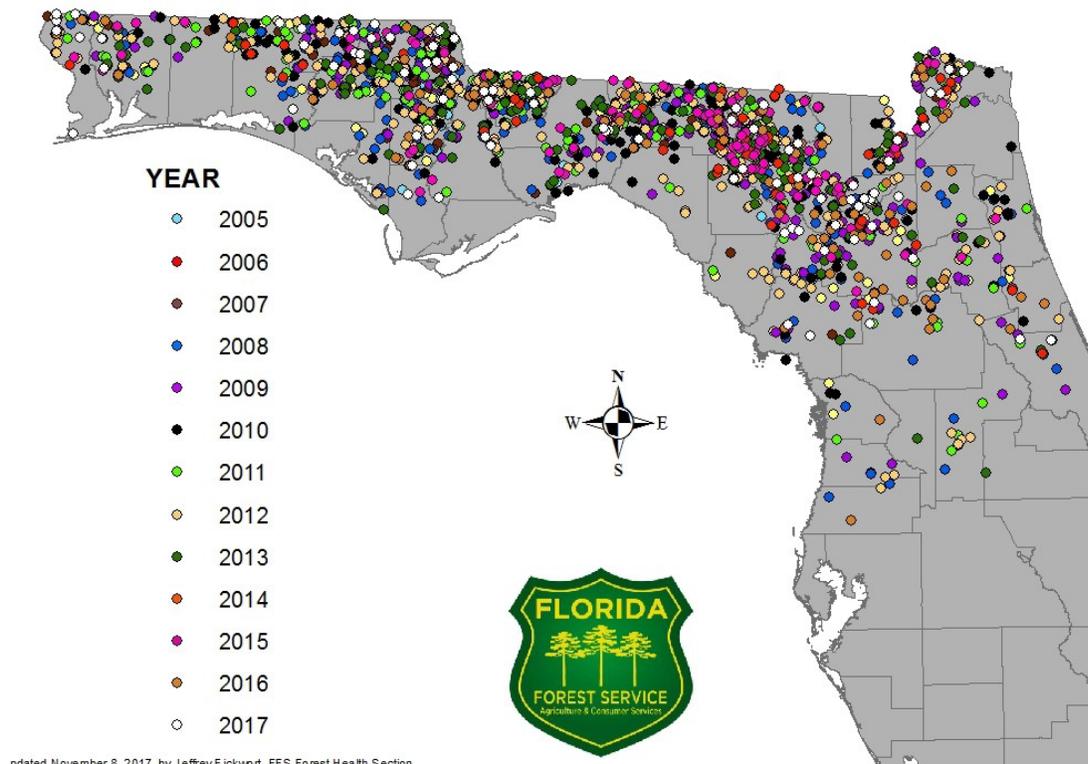


Southern Pine Beetle Cost-Share Program

The Florida Southern Pine Beetle Assistance and Prevention Program is designed to provide non-industrial private forest (NIPF) landowners with assistance and incentives to reduce the susceptibility of their pine stands to southern pine beetle. The southern pine beetle is a native and destructive insect pest of pines in the United States. The best way to minimize losses from the SPB is to prevent infestations by reducing stand susceptibility through active forest management. Toward this end, the program offers landowners cost-share or incentive payments for conducting certain approved forest management practices that help prevent and reduce the occurrence of southern pine beetle infestations.

The 2017 sign-up for the program was held June 13 through July 31. Five practices were offered: first pulpwood thinning, prescribed burning, seedling establishment, and mechanical underbrush treatment. Since 2005, over 172,700 acres of pine forest have been treated through the program, with nearly 10,900 acres more currently under contract for treatment. This program is administered by the Florida Department of Agriculture and Consumer Services Florida Forest Service (FFS) and is funded through grants from the USDA Forest Service.

2005-2017 SPB Prevention Cost-Share Practice Locations in Florida



Practice Category	Cost-share payment rate:
1. First pulpwood thinning	\$50/acre
3. Prescribed burning	\$15/acre
4. Mechanical underbrush treatment	\$25/acre
5. Seedling establishment	
a. Containerized longleaf seedlings	\$100/ 1000 seedlings
b. Bare root longleaf seedlings	\$47.50/ 1000 seedlings
c. Containerized slash seedlings	\$65/1000 seedlings
d. Bare root slash seedlings	\$25/ 1000 seedlings
e. Planting (machine or hand)	\$40/acre
f. Herbicide control	\$25/acre

2017 Practices and Cost-Share Payment Rates

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