

Pines After Southern Pine Beetle Attack



Manage Your Forest To Prevent Southern Pine Beetle Damage



Pines Managed to Help Prevent Attack

**Florida Department of Agriculture
and Consumer Services
Division of Forestry**

**University of Florida Institute of Food
and Agricultural Sciences**

U.S. Department of Agriculture – Forest Service

What is the Southern Pine Beetle?

The southern pine beetle (SPB) is an aggressive insect pest that has devastated pines in yards and forest tracts throughout northern and



SPB, left, compared to grain of rice and black turpentine beetle.

central Florida. Like other species of bark beetles, populations of the SPB feed in the inner bark of susceptible pines and usually attack trees that are stressed due to overcrowding, competition, injury, drought, disease or old age. When these types of stressful forest conditions occur in combination over a widespread area, SPB outbreaks can develop, during which even healthy pines can be mass-attacked and rapidly killed. Such conditions led to Florida's most extensive SPB outbreak in 2001, when nearly 2,900 infestations were detected in 34 counties, covering 17,600 acres and resulting in the loss of several million dollars of pine timber.



Extensive pine mortality during an SPB outbreak on Florida's Ocala National Forest.

Forest management, however, can help prevent SPB outbreaks and damage, as well as enhance recreational opportunities, reduce the risk of loss from wildfires, and increase the economic potential of forest land. Good forest management pays in the long run. As a non-industrial private landowner in Florida, you may qualify to have a forest management plan drawn up for your property, or to receive assistance with forest management practices that reduce the risk of SPB attack.

What Factors Make Pines Susceptible to SPB Attacks?



A dense, unthinned, susceptible stand.



Thick hardwood competition beneath pines.

What Can I Do to Help Prevent SPB Attacks?



Thin



Prescribe burn



A stand managed through thinning and prescribed burns



Minimize or avoid wounds



Harvest and regenerate stands of overmature, senescent pines. If removal of old pines conflicts with other management objectives, monitor such pines frequently for bark beetle activity. Remove pines weakened by disease, injury, lightning or other stress to increase overall stand vigor and resistance to bark beetles.



Avoid planting pines off-site, especially loblolly and shortleaf pines, which are more susceptible to the SPB than longleaf or slash pines. A forester can help you determine which species are appropriate for a given site.



Longleaf pines



Promote a diversity of tree species and ages in the forest landscape, which can make susceptible trees or preferred host species more difficult for bark beetles to find.

If an SPB infestation occurs, prompt control measures can help prevent additional losses.

Due to a very effective odor-driven communication system used by the SPB, small infestations can expand by more than 50 feet per day, quickly resulting in many acres of dead pines. If you detect enlarging patches of recently killed or dying pines on your property, contact your county forester or county extension office for an evaluation of the situation. If they determine the problem is an SPB infestation, the best control option is usually to cut, remove, and process all infested trees, plus a buffer strip of uninfested green trees as soon as possible.

What Are the Signs of SPB Attack?

Signs of SPB attack may include: popcorn-sized resin globs or “pitch tubes” in the bark crevices, winding “S-shaped” galleries under the bark, and clusters of pines with crowns fading from green to yellow to red. Other bark beetle species (Ips, black turpentine beetles) can produce similar symptoms, but the S-shaped gallery pattern under the bark is distinctive of the SPB.



SPB pitch tubes



SPB galleries under the bark

What is Being Done to Monitor SPB?

Each spring, the Florida Division of Forestry conducts an SPB trapping survey in central and northern Florida. This survey monitors the numbers of SPBs and their predators captured in pheromone-baited flight traps, and the results are used as an early-season prediction of SPB activity levels. Also, the Division of Forestry conducts aerial survey flights to detect and monitor SPB infestations.

Are Management Assistance Programs Available?

Programs that provide technical and financial assistance with forest management planning and practices are available periodically. To find out what programs may be available currently, contact your county or district Division of Forestry office, or visit us on the internet at www.fl-dof.com

Division of Forestry District Offices

Northern and Central Florida

Blackwater Forestry Center: (850) 957-6140
Escambia, Okaloosa and Santa Rosa

Chipola River District: (850) 872-4175
Bay, Calhoun, Gulf, Holmes, Jackson, Walton and Washington

Tallahassee District: (850) 488-1871
Franklin, Gadsden, Jefferson, Leon, Liberty and Wakulla

Perry District: (850) 838-2299
Dixie, Lafayette, Madison and Taylor

Suwannee District: (386) 758-5700
Baker, Bradford, Columbia, Hamilton, Suwannee and Union

Jacksonville District: (904) 266-5001
Clay, Duval and Nassau

Waccasassa Forestry Center: (352) 955-2005
Alachua, Gilchrist, Levy, Marion and Putnam

Bunnell District: (386) 446-6785
Flagler, St. Johns and Volusia

Withlacoochee Forestry Center: (352) 754-6777
Citrus, Hernando, Lake, Pasco and Sumter

Orlando District: (407) 856-6512
Brevard, Orange, Osceola and Seminole

Other Sources of Information

Florida Division of Forestry:
www.fl-dof.com

Bark Beetles of North America:
www.barkbeetles.org

Forest and Shade Tree Insects of Florida:
<http://eny3541.ifas.ufl.edu/>

Southern Pine Beetle Internet Control Center:
<http://whizlab.isis.vt.edu/servlet/sf/spbicc/>

**USDA Forest Service, Forest Health Protection,
Southern Region:**
<http://fhpr8.srs.fs.fed.us/index.html>

University of Florida—IFAS Extension:
<http://extension.ifas.ufl.edu/>

**University of Florida School of Forest Resources and
Conservation Extension:**
www.sfrc.ufl.edu/Extension/

A Guide for Prescribed Fire in Southern Forests:
<http://flame.fl-dof.com/Env/RX/guide/>

**Good forest management
practices help prevent bark
beetle attacks and result in
more productive pine stands.**



UNIVERSITY OF
FLORIDA
IFAS



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Brochure Authored By:

Bud Mayfield – Florida DACS Division of Forestry
Galen Moses – Florida DACS Division of Forestry
Jarek Nowak – University of Florida IFAS

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