

Landowner Assistance Programs



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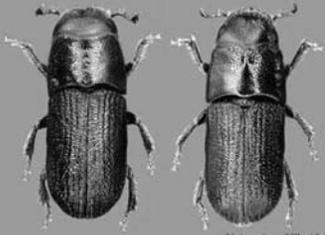
Current FL Forest Service Cost-Share Programs

- **Southern Pine Beetle Assistance and Prevention**
 - For Non-Industrial Private Forest (NIPF) lands
 - In 44 northern Florida counties
 - To conduct forest management practices that reduce the risk of losses due to Southern Pine Beetle outbreaks.
- **Cogongrass Treatment Cost-Share Program**
 - For Non-Industrial Private lands
 - Anywhere in Florida
 - To spray infestations of cogongrass with herbicide for 2 years.
- **Both programs:**
 - Use local FFS County Foresters to submit applications, document work, request payments, etc.
 - Are administered by the FFS Forest Health Section

Quick Review: Southern Pine Beetle (SPB)

Dendroctonus frontalis

3 mm

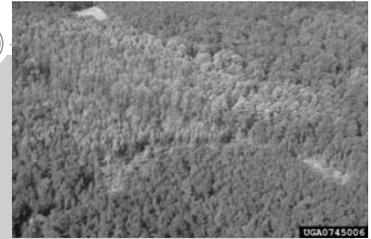


University of Florida

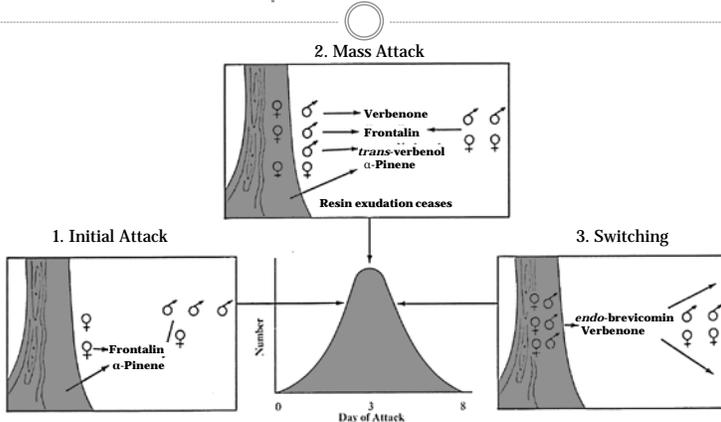
- Can “mass attack” to kill relatively healthy trees
- Highly aggressive during outbreaks
- Utilize very weak trees when population is low
- Preferred hosts: loblolly, shortleaf, pond, pitch, and Virginia pines

SPB Infestations

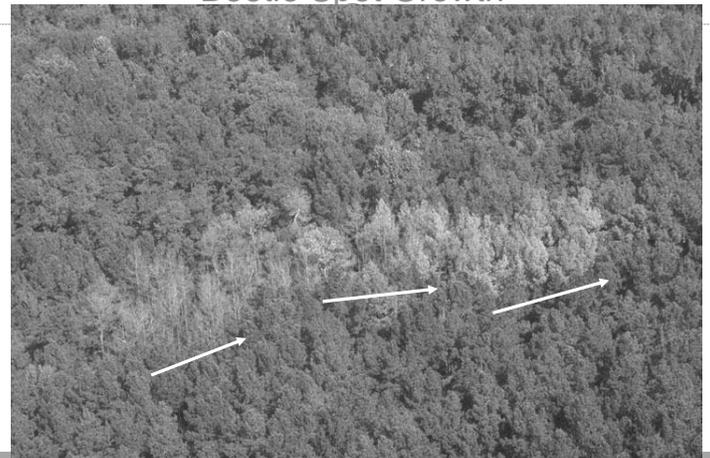
- Infestations develop in spreading “spots”
- Mass attack mediated by pheromone signals
- Spread can be very rapid (up to 75 ft/day)
- In outbreak conditions, can kill pines across large areas
- Dense, overstocked stands are most at risk.



SPB: Attack behavior mediated by pheromones



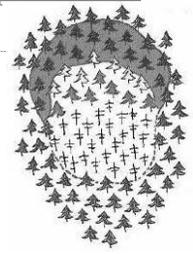
Beetle Spot Growth





SPB Management: Suppression

- At earliest detection of an active, spreading infestation (spot), **Cut and Remove**:
 - Cut down & remove all infested trees
 - Plus a buffer of un-infested trees in direction of spot spread.
 - Disrupts pheromone signaling for “mass attack”
 - Other options: **cut-and-leave**, **cut-and-burn**



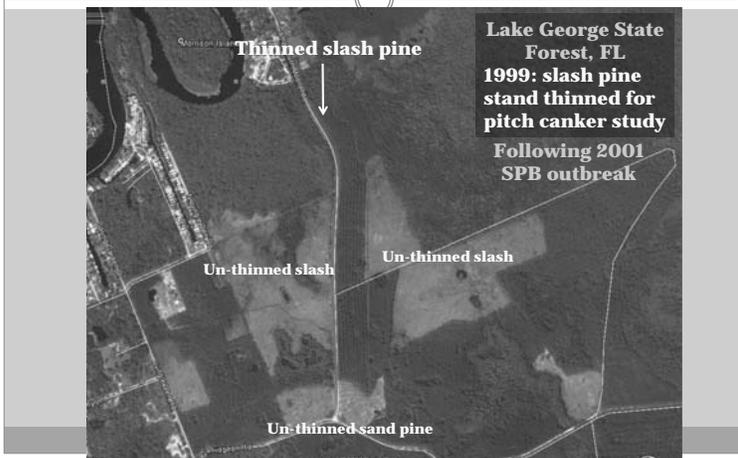
SPB Management: Prevention

- Thin overstocked pine stands (to < 80 ft²/ac) before they become stagnant**
- Reduce planting density**
- Plant less-preferred species (slash, longleaf)**
- Control understory competition (Rx burning, etc.)**



Thinning Works!

An “accidental experiment” in SPB thinning



SPB Prevention Program: The Idea Behind It...

- Recent southern pine beetle outbreaks have killed over 1 million acres, \$1.5B of pines.
- Prevention is much cheaper than suppression.
- Often in overstocked & undermanaged loblolly & shortleaf pines stands
- Small, non-industrial private forest (NIPF) landowners need additional support



US Forest Service

- Started SPB Prevention & Restoration Program for Region 8 (SE), 2003
- Forestry agencies in 13 states receive funding for SPB prevention (10 have cost-share programs)
- Over 1,000,000 acres managed as of 2013

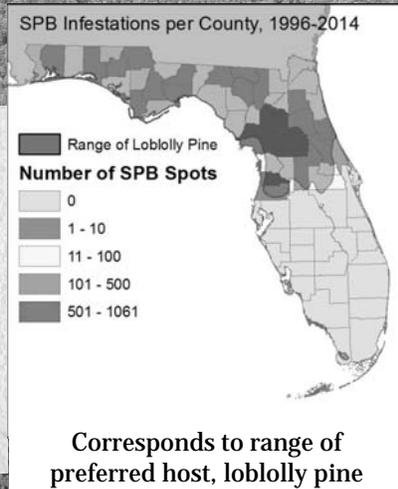


Florida's Program

- Offers **\$50/acre incentive payment to do first pulpwood thinning of overstocked stands (≥ 110 ft²/acre). (5 acre minimum, 50 acre max)**
- **Reimburses 50% of average cost to do other practices. (10 acre minimum)**
 - Prescribed burn: **\$15/ac** (200 acre max)
 - Mechanical underbrush removal: **\$25/ac** (50 acre max)
 - Planting longleaf or slash seedlings: (150 acre max)
 - ✦ Seedlings: **\$25 to \$100 per 1,000 seedlings**
 - ✦ Labor: **\$40/acre**
 - ✦ Herbicide weed suppression (optional): **\$25 per acre**
- Up to 2 practices, \$10,000 maximum.

Southern Pine Beetle Outbreak History

- Experiences regional outbreaks ~every 7-12 years
- Last major outbreaks in FL: 2001-2002 (centered around Gainesville)
- **Never reported in South Florida** (range ends around Orlando)
- SPB Program offered only in counties where SPB has occurred.



Cogongrass

(*Imperata cylindrica*)

Why you should care...

- Reduces value of land for forestry, pasture, wildlife habitat, & recreation
- Increases the risk and severity of wildfires.
- Ranked in the "Top 10 Worst Weeds in the World."

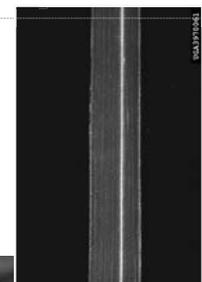
Cogongrass Identification

- Infestations spread to form a continuous "spot."
- Often a yellowish-green color (sometimes darker)
- Leaves growing in loose bunches
- Originate directly from ground level (no visible stem)



Leaves

- 1 to 4 feet in length, 1/2 to 3/4 inch wide
- Prominent, off-center, white mid-rib
- Margins are finely serrated, scratchy



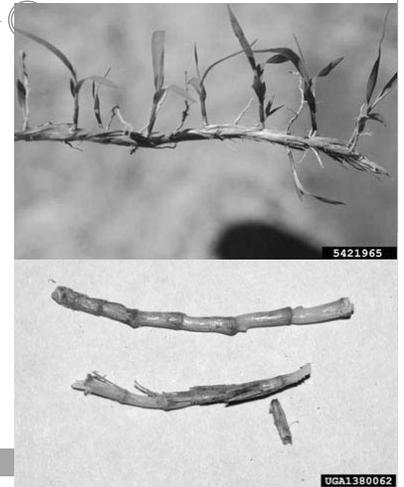
Seeds

- Mostly in the spring
- Long, fluffy-white seedheads
- Mowing, burning or fertilization may induce seedhead formation



Rhizomes

- Underground stems
- Comprise over 60% of the plant
- Can penetrate soil to a depth of 4 feet, but most found in the top 6 to 10 inches
- Resists breakage and drought
- Sharp growing tip
- Many buds per section.



Cogongrass Infestations by County in the Southeast U.S.

As reported to State Authorities by May 2010
All known infestations in South Carolina, Georgia and Tennessee are under treatment
Map produced by the Center for Invasive Species and Ecosystem Health
University of Georgia in Cooperation with States



How Cogongrass Spreads to New Sites

- **Rhizomes**
 - On dirty equipment
 - In contaminated fill dirt
 - Spread through soil disturbance
 - Construction & road work



Cogongrass invasion after clearcut, site prep, and planting.

Image courtesy of Greg Leach, IP



Spread by Seeds

- Previously all infertile, now seeing some viable seed spread
- May be carried long distances by wind or humans
- Relatively short lived, < 1 year
- Carried on tractors, mowing equipment, clothing



Adaptations

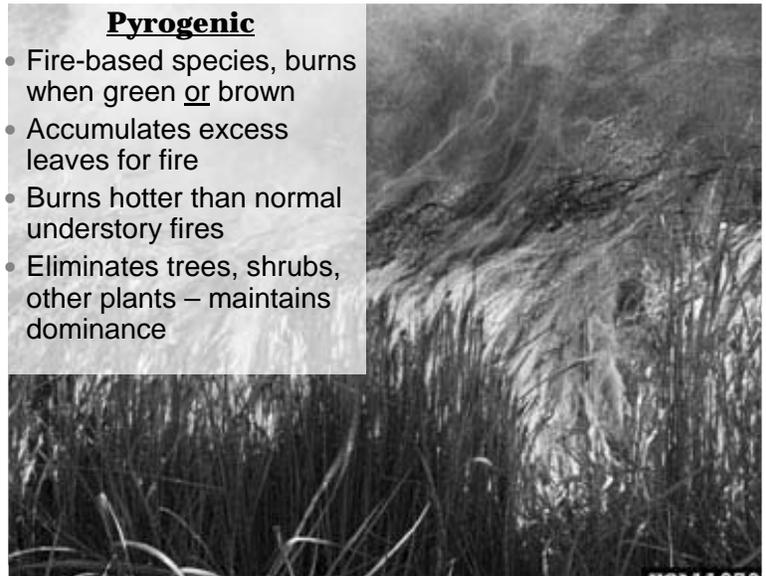
- Highly adapted to poor soils
 - Ability to survive low nitrogen, phosphorus
 - Prefers acidic soils with low organic matter
- Extremely drought-tolerant
- Survives low light environments (<5% sun), thrives in full sun.

Franklin County Beach Infestation



Pyrogenic

- Fire-based species, burns when green or brown
- Accumulates excess leaves for fire
- Burns hotter than normal understory fires
- Eliminates trees, shrubs, other plants – maintains dominance

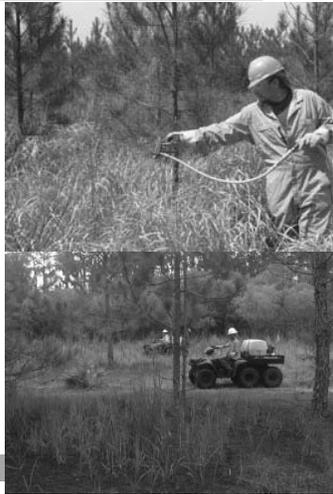


- Nearly 100% Cogongrass on a former mine site in Polk County, FL



Chemical Control

- **Glyphosate** (Roundup, etc.) and/or **imazapyr** (Arsenal, Polaris, etc.)
 - Multiple years of applications are needed
 - Application in late summer or fall is more effective.
 - Caution: can damage non-target plants



Florida Cogongrass Treatment Cost-Share Program

- Reimburses up to 50% of the cost of herbicide treatments, up to \$100 for ≤ 1 acre, \$75/acre for additional area
- **Currently accepting applications** through February 29, 2016.
- For two consecutive years!
- Maximum: \$20,000 total, or 133 acres (no minimum size).
- Funded by a US Forest Service grant.

For More Information

Websites with application forms and program guidelines:

Southern Pine Beetle Assistance and Prevention Program:
www.FreshFromFlorida.com/SouthernPineBeetle/Prevention
(application period announced in early summer)

Cogongrass Treatment Cost-Share Program:
www.FreshFromFlorida.com/Cogongrass-Program
(accepting applications now!)

- **See the Florida Invasive Species Partnership (FISP) web page for listings of other federal, state, county or local programs:**
 - www.FloridaInvasives.org, click on "Landowner Assistance"

Thanks!

