



Southern Pine Beetles in Urban Areas

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GEORGIA FORESTRY
COMMISSION



Southern Pine Beetle (SPB)



SPB Pheromone Trapping 2024

Stats by State/Forest

Trap Count

49

% SPB

58

Sum SPB

54,347

Sum Clerids

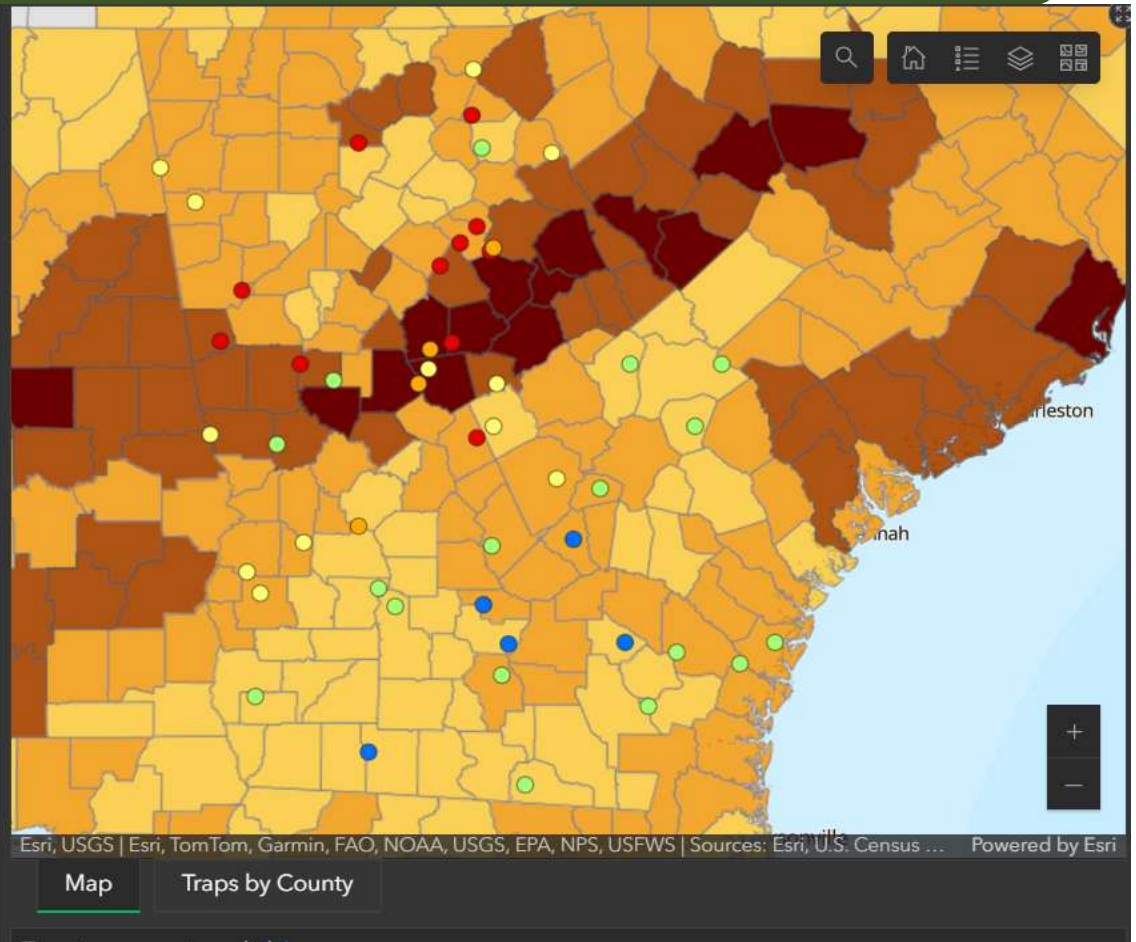
26,299

Clerids Per Day

19.8

SPB Per Day

44.6



SPB Aerial Survey

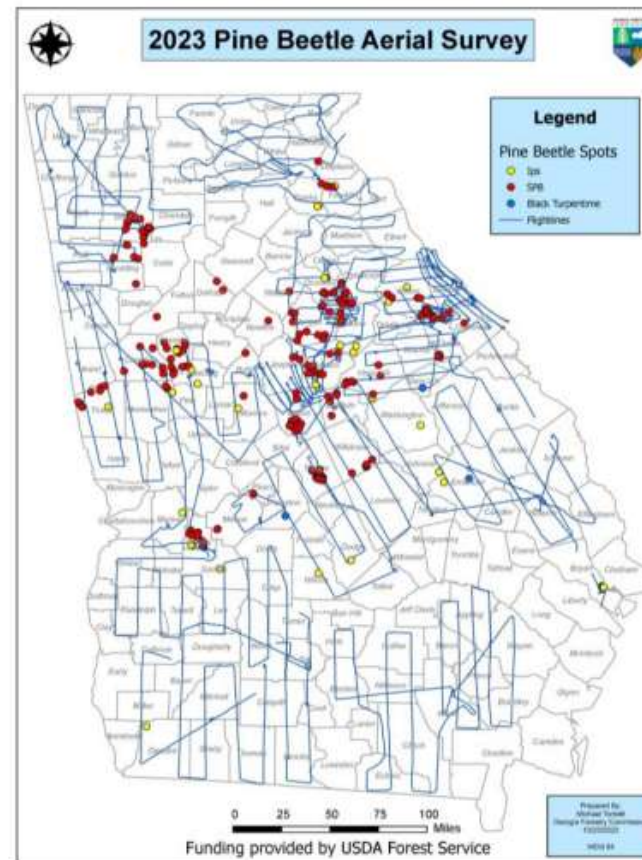


Figure 3: Flight lines and pine beetle spots in Georgia 2023.

Frequently Asked Questions

- **How do I control infestations on my property ?**
- **Do I need to remove dead trees ?**
- **Can I spray my healthy trees to protect them ?**
- **How soon do I need to remove an infested tree?**
- **What effect does pruning have on SPB ?**
- **Will wood chips from pines attract SPB, IPS or TB ?**

What We Will Cover...

- **History of SPB in Georgia**
- **Reasons for SPB “Blow Ups” in Residential Areas**
- **Types of Pine Bark Beetles**
- **SPB at the Landscape Scale**
- **Mitigation Options for Community Forests**



SPB History in GA

- **Earliest documentation in mid-1800's**
- **Pine Bark Beetles are natural & native pest for Georgia**
- **SPB populations seem to peak every 6 to 12 years**
- **"Blow Ups" occurred in '64, '76, '88, 2000, 2012**
- **2024 huge spike, 2025?**

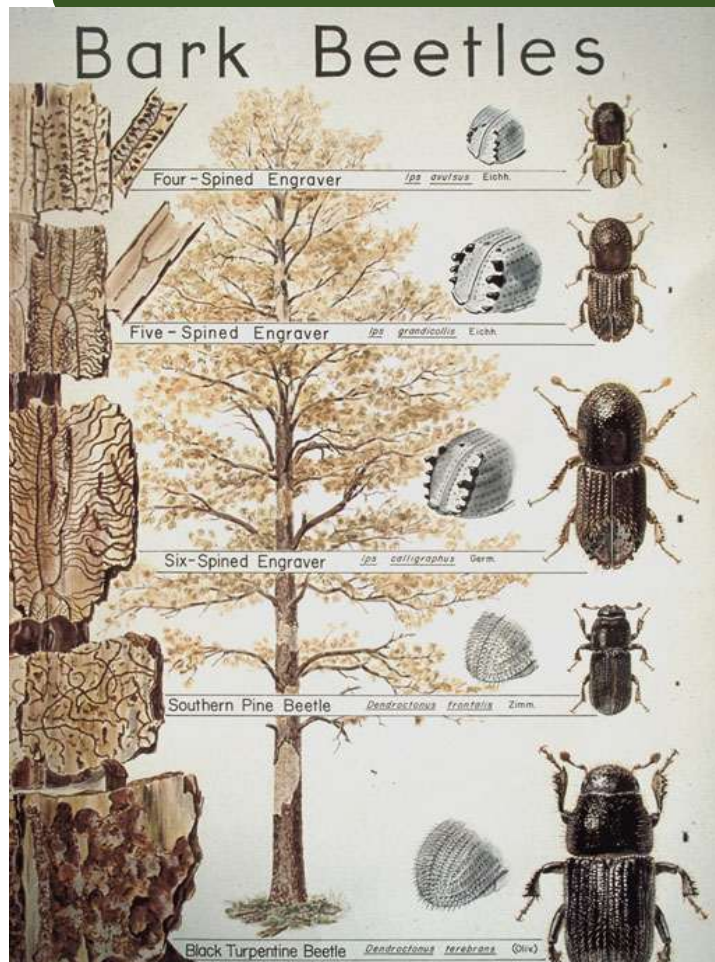


Reasons for “Blow Ups” in Residential Areas

- Lightning strikes
- Pine wood chips
- Pruning / Removal Practices
- Construction Damage
- Ice Storms
- Drought
- **Past Planting Practices and Lack of On-going Management**
- Cyclical Peaked in Summer of 2000, 2012, and now 2024



Pine Bark Beetles



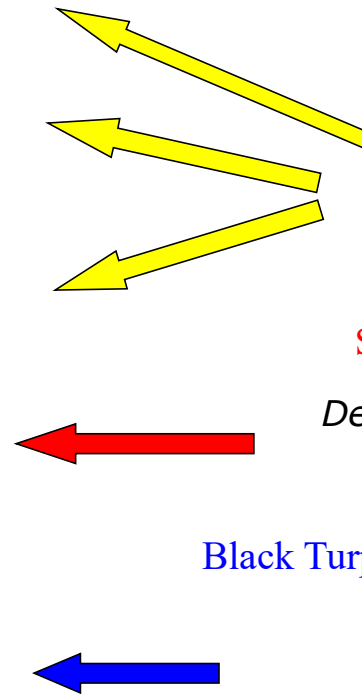
3 Main Types of Pine Bark Beetles

Ips species (3)

Southern Pine Beetle

Dendroctonus frontalis

Black Turpentine Beetle *Dendroctonus terebrans*



Small But Mighty...



Small Southern Pine Engraver Beetle

Southern Engraver Beetle

Six Spined Engraver Beetle

Southern Pine Beetle

**Turpentine Pine
Beetle**

Black Turpentine Beetle

- **Attack lower 8 feet of the trees**
- **Leave a pitch tube or granular residue**
- **Infestations move relatively slowly from tree to tree**
- **Typically not a huge issue**



Black Turpentine Beetle Pitch



Pitch in Bark Crevices



Ips Engraver Beetle



Distinct Gallery Pattern



Pitch From Bark Plates

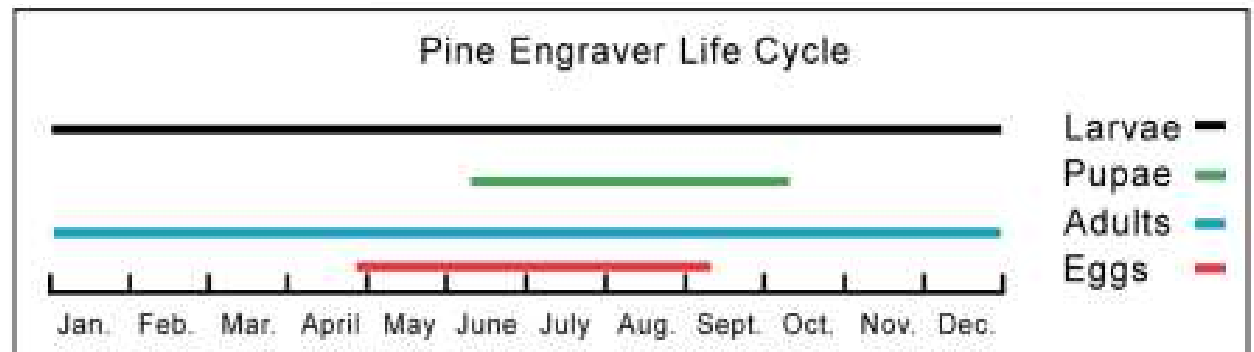


Figure 2. Life cycle of pine engraver beetles (from Johnson 1982).

Southern Pine Beetle

- Leave a pitch tube or brown sawdust in furrows between bark plates
- Infestations may move relatively quickly from tree to tree
- Initial infestation to adult in 28 days
- Tree death as quickly as 10 days
- Trees protection is very limited
- Can attack anywhere on the tree but usually above 8'



Adult Southern Pine Beetle



Southern Pine Beetle Identification



Southern Pine Beetle Identification



SPB pitch tubes

SPB caught
in pitch



Southern Pine Beetle

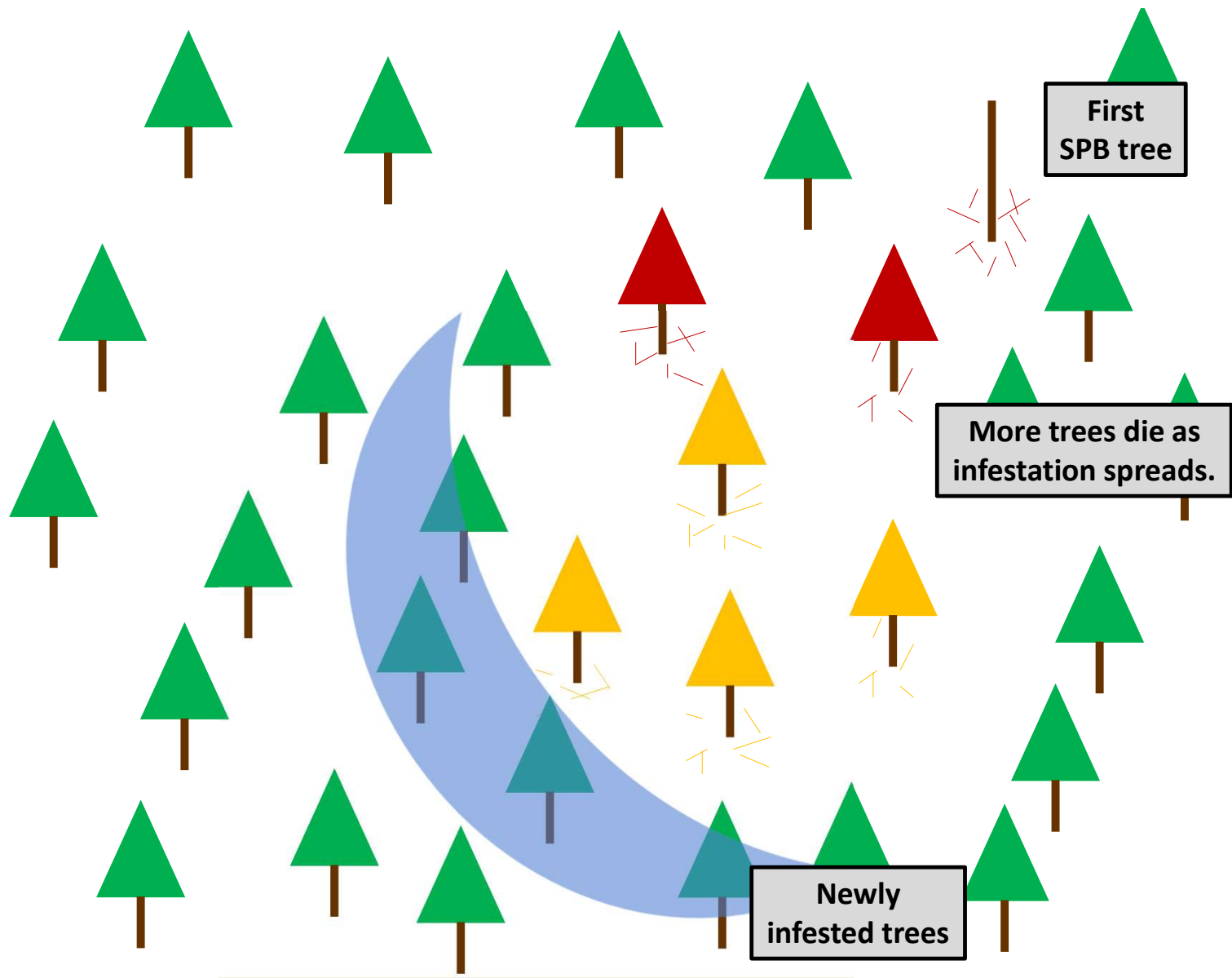


Spreads Fast, Short Window to Slow Spread



Noticing yellowing or reddening crowns and acting quickly is key to slow/stop spread





First
SPB tree

More trees die as
infestation spreads.

Newly
infested trees

Buffer Strips can often halt the spread



Cut and Leave



- Trees are felled toward the dead center
- Uninfested buffer strip of 70-120 ft. felled and pushed to center
- Most Effective in Large Forest Stands in Mid-Summer

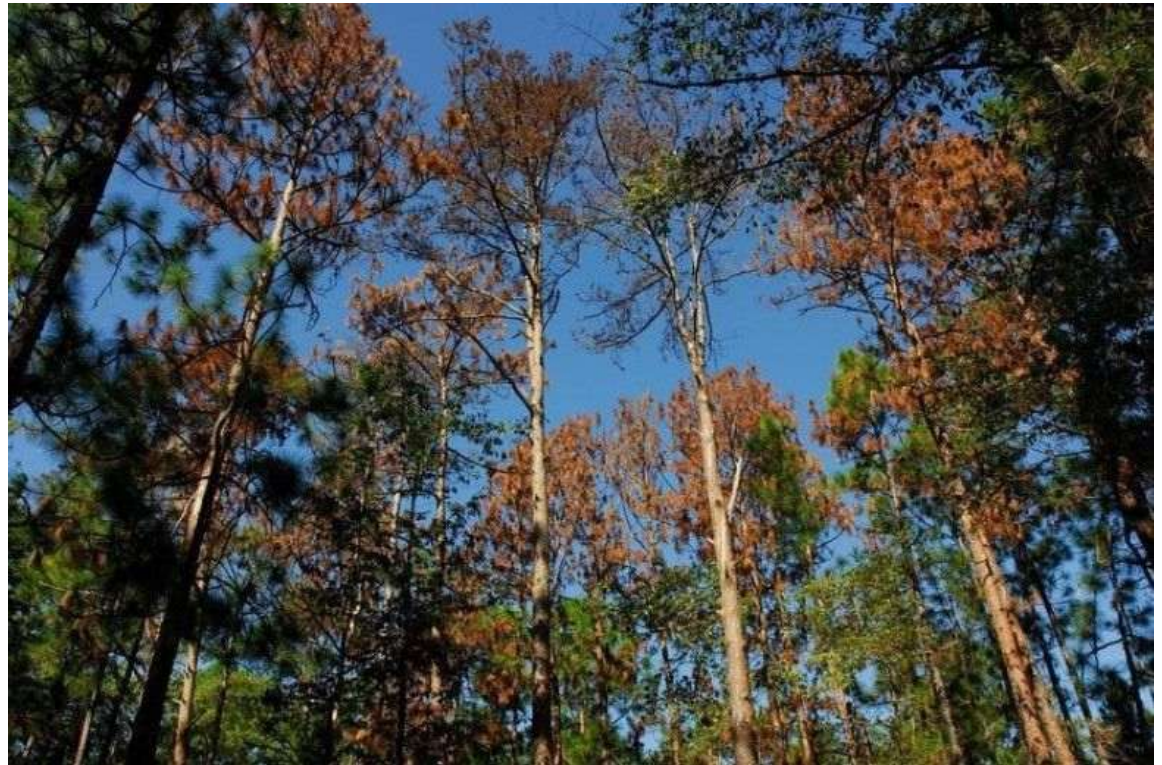
Managing SBP in Community Forests

- **SPB Management Challenges in Community Forests**
 - **Targets**
 - **Small Lots**
 - **Access**
 - **Blind Spots**
 - **Contractors**
 - **Fire Restrictions**
 - **\$\$\$**

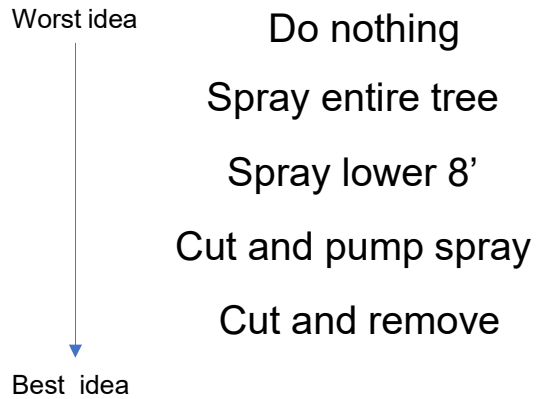


If Infestation is Suspected

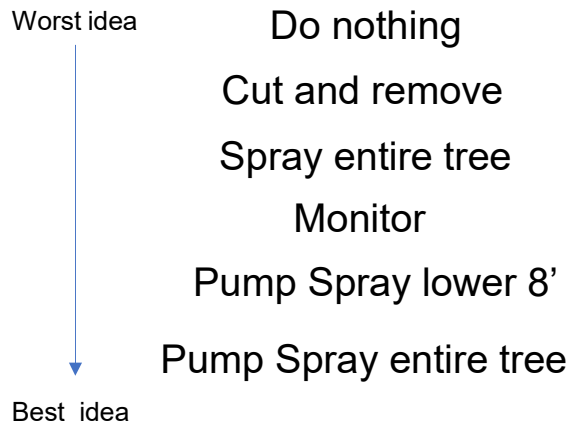
- **Identify the type of beetle infestation**
- **Assess your options**
- **Understand the consequences**
- **Act – or don't !**



Options for managing infested trees



Options for managing uninfested trees



Chemicals Just Buy You Time

- **Bifenthrin (Onyx) – (Pyrethrin) – causes dysfunction of nervous system. Must be ingested**
- **Bacillus Thurengensis (BT) – causes rupture of digestive systems. Must be ingested**
- **Sevin (Carbaryl 4L, 4F, SL) - causes dysfunction of nervous system. Must be ingested**
- **Emamectin Benzoate – Preventative injection - \$\$**

SPB Management Recommendations

- **Maintain healthy stands**
 - **Thin at the proper times – Thin at all**
- **Do not cause additional stress to trees**
 - **Avoid soil compaction**
 - **Remove slash and damaged trees after a thinning**
 - **Be very careful about burning and thinning during a drought**
- **Continuous monitoring – check GFC's SPB Tracker**

Busy and Broke...

- **Cut and removal from site is best**
 - **While crown is turning to slow/stop spread**
 - **If no targets, habitat tree?**
- **Just laying down trees can help stop spread**
 - **Potential fire risk?**
- **Lumping jobs/lots together can help reduce costs**
- **Urban Wood Utilization**
 - **Potential cost mitigation if situation is right**

Questions?

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