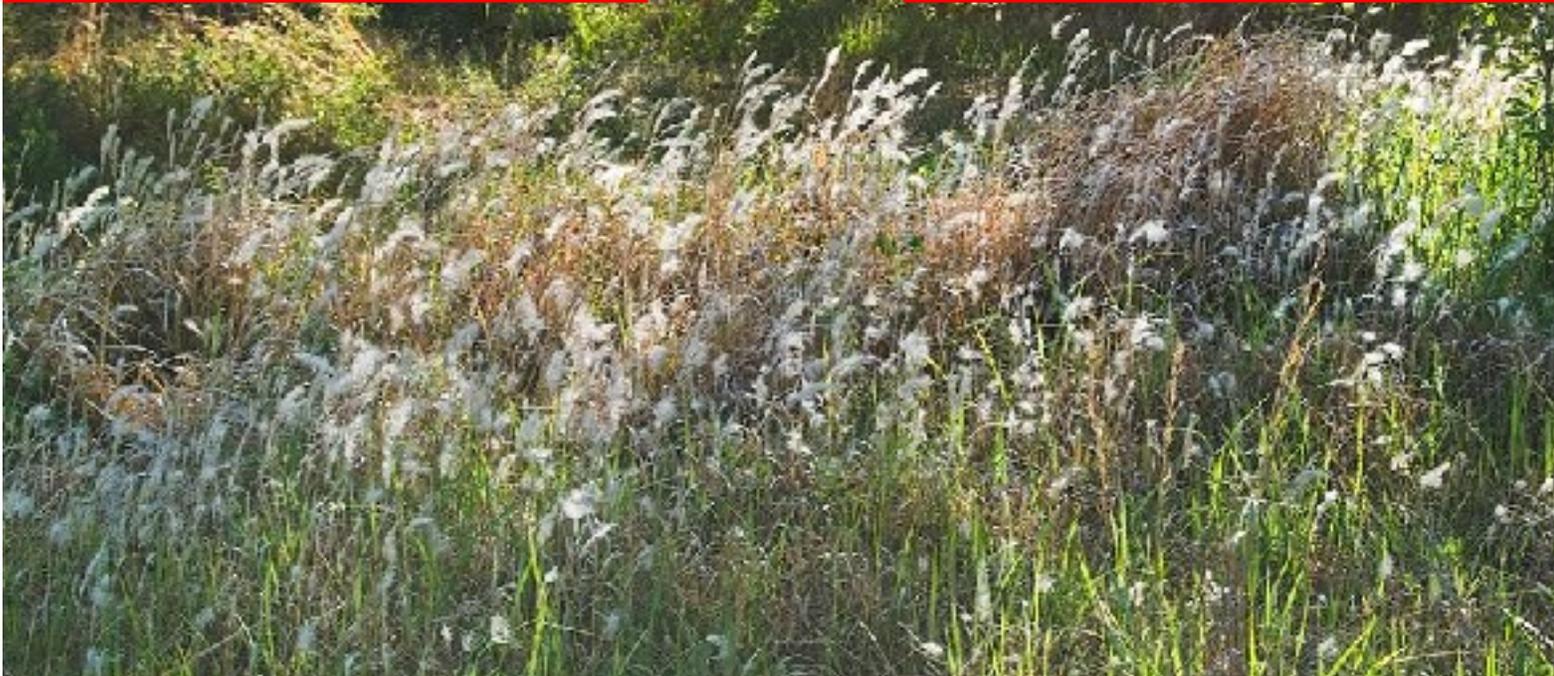




# Pests Elsewhere in the United States...



May 2010



James Johnson  
Interim Chief of Forest  
Management  
Georgia Forestry  
Commission

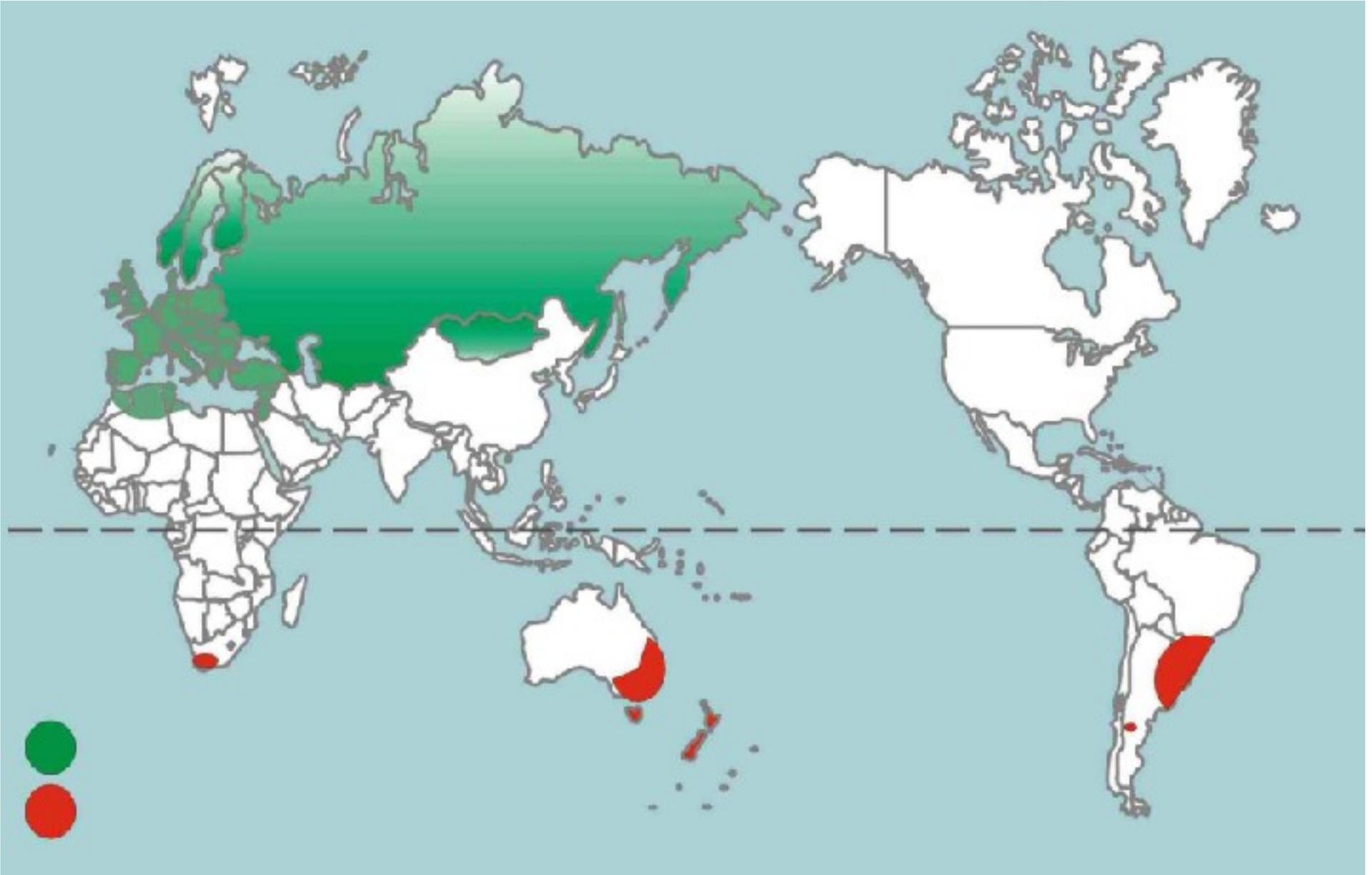


# Sirex noctilio woodwasp





# Sirex noctilio – Worldwide Occurrences

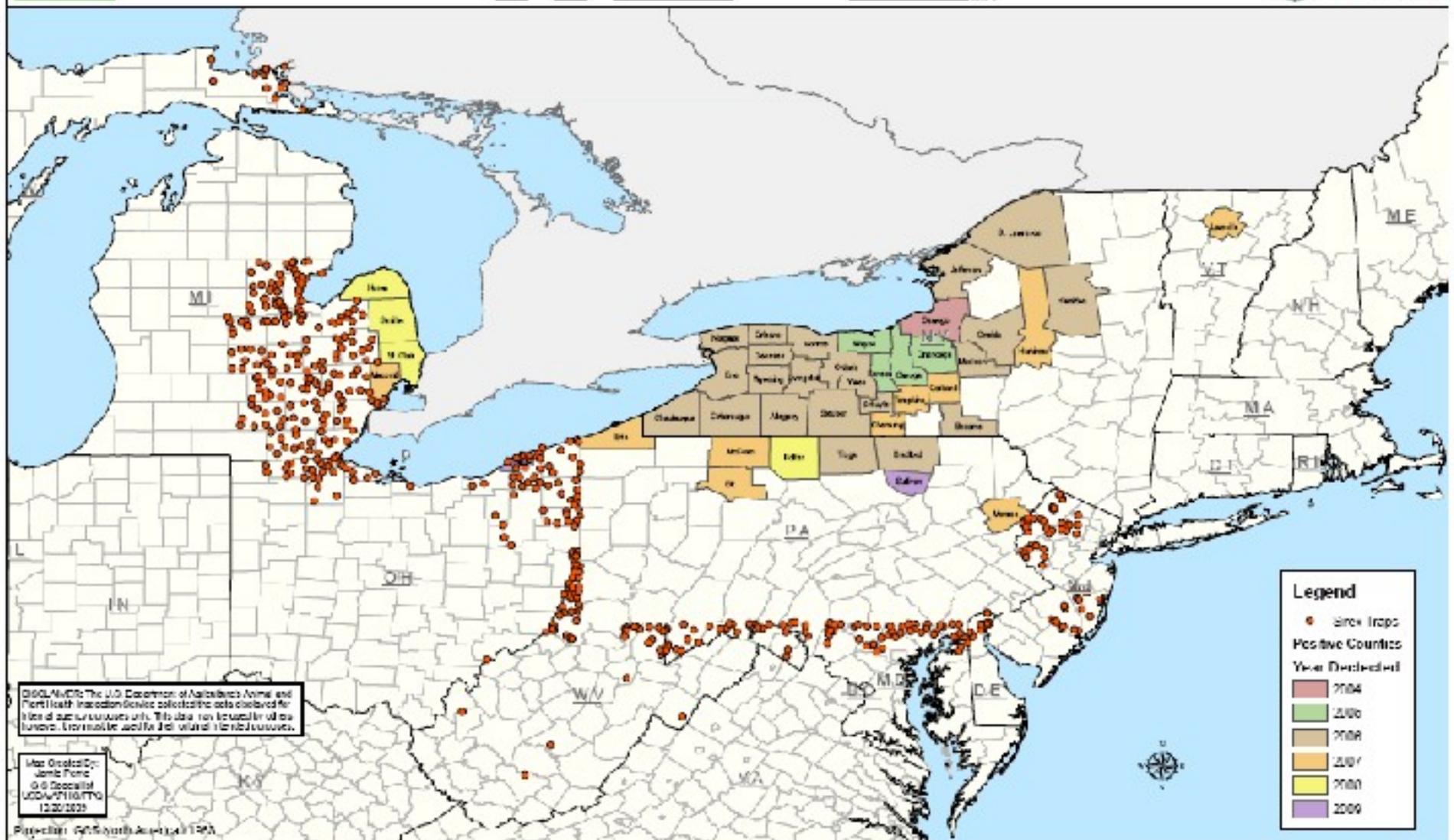




# Sirex noctilio – North America Distribution



## Sirex noctilio Positive Counties by Year





# Sirex woodwasp – Host Range

**Native Range:** Europe, Asia, North Africa

Hosts: *P. sylvestris* (scots), *P. nigra* (austrian), *P. pinaster* (maritime)

**Introduced Range:** Hosts

New Zealand 1900            *P. radiata* (monterey)

Tasmania 1952              *P. radiata* (monterey)

Australia 1961              *P. radiata* (monterey)

South Africa 1994          *P. radiata* (monterey), *P. patula* (mexican weeping)

South America 1980-2001

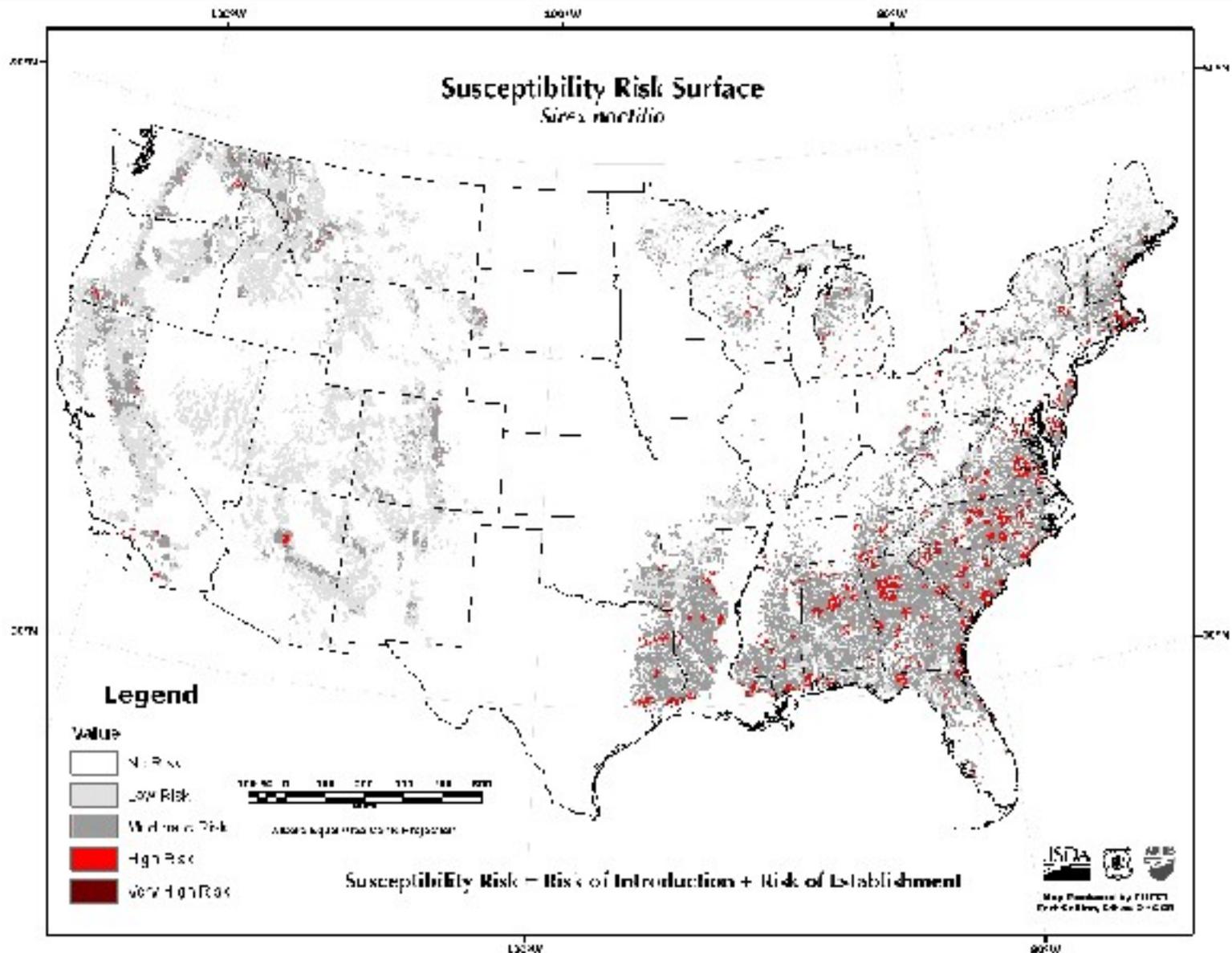
    Brazil                    *P. taeda* (loblolly), *P. elliottii* (slash)

    Argentina              *P. banksiana* (jack), *P. contorta* (lodgepole)

North America 2005        *P. resinosa* (red), *P. strobus* (white)



# Sirex woodwasp – Susceptibility Risk





# Sirex woodwasp - attacks





# Sirex woodwasp





# Sirex woodwasp – disease causes wilting





# Sirex woodwasp – silvicultural resistance?





# Sirex woodwasp – nematode suppression



UGA1393021



# Emerald Ash Borer

Exotic from Asia

Entered U.S. around 2000 (Port of Detroit?)

Michigan severe damage

3000 Sq Miles

Ohio, Indiana, and Illinois

MD & VA nurseries

Canada



Funded by the GFC and U.S.D.A. Forest Service



## Emerald Ash Borer - Damage

Only known to feed upon  
Ash (*Fraxinus* spp.) in the U.S.

Prefers Green Ash (*Fraxinus  
pennsylvannica*)

Tunnels into tree, lay eggs  
and larvae also tunnel

Kills the tree over several  
growing seasons





# Emerald Ash Borer - Larvae



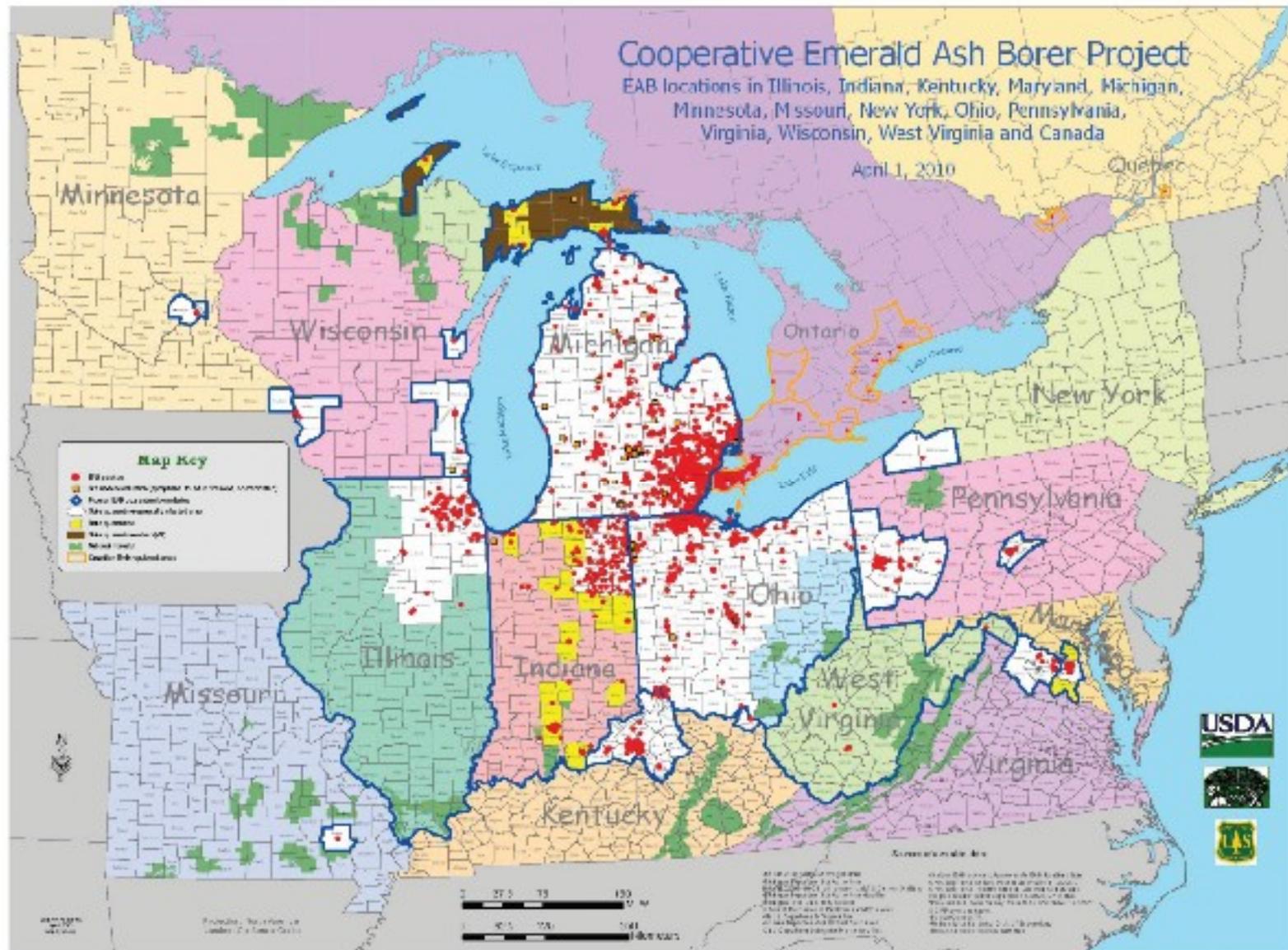


## Emerald Ash Borer – “D” shaped exit holes





# Emerald Ash Borer – Distribution / Quarantine





# Emerald Ash Borer – chemical suppression

Insecticide Formulation	Active Ingredient	Application Method	Recommended Timing
<i>Professional Use Products</i>			
Merit® (7 SWP, 75 WSP, 2F)	Imidacloprid	Soil Injection or drench	Mid-fall and/or mid- to late spring
Xytect™ (2F, 75 WSP)	Imidacloprid	Soil Injection or drench	Mid-fall and/or mid- to late spring
IMA-Jet®	Imidacloprid	Trunk Injection	Early May to mid-June
Imicide®	Imidacloprid	Trunk Injection	Early May to mid-June
TREE-igs™	Emamectin benzoate	Trunk Injection	Early May to mid-June
Inject-A-Cide B®	Bidrin®	Trunk Injection	Early May to mid-June
Safari™ (20 SG)	Dinotefuran	Systemic bark spray	Early May to mid-June
Astro®	Permethrin	Preventive bark and foliage cover sprays	2 applications at 4-week intervals; first spray should occur when black locust is blooming (early May in southern Ohio to early June in mid-Michigan)
Onyx™	Bifenthrin		
Tempo®	Cyfluthrin		
Sevin® SL	Carbaryl		
<i>Homeowner Formulation</i>			
Bayer Advanced™ Tree & Shrub Insect Control	Imidacloprid	Soil drench	Mid-fall or mid- to late spring

**<http://www.emeraldashborer.info/>**



## Cogongrass

- An invasive from Asia infesting Gulf Coast wetlands, savannas, and forests of Georgia, Florida, Alabama and Mississippi
- Minor occurrences in Texas, Louisiana, Tennessee, and South Carolina
- Considered one of the 10 worst weeds worldwide

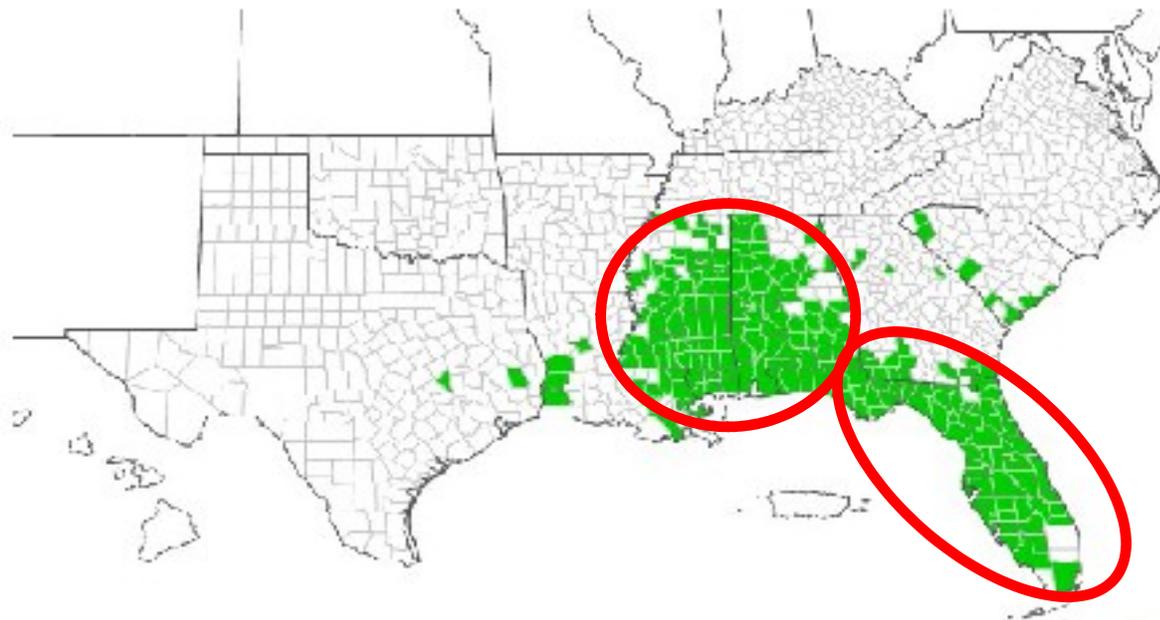


# Cogongrass

If left unchecked, we can predict the outcome!

A window of opportunity exists now!

**Cogongrass Distribution - Southern United States**



Flashmaps



The Georgia Invasive Species Task Force is a joint project of the University of Georgia's Bugwood Network, Georgia Dept. of Agriculture, Georgia Forestry Commission, Georgia Dept. of Natural Resources, USDA Forest Service and USDA APHIS PPQ.

Last updated on Monday, August 20, 2007 at 04:00 PM  
www.cogongrass.org version 2.0, XHTML 1.1, CSS, 508.



# How is Cogongrass spread?



Photo by Craig Ramsey, USDA - APHIS

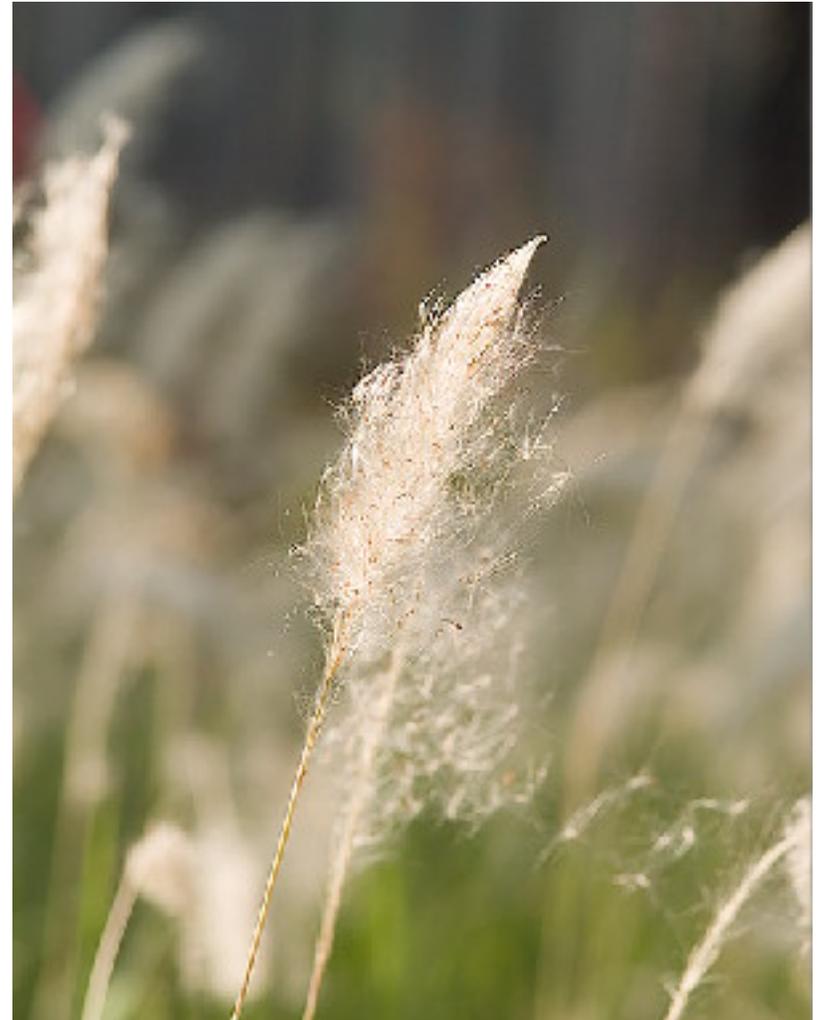
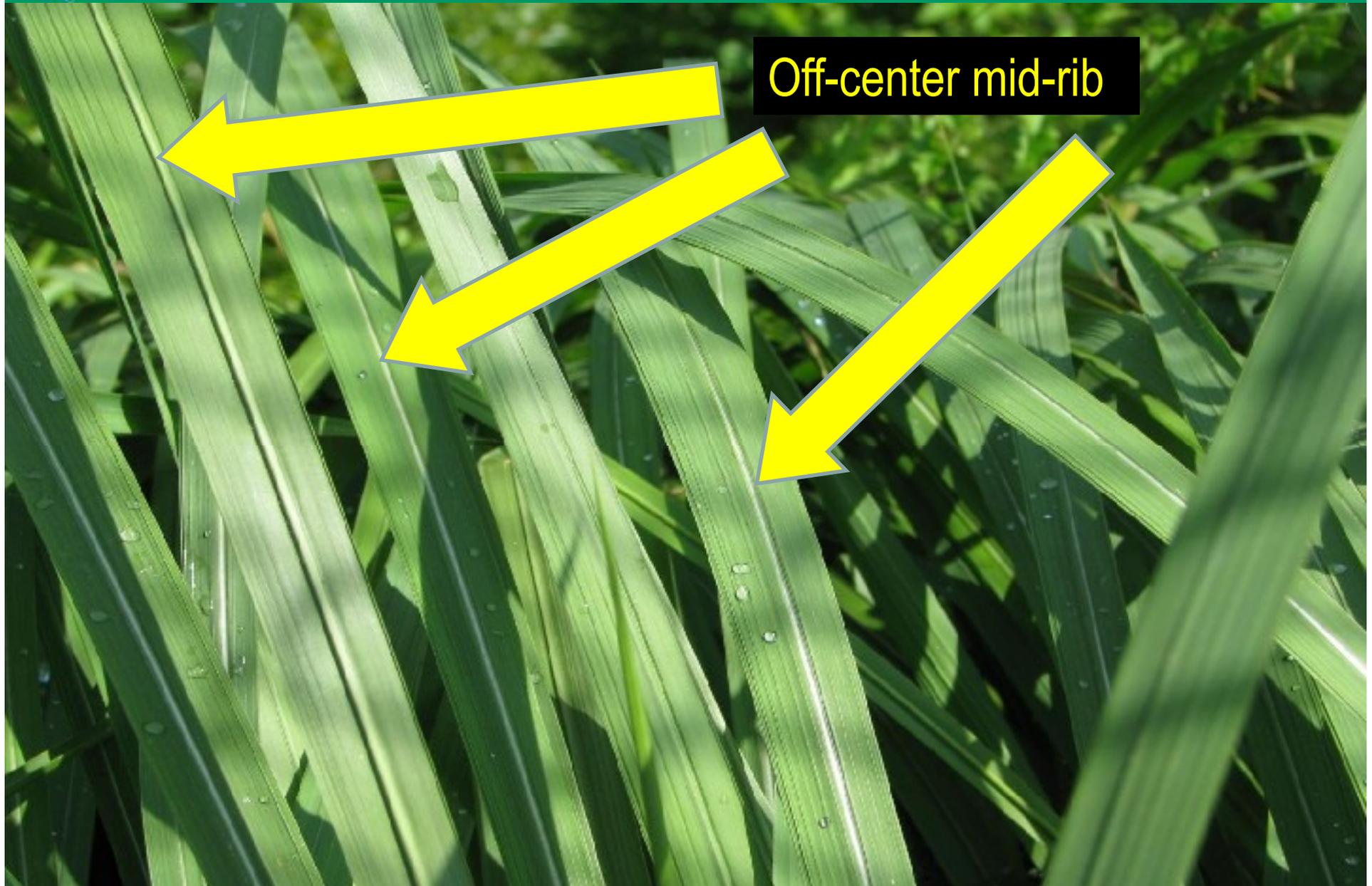


Photo by Bill Lamp, GFC

***Most of Georgia's infestations began from rhizomes...***



## Cogongrass: *identification*





## Cogongrass: *identification*

Plants emerge individually from the ground



UGA2186086



## Cogongrass: *identification*



Hairy Legule



## Cogongrass: *identification*



Roots are pointed &  
sheathed





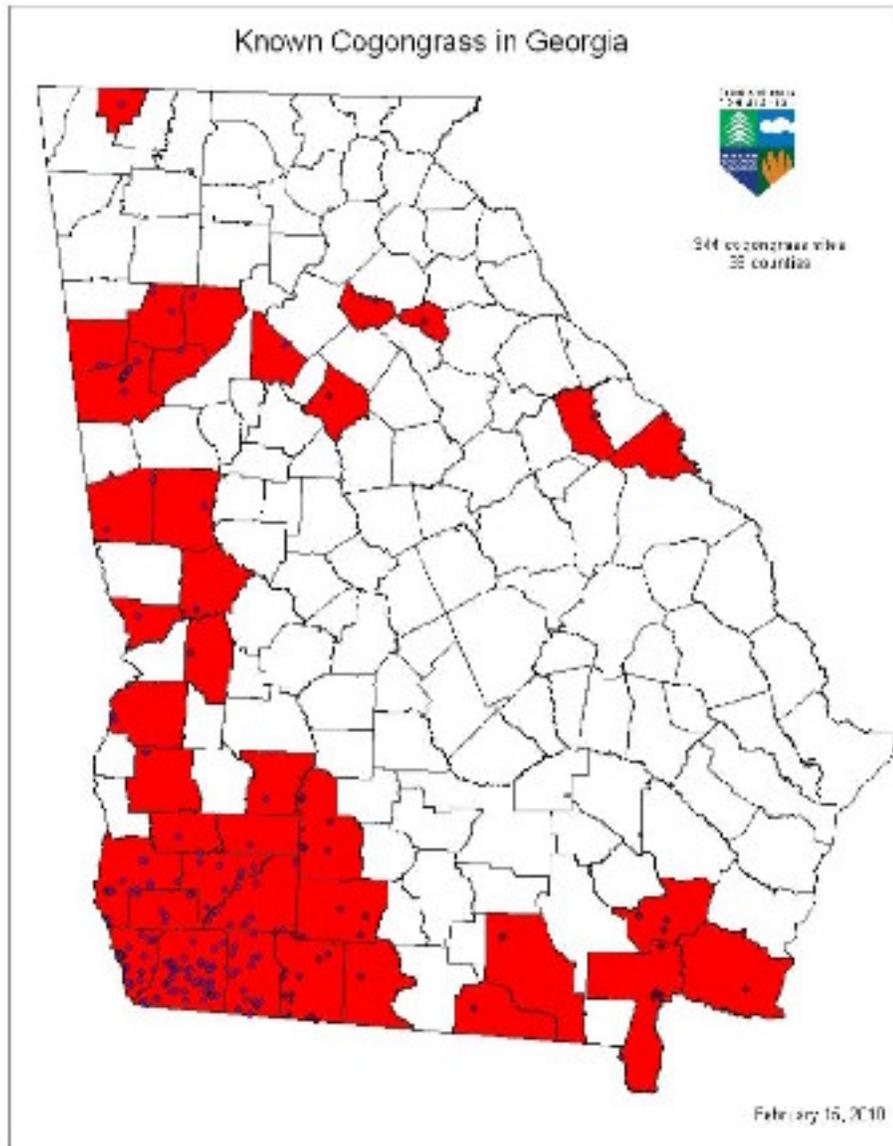
## Cogongrass: *identification*

Warm season grass that seeds in the spring  
March - May





# Cogongrass sites in Georgia

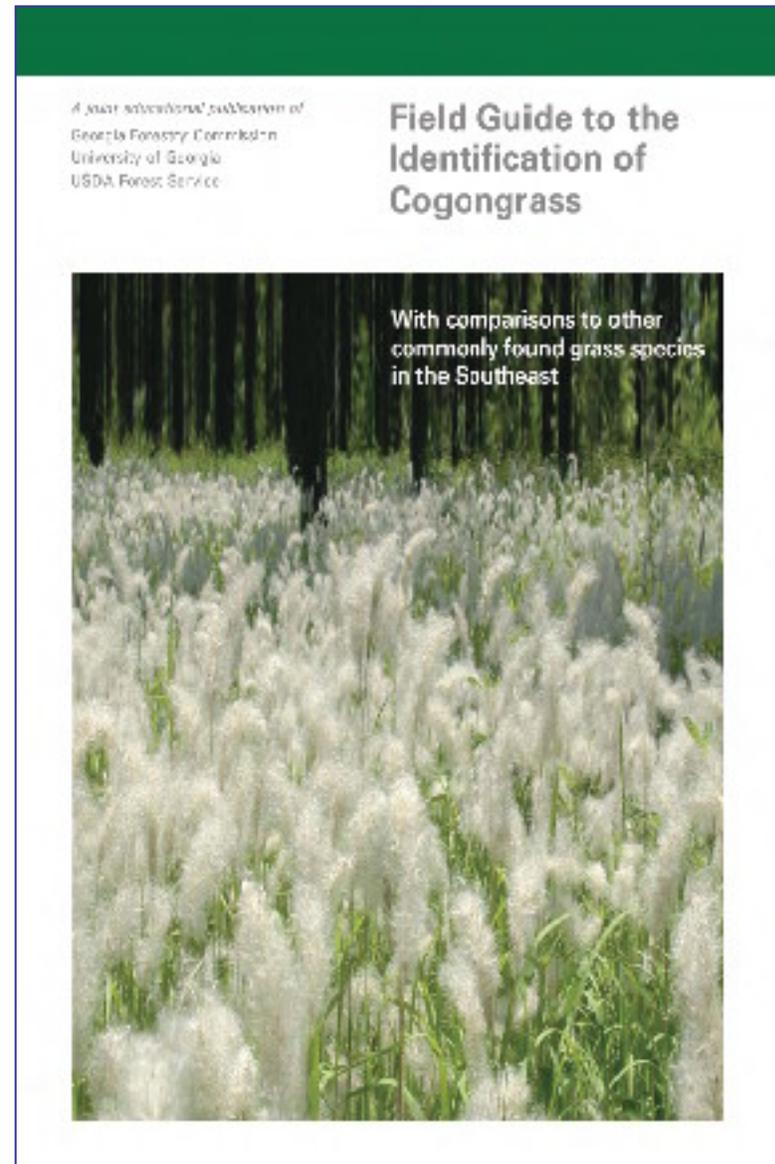
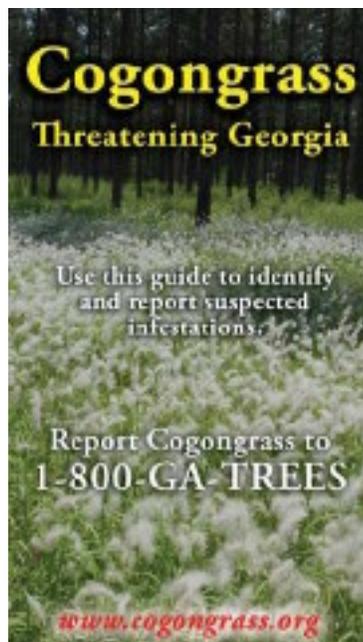


344 sites

36 Georgia Counties



# Field Guide to the Identification of Cogongrass





## Partnerships



*Allows...*

*GFC to treat Cogongrass at no charge to landowners*



# Partnerships

## Initial Partners with the Cogongrass Cooperative Weed Management Area (CWMA) for Georgia

May 8, 2008

- *Georgia Forestry Commission*
- *The Governor's Office*
- *USDA APHIS Plant Protection & Quarantine*
- *USDA Forest Service*
- *The Warnell School of Forestry and Natural Resources, UGA*
- *USDA – Natural Resources Conservation Service*
- *USDA – Farm Service Agency*
- *Georgia Department of Natural Resources*
- *Georgia Department of Agriculture*
- *Georgia Department of Transportation*
- *Georgia Exotic Pest Plant Council*
- *Georgia Forestry Association*
- *Tall Timbers Research Center*
- *Jones Ecological Center*
- *Georgia Power Company*
- *The Nature Conservancy*
- *Georgia Soil & Water Conservation Commission*
- *Georgia Wildlife Federation*
- *The National Wild Turkey Federation*
- *Quality Deer Management Association*
- *Georgia Farm Bureau*
- *Society of American Foresters - Georgia Chapter*
- *The National Park Service*



## How can you help?

- Help spread the word next spring (March - May)
  - Look for flowering/seeding
  - Newsletters, mini-brochures
  - Employees that are in the field (ID booklets)
  - Field days, workshops, etc.
- ***Report suspect finds to local GFC office***



# We aren't in Kansas Anymore...



And there isn't a magic and easy answer to the risks we face





# Conclusions

The global economy has increased our risk of unwanted pests entering the U.S.

1994      550,000 containers

2007      3+ million      containers (20+% annual increase)

**7,000 Containers Daily!**

Port of Savannah figures

Many of our most destructive  
native

Early detection and rapid

Slow (or halt) the spread of  
movement

Gypsy Moths    Virginia &

Sirex Wood Wasp - New York

Emerald Ash Borer

Cogongrass



<http://www.continentalforestdialogue.org/>



## Continental Dialogue ON Non-Native Forest Insects & Diseases

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### WHAT'S NEW

[November 2008  
Dialogue Meeting](#)  
November 12-13, 2008

["Don't Move  
Firewood" Website](#)  
Now Live!

[Workgroup  
Products Now  
Online](#)

The **Continental Dialogue on Non-Native Forest Insects and Diseases** cultivates and catalyzes collaborative action among diverse interests to abate the threat to North American forests from non-native insects and diseases.

The impacts of non-native insects and diseases on America's forests have been profound, and the rates of introduction and establishment of new invaders have increased dramatically in recent years. The increase in introductions stems from a failure to adapt government interdiction efforts to changes in trade, particularly increased volume of trade, increased speed with which goods move from one continent to another, and increasing diversity of goods traded and ports of origin. Because this is a societal problem and not a biological problem, it can be solved.

The Dialogue is now working to implement a six part Action Agenda to achieve the vision. The [Action Agenda](#) was developed at a January 2007 meeting of a diverse group of continental leaders in the diverse industries, universities, non-profit groups, and government agencies. Actions under development include market-based strategies to encourage best management practices, communications and marketing approaches to raise public awareness, and legislative strategies to improve public policy.