

2006 Firewood Forum

Roles, Responsibilities, and Regulations

Morton Arboretum

May 24, 2006

Lisle, IL



Emerald Ash Borer

Agrilus planipennis Fairmaire

- U.S. Department of Agriculture
 - Animal and Plant Health Inspection Service
 - Forest Service
- Indiana
 - Department of Natural Resources
 - Purdue University
- Michigan
 - Department of Agriculture
 - Department of Natural Resources
 - Michigan State University
- Ohio
 - Department of Agriculture
 - Department of Natural Resources
 - Ohio State University
- Canada
 - Canadian Food Inspection Agency
- Maryland Department of Agriculture
- Virginia Department of Agriculture
- Others...



Discovery and Response...

Survey – New County Finds Per Year

- 2002 ●
- 2003 ●
- 2004 ●
- 2005 ●
- 2006 ●

Michigan

- Alcona County
- Antrim County
- Barry County
- Benzie County
- Berrien County
- Branch County
- Calhoun County
- Charlevoix County
- Cheboygen County
- Chippewa County
- Clinton County
- Crawford County
- Eaton County

- Emmet County
- Gratiot County
- Genesee County
- Grand Traverse Cty.
- Hillsdale County
- Huron County
- Ingham County
- Ionia County
- Isabella County
- Jackson County
- Kent County
- Lapeer County
- Lenawee County

- Livingston County***
- Macomb County***
- Manistee County
- Mason County
- Mecosta County
- Midland County
- Monroe County***
- Montcalm County.
- Montmorency County
- Muskegon County
- Oakland County***
- Oceana County
- Ogemaw County

- Oscoda County
- Presque Isle County
- Roscommon County
- Saginaw County
- Sanilac County
- Shiawassee County
- St. Clair County
- St. Joseph County
- Tuscola County.
- Van Buren County.
- Washtenaw County***
- Wayne County***

Ohio

- Auglaize County
- Defiance County
- Delaware County
- Erie County
- Franklin County
- Fulton County
- Hancock County
- Henry County
- Huron County
- Lorain County
- Lucas County
- Ottawa County
- Paulding County
- Sandusky County
- Williams County
- Wood County

Indiana

- Adams County
- Hamilton County
- Huntington County
- Lagrange County
- Marion County
- Randolph County
- Steuben County

Maryland

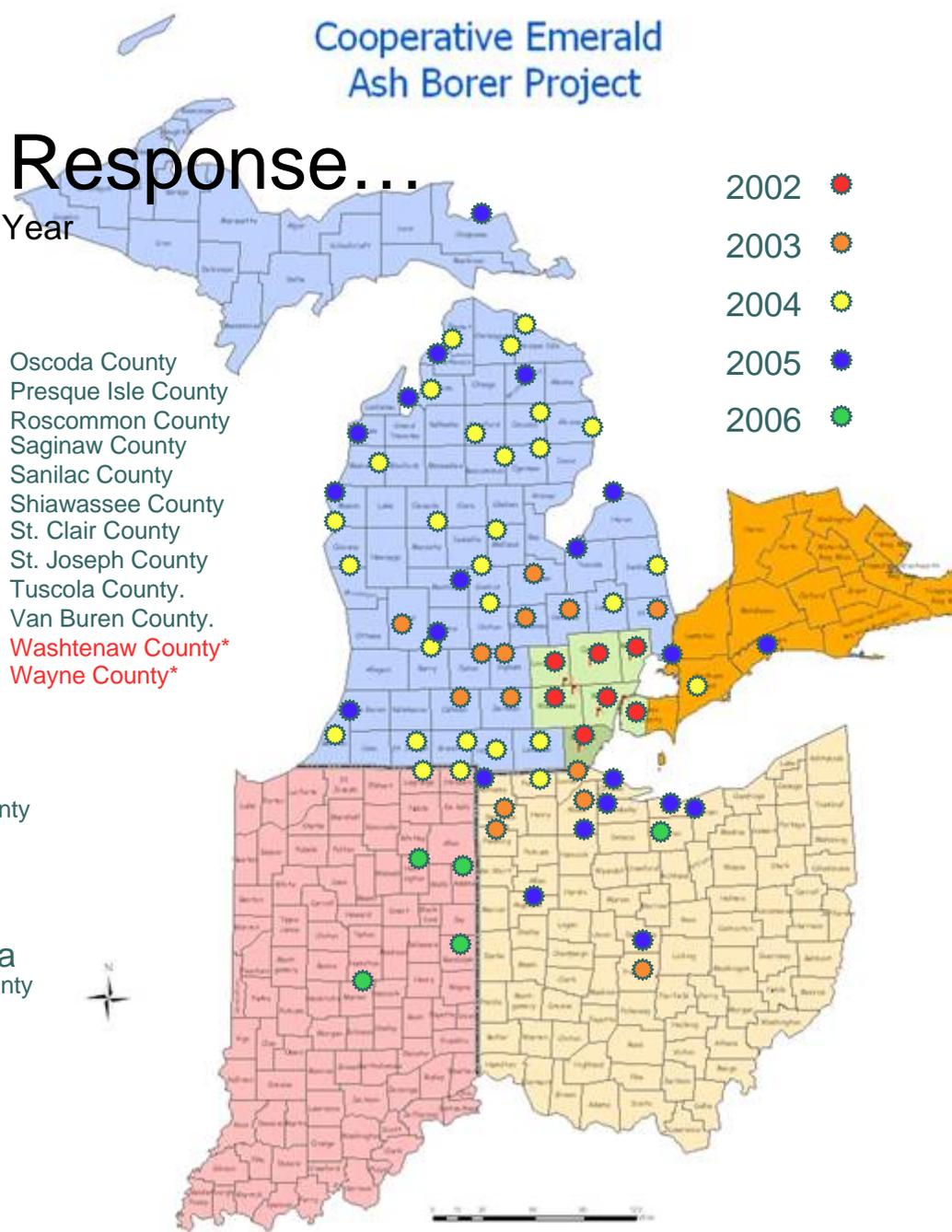
- Prince George County

Virginia

- Fairfax County

Ontario Canada

- Chatham-Kent County
- Elgin County
- Essex County
- Lambton County



2006 Firewood Forum

Roles, Responsibilities, and Regulations

- Federal
 - Quarantine
 - Regulatory
 - Interstate Movement of Host Materials
 - Outreach
 - Survey
 - Program Oversight

- State Regulatory Agencies
 - Quarantine
 - Regulatory
 - Intrastate Movement of Host Material
 - Outreach
 - Survey

- Other Cooperators (Park Mgrs., etc.)
 - Restoration
 - Wood Utilization
 - Outreach

Animal and Plant Health Inspection Service
Forest Service
Michigan Department of Agriculture
Michigan Department of Natural Resources
Indiana Department of Natural Resources
Ohio Department of Agriculture
Ohio Department of Natural Resources
MI, IN, OH State Police
Center for Plant Health Science and Technology
Maryland Department of Agriculture
Virginia Department of Agriculture
Local Police Departments
Park Managers
Municipalities
Loggers, Sawmills, Firewood Dealers, etc...
State Departments of Transportation
General Public
Michigan State University
University of Michigan
Michigan Tech University
Ohio State University
Purdue University
Penn State University
Tennessee State University
Other Universities
Tree Care Companies
Nature Conservancy
Trade Associations
Others

Emerald Ash Borer

Agrilus planipennis Fairmaire

EAB locations
in Michigan, Indiana, Ohio
and Ontario, Canada

March 10, 2006

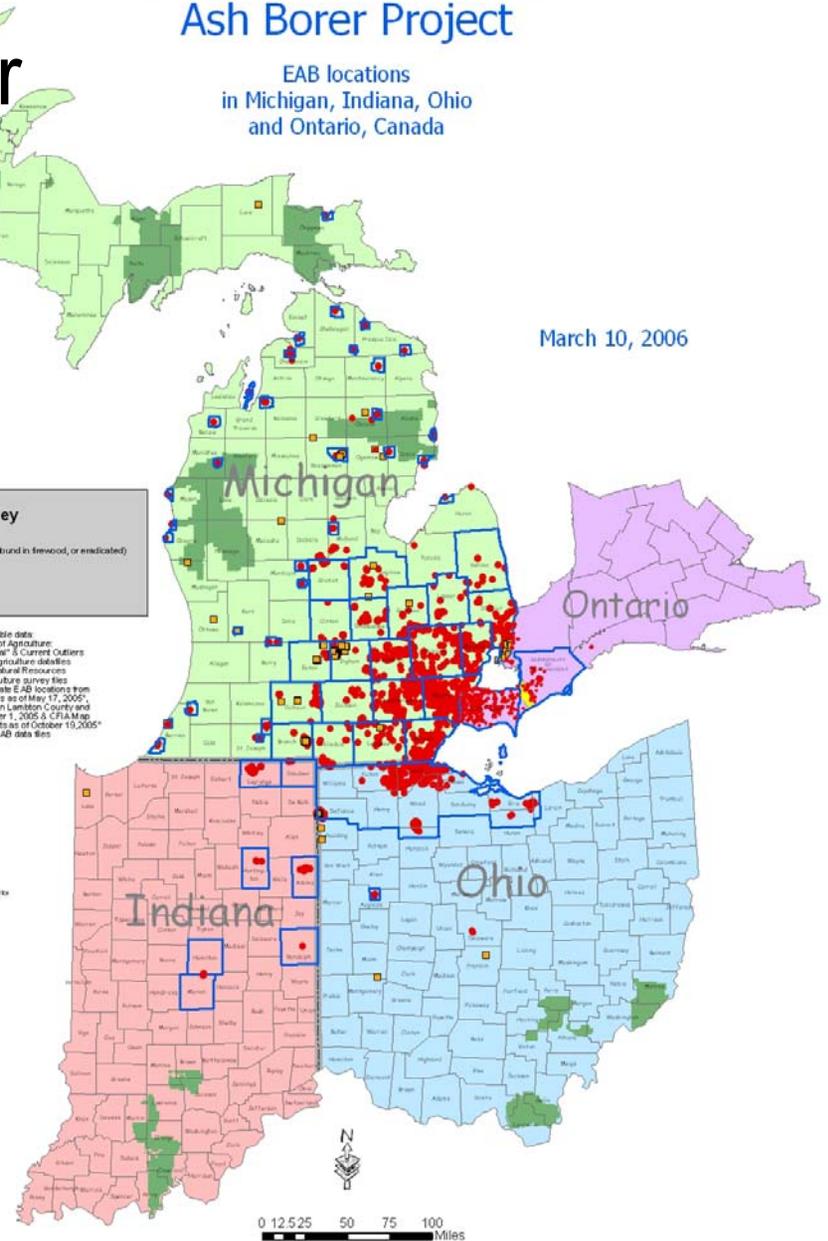
Map Key

- EAB positive
- Site under evaluation (symptoms, found in firewood, or eradicated)
- National Forests
- Quarantined area boundaries
- Ontario ash tree zone

Sources of available data:
 Michigan Department of Agriculture
 Database "2005-11-01_history" & Current Outliers
 Michigan Department of Agriculture database
 Indiana Department of Natural Resources
 Ohio Department of Agriculture survey files
 Ontario EAB sources: Approximate EAB locations from
 CFA map "EAB Survey Results as of May 17, 2005",
 CFA map "EAB Positive Sites in Leamington County and
 Walpole Island" dated September 1, 2005 & CFA Map
 "Emerald Ash Borer Survey Results as of October 10, 2005"
 USDA/APHIS/PPQ/EAB data files

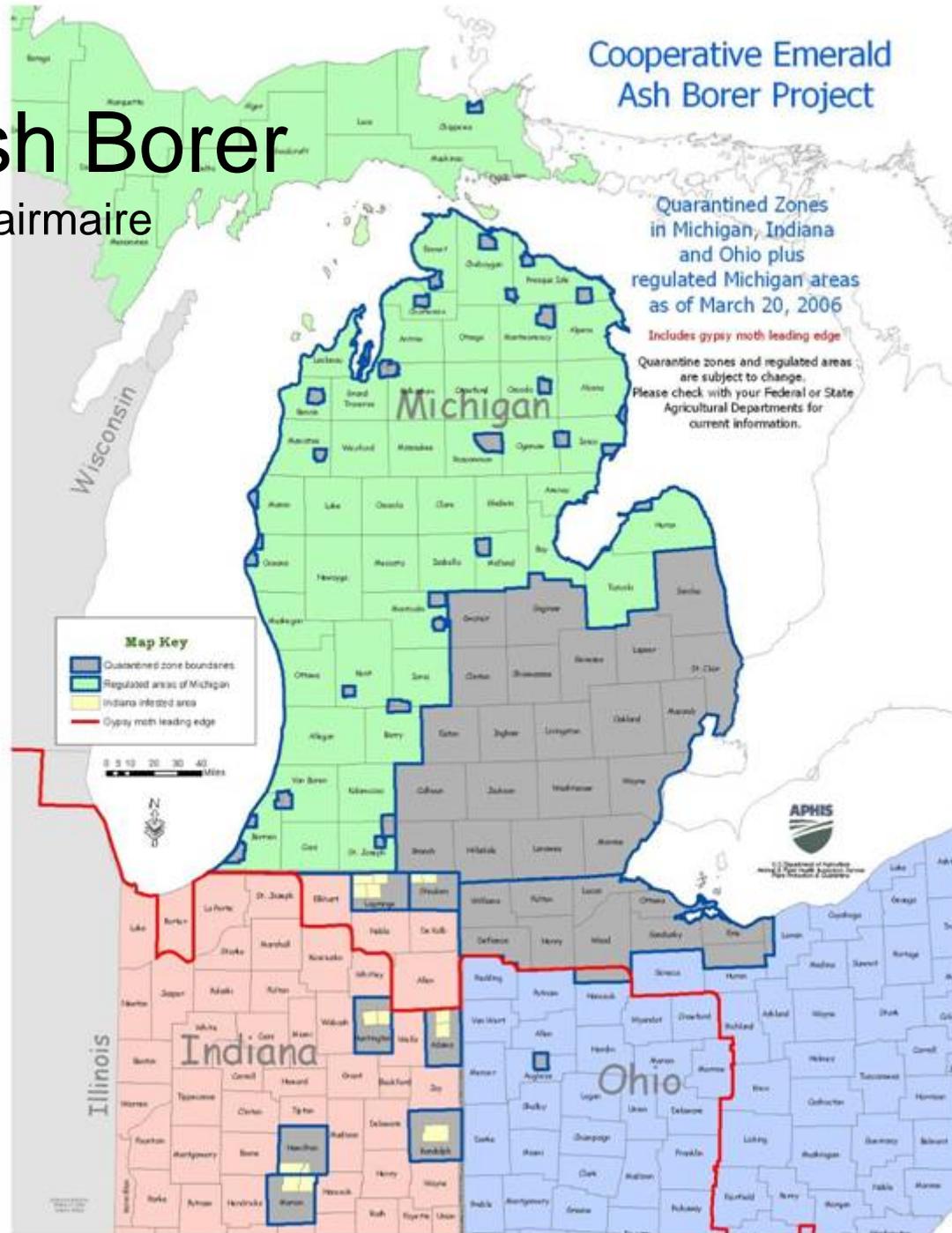


U.S. DEPARTMENT OF AGRICULTURE
ANIMAL PLANT AND QUARANTINE
INSPECTION SERVICE



Emerald Ash Borer

Agrilus planipennis Fairmaire



What's Regulated?

- The Emerald Ash Borer (*Agrilus planipennis*)
- Entire ash (*Fraxinus* spp.) trees
- Ash logs
- Untreated ash lumber with bark attached
- Ash limbs and branches
- Firewood of all hardwood species
- Uncomposted ash chips and uncomposted ash bark chips larger than 1 inch in diameter in 2 dimensions.
- Any article determined to present a risk of spreading EAB



Are you at risk?

You are at risk if your state has:

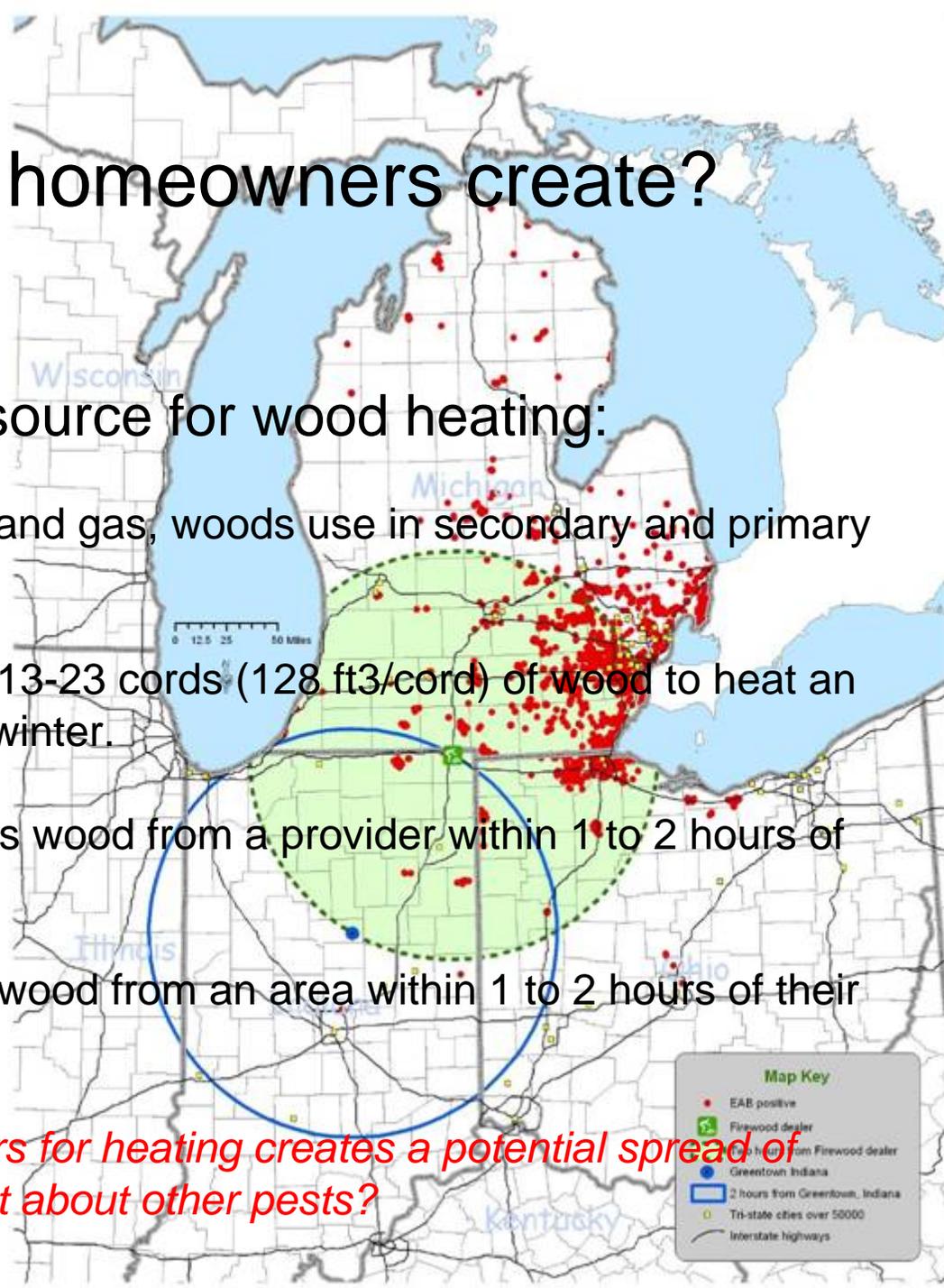
- parks or campgrounds
- out-of-state sportsmen
- convenience stores or major retail outlets that sell bundled firewood
- homeowners that burn firewood
- major events that draw out of state visitors (i.e., NASCAR circuit races, balloon festivals, pow-wows, etc.)



What risk do homeowners create?

Wood is an alternative fuel source for wood heating:

- with escalating prices of fuel oil and gas, woods use in secondary and primary home heating is on the rise.
- in the northern Midwest it takes 13-23 cords (128 ft³/cord) of wood to heat an average size house through the winter.
- most home owners purchase this wood from a provider within 1 to 2 hours of their home.
- local dealers generally get their wood from an area within 1 to 2 hours of their business establishment.
- Sales of firewood to homeowners for heating creates a potential spread of EAB of up 150 to 200 miles. What about other pests?*

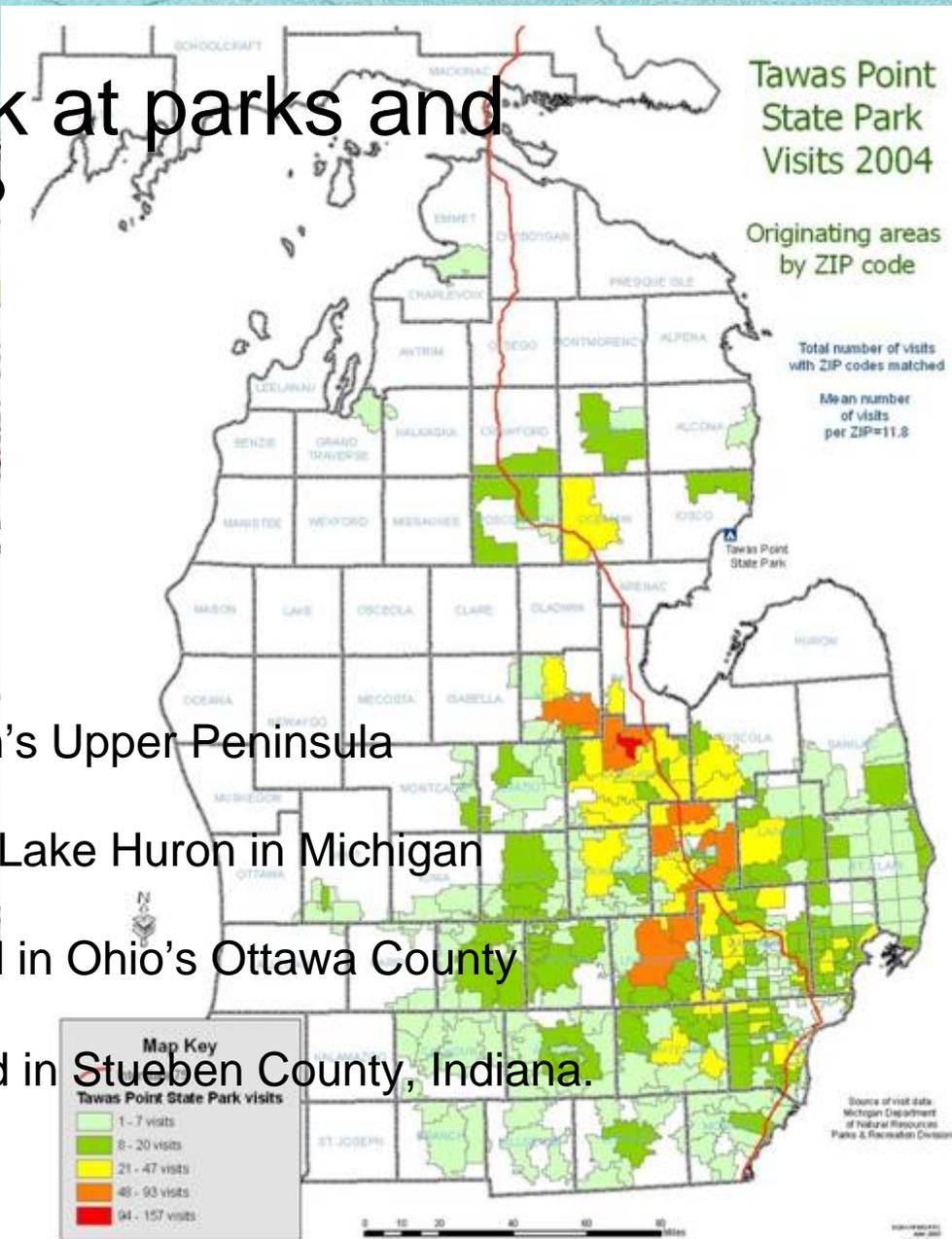
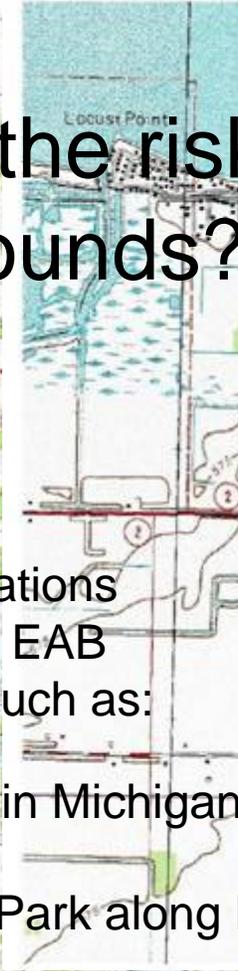


What is the risk at parks and campgrounds?

To Date...

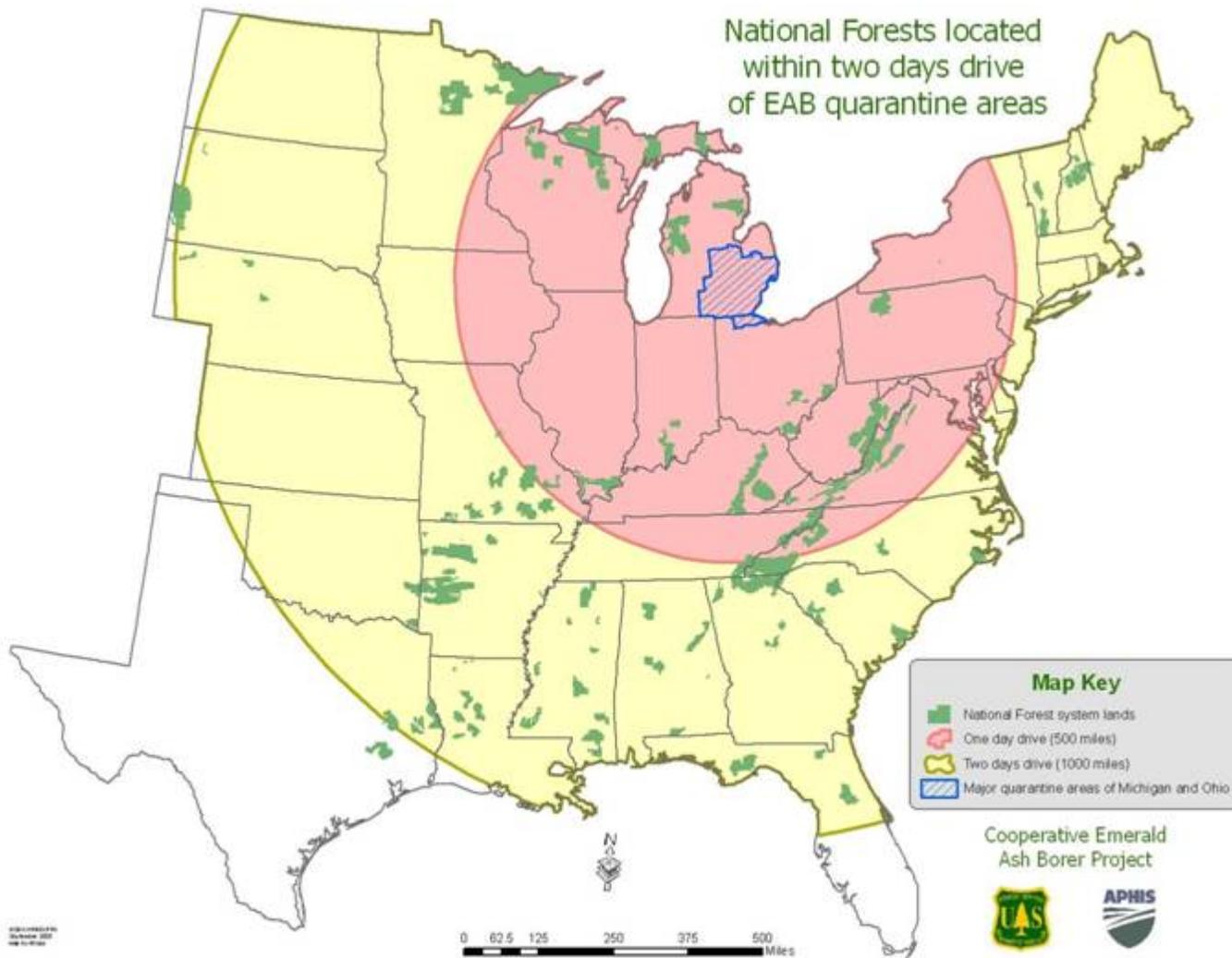
- over a dozen outlier locations found to be infested with EAB have occurred in parks such as:

- Brimley State Park in Michigan's Upper Peninsula
- Tawas Point State Park along Lake Huron in Michigan
- Wild Wing private campground in Ohio's Ottawa County
- Yogi Bear private Campground in Stueben County, Indiana.



What is the risk at parks and campgrounds?

One and two day drives from EAB quarantine



Do people really move firewood with them?

Yes they do!



Cooperative Emerald Ash Borer Project

Number of 2004 campsite visits to South Dakota State Parks from EAB infested areas of Indiana, Michigan and Ohio



- On 25th of May, a man from Michigan state park visited a campsite in South Dakota and brought firewood from his home in Michigan to the park. Of that state he reported 65% brought firewood to the park, one man hauling it from his back yard in Kent after Michigan.

ed to load a U-
from the



Map Key
South Dakota State Parks campsite visits



South Dakota



0 15 30 60 90 120 Miles

Vermillion



Source of camp visit data:
South Dakota
Department of Agriculture

Why do people move firewood?

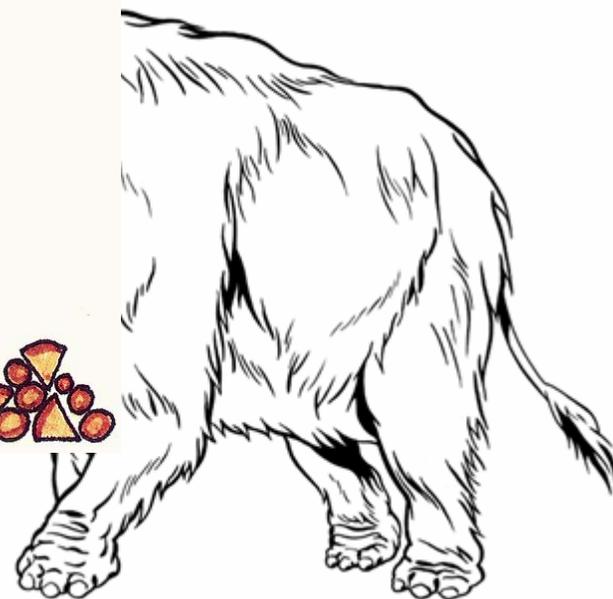
Because: Recreational and Alternative Fuel Source

“between man

Ken Marchant, CFIA.



anderthal link”



EAB is devastating but is not the only risk associated with firewood?

Firewood can spread a number of forest pests and diseases:

- ALB
- Beech bark disease
- Dutch elm disease
- Emerald Ash Borer
- Gypsy moth
- Hemlock woolly adelgid
- Oak wilt
- Sudden oak death



What is the cost of invasive species that can be spread by firewood?

Immeasurable..., but we do know;

- it is going to cost the city of Ann Arbor, Michigan over 4.3 million dollars to remove dead and dying ash trees and restore their greenscape
- that Michigan has lost over 15 million of its ash trees
- the cost of setting 5,070 survey detection trees across Michigan's Upper Peninsula this year will cost over \$500,000.00
- We do know the control costs for Canada's ash-free zone, cutting 70,000 trees in a 116 sq. mile area, was almost \$9 million in US dollars
- there is no formula to calculate the loss of a genus in terms of ecosystems and diversity and that what is lost can never be restored.

Do you know where your firewood comes from?

- Firewood can be collected by individuals on private land or public land via firewood permits.
- It can be purchased:
 - from a dealer
 - at a farm auction
 - over the internet
 - bought at a store
 - contracted from a broker
 - dropped off by your brother who lives 5 counties away

Auction

We have been operating one of the largest firewood auctions of its kind in PA! Hay, Straw, Grains
<http://www.auctionzip.com/PA/>



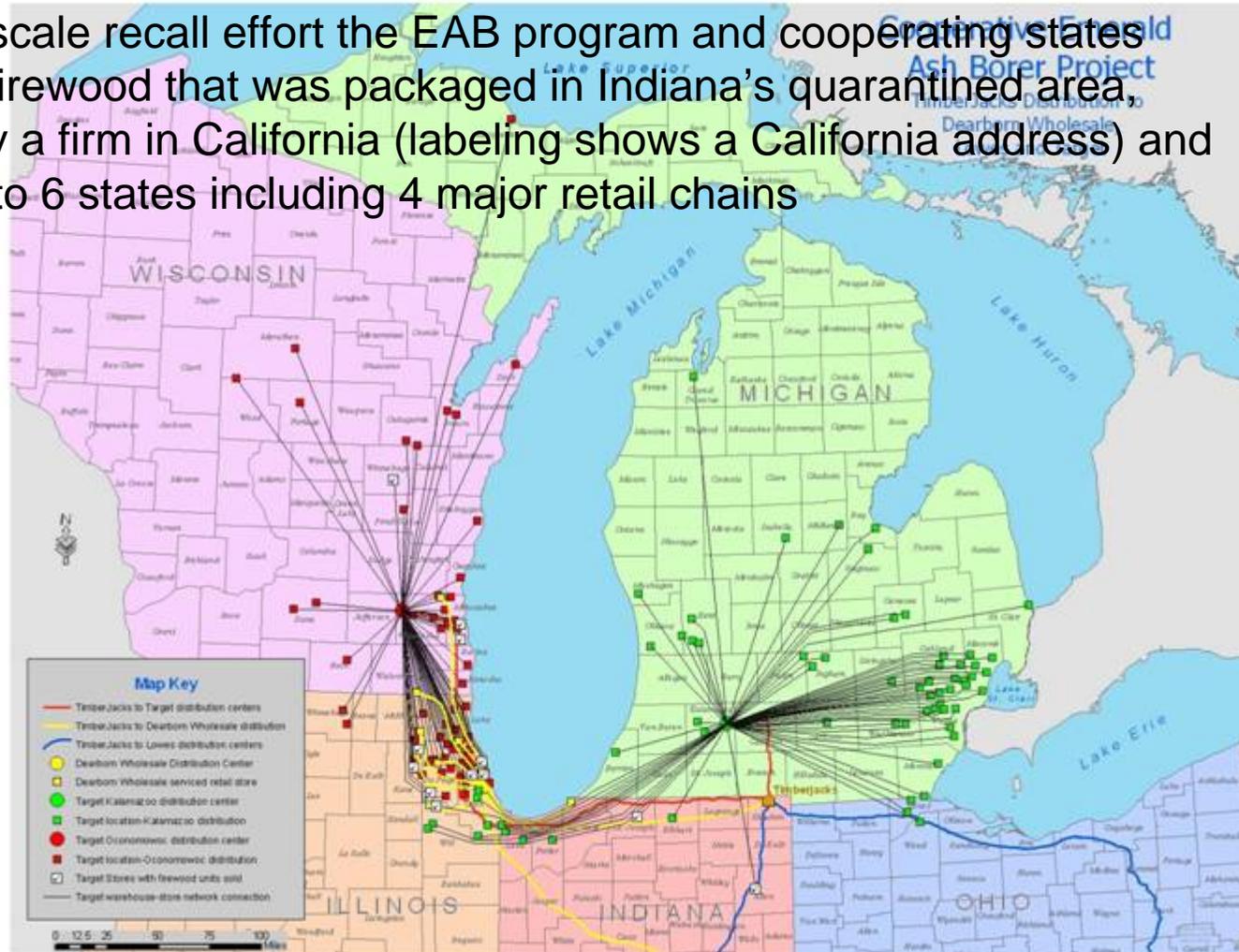
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...ning and successful auctions of its
Every Monday, ...

[Review This Site]

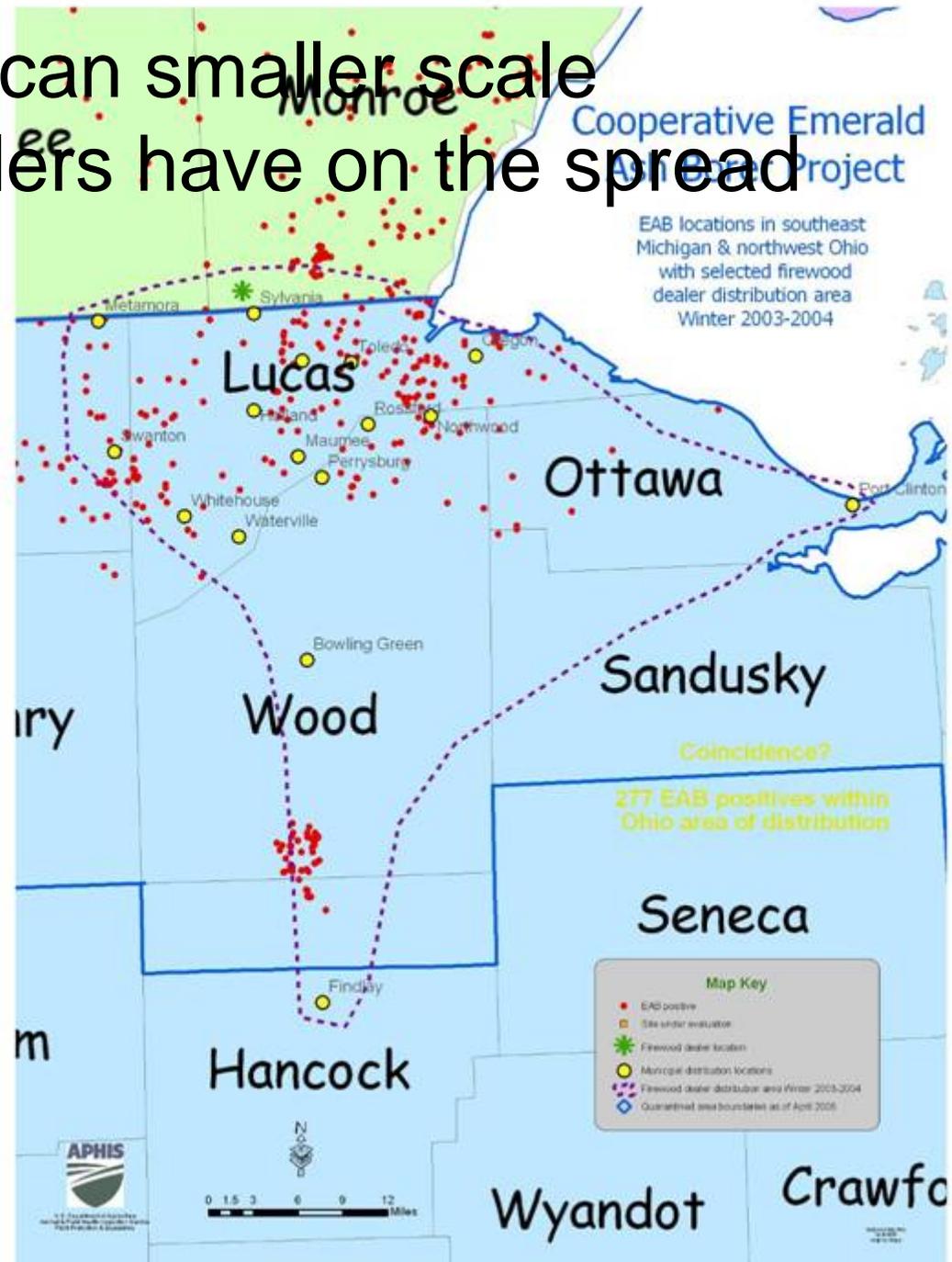
Do you know where your firewood comes from?

- In a large scale recall effort the EAB program and cooperating states recovered firewood that was packaged in Indiana's quarantined area, brokered by a firm in California (labeling shows a California address) and distributed to 6 states including 4 major retail chains
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What impact can smaller scale firewood dealers have on the spread of EAB?

- This map showing known sales area of a firewood dealer handling wood out of the infested area and subsequent EAB survey positives – is there a correlation?



How traceable are firewood sales?

- Sales venues run the gamut from seasonal Mom and Pop operations where you leave cash in a can and help yourself to a bundle to large scale brokers moving wood from multiple sources across the nation and internationally. Look at this excerpt from the 'firewoodcenter.com website' that connects buyers and sellers of firewood.

Topic: Slab Firewood
Posted by: Bill Schmell
Date/Time: 3/28/2006 1:51:42 AM
I have a new stove insert that easily loads 16" firewood front to back for a full firebox. There are local lumber yards in a nearby Amish settlement that offer slab firewood for sale at a bargain. I can cut and split it to size. Is this a good option for me, assuming it is hard wood and seasoned well? Will slab wood hold a fire as long as split wood if stove is loaded to capacity?

- This item contains several regulatory hot spots: slab wood, Amish settlements, bargain prices.

Education/Outreach...

- Regulatory/Outreach



Education/Outreach...

- Outreach: t-shirts, cups, web site, “The Green Menace”, tattoos, hats, etc.



Education/Outreach...

- Outreach: M1 Tanks, Coast Guard Cutters, ?



Besides education and outreach how do we deter non-commercial movement of firewood?

- Due to the high level of risk associated individual's moving firewood the EAB program, in cooperation with IES, has developed a table of penalties for non-commercial violations of domestic quarantines. Since this development last year 56 stipulations of \$250 and up have been issued for non-commercial firewood violations.



Did you know/Would you believe.....?



that firewood moved from Michigan to Texas in a horse trailer. Or that in Michigan, there are 18 state park horse camps, one in the Pennsylvania state line that has 100 rustic camp sites. How many horse camps does your state have?





Emerald Ash Borer – Info...

<http://www.aphis.usda.gov/ppq/ep/eab>

www.emeraldashborer.info

www.na.fs.fed.us/spfo/eab/index.html

EAB Information/Hot Line - Dial Toll Free: (866) 322-4512



Thank You...

EAB photographs

James Zablotny, Entomologist USDA/APHIS

Brian Sullivan, USDA/APHIS

Katie Armstrong, USDA FS

David Cappaert, MSU

Maps

Doug Bopp, GIS USDA

USDA Forest Service