

# Morgan County's Least Wanted Plants

Dan Shaver  
The Nature Conservancy  
Brown County Hills Project

# Definition of Invasive Species

- ▶ An invasive species is a species that does not naturally occur in a specific area and whose introduction does or is likely to cause economic or environmental harm or harm to human health.

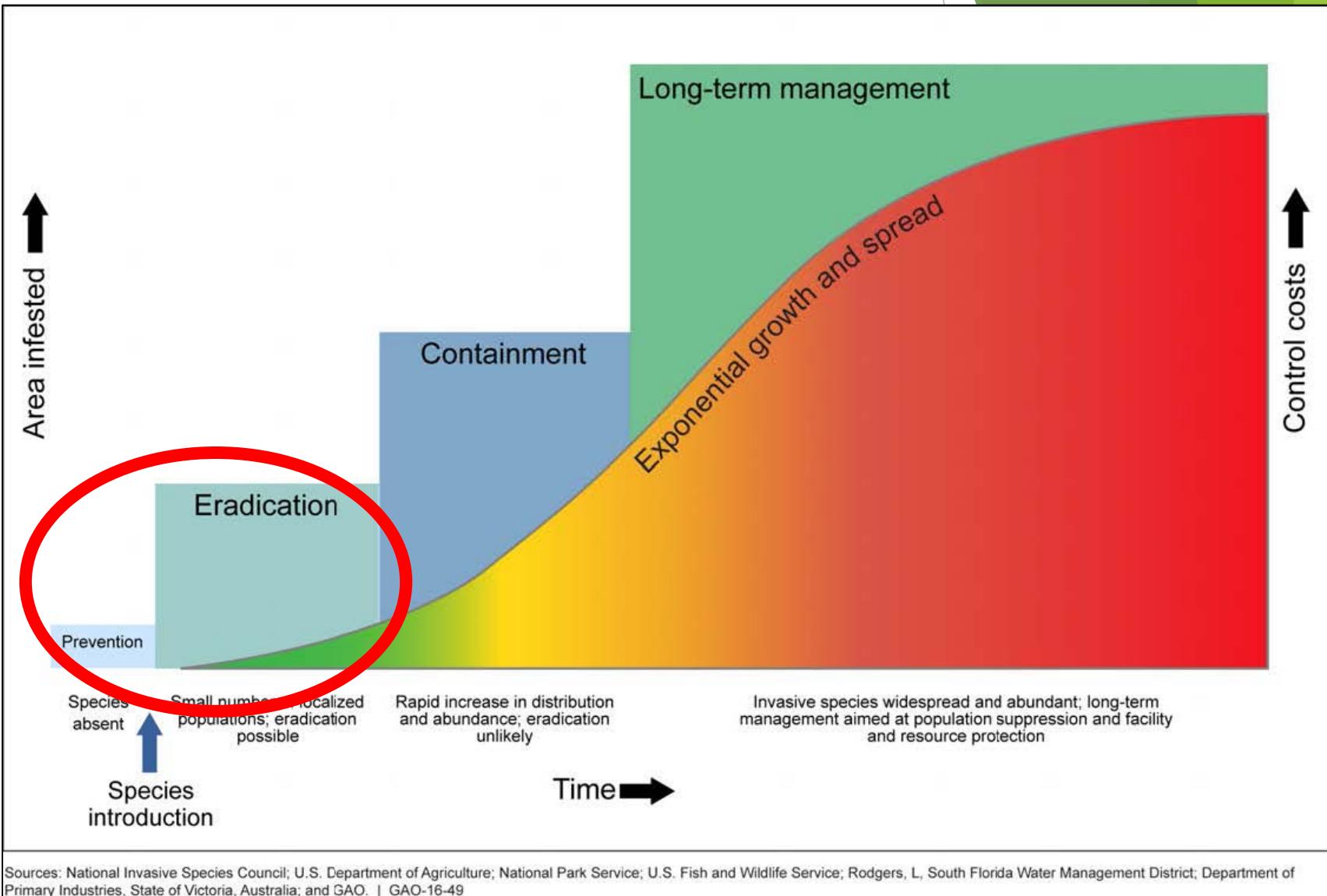
*President's Executive Order 13112, 1999*

- ▶ Invasive species
  - ▶ Outcompete native plants
  - ▶ Threaten rare and endangered species
  - ▶ Alter soil chemistry and water availability
  - ▶ Adversely impact insect species and other wildlife
    - ▶ From Doug Tallamy's *Bringing Nature Home*





# Invasion Curve

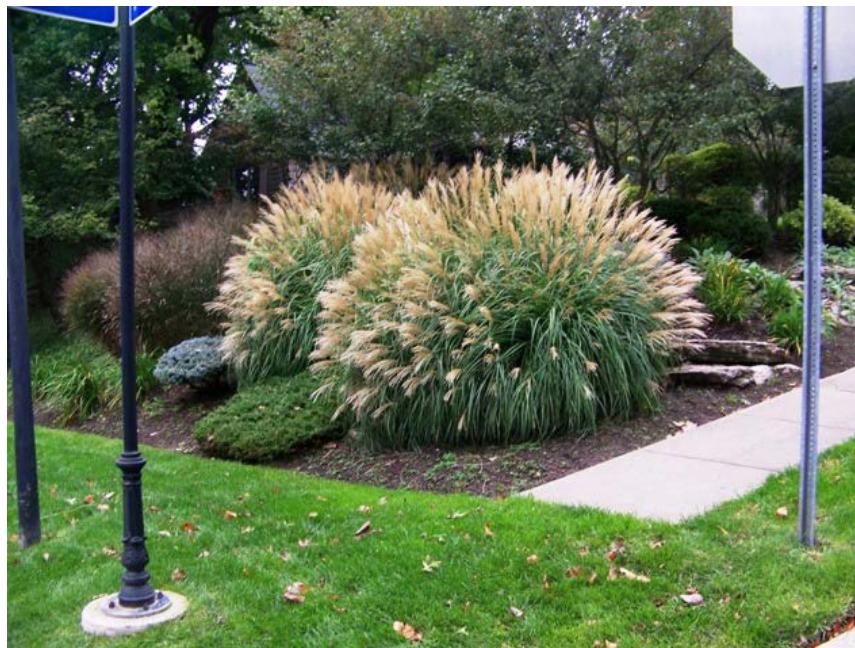


# The Least Wanted Plants

- ▶ Grasses:
  - ▶ Chinese Silver Grass
- ▶ Herbaceous Forbs:
  - ▶ Beefsteak Plant
  - ▶ Japanese Knotweed
  - ▶ Poison Hemlock/Wild Parsnip
- ▶ Woody Vines:
  - ▶ Oriental Bittersweet
  - ▶ Wintercreeper
- ▶ Shrubs:
  - ▶ Japanese Barberry
  - ▶ Burning Bush
- ▶ Trees:
  - ▶ Callery Pear
  - ▶ Tree of Heaven

# Chinese Silver Grass (*Miscanthus sinensis*)

- ▶ Tall grass that grows in clumps
- ▶ White, grey hairs part of plumpy inflorescence
- ▶ Can easily spread by seed or rhizomes to disturbed areas and form large clumps
- ▶ Herbicide use is recommended for control





# Beefsteak Plant (*Perilla frutescens*)

- ▶ Herbaceous annual species in the Mint family
- ▶ Dark red to purple square stems
- ▶ Opposite, coarsely toothed leaves
- ▶ Distinct aromatic smell
- ▶ Prolific seed production
- ▶ Outcompetes native plants and toxic to grazers





# Japanese Knotweed (*Fallopia japonica*)

- ▶ VERY aggressive perennial
- ▶ Spreads by rhizomes and cut stems (can destroy pavement)
- ▶ Stems look like bamboo
- ▶ Large heart-shaped/spade-shaped leaves
- ▶ Planted for privacy fences and showy blooms





# Poison Hemlock/Wild Parsnip

*Conium maculatum/Pastinaca sativa*



- ▶ Both are biennial herbaceous species in the Carrot family
- ▶ Cause severe rashes when oils of plant come in contact with exposed skin
- ▶ Invade ROWs, old fields, prairie restorations







# Oriental Bittersweet

*(Celastrus orbiculatus)*

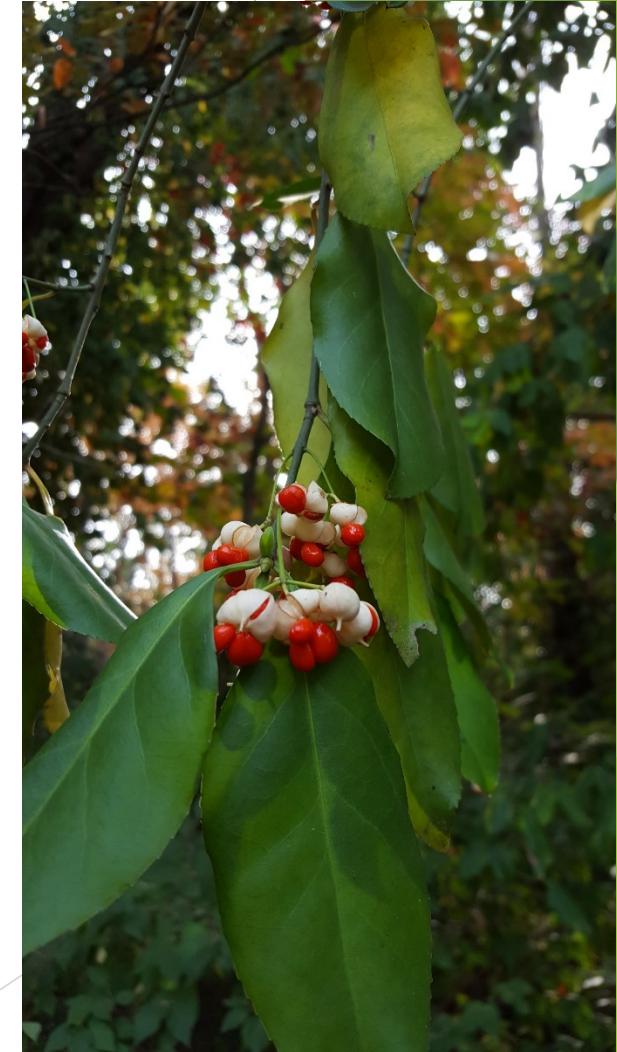
- ▶ Tall climbing woody vine
- ▶ Can grow quickly, shade out natives, girdle even large trees
- ▶ Hybridizes with native bittersweet
- ▶ Leaves: alternate, mostly round, 2-5 in long
- ▶ Showy round capsules clustered in leaf axils; green in summer, yellow-orange in fall; split open when ripe to reveal red fruit
- ▶ Vs. native which has berries at end of branches





# Wintercreeper (*Euonymus fortunei*)

- ▶ Evergreen vine from Asia
- ▶ Leaves: opposite, glossy, dark green, oval, and slightly toothed, light veins
- ▶ Invades forest openings and margins
- ▶ Spreads across ground and climbs trees





# Japanese Barberry (*Berberis thunbergii*)

- ▶ Leaves: small, alternate, oval to spoon-shaped, smooth margins, clustered in tight bunches above spines
- ▶ Numerous spiny stems, slightly curving, inner bark is yellow
- ▶ Clusters of small yellow flowers, fruit is small red, egg-shaped berries
- ▶ Correlated with increased tick populations





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# Burning Bush (*Euonymus alatus*)

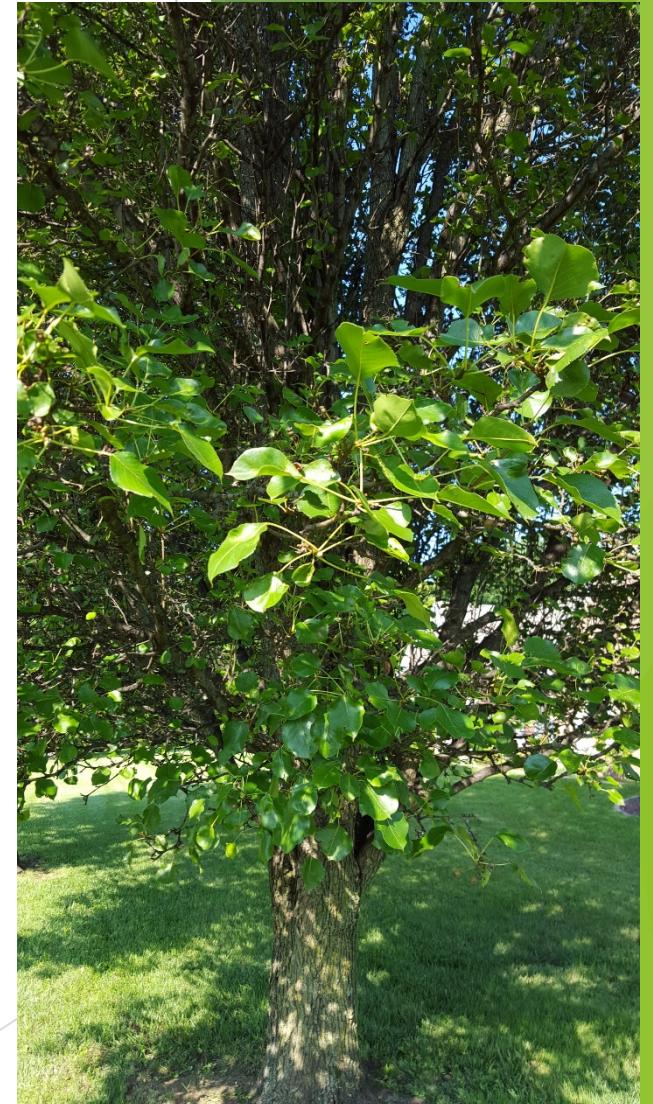
- ▶ Leaves: small, opposite, elliptical with pointed tips, small toothed margins, turn bright red in Fall
- ▶ Distinct winged stems
- ▶ Small yellow to green flowers, fruit is small red berries
- ▶ Outcompetes native shrubs





# Callery Pear (*Pyrus calleryana*)

- ▶ Leaves: alternate, simple, ovate, shiny with wavy slightly toothed margins
- ▶ White flowers with an unpleasant odor in the spring
- ▶ Green/Brown round fruits, 0.5" diameter
- ▶ Deep v shaped branching pattern
- ▶ Can form dense thickets of seedlings





# Tree of Heaven (*Ailanthus altissima*)

- ▶ Leaves: compound, 11 to 41 leaflets per leaf, alternate, leaflets are lanced shaped with notched bases, have a very unpleasant odor when crushed
- ▶ Produce large clusters of samara-like fruit that are easily wind dispersed
- ▶ Bark is mostly smooth with occasional fissures
- ▶ Very prolific seed production
- ▶ High seed germination rate
- ▶ Resprouts vigorously when cut

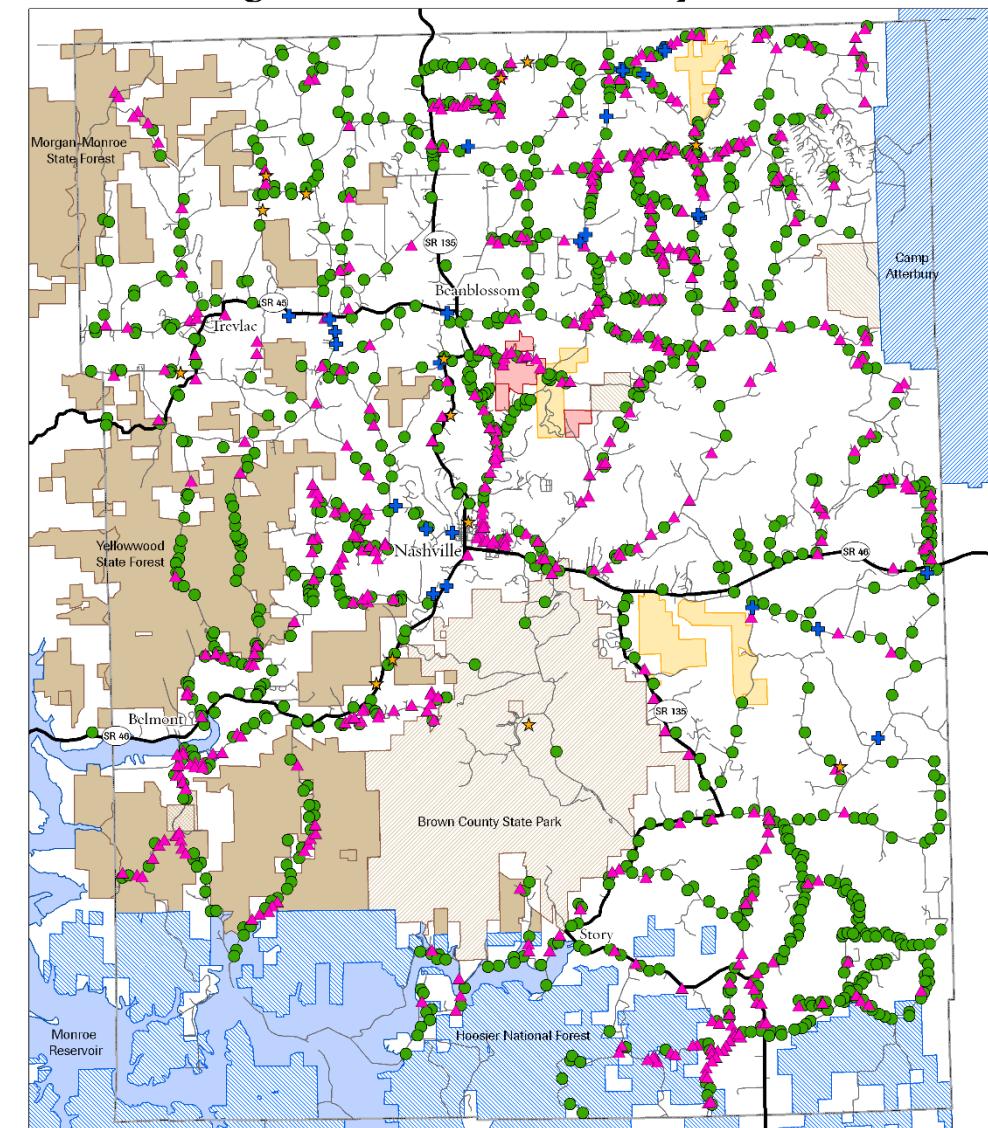




# Brown County Native Woodlands Project



Extent for four invasive plants  
along roads in Brown County, Indiana



Brown County Native Woodlands Project

Invasive Species

● Autumn olive

▲ Bush honeysuckles

✚ Japanese knotweed

★ Tree of heaven

— State road

— Road

Managed Lands

■ The Nature Conservancy

■ Local, Private, or Non-profit

■ State Forestry

■ Nature Preserves

■ Museum & Historic Sites

■ State Park & Reservoirs

Federal

■ Corps of Engineers

■ Department of Defense

■ Forest Service



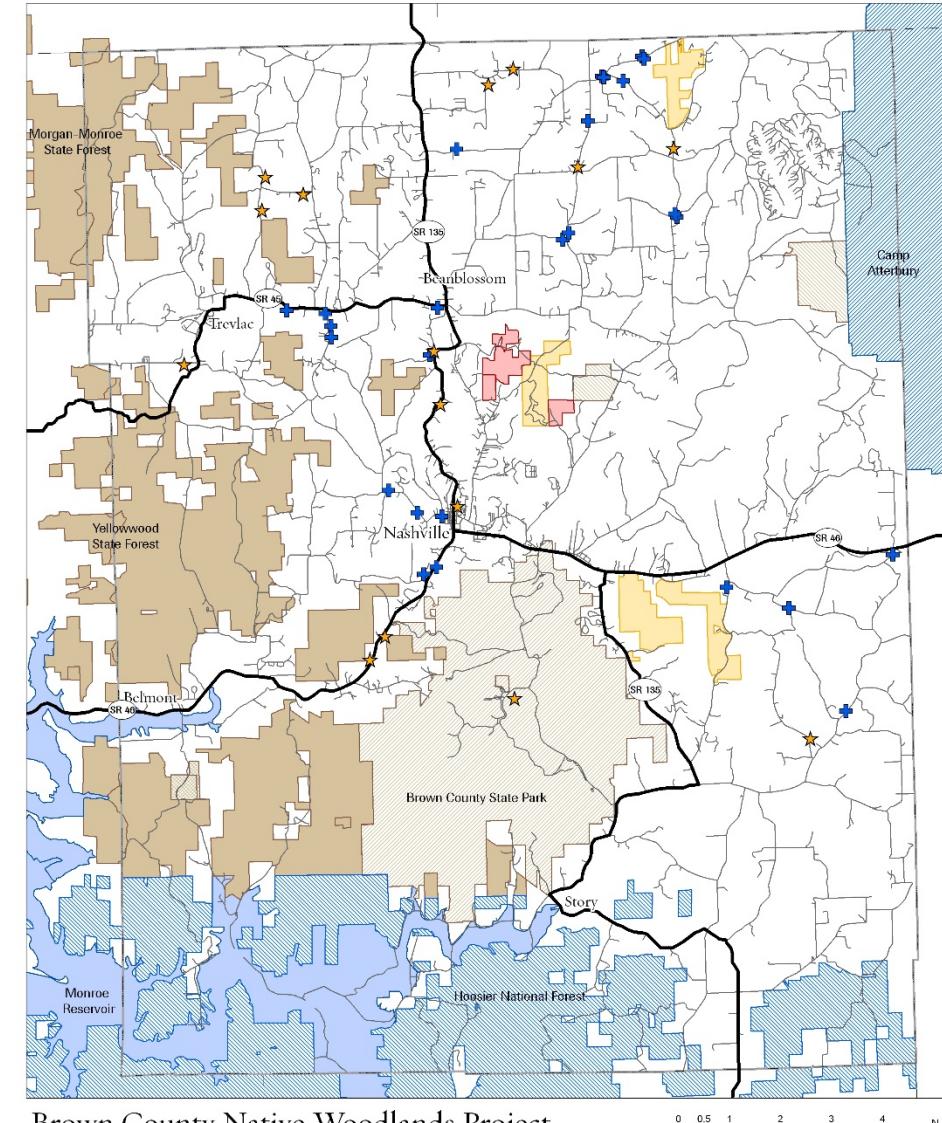
Mapping project funded by:

The Nature Conservancy

Data collected from May 2007 to August 2008  
Revised by J. Meek 01/2009

Brown County  
Soil & Water Conservation District

# Roadside extent of four invasive plants in Brown County, Indiana



## Brown County Native Woodlands Project

### Invasive Species

- Blue cross (+): Japanese knotweed
- Yellow star (★): Tree of heaven

- State road
- Road

### Managed Lands

- Federal:
  - The Nature Conservancy
  - Local, Private, or Non-profit
- State:
  - Forestry
  - Nature Preserves
  - Museum & Historic Sites
  - State Park & Reservoirs
- Local:
  - Corps of Engineers
  - Department of Defense
  - Forest Service

Data collected May 2007 to August 2008  
Map prepared by: J. Clegg, Inc., 10/2008

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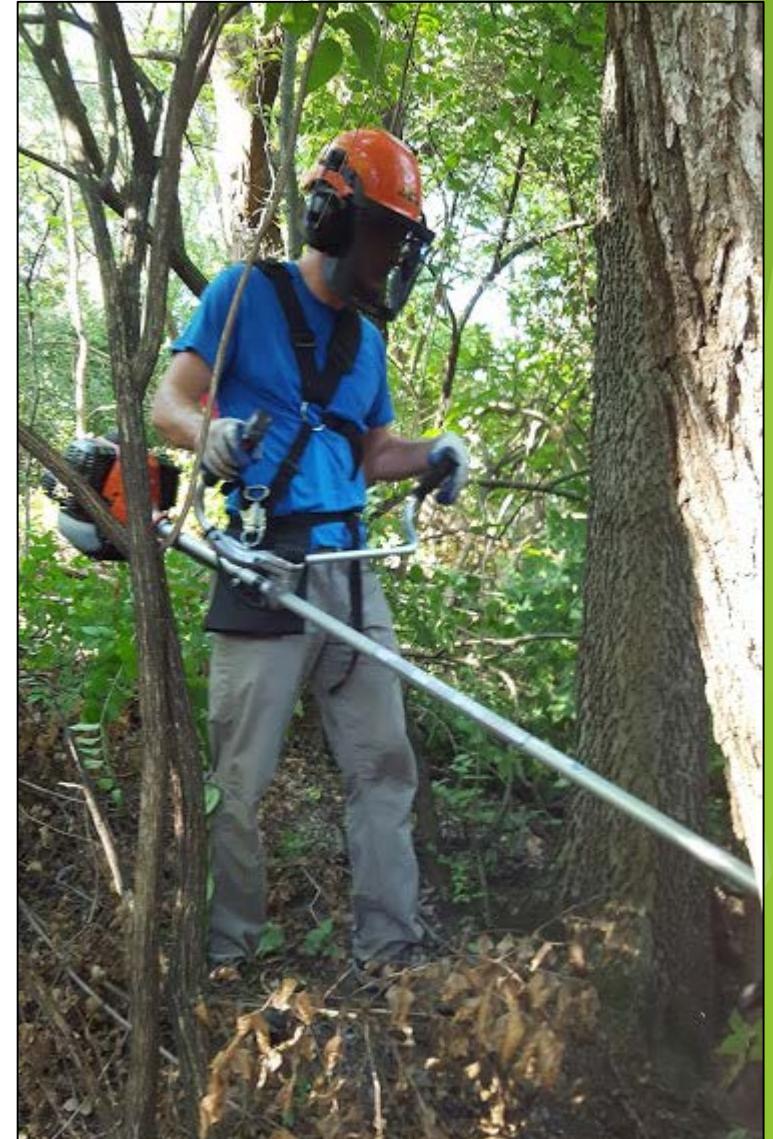
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# What you can do!

- ▶ Start/get involved with a local CISMA
- ▶ Report invasive species with EDDMaps
- ▶ Remove invasive species on your property
- ▶ Volunteer at a local park/nature preserve to help control invasive species
- ▶ Support ecological restoration/invasive management efforts



**EDDMapS** *Report IN*  
Early Detection & Distribution Mapping System  
*and keep invasive species out!*

# Questions?

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