

Identification, Biology, and Management of Burning Bush (*Euonymus alatus*)

ANNE PEARCE, MARK RENZ, TONY SUMMERS

UMISC

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Euonymus alatus

- Deciduous shrub
- Native to
northeastern Asia
- Hardy to zone 4b



Growing Conditions

- Tolerant of variety of soil conditions
 - Texture, moisture, pH
- Salt tolerant
- Full sun/full shade



Leslie J. Mehrhoff, University of Connecticut, Bugwood.org



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Invasiveness

- Escapes cultivation easily
 - Bird dispersed
- Invades disturbed and undisturbed areas
 - Forests, open woods, forest edges
 - Pastures, prairies
 - Roadsides



Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

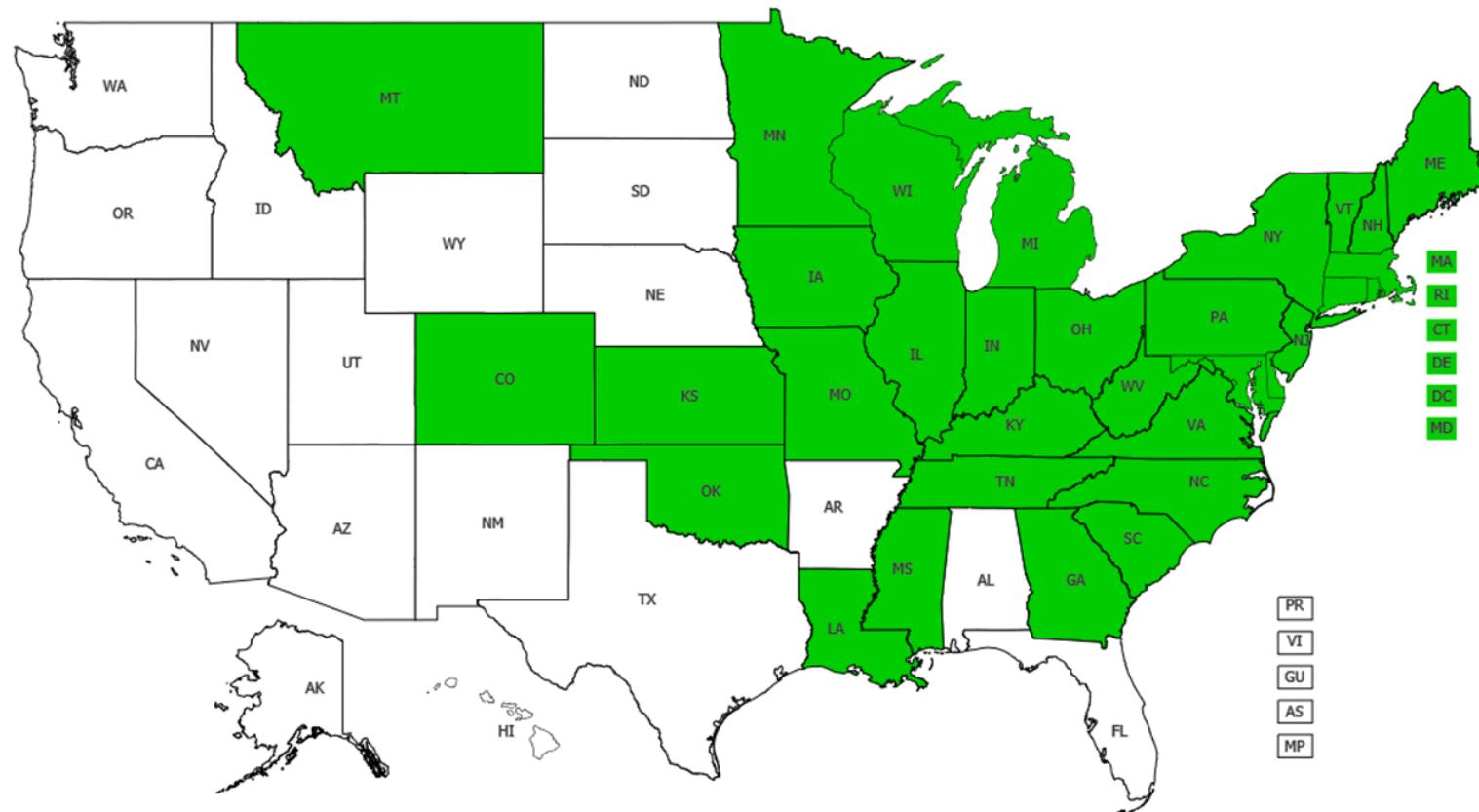
Impacts

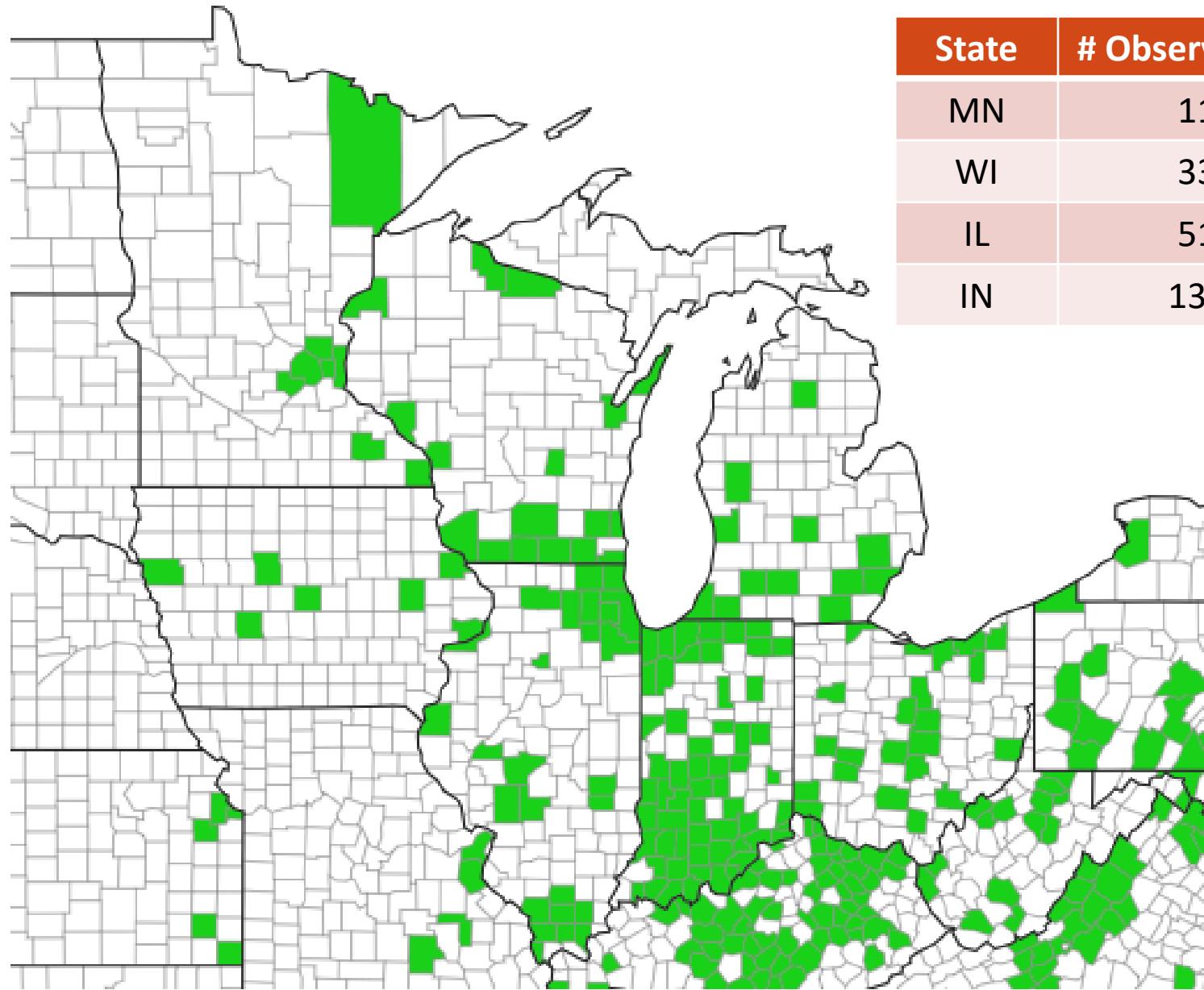
- Shades out native herbs
- Crowds out native shrubs
- Browse damage to natives



<https://www.flickr.com/photos/59327252@N06/5489188644/>

Distribution

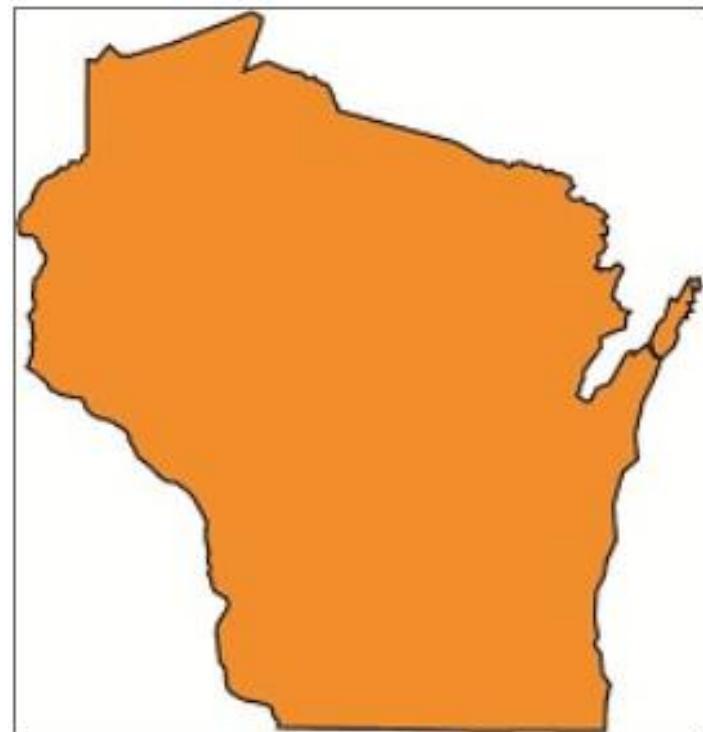




Regulation

Wisconsin

- Restricted statewide
 - Includes straight species and cultivar “Nordine”
 - All other cultivars excluded



Identification
Multi-stemmed
Fibrous roots



Leaves & Stems

Opposite leaves
~2 inches long

Bright red fall
foliage

Stems winged



UGA2307066



UGA2307068

Flowers & Fruit

Inconspicuous flowers

Bright orange-red fruits



Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Control- Behavioral

- Don’t plant burning bush!
- Remove existing plantings

Control- Mechanical

- Hand pull/dig up to 2'
- Weed wrench
- Remove roots

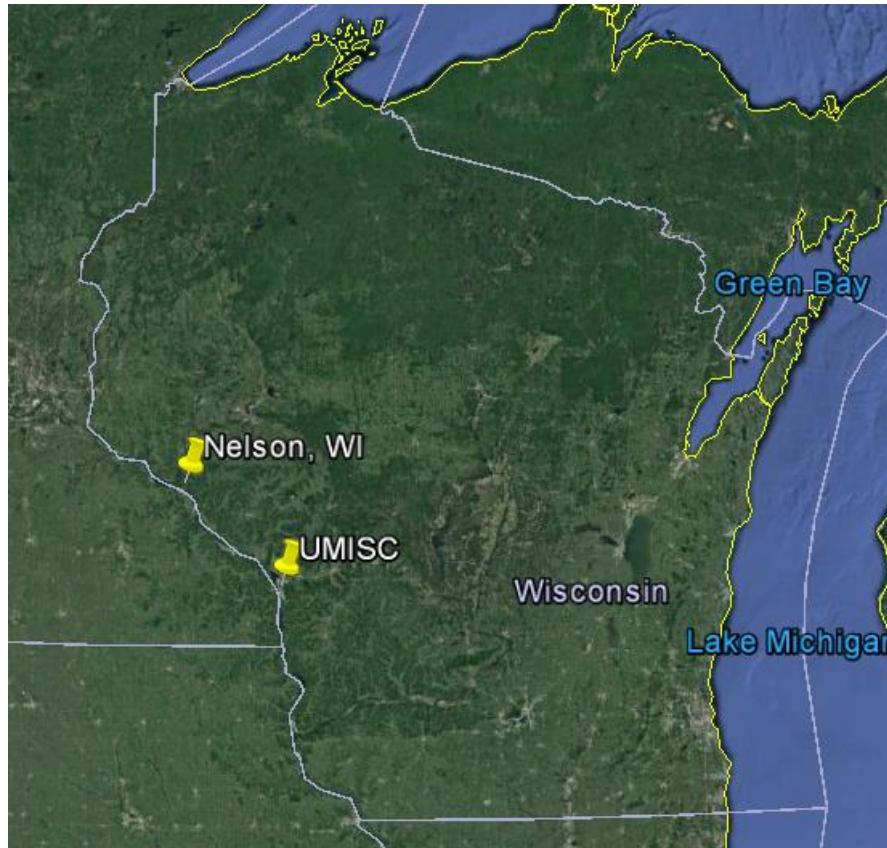


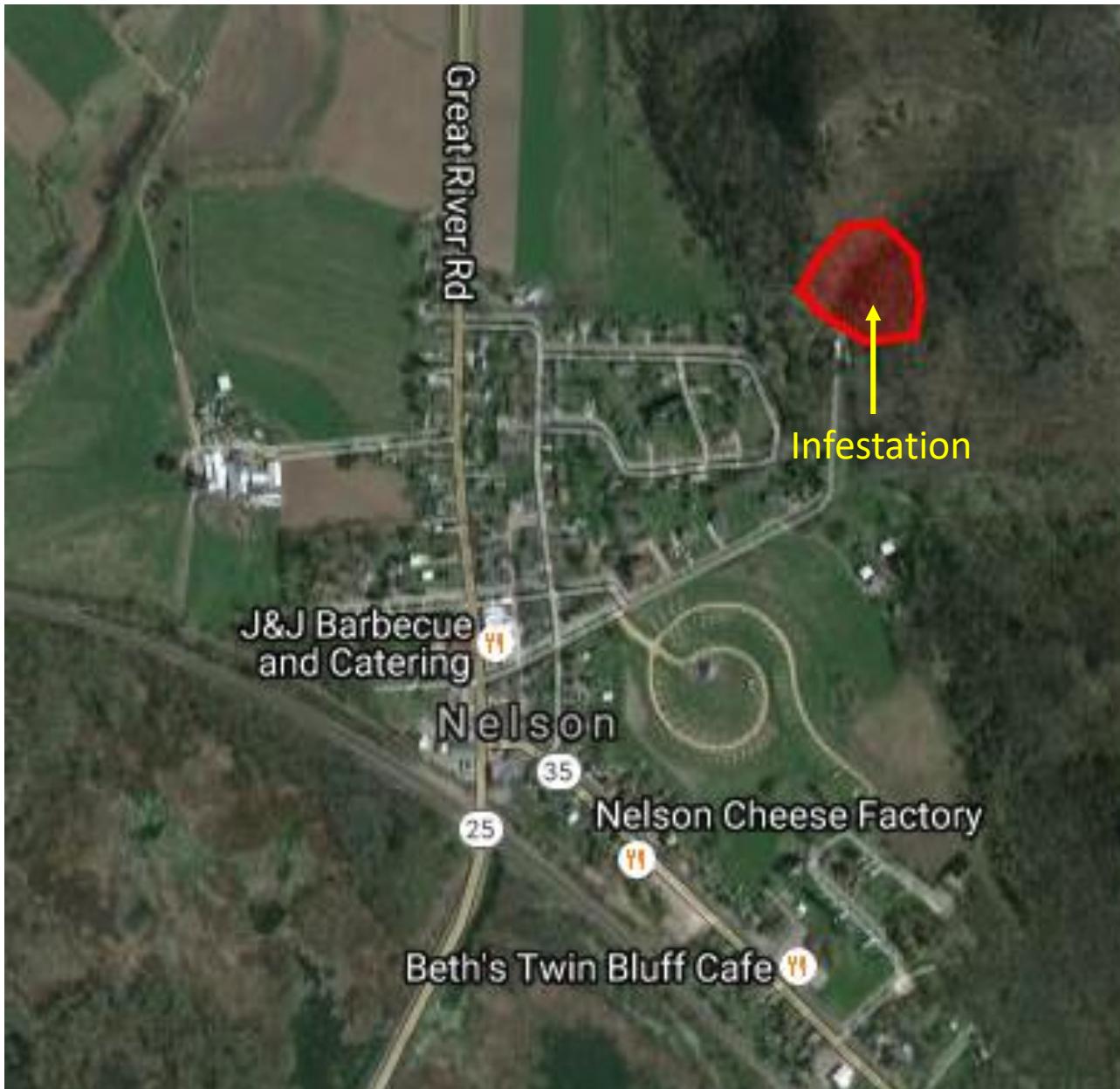
<https://hrats.org/2011/10/01/tool-review-weed-wrench/>

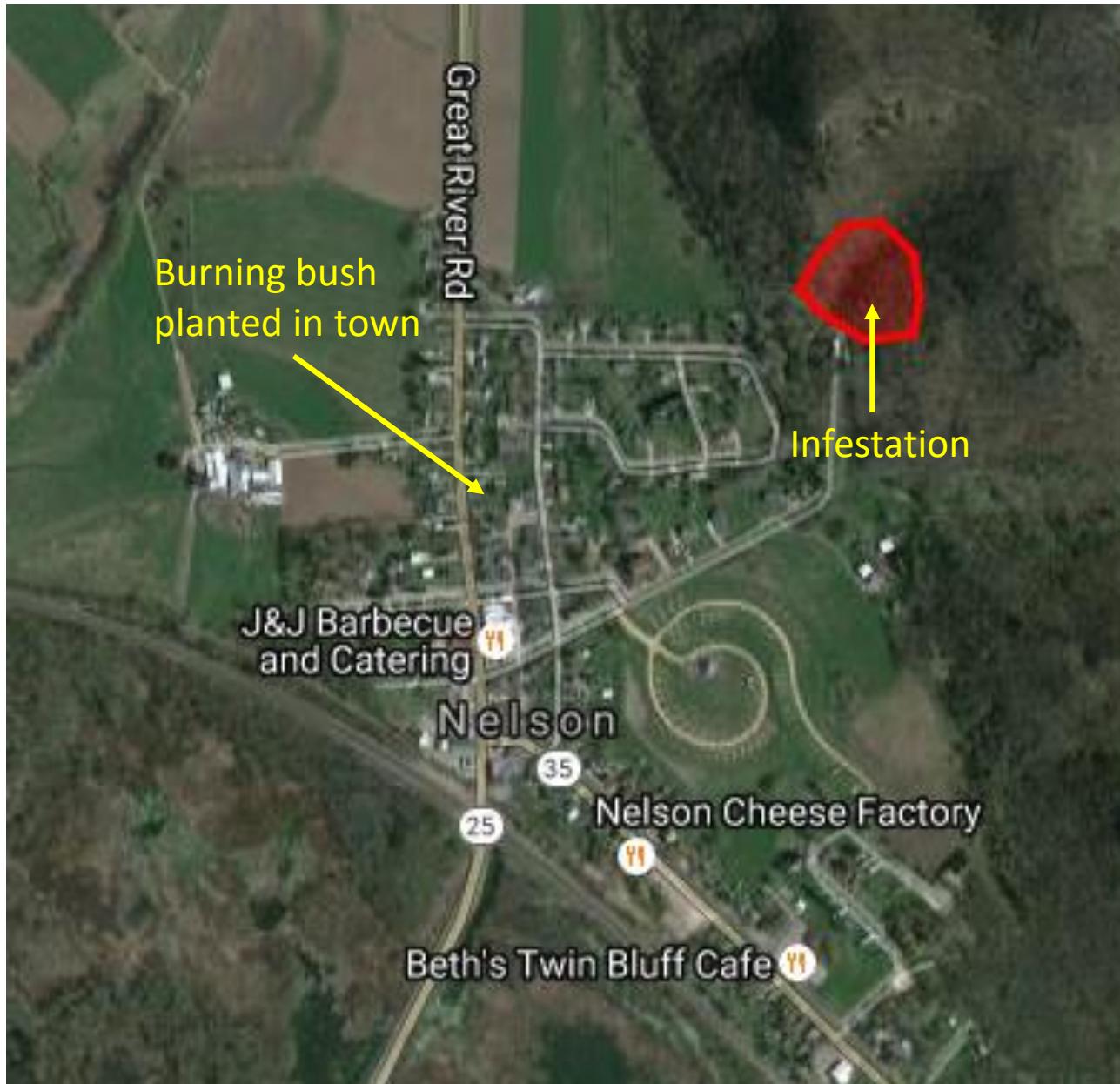
Control- Chemical

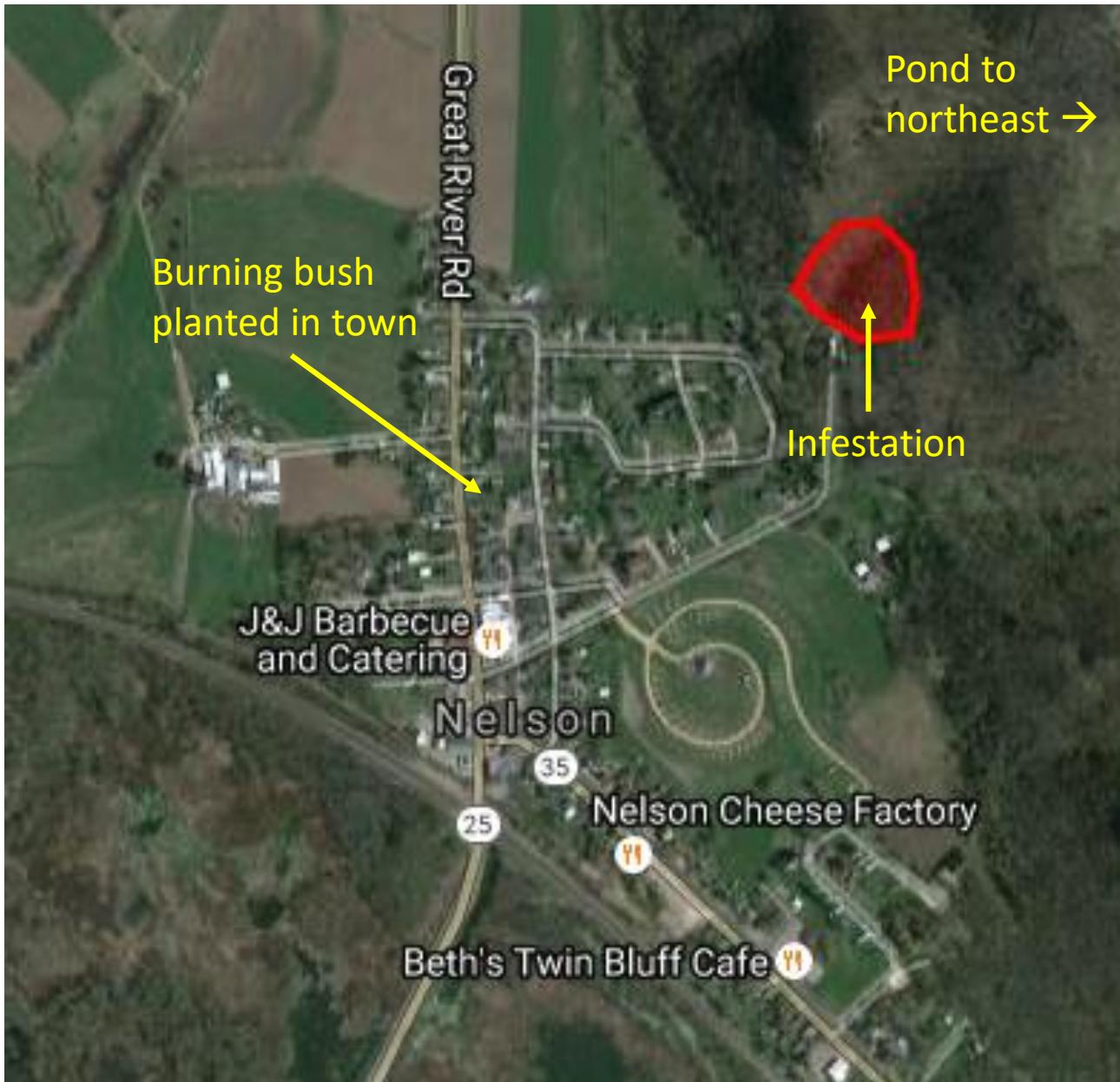
- Foliar spray
 - May-September (leaves out, plant actively growing)
 - 3% Garlon 3A or Garlon 4 (triclopyr)
- Basal bark
 - Year-round, except when snow blocks base
 - 20% Garlon 4 (triclopyr) in labeled basal oil product
- Cut stump
 - Year-round, large plants
 - 20% glyphosate

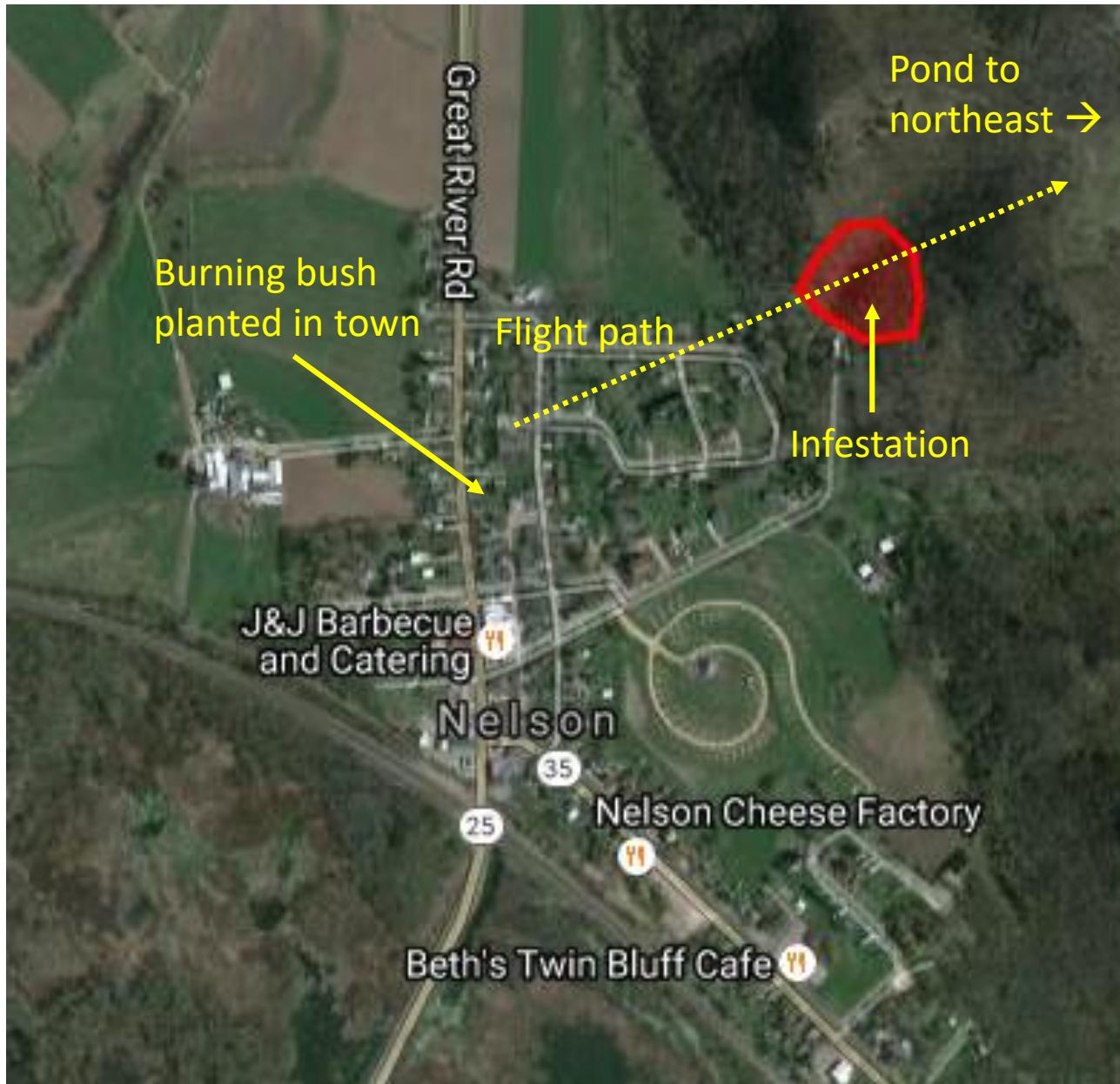
Case Study- Nelson, WI













Gary Christopherson

Early Detection



Gary Christopherson

Early Detection

Nelson, WI- Management

2015

- 5 treatments
- Cut stumps: 20% Element (triclopyr)
- Young plants
 - Mostly hand pulled
 - Some foliar spray: 1% Element (triclopyr) with NIS

Nelson, WI- Management

2015

- 5 treatments
- Cut stumps: 20%
Element (triclopyr)
- Seedlings
 - Mostly hand pulled
 - Some foliar spray: 1%
Element (triclopyr)
with NIS

2016

- 95% effective
- Continued dispersal
from town

Summary

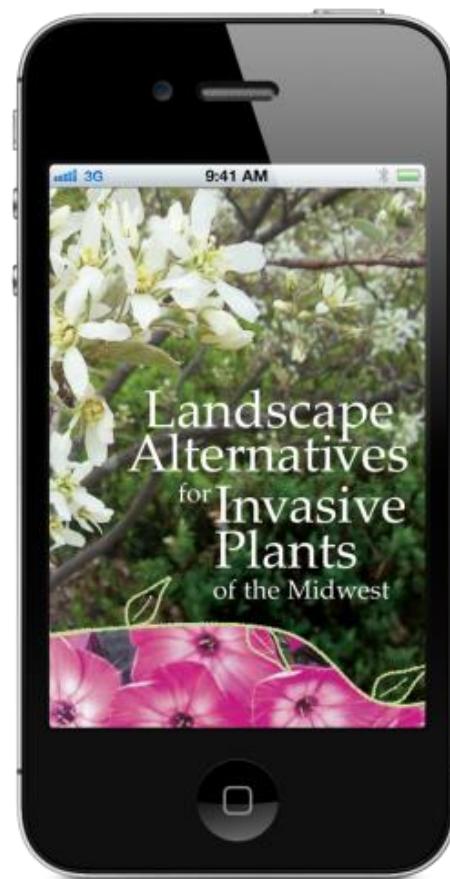
- Widely planted ornamental
- Underreported invasive
 - Fall is prime time to look!
- Relatively easy to control



Mark Renz

What you can do...

- Remove existing ornamental plantings
- Replace with native or non-invasive shrubs
- MIPN app



What you can do...

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◀ Invasive Plants Burning bush

Exotic Invasive Species
Burning bush
Euonymus alatus

Exotic Non-Invasive Alternatives
Japanese maple
Acer palmatum

Native Alternatives
Black chokeberry
Aronia melanocarpa

Black haw
Viburnum prunifolium

Eastern wahoo
Euonymus atropurpureus

Large fothergilla
Fothergilla major

Red chokeberry
Aronia arbutifolia

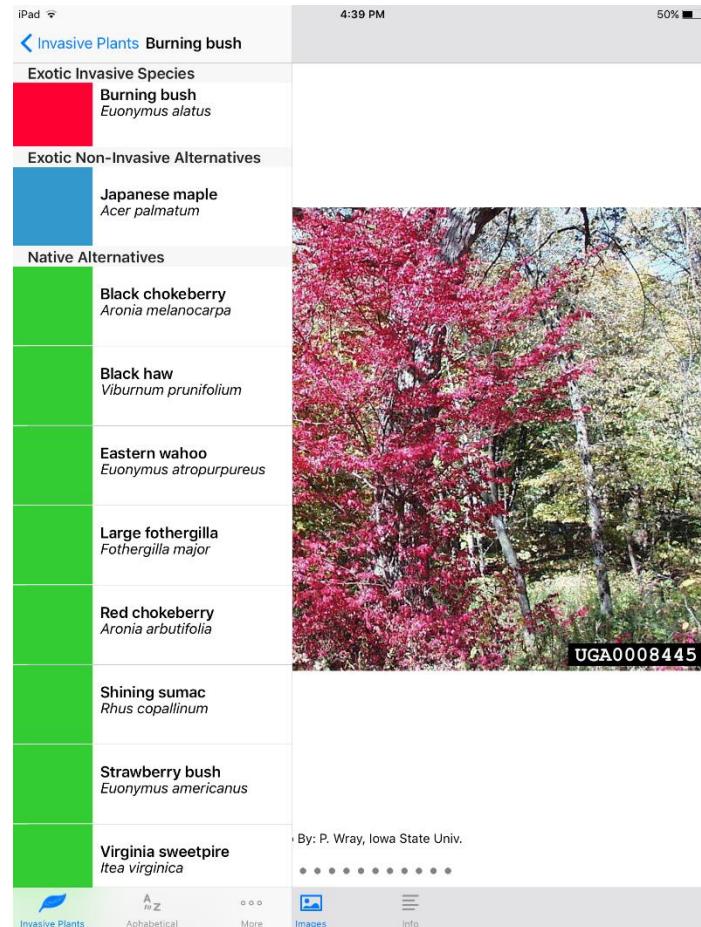
Shining sumac
Rhus copallina

Strawberry bush
Euonymus americanus

Virginia sweetpire
Itea virginica

By: P. Wray, Iowa State Univ.

Images



UGA0008445

What you can do...

- Map plants that have escaped cultivation



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Back

Euonymus alatus
winged burning bush

5391642

Details

Overview

Appearance

Euonymus alatus is a deciduous shrub, up to 20 ft. (6.1 m) in height, which invades forests throughout the eastern United States. Two to four corky ridges often form along the length of young stems, though they may not appear in shaded areas or closed canopies.

Foliage

The opposite, dark green leaves are <2 in. (5 cm) long, smooth, rounded and taper at the tips. The leaves turn a bright crimson to purplish color in the fall.

Flowers

The flowers are inconspicuous, are greenish yellow and have four petals. Flowers develop from late April to June and lay flat against the leaves.

Fruit

The fruit which appears from September to October are reddish capsules that split to reveal orange fleshy seeds.

Ecological Threat

Euonymus alatus can invade not only a variety of disturbed habitats including forest edges, old fields, and roadsides but also in undisturbed forests. Birds and other wildlife eat and disperse the fruit. Once established, it can form dense thickets, displacing native vegetation. It is native to northeastern Asia and was first introduced into North America in the 1860s for ornamental purposes. This plant is still sold and planted as an ornamental.

Images

Info

Map

ANNE PEARCE

WISCONSIN FIRST DETECTOR NETWORK

ANNE.PEARCE@WISC.EDU



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