Addressing Invasive Species Regionally Through Partnerships and Shared Technology

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Extension Forestry Program
13.8 million acres (about 37 percent of the land area)?

4.9 million acres (about 14 percent of the land area)?
~1 million acres of forest
38% forested
Bush honeysuckle
Oriental bittersweet

Japanese honeysuckle

Autumn olive
High-Grading
Mesophication
SMOKEY

ONLY YOU
Lack of Oak Regeneration

Figure 13. — Number of seedlings on forest land in the oak/hickory forest-type group by species and inventory year, Illinois. Error bars represent a 68 percent confidence interval.
Integrating Forest Management Needs
NEED
NEED

• Strategic Approach
  – Cross jurisdictional
  – Addresses all threats
  – Prioritized
Collaboration
Sound Science and Planning
Stewardship Clusters

- 7,000+ acre blocks
- At least 70% forested
- Centered on high quality natural areas & existing projects
Shared Database Structure

- ArcGIS Desktop
- ArcGIS Online
- Collector App for ArcGIS
Data Collection Fields

- Collection Date
- Examiner
- Genus, Species, Subspecies, Authority
- Common name
- Plant Code
- TSN (Taxonomic Serial Number)
- Infested Area, Unit of Measure
- Area Surveyed
- Canopy Cover
- Site Name
- National Ownership
- Local Ownership
- Source of The Data
- Country
- State or Province
- County
- Location
- Habitat
- Source of Location
- Identification Confidence
- Number Observed
- Elevation
- Host Species
- Life Stage
- Sex (ANIMALS ONLY)
- Notes
Roadside Survey Results

- 715 Bush honeysuckle points
- 512 Autumn olive points
- 30 Burning bush points
- 25 Tree of heaven points
- 21 Privet sp. Points
- 2 Oriental bittersweet points
- 27 “Other” points (Callery pear, garlic mustard, kudzu, mimosa, etc.)
Bush Honeysuckle Results

<table>
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<tr>
<th>Categories</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>Totals</th>
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<tbody>
<tr>
<td>Single plant / individual spot</td>
<td>1</td>
<td>11</td>
<td>1</td>
<td>26</td>
<td>14</td>
<td>79</td>
<td>16</td>
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<td>164</td>
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<td>5</td>
<td>10</td>
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<td>0</td>
<td>2</td>
<td>1</td>
<td>1</td>
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<td>31</td>
<td>39</td>
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<td>17</td>
<td>74</td>
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<td>5</td>
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<td>5</td>
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<td>0</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>16</td>
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<td>0</td>
<td>8</td>
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<td>0</td>
<td>8</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>12</td>
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<td>5</td>
<td>26</td>
<td>20</td>
<td>18</td>
<td>7</td>
<td>1</td>
<td>4</td>
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<td>15</td>
<td>16</td>
<td>10</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
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<tr>
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<td>4</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>3</td>
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<td>0</td>
<td>34</td>
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<tr>
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<td>6</td>
<td>0</td>
<td>8</td>
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<td>3</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>23</td>
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<tr>
<td>Scattered patches / &gt; 1 acre</td>
<td>6</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>4</td>
<td>4</td>
<td>1</td>
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<td>5</td>
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<td>2</td>
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<td>5</td>
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<td>80</td>
<td>134</td>
<td>102</td>
<td>72</td>
<td>177</td>
<td>32</td>
<td>38</td>
<td>715</td>
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</table>

- Tracks (miles): 24.4  61.1  55.1  67.6  52.8  98.7  42.1  39.6  441.4
- Points per mile: 2.95  1.31  2.43  1.51  1.36  1.79  0.76  0.96  1.62
- Dense Patches / > 1 acre PPM: 1.06  0  0.09  0.01  0.02  0.02  0.05  0.13  0.1
- Landowner name, contact info
- Total acres and acres in Forest Management Plan
- When the plans need to be renewed
- Practices implemented/scheduled
### Stewardship Clusters

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<thead>
<tr>
<th></th>
<th># of plans</th>
<th>Plan acres</th>
<th>Cost/ac</th>
<th>Cost</th>
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</thead>
<tbody>
<tr>
<td># of renewals/year</td>
<td>132</td>
<td>9,973</td>
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<td>$99,726</td>
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<td># of new plans/year</td>
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<td>Total plans/year</td>
<td>182</td>
<td>13,742</td>
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<td>$137,416</td>
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<table>
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<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>% of plans with tsi</td>
<td>40%</td>
<td>5,496.62</td>
<td>$100</td>
<td>$549,662</td>
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<tr>
<td>Critical invasives</td>
<td>33%</td>
<td>4,534.71</td>
<td>$60</td>
<td>$272,083</td>
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<td>Burning</td>
<td>30%</td>
<td>9,973</td>
<td>$60</td>
<td>$598,356.90</td>
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<tr>
<td>Total Cost</td>
<td></td>
<td></td>
<td></td>
<td>$1,557,517</td>
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*Source: University of Illinois Extension*
Cost-Share Opportunities

- NRCS – RCPP
- USFWS Partners for Fish and Wildlife
- River to River CWMA
- State - FDA
- CWPP Agreements
- USFS - LSR
Summary

• Need for integration
  – Between agencies
  – Between forest management practices

• LSSI partnership – framework
  – Resource sharing
  – Joint efforts

• Shared database and technology
  – Data sharing
  – Prioritization
  – Targeting funding request and cost share
Questions?

Better forest management could turn around this trend

Only by making our forests sunnier can we save the diversity of life that depends on them. But, what is the most effective way to restore our forests? To answer that question, scientists and land managers are working together at Trail of Tears State Forest to examine the timing of specific forest management techniques.

With the Sun Comes Life.