### Ohio Invasive Plant Assessment Protocol - 2015

**Step I: Current Invasion in Ohio**

- **1. Is this plant known to occur in the state and listed as "noxious" on any federal or Ohio Department of Agriculture plant list?**
  - Yes. Place on invasive plant list, no further investigation needed. **STOP**
  - No. Continue on to question 2.

- **2. Has this plant demonstrated widespread dispersion and establishment (i.e. high numbers of individuals forming dense stands) in natural areas across two or more regions in Ohio)?**
  - Yes. Place on invasive plant list, no further investigation needed. **STOP**
  - No. Continue on to question 3.

- **3. Does this plant form self-replicating populations outside of cultivation in Ohio and is it documented to alter the composition, structure, or normal processes or functions of a natural ecosystem?**
  - Yes
  - No
  - Unknown

- **4. Is the plant listed as invasive in an adjoining state or a nearby state east of the Mississippi within the USDA Plant Hardiness zones 5-6?**
  - Yes
  - No
  - Unknown

If the answer was yes for both questions 3 and 4, the plant is placed on the invasive plant list and no further research is needed. Stop here. If the answer is no for both questions 3 and 4, the plant is not considered invasive and no further investigation is warranted. Otherwise, proceed to Step II.

### Step II: Invasion Status

**1. Current Invasion in Ohio**

- 3 pts.
  - Plant is not considered to be a problem in any other state (0 pts.)
  - Plant is not considered to be a problem in another non-neighboring state within the USDA Plant Hardiness Zones 5-6 (1 pt.)

**2. State Distribution**

- 5 pts.
  - Species occurs in all 5 regions, but information on individual populations is lacking.

**3. Regional/US Distribution**

- 5 pts.
  - PA, IN, MI, WV

**4. Vegetative Reproduction**

- U

### Step II: Biological Characters

- Could potentially reproduce asexually by root suckering and layering, as Bell's honeysuckle has been documented to do, but data are lacking.

### Notes

- **References**
  - 1, 2, 3, 4, 5, 6
  - 8, 11
Step II

5. Sexual Reproduction
- no sexual reproduction (0 pts.)
- infrequent sexual reproduction (1 pt.)
- frequent sexual reproduction, but high variation among years in seed production (3 pts.)
- frequent sexual reproduction (one or more events per year) (5 pts.)
- Information unknown (U)

6. Number of Viable Seeds or Propagules per Plant
- few (0-10) (1 pt.)
- moderate (11-1,000) (3 pts.)
- prolific (>1,000) (5 pts.)
- Information unknown (U)

7. Flowering Period
- one month or less per year (0 pts.)
- two months (1 pt.)
- three to five months (2 pts.)
- longer than five months (3 pts.)
- Information unknown (U)

8. Dispersal Ability
- low potential for long-distance seed/propagule dispersal (>1km) (0 pts.)
- medium potential for long-distance seed/propagule dispersal (3 pts.)
- high potential for long-distance seed/propagule dispersal (5 pts.)
- Information unknown (U)

9. Generation Time
- long juvenile period (>5 or more years for trees, 3 or more years for other growth forms) (0 pts.)
- short juvenile period (<5 years for trees, <3 years for other forms) (3 pts.)
- Information unknown (U)

10. Establishment
- unable to invade natural areas (0 pts.)
- can only colonize certain habitat stages (e.g., early successional habitats) (1 pt.)
- aggressively colonizes and establishes in edge habitats (3 pts.)
- aggressively colonizes and establishes in intact and healthy natural areas (6 pts.)
- Information unknown (U)

Step II: Ecological Importance

11. Impact on Ecosystem Processes
- no known effect on ecosystem-level processes (0 pts.)
- moderate effects on ecosystem-level processes (e.g., changes in nutrient cycling) (3 pts.)
- causes long-term, substantial alterations in the ecosystem (e.g., changing fire regime of an area, changing hydrology of wetlands) (6 pts.)

12. Impact on Rare Organisms
- no known negative impact on Ohio State-listed or federal-listed plants or animals (0 pts.)
- negatively impacts listed species, such as through displacement or interbreeding (3 pts.)

13. Impact on Native Animals
- no known negative impact on animals (0 pts.)
- documented direct or indirect negative effects on animal taxa (3 pts.)

14. Impact on Native Plants
- no known negative effects on native plants (0 pts.)
- negatively impacts some native plants (increasing their mortality and/or recruitment of certain taxa) (3 pts.)
- negatively impacts all native plants (5 pts.)
- Information unknown (U)

6. Number of Viable Seeds or Propagules per Plant
- few (0-10) (1 pt.)
- moderate (11-1,000) (3 pts.)
- prolific (>1,000) (5 pts.)
- Information unknown (U)

7. Flowering Period
- one month or less per year (0 pts.)
- two months (1 pt.)
- three to five months (2 pts.)
- longer than five months (3 pts.)
- Information unknown (U)

8. Dispersal Ability
- low potential for long-distance seed/propagule dispersal (>1km) (0 pts.)
- medium potential for long-distance seed/propagule dispersal (3 pts.)
- high potential for long-distance seed/propagule dispersal (5 pts.)
- Information unknown (U)

9. Generation Time
- long juvenile period (>5 or more years for trees, 3 or more years for other growth forms) (0 pts.)
- short juvenile period (<5 years for trees, <3 years for other forms) (3 pts.)
- Information unknown (U)

10. Establishment
- unable to invade natural areas (0 pts.)
- can only colonize certain habitat stages (e.g., early successional habitats) (1 pt.)
- aggressively colonizes and establishes in edge habitats (3 pts.)
- aggressively colonizes and establishes in intact and healthy natural areas (6 pts.)
- Information unknown (U)

11. Impact on Ecosystem Processes
- no known effect on ecosystem-level processes (0 pts.)
- moderate effects on ecosystem-level processes (e.g., changes in nutrient cycling) (3 pts.)
- causes long-term, substantial alterations in the ecosystem (e.g., changing fire regime of an area, changing hydrology of wetlands) (6 pts.)

12. Impact on Rare Organisms
- no known negative impact on Ohio State-listed or federal-listed plants or animals (0 pts.)
- negatively impacts listed species, such as through displacement or interbreeding (3 pts.)

13. Impact on Native Animals
- no known negative impact on animals (0 pts.)
- documented direct or indirect negative effects on animal taxa (3 pts.)

14. Impact on Native Plants
- no known negative effects on native plants (0 pts.)
- negatively impacts some native plants (increasing their mortality and/or recruitment of certain taxa) (3 pts.)
- negatively impacts all native plants (5 pts.)
- Information unknown (U)

- considered prolific, but no numerical data found - but it's hybrid progeny, Bell's honeysuckle, can consistently produce upward of 20,000 seeds per year, indicating that with more information, this answer could increase to the 5 point answer.

- Dispersed by birds, potentially deer.
- Impacts native plants to such an extent that community structure is greatly altered (6 pts.)

15. Hybridization
- No known instances of hybridization with other plant species (0 pts.)
- Can hybridize with native Ohio plants or commercially-available species, but seeds are inviable (1 pt.)
- Can hybridize with native Ohio plants or commercially-available species, producing viable seed (3 pts.)

16. Population Density
- Occurs only as small, sporadic populations or individuals (1 pt.)
- Typically forms small, monospecific patches (3 pts.)
- Is a dominant plant in area where population occurs (absolute cover 15-50%) (4 pts.)
- Forms an extensive, monospecific stand (absolute cover >50%) (5 pts.)

17. Role in Succession in Natural Areas
- Successional information is unknown (0 pts.)
- Is an early successional species that temporarily invades a disturbed site but does not persist as the site matures (0 pts.)
- Readily invades disturbed sites and persists, but does not interfere with succession (1 pt.)
- Readily invades disturbed sites, persists and interferes with succession of native plants (4 pts.)

18. Number of Habitats Invaded
- Forestlands: Floodplain forest, hemlock-hardwood forest, mixed mesophytic forest, beech-maple forest, oak-maple forest, oak-hickory forest.
- Wetlands: Bog*, fen*, twigrush-wiregrass wet prairie*, marsh, buttonbush swamp, mixed shrub swamp, hemlock-hardwood swamp*, maple-ash-oak swamp, white pine-red maple swamp*

* Considered a rare plant community in Ohio by ODW’s Biodiversity Database Program.
+ = Xeric limestone prairies or cedar glades and post oak openings are unique to the Interior Low Plateau Region of Adams, Highland and Pike counties, and are not included in Schneider and Cochrane (1997).
- Not found in any natural habitats in Ohio (0 pts.)
- Only found in 1 broad category (1 pt.)
- Found in 2 broad categories or 2 rare habitat types (3 pts.)
- Found in 2 broad categories or 3 rare habitat types (4 pts.)
- Found in 4 or more rare habitat types (5 pts.)

<table>
<thead>
<tr>
<th>Total Points</th>
<th>Assessment Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 or more U</td>
<td>Insufficient Data</td>
</tr>
<tr>
<td>0-34</td>
<td>Not Known to be Invasive</td>
</tr>
<tr>
<td>35-44</td>
<td>Pending Further Review</td>
</tr>
<tr>
<td>45-80</td>
<td>Invasive</td>
</tr>
</tbody>
</table>

**Species successfully hybridizes with L. tatarica (there is a commercially available cultivar of L. tatarica ['Alba'] in the wild, so zero point answer is selected. HOWEVER, *hybrid species (Lonicera x bella) appears to be more successful in North America than either parent, as evidenced by the wide variety of habitats that the hybrid inhabits, its higher abundance relative to the parent species, and the high frequency of hybrid individuals that exhibit morphological traits intermediate to the parents.’ [Ref. 10]

- High frequency of hybrid individuals that exhibit morphological traits intermediate to the parents.
- Impacts native plants to such an extent that community structure is greatly altered.
- Readily invades disturbed sites and persists, but does not interfere with succession.

Total Score: 63
Number of Unknowns: 1
Outcome: Invasive