**NAME OF SPECIES:** *Dioscorea oppositifolia*

**Synonyms:** *Dioscorea batatas*

**Common Name:** Chinese Yam, Cinnamon vine, Air potato

### A. CURRENT STATUS AND DISTRIBUTION

<table>
<thead>
<tr>
<th>Question</th>
<th>Option 1</th>
<th>Option 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. In Wisconsin?</td>
<td>[ ] YES</td>
<td>[x] NO</td>
</tr>
</tbody>
</table>

2. Abundance:

3. Geographic Range:

4. Habitat Invaded: first invades fencerows, edges of mesic forests, streambanks, then moves to more undisturbed areas

- Disturbed Areas [x] Undisturbed Areas [x]

5. Historical Status and Rate of Spread in Wisconsin:

6. Proportion of potential range occupied:

### II. Invasive in Similar Climate Zones

- YES [x] NO [ ]


### III. Invasive in Similar Habitat Types

- Upland [ ] Wetland [x] Dune [ ] Prairie [ ] Aquatic [ ]
- Forest [x] Grassland [ ] Bog [ ] Fen [ ] Swamp [ ]
- Marsh [ ] Lake [ ] Stream [ ] Other: edges and streambanks

### IV. Habitat Effected

1. Soil types favored (e.g. sand, silt, clay, or combinations thereof, pH): favors silty loam, high Nitrogen content, riparian

2. Conservation significance of threatened habitats:

### V. Native Habitat

1. List countries and native habitat types: China, India, Sri Lanka

### VI. Legal Classification

1. Listed by government entities? No, but listed by Southeast Exotic Pest Plant Council as invasive in Tennessee

2. Illegal to sell? YES [ ] NO [x]

### B. ESTABLISHMENT POTENTIAL AND LIFE HISTORY TRAITS

#### I. Life History

1. Type of plant: Annual [ ] Biennial [ ] Monocarpic Perennial [x]
- Herbaceous Perennial [ ] Vine [x] Shrub [ ] Tree [ ]

2. Time to Maturity: can reproduce during first growing season

3. Length of Seed Viability: less than a year unless protected i.e. by leaf litter.

4. Methods of Spread: Asexual [x] Sexual [ ]

   Please note abundance of propagules and other important information: Not documented to reproduce sexually in N. America but can; spreads "rapidly" via bulbils (aerial tubers)

5. Hybridization potential:

#### II. Climate

1. Climate restrictions: ranges from Vermont to Florida in US

2. Effects of potential climate change:
### III. Dispersal Potential

1. **Pathways** - Please check all that apply:
   - **Intentional:** Ornamental ✗ Forage/Erosion control ☑
   - **Other:**
   - **Unintentional:** Bird ☑ Animal ✗ Vehicles/Human ☑
   - Wind ☑ Water ✗ Other: Rodents carry bulbils to infect new areas

2. Distinguishing characteristics that aid in its survival and/or inhibit its control: Tubers can grow to 1m deep and are difficult to remove.

### IV. Ability to go Undetected

<table>
<thead>
<tr>
<th>HIGH</th>
<th>MEDIUM</th>
<th>LOW</th>
</tr>
</thead>
</table>

### C. DAMAGE POTENTIAL

#### I. Competitive Ability

1. Presence of Natural Enemies: none
2. Presence of Competitors: none found (out competes natives)
3. Rate of Spread:
   - HIGH (1-3 yrs) ☑
   - MEDIUM (4-6 yrs) ☑
   - LOW (7-10 yrs) ☑

Notes: Spread can be high in riparian corridors and steep slopes. Dispersed primarily by gravity and hydrochory so range of dispersal can depend on energy flow and flood disturbance.

#### II. Environmental Effects

1. Alteration of ecosystem/community composition?
   - YES ✗ NO ☑
   - Notes: covers tops of shrubs and small trees completely shading understory killing other plants, animals not seen using sp. as habitat
2. Alteration of ecosystem/community structure?
   - YES ✗ NO ☑
   - Notes: removes light from understory and shades out plants
3. Alteration of ecosystem/community functions and processes?
   - YES ☑ NO ✗
   - Notes:
4. Allelopathic properties?
   - YES ☑ NO ✗
   - Notes:

### D. SOCIO-ECONOMIC Effects

#### I. Positive aspects of the species to the economy/society:

- Notes: sold as ornamental species, tuber edible (though not generally eaten in N. America)

#### II. Potential socio-economic effects of restricting use:

- Notes: Potentially harm ornamental trade as species could no longer be sold

#### III. Direct and indirect effects:

- Notes:

#### IV. Increased cost to a sector:

- Notes:

#### V. Effects on human health:

- Notes: edible and has medicinal uses

### E. CONTROL AND PREVENTION

#### I. Detection Capability:

- Notes: easy to detect when established

#### II. Costs of Prevention (including education; please be as specific as possible):

- Notes:

#### III. Responsiveness to prevention:

- Notes: can be removed if caught early, moderate success if plants
<table>
<thead>
<tr>
<th>efforts:</th>
<th>are already established</th>
</tr>
</thead>
<tbody>
<tr>
<td>IV. Effective Control tactics:</td>
<td>Mechanical ☑ Biological ☐ Chemical ☑</td>
</tr>
<tr>
<td>Times and uses: in small patches tubers can be manually excavated; in larger patches vines can be repeatedly cut (must be repeated for a few years); herbicide can be applied but must be reapplied, best results when herbicide applied before bulbil production, can also be applied in dormant season to reduce risk to non-target species.</td>
<td></td>
</tr>
</tbody>
</table>

| V. Minimum Effort: | Notes: |
| VI. Costs of Control: | Notes: |
| VII. Cost of prevention or control vs. Cost of allowing invasion to occur: | Notes: effort in removing small patches much much less than that of patches that are allowed to develop |
| VIII. Non-Target Effects of Control: | Notes: Herbicides will kill native species as well |
| IX. Efficacy of monitoring: | Notes: |
| X. Legal and landowner issues: | Notes: |

**F. REFERENCES USED:**

- UW Herbarium
- WI DNR
- TNC
- Native Plant Conservation Alliance
- IPANE
- USDA Plants
- Other invasive.org

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**Reviewer(s) and date reviewed:** Jody Shimp, 7-13-07

**Approved and Completed Date:** Thomas Boos, 09-06-07