

<b>NAME OF SPECIES:</b> <i>Celastrus loeseneri</i> Rehder & E.H. Wilson	
<b>Synonyms:</b> <i>Celastrus rosthornianus</i> Loes. var. <i>loeseneri</i> (Rehder & E.H. Wilson) C.Y. Wu ex Y.C. Ho – considered accepted name (1)	
<b>Common Name:</b> Loesener Bittersweet, self-fruitful bittersweet, Chinese bittersweet	<b>Cultivars?</b> YES <input type="checkbox"/> NO <input type="checkbox"/>
<b>A. CURRENT STATUS AND DISTRIBUTION</b>	
I. In Wisconsin?	1. YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
	2. <u>Abundance:</u> Not reported to be in WI, however berry abundance and placement is very similar to hybrids of <i>C. scandens</i> x <i>C. orbiculatus</i> (produces berries along stems and on tips (3).
	3. <u>Geographic Range:</u> Possibly under reported due to confusion with American and Oriental bittersweets.
	4. <u>Habitat Invaded:</u> Disturbed Areas <input type="checkbox"/> Undisturbed Areas <input type="checkbox"/>
	5. <u>Historical Status and Rate of Spread in Wisconsin:</u> Possibly under reported due to confusion with American and Oriental bittersweets.
	6. <u>Proportion of potential range occupied:</u>
II. Invasive in Similar Climate Zones	1. YES <input type="checkbox"/> NO <input type="checkbox"/> <u>Where (include trends):</u>
III. Invasive in Which Habitat Types	1. Upland <input type="checkbox"/> Wetland <input type="checkbox"/> Dune <input type="checkbox"/> Prairie <input type="checkbox"/> Aquatic <input type="checkbox"/> Forest <input checked="" type="checkbox"/> Grassland <input type="checkbox"/> Bog <input type="checkbox"/> Fen <input type="checkbox"/> Swamp <input type="checkbox"/> Marsh <input type="checkbox"/> Lake <input type="checkbox"/> Stream <input type="checkbox"/> Other: Forest edges, forests, home gardens. Requires good light and a support structure to produce an abundant crop of fruit (5).
IV. Habitat Affected	1. <u>Soil types favored or tolerated:</u> Adaptable to a wide range of soils (5)
	2. <u>Conservation significance of threatened habitats:</u>
V. Native Range and Habitat	1. <u>List countries and native habitat types:</u> Dense forests, thickets on hills; 500-1500m. China: Gansu, NW Guangxi, S Guizhou, Henan, N Hubei, Shanxi, E Sichuan (2)
VI. Legal Classification	1. <u>Listed by government entities?</u> No.
	2. <u>Illegal to sell?</u> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> Notes:
<b>B. ESTABLISHMENT POTENTIAL AND LIFE HISTORY TRAITS</b>	
I. Life History	1. <u>Type of plant:</u> Annual <input type="checkbox"/> Biennial <input type="checkbox"/> Monocarpic Perennial <input type="checkbox"/> Herbaceous Perennial <input type="checkbox"/> Vine <input checked="" type="checkbox"/> Shrub <input type="checkbox"/> Tree <input type="checkbox"/>
	2. <u>Time to Maturity:</u>
	3. <u>Length of Seed Viability:</u> Unknown
	4. <u>Methods of Reproduction:</u> Asexual <input checked="" type="checkbox"/> Sexual <input checked="" type="checkbox"/> <u>Notes:</u> Self-pollinating (male and female flowers on same plant). Minimum of three plants for best results (5).

	5. <u>Hybridization potential</u> : Unknown
II. Climate	1. <u>Climate restrictions</u> : USDA Zone 5a-8b (4). Zones 2-8 (5). 2. <u>Effects of potential climate change</u> : Could move further north if climate in WI warms.
III. Dispersal Potential	1. <u>Pathways - Please check all that apply</u> :  <u>Unintentional</u> : Bird <input checked="" type="checkbox"/> Animal <input checked="" type="checkbox"/> Vehicles/Human <input type="checkbox"/> Wind <input type="checkbox"/> Water <input type="checkbox"/> Other:  <u>Intentional</u> : Ornamental <input checked="" type="checkbox"/> Forage/Erosion control <input type="checkbox"/> Medicine/Food: Other: Marketed as "your own winter bouquet right in your backyard!" (5). 2. <u>Distinguishing characteristics that aid in its survival and/or inhibit its control</u> : Growth rate is fast/vigorous (5). Looks like a hybrid of <i>C. scandens</i> x <i>C. orbiculatus</i>
IV. Ability to go Undetected	1. HIGH <input checked="" type="checkbox"/> MEDIUM <input type="checkbox"/> LOW <input type="checkbox"/> Looks very similar to <i>C. scandens</i> , <i>C. orbiculatus</i> , and their hybrids.
<b>C. DAMAGE POTENTIAL</b>	
I. Competitive Ability	1. <u>Presence of Natural Enemies</u> : 2. <u>Competition with native species</u> : The height of some of these vines is determined by the height of their support. Some vines will spread on the ground and are useful as a ground cover (5) 2. <u>Rate of Spread</u> : - changes in relative dominance over time: - change in acreage over time: HIGH (1-3 yrs) <input type="checkbox"/> MEDIUM (4-6 yrs) <input checked="" type="checkbox"/> LOW (7-10 yrs) <input type="checkbox"/> Notes:
II. Environmental Effects	1. <u>Alteration of ecosystem/community composition?</u> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> Notes: Smothering (ground cover growth) would shade out understory vegetation and reduce tree seedling germination. 2. <u>Alteration of ecosystem/community structure?</u> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> Notes: If <i>C. loeseneri</i> escapes into natural areas, it could easily climb to the canopy as well as smother understory vegetation. 3. <u>Alteration of ecosystem/community functions and processes?</u> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> Notes: 4. <u>Allelopathic properties?</u> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> Notes:
<b>D. SOCIO-ECONOMIC EFFECTS</b>	
I. Positive aspects of the species to the economy/society:	Notes: Sold as an ornamental – up to \$22.95/plant (5)
II. Potential Socio-Economic Effects of Requiring Controls:	Positive: Negative: Most <i>C. orbiculatus</i> sites would have to be revisited to determine proper taxonomy.

III. Direct and indirect Socio-Economic Effects of Plant :	Notes:
IV. Increased Costs to Sectors Caused by the Plant:	Notes:
V. Effects on human health:	Notes: The root bark of this species is used as a medicine to cure tumors and injuries caused by snakes, while the bark and leaves are used as a pesticide (2).
VI. Potential socio-economic effects of restricting use:	Positive: Negative: Nurseries selling plant would be required to stop and liquidate stock.
<b>E. CONTROL AND PREVENTION</b>	
I. Costs of Prevention (please be as specific as possible):	Notes: Nurseries would have to stop selling <i>C. loeseneri</i> and the public would have to be made knowledgeable of this plant.
II. Responsiveness to prevention efforts:	Notes: Could have disagreement from some in the nursery industry and those gardeners who like the berries for decorations
III. Effective Control tactics: (provide only basic info)	Mechanical <input checked="" type="checkbox"/> Biological <input type="checkbox"/> Chemical <input checked="" type="checkbox"/> Times and uses: Methods would be the same as other woody vines and <i>C. orbiculatus</i>
IV. Costs of Control:	Notes:
V. Cost of prevention or control vs. Cost of allowing invasion to occur:	Notes: Unknown – It could already be in WI, just not reported – Assumed it was <i>C. orbiculatus</i> x <i>C. scandens</i> hybrid.
VI. Non-Target Effects of Control:	Notes:
VII. Efficacy of monitoring:	Notes:
VIII. Legal and landowner issues:	Notes: There would have to be a key developed or information out there as to how to distinguish the type of bittersweet people have on their properties.
<b>F. HYBRIDS AND CULTIVARS AND VARIETIES</b>	
I. Known hybrids?  YES <input type="checkbox"/> NO <input type="checkbox"/>	Name of hybrid:  Names of hybrid cultivars:
II. Species cultivars and varieties	Names of cultivars, varieties and any information about the invasive behaviors of each:

	<p>Notes: There is also <i>C. rosthornianus</i> var <i>rosthornianus</i>. Way to key out:  Leaf blade small, rectangular-elliptic to narrowly rectangular-elliptic, rarely obovate-elliptic, 3.5-9(-11) x 1.5-4.5(-6.5) cm</p> <p><i>C. rosthornianus</i> var. <i>loeseneri</i>  Leaf blade large, elliptic, broadly elliptic, or rectangular-elliptic, 5-11 x 3-6.5 cm  (2).</p> <p><i>C. rosthornianus</i> is also referred to as Loesener Bittersweet.</p>

**G. REFERENCES USED:**

- UW Herbarium (Madison or Stevens Point)
- WI DNR
- Bugwood Element Stewardship Abstracts
- Native Plant Conservation Alliance
- IPANE
- USDA Plants

Number	Reference
1	USDA, ARS, National Genetic Resources Program. <i>Germplasm Resources Information Network - (GRIN)</i> [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland. URL: <a href="http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?9716">http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?9716</a> (19 December 2011)
2	Flora of China. [Online Database]. <a href="http://www.efloras.org/florataxon.aspx?flora_id=2&amp;taxon_id=250084213">http://www.efloras.org/florataxon.aspx?flora_id=2&amp;taxon_id=250084213</a>
3	Moonshine Designs Nursery. Milan, IL 61264. <a href="http://www.djroger.com/bittersweet.htm">http://www.djroger.com/bittersweet.htm</a>
4	Dave's Garden [Online Database]. <a href="http://davesgarden.com/guides/pf/go/78909/">http://davesgarden.com/guides/pf/go/78909/</a>
5	Nature Hills Nursery. Omaha, NE 68152. <a href="http://www.naturehills.com/product/bittersweet_loeseneri.aspx">http://www.naturehills.com/product/bittersweet_loeseneri.aspx</a>

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**Approved and Completed Date:** 12/20/2011