

NAME OF SPECIES: <i>Cardamine hirsuta</i>	
Synonyms:	
Common Name: Hairy Bittercress, Common Bittercress, Snapweed, Shotweed, and Pepperweed	Cultivars? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
A. CURRENT STATUS AND DISTRIBUTION	
I. In Wisconsin?	1. YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
	2. <u>Abundance:</u> n/a
	3. <u>Geographic Range:</u> n/a
	4. <u>Habitat Invaded:</u> n/a Disturbed Areas <input type="checkbox"/> Undisturbed Areas <input type="checkbox"/>
	5. <u>Historical Status and Rate of Spread in Wisconsin:</u> n/a
	6. <u>Proportion of potential range occupied:</u> n/a
II. Invasive in Similar Climate Zones	1. YES <input type="checkbox"/> NO <input type="checkbox"/> <u>Where (include trends):</u> Naturalizing in eastern Great Lakes, SE US, West coast, and in Ontario (1)
III. Invasive in Which Habitat Types	1. Upland <input type="checkbox"/> Wetland <input type="checkbox"/> Dune <input type="checkbox"/> Prairie <input checked="" type="checkbox"/> Aquatic <input type="checkbox"/> Forest <input type="checkbox"/> Grassland <input checked="" 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: Natural or anthropological disturbances are preferred (5)
IV. Habitat Affected	1. <u>Soil types favored or tolerated:</u> Requires consistently damp soil and prefers recently disturbed. (4) Required pH is 5.6 to 6.0 (acidic), 6.1 to 6.5 (mildly acidic), or 6.6 to 7.5 (neutral). (2)
	2. <u>Conservation significance of threatened habitats:</u> Refuge for aphids (3)
V. Native Range and Habitat	1. <u>List countries and native habitat types:</u> Eurasia (4, 5)
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. ESTABLISHMENT POTENTIAL AND LIFE HISTORY TRAITS	
I. Life History	1. <u>Type of plant:</u> Annual <input checked="" type="checkbox"/> Biennial <input type="checkbox"/> Monocarpic Perennial <input type="checkbox"/> Herbaceous Perennial <input type="checkbox"/> Vine <input type="checkbox"/> Shrub <input type="checkbox"/> Tree <input type="checkbox"/>
	2. <u>Time to Maturity:</u> Blooms late winter/early spring to mid spring. (2) Will germinate and grow throughout the year due to the cool environment provided by daily overhead irrigation. (3)
	3. <u>Length of Seed Viability:</u>
	4. <u>Methods of Reproduction:</u> Asexual <input type="checkbox"/> Sexual <input checked="" type="checkbox"/> <u>Notes:</u>
	5. <u>Hybridization potential:</u> Yes
II. Climate	1. <u>Climate restrictions:</u> Requires full sun, sun to partial shade, or light shade, (2) surviving in elevations between 1969 and 2625 feet (6)
	2. <u>Effects of potential climate change:</u>

III. Dispersal Potential	<p>1. <u>Pathways</u> - Please check all that apply:</p> <p><u>Unintentional</u>: Bird <input type="checkbox"/> Animal <input checked="" type="checkbox"/> Vehicles/Human <input checked="" type="checkbox"/> Wind <input checked="" type="checkbox"/> Water <input type="checkbox"/> Other: Nursery plants (soil of) (4)</p> <p><u>Intentional</u>: Ornamental <input type="checkbox"/> Forage/Erosion control <input type="checkbox"/> Medicine/Food: edible Other:</p>
IV. Ability to go Undetected	<p>1. HIGH <input type="checkbox"/> MEDIUM <input checked="" type="checkbox"/> LOW <input type="checkbox"/></p>
C. DAMAGE POTENTIAL	
I. Competitive Ability	<p>1. <u>Presence of Natural Enemies</u>:</p> <p>2. <u>Competition with native species</u>:</p> <p>2. Rate of Spread: -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:</p>
II. Environmental Effects	<p>1. <u>Alteration of ecosystem/community composition?</u> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> Notes: Often, many seedlings germinate in a small area so that they appear as a large, dense mat (3)</p> <p>2. <u>Alteration of ecosystem/community structure?</u> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> Notes:</p> <p>3. <u>Alteration of ecosystem/community functions and processes?</u> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> Notes:</p> <p>4. <u>Allelopathic properties?</u> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> Notes:</p>
D. SOCIO-ECONOMIC EFFECTS	
I. Positive aspects of the species to the economy/society:	<p>Notes: The nectar and pollen of the flowers probably attract small bees and flies. The caterpillars of the butterfly <i>Anthocharis midea</i> (Falcate Orangetip) and the moth <i>Evergestis pallidata</i> (Purple-Backed Cabbageworm) feed occasionally on <i>Cardamine spp.</i>(5) Can be eaten as a bitter herb and be used as a cover crop in winter months (4)</p>
II. Potential Socio-Economic Effects of Requiring Controls:	<p>Positive: Negative:</p>
III. Direct and indirect Socio-Economic Effects of Plant :	<p>Notes:</p>
IV. Increased Costs to Sectors	<p>Notes: Refuge for aphids (3) Contamination of nursery soils.</p>

Caused by the Plant::	
V. Effects on human health:	Notes:
VI. Potential socio-economic effects of restricting use:	Positive: Negative:
E. CONTROL AND PREVENTION	
I. Costs of Prevention (please be as specific as possible):	Notes:
II. Responsiveness to prevention efforts:	Notes:
III. Effective Control tactics: (provide only basic info)	Mechanical <input checked="" type="checkbox"/> Biological <input type="checkbox"/> Chemical <input type="checkbox"/> : Mulching in late summer will prevent germination. Pulling is effective for small patches but the plants should be placed directly into a container to prevent the seeds from germinating. Flameweeding is effective for this plant. (4)
IV. Costs of Control:	Notes
V. Cost of prevention or control vs. Cost of allowing invasion to occur:	Notes:
VI. Non-Target Effects of Control:	Notes:
VII. Efficacy of monitoring:	Notes:
VIII. Legal and landowner issues:	Notes:
F. HYBRIDS AND CULTIVARS AND VARIETIES	
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:

