NAME OF SPECIES: *Robinia hispida* L.		
Synonyms: see notes		
Common Name: Bristly locust, rose acacia, mossy locust	**Cultivars?** YES ☒ NO ☐	
A. CURRENT STATUS AND DISTRIBUTION		
I. In Wisconsin?	1. YES ☒	NO ☐
	2. Abundance: Relatively low abundance in state	
	3. Geographic Range: Scattered throughout state in 13 counties	
	4. Habitat Invaded: Dense shade – part sun, sandy soil, roadsides, Disturbed Areas ☒ Undisturbed Areas ☒	
	5. Historical Status and Rate of Spread in Wisconsin: First report in 1889 in Rock Co. 11 of 20 records from 1990 to present (3)	
	6. Proportion of potential range occupied: Sandy soils preferred – small amount of range is occupied. Not very selective when it comes to soils. However, cold weather seems to damage the plant.	
II. Invasive in Similar Climate Zones	1. YES ☒ NO ☐ Where (include trends): MI, NJ, OH, PA, WA (6) IL (8); Introduced in Canada (1) like Ontario and Nova Scotia. (12)	
III. Invasive in Which Habitat Types	1. Upland ☒ Wetland ☐ Dune ☒ Prairie ☒ Aquatic ☐ Forest ☒ Grassland ☒ Bog ☐ Fen ☐ Swamp ☐ Marsh ☐ Lake ☐ Stream ☐ Other: roadsides (4); Spreading from cultivation to roadsides, forested dunes, disturbed ground, and sites near habitations (7). Thin upland woodlands, woodland edges, thickets, fence rows, roadsides, vacant lots, overgrown waste areas (8).	
IV. Habitat Affected	1. Soil types favored or tolerated: It spreads rapidly on some sites by root suckers, particularly those soils light in texture. Grows best on silt loams and loamy soils with good drainage; however it will tolerate soils that re moderately well drained. It will grow on acid soils as low as pH 3.5, but it thrives at 6.0-7.0 (5). 6.1-7.8 (9)	
	2. Conservation significance of threatened habitats:	
V. Native Range and Habitat	1. List countries and native habitat types: Native to the southeastern US (7) but will adapt to areas that are north of its original range. (13)	
VI. Legal Classification	1. Listed by government entities? Delaware Natural Heritage and Endangered Species Program have this plant in the "invasive watch list;" (14) and *Robinia hispida* has a low invasiveness rank in New York but the other specie in the genius (*Robina pseudoacada*) is ranked as a "High" invasive by SRC (4)	
	2. Illegal to sell? YES ☐ NO ☒ Notes:	
B. ESTABLISHMENT POTENTIAL AND LIFE HISTORY TRAITS		
I. Life History	1. Type of plant: Annual ☐ Biennial ☐ Monocarpic Perennial ☐ Herbaceous Perennial ☐ Vine ☐ Shrub ☒ Tree ☐	
	2. Time to Maturity: Flowering usually begins the second year. Root suckers may appear the first year, and the thicket forming growth habit will begin by the second year (5).	
	3. Length of Seed Viability: Seeds remain viable in soil for at least 1-10 years because of their hard coats (5).	

	4. Methods of Reproduction: Asexual ☒ Sexual ☒ Notes: R. hispida var. hispida is a steril triploid (3n=30) that does not set seed; R. hispida var. fertilis is a diploid (2n=20) that does set seed (with up to 100s of seeds per plant). Both species observed in New York, but unsure which species is more abundant. According to Weldy & Werier (2009), the sterile variety is more widespread (4). R hispida var. fertilis spread by seed is secondary to root suckers. There are 23,000 seeds/lb (5)
	5. Hybridization potential: Species reported to hybridize with R. viscosa and R. pseudoacacia (Isely & Peabody, 1984) but neither species is native to New York. Hybrids not known from New York. (4).
II. Climate	1. Climate restrictions: Winterkills above the snow line in zones 3&4, which keeps the growth in check (5). Zone 5a-9b (9)
	2. Effects of potential climate change: It will likely become more aggressive.
III. Dispersal Potential	1. Pathways - Please check all that apply: Unintentional: Bird ☒ Animal ☐ Vehicles/Human ☐ Wind ☐ Water ☒ Other: Intentional: Ornamental ☒ Forage/Erosion control ☒ Medicine/Food: Other: Locust is often used in revegetating disturbed sites such as road cuts and strip mines (15)
	2. Distinguishing characteristics that aid in its survival and/or inhibit its control: Perennial, ability to grow in poor soil, nitrogen fixation, ability to regenerate from large underground root systems (4). Seeds have very hard coat (5).
IV. Ability to go Undetected	1. HIGH ☐ MEDIUM ☒ LOW ☐
C. DAMAGE POTENTIAL	
I. Competitive Ability	1. Presence of Natural Enemies: Borers can be a significant problem. Leaf spot, powdery mildew, canker, scale and leaf miners are lesser potential problems. Branches are susceptible to damage from heavy winter snows and ice storms (11)
	2. Competition with native species: The nitrogen fixing impacts soil chemistry and this probably impacts soil microbes but no specific impacts are known. (15)
	2. Rate of Spread: -changes in relative dominance over time: -change in acreage over time: HIGH(1-3 yrs) ☒ MEDIUM (4-6 yrs) ☐ LOW (7-10 yrs) ☐ Notes: Limited reproduction (fewer than 10 viable seeds per plant) (15)
II. Environmental Effects	1. Alteration of ecosystem/community composition? YES ☒ NO ☐ Notes: Influences community composition – sometimes can alter community composition by reducing the number individuals of native species (4).
	2. Alteration of ecosystem/community structure? YES ☒ NO ☐

	Notes: Influences structure in one layer – the species usually establishes in the existing layer without influencing its structure or simply changes the density of the layer. Only in extremely nutrient poor soils (areas of past sand mining operations, sandy field, dunes), will the species sometimes create a new layer, as there were previously no woody shrubs present (4).
	3. Alteration of ecosystem/community functions and processes? YES ☒ NO ☐ Notes: Influences ecosytem processes to a minor degree - found on poor soils and fixes nitrogen (4)
	4. Allelopathic properties? YES ☒ NO ☐ Notes: Nitrogen fixer
D. SOCIO-ECONOMIC EFFECTS	
I. Positive aspects of the species to the economy/society:	Notes: best erosion control shrub for steep sloping sites with active erosion. It provides quick, woody, vegetative cover on droughty, critical areas needing stabilizing cover. Is used as a living fence along major highways (5). Nectar attracts honeybees, bumblebees and other long-tongued bees; occasional butterflies, and possilby the Ruby-Throated Hummingbird. Miscellaneous insects feed on R. hispida including caterpillars of skipppers and moths, stink bugs, leaf beetles, and thrips (8). Based on the 2011 WNA Economic Impact Survey, the following information was reported for this plant. Out of the 204 nurseries responding, 1 reported selling this plant. 1 reported it comprised <1% of their gross plant sales. 0 reported it comprised 1 – 2.9% of their gross plant sales. The estimated total dollar amount contributed to Wisconsin's economy by this plant is $28. It ranks 58th among the 63 taxa surveyed. The estimated wholesale value of plants in production is $500. The majority of respondents said it took 1 to 2 years to produce this plant. The trend for the 2011 season was to remain unchanged (16).
II. Potential Socio-Economic Effects of Requiring Controls:	Positive: As an invasive and competitive plant, *R. hispida* can actually prevent native plants from growing around it. It also has a suckering system on its root that absorbes minerals and nutrients from other plants. Control would actually maintain and restore native habitats. Negative: Landowners would need to spend part of their income trying removing the plant and preventing invation (monitoring, etc)
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: Seeds are poisonous if ingested; Parts of plant are poisonous if ingested (9). Root bark chewed as an emetic; beaten root held on tooth for toothache (10)
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 ☒ Biological ☐ Chemical ☒ Times and uses: pull small plants, use weed wrench on larger shrubs – try to get all roots and monitor for resprout. Use cut stump or basal bark in fall with glyphosate or triclopyr. Monitor for resprout.
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 ☐ NO ☒	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: R. hispida var. fertilis 'Arnot' was selected by USDA NRCS Robinia hispida fertilis R. hispida 'Rosea' In cultivation, nurseries often graft it to the roots of R. pseudoacacia which results in a much less aggressive plant (11). A nursery survey respondent reported that the cultivar they have produces no seed, but didn't disclose what cultivar that is. (16)

	Notes: Subordinate taxa (2): *R. hispida* var. *fertilis* (Ashe) R.T. Clausen; syn: *R. fertilis* Ashe; *R. grandiflora* Ashe, *R. pedunculata* Ashe *R. hispida* var. *hispida* L.; syn: *R. grandiflora* auct.non Ashe nec L. nec C.K. Schneid., *R. pallida* Ashe, *R. speciosa* Ashe *R. hispida* var. *kelseyi* (J.F. Cowell ex Hutch) Isely; syn: *R. kelseyi* J.R. Cowell ex Hutch. *R. hispida* var. *nana* (Elliott) DC.; syn: *R. elliotti* (Chapm.) Ashe, *R. nana* Elliott; *R. hispida* var. *rosea* Pursh; syn: *R. albicans* Ashe, *R. boytonii* Ashe, *R. leucantha* Rehder

G. REFERENCES USED:

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

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2	ITIS Report. Accessed 12/1/11 http://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=26191
3	http://wisplants.uwsp.edu/scripts/detail.asp?SpCode=ROBHIS
4	http://www.newyorkinvasivespecies.org/PlantAssessments/Robinia.hispida.NYS.pdf
5	http://plants.usda.gov/factsheet/pdf/fs_rohif8.pdf
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8	http://www.illinoiswildflowers.info/trees/plants/bristly_locust.htm
9	http://davesgarden.com/guides/pf/go/56499/
10	http://herb.umd.umich.edu/herb/search.pl?searchstring=Robinia+hispida
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15	Olson, David F. Karrfalt, Robert P. National Seed Laboratory. USDA Forest Service. "Robina L. – locust." Accessed: 11/25/11 <http://www.nsl.fs.fed.us/wpsm/Robinia.pdf>

16	Wiegrefe, Susan. 2011. Wisconsin Nursery Association Survey of the Economic impact of potentially invasive species in Wisconsin

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