NAME OF SPECIES: Lepus townsendii		
Synonyms: Campanius, Campestris, Sierrae (4)		
Common Name: White-tailed jackrabbit, prairie hare		
A. CURRENT STATUS AND DISTRIBUTION		
I. In Wisconsin?	1. YES X	NO ☐
	2. Abundance: Population estimates are unknown, but according the Wisconsin DNR white-tailed jackrabbits are rare.	
	3. Geographic Range: According the Wisconsin Wildlife Action Plan, white-tailed jackrabbit species profile on the Wisconsin DNR website, the most suitable habitats are found in the Central Sand Plains, Southwest Savanna, Western Coulee Ridges and the Western Prairie. They are found in the western part of Wisconsin.	
	4. Habitat Invaded: These animals need grasslands. The White-tailed Jackrabbit species profile, written by the WI DNR, describes 6 natural communities in order of preference for the white-tailed jackrabbit. The communities: dry prairie, dry mesic prairie, sand prairie, bracken grasslands, oak openings, and surrogate grasslands Disturbed Areas ☐ Undisturbed Areas X	
	5. Historical Status and Rate of Spread in Wisconsin: There is debate about the white-tailed jackrabbit in WI. Jackson (8) considered the species not indigenous to WI. The jackrabbit expanded its range into the state when deforestation occurred in Minnesota and Wisconsin, or they were also introduced in 1908 for sport. They were quite common in the following counties: Barron, Clark, Eau Claire, Marathon and Portage. Today they are restricted to limited areas, mainly in the western part of Wisconsin (7). The Wisconsin DNR species assessment rates the WI population trend as a 5, meaning there has been large population decrease over the past 30 years. This same report say that a "slight to moderate decline in suitability in breeding conditions is expected." (3)	
	6. Proportion of potential range occupied: Currently occupies minimal amount of potential WI range.	
	7. Reproducing Naturally: There is a natural reproducing population in the state, but this jackrabbit is rare.	
II. Invasive in Similar Climate Zones	1. YES NO X Where (include trends):	
III. Invasive in Similar Habitat Types	1. Upland ☐ Wetland ☐ Dune ☐ Prairie X Aquatic ☐ Forest ☐ Grassland X Bog ☐ Fen ☐ Swamp ☐ Marsh ☐ Lake ☐ Stream ☐ Other:	
IV. Habitat Affected	1. Where does this invasive resided: Edge species ☐ Interior species ☐ Other X This species is known to forage on farm crops but is found in grasslands. A management goal for the WDNR is to potentially re-establish these animals in known prairie chicken habitats, which are vast grasslands.	
	2. Conservation significance of threatened habitats: Grasslands are disappearing fast and are important for wildlife habitat, as well as natural functions like carbon storage.	

V. Native Habitat	1. List countries and native habitat types: This specie is found in Canada and the United States.
VI. Legal Classification	1. Listed by government entities? This species is a game species and is on the DNR watch list. This species is found on threatened and endangered species lists in other states and other countries.
	2. Illegal to sell? YES ☐ NO X Notes:
B. ESTABLISHMENT POTENTIAL AND LIFE HISTORY TRAITS	
I. Life History	1. Type of Animal: Mammal X Bird ☐ Reptile ☐ Amphibian ☐ Fish ☐
	2. Age of Maturity or time of self-sufficiency: Self-sufficient at 1 month. Mature in 7-8 months and can live up to 8 years (2).
	3. Gestation Period: 36-43 days with an average of 42 days.
	4. Mating System: Polygamous ☐ Polyandrous X Monogamous ☐ Notes:
	5. Breeding period: They breed from late February until mid July (1). Their peak breeding time is between March and June. They can have from 1-4 litters with 1-11 young per litter/year, averaging 4-5 young per litter.
	6. Hybridization potential: No information on this.
II. Climate	1. Climate restrictions: The further north the species is, the fewer litters per year they will have.
	2. Effects of potential climate change: Global warming could push the animal's range northward.
III. Dispersal Potential	1. Pathways - Please check all that apply: Unintentional: Bird ☐ Animal ☐ Vehicles/Human X Deforestation may have played a role in range expansion. Wind ☐ Water ☐ Other: Intentional: Ornamental ☐ Forage/Erosion control ☐ Medicine/Food: Recreational X Game species Other:
	2. Distinguishing characteristics that aid in its survival and/or inhibit its control: This jackrabbit has one of the greatest ranges of all jackrabbits.
IV. Ability to go Undetected	1. HIGH ☐ MEDIUM ☐ LOW X One of the least sociable hares and nocturnal (2, 7).
C. DAMAGE POTENTIAL	
I. Competitive Ability	1. Presence of Natural Enemies: All enemies that would prey upon native hares and rabbits, such as canids, felids, raccoons, skunks, and birds of prey.
	2. Competition with native species: This species is out competed by Black-tailed Jackrabbits because White-tailed Jackrabbits are finicky when it comes to there forage (2, 7).

	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: The species abundance has decreased over the past 30 years in Wisconsin.
II. Environmental Effects	1. Alteration of ecosystem/community composition? YES X NO ☐ Notes: Can impact vegetation through grazing (2).
	2. Alteration of ecosystem/community structure? YES X NO ☐ Notes: Can impact vegetation through grazing (2).
	3. Alteration of ecosystem/community functions and processes? YES ☐ NO X Notes:
	4. Exhibit Parasitism? YES ☐ NO X Notes:
D. SOCIO-ECONOMIC EFFECTS	
I. Positive Aspects of the Species to the Economy/Society:	Notes: This is a game species and the fur can be sold.
II. Potential Socio-Economic Effects of Requiring Controls: Positive: Negative:	Notes: This species if controlled would not cause as much crop damage (2,7). Control of this animal could potentially cause a loss of prey for other animals.
III. Direct and Indirect Socio-Economic Effects of the Animal :	Notes: This animal can cause crop damage. However, this animal can have economic value due to hunting and trapping purposes.
IV. Increased Costs to Sectors Caused by the Animal:	Notes: The farming portion of the community could suffer crop damage and incur control costs.
V. Effects on Human Health:	Notes: The animal can carry tulerimia as most other animals in the family Leporidae.
VI. Potential Socio-Economic Effects of Restricting Use:	Positive: Less crop damage, but no literature saying this is an issue in Wisconsin. Negative: Loss of prey, game species and furbearer.
E. CONTROL AND PREVENTION	
I. Costs of Prevention (please be as specific as possible):	Notes: Deterrent and repellent sprays will work in small areas. Fencing can help control rabbits and may be effective against jackrabbits (5, 6). Habitat modification may be expensive but effective for a long period.
II. Responsiveness to Prevention Efforts:	Notes: Fences must be buried 18 inches into the ground and be at least 4 feet high (5). These efforts would work but are not feasible in a big scale.
III. Effective Control Tactics:	Mechanical X Biological X Chemical X Times and uses: Repellents, fencing, habitat modification, hunting/shooting, snares, traps.
IV. Minimum Effort:	Notes: To keep jackrabbits away, the minimal effort would be to apply a chemical repellent.
V. Costs of Control:	Notes: In small scales the cost maybe worth it. The damages must be extreme to justify control methods (6).
VI. Cost of Prevention or Control	Notes: The damages must be extreme to justify control methods

vs. Cost of Allowing Invasion to Occur:	(6).
VII. Non-Target Effects of Control:	Notes: Chemicals may deter other animals
VIII. Efficacy of Monitoring:	Notes: To monitor rabbit population browse survey method can be applied.
IX. Legal and Landowner Issues:	Notes: This species is on the DNR watch list and is listed as threatened or endangered in other states and provinces. This may have legal implications for landowners.

F. REFERENCES:

Number	Reference
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2	Gosline, A. 2001. "Lepus townsendii" (On-line), Animal Diversity Web. Accessed July 05, 2007 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Lepus_townsendii.html.
3	http://www.dnr.state.wi.us/org/land/er/wwap/plan/pdfs/Mammals_WhitetailedJackrabbit.pdf
4	http://nmnhgoph.si.edu/cgi-bin/wdb/msw/synonyms/query/26066
5	http://extension.oregonstate.edu/catalog/pdf/ec/ec1579.pdf. Ziegenhagen, Scott. and Brain Tuck. 2005. Living With Nuisance Wildlife. Oregon State University Extension Service.
6	http://www.crittercontrol.com/?doc=resources_af_jackrabbits
7	Langness, Shannon. 2004. White-tailed Jackrabbit. Bio:378. Edited by Dr. Chris Yahnke
8	Jackson, H.H.T. 1961. Mammals of Wisconsin. University of Wisconsin Press, Madison, WI.

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