

ATTACHMENT SS2

REGION 2 SENSITIVE SPECIES EVALUATION FORM

Species: <i>Cuscuta plattensis</i> A. Nelson, prairie dodder, CUPL			
Criteria	Rank	Rationale	Literature Citations
<p><b>1</b> Distribution within R2</p>	<p><b>A</b></p>	<p>Known from 1 extant location and 3 historical reports in the vicinity of the TBNG. State S1, Very high WY significance.</p> <p><i>Cuscuta plattensis</i> was petitioned for emergency listing under ESA by Wild Earth Guardians in 2008 because of its limited distribution.</p> <p>NatureServe Status Global Status: G1Q Global Status Last Reviewed: 11Mar1999 Global Status Last Changed: 20Apr1999 Rounded Global Status: G1 - Critically Imperiled Reasons: Not often collected since hosts are usually cultivated plants; however, consensus is that it is more abundant than collection numbers would indicate. Status in native range and in native habitats is uncertain. Nation: United States National Status: N1 U.S. &amp; Canada State/Province Status United States Wyoming (S1)</p> <p>Estimated Number of Element Occurrences Comments: 3 collections from Wyoming, 1 from North Dakota, but Hartman and Nelson at RM concede it is probably more common.</p> <p>Confidence in Rank High</p>	<ul style="list-style-type: none"> <li>• Handley and Fertig 2001</li> <li>• NatureServe 2009</li> </ul>

ATTACHMENT SS2

Species: *Cuscuta plattensis* A. Nelson, prairie dodder, CUPL

Criteria	Rank	Rationale	Literature Citations
<p><b>2</b> Distribution outside R2</p>	<b>A/B</b>	<p>PLANTS and Yunckner 1920 report for Washington. NatureServe (2009) reports only for Wyoming. Handley and Fertig 2001 report for BLM-Casper district and Glendo State Reservoir.</p> <p>Global Status: G1Q Global Status Last Reviewed: 11Mar1999 Global Status Last Changed: 20Apr1999 Rounded Global Status: G1 - Critically Imperiled Reasons: Not often collected since hosts are usually cultivated plants; however, consensus is that it is more abundant than collection numbers would indicate. Status in native range and in native habitats is uncertain. Nation: United States National Status: N1 U.S. &amp; Canada State/Province Status United States Wyoming (S1) 3 collections from Wyoming, 1 from North Dakota, but Hartman and Nelson at RM concede it is probably more common.</p> <p>Global Range comments: Platte and Converse Cos. in Wyoming, adjacent W North Dakota and seed may be found mixed with that of cultivated crops in Plains regions of Colorado. This taxon is not included in the Great Plains Flora (1986).</p> <p>Confidence in Rank Medium</p>	<ul style="list-style-type: none"> <li>• Handley and Fertig 2001</li> <li>• NatureServe 2009</li> <li>• Yunckner 1920</li> </ul>
<p><b>3</b> Dispersal Capability</p>	<b>A</b>	<p>Annual, parasitic on <i>Psoralea</i>, <i>Ambrosia</i>, <i>Grindelia</i>, <i>Solidago</i>, <i>Helianthus</i> spp. Dispersal, blooming and pollination info is not available.</p> <p>Confidence in Rank Medium</p>	<ul style="list-style-type: none"> <li>• Handley and Fertig 2001</li> </ul>
<p><b>4</b> Abundance in R2</p>	<b>A/D</b>	<p>Although not reported by Ebertowski (2005) for TBNG, known occurrence is in vicinity. There have not been any specific searches for this species on TBNG.</p> <p>Confidence in Rank Medium</p>	<ul style="list-style-type: none"> <li>• Handley and Fertig 2001</li> <li>• Ebertowski 2005</li> </ul>
<p><b>5</b> Population Trend in R2</p>	<b>A/D</b>	<p>Plants in the genus <i>Cuscuta</i> are often regarded as weeds and removed with herbicides although this species or other species of <i>Cuscuta</i> are not on WY noxious weed list for 2008.</p> <p>Confidence in Rank Medium</p>	<ul style="list-style-type: none"> <li>• O'Driscoll, C.W. 2003</li> <li>• Handley and Fertig 2001</li> </ul>

ATTACHMENT SS2

Species: <i>Cuscuta plattensis</i> A. Nelson, prairie dodder, CUPL			
Criteria	Rank	Rationale	Literature Citations
6 Habitat Trend in R2	A	Sand prairie hill habitat may be in decline across its range from agricultural and other uses as well as soil stabilization efforts. Federal lands are likely the only places to be managed for this habitat.  Confidence in Rank Medium	<ul style="list-style-type: none"> <li>Personal observations</li> </ul>
7 Habitat Vulnerability or Modification	A/B	Sand prairie hill habitat may be in decline across its range. Federal lands are likely the only places to be managed for this habitat. <i>Cuscuta</i> spp. are generally regarded as weeds and removed with herbicides.  Confidence in Rank Medium	<ul style="list-style-type: none"> <li>O'Driscoll, C.W. 2003</li> </ul>
8 Life History and Demographics	A/B	Annual, parasitic on Psoralea, Ambrosia, Grindelia, Solidago, Helianthus spp. Dispersal, blooming and pollination info is not available.  <i>Cuscuta</i> spp. (dodders, love tangles, coral vines): Twining, annual vines without developed leaves, parasitic (obligate) on shoots, included either in the morning glory / bindweed family (Convolvulaceae), or in their own family, Cuscutaceae. Genus contains 100-200 species, depending on the taxonomic interpretation. Most problems are attributed to <i>C. campestris</i> , though many other species can be troublesome locally. <i>Cuscuta</i> spp. divert sugars from the host crop, weakening plants and often causing total failure to set fruit. <i>Cuscuta</i> seeds can persist in soil, and are often planted with contaminated seed (eg. lucerne, niger).  Confidence in Rank Medium	<ul style="list-style-type: none"> <li>Handley and Fertig 2001</li> <li>O'Driscoll 2003</li> </ul>
Evaluator(s): Kathleen S. Roche			Date: 01/23/09

*Cuscuta plattensis* was petitioned for emergency listing under ESA by Wild Earth Guardians in 2008.

From Yunckner 1920:

*Cuscuta plattensis* Nelson

[Figure 35]

*C. plattensis* Nelson, Bull. Torr. Bot. Club, 26:131, 1899.

Stems medium to slender. Flowers glabrous, 2.5–5 mm. long, pentamerous, on pedicels about equal to the flowers in paniced cymes; calyx shorter than the corolla tube; lobes triangular, obtuse, slightly overlapping; corolla tube broadly campanulate; lobes about equalling the tube, triangular, acute, (not “short-ovate, obtuse, about half the length of the broadly campanulate tube”), slightly irregular in some, spreading or reflexed, with the tips inflexed; scales shorter than the tube, slightly spatulate, copiously fringed with short processes; stamens shorter than the lobes; anthers oval, about equal to the subulate filaments; ovary depressed-globose, verrucose and thickened about the intrastylar aperture; styles slightly unequal, about equal to the ovary or shorter. Capsule depressed-globose; seeds one to four in a capsule, about 1–1.5 mm. long, oval or obovate, robust; hilum short, linear, transverse.

This species is very closely related to *C. pentagona* and perhaps merges with some of the larger forms of variety *calycina*. It seems to differ in the shorter scales and shorter processes and the rather larger flowers.

Type locality: “In cañon of Platte,” Wyoming. Range: Wyoming and Washington.

Specimens examined: UNITED STATES: *Wyoming*; Platte Canyon (Nelson 2768, the type, in the Rocky Mt. Herb., Univ. of Wyoming), Uva (Nelson 2741, mixed with *C. indecora* on some sheets), Converse Co. (Nelson 9118). *Washington*; Klickitat Co. (Suksdorf 2852.)

### Literature Cited

- Ebertowski, P. J. 2005. A Floristic Inventory of the Vascular Plants of the Thunder Basin National Grassland and Vicinity, Wyoming, M.S., Department of Botany, University of Wyoming, Laramie, WY.
- Handley, J. and W. Fertig 2001. State Species Abstract *Cuscuta plattensis* Wyoming dodder. Wyoming Natural Diversity Database, Laramie, WY. Available at: [http://www.uwyo.edu/wynddsupport/docs/Reports/SpeciesAbstracts/Cuscuta\\_plattensis.pdf](http://www.uwyo.edu/wynddsupport/docs/Reports/SpeciesAbstracts/Cuscuta_plattensis.pdf) [01/16/09].
- NatureServe. 2009. NatureServe Explorer: An online encyclopedia of life [web application]. Version 4.6. NatureServe, Arlington, VA. Available <http://www.natureserve.org/explorer> [01/14/09].
- Nelson, A. 1899. New Plants from Wyoming VI. Bulletin of Torrey Botanical Club 26: 122-134.

ATTACHMENT SS2

O’Driscoll, C.W. 2003. Preliminary Review of the Genus *Cuscuta* in North America. Prepared for the NAPPO PRA Panel - July / August 2003. By: Claire Wilson O’Driscoll - Pest Risk Assessment Unit, Canadian Food Inspection Agency. Available at: <http://www.nappo.org/PRA-sheets/CuscutaTable2003.pdf> [01/16/09].

Yuncker, T. G. 1920. Revision of the North American and West Indian Species of *Cuscuta*. PhD Thesis 1919 University of Illinois. Illinois Biological Abstracts vol VI, 1920.

National Forests in the Rocky Mountain Region where species is KNOWN (K) or LIKELY (L)<sup>1</sup> to occur:

Species Name: <i>Cuscuta plattensis</i>											
<u>Colorado NF/NG</u>		<u>Kansas NF/NG</u>		<u>Nebraska NF/NG</u>		<u>South Dakota NF/NG</u>		<u>Wyoming NF/NG</u>			
Known	Likely	Known	Likely	Known	Likely	Known	Likely	Known	Likely	Known	Likely
		Cimarron NG		Samuel R.McKelvie NF		Black Hills NF		Shoshone NF			
				Halsey NF		Buffalo Gap NG		Bighorn NF			
				Nebraska NF		Ft. Pierre NG		Black Hills NF			
				Ogalala NG				Medicine Bow NF			
								Thunder Basin NG			x

<sup>1</sup> Likely is defined as more likely to occur than not occur on the National Forest or Grassland. This generally can be thought of as having a 50% chance or greater of appearing on NFS lands.