

ATTACHMENT SS2

REGION 2 SENSITIVE SPECIES EVALUATION FORM

Species: <i>Unio merus tetralasmus</i> (Say, 1831) Pondhorn (Scientific Name/Common Name/National Code for Plants – USDA PLANTS)			
Criteria	Rank	Rationale	Literature Citations
1 Distribution within R2	B	In Kansas, this species is found in all the major drainage areas (Couch, 1997), but most frequently in small tributaries and large ponds and ponds of the southern drainage basin (Scammon, 1906). In Colorado, its former distribution of the extreme southeastern portion of the state (Henderson, 1907a; Brandauer and Wu, 1978; Wu, 1989; museum specimens UCM 219; 256; 25623; 28576; 41577; USNM 193369) was extensively surveyed in 1995-1997 and has been reduced to a single worn valve collected by J. Cordeiro in Neeskah (Queen's) Reservoir in Kiowa County (Cordeiro, 1999). As such, extreme southwestern Kansas may contain specimens of this species in lentic habitats although it has never been recorded there before. It has not been found in Wyoming (Beetle, 1989). In Nebraska, it occurs in the south channel of the Platte River and in prairie lakes in the eastern part of the state (Freeman and Perkins, 1992). Confidence in Rank High	<ul style="list-style-type: none"> • Beetle, 1989 • Brandauer and Wu, 1989 • Cordeiro, 1999 • Couch, 1997 • Freeman and Perkins, 1992 • Henderson, 1907a • Scammon, 1906 • Wu, 1989 • Museum specimens: UCM 219; 256; 25623; 28576; 41577; 193369
2 Distribution outside R2	B	This species is distributed along the Mississippi River drainage north to the Ohio River and west to Colorado; also the Rio Grande River system, Texas, east of the Suwannee River and peninsular Florida; the Altamaha River system north to Chowan River system of North Carolina (Burch, 1975). Confidence in Rank High	<ul style="list-style-type: none"> • Burch, 1975
3 Dispersal Capability	B	Dispersal capability is slightly above average for freshwater mussels, being limited to drainage basins. Because this species is capable of aestivating during drier times (Isley, 1914), it has a competitive edge towards greater survival and better chance of dispersal. Confidence in Rank Medium	<ul style="list-style-type: none"> • Isley, 1914

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4 Abundance in R2	B	Abundance is highest in Kansas first, then Nebraska, and last Colorado (possibly extirpated). Freeman and Perkins (1992) listed it as “not abundant” though “probably holding its own as a species typical of this area”. Colorado specimens may be gone for good, extirpated from the state (Cordeiro, 1999). Confidence in Rank High	<ul style="list-style-type: none"> • Cordeiro, 1999 • Freeman and Perkins, 1992
5 Population Trend in R2	A	Populations in the Walnut River basin, Kansas, present in 1979, were not present in a 1999 survey (Obermeyer et al., 2001a). Confidence in Rank High	<ul style="list-style-type: none"> • Obermeyer et al., 1995
6 Habitat Trend in R2	A	Habitat of quiet water lakes, sloughs, oxbows, and ponds as well as small streams (Oesch, 1995; Cordeiro, 1999) has been reduced in western Kansas (Murray and Leonard, 1962), western Nebraska (Peyton and Maher, 1992; 1995) and the Colorado plains (Cordeiro, 1999). This species may see continued decline in habitat in its current range of eastern Kansas and Nebraska. Confidence in Rank Medium	<ul style="list-style-type: none"> • Cordeiro, 1999 • Muray and Leonard, 1962 • Oesch, 1995 • Peyton and Maher, 1992; 1995
7 Habitat Vulnerability or Modification	B	As habitat for this species includes lakes and small streams (Cummings, and Mayer, 1992), in quiet pools, oxbows and sloughs (Oesch, 1995) and because the species is capable of estivation during dry periods, critical habitat is less vulnerable than for other mussel species. Extensive water usage, however, likely caused the extirpation of <u>U. tetralasmus</u> from Colorado (Cordeiro, 1999). Confidence in Rank Medium	<ul style="list-style-type: none"> • Cordeiro, 1999 • Cummings and Mayer, 1992 • Oesch, 1995
8 Life History and Demographics	D	Reproduction is little known and the species has a single fish host, <i>Notemigonus crysoleucas</i> (Mitchell, 1819), the golden shiner (Fuller, 1974). Confidence in Rank LOW	<ul style="list-style-type: none"> • Fuller, 1974
Evaluator(s): James R. Cordeiro			Date: 8/10/01

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

<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			
		Cimmaron NG		X	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		

¹ 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.