

ATTACHMENT SS2

REG IO N 2 SENSITIVE SPEC IES EVA LUA TIO N FO RM

Species: *Besseya plantaginea* / White River Kittentails, Alpine coral-drops

Criteria	Rank	Rationale	Literature Citations
<p>1 Distribution within R2</p>	<p>BC</p>	<p>White River kittentails is largely endemic to USFS Region 2, where it occurs from the southern Laramie Range in southeast Wyoming (Albany County) through the mountainous areas of central Colorado to northern New Mexico and Arizona.</p> <p>Wyoming populations occur on pink Sherman granite gravel/humus soil in aspen groves and the edge of moist meadows or willow thickets at 7800-8200 feet (Burke 2000). Prior to 1996, <i>Besseya plantaginea</i> was thought to be extirpated in Wyoming. Since then, four populations have been discovered that range in size from 100-2000 individuals. Populations may be locally abundant but patchy and do not appear to occupy all available potential habitat.</p> <p>Additional information on abundance and population structure is needed for Colorado populations.</p> <p>Confidence in Rank: Medium</p>	<ul style="list-style-type: none"> • Burke 2000 • Dorn 2001 • Fertig 2000 • Pennell 1933 • University of Wyoming 1998 • Weber 1990 • Welp et al. 2000
<p>2 Distribution outside R2</p>	<p>B</p>	<p>The range of <i>Besseya plantaginea</i> is mostly restricted to USFS Region 2, but extends outside of the region into northern New Mexico and Arizona.</p> <p>Confidence in Rank: High</p>	<ul style="list-style-type: none"> • Harrington 1954 • NatureServe 2002
<p>3 Dispersal Capability</p>	<p>B</p>	<p>White River kittentails is non-rhizomatous and reproduces entirely by seed. Seeds are flat and relatively small, but not otherwise adapted for wind or animal dispersal. Overall dispersal distances may be short on average and establishment may be limited to the availability of open soil or proper climatic conditions (annual recruitment is probably low and episodic). Much potential habitat in foothills aspen and willow communities is available but appears to be under-utilized (and thus, not limiting to dispersal).</p> <p>Confidence in Rank: Medium</p>	<ul style="list-style-type: none"> • Fertig, personal observation

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4 Abundance in R2	CB	<p>Although data are largely lacking, this species appears to be relatively common within the core of its range in Colorado (Weber 1990). In Wyoming, this species is much less abundant, being known from four extant populations that contain approximately 5000 plants (Fertig 2000). When not in flower, this species can be confused with the more widespread <i>B. wyomingensis</i>, and so may be undersampled.</p> <p>This species is ranked S1 in Wyoming due to its limited distribution in the state. Elsewhere in its range, this species is not tracked by any other heritage program. Weber (1990) describes the species as "frequent" on grassy slopes in foothills and mountain parks of Colorado.</p> <p>Confidence in Rank: Medium</p>	<ul style="list-style-type: none"> • Fertig 2000 • Weber 1990 • Welp et al. 2000
5 Population Trend in R2	B?	<p>Trend data are not available for Colorado. In Wyoming, <i>B. plantaginea</i> was thought to be extirpated until 1996. The increase in number of observations over the past several years probably reflects increased survey effort rather than a population increase (populations are probably stable at present).</p> <p>Confidence in Rank: Medium</p>	<ul style="list-style-type: none"> • Burke 2000 • Fertig 2000 • Packer 1998, 1999 • Welp et al. 2000
6 Habitat Trend in R2	B	<p>Habitat trend is not known in Colorado. In Wyoming, the habitat of this species is largely restricted to public lands with a poor timber base, relatively low grazing use, and limited homesteading. Loss of habitat is not considered a factor in the plant's current rarity in Wyoming, but could become more significant in the near future (see below).</p> <p>Confidence in Rank: Medium</p>	<ul style="list-style-type: none"> • Welp et al. 2000
7 Habitat Vulnerability or Modification	B	<p>Habitat for this species in the Front Range of Wyoming and Colorado is increasingly vulnerable to changes in fire management, conversion to second homes on private lands, and high recreation use. The impacts of these activities on this species are not well documented in Colorado or Wyoming. One Wyoming population is located along a popular trail in Medicine Bow National Forest and could be lost if the trail were widened significantly (Fertig 2000).</p> <p>White River kittentails receives no formal protection at the species level. Wyoming populations all occur on national forest lands managed for multiple use.</p> <p>Confidence in Rank: Medium</p>	<ul style="list-style-type: none"> • Fertig 2000 • Welp et al. 2000

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8 Life History and Demographics	D	Basic life history information is poorly known for this species (such as pollination biology, seedling establishment requirements, effects of herbivory, etc). In Wyoming, this species does not appear to be utilizing all available habitat. More information is needed from Colorado to assess the overall conservation needs (if any) of <i>B. plantaginea</i> in USFS Region 2. Confidence in Rank: High	<ul style="list-style-type: none"> Fertig 2000
Initial Evaluator(s): Walter Fertig and Scott Laursen			Date: 6 February 2002

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
	X								
Arapaho-Roosevelt NF		Cimmaron NG		Samuel R. McKelvie NF		Black Hills NF		Shoshone NF	
White River NF				Halsey NF		Buffalo Gap NG		Bighorn NF	
Routt NF	X			Nebraska NF		Ft. Pierre NG		Black Hills NF	
Grand Mesa, Uncompahgre, Gunnison NF				Ogalala NG				Medicine Bow NF	X
San Juan NF								Thunder Basin NG	
Rio Grande NF	X								
Pike-San Isabel NF	X								
Comanche NG									

Literature cited

Burke, M. 2000. Survey of selected rare plant species in the Pole Mountain area of Medicine Bow National Forest. Report prepared for University of Wyoming Botany Department.

Dorn, R.D. 2001. Vascular Plants of Wyoming, third edition. Mountain West Publishing, Cheyenne, WY.

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.

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Fertig, W. 2000. State Species Abstract: *Besseyia plantaginea*. Wyoming Natural Diversity Database. Available on the internet at www.uwyo.edu/wyndd

Harrington, H. D. 1954. Manual of the Plants of Colorado. Sage Books, Chicago, IL.

NatureServe 2002. Available on the internet at www.natureserve.org/explorer.

Packer, B. 1999. Interim report on a general floristic survey of vascular plants of Medicine Bow National Forest: Laramie Range and vicinity. Report prepared for Medicine Bow-Routt National Forest by the Rocky Mountain Herbarium, University of Wyoming, Laramie.

Packer, B. 1998. Report on a general floristic survey of vascular plants of Medicine Bow National Forest, Laramie Range and vicinity. Report prepared for Medicine Bow National Forest by the Rocky Mountain Herbarium, University of Wyoming, Laramie.

University of Wyoming – Rocky Mountain Herbarium. 1998. Atlas of the Flora of Wyoming. Posted electronically through 1998 at: <http://www.esb.utexas.edu/tchumley/wyomap/> and unposted accession information at the Rocky Mountain Herbarium through 2001.

Welp, L., W.F. Fertig, G.P. Jones, G.P. Beauvais, and S.M. Ogle. 2000. Fine filter analysis of the Bighorn, Medicine Bow, and Shoshone National Forests in Wyoming. Wyoming Natural Diversity Database, Laramie, WY.