

ATTACHMENT SS2

REGION 2 SENSITIVE SPECIES EVALUATION FORM

Species: *Platanthera hyperborea* / Northern Green Orchis, Leafy Northern Green Orchis (*Habenaria hyperborea*; includes both *P. huronensis* and *P. aquilonis*)

Criteria	Rank	Rationale	Literature Citations
<p><b>1</b> Distribution within R2</p>	<p><b>BD</b></p>	<p>Region 2 harbors a southern portion the distribution of Northern green orchis. It occurs widely across Wyoming, including the Shoshone National Forest, Black Hills National Forest, and the Medicine Bow National Forest. In addition, Dorn (2001) reports it from Big Horn County, WY where it may be in the Bighorn National Forest. It is also known from Colorado, South Dakota, and Nebraska, including the McElvie National Forest. Thus, additional information is needed in the rest of the Region.</p> <p>Northern green orchis is commonly found in montane wet boggy meadows, either shaded or open, thickets, and coniferous forests; and to a lesser extent in lower elevation springs and seeps. Such wet habitats are discontinuous on the landscape, resulting in a patchy distribution.</p> <p>Note: Recent taxonomic revisions split this into two separate taxa of the <i>Platanthera</i> genus, <i>P. huronensis</i> and <i>P. aquilonis</i> (Dorn 2001). Both are present in Region 2. The latter is exclusively within Region 2 boundaries as they cross Wyoming. This taxonomic change, published in the North American Native Orchid Journal (1997 3:444-449; 2000 6:88-92) has not been widely incorporated in the floristic literature and complicates region-wide assessment.</p> <p>Confidence in Rank High</p>	<ul style="list-style-type: none"> <li>• Dorn 2001</li> <li>• Great Plains Flora Association 1986</li> <li>• USDA Forest Service R2 2001</li> <li>• University of Wyoming 1998</li> </ul>
<p><b>2</b> Distribution outside R2</p>	<p><b>C</b></p>	<p>Outside of Region 2, Northern green orchis (sensu lato) occurs from Alaska to Greenland and south to southern California, Nevada, New Mexico, Nebraska, Illinois, Pennsylvania and New Jersey. It also occurs in most western Wyoming counties outside Region 2, concentrated in the Bridger-Teton National Forest.</p> <p>Confidence in Rank High</p>	<ul style="list-style-type: none"> <li>• Cronquist et al. 1977</li> <li>• Hitchcock et al. 1994, Part 1</li> <li>• NatureServe 2002</li> </ul>
<p><b>3</b> Dispersal Capability</p>	<p><b>BC</b></p>	<p>The seeds of many species in the Orchid Family are dust-sized and wind-dispersed. The orchid embryo is not differentiated into distinct organs, as are most plant embryos. The lack of a nutrient storage compartment generally limits the length of time that seeds can survive without germinating.</p> <p>Confidence in Rank High</p>	<ul style="list-style-type: none"> <li>• Dressler 1990</li> </ul>

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4 Abundance in R2	BD	Northern green orchis is known from at least 125 recent collections in Wyoming, concentrated in the northwestern counties. About 40 are from the Shoshone National Forest, 6 are from Medicine Bow National Forest, and one is from Black Hills National Forest. It typically occurs in low numbers (personal observation) but abundance data are lacking.  In Wyoming, <i>Platanthera huronensis</i> is ranked "S4" and <i>P. aquilonis</i> is not ranked. In Nebraska, <i>Habenaria hyperborea</i> is ranked "S2S3." In Colorado and South Dakota, <i>Habenaria hyperborea</i> is present but not ranked.  Confidence in Rank High	<ul style="list-style-type: none"> <li>NatureServe 2002</li> <li>WYNDD 2002</li> </ul>
5 Population Trend in R2	D	Not known.  Confidence in Rank High	<ul style="list-style-type: none"> <li>-</li> </ul>
6 Habitat Trend in R2	D	Not known. The low elevation habitats of the species are likely to have declined, but they may comprise a small share of total habitat.  Confidence in Rank High	<ul style="list-style-type: none"> <li>-</li> </ul>
7 Habitat Vulnerability or Modification	DB	Boggy habitats may be vulnerable to trampling.  Confidence in Rank High	<ul style="list-style-type: none"> <li>-</li> </ul>
8 Life History and Demographics	D	Northern green orchis is an herbaceous perennial that flowers more than once in its life cycle.  Additional information on the species, including life history stages, population structure, longevity, mortality, pollination biology and seed biology, are not available.  Confidence in Rank High	<ul style="list-style-type: none"> <li>Great Plains Flora Association 1986</li> </ul>
Initial Evaluator(s): Bonnie Heidel and Scott Laursen			Date: 24 June 2002

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

<u>Colorado NF/NG</u>	Known	Likely	<u>Kansas NF/NG</u>	Known	Likely	<u>Nebraska NF/NG</u>	Known	Likely	<u>South Dakota NF/NG</u>	Known	Likely	<u>Wyoming NF/NG</u>	Known	Likely
Arapaho-Roosevelt NF			Cimmaron NG			Samuel R. McKelvie NF	X		Black Hills NF			Shoshone NF	X	
White River NF						Halsey NF			Buffalo Gap NG			Bighorn NF		?
Routt NF						Nebraska NF			Ft. Pierre NG			Black Hills NF	X	
Grand Mesa, Uncompahgre, Gunnison NF						Ogalala NG						Medicine Bow NF	X	
San Juan NF												Thunder Basin NG		
Rio Grande NF														
Pike-San Isabel NF														
Comanche NG														

Literature cited

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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.

USDA Forest Service – Region 2. 2001. “Wyoming plant species” evaluation list and criteria provided to Wyoming Natural Diversity Database. Denver, CO.

Wyoming Natural Diversity Database. 2002. Ongoing documentation of sensitive species distribution, biology, status, and references for the state of Wyoming. University of Wyoming, Laramie.

<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.