

ATTACHMENT SS2

REGION 2 SENSITIVE SPECIES EVALUATION FORM

Species: <i>Corallorhiza trifida</i> Chatelain / Early, Pale, or Yellow coralroot / COTR3			
Criteria	Rank	Rationale	Literature Citations
1 Distribution within R2	B	<i>Corallorhiza trifida</i> occurs on Forest Service administered land in the Black Hills of South Dakota, in the Bighorns and the Medicine Bow in Wyoming, and in Colorado. It also occurs outside of Region 2 in Wyoming. It is listed as S2 in South Dakota, S3 in Wyoming, and SR in Colorado (it is not listed in the Colorado Rare Plant Field Guide). South Dakota, eastern Wyoming and central Colorado populations are peripheral. Confidence in Rank <b>High</b>	<ul style="list-style-type: none"> <li>• PLANTS, NRCS, 2001</li> <li>• NatureServe, 2001</li> <li>• Smith 1993</li> <li>• Spackman et al., 1997</li> </ul>
2 Distribution outside R2	C	Widely distributed in Northern North America, and the Rocky Mountain region from southern Colorado north. Confidence in Rank <b>High</b>	<ul style="list-style-type: none"> <li>• PLANTS, NRCS, 2001</li> <li>• NatureServe, 2001</li> <li>• Smith 1993</li> </ul>
3 Dispersal Capability	B	Orchids produce small, lightweight seeds that can travel well over 1000 miles, but the appropriate habitats appear to be limited in South Dakota and Wyoming. Dispersal capability in Colorado is unknown. Confidence in Rank <b>Medium</b>	<ul style="list-style-type: none"> <li>• Smith 1993</li> </ul>
4 Abundance in R2	B	No abundance information is available for Colorado. Currently, in the Black Hills there are 22 sites listed, 1 of which is in Custer State Park. All of the locations are in South Dakota. If <i>Corallorhiza trifida</i> is more frequent or abundant in Colorado, then this ranking will likely need to be lowered. Confidence in Rank <b>High</b>	<ul style="list-style-type: none"> <li>• FS Records</li> </ul>
5 Population Trend in R2	D	No information on population trends was found. Confidence in Rank <b>High</b>	<ul style="list-style-type: none"> <li>•</li> </ul>
6 Habitat Trend in R2	A	Habitat in the northern and central Black Hills is listed as moist humus- rich soil beneath aspen, birch, or spruce, often in boggy places, along streams and North facing slopes. White spruce is believed to have increased since settlement of the Black Hills, with a corresponding reduction in areas dominated by deciduous trees. Historically riparian areas have also declined in the Black Hills. Habitat in Colorado is unknown. Confidence in Rank <b>High</b>	<ul style="list-style-type: none"> <li>• Larson &amp; Johnson, 1999</li> <li>• Smith 1993</li> <li>• Parrish et al, 1996</li> </ul>

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7 Habitat Vulnerability or Modification	B	Moist forested areas, often in boggy places along streams and/or north facing slopes. Habitat in the northern and central Black Hills is listed as moist humus- rich soil beneath aspen, birch, or spruce, often in boggy places, along streams and North facing slopes. White spruce is believed to have increased since settlement of the Black Hills, with a corresponding reduction in areas dominated by deciduous trees. Historically riparian areas have also declined in the Black Hills. Riparian and marshy areas are vulnerable to development, grazing and road building. When the habitat is better characterized in CO, a lower ranking may be appropriate. Confidence in Rank <b>Medium</b>	<ul style="list-style-type: none"> <li>Larson &amp; Johnson, 1999</li> <li>Great Plains Flora, 1986</li> <li>Parrish et al, 1996</li> </ul>
8 Life History and Demographics	D	<i>Corallorhiza trifida</i> reproduces by seed, as well as by short rhizomes. While orchid seeds have the capacity for long distance dispersal, no information is available about the interactions of populations in the Black Hills. Seed sources outside the region occur at a considerable distance. Some species of <i>Corallorhiza</i> are known to respond favorably to disturbance, but the ability of <i>Corallorhiza trifida</i> to respond to different disturbances is unknown. Orchid establishment and growth depends on mycorrhizal fungi associations, and appropriate materials in the soil for its saprophytic associations. Confidence in Rank <b>Medium</b>	<ul style="list-style-type: none"> <li>Smith, 1993</li> </ul>
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**Notes**

The abundance and frequency of this species is unknown for Wyoming and Colorado.

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

Species Name:											
<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
	X	Cimarron NG				Samuel R. McKelvie NF		Black Hills NF	X	Shoshone NF	
	X					Halsey NF		Buffalo Gap NG		Bighorn NF	X
	X					Nebraska NF		Ft. Pierre NG		Black Hills NF	
	X					Ogalala NG				Medicine Bow NF	X
										Thunder Basin NG	
	X										

References

FS Records can include: monitoring data, district data, historical accounts, ect.

Great Plains Flora Association 1986. Flora of the Great Plains. University Press of Kansas. Lawrence, Kansas.

Larson, G.E., and Johnson, J.R. 1999. Plants of the Black Hills and Bearlodge Mountains: a field guide with color photographs. South Dakota State University College of Agriculture & Biological Sciences, South Dakota Agricultural Experiment Station, Brookings, SD.

Nature Serve Explorer: An online encyclopedia of life [web application]. 2001. Version 1.6. Arlington, Virginia, USA: NatureServe. Available: <http://www.natureserve.org/explorer>. Accessed between (November 20, 2001 and December 10, 2001).

Parrish, J.B., Herman, D.J., Reyher, D.J. 1996. A Century of Change in the Black Hills Forest and Riparian Ecosystems. South Dakota Agricultural Experiment Station/U.S. Forest Service. Brookings, SD.

Rare, Threatened, And Endangered Plants. Species Tracked By The South Dakota Natural Heritage Program, South Dakota Department of Game, Fish And Parks. 1998. (<http://www.state.sd.us/gfp/Diversity/RarePlant.htm>).

<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.

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Smith, W.R. 1993. Orchids of Minnesota. University of Minnesota Press. Minneapolis, MN.

Spackman, S., Jennings, B., Coles, J., Dawson, C., Minton, M., Kratz, A., and Spurrier, C. 1997. Colorado Rare Plant Field Guide. Prepared for the Bureau of Land Management, the U.S. Forest Service and the U.S. Fish and Wildlife service by the Colorado natural Heritage Program.

USDA, NRCS. 2001. The PLANTS Database, Version 3.1 (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

# Corallorhiza trifida

## Black Hills National Forest

