

ATTACHMENT SS2

REGION 2 SENSITIVE SPECIES EVALUATION FORM

| Species: <i>Gymnocarpium dryopteris</i> / Oak Fern, Nothern Oak Fern ( <i>Dryopteris disjuncta</i> ) |      |  |  |
|--|------|--|--|
| Criteria   | Rank | Rationale  | Literature Citations   |
| 1<br>Distribution within R2  | BD   | <p>Oak Fern occurs in the Sierra Madre and Bear Lodge Mountains of the Black Hills in Carbon and Crook counties on the Medicine Bow and Black Hills national forests. It also occurs on the White River National Forest in Colorado and in South Dakota. Therefore, additional information is needed to determine its status in Region 2.</p> <p>This species is found in moist forests, along streams, and on wet cliffs. In Wyoming, populations may occur in moist, mossy swales and streambanks in Engelmann spruce/subalpine fir forests at 4200-7900 feet. Wyoming populations are considered disjunct.</p> <p>Confidence in Rank High</p> | <ul style="list-style-type: none"> <li>• Dorn 2001</li> <li>• Fertig 2000b</li> <li>• Larson and Johnson 1999</li> <li>• Porter 1962</li> <li>• University of Wyoming 1998</li> <li>• Welp et al. 2000</li> </ul>                            |
| 2<br>Distribution outside R2   | BD   | <p>Oak Fern is circumboreal, extending south to Oregon, Arizona, Iowa, and Virginia. In Wyoming it is known from outside Region 2 in the Teton Range and Jackson Hole in Teton County.</p> <p>Confidence in Rank High</p>  | <ul style="list-style-type: none"> <li>• Fertig 2000a</li> <li>• Flora of North America Editorial Committee 1993</li> <li>• Lellinger 1985</li> <li>• Marriott 1993</li> <li>• Shaw 1976</li> </ul>  |
| 3<br>Dispersal Capability  | CD   | <p>Spores are adapted for high wind dispersal.</p> <p>Confidence in Rank High</p>  | <ul style="list-style-type: none"> <li>• Kirkpatrick et al.1990</li> </ul>   |
| 4<br>Abundance in R2   | AD   | <p>Oak Fern is known from 4 extant and 3 historical locations in Wyoming (4 occurrences have been located since 1992; most recently in 1999). Three of the extant populations are on the Black Hills National Forest. Most populations are small, often numbering 200-1000 fronds in areas of 0.1 acre. Clusters of fronds may only represent 1 or a few genetically distinct ramets. This species is ranked "S1" in Wyoming, "S2S3" in Colorado, and "SR" in South Dakota.</p> <p>Confidence in Rank High</p>   | <ul style="list-style-type: none"> <li>• Fertig 2000a, b</li> <li>• Larson and Johnson 1999</li> <li>• Marriott 1993</li> <li>• Shaw 1976</li> <li>• University of Wyoming 1998</li> <li>• Welp et al. 2000</li> <li>• WYNDD 2002</li> </ul> |
| 5<br>Population Trend in R2  | AD   | <p>Populations are stable to declining.</p> <p>Confidence in Rank High</p>   | <ul style="list-style-type: none"> <li>• Fertig 2000b</li> <li>• WYNDD 2002</li> </ul>   |

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| 6<br>Habitat Trend<br>in R2  | D    | Unknown.<br><br>Confidence in Rank High   | • -  |
| 7<br>Habitat<br>Vulnerability<br>or<br>Modification  | BD   | Some populations in Grand Teton National Park are threatened by trail expansion, weed invasion, and trampling. Black Hills colonies may be threatened by logging. Oak fern occurs on specially managed and multiple use lands on the Black Hills and Medicine Bow national forests. It also occurs in Grand Teton National Park.<br><br>Confidence in Rank High | <ul style="list-style-type: none"> <li>• Fertig 2000a, b</li> <li>• Larson and Johnson 1999</li> <li>• Marriott 1993</li> <li>• Shaw 1976</li> <li>• University of Wyoming 1998</li> <li>• Welp et al. 2000</li> </ul> |
| 8<br>Life History<br>and<br>Demographics   | D    | Oak Fern is a rhizomatous fern. Spores are produced from June through August.<br><br>Additional information on the species, including life history stages, population structure, longevity, mortality, and seed biology, are not available.<br><br>Confidence in Rank High  | <ul style="list-style-type: none"> <li>• Fertig 2000b</li> <li>• Flora of North America Editorial Committee 1993</li> <li>• Kirkpatrick et al. 1990</li> <li>• Lellinger 1985</li> </ul>                               |
| Initial Evaluator(s):<br>Joy Handley and Scott Laursen   |      |   | Date: March 26, 2002   |

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

<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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| <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 |       |        | Black Hills NF            |       |        | Shoshone NF          |       |        |
| White River NF                             | X     |        |                     |       |        | Halsey NF             |       |        | Buffalo Gap NG            |       |        | Bighorn NF           |       |        |
| Routt NF                                   |       |        |                     |       |        | Nebraska NF           |       |        | Ft. Pierre NG             |       |        | Black Hills NF       | X     |        |
| Grand Mesa,<br>Uncompahgre,<br>Gunnison NF |       |        |                     |       |        | Ogalala NG            |       |        |                           |       |        | Medicine Bow NF      | X     |        |
| San Juan NF                                |       |        |                     |       |        |                       |       |        |                           |       |        | Thunder Basin NG     |       |        |
| Rio Grande NF                              |       |        |                     |       |        |                       |       |        |                           |       |        |                      |       |        |
| Pike-San Isabel NF                         |       |        |                     |       |        |                       |       |        |                           |       |        |                      |       |        |
| Comanche NG                                |       |        |                     |       |        |                       |       |        |                           |       |        |                      |       |        |

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