

|  |                                       |                              |
|--|---------------------------------------|------------------------------|
|  | <b>Species Data:</b>                  | <b>Index Result:</b>         |
| Species                                | <b><i>Achnatherum hendersonii</i></b> | <b>Moderately Vulnerable</b> |
| English Name                           | <b>Henderson ricegrass</b>            | <b>Confidence Moderate</b>   |
| Taxonomic Group                        | Vascular Plant                        | (based on entered data)      |
| Geographic Area                        | NE Oregon                             |                              |
|  |                                       | GRank G3                     |
| Cave/Ground Water Obligate             | No                                    | SRank S2                     |
| Migratory area included in assessment: | No                                    | Assessor Sue Vrilakas        |

**Climate Change Vulnerability Index Values:** (greatest shown when range was selected)

| Category                                  | Factor   | Score | Comments                                       |
|---|----------|-------|--|
| Temperature Scope<br>(predicted increase) | A >6.0F  | 0     |  |
|   | A 5.5F   | 0     |  |
|   | A 5.1F   | 0     |  |
|   | A 4.5F   | 50    |  |
|   | A 3.9F   | 50    |  |
|   | A <3.9F  | 0     |  |
| Hamon AET:PET Moisture<br>Metric Scope    | < -0.119 | 6     |  |
|   | -0.119   | 50    |  |
|   | -0.096   | 31    |  |
|   | -0.073   | 13    |  |
|   | -0.05    | 0     |  |
|   | >-0.028  | 0     |  |
| Sea level rise                            | B1       | N     |  |
| Natural barriers                          | B2a      | N     |  |
| Anthropogenic barriers                    | B2b      | N     |  |
| Climate Change mitigation                 | B3       | N     |  |
| Dispersal/Movement                        | C1       | SI    |  |
| Historical thermal niche                  | C2ai     | N     |  |
| Physiological thermal niche               | C2aii    | N     |  |
| Historical hydrological niche             | C2bi     | SI    | Maximum 23.412; minimum 12.225                 |
| Physiol. hydrological niche               | C2bii    | Inc   | Scabland habitat prone to seasonal desiccation |
| Disturbance dependence                    | C2c      | N     |  |
| Ice/snow dependence                       | C2d      | N     |  |
| Physical habitat restrictions             | C3       | N     | Lithosols, not particularly rare               |
| Other spp create habitat                  | C4a      | N     |  |
| Dietary Versatility                       | C4b      | U     |  |
| Pollinator Versatility                    | C4c      | U     |  |
| Other spp for dispersal                   | C4d      | N     |  |
| Pathogen sensitivity                      | C4e      | N     |  |
| Competition sensitivity                   | C4f      | Inc   | Ventenata serious threat                       |
| Interspecific Relationship                | C4g      | N     |  |
| Measured genetic variation                | C5a      | U     |  |
| Bottlenecks                               | C5b      | U     |  |
| Plant reproductive system                 | C5c      | U     |  |
| Phenological response                     | C6       | U     |  |
| Documented response                       | D1       | U     |  |
| Modeled change                            | D2       | U     |  |
| Modeled overlap                           | D3       | U     |  |
| Modeled protected areas                   | D4       | U     |  |

**Data sources and notes:**

Climate and precipitation data from Climate Wizard using the A1B emissions scenario and ensemble average general circulation model. Historical = past 50 years; Future = mid-century (2050s). Species data from ORBIC database. Assessment performed in conjunction with the Element Rank Calculator. Other resources consulted: NREL national wind resources, 50m resolution ([http://www.nrel.gov/gis/data\\_analysis\\_background.html](http://www.nrel.gov/gis/data_analysis_background.html)); SILVIS lab Wildland Urban Interface 2010 layer ([http://silvis.forest.wisc.edu/maps/wui\\_main](http://silvis.forest.wisc.edu/maps/wui_main)); Oregon Department of Geology and Mineral Industries geologic map (<http://www.oregongeology.org/sub/publications/GMS/gms.htm>); US mining claims on federal lands (<http://mrddata.usgs.gov/mine-claim/>); Oregon Protected Areas Database (<http://gapanalysis.usgs.gov/padus/data/>).

Detailed definitions of criteria and methodology can be found in the documentation at <http://www.natureserve.org/conservation-tools/climate-change-vulnerability-index>

**Legend and Definitions**

|                                 |
|---------------------------------|
| <b>Affect to Vulnerability:</b> |
| <b>GI = Greatly increase</b>    |
| <b>Inc = Increase</b>           |
| <b>SI = Somewhat increase</b>   |
| <b>N = Neutral</b>              |
| <b>U = Unknown</b>              |

**Index Scores:**

**Extremely Vulnerable:** Abundance and/or range extent within geographical area assessed extremely likely to substantially decrease or disappear by 2050.

**Highly Vulnerable:** Abundance and/or range extent within geographical area assessed likely to decrease significantly by 2050.

**Moderately Vulnerable:** Abundance and/or range extent within geographical area assessed likely to decrease by 2050.

**Less Vulnerable:** Available evidence does not suggest that abundance and/or range extent within the geographical area assessed will change (increase/decrease) substantially by 2050. Actual range boundaries may change.

**Insufficient Evidence:** Information entered about a species' vulnerability is inadequate to calculate an Index score.