### Species Data:

**Species:** Kalmiopsis fragrans  
**English Name:** North Umpqua Kalmiopsis  
**Taxonomic Group:** Vascular Plant  
**Geographic Area:** SW Oregon  
**Range Rel.:** Entire range  
**Cave/Ground Water Obligate:** No  
**GRank:** G2  
**SRank:** S2  
**Assessor:** Lindsey Wise

### Climate Change Vulnerability Index Values:

<table>
<thead>
<tr>
<th>Temperature Scope</th>
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</table>
| A > 5.5F          | 0  
| A 5.1F            | 0  
| A 4.5F            | 0  
| A 3.9F            | 0  
| A < 3.9F          | 100  
| Hamon AET:PET Moisture |  
| Metric Scope |  
| < -0.119         | 0  
| -0.119           | 90  
| -0.096           | 10  
| -0.073           | 0  
| -0.05            | 0  
| > -0.028         | 0  
| Sea level rise   | B1 N  
| Natural barriers | B2a N  
| Anthropogenic barriers | B2b N  
| Climate Change mitigation | B3 SI  
| Dispersal/Movement | C1 SI  
| Historical thermal niche | C2ai Inc  
| Physiological thermal niche | C2aII N  
| Historical hydrological niche | C2bi SI  
| Physiol. hydrological niche | C2ii N  
| Disturbance dependence | C2c N  
| Ice/snow dependence | C2d N  
| Physical habitat restrictions | C3 Inc  
| Other spp create habitat | C4a N  
| Dietary Versatility | C4b N/A  
| Pollinator Versatility | C4c N  
| Other spp for dispersal | C4d U  
| Other spp interaction | C4e U  
| Genetic variation | C5a U  
| Genetic bottleneck | C5b U  
| Phenological response | C6 U  
| Documented response | D1 U  
| Modeled change | D2 U  
| Modeled overlap | D3 U  
| Modeled protected Areas | D4 U  

### Affect to Vulnerability:

- **GI = Greatly Increase**
- **Inc = Increase**
- **SI = Somewhat Increase**
- **N = Neutral**
- **SD = Somewhat Decrease**
- **Dec = Decrease**
- **U = Unknown**

### 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.
- **Not Vulnerable/Presumed Stable:** 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.
- **Not Vulnerable/Increase Likely:** Available evidence suggests that abundance and/or range extent within geographical area assessed is likely to increase by 2050.

Assessment 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.

calculator version 2.1  
http://www.natureserve.org/prodServices/climatechange/ccvi.jsp