

Species Data:

Index Result:

Species

Abronia umbellata ssp. brevifl **Highly Vulnerable**

English Name

Pink sandverbena

Confidence High

Taxonomic Group

Vascular Plant

(based on entered data)

Geographic Area

Oregon Coast

Cave/Ground Water Obligate No

GRank G4G5T2

Migratory area included in

SRank S1

assessment: No

Assessor Sue Vrilakas

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

| Category | Factor | Score | Comments |
|---|----------|-------|--|
| Temperature Scope (predicted increase) | A >6.0F | 0 | |
| | 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 | 0 | |
| | -0.096 | 100 | |
| | -0.073 | 0 | |
| | -0.05 | 0 | |
| | >-0.028 | 0 | |
| Sea level rise | B1 | GI | Upper beach; storm surges change beach profiles |
| Natural barriers | B2a | N | |
| Anthropogenic barriers | B2b | N | |
| Climate Change mitigation | B3 | Inc | Loss of beach due to attempts to prevent coastal |
| Dispersal/Movement | C1 | Inc | Maximum 72.313, minimum 65.326 Coastal sand beaches |
| Historical thermal niche | C2ai | GI | |
| Physiological thermal niche | C2aii | N | |
| Historical hydrological niche | C2bi | Inc | |
| Physiol. hydrological niche | C2bii | N | |
| Disturbance dependence | C2c | N | |
| Ice/snow dependence | C2d | N | |
| Physical habitat restrictions | C3 | N | |
| 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 | N | |
| 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); SILVIS lab Wildland Urban Interface 2010 layer (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

| |
|---------------------------------|
| Affect to Vulnerability: |
| GI = Greatly increase |
| Inc = Increase |
| SI = Somewhat increase |
| N = Neutral |
| 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.

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.