

**Species:**  
*Epilobium*  
*siskiyouense*  
**Siskiyou willow-**

**Index Result:**  
**Moderately Vulnerable**

Scientific Name  
 Common Name  
 Taxonomic Group  
 Geographic Area

**Confidence Moderate**  
 (based on entered data)  
 Date Assessed 1/22/2020  
 GRank G3  
 SRank S2  
 Assessor Sue Vrillakas

Cave/Ground Water Obligate: No  
 Migratory area included in assessment: No

**Climate Change Vulnerability Index Values:** (greatest score 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	45	
	-0.096	55	
	-0.073	0	
	-0.05	0	
	>-0.028	0	
Sea level rise	B1	N	Interior species, not coastal No natural geographic physical barriers but grows at higher elevations of its range and limited to serpentine substrate (see section C3)
Natural barriers	B2a	SI	
Anthropogenic barriers	B2b	N	
Climate Change mitigation	B3	N	
Dispersal/Movement	C1	SI	Historical temperature variation between 42-47 degrees F Not restricted to cool sites Highest value: 65.416; lowest 54.769; difference=10.647 Dependent on local moisture microclimate Grows in area where fire frequency and intensity have already increased  Restricted to serpentine
Historical thermal niche	C2ai	SI	
Physiological thermal niche	C2aii	N	
Historical hydrological niche	C2bi	Inc	
Physiol. hydrological niche	C2bii	SI	
Disturbance dependence	C2c	SI	
Ice/snow dependence	C2d	N	
Physical habitat restrictions	C3	Inc	
Other spp create habitat	C4a	N	
Dietary Versatility	C4b	U	
Pollinator Versatility	C4c	N	
Other spp for dispersal	C4d	N	
Pathogen sensitivity	C4e	N	
Competition sensitivity	C4f	N	
Interspecific Relationship	C4g	U	
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	

**Additional Notes:**

Range map created using ArcMap Miminum Mapping Boundary-Convex Hull on ORBIC element occurrence data. Climate and precipitation data from Climate Wizard using the A1B emissions scenario and ensemble average general circulation model: Historical = 1951-2006; Future = mid-century (2050s); Hamon AET:PET moisture metric (Hamon 1961).

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>
GI = Greatly increase
Inc = Increase
SI = Somewhat increase
N = Neutral
U = Unknown

**Index Scores:**

<b>Extremely Vulnerable:</b> Abundance and/or range extent within geographical area assessed extremely likely to substantially decrease or disappear by 2050.
<b>Highly Vulnerable:</b> Abundance and/or range extent within geographical area assessed likely to decrease significantly by 2050.
<b>Moderately Vulnerable:</b> Abundance and/or range extent within geographical area assessed likely to decrease by 2050.
<b>Less Vulnerable:</b> 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.
<b>Insufficient Evidence:</b> Information entered about a species' vulnerability is inadequate to calculate an Index score.

**Citation:**

Oregon Biodiversity Information Center. 2020. Climate Change Vulnerability Index assessment for Siskiyou willow-herb (*Epilobium siskiyouense*). Institute for Natural Resources, Portland State University, Portland, OR.