	Species Data:	Index Result:	
Species	*Amsinckia carinata*	**Extremely Vulnerable**	
English Name	**Malheur Valley fiddleneck**	**Confidence**	**Very High**
Taxonomic Group	Vascular Plant	(based on entered data)	
Geographic Area	Southeast Oregon		
		GRank	G2
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 (predicted increase)	A >6.0F	0	
	A 5.5F	0	
	A 5.1F	0	
	A 4.5F	100	
	A 3.9F	0	
	A <3.9F	0	
Hamon AET:PET Moisture Metric Scope	< -0.119	0	
	-0.119	0	
	-0.096	4	
	-0.073	96	
	-0.05	0	
	>-0.028	0	
Sea level rise	B1	N	
Natural barriers	B2a	GI	
Anthropogenic barriers	B2b	N	
Climate Change mitigation	B3	N	
Dispersal/Movement	C1	Inc	
Historical thermal niche	C2ai	N	
Physiological thermal niche	C2aii	N	
Historical hydrological niche	C2bi	GI	Max 12.034, min 9.1973
Physiol. hydrological niche	C2bii	Inc	
Disturbance dependence	C2c	N	
Ice/snow dependence	C2d	N	
Physical habitat restrictions	C3	Inc	Tuffaceous soil in rock outcrops of light-colored w
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	
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://mrdata.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 Vulterable: 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.