

	Species Data:	Index Result:
Species	<i>Rorippa columbiae</i>	Moderately Vulnerable
English Name	Columbia Cress	Confidence Moderate
Taxonomic Group	Vascular Plant	(based on entered data)
Geographic Area	Central Oregon, ranges N to S range	
		GRank G3
Cave/Ground Water Obligate	No	SRank S3
Migratory area included in assessment:	No	Assessor Caitlin Lawrence

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	50	
	A 3.9F	40	
	A <3.9F	10	
Hamon AET:PET Moisture Metric Scope	< -0.119	1	
	-0.119	27	
	-0.096	48	
	-0.073	24	
	-0.05	0	
	>-0.028	0	
Sea level rise Natural barriers Anthropogenic barriers Climate Change mitigation	B1	N	Dam construction/hydrologic alteration of habitat. Changes in water level as a result of hydro power demand.
	B2a	N	
	B2b	N	
	B3	SI	
Dispersal/Movement Historical thermal niche Physiological thermal niche Historical hydrological niche Physiol. hydrological niche Disturbance dependence Ice/snow dependence Physical habitat restrictions Other spp create habitat Dietary Versatility Pollinator Versatility Other spp for dispersal Pathogen sensitivity Competition sensitivity Interspecific Relationship Measured genetic variation Bottlenecks Plant reproductive system	C1	SI	Needs wet areas. Found across a wide precip range. Found on the gravelly shores of the Columbia river and in seasonally wet areas in the high desert (NatureServe). Apparently requires moist to wet soil.
	C2ai	Inc	
	C2aii	N	
	C2bi	N	
	C2bii	Inc	
	C2c	N	
	C2d	N	
	C3	N	
	C4a	N	
	C4b	U	
	C4c	N	
	C4d	N	
	C4e	N	
	C4f	N	
	C4g	U	
	C5a	U	
	C5b	U	
	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.