

	Species Data:	Index Result:
Species	<i>Thelypodium howellii</i> ssp. spe	Highly Vulnerable
English Name	Howell's spectacular thelypod	Confidence
Taxonomic Group	Vascular Plant	Moderate
Geographic Area	NE Oregon	(confidence in species information)
Range Rel.	Entire range	Assessor
Cave/Ground Water Obligate	No	Lindsey Wise
GRank	G2T1	
SRank	S1	

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

Temperature Scope	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	100
	-0.073	0
	-0.05	0
	>-0.028	0
Sea level rise	B1	N
Natural barriers	B2a	Inc
Anthropogenic barriers	B2b	Inc
Climate Change mitigation	B3	N
Dispersal/Movement	C1	N
Historical thermal niche	C2ai	N
Physiological thermal niche	C2aii	N
Historical hydrological niche	C2bi	GI
Physiol. hydrological niche	C2bii	SI
Disturbance dependence	C2c	N
Ice/snow dependence	C2d	N
Physical habitat restrictions	C3	N
Other spp create habitat	C4a	N
Dietary Versatility	C4b	N/A
Pollinator Versatility	C4c	N
Other spp for dispersal	C4d	N
Other spp interaction	C4e	N
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.

Index Notes: Species range may shift and perhaps leave the assessment area.