

Portland State University

**PDXScholar**

---

Institute for Natural Resources Publications

Institute for Natural Resources - Portland

---

8-15-2019

# Oregon State Rank Assessment for Purple Alpine Paintbrush (*Castilleja rubida*)

Sue Vrilakas

*Oregon Biodiversity Information Center, sue.vrilakas@pdx.edu*

Follow this and additional works at: [https://pdxscholar.library.pdx.edu/naturalresources\\_pub](https://pdxscholar.library.pdx.edu/naturalresources_pub)



Part of the [Botany Commons](#)

**Let us know how access to this document benefits you.**

---

## Citation Details

Vrilakas, Sue, "Oregon State Rank Assessment for Purple Alpine Paintbrush (*Castilleja rubida*)" (2019).  
*Institute for Natural Resources Publications*. 74.

[https://pdxscholar.library.pdx.edu/naturalresources\\_pub/74](https://pdxscholar.library.pdx.edu/naturalresources_pub/74)

This Report is brought to you for free and open access. It has been accepted for inclusion in Institute for Natural Resources Publications by an authorized administrator of PDXScholar. Please contact us if we can make this document more accessible: [pdxscholar@pdx.edu](mailto:pdxscholar@pdx.edu).

Natural Heritage Ranking Form - Oregon State Rank

SPECIES ASSESSED

Scientific Name	<i>Castilleja rubida</i>	ELCODE	PDSCR0D2T0
Common Name	Purple alpine paintbrush	Element ID	8997

Species Concept Reference Citation

Kartesz, J.T. 1994. A synonymized checklist of the vascular flora of the United States, Canada, and Greenland. 2nd edition. 2 vols. Timber Press, Portland, OR.

CONSERVATION STATUS RANK

Assigned Rank	S1		
Rank Assignment Author	Sue Vrilakas	Rank Review Date	8/15/2019
Rank Factors Author	Sue Vrilakas	Rank Factors Date	08/15/2019
Calculated Rank	S1	Rank Change Date	08/15/2019
Rank Methodology Used			

Assigned Rank Reasons

Although fairly abundant where found, it is very restricted in range and extremely vulnerable to climate change.

RANGE/DISTRIBUTION

Range Extent			
Rating	<100 square km (less than about 40 square miles)		
Estimate	8	Unit Used for Estimate	Square Kilometer
Comments	8 sq mi		s
Area of Occupancy			
Grid Cell Size	4 km <sup>2</sup> Grid Cells		
Rating (as Number of 4 km <sup>2</sup> Grid Cells)	D = 6-25		
Comments	9-11 grids		

ABUNDANCE AND CONDITION

Number of Occurrences	
Rating	1 - 5
Comments	1-4 occurrences
Population Size	
Rating	2500 - 100,000 individuals
Good Viability/Ecological Integrity	
Number of Occurrences with Good Viability/Ecological Integrity	
Rating	Very few (1-3)
Number of Protected and Managed Occurrences	B = Few (1-3) occurrences appropriately protected and managed

THREATS

Threat Category		Calculated	Scope	Severity	Timing	Comments
Code	Threat Category	Impact				
11	Climate change & severe weather	A = Very high	Pervasive: Affects all or most (71-100%) of the total population or occurrences or extent	Extreme: Likely to destroy or eliminate occurrences or habitat, or reduce population 71-100%		CCVI calculated - extremely vulnerable
Calculated Overall Threat Impact		A = Very high				
Assigned Overall Threat Impact		A = Very high				
Overall Threat Impact Comments		Climate Change Index: extremely vulnerable				

TRENDS	
Short-Term Trend	
Rating	G = Relatively Stable (<=10% change)
Long-Term Trend	
Rating	U = Unknown

ADDITIONAL SPECIES INFORMATION	
Oregon Habitat Comments	
Grows on open, exposed bare rock, Martin-Bridge limestone outcrops and Hurwal sedimentary soils with most of the plants occurring above 8000 feet. Rarely located in alpine tundra habitat dominated by low grasses, sedges and forbs. It is found on all aspects and slopes, from almost vertical cliffs to ridgetops and plateaus. It was rarely found on steep, loose talus slopes, but does occur often on sedimentary talus on ridgetops and plateaus.	

RESOURCES	
Oregon Biodiversity Information Center, Institute for Natural Resources Portland State University, Mail Stop: INR, PO Box 751, Portland, OR 97207-0751 Phone: 503-725-9950	
Additional ORBIC species ranking forms posted at <a href="https://inr.oregonstate.edu/orbic/rare-species/ranking-documentation">https://inr.oregonstate.edu/orbic/rare-species/ranking-documentation</a>	
Information on Natural Heritage ranking methodology is available at <a href="http://www.natureserve.org/biodiversity-science/publications/natureserve-conservation-status-assessments-methodology-assigning">http://www.natureserve.org/biodiversity-science/publications/natureserve-conservation-status-assessments-methodology-assigning</a>	
The Conservation Rank Calculator is developed and maintained by NatureServe and is available from <a href="http://www.natureserve.org/conservation-tools/conservation-rank-calculator">http://www.natureserve.org/conservation-tools/conservation-rank-calculator</a>	

ASSESSMENT CITATION	
Sue Vrilakas. 2019. Oregon state rank assessment for Purple alpine paintbrush (Castilleja rubida). Oregon Biodiversity Information Center. Institute for Natural Resources, Portland State University, Portland, OR.	