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# Oregon State Rank Assessment for Disappearing Monkeyflower (*Erythranthe inflatula*)

Lindsey K. Wise  
Portland State University, lwise@pdx.edu

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# Natural Heritage Ranking Form - Oregon State Rank

Oregon Ranking Form Disappearing monkeyflower (*Erythranthe inflatula*)

Oregon Biodiversity Information Center

## SPECIES ASSESSED

Scientific Name	<i>Erythranthe inflatula</i>	ELCODE	PDSCR1B370
Common Name	Disappearing monkeyflower	Element ID	9028

### Species Concept Reference Citation

Kartesz, J.T. 1999. A synonymized checklist and atlas with biological attributes for the vascular flora of the United States, Canada, and Greenland. First edition. In: Kartesz, J.T., and C.A. Meacham. Synthesis of the North American Flora, Version 1.0. North Carolina Botanical Garden, Chapel Hill, N.C.

## CONSERVATION STATUS RANK

Assigned Rank	<b>S2S3</b>		
Rank Assignment Author	Lindsey Wise	Rank Review Date	7/17/2024
Rank Factors Author	Lindsey Wise	Rank Factors Date	07/17/2024
Calculated Rank	S2S3	Rank Change Date	07/17/2024
Rank Methodology Used	Rank calculation - Biotics v2		

## RANGE/DISTRIBUTION

### Range Extent

Rating	20,000-200,000 square km (about 8000-80,000 square miles)		
Estimate	70,000	Unit Used for Estimate	Square Kilometer
Comments	About 70,000 sq km based on known EOs. Drops to 48,000 km when excluding historical EOs.		

### Area of Occupancy

Grid Cell Size	4 km <sup>2</sup> Grid Cells		
Rating (as Number of 4 km <sup>2</sup> Grid Cells)	E = 26-125		
Comments	About 35 4km <sup>2</sup> cells occupied using extant EOs.		

## ABUNDANCE AND CONDITION

### Number of Occurrences

Rating	21 - 80		
Estimate	26		
Comments	About 21 extant EOs using 1 km separation distance.		

### Population Size

Rating	10,000 - 100,000 individuals		
Estimate	23000		
Comments	About 23,000 at sites where population counts were included, between 1999 and 2016.		

### Good Viability/Ecological Integrity

#### Number of Occurrences with Good Viability/Ecological Integrity

Rating	Few (4-12)		
Estimate	5		

## Comments

5 ranked as A, but several have not been assessed or have no population info.

<b>THREATS</b>
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<u>Threat Category Code</u>	<u>Threat Category</u>	<u>Calculated Impact</u>	<u>Scope</u>	<u>Severity</u>	<u>Timing</u>	<u>Comments</u>
2	Agriculture & aquaculture	BC = High - medium	Large: Affects most (31-70%) of the total population or occurrences or extent	Serious - moderate	High: Continuing	
2.3	Livestock farming & ranching	BC = High - medium	Large: Affects most (31-70%) of the total population or occurrences or extent	Serious - moderate	High: Continuing	Some sites note grazing as a potential threat, with habitat change due to grazing the larger impact.
7	Natural system modifications	BC = High - medium	Large: Affects most (31-70%) of the total population or occurrences or extent	Serious - moderate	High: Continuing	
7.2	Dams & water management/use	BC = High - medium	Large: Affects most (31-70%) of the total population or occurrences or extent	Serious - moderate	High: Continuing	Altered hydrology, reservoir drawdowns can dry out habitat. Noted as a serious threat to at least 3 sites.
6	Human intrusions & disturbance	D = Low	Small: Affects a small proportion (1-10%) of the total population or occurrences or extent	Serious - moderate	High: Continuing	
6.1	Recreational activities	D = Low	Small: Affects a small proportion (1-10%) of the total population or occurrences or extent	Serious - moderate	High: Continuing	Off-road vehicle impacts
11	Climate change & severe weather	CD = Medium - low	Pervasive: Affects all or most (71-100%) of the total population or occurrences or extent	Moderate - slight	High: Continuing	Ranked as Less Vulnerable to climate change (Vrilakas 2020)
<b>Calculated Overall Threat Impact</b>		AB = Very high - high				
<b>Assigned Overall Threat Impact</b>		AB = Very high - high				
<b>Overall Threat Impact Comments</b>						

Fluctuations in water levels of reservoirs or creeks seem to be the greatest threat. Potential grazing impacts to habitat also noted at several sites.

<b>TRENDS</b>
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## Short-Term Trend

**Rating**            FG = Decline of <30% to relatively stable

**Comments**

Potential for historical sites to still be extant but resurveys needed.

**Long-Term Trend**

**Rating**            U = Unknown

<b>RANKING REFERENCES</b>
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<u>Short Citation</u>	<u>Author</u>	<u>Year</u>	<u>Full Citation</u>
Vrilakas		2020	Vrilakas, Sue. Climate Change Vulnerability Assessment for <i>Erythranthe inflatula</i> in Oregon. Oregon Biodiversity Information Center, Portland State University, Portland, OR. Available at: <a href="https://inr.oregonstate.edu/sites/inr.oregonstate.edu/files/erythranthe-inflatula-ccvi.pdf">https://inr.oregonstate.edu/sites/inr.oregonstate.edu/files/erythranthe-inflatula-ccvi.pdf</a>

<b>RESOURCES</b>
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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  
<https://inr.oregonstate.edu/orbic/rare-species/ranking-documentation>

Information on Natural Heritage ranking methodology is available at  
<http://www.natureserve.org/biodiversity-science/publications/natureserve-conservation-status-assessments-methodology-assigning>

The Conservation Rank Calculator is developed and maintained by NatureServe and is available from  
<http://www.natureserve.org/conservation-tools/conservation-rank-calculator>

<b>ASSESSMENT CITATION</b>
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Lindsey Wise. 2024. Oregon state rank assessment for Disappearing monkeyflower (*Erythranthe inflatula*). Oregon Biodiversity Information Center. Institute for Natural Resources, Portland State University, Portland, OR.