

# Natural Heritage Ranking Form - Oregon State Rank

Oregon Ranking Form    Owyhee clover (*Trifolium owyheense*)

Oregon Biodiversity Information Center

## SPECIES ASSESSED

Scientific Name    *Trifolium owyheense*

ELCODE    PDFAB401T0

Common Name    Owyhee clover

Element ID    8640

### 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    **S2S3**

Rank Assignment Author    Wise, Lindsey

Rank Review Date    5/01/2013

Rank Factors Author    Wise, Lindsey

Rank Factors Date    04/08/2022

Calculated Rank    S2S3

Rank Change Date    05/31/1984

Rank Methodology Used    Rank calculation - Biotics v2

### Assigned Rank Reasons

Known from about 50 occurrences with 60,000 or more plants. Grows in restricted and limited habitat. Herbivory, non-native plants, and climate change are threats, with many sites dominated by cheatgrass. However, 2016-2020 BLM surveys found nearly all sites still occupied with most having 100s to 1000s of plants.

## RANGE/DISTRIBUTION

### Range Extent

Rating    250-1000 square km (about 100-400 square miles)

Comments    Found in drainages of Lower Owyhee River (Lake Owyhee) and Succor Creek, Malheur County, Oregon. Calculated range about 670 sq. km from convex hull of extant sites.

### Area of Occupancy

#### Grid Cell Size

Rating (as Number of 4 km<sup>2</sup> Grid Cells)    E = 26-125

Comments    About 40 occupied 4km<sup>2</sup> grid cells.

## ABUNDANCE AND CONDITION

### Number of Occurrences

Rating    21 - 80

#### Comments

About 31 occurrences using 1km separation distance.

### Population Size

Rating    10,000 - 100,000 individuals

#### Comments

From BLM surveys in 2016-2020, estimated 60,000 plants. Several thousand plants reported in 2000s and 2010s.

### Good Viability/Ecological Integrity

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

Rating    Few to some (4-40)

#### Comments

About 8 EOs with excellent or good viability using 1km separation distance.

**Number of Protected and Managed Occurrences** C = Several (4-12) occurrences appropriately protected and managed

**Number of Protected and Managed Occurrences Comments**

Occurrences in Leslie Gulch are in the ACEC; 2 occurrences in a WSA

**THREATS**

**Calculated Overall Threat Impact**

**Assigned Overall Threat Impact** B = High

**Overall Threat Impact Comments**

Threatened in Leslie Gulch by ORV use and herbivory (suspected by rabbits, deer, horses, and cattle), and cattle grazing, non-native plants, and mining elsewhere. Several sites note that plants seem to be tolerating low to medium grazing pressure by nativ

**TRENDS**

**Short-Term Trend**

**Rating** G = Relatively Stable (<=10% change)

**Long-Term Trend**

**Rating** FH = Decline of <30% to increase of 25%

**OTHER FACTORS**

**Intrinsic Vulnerability Rating** Unknown

**Comments**

**Environmental Specificity Rating** Very narrow. Specialist or community with key requirements scarce.

**Comments**

Restricted to ash deposits

**ADDITIONAL SPECIES INFORMATION**

**Oregon Habitat Comments**

Inhabits bleak slopes composed of loose diatomaceous talus or volcanic ash. Surrounding plant communities are dominated by sagebrush and juniper, with the few direct associates being annuals: *Mimulus cusickii*, *Senecio ertterae*, *Mentzelia* spp.

**RANKING REFERENCES**

<u>Short Citation</u>	<u>Author</u>	<u>Year</u>	<u>Full Citation</u>
Findley		2007	Findley, Jean. 2007. Memo: Assessment of threats to Owyhee clover ( <i>Trifolium owyheense</i> ), Vale District BLM. 1 pp.
Gisler and Kaye		2004	Gisler and Kaye, 2004. Conservation research in the Leslie Gulch ACEC: Population monitoring for <i>Trifolium owyheense</i> and seed bank dynamics in <i>Senecio ertterae</i> . Institute for Applied Ecology, Corvallis, OR. 26 pp.
Manusco		2001	Mancuso, Michael. 2001. The status of <i>Trifolium owyheense</i> (Owyhee clover) in Idaho. Idaho Conservation Data Center. 29 pp.

**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  
<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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Oregon Biodiversity Information Center. 2013. Oregon state rank assessment for Owyhee clover (*Trifolium owyheense*). Institute for Natural Resources, Portland State University, Portland, OR.