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# Oregon State Rank Assessment for Klamath Lamprey (*Lampetra similis*)

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# Natural Heritage Ranking Form - Oregon State Rank

Oregon Ranking Form Klamath lamprey (*Lampetra similis*)

Oregon Biodiversity Information Center

## SPECIES ASSESSED

Scientific Name *Lampetra similis* ELCODE AFBAA02140  
Common Name Klamath lamprey Element ID 6778

### Species Concept Reference Citation

Robins, C.R., R.M. Bailey, C.E. Bond, J.R. Brooker, E.A. Lachner, R.N. Lea, and W.B. Scott. 1991. Common and scientific names of fishes from the United States and Canada. American Fisheries Society, Special Publication 20. 183 pp.

## CONSERVATION STATUS RANK

Assigned Rank **S2**

Rank Assignment Author	Nelson, Misty	Rank Review Date	
Rank Factors Author	Nelson, Misty	Rank Factors Date	11/03/2023
Calculated Rank	S2	Rank Change Date	01/08/2024
Rank Methodology Used	Rank calculation - Biotics v2		

### Assigned Rank Reasons

Although very little is known about populations, trends, or threats, this species has a restricted range in Oregon, and widespread habitat degradation has occurred.

## RANGE/DISTRIBUTION

### Range Extent

Rating	1000-5000 square km (about 400-2000 square miles)		
Estimate	2252	Unit Used for Estimate	Square Kilometers
Comments	2,252 sq km calculated using NatureServe RARECAT tool and 29 GBIF records, which are predominantly Oregon State University Ichthyology Collection specimen records.		

### Area of Occupancy

Grid Cell Size	1 km <sup>2</sup> Grid Cells		
Rating (as Number of 4 km <sup>2</sup> Grid Cells)			
Rating (as Number of 1 km <sup>2</sup> Grid Cells)	D = 21-100		
Estimate	23	Unit Used for Estimate	1 km <sup>2</sup> Grid Cells
Comments	23 1-sq-km grid cells calculated using NatureServe RARECAT tool and 29 GBIF records, which are predominantly Oregon State University Ichthyology Collection specimen records.		

## ABUNDANCE AND CONDITION

### Number of Occurrences

Rating	6 - 20		
Estimate	9		
Comments	No EOs in Biotics; 9 occurrences calculated using NatureServe RARECAT tool and 29 GBIF records (which are predominantly Oregon State University Ichthyology Collection specimen records), and a separation distance of 10km.		

### Population Size

Rating	Unknown		
Comments	Population estimates are unknown, but this species is believed to be common throughout their range (Moyle et al. 2015)		

## Good Viability/Ecological Integrity

## Number of Occurrences with Good Viability/Ecological Integrity

## Rating

## THREATS

<u>Threat Category</u>	<u>Threat Category</u>	<u>Calculated Impact</u>	<u>Scope</u>	<u>Severity</u>	<u>Timing</u>	<u>Comments</u>
2	Agriculture & aquaculture	C = Medium	Pervasive: Affects all or most (71-100%) of the total population or occurrences or extent	Moderate: Likely to moderately degrade/reduce affected occurrences or habitat, or reduce population 11-30%	High: Continuing	
2.3	Livestock farming & ranching	C = Medium	Pervasive: Affects all or most (71-100%) of the total population or occurrences or extent	Moderate: Likely to moderately degrade/reduce affected occurrences or habitat, or reduce population 11-30%	High: Continuing	Grazing is extensive throughout Klamath River watersheds (Moyle et al. 2015)
4	Transportation & service corridors	CD = Medium - low	Pervasive - large	Moderate - slight	High: Continuing	
4.1	Roads & railroads	CD = Medium - low	Pervasive - large	Moderate - slight	High: Continuing	Sedimentation from roads may affect spawning and rearing (Moyle et al. 2015)
5	Biological resource use	Not in timeframe	Pervasive - large	Moderate - slight	Low - insignificant/negligible	
5.3	Logging & wood harvesting	Not in timeframe	Pervasive - large	Moderate - slight	Low - insignificant/negligible	Logging resulted in widespread changes to watersheds, although this impact was great in the past than at present (Moyle et al. 2015)
7	Natural system modifications	CD = Medium - low	Large: Affects most (31-70%) of the total population or occurrences or extent	Moderate - slight	High: Continuing	
7.2	Dams & water management/use	CD = Medium - low	Large: Affects most (31-70%) of the total population or occurrences or extent	Moderate - slight	High: Continuing	Dams disrupt movement, gene flow, and opportunities for recolonization (Moyle et al. 2015)

Calculated Overall Threat Impact BC = High - medium

Assigned Overall Threat Impact BC = High - medium

**Overall Threat Impact Comments**

Specific information on threats is unknown for Oregon, but are likely to be similar to those identified for this species in California (Moyle et al. 2015), including habitat degradation due to dams, grazing, logging, and sediment from roads.

**TRENDS****Short-Term Trend**

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

**Comments**

Population estimates and trends are unknown, but this species is believed to be relative stable or slowly declining.

**Long-Term Trend**

**Rating**              U = Unknown

**RANKING REFERENCES**

<u>Short Citation</u>	<u>Author</u>	<u>Year</u>	<u>Full Citation</u>
Moyle et al.		2015	Moyle, P. B., R. M. Quiñones, J. V. Katz and J. Weaver. 2015. Fish Species of Special Concern in California. California Department of Fish and Wildlife, Sacramento. 842pp.

**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>

**ASSESSMENT CITATION**