

Natural Heritage Ranking Form - Oregon State Rank

Oregon Ranking Form Basalt juga (snail) (*Juga sp. 1*)

Oregon Biodiversity Information Center

SPECIES ASSESSED

Scientific Name *Juga sp. 1* ELCODE IMGASK4100
Common Name Basalt juga (snail) Element ID 7986

Species Concept Reference Citation

NatureServe. Unpublished. Concept reference for taxa which have not yet been described; to be used as a placeholder until a citation is available which describes the circumscription of the taxon.

CONSERVATION STATUS RANK

Assigned Rank **S2?**

Rank Assignment Author	Gaines, Eleanor	Rank Review Date	6/05/2019
Rank Factors Author	Gaines, Eleanor	Rank Factors Date	10/21/2011
Calculated Rank	S1S2	Rank Change Date	06/05/2019
Rank Methodology Used	Rank calculator v.3.1x - 2011-2015 rank factors		

Assigned Rank Reasons

Restricted range, Narrow habitat requirements, few known populations.

RANGE/DISTRIBUTION

Range Extent

Rating <100-1000 square km (less than about 40-400 square miles)
Comments Restricted to Columbia River Gorge

Area of Occupancy

Grid Cell Size
Rating (as Number of 4 km² Grid Cells) AC = 1-5
Comments Only 1 EO documented; Likely others, but sites are very small.

ABUNDANCE AND CONDITION

Number of Occurrences

Rating 1 - 20
Comments 1 EO Documented. Likely a few others.

Population Size

Rating Unknown

Good Viability/Ecological Integrity

Number of Occurrences with Good Viability/Ecological Integrity

Rating Very few (1-3)
Comments All sites are very small.

THREATS

<u>Threat</u>						
<u>Category</u>		<u>Calculated</u>				
<u>Code</u>	<u>Threat Category</u>	<u>Impact</u>	<u>Scope</u>	<u>Severity</u>	<u>Timing</u>	<u>Comments</u>
1.3	Tourism & recreation areas	D = Low				Disturbance of springs, gravel substrate road and railroad construction/maintenance.
4	Transportation & service corridors	B = High				
4.1	Roads & railroads	B = High				Negative impacts from logging; not clear how much logging is currently taking place in the range of this spp. negative impacts from fire water pollution and sedimentation Climate change - sensitive to elevated water temperature
5	Biological resource use	D = Low				
7	Natural system modifications	D = Low				
9	Pollution	D = Low				
11	Climate change & severe weather	C = Medium				

Calculated Overall Threat Impact

Assigned Overall Threat Impact C = Medium

Overall Threat Impact Comments

Current populations threatened by water pollution, road and railroad construction/maintenance, fires.

TRENDS

Short-Term Trend

Rating U = Unknown

Long-Term Trend

Rating BE = Decline of 30-90%

Comments

This is a guess, based on Duncan 2005. Sites lost to Columbia River dams, road and railroad construction.

OTHER FACTORS

Intrinsic Vulnerability Rating Moderately vulnerable to not intrinsically vulnerable.

Comments

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

Comments

Restricted to low elevation, pristine, cold springs in tributaries to Columbia River.

ADDITIONAL SPECIES INFORMATION

Oregon Habitat Comments

Restricted to springs in small drainages tributary to the Columbia River, at low elevations. Prefers gravel substrate and requires unpolluted water; mostly in very small and shallow but permanent, undisturbed springs. (Frest and Johannes, 1995; U95FRE010)

RANKING REFERENCES

<u>Short Citation</u>	<u>Author</u>	<u>Year</u>	<u>Full Citation</u>
Duncan		2005	Duncan, N. 2005. Conservation Assessment for Mollusk species associated with springs and spring runs: Fluminicola new species 2, 3, 11, Vorticifex klamathensis sinitsini, Jufa (Oreobasis) new species 2, and Lyogyrus new species 1. USDA Forest Service Region 6 and USDI Bureau of Land Management, Oregon and Washington.
Frest and Johannes		1999	Frest, T.J. and E.J. Johannes. 1999. Field guide to survey and manage freshwater mollusk species. USDI Bureau of Land Management, US Fish and Wildlife Service, USDA Forest Service.

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

Oregon Biodiversity Information Center. 2019. Oregon state rank assessment for Basalt juga (snail) (Juga sp. 1). Institute for Natural Resources, Portland State University, Portland, OR.