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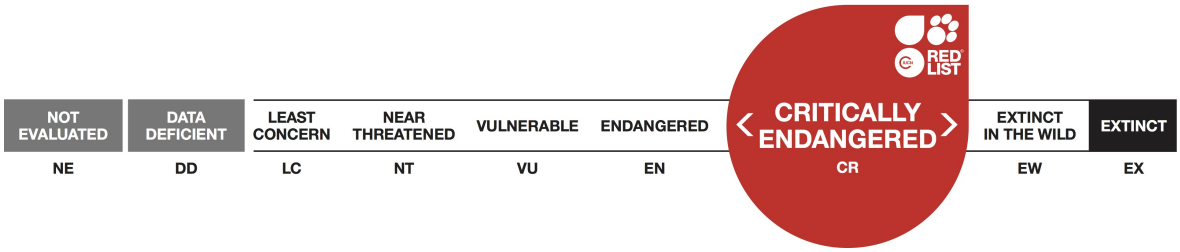
Scope: Global
Language: English

Bridgeoporus nobilissimus

Errata version

Assessment by: Vellinga, E.



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Taxonomy

Kingdom	Phylum	Class	Order	Family
Fungi	Basidiomycota	Agaricomycetes	Not assigned	Not assigned

Taxon Name: *Bridgeoporus nobilissimus* (W.B.Cooke) T.J.Volk, Burds. & Ammirati

Synonym(s):

- *Oxyporus nobilissimus* W.B.Cooke

Taxonomic Notes:

See Burdsall *et al*. (1996) and Redberg *et al*. (2003) for taxonomic position.

Assessment Information

Red List Category & Criteria: Critically Endangered A2c; C2a(i) ver 3.1

Year Published: 2015

Date Assessed: April 22, 2015

Justification:

Bridgeoporus nobilissimus perennial fruitbodies only occur on very old and large, majestic veteran trees and stumps of *Abies* species in old-growth forests in the states of Washington, Oregon and northern California (USA); it is known from less than 30 localities. Logging of old-growth *Abies* forests, changes in forest composition, forest fires, and the disappearance of large enough trees to support the fruit bodies are the main threats. Fruitbodies are also prone to vandalism.

The habitat of this species, old-growth *Abies* forest, has declined more than 90% over the last century. The known sites of the species are protected, but the tree composition has been changed into *Pseudotsuga* dominated forest. The number of mature individuals per site is one or two, and the total number of sites does not exceed 50. The species has been extensively surveyed in all its known sites and possible habitats, and cannot have been overlooked as it forms huge conspicuous fruitbodies that are present the whole year through. The largest number of mature individuals in a single subpopulation is estimated to be less than 50, based on the extensive surveys that have taken place since 1998. This species qualifies for listing as Critically Endangered.

Geographic Range

Range Description:

Recorded from the Cascade Mountain Range in Washington and Oregon (USA), Coast Range on the Olympic Peninsula (Washington) and in Oregon, and one locality in north coastal California (USA).

Country Occurrence:

Native: United States (California, Oregon, Washington)

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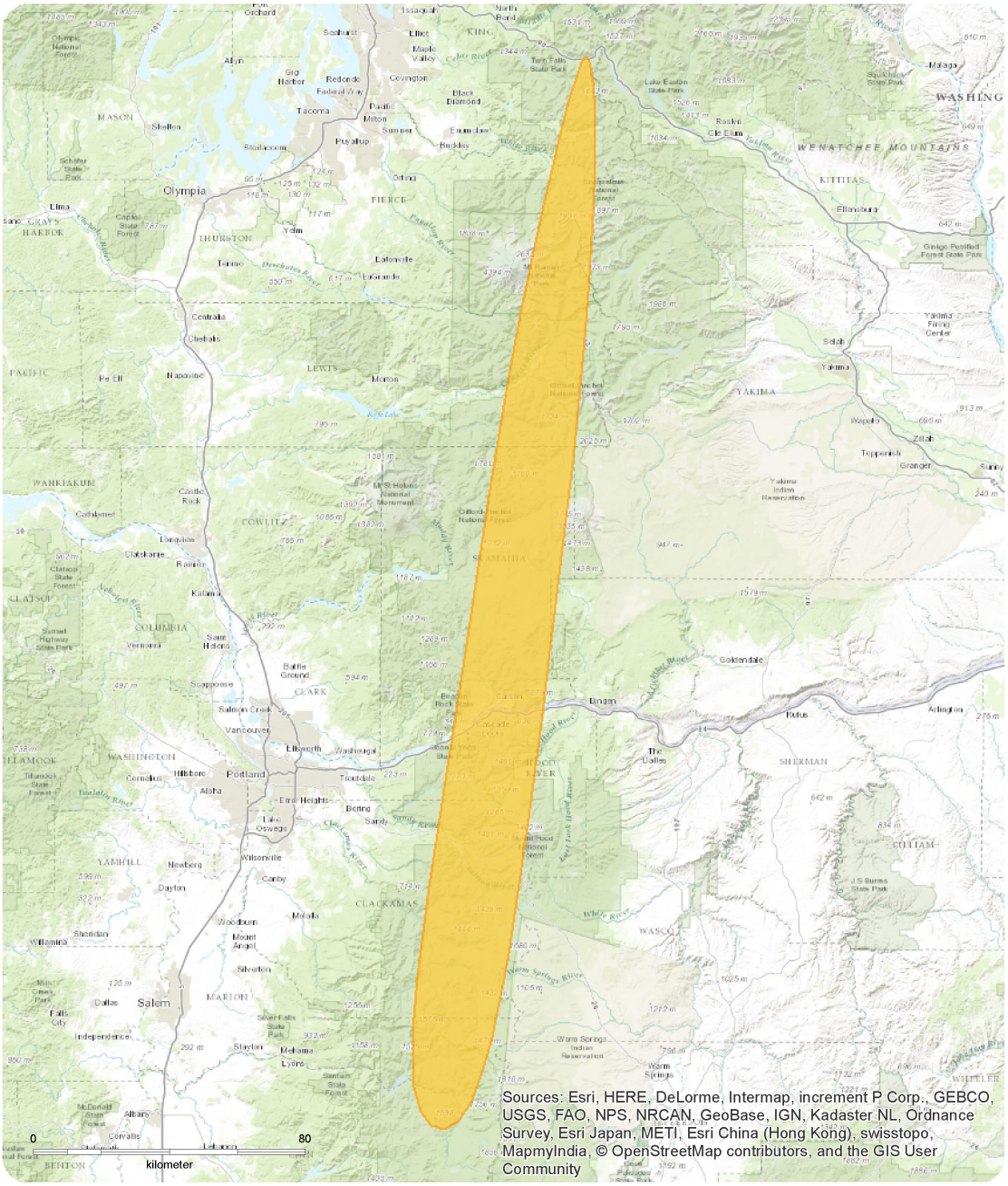
Distribution Map

Bridgeoporus nobilissimus



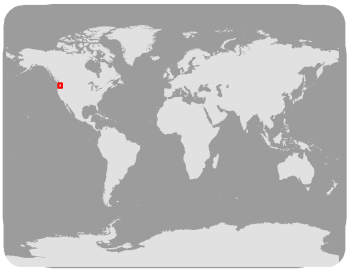
Bridgeoporus nobilissimus

NE | DD | LC | NT | VU | EN | CR CRITICALLY ENDANGERED | EW | EX

Range

Extant (resident)

Compiled by:
International Union for the Conservation of Nature



The boundaries and names shown and the designations used on this map do not imply any official endorsement, acceptance or opinion by IUCN.

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Population

Less than 25 sites each with one perennial big fruiting body are currently known to exist and to sporulate, these are scattered over an area from northern California (USA) to central Washington (USA). Estimated number of sites does not exceed 35 (Cooke 1949, Castellano *et al* 1990, Trappe 1990).

Confined to old-growth *Abies* stands, a type of habitat that has been extensively logged. Only 9% of the old-growth forests in the area still exists. The species is not known to occur outside the western USA.

Decline is expected to continue, as the existent trunks are being decayed and no new big trees and trunks are available.

Current Population Trend: Decreasing

Habitat and Ecology (see Appendix for additional information)

Forming perennial conks at the base of very old very big living trunks, or dead snags and stumps of *Abies procera*, *A. amabilis*, and *A. grandis* in old-growth forests predominantly in the mountains, but also known from one coastal site in California. The fruit bodies are long-lived, and more than 100 tube layers per fruit body have been found. Fruit bodies are very rare, but the mycelium of fungus has been detected in living smaller trees of these and other species in the same areas where the fruit bodies are found (Gordon 2009 a, b; Gordon and Van Norman 2015). They have only been found fruiting on *Abies*.

Systems: Terrestrial

Use and Trade

The species is not known to be used.

Threats (see Appendix for additional information)

Habitat destruction is the main threat. Old-growth forest, with the size of trees that will support the very large fruit bodies is rare and vulnerable. Logging for timber has decreased the extent of *Abies*. Forests are now managed for Douglas Fir (*Pseudotsuga menziesii*) as it grows faster than *Abies*. The main host, *Abies procera*, is restricted to mountain tops.

Forest fires are of major concern, as the fuel load of the present day forests is much higher than in the past, which will cause the fires to burn more severely, being crown fires and killing the trees, instead of only killing the undergrowth.

Deliberate destruction of the fruitbodies is also a major threat. For instance the one specimen recently discovered in northern California (Mushroomobserver.org/116383) was broken off the tree. The fruitbodies are perennial.

Conservation Actions (see Appendix for additional information)

Habitat conservation, ensuring continuing growth of the host tree species (*Abies*) is most important.

This species is a so-called Strategy 1 species under the Northwest Forest Plan, and has been surveyed

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and managed within the range of the Northern Spotted Owl (*Strix occidentalis caurina*). All possibly suitable *Abies* stands have been surveyed and the presence of the species in only <50 sites has been confirmed.

Credits

Assessor(s): Vellinga, E.

Reviewer(s): Dahlberg, A.

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External Resources

For Images and External Links to Additional Information, please see the Red List website.

Appendix

Habitats
(http://www.iucnredlist.org/technical-documents/classification-schemes)

Habitat	Season	Suitability	Major Importance?
1. Forest -> 1.4. Forest - Temperate	Resident	Suitable	Yes

Threats
(http://www.iucnredlist.org/technical-documents/classification-schemes)

Threat	Timing	Scope	Severity	Impact Score
12. Other options -> 12.1. Other threat	Ongoing	Minority (50%)	Unknown	Unknown
	Stresses:	2. Species Stresses -> 2.3. Indirect species effects -> 2.3.7. Reduced reproductive success		
5. Biological resource use -> 5.3. Logging & wood harvesting -> 5.3.3. Unintentional effects: (subsistence/small scale) [harvest]	Ongoing	Minority (50%)	Slow, significant declines	Low impact: 5
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
7. Natural system modifications -> 7.1. Fire & fire suppression -> 7.1.1. Increase in fire frequency/intensity	Ongoing	Majority (50-90%)	-	-
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation		

Conservation Actions in Place
(http://www.iucnredlist.org/technical-documents/classification-schemes)

Conservation Actions in Place
In-Place Land/Water Protection and Management
Occur in at least one PA: Yes
Percentage of population protected by PAs (0-100): 91-100

Conservation Actions Needed
(http://www.iucnredlist.org/technical-documents/classification-schemes)

Conservation Actions Needed
1. Land/water protection -> 1.1. Site/area protection

Research Needed
(http://www.iucnredlist.org/technical-documents/classification-schemes)

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Research Needed
1. Research -> 1.2. Population size, distribution & trends

Additional Data Fields

Population
Number of mature individuals: 140
Continuing decline of mature individuals: Yes
Habitats and Ecology
Generation Length (years): 33

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Errata

Errata reason: The name of the Assessor has been corrected to include all of their initials.

The IUCN Red List Partnership

The IUCN Red List of Threatened Species™ is produced and managed by the IUCN Global Species Programme, the IUCN Species Survival Commission (SSC) and The IUCN Red List Partnership.

The IUCN Red List Partners are: Arizona State University; BirdLife International; Botanic Gardens Conservation International; Conservation International; NatureServe; Royal Botanic Gardens, Kew; Sapienza University of Rome; Texas A&M University; and Zoological Society of London.