

Oregon Status Factors

Elcode PDFUM03046
Gname CORYDALIS CASEANA SSP AQUAE-GELIDAE
Gcomname Cold-water corydalis

Number of Occurrences

C = 21- 80

Comments There are 57 occurrences in Oregon. However, the number of isolated populations is considerably fewer; many occurrences can be found within a single drainage.

Number of Occurrences with Good Viability

C = Few (4-12) occurrences with good viability

Comments Four occurrences have more than 3000 plants; another 4 have between 1000 to 3000 plants.

Population Size

F = 10,000-100,000 individuals

Comments Approximately 30,000 plants have been reported

Range Extent

D = 1,000-5,000 km² (about 400-2,000 square miles)

Comments The taxon is restricted to Multnomah, Clackamas, Linn, Marion and Lane Counties. Most of the populations are located in Clackamas County, with a few occurrences in the other counties. The majority of the state's population for *Corydalis aquae-gelidae* can be found in 4 watersheds.

Area of Occupancy

D = 20-100 km² (about 5,000-25,000 acres)

LD = 200-1,000 km (about 125-620 miles)

Comments Oregon populations occupy approximately 11,000 acres.

Long-term Trend in Population Size, Extent of Occurrence, Area of Occupancy, and/or Number or Condition of Occurrences

E = Relatively Stable ($\pm 25\%$ change)

Comments This corydalis grows along streams, creeks, and seeps within the national forests, which has given it some protection from the threats associated with timber harvest.

Short-term Trend in Population Size, Extent of Occurrence, Area of Occupancy, and/or Number or Condition of Occurrences

E = Stable. Population, range, area occupied, and/or number or condition of occurrences unchanged or remaining within $\pm 10\%$ fluctuation

Comments This corydalis grows along streams, creeks, and seeps within the national forests, which has given it some protection from the threats associated with timber harvest.

Threats

C = Substantial, non-imminent threat. Threat is moderate to severe but not imminent (> 10 years) for most of the population, occurrences, or area.

Scope High Severity High Immediacy Low

Comments

Number of Appropriately Protected and Managed Occurrences

D = Many (13-40) occurrences appropriately protected and managed

Comments Almost all known occurrences are within National Forests, and within riparian buffers which affords protection from timber harvest activities. However, because the majority of the corydalis population is restricted to riparian areas within four drainages, it has the potential to be threatened by any future hydroelectric projects in that area.

Intrinsic Vulnerability

B = Moderately Vulnerable. Species exhibits moderate age of maturity, frequency of reproduction, and/or fecundity such that populations generally tend to recover from decreases in abundance over a period of several years (on the order of 5-20 years or 2-5 generations); or species has moderate dispersal capability such that extirpated populations generally become reestablished through natural recolonization (unaided by humans). Ecological community occurrences may be susceptible to changes in composition and structure but tend to recover through natural processes given reasonable time (10-100 years).

Comments Plants produce many seeds, and adults are long-lived, but seedlings appear to have a narrower range of potential habitat than adults, and at least in Washington there are not known instances of colonization of previously unoccupied habitats.

Environmental Specificity

B = Narrow. Specialist or community with key requirements common.

Comments The taxon can survive under different canopy closure levels, but scouring of the stream banks as a result of increased flow and an increase of brushy vegetation within its habitat, appear to have had negative effects. Corydalis may be restricted in water temperature requirements.

Other Considerations

ORNHIC List 1. Previously called *Corydalis aquae-gelidae*.

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Reasons

Although predominantly limited to one county, plant numbers for this species are high. Riparian buffer zones also afford some protection to the populations. The main threat to this species' existence would be hydroelectric development, although there is no project being planned currently. It is on ORNHIC's List 1 (2001), taxa considered endangered or threatened throughout range.

BCD Sources

New Sources

Oregon Natural Heritage Program [Information Center]. 2001. Rare, threatened and endangered plants and animals of Oregon. Oregon Natural Heritage Program, Portland, OR. 94 pp.