

Washington Status Factors

Elcode NF00HECR13
Gname HELVELLA CRASSITUNICATA
Gcomname

Number of Occurrences

C = 21- 80

Comments Dark gray-brown cups each supported by a short to distinct stalk that is white or nearly so and appears to be made of rounded folds of tissue are characteristic of this species which fruits in late summer at moderate to high elevations below tree line. Eighteen locations in Washington are listed for this species. Collection dates are not available so I had no way of telling if data from the herbarium search (Weber 1995) was included. Abbott and Currah (1997) list six sites from Washington including those cited by Weber (1975).

Number of Occurrences with Good Viability

D = Some (13-40) occurrences with good viability

Comments Mt. Rainier National Park, the type locality, is protected and is the source of over half of the collections in the ISMS data base. Those sites are likely to remain suitable for the fungus.

Population Size

U = Unknown

Comments This can not be determined; records reflect only species presence.

Range Extent

F = 20,000-200,000 km² (about 8,000-80,000 square miles)

Comments This species occurs in the Olympic Mountains in Washington, and much of the length of the Washington Cascades with a large cluster of sites in Mt. Rainier National Park.

Area of Occupancy

U = Unknown

LU = Unknown

Comments Short of using molecular tools there is no way to evaluate this factor.

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

U = Unknown. Long-term trend in population, range, area occupied, or number or condition of occurrences unknown

Comments The species seems to fruit at medium to high elevations, and high latitudes thus global warming could affect its ability to persist in the warmer parts of its range.

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

U = Unknown. Short-term trend in population, range, area occupied, and number and condition of occurrences unknown.

Comments This species appears to tolerate mild disturbance such as well-established hiking paths but not large-scale disturbance such as logging, mining, and construction. However, these activities, with the possible exception of construction of ski runs and associated facilities are unlikely to occur in most of its habitats.

Threats

D = Moderate, non-imminent threat. Threat is moderate to severe but not imminent for a significant portion of the population, occurrences, or area.

Scope Moderate **Severity** Moderate **Immediacy** Low

Comments This species is probably mycorrhizal so any event that results in reduced vigor of the photosynthetic partner or its removal is likely to stress the fungus as well; I've not see it in severely disturbed sites, but it is often found along hiking paths. Once the forest is gone or severely damaged, decades probably elapse before the habitat will again be right for this species.

Number of Appropriately Protected and Managed Occurrences

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

Comments Fourteen sites are from G1/2 areas in Washington, primarily from Mt. Rainier National Park and Olympic National Park. One is from a LSR and thus not protected.

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 Probably mycorrhizal and thus dependent on the photosynthetic partner in the symbiosis for energy-rich compounds. Thus any factors, e.g., logging, construction, fires, landslides, that affect the vigor of the photosynthetic partner or remove it are likely to have a negative impact on the fungus.

Environmental Specificity

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

Comments This species is characteristic of moderately high elevations in the zone with true firs and mountain hemlock, and in drier or at least well-drained sites. This species seems to tolerate mild disturbance such as well-established hiking paths but not large-scale disturbance such as logging, mining, and construction. However, these activities, with the possible exception of construction of ski runs and associated facilities are unlikely to occur in most of its habitats

Other Considerations

This species was described from Mt. Rainier National Park, now established as the place with the greatest population density of any in its range. It is one of several species in the genus characteristic of high elevations and or high latitudes and is the only one, so far, uniquely North American.

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Greasons

There is only limited territory of what appears to be suitable habitat for the species and while more sites will likely be found, the potential area they may occupy is relatively limited. In Washington, it has been found over a dozen times in Mt. Rainier National Park but reports from the rest of the montane areas in the state are scattered and few. Careful searching may reveal more sites; however, at present the species merits being watched and conserved.

BCD Sources

New Sources

Abbott and Currah 1997 Abbott, S.P., and Currah, R.S. 1997. The Helvellaceae: Systematic revision and occurrence in northern and northwestern North America. *Mycotaxon* 62: 1-125.

Castellano, M.A., Smith, J.A., O'Dell, T., Cazares, E., and Nugent, S. 1999. Handbook to Strategy 1 Fungal Species in the Northwest Forest Plan. Portland, Oregon: USDA Forest Service, PNWRS PNW-GTR-476.

Weber, N.S. 1975. Notes on western species of *Helvella*. I. *Beih. Nova Hedwigia* 51: 25-38.

Weber, N.S. 1995. Report on FEMAT Strategy 1 epigeous discomycetes. Submitted to the the USDA Forest Service. 251 pp