

Oregon Status Factors

Elcode NF00HYCA21
Gname HYGROPHORUS CAERULEUS
Gcomname

Number of Occurrences

A = 1 - 5

Comments This distinctive gilled mushroom is grayish blue to blue or cream-colored with blue tints. Contrary to the Handbook (Castellano et al.) this species is not endemic to Oregon and Washington. It was described from Idaho (Miller 1984). Within the range of the northern spotted owl in Oregon two sites were reported by Castellano et al. (1999) in Hood River and Jefferson Cos.; on the FSL web site (FSL n.d.) two additional sites are listed for Oregon (a second site in Jefferson Co., and one from from Wasco Co., OR) The ISMS data base contains records of 5 sites including at least one site in the Winema National Forest (probably Klamath Co.)

Number of Occurrences with Good Viability

U = Unknown what number of occurrences with good viability

Comments no data available

Population Size

U = Unknown

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

Range Extent

E = 5,000-20,000 km² (about 2,000-8,000 square miles)

Comments In Oregon, this species has been documented from the following counties: Hood River, Wasco, Jefferson, and Klamath (Winema National Forest) Cos.

Area of Occupancy

U = 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 too little data to draw any conclusions

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 too little data to draw any conclusions

Threats

B = Moderate and imminent threat. Threat is moderate to severe and imminent for a significant proportion (20-60%) of the population, occurrences, or area. Ecological community occurrences are directly impacted over a moderate area, either causing irreversible damage or requiring a long-term recovery.

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

Comments Most, if not all, the sites are in areas where wildfires are frequent on a historical basis. This mushroom is likely mycorrhizal with conifers. Thus changes brought about by logging, mining, fires, and development that result in the loss of trees and changes in the sites also threaten the existence of the species.

Number of Appropriately Protected and Managed Occurrences

A = None. No occurrences appropriately protected and managed

Comments Of the Oregon sites in the ISMS data, all three sites are in LSRs which are currently protected but may not be protected in the future.

Intrinsic Vulnerability

A = Highly Vulnerable. Species is slow to mature, reproduces infrequently, and/or has low fecundity such that populations are very slow (> 20 years or 5 generations) to recover from decreases in abundance; or species has low dispersal capability such that extirpated populations are unlikely to become reestablished through natural recolonization (unaided by humans). Ecological community occurrences are highly susceptible to changes in composition and structure that rarely if ever are reversed through natural processes even over substantial time periods (> 100 years).

Comments The degree of vulnerability under current forest practices is relatively low. However, this species occurs in areas that could undergo drastic changes due to logging and development with changes in land management policies at the Federal level,

Environmental Specificity

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

Comments This species fruits in the spring (May to July depending on altitude) and in Oregon has been found in early spring about the time morel mushrooms are fruiting.

Other Considerations

ORNHIC List 2.

Edition 11/17/2002 **Edauthor** Nancy S. Weber

Grank S2 **Grank Date** 11/26/2002

Reasons

Hygrophorus caeruleus is known only from western North America where it occurs in mountainous regions roughly in an arc around the northern part of the Great Basin, an unusual distribution for a fungus. It is relatively easy to recognize when it is found; the paucity of sites is likely a reflection of true scarcity. It is known from only few sites in the state and apparently fruits irregularly. None of the known sites in Oregon are permanently protected. On the basis of the number of known sites, it would fit nicely into the S2 category but additional field work might bring the numbers up such that S3 would be the appropriate ranking.

BCD Sources

New Sources

1999. 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.