California Status Factors

Elcode NF000HYVE9

Gname HYGROPHORUS VERNALIS

Gcomname

Number of Occurrences

A = 1 - 5

Comments This gilled mushroom fruits in the spring, often around snowbanks, at high elevations in montane areas; it is likely mycorrhizal. Castellano et al. (1999) report it from one locality from Siskiyou Co., California. The summary of ISMS data indicates that no additional collections has been made in within the range of the northern spotted owl in California.

Number of Occurrences with Good Viability

A = No (A- or B- ranked) occurrences with good viability

Comments The California collection was made in 1941(Fogel, n.d.). No additional collections were mentioned by Largent (1985).

Population Size

U = Unknown

Comments Only one collection could be located that was made since 1941, but extensive herbarium searches could not be performed to look for additional material.

Range Extent

A = <100 km2 (less than about 40 square miles)

Comments A single collection is known from Mt. Shasta in California.

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 insufficient 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 insufficient data to draw any conclusions

Threats

A = Substantial, imminent threat. Threat is moderate to severe and imminent for most (> 60%) of the population, occurrences, or area. Ecological community occurrences are directly impacted over a widespread area, either causing irreversible damage or requiring long term recovery

Scope High Severity Moderate Immediacy Moderate

Comments Logging and development are potential threats to the California population if it is extant.

Number of Appropriately Protected and Managed Occurrences

A = None. No occurrences appropriately protected and managed

Comments The California site is probably not protected.

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 High elevation sites, once disturbed, do not recover rapidly. This species is likely mycorrhizal with mature conifers and thus if the forest cover is lost, it is problematical whether this species would be able to re-establish itself.

Environmental Specificity

A = Very Narrow. Specialist or community with key requirements scarce.

Comments High elevation sites, once disturbed, do not recover rapidly. This species is likely mycorrhizal with mature conifers and thus if the forest cover is lost, it is problematical whether this species would be able to re-establish itself.

Other Considerations

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Grank S1 **Grank Date** 11/18/2002

Greasons

The restricted known range of this attractive mushroom to some extent reflects the restricted number of high elevation sites where snowbank fungi (ones that characteristically fruit around receeding snowbanks) occur in western Washington, Oregon, and California. The Mt. Shasta region has been of interest to mycologists for over 50 years yet only a single collection is known of this species. Targeted field work and a check of the SFSU herbarium might bring additional sites to light and move this species to a less restricted category

BCD Sources

New Sources

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.

Fogel, R. n.d. MICH Fungal Bioinformatics Project. Retrieved 2002.11 from http://www.herb.lsa.umich.edu/Bioinformatics.htm.

Hesler, L.R., and Smith, A.H. 1963. North American Species of Hygrophorus. Knoxville, TN: The University of Tennessee Press. 416. pp. (note that Castellano et al. 1999 mistakenly refer to this publication as "North American Taxa of Hygrophorus".

Largent, D.L. 1985. The Agaricales (Gilled Fungi) of California. 5. Hygrophoraceae. Eureka: Mad River Press, Inc. 208 pp.