Washington Status Factors

Elcode NFSM000065

Gname GALERINA CERINA

Gcomname

Number of Occurrences

U = Unknown

Comments In the northern spotted owl region of Washington, the ISMS-ONH 2002 database reports only 1 occurrence; Roger (1998) however verified 11 historical records (reported in the literature) for the Regional Mycologist. GACE is regarded relatively common to frequent in appropriate habitats elsewhere, but current data are too fragmentary to permit an estimate of occurrences at this time. It is expected that probably there are many occurrences of GACE within Washington that could be readily revealed through fungal surveys.

Number of Occurrences with Good Viability

U = Unknown what number of occurrences with good viability

Comments See above. All Roger (1998) records were historically based. More research is needed and more surveys required.

Population Size

U = Unknown

Comments Records reflect only species occurrence, i.e. fruitbodies, not numbers of individuals. Fungal genets cannot be delimited without DNA sampling.

Range Extent

U = Unknown

Comments ISMS GIS (2002) map for GACE shows only one site in the Mt Baker-Snoqualmie Forest in Washington. More location data and new fungal surveys are needed to provide at least two points of data to provide a range. Washington should have many congenial habitats for GACE; known to occur commonly in Europe (particularly Switzerland).

Area of Occupancy

U = Unknown

LU = Unknown

Comments Area occupancy can only be roughly approximated from fungal fruitbodies as the vegetative organism is hidden from site within the substrate. Saprophytic and/or bryophilous fungi have spotty distributions that are tied to the presence of appropriate substrates. The area of occupancy in this instance can be assumed to be very small, generally the size of a collection and in this instance cannot be predicted.

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 information is too fragmentary for Washington to provide reliable prediction of a long-term trend. If this contractor were a betting person, she would bet that the long-term trend would be stable for the large number of occurrences believed to occur in the state. (Norvell 2002).

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 See above.

Threats

G = Slightly threatened. Threats, while recognizable, are of low severity, or affecting only a small portion of the population, occurrences, or area. Ecological community occurrences may be altered in minor parts of range or degree of alteration falls within the natural variation of the type.

Scope Low Severity Low Immediacy Low

Comments GACE is found in forested habitats and other places where there are large moss beds, bogs, or mossy hummocks. The primary threat to GACE is exposure to the full sun and substrate (moss) removal. All populations are at risk to incidental catastrophic events, such as hot fires, and logging activities that destroy canopy coverage and expose previously moist areas to sun and wind. (Roger 1998. pers comm.; Norvell 2002 pers comm).

Number of Appropriately Protected and Managed Occurrences

U = Unknown whether any occurrences are appropriately protected and managed

Comments Insufficient data to predict for GACE worldwide. In the northern spotted owl region of the US, only 4 occurrences are documented to be in protected sites; far more are anticipated. At the current time, no known sites in the region are specifically managed for GACE, but rather for the habitat that supports it.

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).
C = Not Intrinsically Vulnerable. Species matures quickly, reproduces frequently, and/or has high fecundity such that populations recover quickly (< 5 years or 2 generations) from decreases in abundance; or species has high dispersal capability such that extirpated populations soon become reestablished through natural recolonization (unaided by humans). Ecological community occurrences are resilient or resistant to irreversible changes in composition and structure and quickly recover (within 10 years).

Comments Given the wide distribution and common to frequent reports of GACE within its range, it appears fairly resilient to all but extended-drought and moss removal.

Environmental Specificity

Comments GACE is generally found in moist forests, sphagnum bogs, mossy hummocks, and other soggy areas. It is bryophilous and dependent upon Polytrichum and other mosses, although it has sometimes been found on humus in sphagnumb bogs or burned areas. In the north temperate zone it is more common in the spring and early summer than in the fall. (Smith & Singer 1964;

Roger 1998, Norvell pers comm). .Its precise biological and ecological requirements are unknown.

Other Considerations

There are several varieties of G. cerina that are not differentiated for the purposes of this ranking. Redhead (1979) notes that while Smith & Singer, 1964 felt they had explained the nomenclatural confusion behind their use of a name also applied to another fungus, there is still some cause for a confusion in the historical literature, if not at the present time. The relatively few herbarium collections made within its range probably do not reflect the actual number of occurrences but more likely the fact that it is very small and inconspicuous and thus undercollected. (Norvell 2002 pers comm)

Edition 11/25/2002 **Edauthor** Lorelei L Norvell

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Greasons

GACE fruitbodies are very small and inconspicuous and is presumed far more abundant than the 12 confirmed herbarium collections indicate, particularly given its wide and relatively common to frequent occurrence in Oregon during 2000-2001. It is dependent on mosses, generally producing gregious small fruiting bodies on Polytrichum and other mosses, sometimes on humus in sphagnum bogs or burned area. It has a patchy distribution and spring phenology. The data for Washington are fragmentary and historical; not enough information is available to facilitate an accurate ranking at this time. Already exisitng information need to be collated and delivered to the appropriate responsible person and good-faith fungal surveys need to be conducted in the state.

BCD Sources

New Sources

Smith & Singer, 1964. A monograph of the genus Galerina Earle. New York: Hafner.
Roger. 1998. Galerina cerina. From unpubl. report for Regional Mycology Lab in Corvallis, Oregon.
Redhead. 1979. A study of the sphagnicolous fleshy basidiomycetes in the eastern sections of the Canadian boreal forest. U of Toronto PhD dissertation.
Watling, Gregory, Orton. 1993. British fungus flora Agarics & Boleti 7. Edingurgh: Royal Botanic Garden.
Moser. 1981. Keys to Agarics and Boleti. Phillips.
ISMS-ONH. 2002. ISMS data; ONH protection extrapolations; GIS map for GACE.