

California Status Factors

Elcode NFSM000064
Gname GALERINA ATKINSONIANA
Gcomname

Number of Occurrences

U = Unknown

Comments In the northern spotted owl region of the California only 4 occurrences represented by as many collections of GAAT2 have been documented (Roger 1998. pers comm; ISMS-ONH 2002 database). It is possible that the species has reached the southern limit of its range, but is probably more likely that it is undercollected, particularly in view of the discrepancy between ISMS data and Oregon encounters by the ranking author and the nondescript and inconspicuous nature of the fruiting bodies. (Norvell 2002 pers comm).

Number of Occurrences with Good Viability

U = Unknown what number of occurrences with good viability

Comments Within the northern spotted owl region in CA no recent collections have been made. If the species has reached the southern limit of its range, it is possible that these indicate innate rarity of the species in the region, but is probably more likely that it is undercollected. More data are needed.

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 The ISMS Database 2002 and GIS map for GAAT2) provide no California location data and no such data are reported either in the literature or are available through on-line herbarium databases. More data are needed.

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; however, the species is so common in well canopyied mossy coniferous forests that no estimates can be made of total occupancy.

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 predict long-term trends for GAAT2 in California.

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 predict short-term trends for GAAT2 in California.

Threats

H = Unthreatened. Threats if any, when considered in comparison with natural fluctuation and change, are minimal or very localized, not leading to significant loss or degradation of populations, occurrences, or area even over a few decades' time. (Severity, scope, and/or immediacy of threat considered Insignificant.)

Scope	Insignificant	Severity	Low	Immediacy	Unknown
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Comments GAAT2 is found in boreal forests with full canopy (to preserve moisture) and sufficient moss and needle litter. It has been reported from riparian areas or highly moist LSOG forests with little to no disturbance (Roger 1998), but in Oregon it has also been collected from protected sites in recently thinned and clearcut stands (Norvell & Exeter 2003). It would appear that the primary threat to GAAT2 is exposure to the full sun and loss of substrate. 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 The number of protected occurrences outside the northern spotted owl region is unknown. Within the region, ISMS (2002) cites only 13 occurrences in protected areas. Given the large number of occurrences known to occur with that region, it appears that there also the actual number of protected occurrences is not known,

Intrinsic Vulnerability

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 GAAT2 appears fairly resilient to many threats, at least in the central part of its range in the boreal forests where it is common. In the more southern latitudes toward the limits of its range, the species may be at risk to substrate removal (moss or leaf/needle litter) and lack of forest canopy that would alter its usual microhabitats and microclimate regimes.

Environmental Specificity

C = Moderate. Generalist or community with some key requirements scarce.

Comments GAAT2 is generally found in boreal forests with full canopy (to preserve moisture) and sufficient moss and needle litter. In PNW North America it fruits during the summer and early autumn and can be quite common during warm, relatively dry seasons (Redhead. 1979 Roger 1998. pers comm. Smith & Singer, 1964). Its precise biological and ecological requirements are unknown. (Norvell 2002 pers comm.)

Other Considerations

Galerina atkinsoniana has no known synonyms. It is a small, inconspicuous mushroom that is not readily identified in the field. Herbarium data for GAAT2 are too few to reflect the actual number of occurrences believed to exist throughout its range and it is inferred to be undercollected. Within the northern spotted owl region, ISMS-ONH 2002 data cannot be used to predict occurrences, range, or other basic trends for GAAT2.

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Reasons

In the literature and in the ranking author's experience, GAAT2 appears universally common within its range and habitat. GAAT2 is generally found in boreal forests with full canopy (to preserve moisture) and sufficient moss and needle litter. The number of occurrences is believed to be too numerous to track without a concerted effort, and there are a large number of protected appropriate forested and riparian reserves within the northern spotted owl region. In that region, more data are still needed at the southern edge of its range, in California. While often abundant in collections, GAAT2 does have a locally patchy abundance and is often collected near to or -- occasionally -- intermixed with the more common *Galerina vittiformis*.

BCD Sources

New Sources

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for GAAT2