Conservation Status Assessment

Scientific Name: ***Galerina atkinsoniana***
Classification: Fungus
Assessment area: Global

Heritage Rank: **G4G5**
Rank Date: 3/9/2017

Assigned Rank Comments: None.
Rank Adjustment Notes: Fairly common species found worldwide with a good number of occurrences. The collections known place it at a G4, but it is likely under-collected and not at high risk thus ranked as a G4G5. A good species with a worldwide distribution, although reported for Ireland only in 2012 (Mitchel); pyrosequencing studies by Davey & al. (2013) confirm its association with bryophytes; Heimdal (2012) determined that GAAT is a moss 'generalist'. See Gulden & al. (2005) for phylogenetic relationships among galerinas; multi-gene analyses by Matheny & al. (2006) support the GAAT in the Hymenogastraceae. (Mitchel, David. October–November 2012. Survey of the Grassland Fungi of North Kerry. Report for The Heritage Council [An Chomhairle Oidhreachta]. 181 pp ; Davey, Marie L.; Heimdal, Rune; Ohlson, Mikael; Kauserud, Håvard. 2013. Host- and tissue-specificity of moss-associated Galerina and Mycena determined from amplicon pyrosequencing data. Fungal Ecology 6: 179–186. ; Heimdal, Rune Skarsbø. 2012 (August). Using 454 sequencing for exploring diversity, host specificity and tissue specificity of the fungal genus Galerina associated with four boreal mosses. Dept. Biology, University of Oslo. 20 p. ; Gulden, Gro; Stensrud, Øyvind; Shalchian-Tabrizi, Kamran; Kauserud, Håvard. 2005. Galerina Earle: A polyphyletic genus in the consortium of dark-spored agarics. Mycologia 97: 823–837. ; Matheny PG, Curtis JM, Hofstetter V, Aime MC, Moncalvo JM, Ge ZW, Yang ZL, Slot JC, Ammirati JF, Baroni TJ, Bougher NL, Hughes KW, Lodge DJ, Kerrigan RW, Seidl MT, Aanen DK, DeNitis M, Daniel GM, Desjardin DE, Kropp BR, Norvell LL, Parker A, Vellinga EC, Vilgalys R, Hibbett DS. 2006. Major clades of Agaricales: a multilocus phylogenetic overview. Mycologia 98: 982-995)

Range Extent:

H = >2,500,000 sq km (> 1,000,000 sq mi)

Comments: Found worldwide, including North America, Australia, Czech Republic, Germany, Russia.

Population Size:

Not assessed

Comments: None

Number of Occurrences:

DE = 81 to >300

Comments: A couple hundred known occurrences, but a fairly common species so there are likely greater than 300 worldwide. Norvell commented in the 2002 survey that it is likely under collected since it is fairly common and inconspicuous.

Area of Occupancy:

F = 126-500 4-km2 grid cells

Comments: At least 200 occupied grid cells worldwide.

Good Viability:

D = Some (13-40) occurrences with excellent or good viability or ecological integrity

Comments: At least 33 occurrences are in protected areas including: Kamakou Forest Preserve in Hawaii, Tahquamenon Falls State Park, Wilderness State Park, Tater Hill Research Natural Area, Irwin Rocks Research Natural Area, Beatty Creek Research Natural Area, Cummins Creek Wilderness Area, Finley National Wildlife Refuge, Laurentides Provincial Park, Gaspe Park, Quinault Research Natural Area, Buckhorn Wilderness, Mount Rainier National Park, Pasayten Wilderness, Mount Baker Wilderness, Glacier Peak Wilderness, Henry M. Jackson Wilderness, Alpine Lakes Wilderness, Opal Creek Wilderness, Rogue-Umpqua Divide Wilderness, James Peak Wilderness

Environmental Sensitivity: Not Evaluated

Comments: None

Short Term Trends: Not Evaluated

Comments: None

Long Term Trends: Not Evaluated

Comments: None

Threat Impact: CD = Medium - Low

Comments:
In 2002 assessment Norvell says "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 clear cut 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.)." and "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."

Intrinsic Vulnerability: Not Evaluated

Comments: None

Calculated Rank: G4

Rank Author: Caitlin Lawrence
Rank Reviewer: Lorelei Norvell

References:

No additional references listed.

Definitions and Resources:

Rank Prefixes	
G	Global rank, applied to taxon's full geographic range
S	State rank, applied to taxon's range within the designated state
Rank Values	
1	Critically imperiled

2	Imperiled
3	Vulnerable
4	Apparently secure, uncommon but not rare
5	Secure, common, abundant, and widespread

Suggested citation:

Oregon Biodiversity Information Center. 2017. Fungi Conservation Status Assessments. Institute for Natural Resources, Portland State University and Oregon State University. Portland, Oregon and Corvallis, Oregon.

More assessments available at http://inr.oregonstate.edu/orbic/rare-species/ranking-documentation

Element rank calculator resources at http://www.natureserve.org/conservation-tools/conservation-rank-calculator

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