

California Status Factors

Elcode NFSM000066
Gname GALERINA HETEROCYSTIS
Gcomname

Number of Occurrences

U = Unknown

Comments Given the taxonomic uncertainty surrounding this species and the few collections verified from the ISMS 2002 database or verified by Norvell during the Survey & Manage evaluation work, *Galerina heterocystis* should not be ranked at this time.

Number of Occurrences with Good Viability

U = Unknown what number of occurrences with good viability

Comments Given the taxonomic uncertainty surrounding this species and the few collections verified from the ISMS 2002 database or verified by Norvell during the Survey & Manage evaluation work, *Galerina heterocystis* should not be ranked at this time.

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 Given the taxonomic uncertainty surrounding this species and the few collections verified from the ISMS 2002 database or verified by Norvell during the Survey & Manage evaluation work, *Galerina heterocystis* should not be ranked at this time. Comments based on concept described in Smith & Singer (1964): "Wide ranging species from North America, South America, Asia, and the West Indies, *Galerina heterocystis* occurs in mossy areas where graminoid vascular plants are prominent, such as fens and grassy lawns. In Europe reported in rich bog sites with some Sphagnum. [Redhead. 1979]. "a fungal weed" [Roger 1998. pers comm.]

Area of Occupancy

U = Unknown

LU = Unknown

Comments Area of 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.

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 Given the taxonomic uncertainty surrounding this species and the few collections verified from the ISMS 2002 database or verified by Norvell during the Survey & Manage evaluation work, *Galerina heterocystis* should not be ranked at this time.

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 Given the taxonomic uncertainty surrounding this species and the few collections verified from the ISMS 2002 database or verified by Norvell during the Survey & Manage evaluation work, *Galerina heterocystis* should not be ranked at this time.

Threats

Scope

Severity

Immediacy

Comments Given the taxonomic uncertainty surrounding this species and the few collections verified from the ISMS 2002 database or verified by Norvell during the Survey & Manage evaluation work, *Galerina heterocystis* should not be ranked at this time.

Number of Appropriately Protected and Managed Occurrences

U = Unknown whether any occurrences are appropriately protected and managed

Comments Given the taxonomic uncertainty surrounding this species and the few collections verified from the ISMS 2002 database or verified by Norvell during the Survey & Manage evaluation work, *Galerina heterocystis* should not be ranked at this time.

Intrinsic Vulnerability

U = Unknown

Comments Given the taxonomic uncertainty surround this species and the few collections verified from the ISMS 2002 database or verified by Norvell during the Survey & Manage evaluation work, *Galerina heterocystis* should not be ranked at this time.

Environmental Specificity

U = Unknown

Comments Given the taxonomic uncertainty surrounding this species and the few collections verified from the ISMS 2002 database or verified by Norvell during the Survey & Manage evaluation work, *Galerina heterocystis* should not be ranked at this time.

Other Considerations

Needs taxonomic revision. *Galerina heterocystis* sensu Smith & Singer (1964) is believed by Gulden (1992, & Vesterholt 1999, & Hallgrímsson 2000), Horak & Miller (1992), Watling et al (1993), and Roger (pers comm 2002) to represent two species, *G. heterocystis* sensu stricto (described by Smith & Singer 1964 for North America) and *G. clavata* (recognized from alpine and arctic habitats). Unfortunately the taxonomic position of both species worldwide and most particularly within the Pacific Northwest is not sufficiently clear to enable the ranking author to presume to decide the identity of the species present from numbers alone. (Norvell 2002 pers comm)

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Greasons

It is unclear whether *Galerina heterocystis* as described by Smith & Singer (1964) represent one or two species (see above). Worldwide the situation needs to be clarified before a global ranking can be made. Roger (2002) notes that var. "B" of *G. heterocystis* of (Smith & Singer 1964) seems to occur within the Pacific Northwest. However, the ISMS 2002 database contains fragmentary data: Roger (1998, 2002 pers comm) verified a total of 40 collections of *Galerina heterocystis* for the Regional Mycologist (CA-5, OR-6, and WA-29), yet only 6 collections (none for WA) are reported within the ISMS database. Given the taxonomic uncertainty surrounding this species and the few collections verified from the ISMS 2002 database or verified by Norvell during the Survey & Manage evaluation work, *Galerina heterocystis* should not be ranked at this time. (Parenthetically, Roger, pers comm 2002, referred to *G. heterocystis* as a "fungal weed", particularly prevalent in moss patches in grass in city settings.)

BCD Sources

New Sources

Smith & Singer, 1964. A monograph of the genus *Galerina* Earle. New York: Hafner. ALSO Redhead. 1979. A study of the sphagnicolous fleshy basidiomycetes in the eastern sections of the Canadian boreal forest. U of Toronto PhD dissertation. ALSO Roger. 1998. *Galerina heterocystis*. From unpubl. report for Regional Mycology Lab in Corvallis, Oregon. ALSO Gulden 1992. *Galerina* Earle. 306-314 in *Nordic Macromycetes 2*. Hansen & Knudsen, eds. Copenhagen: Nordsvamp. ALSO Gulden & Vesterholt. 1999. The genera *Galerina* Earle and *Phaeogalera* Kuhner in the Faroe Islands. *Nord J Bot* 19: 685-706. ALSO Gulden & Hallgrimsson. 2000. The genera *Galerina* Earle and *Phaeogalera* Kuhner in Iceland. *Acta Bot. Isl.* 13: 3-54. ALSO Horak & Miller 1992. *Phaeogalera* and *Galerina* in arctic-subarctic Alaska (USA) and the Yukon Territory (Canada). *Can J Bot* 70: 414-433. ALSO Wells & Kempton. 1969. Studies on the fleshy fungi of Alaska III. The genus *Galerina*. *Lloydia* 32: 369-387. ALSO Watling, Gregory, Orton. 1993. *British fungus flora Agarics & Boleti 7*. Edingurgh: Royal Botanic Garden. ALSO ISMS-ONH. 2002. ISMS data; ONH protection extrapolations; GIS map for GAHE10.