California Status Factors

Elcode NFSM000039

Gname CORTINARIUS CYANITES

Gcomname

Number of Occurrences

A = 1 - 5

Comments No occurrences of COCY8 are reported in the current ISMS 2002 database. Historical records on the MICH web-searchable database provide two historical collections from Trinidad, California from 1937 and 1938. It is not known whether the habitat still exists. It is possible that unidentified collections from the current S&M surveys or furture surveys may reveal extant occurrences, Dr Michelle Seidl or Joe Ammirati of the U of Washington should be contacted for additional information on California populations. COCY8 is regarded as "fairly infrequent" in all locations (Ammirati 1998).

Number of Occurrences with Good Viability

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

Comments No recent collections of COCY8 are included in the ISMS 2002 database. Dr Michelle Seidl or Joe Ammirati of the U of Washington should be contacted for additional information on California populations. COCY8 is regarded as "fairly infrequent" in all locations (Ammirati 1998).

Population Size

U = Unknown

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

Range Extent

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

Comments Cortinarius cyanites, which has a northern temperate distribution in conifer, hardwood, and mixed forests, is known from only from two collections (1937, 1938) from Trinidad California (Smith 1939, MICH 11-22-02). No recent collections from the state are documented within the ISMS 2002 database. Dr Michelle Seidl or Joe Ammirati of the U of Washington should be contacted for additional information on California populations.

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; its distribution is spotty and it appears restricted to fairly complex habitats. COCY8 has unknown biological and ecological requirements that determine how and when symbiotic associations are formed with partners. (Ammirati 1998, Norvell pers comm 2002)

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 There are no known extant occurrences of COCY8 in California in the ISMS 2002 database. Dr Michelle Seidl or Joe Ammirati of the U of Washington should be contacted for additional information on California populations. COCY8 is regarded as "fairly infrequent" in all locations (Ammirati 1998).

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 There are no known extant occurrences of COCY8 in California in the ISMS 2002 database. Dr Michelle Seidl or Joe Ammirati of the U of Washington should be contacted for additional information on California populations. COCY8 is regarded as "fairly infrequent" in all locations (Ammirati 1998).

Threats

U = Unknown. The available information is not sufficient to assign degree of threat as above. (Severity, scope, and immediacy are all unknown, or mostly [two of three] unknown or not assessed [null].)

Scope	Unknown	Severity	Unknown	Immediacy	Unknown

Comments COCY8 is found in early to late-successional forests, where it is associated with both gymno- and angiosperms. (Ammirati 1998) Whatever threatens an extant forest and its symbiotic partners will threaten COCY8, which is imperiled by hot fires, road construction or other development, and clearcutting, but appears to be able to withstand light to moderate thinning (Norvell pers comm 2002, Norvell & Exeter 2003). Too much is unknown about the actual number of populations worldwide to predict scope, severity, and immediacy of these and other threats. Dr Michelle Seidl or Joe Ammirati of the U of Washington should be contacted for additional information on California populations. COCY8 is regarded as "fairly infrequent" in all locations (Ammirati 1998).

Number of Appropriately Protected and Managed Occurrences

Comments ISMS (2002) cites no extant occurrences in California. More information can be obtained regarding the protected status of other North American populations by contacting Drs Joe Ammirati and Michelle Seidl at the University of Washington.

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).

Comments Ectomycorrhizal fungal health is linked to that of the symbiotic partner (here both deciduous and coniferous trees). COCY8 has been collected from early and mid-successional stands (Norvell & Exeter 2003) as well as from LSOG forests (Smith 1939, Ammirati 1998). It is vulnerable to anything that threatens the forest habitat, including drought, insect infestations, hot fires, road construction and development, and clearcutting.

Environmental Specificity

B = Narrow. Specialist or community with key requirements common.

Comments COCY8 has been documented from any age forest and is believed to associate with both deciduous and coniferous trees (Ammirati 1998, Norvell & Exeter 2003). However it is "fairly infrequent: (Ammirati 1998) and obviously has relatively narrow biological and ecological requirements that are not as yet known. (REF).

Other Considerations

No synonyms are known for Cortinarius cyanites Fr., which has a worldwide distribution reported from Japan, Europe, and North America. While at least 2 occurrences are known from California, none are included within the ISMS2002 database. There are too few Cortinarius experts; thus the number of occurrences known are inferred to be under-reported for the world. Historical reports suggest that the species is probably well established, but never common, in montane and coastal areas of the northern spotted owl region. Drs Joe Ammirati and Michelle Seidl should be consulted for further information.

Edition 11/22/2002 **Edauthor** Lorelei L Norvell

Grank SH **Grank Date** 11/22/2002

Greasons

COCY8 is an ectomycorrhizal fungus dependent upon the health of its symbiotic partner (deciduous and coniferous trees). NO research has yet demonstrated which trees are associated with COCY8, which is generally infrequently reported. In California, at least 1 occurrence was documented from two 1937-1938 collections. No occurrences of COCY8 are noted for California in the ISMS2 database. More confirmed collections are needed before final ranking of COCY8 can be made. Dr Michelle Seidl or Joe Ammirati of the U of Washington should be contacted for additional information on California populations.

BCD Sources

New Sources

Ammirati. 1998. Cortinarius cyanites. (unpublished report on file in the Regional Mycology lab, Corvallis.) ALSO Smith. 1939. Studies in the genus Cortinarius 1. Contrib. Univ. Michigan Herbarium, No 2: 28-29. ALSO Michigan Herbarium Database. 11-22-2002. http://www.herb.lsa.umich.edu/combqury.htm ALSONorvell & Exeter. 2003 in press. Ectomycorrhizal epigeous basidiomycete diversity in ALSOISMS 2002 database with GIS map for COCY8, ALSO Pacific Forestry Center Herbarium[11-22-02]: http://www.pfc.cfs.nrcan.gc.ca/biodiversity/herbarium/searchbyfungus_e.html ALSO Moser & Julich. 1990. Colour Atlas of basidiomyucetes. Run 8: III Cortinarius 93. Gustav-Fischer Verlag. ALSO Brandrud et al. 1992. Cortinarius, Flora Photographica II: B02. Oslo. ALSO Finnish collections database (11-22-02): http://www.funet.fi/pub/sci/bio/life/fungi/basidiomycetes/cortinariales/cortinariaceae/cortinarius/ ALSOJapan 1999 Foray site [11-22-02]: http://wwwsoc.nii.ac.jp/kb-msj/E2/foray13.html