

# California Status Factors

**Elcode** NFSM000134  
**Gname** POLYOZELLUS MULTIPLEX  
**Gcomname** Blue chanterelle

## Number of Occurrences

A = 1 - 5

**Comments** *P. multiplex* is currently known from only one small area in California (Norvell 1995, ISMS 2002) and can be regarded as rare in the state.

## Number of Occurrences with Good Viability

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

B = Very few (1-3) occurrences with good viability

**Comments** Both California occurrences lie in unprotected areas. As ectomycorrhizal species are tied to the health of their symbiotic partners (in this instance primarily *Abies* spp.), the known occurrences will remain viable only as long as the forests are preserved.

## Population Size

U = Unknown

**Comments** Genets of ectomycorrhizal fungi cannot be delimited without DNA sampling.

## Range Extent

A = <100 km<sup>2</sup> (less than about 40 square miles)

**Comments** The two sites are known only from a very small area within the Hoopa Indian Reservation in northern California (Norvell 1995, Castellano et al. 1999).

## Area of Occupancy

A = <0.4 km<sup>2</sup> (less than about 100 acres)

B = 0.4-4 km<sup>2</sup> (about 100-1,000 acres)

LA = <4 km (less than about 2.5 miles)

LB = 4-40 km (about 2.5-25 miles)

**Comments** Can only extrapolate area of occupancy from fruitbodies as underground vegetative organism may produce many fruitbodies over a larger area. This species has unknown biological and ecological requirements that determine how and when ectomycorrhizal associations are formed with *Abies* spp. mycorrhizal partners. Assume a maximum of 100 acres per known occurrence.

## 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 status of the two known California occurrences is not known; no recent collections (including any made during the recent Northwest Forest Plan fungal surveys) have been verified for California since 1983-85.

## 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** The status of the only two California occurrences is not known.

## Threats

C = Substantial, non-imminent threat. Threat is moderate to severe but not imminent (> 10 years) for most of the population, occurrences, or area.

**Scope** High      **Severity** High      **Immediacy** Unknown

**Comments** Occurrences with the northern spotted owl region are threatened by development, hot fires, and forest clear cutting or heavy thinning, but probably not by low thinning. Logging is occurring in or predicted for the unprotected areas in the northern spotted owl region. Depending on a change in forest management or hot fire, the severity and immediacy of the threat could be moderate to extreme. The status of the only two known California populations is unknown.

## Number of Appropriately Protected and Managed Occurrences

A = None. No occurrences appropriately protected and managed

**Comments** Neither of the two known occurrences lie within protected forest reserves.

## 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** The fungus is believed to be long-lived and slow-growing, with a low reproductive rate inferred, but not demonstrated, from its association with *Abies* roots in late-successional to very old growth conifer stands. Threatened by clearcutting, heavy thinning, or hot fires; probably not affected by low to moderate thinning.

## Environmental Specificity

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

**Comments** Precise biological requirements are not known; however apparent preference for older *Abies* in late-successional and old-growth forests suggest narrow environmental specificity.

## Other Considerations

Synonyms include *Cantharellus multiplex* and *Craterellus multiplex*. The species should be considered rare in California. Additional occurrences can not necessarily be predicted for areas where late-successional forests contain *Abies*.

**Edition** 11/18/2002      **Edauthor** Lorelei L Norvell

**Grank** S1      **Grank Date** 11/18/2002

## Reasons

Only two occurrences have been reported for California (Norvell 1995, Thiers 1985, Castellano et al. 1999), and

both lie within unprotected forest areas in northern California. The state of the forest in those areas in 2002 is not known. The fungus is rare in the state and likely to be threatened unless managed properly. It is possible that additional occurrences may be located, but none have been forthcoming during the recent Northwest Forest Plan fungal surveys. Considered a choice edible.

## **BCD Sources**

## **New Sources**

Thiers. 1985. Agaricales of California: Cantharellaceae. Mad River Press: Eureka. ALSO Castellano et al. 1999. Handbook to Strategy 1 Fungal Species in the Northwest Forest Plan. USDA-FS PNWRS PNW-GTR-476. ALSO Norvell. 1995. ROD: Strategy 1 Fungal Species Evaluation (30 gilled and non-gilled Basidiomycete Strategy 1 species). Unpubl. report on file in the Regional Mycology Lab, Corvallis, Oregon. ALSO OSC herbarium: <http://mgd.nacse.org/cgi-bin/qml2.0> ALSO Pacific Forestry Center herbarium: [http://www.pfc.cfs.nrcan.gc.ca/biodiversity/herbarium/searchbyfungus\\_e.html](http://www.pfc.cfs.nrcan.gc.ca/biodiversity/herbarium/searchbyfungus_e.html) ALSO BPI (US National Collections): <http://nt.ars-grin.gov/fungalatabases/databaseframe.cfm?CFID=225771&CFTOKEN=11762541> [NOTE all herbarium databases checked on 11-18-02.]