California Status Factors

**Elcode**  
NF0000TUAS

**Gname**  
TUBER ASA

**Gcomname**

**Number of Occurrences**

B  = 6 - 20  
Comments  Although finding truffles can be challenging, many are sufficiently common to be known from hundreds of collections. The ISMS database includes a single site from California in the Shasta Trinity National Forest.

**Number of Occurrences with Good Viability**

U  = Unknown what number of occurrences with good viability  
Comments  The California site is listed protected at the G1/2 level but only one collection is recorded from there so it is hard to discuss viability.

**Population Size**

U  = Unknown  
Comments  This can not be determined; records reflect only species presence.

**Range Extent**

A  = <100 km² (less than about 40 square miles)  
Comments  With only one data point, little can be said about the range of this species.

**Area of Occupancy**

U  = Unknown  
LA  = <4 km (less than about 2.5 miles)  
Comments  Short of using molecular tools there is no way to evaluate this factor.

**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 evaluate these factors.

**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 evaluate these factors.
**Threats**
A = Substantial, imminent threat. Threat is moderate to severe and imminent for most (> 60%) of the population, occurrences, or area. Ecological community occurrences are directly impacted over a widespread area, either causing irreversible damage or requiring long term recovery.

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<tr>
<th>Scope</th>
<th>Severity</th>
<th>Immediacy</th>
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<tr>
<td>High</td>
<td>Moderate</td>
<td>Moderate</td>
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**Comments**
Tubers are known to be mycorrhizal, and usually associated with the roots of woody plants, thus threats to the photosynthetic member of the partnership resulting in decline in vigor to death also will affect the fungus. Obvious threats are logging and development.

**Number of Appropriately Protected and Managed Occurrences**
B = Few (1-3) occurrences appropriately protected and managed

**Comments**
The one site in California is in an area with a G1/2 rating and is protected.

**Intrinsic Vulnerability**
A = Highly Vulnerable. Species is slow to mature, reproduces infrequently, and/or has low fecundity such that populations are very slow (> 20 years or 5 generations) to recover from decreases in abundance; or species has low dispersal capability such that extirpated populations are unlikely to become reestablished through natural recolonization (unaided by humans). Ecological community occurrences are highly susceptible to changes in composition and structure that rarely if ever are reversed through natural processes even over substantial time periods (> 100 years).

**Comments**
The survival of the species is probably dependent in large part on the survival and vigor of the photosynthetic partner. Thus events and activities that impact the photosynthetic partner (air pollution, logging, landslides, development, etc.) are likely to impact the species. Without suitable agents of dispersal (primarily small mammals most likely) dispersal of spores and thus opportunities to colonize new habitats will be severely curtailed.

**Environmental Specificity**
B = Narrow. Specialist or community with key requirements common.

**Other Considerations**

**Edition** 11/20/2002  **Edauthor** Nancy S. Weber

**Grank** S1  **Grank Date** 11/20/2002

**Greasons**
In the context of studies on truffles, this one counts as extremely rare. The California site is one of four known for the species in North America and is the only one California.

**BCD Sources**

**New Sources**