

California Status Factors

Elcode NLLEC5P420
Gname USNEA LONGISSIMA
Gcomname

Number of Occurrences

C = 21- 80

Comments About 21 occurrences. Populations tend to be a single tree draped with the species--occasionally several trees.

Number of Occurrences with Good Viability

D = Some (13-40) occurrences with good viability

Comments

Population Size

Comments It is infrequently encountered within even suitable habitat, but is often locally abundant at the sites where it does occur. Population size is difficult to assess: one whole tree may be covered by one individual. On the other hand, every fragment could give rise to a large thallus.

Range Extent

E = 5,000-20,000 km² (about 2,000-8,000 square miles)

Comments In the USA the range is disjunct and includes Alaska to California, west of the Cascade Range crest (www.fs.fed.us).

Area of Occupancy

F = 500-2,000 km² (about 125,000-500,000 acres)

LF = 5,000-20,000 km (about 3,000-12,500 miles)

Comments About 450 square miles.

Long-term Trend in Population Size, Extent of Occurrence, Area of Occupancy, and/or Number or Condition of Occurrences

D = Moderate Decline (decline of 25-50%)

Comments The abundance and range of *U. longissima* is clearly declining. Populations of *U. longissima* were reported to be declining by 1914 in the Americas (Howe, 1914).

Short-term Trend in Population Size, Extent of Occurrence, Area of Occupancy, and/or Number or Condition of Occurrences

E = Stable. Population, range, area occupied, and/or number or condition of occurrences unchanged or remaining within $\pm 10\%$ fluctuation

Comments

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

Scope High Severity Moderate Immediacy Moderate

Comments U. longissima is impacted by habitat loss, air pollution, and commercial harvesting. It is extremely sensitive to air pollution (Insarova et al. 1992). and specific habitat demands and low dispersal ability make U. longissima very sensitive to environmental disturbances (Esseen 1981). . Although the U.S. Pacific Northwest remains a relative stronghold for the species, U. longissima faces increasing pressure in the region from several factors common to all parts of its range, i.e. forestry (Haugan-Reidaret et al.1994), air pollution, and land development (www.toyen.uio.no; see web citations).
The species is also commercially collected for florist use.

Number of Appropriately Protected and Managed Occurrences

C = Several (4-12) occurrences appropriately protected and managed

Comments CA has 10 protected sites.

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 Usnea longissima is best developed in old-growth forests and will probably not persist in short-rotation second-growth forests. In Scandinavia it seems very predictable in old growth stands (> 80 years) but is absent from young forests and does not appear to survive clear-cutting (Rolstad-Erlend and Rolstad-Jorund, 1996). It is concluded that old forests with ample diffuse light at lower and more humid canopy levels are likely essential for this species (Gauslaa, 1997). Dispersal is slow, by means of fragmentation. It is highly sensitive to air pollution.

Environmental Specificity

A = Very Narrow. Specialist or community with key requirements scarce.

Comments Occurs very near to year-around water (in OR, within 50' D. Stone pers com) or in fog zones

Other Considerations

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Grank S2 **Grank Date** 11/30/2002

Reasons

Known from about 21 populations. Commercially collected for florist use and highly sensitive to air pollution.

BCD Sources

New Sources

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