

## Heritage Rank Status Factors

**Elcode** NF0000SORH  
**Gname** SOWERBYELLA REHNANA

**Gcomname**

### Number of Occurrences

D = 81 - 300

**Comments** These brilliant orange stipitate cups may be as much as 30 mm in diameter and are formed in clusters each of which has a common point of origin below the surface of the ground. It is to be expected across the cool North Temperate zone in Europe and Asia as well as North America (see Range). Castellano et al. (1999) reported it from 14 sites in the region of the northern spotted owl. It is unnerving at best to see 140 sites in the ISMS tally of known sites, but in the list of specimens there are only 70 entries and on the Buffer etc. sheet the total number of sites is 39. I have more faith in the 70/39 numbers than in the 140.

### Number of Occurrences with Good Viability

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

**Comments** Of the ISMS collections each state is represented by one locality that is protected at the G1/2 level; other collections may well have been made in protected localities, that can't be conclusively determined from the available information. The protected sites are the only ones that are potentially viable in the long term.

### Population Size

U = Unknown

**Comments** This can not be determined; records reflect only species presence.

### Range Extent

H = > 2,500,000 km<sup>2</sup> (greater than 1,000,000 square miles)

**Comments** It is to be expected across the cool North Temperate zone in Europe and Asia as well as North America. The species was described from Europe. Hansen et al. (2000) report it from Denmark (occasional), Norway (three collections), and Sweden (rare); Breitenbach and Kranzlin (1981) report it from Switzerland (as very rare); Dennis (1978) considered it "doubtful" in Britain, and Imazeki et al. (1988) report it from Japan. It is on the red lists of Sweden as a VU species (Samuelsson n.d.) and Norway as an E species (Bendiksen et al. N.d.). In North America, Seaver (1928) gave its distribution as "Pennsylvania to Alabama and west to Washington." BPI (Farr et al. N.d.) has collections identified as this species from North Carolina, New Hampshire, Connecticut and New York. The ISMS data set includes 39 collections from California, Oregon, and Washington while Weber (1995) reported nine localities some of which may be in ISMS as "Known Sites Data." I've seen it in Idaho and It may also occur in Alaska .

### Area of Occupancy

U = Unknown

LU = Unknown

**Comments** Short of using molecular tools there is no way to evaluate occupancy.

## 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 available data in ISMS does not give dates when collections were made so one can not tell if multiple collections from the same site were made the same year or not. However, label data on several collections at SFSU indicate that the species fruited at least eight years starting in 1962 and ending in 1992 (Weber 1996) in the Mendocino State Forest, an indication that the species may persist for some time in some habitats and localities.

## 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 available data in ISMS does not give dates when collections were made so one can not tell if multiple collections from the same site were made the same year or not.

## Threats

E = Localized substantial threat. Threat is moderate to severe for a small but significant proportion of the population, occurrences, or area. Ecological community occurrences are directly impacted over a small area, or in a small portion of their range, but threats require a long-term recovery.

Scope Low Severity Moderate Immediacy Moderate

**Comments** This species is found in moist coniferous forests with a variety of mature trees. The specimens are often found on, or associated with moss beds and decaying wood can often be found in the soil when one tries to excavate the bases. Land management practices that result in greatly reducing the amount of coarse woody debris, that change the canopy such that the understory is significantly drier, or that remove the trees completely could adversely impact this species. Logging and other ground-disturbing activities are the main activities that threaten it.

## Number of Appropriately Protected and Managed Occurrences

B = Few (1-3) occurrences appropriately protected and managed

**Comments** Of the ISMS collections each state is represented by one locality that is protected at the G1/2 level; some additional collections are reported from unprotected LSRs and Matrix land.

## 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** This species is most often found in sites with diverse mature trees, deep moss beds, and decaying bits of wood in the soil. If the trees are removed and the soil dries out and the humidity falls, the survival of this species is in doubt. There is no evidence that it can survive in situ the decades between land management activities and regrowth of the forest to a suitable stage.

## Environmental Specificity

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

**Comments** The relative paucity of specimens and sites (I am not convinced of the 140 sites) of this

conspicuous fungus even from suitable habitats indicates it tolerates a relatively narrow set of environmental parameters.

## Other Considerations

NRANK - N3. Synonym: *Aleuria rhenana*. The Pacific Northwest appears to be one of the most densely populated areas on record for the species, but even here it is far from common.

**Edition** 11/23/2002      **Edauthor** Nancy S. Weber

**Grank** G3G4      **Grank Date** 11/23/2002

## Reasons

This species appears to be truly rare throughout its range; the fruiting bodies are eye-catching in their coloration and relatively easy to identify at least to genus so the observations on rarity should be taken seriously. Several years may elapse between fruitings, a factor that makes surveying for it problematical at best. As suitable habitats are lost to logging, development, and other forest-altering or forest-removing activities the remaining populations will become increasingly isolated and vulnerable. Few sites are protected and many of the unprotected sites are in areas that may be logged. More of the known populations need to be protected in some manner.

## BCD Sources

### New Sources

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