

Heritage Rank Status Factors

Elcode NLLEC3S340
Gname RAMALINA THRAUSTA
Gcomname

Number of Occurrences

E = >300

Comments

Number of Occurrences with Good Viability

F = Very many (>125) occurrences with good viability

Comments In the U.S., many lower-48 sites are currently good sites. The AK sites are also plentiful and presumably viable.

Population Size

H = >1,000,000 individuals

Comments Difficult to determine what is an individual; reproduces by fragmentation as well as by soredia.

Range Extent

H = > 2,500,000 km² (greater than 1,000,000 square miles)

Comments "Occurs from approximately 62 degrees N to 48 degrees N latitude on the west coast of North America and follows the boreal forest inland to the Great Lakes. On the east coast it was collected from southern Quebec to Newfoundland. The species is uncommon throughout most of its distribution in North America" (Bowler 1977). Occurs in boreal North America south to OR and western MT. (McCune & Geiser 1997) Also found in Ontario, the northeastern U.S. , and Newfoundland (Brodo et al. 2001). Also found in Germany (Schindler 1992, Wirth 1995), coastal Norway, Sweden, and the British Isles (Krog and James 1977, Karstrom 1994, Rolstad et al. 2001).

Area of Occupancy

H = >20,000 km² (greater than 5,000,000 acres)

LH = >200,000 km (greater than 125,000 miles)

Comments In Washington and Oregon alone, approximately 36,000 square miles.

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

C = Substantial Decline (decline of 50-75%)

Comments On red data list for Europe. Threatened across Europe. Habitat in North America not as threatened by air pollution.

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

D = Declining. Decline of 10-30% in population, range, area occupied, and/or number or condition of occurrences

Comments Decline mainly noted in Europe.

Threats

B = Moderate and imminent threat. Threat is moderate to severe and imminent for a significant proportion (20-60%) of the population, occurrences, or area. Ecological community occurrences are directly impacted over a moderate area, either causing irreversible damage or requiring a long-term recovery.

Scope Moderate **Severity** Moderate **Immediacy** High

Comments Threat is extreme for Europe, low or insignificant for North America. Sensitive to air pollution (McCune & Geiser 1997). Considered to be threatened in their entire distribution area in Europe (Clerc et al. 1992).

Number of Appropriately Protected and Managed Occurrences

D = Many (13-40) occurrences appropriately protected and managed

E = Very many (>40) occurrences appropriately protected and managed

Comments

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 Dispersal is slow; dispersal is by fragmentation as well as soredia.

Environmental Specificity

C = Moderate. Generalist or community with some key requirements scarce.

Comments Along water or in fog zones. "R. thrausta occurred more frequently on older trees and increased in number with increasing stand age" (Rolstad et al. 2001).

Other Considerations

NRANK - N3. Without protection in North America, this species could be as severely threatened as it is in Europe.

Edition 2/20/2003 **Edauthor** Daphne Stone

Grank G3G4 **Grank Date** 11/30/2002

Reasons

Known from boreal North America and Europe, this species is severely threatened by air pollution in the European half of its global range. North American populations are not (yet) threatened.

BCD Sources

New Sources

- McCune, B. and L. Geiser. 1997. *Macrolichens of the Pacific Northwest*. Oregon State University Press, Corvallis, Oregon. A co-publication with the U.S. Department of Agriculture Forest Service. 386 pp.
- Wirth, V. 1995. *Die Flechten Baden-Württembergs*. Teil 1 & 2. Ulmer GmbH. Stuttgart.
- Krog H. 1968. The macrolichens of Alaska. *Norsk Polarinstitutt Skrifter* Nr. 144. Oslo.
- Clerc P, Scheidegger C, Ammann K. The Red Data list of Swiss macrolichens. *Botanica Helvetica* 102(1): 71-83.
- Krog H, James P. 1977. The genus *Ramalina* in Fennoscandia and the British Isles. *Norwegian J Botany* 24(1): 15-43
- Rolstad J, Gjerde I, Storaunet KO, Rolstad E. 2001. Epiphytic lichens in Norwegian coastal spruce forest: Historic logging and present forest structure. *Ecological applications* 11(2): 421-436.
- Haugen R, Bratli H, Gaarder G. 1994. *Evernia divaricata* and other rare and endangered lichens and fungi in Liaskogen and Skamani in Aurdal, Oppland. *Blyttia* 52(3): 107-117.
- Karstrom M. 1994. Steget fore among *Calypso bulbosa* and *Sarcosoma globosum*. *Fauna Och Flora* (Stockholm) 89(3): 33-36.
- Karstrom M. 1992. Habitats and rare species in virgin forests of northernmost Sweden. *Svensk Botanisk Tidskrift* 86(3): 115-146.
- Schindler H. 1992. Macrolichens of the northern Black Forest (SW Germany) 7. *Ramalina* and *Evernia*. *Carolinea* 50: 45-56.
- Bowler PA. *Ramalina thrausta* i North America. *Bryologist* 80(3): 529-532.