Washington Status Factors

Elcode NFSM000109

Gname NEOLENTINUS ADHAERENS

Gcomname

Number of Occurrences

A = 1 - 5

Comments In Washington within the northern spotted owl region, Neolentinus adhaerens is known from only 4 occurrences. (Norvell 1995; Castellano et al. 1999; ISMS-ONH 2002).

Number of Occurrences with Good Viability

U = Unknown what number of occurrences with good viability

Comments Collection data is too sparse and occurrences are too spotty and rare to predict extant occurrences, frequency, occupancy, or short and long-term trends.

Population Size

U = Unknown

Comments Records reflect only species occurrence, i.e. fruitbodies, not numbers of individuals. Fungal genets cannot be delimited without DNA sampling.

Range Extent

D = 1,000-5,000 km2 (about 400-2,000 square miles)

Comments A rare north temperate species, Neolentinus adhaerens is known from Washington (Norvell 1995, Castellano et al. 1999, ISMS-ONH 2002 & GIS map for Neolentinus adhaerens) only from the Olympic Peninsula (the location cited for one locality was incorrect in Norvell 1998 and thus depicted falsely on the distribution map in Castellano et al. 1999).

Area of Occupancy

U = Unknown

LU = Unknown

Comments Collection data is too sparse and occurrences are too spotty and rare to predict extant occurrences, frequency, occupancy, or short and long-term trends.

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 Collection data is too sparse and occurrences are too spotty and rare to predict extant occurrences, frequency, occupancy, or short and long-term trends.

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 Collection data is too sparse and occurrences are too spotty and rare to predict extant occurrences, frequency, occupancy, or short and long-term trends.

Threats

F = Widespread, low-severity threat. Threat is of low severity but affects (or would affect) most or a significant portion of the population, occurrences, or area. Ecological community occurrences are not threatened severely, with changes reversible and recovery moderately rapid.

Scope	High	Severity	Unknown	Immediacy	Low

Comments The low number of known occurrences implies that the organism is very slow growing and thus particularly vulnerable to substrate removal. Neolentinus adhaerens is found in late-successional/old-growth forests on trunks and roots of conifers or (in one instance) Fagus. (Pegler 1983; Bessette & Homola 1986; Boekhout 1990) Whatever threatens the general habitat, microclimates, and/or substrate can imperil Neolentinus adhaerens. All populations are at risk to incidental catastrophic events, such as hot fires, and unmonitored human interference. Unprotected occurrences are at risk from logging activities such as brush clearing or removal of coarse woody debris (Norvell pers comm 2002).

Number of Appropriately Protected and Managed Occurrences

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

Comments Within the spotted owl region of Washington, 3 of the 4 known sites lie within Olympic National Park, a permanently protected forest reserve. All three sites are within relatively close proximity to one another.

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 low number of known occurrences implies that the organism is very slow growing and thus particularly vulnerable to removal of the trunks and roots that support the organism as well as are potential hosts for new individuals. It is also vulnerable to alteration of microhabitats and microclimate regimes (stream diversion, road construction, development). Since so few occurrences have been documented, its intrinsic vulnerability is unkown.

Environmental Specificity

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

Comments The low number of known occurrences implies that the organism is very slow growing and thus particularly vulnerable to substrate removal. Neolentinus adhaerens is generally found in complex late-successional/old-growth forests on trunks and roots (occassionally chips or branches) of conifers and/or fagaceous species in the northern temperate zone. If forms brown cubical rot on the wood substrates.(Redhead & Ginns 1985; Bessette & Homola 1986). Its precise biological and ecological requirements are unknown.

Other Considerations

Neolentinus adhaerens (Alb. & Schw. : Fr.) Redhead & Ginns Trans act myc soc Japan 26: 357 was also known as Lentinus adhaerens (Alb. & Schw. : Fr.) Fr. 1836 until 1985. The species epithet is often mispelled

"adherens". Descriptions of the species are provided in Pegler (1983), Bessette & Homola (1986) and Boekhout (1990). It is universally regarded as rare, although the 10 sites within the Netherlands suggest that it may be more frequent when intensive fungal surveys are conducted in appropriate habitats.

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Greasons

Neolentinus adhaerens forms brown cubical rot on wood of conifer or fagaceous trunks and roots. The exact number of occurrences outside the northern spotted owl region is unknown, but within the region Neolentinus adhaerens is confirmed by 4 occurrences in Washington state, 3 of which lie in close proximity within Olympic National Park, a permanently protected forest reserve. Its unknown biology precludes estimation of population size, area of occupancy, and long-term trends. All populations are at risk to incidental catastrophic events such as wildfire and anything that removes or destroys the substrate and/or alters the environmental setting.

BCD Sources

New Sources

Norvell. 1995. ROD: Strategy 1 Fungal Species Evaluation (30 gilled & nongilled Basidiomycete species). Unpubl. report on file at the Regional Mycology Lab, Corvallis, Oregon. ALSO Redhead & Ginns. 1985. A reappraisal of agaric genera associated with brown rots of wood. Trans mycol soc japan 26: 349-381. ALSO Besette & Homola. 1986. Mycologia 78: 296-298. ALSO Castellano et al. 1999. Handbook to Strategy 1 fungal species in the Northwest Forest Plan. USDA-FS PNWRS PNW-GTR-476. ALSO MICH (Michigan Fungal Collections online database: 11-25-2002. http://www.herb.lsa.umich.edu/combqury.htm ALSO ISMS-ONH. 2002. ISMS data; ONH protection extrapolations; GIS map for NEAD. ALSO BPI (US National Collections) 11-26-02: http://nt.ars-grin.gov/ fungaldatabases/databaseframe.cfm ALSO Boyer. 11-25-02. Les champignons de Sept-Iles. http://www.cegep-sept-iles.gc.ca/raymondboyer/champignons/Lentinacees.htm ALSO Boekhout. 1990. 4. Lentinus. P 26-28 in Flora Agaricina Neerlandica 2. Rotterdam: Bakelma.