

LICHENS ONLY

Notations Used

E	Endangered
T	Threatened
SC	Special Concern
N	None (location records maintained by DNR, in most cases)
N (X)	None, and probably extirpated from Minnesota (location records maintained by DNR, in most cases)
--	None (location records <i>not</i> yet maintained by DNR)
*	Change in scientific name accompanies change in status

CHANGE IN SCIENTIFIC NAME NOT ACCOMPANIED BY A CHANGE IN STATUS

<u>Old Scientific Name</u>	<u>New Scientific Name</u>	<u>Status</u>
<i>Anaptychia setifera</i>	<i>Anaptychia crinalis</i>	SC
<i>Cetraria aurescens</i>	<i>Ahtiana aurescens</i>	SC
<i>Cetraria oakesiana</i>	<i>Allocetraria oakesiana</i>	T

CHANGE IN STATUS; STATUS SHEET PROVIDED

<u>Common Name</u>	<u>Scientific Name</u>	<u>Current Status</u>	<u>Proposed Status</u>
Powdery Almond Lichen	<i>Amygdalaria panaeola</i>	--	SC
Concentric Ring Lichen	<i>Arctoparmelia centrifuga</i>	--	SC
A Species of Ring Lichen	<i>Arctoparmelia subcentrifuga</i>	--	SC
Golden-dot Lichen	<i>Arthrorhaphis citrinella</i>	--	T
Pale-footed Horsehair Lichen	<i>Bryoria fuscescens</i>	--	SC
Black Disc Lichen	<i>Buellia nigra</i>	E	SC
A Species of Firedot Lichen	<i>Caloplaca stellata</i>	--	SC
Orange-tinted Fringe Lichen	<i>Heterodermia obscurata</i>	--	SC
A Species of Rim-lichen	<i>Lecanora epanora</i>	--	T
Smooth Lungwort	<i>Lobaria quercizans</i>	SC	N
Brown-eyed Camouflage Lichen	<i>Melanelia subolivacea</i>	--	SC
Port-hole Lichen	<i>Menegazzia terebrata</i>	--	SC
Powdery Saucer Lichen	<i>Ochrolechia androgyna</i>	--	SC
Bolander's Peltula Lichen	<i>Peltula bolanderi</i>	--	T
Ragbag Lichen	<i>Platismatia glauca</i>	--	SC
Brown-gray Moss-shingle Lichen	<i>Protopannaria pezizoides</i>	--	T
Frayed Ramalina Lichen	<i>Ramalina roesleri</i>	--	T
Angel's Hair Lichen	<i>Ramalina thrausta</i>	--	SC
Pixie Foam Lichen	<i>Stereocaulon pileatum</i>	--	SC
A Species of Thelocarpon Lichen	<i>Thelocarpon epibolum</i>	--	SC
Methuselah's Beard Lichen	<i>Usnea longissima</i>	--	SC
Bloody Beard Lichen	<i>Usnea mutabilis</i>	--	T
Red Beard Lichen	<i>Usnea rubicunda</i>	--	SC

EXTRACTED FROM

Proposed Amendment of Minnesota Rules, Chapter 6134: Endangered and Threatened Species
Statement of Need and Reasonableness: August 10, 2012

SPECIES STATUS SHEET

SCIENTIFIC NAME: *Amygdalaria panaeola*

FAMILY: Porpidiaceae

COMMON NAME: Powdery Almond Lichen

CURRENT MINNESOTA STATUS: None

PROPOSED MINNESOTA STATUS: Special Concern

BASIS FOR PROPOSED MINNESOTA STATUS: The Powdery Almond Lichen is distributed across parts of the east coast of Canada, the Adirondack Mountains, Ontario, Alaska, Washington, and Isle Royale in Lake Superior. This crustose lichen occurs on non-calcareous rocks and boulder fields, often near lakes or streams. In Minnesota, this lichen has only been found at a single locality in Cook County. While it was first reported in the 1930's, no further collections of this species were recorded in the state until 2002, and surveys have failed to locate additional occurrences. The main threats to the Powdery Almond Lichen in Minnesota are habitat loss and degradation due to shoreline development and foot traffic. Because of its highly restricted range at a single known locality in Minnesota and the potential threats to its habitat, a status of Special Concern is reasonable and needed.

SELECTED REFERENCES:

Brodo, I., and H. Hertel. 1987. The lichen genus *Amygdalaria* (Porpidiaceae) in North America. *Herzogia* 7: 493-521.

Brodo, I. M., S. A. Sharnoff, and S. Sharnoff. 2001. *Lichens of North America*. Yale University Press, New Haven and London. 795 pp.

Fink, B. 1935. *The Lichen Flora of the United States*. University of Michigan Press, Ann Arbor. 426 pp.

SPECIES STATUS SHEET

SCIENTIFIC NAME: *Arctoparmelia centrifuga*

FAMILY: Parmeliaceae

COMMON NAME: Concentric Ring Lichen

CURRENT MINNESOTA STATUS: None

PROPOSED MINNESOTA STATUS: Special Concern

BASIS FOR PROPOSED MINNESOTA STATUS: The Concentric Ring Lichen is a foliose lichen that is found primarily in arctic regions, and it reaches its southernmost North American distribution in northern Minnesota. It occurs on sunny non-calcareous rocks and talus slopes in humid localities, especially along Lake Superior. The Concentric Ring Lichen was first reported in Minnesota in the 1930's, and no further collections of this species were recorded until 2002. To date, only four localities of this species are known in the state in Cook and Lake Counties despite extensive surveys of suitable shoreline habitat over the past 30 years. The main threats to Concentric Ring Lichen populations in Minnesota are habitat loss and degradation due to shoreline development and foot traffic. Because of its restricted range, the few known localities despite extensive survey effort, and the potential threats to its habitat, a status of Special Concern is reasonable and needed.

SELECTED REFERENCES:

Brodo, I. M., S. A. Sharnoff, and S. Sharnoff. 2001. Lichens of North America. Yale University Press, New Haven and London. 795 pp.

Fink, B. 1935. The Lichen Flora of the United States. University of Michigan Press, Ann Arbor. 426 pp.

SPECIES STATUS SHEET

SCIENTIFIC NAME: *Arctoparmelia subcentrifuga*

FAMILY: Parmeliaceae

COMMON NAME: A Species of Ring Lichen

CURRENT MINNESOTA STATUS: None

PROPOSED MINNESOTA STATUS: Special Concern

BASIS FOR PROPOSED MINNESOTA STATUS: *Arctoparmelia subcentrifuga* is a rare, foliose lichen that has a northern distribution, and it reaches its southernmost North American range in northern Minnesota. It occurs on sunny non-calcareous rocks and talus slopes in humid localities, especially along lakes. In Minnesota, this species is only known from two locations in Cook County despite extensive searches of suitable shoreline habitat over the past 30 years as well as recent, targeted survey efforts for lichens in the northeastern part of the state. The main threats to *Arctoparmelia subcentrifuga* populations in Minnesota are habitat loss and degradation due to shoreline development and foot traffic. Because of its restricted range, the few known localities despite extensive survey effort, and the potential threats to its habitat, a status of Special Concern is reasonable and needed.

SELECTED REFERENCES:

Hale, M. 1986. *Arctoparmelia*, a new genus in the Parmeliaceae (Ascomycota). *Mycotaxon* 25: 251-254.

Vitikainen, O., and T. Dudoreva. 2003. *Arctoparmelia subcentrifuga* new to Europe. *Graphis Scripta* 14: 3-4.

SPECIES STATUS SHEET

SCIENTIFIC NAME: *Arthrorhaphis citrinella*

FAMILY: Arthrorhaphidaceae

COMMON NAME: Golden-dot Lichen

CURRENT MINNESOTA STATUS: None

PROPOSED MINNESOTA STATUS: Threatened

BASIS FOR PROPOSED MINNESOTA STATUS: The Golden-dot Lichen is a bright-yellow, crustose lichen that occurs on soil over acidic rocks and in rock cracks in boreal and alpine habitats. Its North American distribution includes Maine, Colorado, and Montana, but this species also has a disjunct occurrence in northern Minnesota where it has only been documented at a single locality in Cook County. Extensive surveys have failed to find additional occurrences of this species. This lichen is highly susceptible to disturbance of the soils where it occurs, and although the one known locality is somewhat removed from land development, there is no legal protection for the site. Therefore, given the documentation of only a single, isolated occurrence of Golden-dot Lichen in the state and its vulnerability to disturbance, Threatened status is reasonable and needed.

SELECTED REFERENCES:

Brodo, I. M., S. A. Sharnoff, and S. Sharnoff. 2001. Lichens of North America. Yale University Press, New Haven and London. 795 pp.

Hansen, E. and W. Obermayer. 1999. Notes on *Arthrorhaphis* and its lichenicolous fungi in Greenland. *Bryologist* 102: 104-107.

SPECIES STATUS SHEET

SCIENTIFIC NAME: *Bryoria fuscescens*

FAMILY: Alectoriaceae

COMMON NAME: Pale-footed Horsehair Lichen

CURRENT MINNESOTA STATUS: None

PROPOSED MINNESOTA STATUS: Special Concern

BASIS FOR PROPOSED MINNESOTA STATUS: The Pale-footed Horsehair Lichen is a brown, shrubby, hanging fruticose lichen that grows on coniferous trees and occasionally on birch. It occurs throughout the boreal zone in North America and parts of the United States including the Pacific Northwest, but is rare south of the Great Lakes in the central United States. In Minnesota, the Pale-footed Horsehair Lichen has only been documented at a few locations in Cass, Cook, and Lake counties although extensive surveys have been conducted. It is vulnerable to frequent logging of coniferous forests, as these activities may not provide the species the time necessary for colonization and dispersal. Due to its limited range and the low number of known occurrences in the state, a status of Special Concern is reasonable and needed.

SELECTED REFERENCES:

Brodo, I. and D. Hawksworth. 1977. *Alectoria* and allied genera in North America. Opera Botanica 42: 1-164.

Brodo, I. M., S. A. Sharnoff, and S. Sharnoff. 2001. Lichens of North America. Yale University Press, New Haven and London. 795 pp.

SPECIES STATUS SHEET

SCIENTIFIC NAME: *Buellia nigra*

FAMILY: Physciaceae

COMMON NAME: Black Disc Lichen

CURRENT MINNESOTA STATUS: Endangered

PROPOSED MINNESOTA STATUS: Special Concern

BASIS FOR PROPOSED MINNESOTA STATUS: The Black Disc Lichen is a crustose lichen whose worldwide distribution is limited to Minnesota and a single locality in South Dakota. Its preferred substrate is non-calcareous rock in exposed sunny areas of prairie habitat, sometimes near the edge of hardwood forests. The Black Disc Lichen was originally collected in 1900 from Otter Tail County, where it occurred on moraines with granite boulders and limy soil. A second location in Winona County was discovered in 1978. Based on its very limited range in the state and concerns about habitat loss at the only recent collection site in Winona County, the Black Disc Lichen was designated an Endangered Species in 1984.

A 1997-1999 botanical inventory initiated by the Minnesota DNR's County Biological Survey resulted in a better understanding of the Black Disc Lichen's distribution and ecology in Minnesota. Since 1997, this species has been documented on outcrops at 18 sites in southcentral and western Minnesota, including along the Minnesota River valley. To date, the Black Disc Lichen is now known from a total of 20 localities in 14 counties in the state. This lichen is small and easily overlooked, and while usually rare, it has been found in abundance in some locations. Ecological changes due to agricultural activities in nearby fields may pose a potential threat to the Black Disc Lichen. Because this species is now known to be more widely distributed in Minnesota than was formerly believed, Endangered status is no longer necessary. However, it is reasonable and needed to retain the species in Special Concern status given its global center of abundance in Minnesota and its vulnerability to potential land use changes.

SELECTED REFERENCES:

- Coffin, B., and L. Pfannmuller, editors. 1988. Minnesota's endangered flora and fauna. University of Minnesota Press, Minneapolis, Minnesota. 473 pp.
- Fink, B. 1902. Contributions to a knowledge of the lichens of Minnesota VI. Lichens of northwestern Minnesota. *Minnesota Botanical Studies* 2:657-709.
- Fink, B. 1935. The Lichen Flora of the United States. University of Michigan Press, Ann Arbor. 426 pp.
- Minnesota Department of Natural Resources, Division of Ecological Resources. 2008. Rare species guide: an online encyclopedia of Minnesota's rare native plants and animals [Web Application]. Minnesota Dept. of Natural Resources, St. Paul, Minnesota. <<http://www.dnr.state.mn.us/rsg>>. Accessed 22 September 2009.
- Sheard, J. W. 1969. Four previously misinterpreted *Buellia* species from North America. *The Bryologist* 72:220-24.
- Wetmore, C. M. 1981 (revised 2005). *Keys to the Lichens of Minnesota*. Department of Plant Biology, University of Minnesota, St. Paul, Minnesota. 92 pp.
- Wheeler, G. A. 1999. New localities for *Buellia nigra* in Minnesota and the first report of this crustose lichen from South Dakota. *The Michigan Botanist* 38(4):51-56.

SPECIES STATUS SHEET

SCIENTIFIC NAME: *Caloplaca stellata*

FAMILY: Teloschistaceae

COMMON NAME: A Species of Firedot Lichen

CURRENT MINNESOTA STATUS: None

PROPOSED MINNESOTA STATUS: Special Concern

BASIS FOR PROPOSED MINNESOTA STATUS: *Caloplaca stellata* is an orange crustose lichen that occurs on shady non-calcareous rock cliffs. It has a scattered distribution west of the Rocky Mountains in North America and rare occurrences in South Dakota and Minnesota. Despite extensive surveys to locate other populations of *Caloplaca stellata* in the state, it has only been documented at three localities in Cook and Wabasha counties. Alteration of the surrounding vegetation can destroy the critical habitat for this species. Given its rarity, disjunct distribution in the state, and vulnerability to habitat alteration, Special Concern status is needed and reasonable.

SELECTED REFERENCES:

USGS. 2008. NP Lichen: A database of lichens in the U.S. National Parks. Version 4.5. U.S. Geological Survey, Ashland, WI. < <http://www.ies.wisc.edu/nplichen>>. Accessed 30 September 2009.

Wetmore, C. and Kärnefelt. 1998. The lobate and subfruticose species of *Caloplaca* in North and Central America. *Bryologist* 101: 230-255.

EXTRACTED FROM

Proposed Amendment of Minnesota Rules, Chapter 6134: Endangered and Threatened Species
Statement of Need and Reasonableness: August 10, 2012

SPECIES STATUS SHEET

SCIENTIFIC NAME: *Heterodermia obscurata*

FAMILY: Physciaceae

COMMON NAME: Orange-tinted Fringe Lichen

CURRENT MINNESOTA STATUS: None

PROPOSED MINNESOTA STATUS: Special Concern

BASIS FOR PROPOSED MINNESOTA STATUS: The Orange-tinted Fringe Lichen is distributed in the southern United States from Florida to Arizona and reaches its northernmost North American distribution in Minnesota. This foliose lichen typically occurs in partial shade on tree bark in moist habitats such as cedar swamps, and in Minnesota is known only from a single locality in Cass County despite survey efforts to locate additional occurrences in the state. The Orange-tinted Fringe Lichen is vulnerable to disturbance of its habitat due to logging, road or building construction. Because of the single known locality in Minnesota and potential threats to its habitat, a status of Special Concern is reasonable and needed.

SELECTED REFERENCES:

Brodo, I. M., S. A. Sharnoff, and S. Sharnoff. 2001. Lichens of North America. Yale University Press, New Haven and London. 795 pp.

Wetmore, C. 1988. Lichens and air quality in Sleeping Bear Dunes National Lakeshore. Michigan Botanist 27: 111-118.

EXTRACTED FROM

Proposed Amendment of Minnesota Rules, Chapter 6134: Endangered and Threatened Species
Statement of Need and Reasonableness: August 10, 2012

SPECIES STATUS SHEET

SCIENTIFIC NAME: *Lecanora epanora*

FAMILY: Lecanoraceae

COMMON NAME: A Species of Rim-lichen

CURRENT MINNESOTA STATUS: None

PROPOSED MINNESOTA STATUS: Threatened

BASIS FOR PROPOSED MINNESOTA STATUS: *Lecanora epanora* is a crustose lichen that grows on siliceous rocks in shady habitat. Its North American distribution is restricted to British Columbia and a single locality in Cook County, Minnesota. Extensive surveys have been conducted to locate additional occurrences of this species in the state, but none have been found to date. Although the one known locality is somewhat removed from land development, there is no legal protection for the site. Given the documentation of only a single, isolated location in the state and concerns about its long-term viability, Threatened status is reasonable and needed.

SELECTED REFERENCES:

Brodo, I. W. Noble, T. Ahti, and S. Clayden. 1987. Lichens new to North America from the flora of British Columbia, Canada. *Mycotaxon* 28: 99-110.

Esslinger, T.L. and R.S. Egan. 1995. A sixth checklist of the lichen-forming, lichenicolous, and allied fungi of the continental United States and Canada. *The Bryologist* 98(4):467-549.

SPECIES STATUS SHEET

SCIENTIFIC NAME: *Lobaria quercizans*

FAMILY: Lobariaceae

COMMON NAME: Smooth Lungwort

CURRENT MINNESOTA STATUS: Special Concern

PROPOSED MINNESOTA STATUS: None

BASIS FOR PROPOSED MINNESOTA STATUS: Smooth Lungwort is a foliose lichen that is primarily restricted to the northeastern United States, the Appalachian Mountains, and the Great Lakes region, and it occurs at the northwestern limit of its continental range in Minnesota. This lichen grows on the bark of older deciduous trees such as yellow birch, northern white cedar, and sugar maple, but has also been found growing on ash trees and on rocks. Smooth Lungwort appears to favor old-growth forests with mixed vertical structure, and is often found in partial shade near wet openings where moss is usually present. Historically, this species was known from ten localities in the northeastern part of the state and was listed as a Threatened species in Minnesota in 1984. However, it was subsequently reclassified to Special Concern status in 1996 after it was discovered at a number of new locations during surveys of old-forest areas.

Since 1996, additional surveys have discovered Smooth Lungwort at 19 sites in Cook, Lake, and St. Louis counties, and there are now 41 records of this lichen in five counties in Minnesota. Because this species is now known to be quite common in old, uncut hardwood forests in the northern part of the state, the only serious threat to the survival of this lichen in Minnesota would be wide-scale clearcutting of these old-growth trees. For these reasons, Special Concern status is no longer needed or reasonable.

SELECTED REFERENCES:

- Brodo, I. M., S. A. Sharnoff, and S. Sharnoff. 2001. Lichens of North America. Yale University Press, New Haven and London. 795 pp.
- Coffin, B. and L. Pfannmuller, editors. 1988. Minnesota's endangered flora and fauna. Univ. of Minnesota Press. Minneapolis.
- Fink, B. 1935. The Lichen Flora of the United States. University of Michigan Press, Ann Arbor. 426 pp.
- Jordan, W.P. 1973. The genus *Lobaria* in North America north of Mexico. *The Bryologist* 76:225-51.
- Minnesota Department of Natural Resources, Division of Ecological Resources. 2008. Rare species guide: an online encyclopedia of Minnesota's rare native plants and animals [Web Application]. Minnesota Dept. of Natural Resources, St. Paul, Minnesota. <<http://www.dnr.state.mn.us/rsg>>. Accessed 02 July 2009.

SPECIES STATUS SHEET

SCIENTIFIC NAME: *Melanelia subolivacea*

FAMILY: Parmeliaceae

COMMON NAME: Brown-eyed Camouflage Lichen

CURRENT MINNESOTA STATUS: None

PROPOSED MINNESOTA STATUS: Special Concern

BASIS FOR PROPOSED MINNESOTA STATUS: The Brown-eyed Camouflage Lichen is primarily found west of the Great Plains of the United States, but also has a disjunct distribution in northern forests in the Great Lakes area. This brown foliose lichen occurs on both hardwood and conifer trees and is known from four localities in Minnesota: three in St. Louis County and one in Clearwater County. Extensive surveys have been conducted to locate additional populations in the state, but none have been found. The Brown-eyed Camouflage Lichen is vulnerable to disturbance of its habitat due to logging, road or building construction. Because of its rarity in Minnesota and potential threats to its habitat, a status of Special Concern is reasonable and needed.

SELECTED REFERENCES:

Brodo, I. M., S. A. Sharnoff, and S. Sharnoff. 2001. Lichens of North America. Yale University Press, New Haven and London. 795 pp.

Esslinger, T. 1977. A chemosystematic revision of the brown *Parmeliae*. Journal of the Hattori Botanical Laboratory 42: 1-211.

SPECIES STATUS SHEET

SCIENTIFIC NAME: *Menegazzia terebrata*

FAMILY: Parmeliaceae

COMMON NAME: Port-hole Lichen

CURRENT MINNESOTA STATUS: None

PROPOSED MINNESOTA STATUS: Special Concern

BASIS FOR PROPOSED MINNESOTA STATUS: The Port-hole Lichen is distributed along the west coast of the United States and is also found in New England, the Appalachian Mountains, and the Great Lakes region. Minnesota lies at the northwestern edge of this species' continental range, where it occurs on bark of older conifers, particularly white cedar trees, in bog/swamp habitat in the northeastern part of the state. Despite widespread surveys in northern Minnesota, the Port-hole Lichen has only been documented at ten locations in Cook, Lake, and St. Louis counties, and most of these occurrences consist of single individuals. Extensive disturbance of old growth cedar bogs, particularly from logging and road construction, is the main threat to the continued persistence of this species in Minnesota. Therefore, based on the limited number and small size of Port-hole Lichen populations in the state and their vulnerability to habitat disturbance, a status of Special Concern is needed and reasonable.

SELECTED REFERENCES:

- Brodo, I. M., S. A. Sharnoff, and S. Sharnoff. 2001. Lichens of North America. Yale University Press, New Haven and London. 795 pp.
- Fink, B. 1935. The Lichen Flora of the United States. University of Michigan Press, Ann Arbor. 426 pp.
- U.S. Forest Service. 2002. Conservation assessment for port-hole lichen (*Menegazzia terebrata*) Hoffm. Massal. USDA Forest Service, Eastern Region, March 2002. 15 pp.

SPECIES STATUS SHEET

SCIENTIFIC NAME: *Ochrolechia androgyna*

COMMON NAME: Powdery Saucer Lichen

CURRENT MINNESOTA STATUS: None

PROPOSED MINNESOTA STATUS: Special Concern

BASIS FOR PROPOSED MINNESOTA STATUS: The Powdery Saucer Lichen has a circumpolar arctic distribution with its southernmost range limits in the upper Great Lakes area of the United States. This whitish crustose lichen typically occurs on conifer bark, but has also been found on rock in coniferous forests. Despite extensive survey effort, the Powdery Saucer Lichen is only known from four localities in Cook and St. Louis counties in Minnesota, and most of these occurrences consist of single individuals. The main threat to this species' continued existence in the state is widespread habitat disturbance. Based on the limited number and small size of Powdery Saucer Lichen populations in Minnesota and their vulnerability to disturbance, a status of Special Concern is needed and reasonable.

SELECTED REFERENCES:

Brodo, I. 1991. Studies in the lichen genus *Ochrolechia*. 2. Corticolous species of North America. Canadian Journal of Botany 69: 733-772.

Brodo, I. M., S. A. Sharnoff, and S. Sharnoff. 2001. Lichens of North America. Yale University Press, New Haven and London. 795 pp.

SPECIES STATUS SHEET

SCIENTIFIC NAME: *Peltula bolanderi*

FAMILY: Peltulaceae

COMMON NAME: Bolander's Peltula Lichen

CURRENT MINNESOTA STATUS: None

PROPOSED MINNESOTA STATUS: Threatened

BASIS FOR PROPOSED MINNESOTA STATUS: The Bolander's Peltula Lichen is primarily found in the southwestern United States with disjunct occurrences in North Dakota, South Dakota, and a single locality in Lake of the Woods County, Minnesota. While this species typically occurs on non-calcareous rocks in dry habitats, the Lake of the Woods population was found on steep rocks near a river. Shoreline development along the river threatens the long-term viability of this population, and no additional occurrences of the lichen have been found in the state despite extensive surveys of suitable habitat. Given the documentation of only a single, isolated population and the threats to its habitat, it is needed and reasonable to classify the Bolander's Peltula Lichen as a Threatened species in Minnesota.

SELECTED REFERENCES:

Büdel, B and T. Nash. 2002. *Peltula* in Nash, T, B. Ryan, C. Greies, and F. Bungartx. 2001. Lichen Flora of the Greater Sonoran Desert Region 1: 331-340.

Wetmore, C. 1970. The lichen family Heppiaceae in North America. *Ann. Missouri Botanical Garden* 57: 158-209.

SPECIES STATUS SHEET

SCIENTIFIC NAME: *Platismatia glauca*

FAMILY: Parmeliaceae

COMMON NAME: Ragbag Lichen

CURRENT MINNESOTA STATUS: None

PROPOSED MINNESOTA STATUS: Special Concern

BASIS FOR PROPOSED MINNESOTA STATUS: The Ragbag Lichen is a gray foliose lichen that has a boreal distribution, and it reaches its southernmost North American distribution in extreme northeastern Minnesota. This species occurs on coniferous tree bark and decayed logs in humid northern habitats along Lake Superior, and only two occurrences are known in Minnesota from the Susie Islands off of Cook County despite extensive survey effort. Construction of buildings can disturb the moist shorelines where the Ragbag Lichen occurs, and because most populations consist of single individuals, this disturbance can result in local extirpation of the lichen. Based on the restricted range and limited number of Ragbag Lichen occurrences in the state and their vulnerability to disturbance, a status of Special Concern is needed and reasonable.

SELECTED REFERENCES:

Brodo, I. M., S. A. Sharnoff, and S. Sharnoff. 2001. Lichens of North America. Yale University Press, New Haven and London. 795 pp.

Esslinger, T.L. and R.S. Egan. 1995. A sixth checklist of the lichen-forming, lichenicolous, and allied fungi of the continental United States and Canada. *The Bryologist* 98(4):467-549.

Williams, C. and S. Sillett. 2007. Epiphyte communities on redwood (*Sequoia sempervirens*) in northwestern California. *Bryologist* 110: 420-452.

SPECIES STATUS SHEET

SCIENTIFIC NAME: *Protopannaria pezizoides*

FAMILY: Pannariaceae

COMMON NAME: Brown-gray Moss-shingle Lichen

CURRENT MINNESOTA STATUS: None

PROPOSED MINNESOTA STATUS: Threatened

BASIS FOR PROPOSED MINNESOTA STATUS: The Brown-gray Moss-shingle Lichen is a boreal species of lichen that reaches its southernmost North American distribution in northeastern Minnesota. This species occurs on soil and moss in moist habitats, and in Minnesota it is only known from a single old growth white cedar bog in Lake County despite extensive survey efforts to locate additional records. The Brown-gray Moss-shingle Lichen is sensitive to habitat disturbance that would reduce moisture levels and threatened its continued survival. Therefore, given the documentation of only a single, isolated occurrence of this species in Minnesota, its low abundance, and concerns about its long-term viability, Threatened status is reasonable and needed.

SELECTED REFERENCES:

Brodo, I. M., S. A. Sharnoff, and S. Sharnoff. 2001. Lichens of North America. Yale University Press, New Haven and London. 795 pp.

Esslinger, T.L. and R.S. Egan. 1995. A sixth checklist of the lichen-forming, lichenicolous, and allied fungi of the continental United States and Canada. *The Bryologist* 98(4):467-549.

Jorgensen, P. M. 2000. Survey of the lichen family Pannariaceae on the American Continent, north of Mexico. *The Bryologist* 103(4): 670-704.

SPECIES STATUS SHEET

SCIENTIFIC NAME: *Ramalina roesleri*

FAMILY: Ramalinaceae

COMMON NAME: Frayed Ramalina Lichen

CURRENT MINNESOTA STATUS: None

PROPOSED MINNESOTA STATUS: Threatened

BASIS FOR PROPOSED MINNESOTA STATUS: The Frayed Ramalina Lichen has a discontinuous boreal distribution that includes a rare, isolated occurrence at the southern edge of its continental range in extreme northeastern Minnesota. This distinctive yellow-green fruticose lichen was found growing on bark of an old white cedar near the shore of Lake Superior in Cook County, and although extensive surveys have been conducted to locate additional occurrences in the state, none have been found. While this one known locality is somewhat removed from land development pressures, given the documentation of only a single, isolated occurrence of the Frayed Ramalina Lichen in Minnesota and its low abundance at this locality, Threatened status is needed and reasonable.

SELECTED REFERENCES:

Brodo, I. M., S. A. Sharnoff, and S. Sharnoff. 2001. Lichens of North America. Yale University Press, New Haven and London. 795 pp.

Williams, C. and S. Sillett. 2007. Epiphyte communities on redwood (*Sequoia sempervirens*) in northwestern California. Bryologist 110: 420-452.

SPECIES STATUS SHEET

SCIENTIFIC NAME: *Ramalina thrausta*

FAMILY: Ramalinaceae

COMMON NAME: Angel's Hair Lichen

CURRENT MINNESOTA STATUS: None

PROPOSED MINNESOTA STATUS: Special Concern

BASIS FOR PROPOSED MINNESOTA STATUS: The Angel's Hair Lichen is an uncommon boreal species whose North American distribution includes southern Canada, Michigan, Isle Royale, Minnesota, and parts of the western United States. This yellow-green fruticose lichen occurs on trees, especially conifers, in very humid environments in northern localities. Despite extensive surveys of suitable habitat, this species is only known in Minnesota from three locations in Cook County. The Angel's Hair Lichen requires undisturbed, humid habitats and is sensitive to air pollution. Because of its restricted range, habitat requirements, and few known localities in the state, a status of Special Concern is reasonable and needed.

SELECTED REFERENCES:

Bowler, P. 1977. *Ramalina thrausta* in North America. *Bryologist* 80: 529-532.

Brodo, I. M., S. A. Sharnoff, and S. Sharnoff. 2001. *Lichens of North America*. Yale University Press, New Haven and London. 795 pp.

SPECIES STATUS SHEET

SCIENTIFIC NAME: *Stereocaulon pileatum*

FAMILY: Stereocaulaceae

COMMON NAME: Pixie Foam Lichen

CURRENT MINNESOTA STATUS: None

PROPOSED MINNESOTA STATUS: Special Concern

BASIS FOR PROPOSED MINNESOTA STATUS: The distribution of the Pixie Foam Lichen in North America includes New England, the southern Appalachian Mountains, and disjunct occurrences in the upper Great Lakes in Michigan and Minnesota. This small, gray fruticose lichen is found on non-calcareous rocks, often near water. Despite extensive surveys of suitable habitat, this species is only known in Minnesota from five localities in Cook and Lake counties. The main threat to the Pixie Foam Lichen is habitat destruction due to foot traffic or the building of roadways. Because of its restricted range and few known localities in the state, a status of Special Concern is reasonable and needed.

SELECTED REFERENCES:

Brodo, I. M., S. A. Sharnoff, and S. Sharnoff. 2001. Lichens of North America. Yale University Press, New Haven and London. 795 pp.

Dey, J. 1978. Fruticose and foliose lichens of the high-mountain areas of the southern Appalachians. *Bryologist* 81: 1-93.

SPECIES STATUS SHEET

SCIENTIFIC NAME: *Thelecarpon epibolum*

FAMILY: Acarosporaceae

COMMON NAME: A Species of Thelecarpon Lichen

CURRENT MINNESOTA STATUS: None

PROPOSED MINNESOTA STATUS: Special Concern

BASIS FOR PROPOSED MINNESOTA STATUS: *Thelecarpon epibolum* has a circumpolar distribution and occurs in coastal southern Canada and parts of the northern United States including Isle Royale, Michigan, and Minnesota. This species is parasitic on other lichens and occurs in moist, shady habitats. Despite surveys to locate additional occurrences in the state, *Thelecarpon epibolum* is only known from a single locality in Koochiching County. This species is vulnerable to any type of disturbance that would result in damage to the host lichens in its habitat. Given its rarity, unique life history, and restricted range in the state, a status of Special Concern is reasonable and needed.

SELECTED REFERENCES:

Ahti, T. 1973. Notes on the lichens of Newfoundland. 2. *Thelecarpon epibolum*. Ann. Bot. Fenn. 10: 66-67.

Eversman, S, C. Wetmore, K. Glew, and J. Bennett. 2002. Patterns of diversity in Yellowstone National Park. Bryologist 105: 27-42.

Harris, R.C. 1977. Lichens of the Straits Counties, Michigan. Published by the author, University of Michigan Herbarium, Ann Arbor. 150 pp.

SPECIES STATUS SHEET

SCIENTIFIC NAME: *Usnea longissima*

FAMILY: Parmeliaceae

COMMON NAME: Methuselah's Beard Lichen

CURRENT MINNESOTA STATUS: None

PROPOSED MINNESOTA STATUS: Special Concern

BASIS FOR PROPOSED MINNESOTA STATUS: The Methuselah's Beard Lichen is a boreal species that occurs on the west coast of North America and is also distributed from New England west to Michigan, Wisconsin, and Minnesota along Lake Superior. This draping fruticose lichen is found in moist forests and bogs where it grows on the tops of old growth trees in full sunlight, usually near water. Historically, the Methuselah's Beard Lichen was known from six localities in Cook, Lake and St. Louis counties. However, recent surveys confirm the rarity of this lichen in Minnesota, with only 11 localities documented in these same historical counties despite extensive search effort and usually only small pieces of the thallus found. This lichen is very sensitive to air quality and also has a poor ability to disperse, thereby requiring continuous tracts of favorable habitat. Logging of old-growth conifer forests, especially near streams and lakes, interrupts this lichen's ability to disperse and may have serious negative impacts on long-term population viability. Given its restricted range, limited abundance, and sensitivity to environmental disturbance, it is needed and reasonable to designate the Methuselah's Beard Lichen as a species of Special Concern in Minnesota.

SELECTED REFERENCES:

- Brodo, I. M., S. A. Sharnoff, and S. Sharnoff. 2001. Lichens of North America. Yale University Press, New Haven and London. 795 pp.
- Esseen, P.-A., L. Ericson, H. Lindstrom, and O. Zackrisson. 1981. Occurrence and ecology of *Usnea longissima* in central Sweden. Lichenologist 13: 177-190.
- McCune, B., C. Derr, P. Muir, A. Shirazi, S. Sillett, and W. Daly. 1996. Lichen pendants for transplant and growth experiments. Lichenologist 28: 161-169.
- Wetmore, C. 2002. R9 species conservation assessment for *Usnea longissima* Ach. in the Upper Great Lakes national forests. Report submitted to USDA Forest Service. 14 pp.

SPECIES STATUS SHEET

SCIENTIFIC NAME: *Usnea mutabilis*

FAMILY: Parmeliaceae

COMMON NAME: Bloody Beard Lichen

CURRENT MINNESOTA STATUS: None

PROPOSED MINNESOTA STATUS: Threatened

BASIS FOR PROPOSED MINNESOTA STATUS: The Bloody Beard Lichen is distributed in the eastern half of the United States and occurs at the northwestern edge of its continental range in Minnesota. This fruticose lichen is found on deciduous and coniferous trees and is only known in the state from two localities: one historical location near Minneapolis in Hennepin County, and a recently-documented location in Washington County. Extensive survey efforts over the past several decades have failed to locate additional occurrences of this species. Based on historical information reported by Fink (using the name *Usnea barbata*), the range of this species appears to have decreased over the past one hundred years. Air quality and land development pose the greatest threats to the survival of this species in Minnesota. Given the recent documentation of only a single known locality of the Bloody Beard Lichen and its restriction to the Twin Cities metropolitan area, a status of Threatened is reasonable and needed.

SELECTED REFERENCES:

Brodo, I. M., S. A. Sharnoff, and S. Sharnoff. 2001. Lichens of North America. Yale University Press, New Haven and London. 795 pp.

Fink, B. 1897. Contributions to a knowledge of the lichens of Minnesota – II. Lichens of Minneapolis and vicinity. Minnesota Botanical Studies 1: 703-725.

SPECIES STATUS SHEET

SCIENTIFIC NAME: *Usnea rubicunda*

FAMILY: Parmeliaceae

COMMON NAME: Red Beard Lichen

CURRENT MINNESOTA STATUS: None

PROPOSED MINNESOTA STATUS: Special Concern

BASIS FOR PROPOSED MINNESOTA STATUS: The Red Beard Lichen is found in the eastern United States, portions of the west coast, and also has a disjunct distribution in southern Minnesota. This fruticose lichen occurs on trees in humid habitats, and despite extensive survey efforts, it has only been documented at three localities in the state: one historical location in Hennepin-Ramsey County and two recent locations in Pine and Washington counties. Air quality and land development pose the greatest threats to the survival of this species in Minnesota. Given its rarity, restricted range, and proximity to populated areas of the state that are subject to intense land development pressures, it is needed and reasonable to classify the Red Beard Lichen as a species of Special Concern.

SELECTED REFERENCES:

Brodo, I. M., S. A. Sharnoff, and S. Sharnoff. 2001. Lichens of North America. Yale University Press, New Haven and London. 795 pp.

Fink, B. 1897. Contributions to a knowledge of the lichens of Minnesota – II. Lichens of Minneapolis and vicinity. Minnesota Botanical Studies 1: 703-725.