LICHEN HABITAT WAY STATIONS

WETLAND
WS 1: 439041 E / 4945818 N
44 39 47.30 N / 63 46 08.22 W

Lichens you will see in the wetland are:

Bryoria trichodes
(Horsehair lichen) This dark cluster of hair-like threads hangs from conifer branches or trunks in moist forests and on lakeshores. Used as nesting material by birds and flying squirrels, Horsehair lichens were used as medicine and food by some First Nations peoples. Bryoria furcellata (Burred horsehair) sits on branches or sticks out from the trunk in similar habitats.

Usnea sp.
(Beard lichen) The hairlike yellow-green Beard lichens are particularly noticeable in damp areas. Most of the nearly 20 species in the province are difficult to separate in the field, but they all share the same feature- a central cartilaginous cord.

Hypogymnia tubulosa
(Powder-headed tube lichen) Seen in profile, this lichen looks like fingers making a V-sign. Hypogymnia tubulosa is hollow and shaped like a forked tube with powdery tips. Common in damp places, it grows mostly on branches of conifers, birches and shrubs.

Platismatia tuckermanii
(Crumpled rag lichen) Grey-white with black edges and marginal brown circular fruiting bodies, this lichen most often sits like a bird's nest on the branches of conifers and birches. You can pick this one out at a hundred paces.

It is useful to bring a hand lens for viewing
UTM Zone 20 NAD83

FOREST
WS 2: 439378 E / 4945157 N
44 39 25.98 N / 63 45 53.63 W

Lichens you will see in the forest are:

Parmelia squarrosa
(Bottlebrush shield lichen) This flat lichen lives on trees and rocks in moist, shady places. The tiny hairs (rhizines) that help it cling to its home surface look like tiny bottlebrushes. The shield lichens have been used to make a brown dye.

Cladonia rangiferina
(Gray reindeer lichen) Of the three or four species of reindeer lichens you may see along the Trail in several habitats, Cladonia rangiferina is the grayest one. It has been used as food by First Nations people and as a tea. Deer will eat it occasionally. Another species, Cladonia stellaris, (Star-tipped reindeer lichen) looks enough like tiny rounded trees that model railroaders use it in their landscapes.

Lobaria pulmonaria
(Lungwort) Dramatically different in colour when wet, Lobaria pulmonaria turns bright green when the fungus of its upper surface becomes translucent, displaying the algae inside. When dry it is a bland brownish-green. This lichen prefers deciduous trees in moist, fairly undisturbed and unpolluted areas.

Hypogymnia physodes
(Hooded tube lichen) Possibly the most common lichen in the area, this lichen grows on most trees, on rocks and on low growing shrubs. Its white/grey, slightly puffed, hollow hand-shape turns up at the ends and is often powdery at the lobe tips with a shiny, black lower surface. This species produces a brown dye and was known as a medicine by some First Nations peoples.

BARREN
WS 3: 439562 E / 4945037 N
44 39 22.89 N / 63 45 44.27 W

Lichens you will see in the barrens are:

Cladonia boryi
(Fishnet cladonia) Pale yellow and spreading in low mats, this lichen's puffy stalks are almost lacy with perforations. It likes dry, open sites with little soil, though it sometimes occurs in open woods.

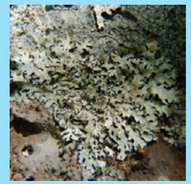
Cladonia uncialis
(Thorn cladonia) This is one of the common soil lichens you encounter in the mats of lichens that spread across the thin soil covering the rocks in the barrens. Greener than the Fishnet cladonia and with shorter, more pointed branches than the reindeer lichens, this lichen is a favourite of caribou in northern Quebec.

Stereocaulon saxatilis
(Rock foam lichen) This lichen forms a foamy white to grey mound of tiny little lobes on thin stalks. Many of the foam lichens grow on rock. They can be difficult to tell apart. Unlike the others, this one seldom has little black or brown fruiting bodies at the ends of its stalks. There are usually a few stalks in the centre which stand up from the spreading mound.

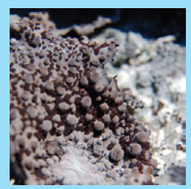
Arctoparmelia centrifuga
(Concentric ring lichen) The beautiful semicircles of grey and yellow that appear all over the rocks along the trail are the Concentric ring lichen. Easy to identify because of the "rings" it creates as it spreads from its tips and dies away at its centre, this lichen has been used as a dye in the Arctic.

ERRATIC
WS 4: 439354 E / 4944865 N
44 39 16.51 N / 63 45 53.60 W

Lichens you will see growing on erratics are:



Parmelia saxatilis
(Salted shield lichen) Another common Shield lichen, this lichen grows most often on rock. It has tiny little growths (isidia) on its shiny upper surface that break off and disperse to help the lichen establish itself in a new location. Known as crottle in the Scottish Highlands, this and Parmelia omphalodes, were gathered as sources of brown dye.



Lasallia papulosa
(Common toadskin) Dull brown with a bumpy upper surface, this lichen distinguishes itself from other brown foliose lichens by its attachment to rock at a central point. The depressions on its paler undersurface match the upper bumps to separate it from others with the same attachment.

Umbilicaria muehlenbergii
(Plated rock tripe) This brown umbilicate (attached at a central point) lichen has a satiny upper surface and a dark lower surface that looks like plates of roughened fibres running parallel to the lobe. It is named after a Lutheran minister from the early 1800s who was an exceptional amateur botanist.

Rhizocarpon sp.
(Map lichens) These form crusts on the surface of rocks, usually with well defined black edges enclosing small slightly raised bumps of varying colours from yellow, light grey to dark brown. Its fruiting bodies are usually tucked between the bumps and are most often black. The species are difficult to identify in the field

About Lichens

Lichens and the Bluff Trail

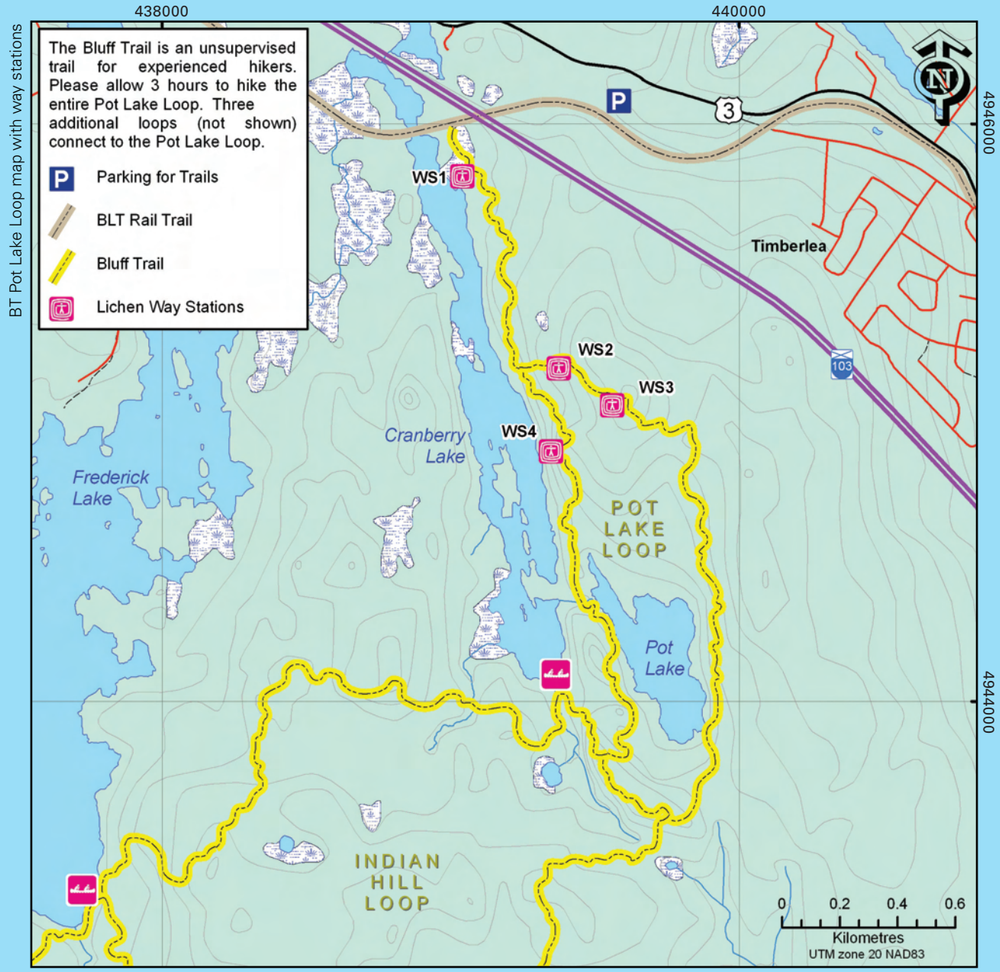
The Bluff Trail is home to over a hundred lichen species in habitats as diverse as flat, sunbaked, exposed rock to moist, mossy, mixed forests. As you hike the trail, you will see them on trees, rocks and soil. They may be shaped like leaves (foliose), dangle like threads or stand up like tiny trees (fruticose), or bury themselves in rock or tree surfaces so that only a smear of colour (crustose) and some small fruiting bodies are visible. Lichens offer homes and food to many small insects, provide nesting material for birds and help to stabilise existing soil. They offer nooks and crannies where dust and detritus catch providing the first steps for building new soil.

What are they?

Lichens are a unique form of plant life. They are a combination of fungus and alga (or cyanobacterium) in a mutually dependent relationship known as symbiosis. The fungus provides the lichen shape and a protective exterior surface. The alga lives inside and processes minerals from fog and rain and photosynthesizes sunlight into food for the lichen. Lichens survive on every continent and in every climate because they are able to shut down their growing and feeding processes until conditions are favourable (cryptobiosis).

Lichens are known to be sensitive to pollution. They are increasingly used as pollution monitors for air quality and emissions content. Heavy metals and other noxious substances may concentrate in some species which can tolerate them; other lichens die off if pollution levels increase.

Some species occur only on certain surfaces under specific light and moisture conditions; others aren't fussy and appear in many different habitats. At each of the four habitats selected in our brochure, you will learn about 4 easy to identify lichens on various surfaces. You may see some of these at more than one site.



Credits

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Lichens of the Bluff Wilderness Hiking Trail


Usnea strigosa