

# Newfoundland and Labrador's Boreal Forest

## Wildlife guide



SAM is a network of municipalities that have formally committed to the practice of environmental stewardship in Newfoundland and Labrador. This NL wildlife guide is meant to support our members in their stewardship practice and for guided interpretative walks in their conservation areas. This wildlife guide can be used in conjunction with the “**Newfoundland and Labrador Boreal Forests**” factsheet and the “**SAM Wildlife ID Cards**”.

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### Overview

Most of Newfoundland and Labrador is part of the North American Boreal Forest, which spans across the upper middle portion of Canada around the 50<sup>th</sup> parallel. The forest is mainly composed of coniferous trees, such as **balsam fir (*Abies balsamea*)**, white and **black spruce (*Picea spp.*)**, and the deciduous tree **Eastern larch (*Larix laricina*)**.

Both living and dead trees in a forest provide important habitats for different wildlife species, whether it's up in a tree or in or on the ground. Standing dead trees (called snags) are important in ecosystems for a variety of species. Insects use the dead trees for food and shelter, and other animals, such as woodpeckers, drill holes in the trees and feed on these invertebrates. These holes are then used by cavity nesting species such as **tree swallows** or **common goldeneyes**. Some animals burrow and make tunnels underground and/or below leaves and twigs such as **shrews**, **voles** and **foxes**.

Ecosystems go through changes in species composition over time. This is called ecological succession. For instance, in a forest system, natural disturbances such as pest invasion, wildfire, wind-throw or anthropogenic (human-made) disturbances, such as land clearing, begin the process of succession. The succession stage of an ecosystem determines which species are present. **Alder (*Alnus spp.*)** is considered a pioneer tree species, which means it is one of the first species to appear after a disturbance. Alders improve soil quality after a natural disturbance such as a fire, through their modified root structures. These structures, called nodules, have a symbiotic relationship with bacteria and fix atmospheric nitrogen into a biologically usable form that other plants need to grow. This leads to the next stage of succession of new species. In Newfoundland and Labrador, mature forests usually consist of established balsam fir and spruce species.



## Mammal Species of Newfoundland & Labrador's Boreal Forest



On the island portion of the province there are 14 native mammals and there are 37 in Labrador. Listed below is a brief description each of the native mammals and several of the common non-native mammals of the province. This section can be used with the SAM Wildlife ID card – Native Mammals of Newfoundland.

Key to species abbreviations

**Caribou, *Rangifer tarandus* (N, L) (Native)** approximate track length cm  
Common Name, Scientific Name (N = Newfoundland, L = Labrador) (Native or non-native)

### Native Mammal list of Newfoundland

Caribou  
Newfoundland Black Bear  
Canadian Lynx  
Arctic Hare  
Ermine  
Newfoundland Marten  
River Otter  
Muskrat  
American Beaver  
Meadow Vole  
Red/Silver/Cross Fox  
Newfoundland Wolf (Extinct)  
Little Brown Bat  
Northern Long-eared Bat  
Hoary Bat

### Native Mammal list of Labrador

Caribou	Moose
Muskoxen	Black Bear
Polar Bear	Red/Silver/Cross Fox
Arctic Fox	American Marten
Fisher	Mink
River Otter	Canadian Lynx
Ermine	Wolverine
Wolf	American Beaver
Muskrat	Meadow Vole
Bank Vole	Heather Vole
Northern Bog Lemming	Flying Squirrel
Woodchuck	Norway Rat
Woodland Jumping Mouse	Rock Vole
Red Squirrel	Ungava Lemming
Meadow Jumping Mouse	Porcupine
Arctic Hare	Snowshoe Hare
Little Brown Bat	Water Shrew
Pygmy Shrew	Star-nosed Mole
Deer Mouse	





### **Caribou, *Rangifer tarandus* (N, L) (Native) 10 cm**

Male and female caribou have antlers. Male caribou shed their antlers every year in the late fall or early winter. Caribou furs are shades of gray, white, and brown. Their hooves are sharply edged for ice travel and are wide to serve as paddles when swimming. Their diet includes grasses, mosses, lichens, and the leaves of willow and



### **Moose, *Alces alces* (L) (Native) 15 cm**

Moose are native to Labrador but were brought to the Island of Newfoundland in 1904. Male (bull) moose have large antlers that they lose after mating, while female (cow) moose do not have antlers at all. Their fur is black to light brown. Moose do not have upper front teeth and they are herbivores, eating mainly young trees such as balsam fir and grasses.



### **Black Bear, *Ursus americanus* (N, L) (Native) 15 cm**

Has a large head with a narrow muzzle; black claws; small rounded ears, and dark brown fur. Black bears will eat almost anything, but close to 75% of their diet are plants and berries. Females can weigh up to 150 kg while cubs weigh as little as ¼ kg at birth.



### **Canada Lynx, *Lynx canadensis* (N, L) (Native) 8 cm**

Very secretive animals, with thick silvery brown fur, black hair on tips of ears; short tail with black tip; long legs with snowshoe like feet. Diet includes snowshoe hares, young caribou, rodents, and birds.



### **Eastern Coyote, *Canis latrans* (Non-Native) 5 cm**

Varies from gray to brown; long fluffy tail with black tip. Ears are large, and feet are small. A scavenger who feeds on anything it finds such as mice, rabbits, squirrels, garbage, and farm animal. Travels in groups; active at night.



### **Little Brown Bat, *Myotis lucifugus* (N) (Native)**

Most common bat species in the province. The little brown bat has dark and shiny fur; lighter belly and large sharp teeth. Found in trees, buildings, or caves. Bats are insectivores, feeding on moths, beetles, and wasps.



### **Red/Silver/Cross Fox, *Vulpes vulpes* (N, L) (Native) 5 cm**

Red, brown, or black in color; ears have black tips; black legs; bushy tail with black tip. Eats mainly mammals, and small animals, and plants. Hunts alone.



### **Snowshoe Hare, *Lepus americanus* (L) (Native) rear 15 cm**

Large hind feet, brown fur in summer and white in winter; black tipped ears. Active during night. In the summer eats mainly grasses, ferns and leaves and the winter it eats, twigs, bark, and buds





**Arctic Hare, *Lepus arcticus* (N, L) (Native) rear 38 cm**

Thick white fur in winter, gray fur in the summer, relatively longer ears. It feeds on woody plants, berries, buds, leaves and grasses.



**Eastern Chipmunk, *Tamias striatus* (non-Native) 2 cm**

Feeds on nuts, seeds, fruits, and insects. Five black stripes down its back. Colours vary from white to rusty brown. Introduced to Newfoundland in 1963.



**Red Squirrel, *Tamiasciurus hudsonicus* (L) (Native) rear 2.5 cm**

Diet includes seeds, leaves, buds, flowers, and berries. Gathers mushrooms and places them on branches to dry. Red with a white belly, long bushy tail. Introduced to Newfoundland in 1962.



**Porcupine, *Erethizon dorsatum* (L) (Native) 5 cm**

Porcupines are found in Labrador and protect themselves from danger with a prickly coat of quills. There are 30000+ quills on one porcupine.



**Meadow Vole, *Microtus pennsylvanicus* (L) (Native) rear 2 cm**

Rounded noes and ears; short legs and tail; black or brown body. Feeds on plants and grasses, nuts and seeds, Found in open fields. Females can have 100 offspring in less than a year.



**Ermine/Weasel, *Mustela ermine* (N, L) (Native) 25 cm**

Fur is reddish-brown in the summer and white in the winter with a black tip on tail all year long. Feeds on mice and voles at night.



**Masked Shrew, *Sorex cinereus* (L) (Native) rear 2.5 cm**

Grey to brown body, with a long tail; pointy nose. Very small, adults weight between 3 – 6 grams. This shrew eats snails, worms and small animals. It was introduced in 1958 to control spruce sawflies.



**Newfoundland Marten, *Martes americanus atrata* (N) (Native) 5 cm**

The Newfoundland population is only found on the island and is threatened. Its fur is brown, glossy with an orange throat patch. Feeds on birds, squirrels, fruit, vegetables, and insects. Natural predators in the province include lynx, great horned owls, hawk owls, and red foxes. They are active during night and early morning and prefer habitat in older forest. Their dens and nests are usually hollow trees, stumps, logs and rock crevices.



## Common Bird Species of Newfoundland & Labrador Boreal Forest



There are over 150 bird species in the boreal forest. 3 million landbirds, waterbirds, and shorebirds breed in the boreal forest and another 3 million migrate through. Below is a list of common bird species found in Newfoundland and Labrador's boreal forest. For bird species in your area check e-Bird hotspots at [ebird.org/hotspots.org](http://ebird.org/hotspots.org). Bird images are taken from [audubon.com](http://audubon.com) Illustration © [David Allen Sibley](#). (Bird images are not to scale)

### American Crow, *Corvus brachyrhynchos*      *Caw-caw-caw*

Common Name, Scientific Name, Voice/call

Key to species abbreviations



#### American Crow, *Corvus brachyrhynchos*      *Caw-caw-caw*

A very intelligent, social bird. Diet includes bird eggs, insects, mice, reptiles, fruits, and seeds. Body and beak are black.



#### Common Raven, *Corvus corax*      *Craw-craw or quorkquork*

Can maintain loyal lifelong partners. Body and beak all black; larger than the American Crow; Shaggy throat; wedge shaped tail.



#### Grey Jay, *Perisoreus canadensis*      *whee-oooh*

Found in North America. Breeds early, eggs can be found in February. Feeds on insects, berries, fungi, eggs, and small birds. ID: fluffy, pale, grey plumage; fairly long tail; white forehead, throat and under tail; dark bill. Immatures – grey body; white bill. Body is smaller than blue jays and has a longer tail and smaller bill.



#### Blue Jay, *Cyanocitta cristata*

Feeds mainly on seeds and nuts. Males and females look similar.



#### Ruffed grouse, *Bonasa umbellus*      *males drum with wings*

Introduced to the province in the 60s and 70s for game. Found in aspen or birch rich sites. The name "Ruffed" refers to the tuft of feathers on their sides of their neck. ID: Crest on crown. Adults/male-brown-grey body; brown mottle; lighter belly. Adult/female-small; red-brown on chest.





**Spruce grouse, *Falcipennis canadensis*** *mostly silent*

Introduced in 1964. ID: adults/male-grey upper parts; red comb over each eye; underparts brown with white mottle. Adults/female – smaller; upperparts grey; black red-with white stripes.



**Willow ptarmigan, *Lagopus lagopus*** *kok or ko-koko in flight*

Diet mostly berries, young leaves, and buds. ID: Adults/summer-brown upperparts with brown bars (female) or black (male); white body; feathered legs. Adults/Winter – Body white except for black tail feathers.



**Rock Ptarmigan, *Lagopus muta*** *krrrr-krrrr or ah-AAH in flight*

Found in Western Newfoundland in tundra areas. ID: adults/summer – brown and black body; white wings; black tail feathers. Larger and browner than the Willow ptarmigan. Adults/winter-white body; black line from bill to eye.



**Purple Finch, *Carpodacus purpureus*** *High pitched warble*

ID: adults/male-conical bill; raspberry red head, brown wings and tail; noched tail. Female/immatures – olive-brown upperparts with brown streaks; pale grey underparts with brown streaks.



**American goldfinch, *Carduelis tristis*** *tsee-tsi-tsi-tsit*

ID: adults/male (summer)- yellow body; black forehead, and tail wings; yellow and white on wings; short notched tail. Adults/female (summer) – olive upper parts with brown black tail and white on wings.



**Black-capped Chickadee, *Poecile atricapilla*** *Chick-a-dee-dee or fee-bee*

The latin is for 'black crown'. Nest close to the ground in tree cavities. ID: black cap and 'bib'; grey black and wings; white underparts; light buff sides and flanks; dark legs. Diet includes seeds and insects.



**Boreal Chickadee, *Poecile hudsonicus*** *Scick-a-day-day*

ID: brown crown; grey neck; black chin and throat; white stripe from bill; brown-grey upper parts; white under parts; red sides. Excavates a cavity in soft of rotting wood or uses an existing cavity. Very quiet during nesting season.



**White-throated sparrow, *Zonotrichia albicollis*** *Dear Sweet Canada*

*Canada Canada*

Nest on or near the ground in low shrubs or fallen logs. Feeds on invertebrates, seeds and berries. Found across the province, year round. ID: black and white (or brown and tan) striped head; white throat; grey 'cheek' ; yellow spot above the eye; brown upper parts streaked with black and beige, underparts grey.





**Yellow warbler, *setophaga petechia***      *sweet-sweet-sweet- sweeter-  
than-sweet*

ID: adults/male – bright yellow underparts, face and throat; red/brown streaks on breast; olive-yellow upperparts. Adults/female – duller; less stripes.



**European starling, *Sturnus vulgaris***

Introduced to North America in 1890. Found near urban and agriculture areas. ID: adults/summer – dark body with sheen; pointed wings; long square tail; long yellow pointed bill.



**Cedar Waxwing, *Bombyscilla cedrorum***      *bzeeeee or tsee-tsee-tsee*

upperparts; black mask, grey upper parts; yellow stripe on tail. They feed on berries and insects. Waxwing refers to the bright red spots on their secondary wing feathers reminiscent of drops of sealing wax.



**American Robin, *Turdus migratorius***      *cheerily, cheer up*

Females lay blue eggs. Feeds on berries, earthworms and other soft invertebrates. ID: grey-brown black; dark head; white throat streaked with black; white under tail; red breast.



**Downey Woodpecker, *Picoides pubescens***      *pick-pick-pick*

**Hairy Woodpecker, *Picoides villosus***      *peeeek*

The Hairy woodpecker is larger and more aggressive than the Downey Woodpecker. Male birds have a red patch on the back of their head. These birds have a white belly, black and white wings.



**Northern Flicker, *Colaptes auratus***      *wick-wick-wick*

Creates holes in trees that other birds can use after as cavities. Feeds on insects, such as ants and beetle larvae primarily through foraging on the ground or on fallen decaying trees. ID: red stripe on the back of head; two black stripes besides black bill (absence in females); grey-brown upper parts with stripes; yellow-tan chest with black stripes; white flash marks.



## Common Terrestrial Invertebrates of Newfoundland & Labrador's Boreal Forest



There are many terrestrial invertebrates in the boreal forest of Newfoundland and Labrador. Many of them work as pollinators and they are also an important food source for mammals and birds. Invertebrates can live in the forest floor, dead wood or dead trees known as snags. Snags are important habitat for many invertebrate species and play an important role in the boreal forest ecosystem. To learn more about the butterflies and moths that are common in Newfoundland and Labrador visit the MUN Botanical Garden Website at

[www.mun.ca/botgarden/learn/eduresources/butterfliesmothsskippers/](http://www.mun.ca/botgarden/learn/eduresources/butterfliesmothsskippers/)

(see appendix 1 for photo citations)

**Butterflies:** drink and rest with their wings up, but sun themselves with their wings outstretched. They have smooth antennae with a knob at the end. Their body hardens into a chrysalis for metamorphosis. They are active in the daytime. Some can be quite colourful.

**Moths:** rest with their wings outstretched along their back or tented. Have feathery antennae. They spin a cocoon with silk for metamorphosis, and some species are active during the night, while others are active during the day. They are usually muted colours. Their bodies are usually fuzzier and plumper than that of butterflies.

**Skippers:** are often considered a mix of butterflies and moths. They rest usually with their wings angled upwards, sometimes outstretched, although parted, and rarely completely folded upwards. Like butterflies, they are active during the day, and have smooth antennae with a club end, although the club is often hooked. Like moths they are often a muted colour, often have plumper bodies, and spin a cocoon for metamorphosis.

### Red admiral butterfly, *Vanessa atalanta*

Common Name, Scientific Name



#### Red Admiral Butterfly, *Vanessa atalanta*

Dark brown wings with orange stripes and white spots. The caterpillar is grayish-black and has black spines and yellow patched along each side. It feeds on fruit and nectar and lays eggs on top of plant leaves.





### **Clouded Sulfur Butterfly, *Colias philodice***

Males' wings are yellow with a black border; females' wings are greenish-yellow with a black border. The caterpillar is bright green with a dark back stripe and two light side stripes.



### **Painted Lady Butterfly, *Vanessa cardui***

Orange wings with black spots; corners of wings are black and white. It has two large spots on wings that resemble eyes to fool predators on its size. The caterpillar is black with spiked skin.



### **Mourning Cloak, *Nymphalis antiopa***

Host Plant: Willows, American elm, cottonwood, aspen, paper birch

Nectar Source: Prefer tree sap, especially of oaks. Will feed on rotting fruit, and rarely flower nectar



### **Yellow bumble bee, *Bombus borealis***

Two pairs of wings, fuzzy black body with yellow stripes; has large antennae, has compound eyes (hundreds of single eyes arranged next to each other); helps pollinate flowers. Bees have a large tongue-like feature, called a proboscis to suck nectar and pollen out of flowers helping to pollinate them. The buzz sound that bumble bees make is from the vibration of their flight muscles.



### **Paper Wasp, *Polistes dominula***

Two pairs of wings, only a female wasp has a stinger, has little or no hair; black with bright yellow or orange stripes, bright yellow legs. Often adults feed on nectar, with little role in pollination while larvae feed on other insects. Unlike bees which secrete a substance to construct their nests, wasps gather materials to build their own. Females have stingers that do not fall off once they attack and prey on many pest populations.



### **Carpenter Ant, *Camponotus spp.***

One of the largest ants in the province. They do not eat wood rather excavate tunnels for their nest as a group called a colony. These ants help break down dead trees, logs, and stumps to help recycle nutrients. Most of the ants are wingless until the colony is relatively large. Those that do have wings are called "swarmers".



### **Mosquito**

Long legs, long mouth parts, dull brown or gray. Mosquito larvae hatch from eggs that are deposited in water by the adults. The larvae feed on vegetation, while adult females feed on blood from other mammals, and adult males feed on nectar. Mosquitos are a food source for many other organisms. The irritation caused by a mosquito bite is an allergic reaction to the mosquito's saliva.





### Sow bugs - Carpenters

Terrestrial crustacean that belong to the family Oniscidae. Sow bugs have overlapping plates on its back; 7 pairs of legs, long antennae. Often found in dead and decaying trees or stumps. They appear similar to pillbugs (family Armadillidae) however, sow bugs do not roll up when you poke them.



### Lady Beetle

Lady beetles belong to the family Coccinellidae. Its colour varies from red, orange, yellow, black with black or maybe red spots. Lady beetles are great pest controllers for farmers. They feed on insects such as aphids that are a problem for gardeners and farmers. The number of spots is an indication of species not age. There is an exotic lady beetle called- *Harmonia axyridis*, and competes with native lady beetle species in North America.



### Marsh Meadow Grasshopper, *Chorthippus curtipennis*

Common characteristics of grasshoppers are a long, slender body, strong mandibles/jaws for chewing, three pairs of legs and two wings. These organisms use a round structure called a tympana structure to hear. Grasshoppers make their sounds in a variety of ways such as rubbing their hind legs together or wings. Their strong hind legs can allow it to jump 20 times the length of its body.



### Stone Centipede

The stone centipede belongs to the Lithobiomorpha order. These organisms have seven segments as a juvenile and fifteen as an adult. Centipedes belong to the Chilopoda classes which have one pair of legs per segment. The number of segments is an odd number and varies. Centipedes are carnivores' which use their modified first legs to attack predators.



### Flat-backed millipede

The flat-backed millipede belongs to the Polydesmida order. These organism's segments lateral are wide and relatively flat. Millipedes belong to the Dipoloda class which has two sets of legs on each of their segments.



## Common Plants of Newfoundland & Labrador's Boreal Forest



The boreal forest of Newfoundland and Labrador is dominated by a handful of coniferous and deciduous tree and shrub species.

### **Balsam fir, *Abies balsamea***

Common Name, Scientific Name



#### **Balsam fir, *Abies balsamea***

A coniferous evergreen tree with flat needles. Bark is smooth with sap bubbles. Most common tree in the boreal (northern) forests. Most commonly found on well-drained sites. Most of the needles have a notch at the tip rather than ending at a single point.



#### **White Spruce, *Picea glauca***

Coniferous evergreen tree with stiff pointed 4-sided needles. The needles appear less crowded on a twig than a black spruce tree. Occurs mostly on well-drained sites, and more common along the coast than inland.



#### **Black Spruce, *Picea mariana***

Coniferous evergreen tree with 4 sided-needles that are dark blueish green on the upper sides. Cones are the smallest of the spruce species, 1.5 – 4 cm. Small hairs on bark of young branch tips, with reddish-brown bark. Prefers wetter lowland areas.



#### **White birch, *Betula papyifera***

Deciduous tree that often grows shrub-like in exposed habitats. Leaves alternate in arrangement, 6-12 cm, light to dark green with a pointed tip. Bark is thin, white and layered while young twigs are reddish brown. Bark is used to make canoes and paper.



#### **Chuckley pear, Serviceberry, Sugar Plum, *Amelanchier canadensis***

Deciduous upright shrubs that grows 1 – 8m tall. Variety of species, that grows upright with an alternate leaf arrangement. These shrubs grow in various habitats such as mixed forests, barrens, wetlands, and clearings. These shrubs produce an edible purple-black fruit in late July and throughout August.





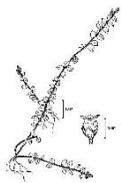
### **Mountain ash, Dogberry, *Sorbus, spp.***

Deciduous shrub-like tree growing between 3-6m. This plant has alternate leaf arrangement in a compound structure. In August and September this plant produces orange-red acidic edible berries. These shrubs are not found in Labrador but can be found growing in barrens and forests in Newfoundland.



### **Common Labrador Tea, *Rhododendron groenlandicum***

Deciduous evergreen shrub that grows up to 1 m in height. Leaves are alternates in arrangement, with a shiny green top and brown, hairy underside. Flowers are in clusters from mid-June to July with five white petals. Leaves can be steeped to make a tea but boiling them can release a poisonous toxin.



### **Creeping Snowberry, *Gaultheria hispidula***

Trailing plant with small opposite leaves. Flowering from mid-May to June. Flowers are white, producing small edible egg-shaped berries with short, brown hairs. Berries taste are said to taste like mint or root-beer.



### **Twin flower, *Linnaea borealis***

Trailing plant with round green leaves. Two pink bell-shaped nodding flowers grow on each stalk. Flowers have strong flora scent in the spring. This flower is the symbol of the Memorial University Botanical Garden.



### **Ghost Pipe, *Monotropa uniflora***

White plant lacking chlorophyll (green pigment). Obtains food from soil fungi since it cannot photosynthesize. Flower nods before the fruit matures, then it straightens upwards.



### **Bunchberry, Crackerberry, *Cornus canadensis***

Flowers from late June to July producing tiny clustered flowers with four white petal-like leaf's (bracts) developing into edible red-orange berries in August.



### **Fireweed, *Chamerion angustifolium***

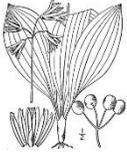
Can grow more than 1 m tall and grows in large clumps. White and or purple flowers with four petals that grow at the top of the stem. One of the first plants to establish an area after a fire.





### **Pink Lady's Slipper, *Cypripedium acaule***

Pink flower with clearly defined veins with drooping sac- like petals. Typically have three leaves that grow at the base of the stem. Orchids form a mycorrhizal relationship with fungi. NL has the 3<sup>rd</sup> largest biodiversity of orchids in Canada. Many orchid species are rare.



### **Blue Bead Lily, *Clintonia borealis***

Yellow flowers and produces poisonous blue berries. It has 2-4 olive-green glossy leaves that can be used in salads or steamed like turnip.



### **Wood fern, *Dropteris spp.***

(Greek: drys, "tree," + pteris, "fern"; referring to forest habitat) Medium to large woodland ferns. Fronds with toothed pinnae and pinnules.



### **Western Oakfern, *Gymnocarpium dryopteris***

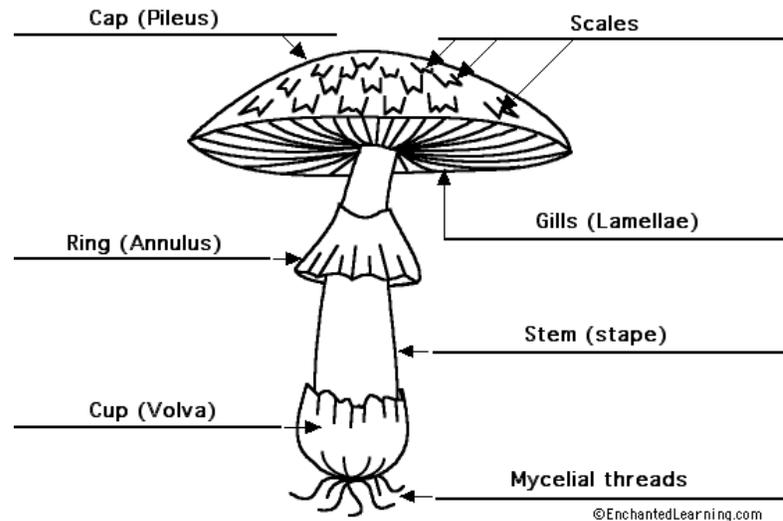
Blade contains three fronds. Two opposite to one another and one growing at the end of the blade.



## Common Fungi of Newfoundland & Labrador's Boreal Forest



The study of fungi is called mycology. Mushrooms are the spore bearing, fruiting body of a fungus. According to the NL Mushroom Foray, there are between 2000 – 7000 species of fungus in NL. Fungi are very important in the boreal forest because they are a major decomposer. They are heterotrophs, meaning they are unable to make their own food, like plants, so they recycle dead plant and animal materials into nutrients. Some mushrooms can be identified by their spore print.



### Fly agaric, *Amanita muscaria*, white

Common Name, Scientific Name, spore print colour



#### Fly agaric, *Amanita muscaria*,

white

Cap varies from light yellow to deep orange with white patches. Stalk has a 'ring' of tissue. Toxic to humans.



#### Lactarius, *Lactarius thyinos*,

white

Orange cap and stem. Gills contain an orange fluid called latex or milk. Other orange-milked Lactarius species often turn green when bruised, but this one does not.



#### Brown Cortinarius, *Cortinarius spp.*,

brown

Mycorrhizal mushroom with rust-brown spore print and a web-like veil attached to stalk and brown cap.





**Red-capped Russula, *Russula spp.*,** white  
Mycorrhizal mushroom with brittle flesh, which breaks with snap like chalk. Cap is reddish.



**Hedge Hog, *Hydnum repandum* ,** white  
**Sweet Tooth, *Hydnum umbilicatum***  
forests. *H. repandum* (*repandum* = upturned) is larger and lighter in colour, while *H. umbilicatum* is smaller with a dimple on its cap (*umbilicatum* = dimple).



**White Birch Bolete, *Leccinum holopus***  
Mycorrhizal association with birch species. White, often with green stains at the base of the stem. Pores bruise brown after being handled and stem turns pink when cut.



**Birch bolete, *Leccinum scabrum***  
Very common bolete in the province. Associates with birch. Young firm ones are good to eat, but older ones tend to be soggy.



**Softwood rotter, *Trichaptum abietinum***  
Softwood rotter that produces multiple annual small shelf-like fans, with irregular pores. Upper surface is hairy, the outer margins are pale purple.



**Birch Polypore, *Piptoporus betulinus***  
White to brown cap with in-rolled margins, whitish pores and soft white flesh. Grows on dead birch trees.



**Hoof fungus or Tinder Fungus, *Formes formentarius*** Dark  
grayish-brown, hoof-shaped conks, found on rotting birch, white to gray pores. It can be used as tinder to start a fire.



**Red-belted polypore, *Fomitopsis pinicola***  
Grows on softwoods and sometimes birch trees. Gray cap with a red laccate band. Each year a new ring is formed with the outer light band of the current year.



## Common Lichen of Newfoundland & Labrador's Boreal Forest



Lichen is a compound organism that can be made up of algae or cyanobacteria and fungi species in a mutualistic relationship. Lichens come in many colors, sizes, and forms. The properties are sometimes plant-like, but lichens are not plants. Lichens may have tiny, leafless branches (fruticose), flat leaf-like structures (foliose), flakes that lie on the surface like peeling paint (crustose), a powder-like appearance (leprose), or other growth forms. The nonreproductive tissues or vegetative body parts are called the thallus. There are many different growth forms of thallus, some of the common forms are listed below.

1. **Fruticose** growing like a tuft or multiple-branched leafless mini-shrub, upright or hanging down, 3-dimensional branches with nearly round cross section or flattened
2. **Foliose** growing in 2-dimensional, flat, leaf-like lobes
3. **Crustose** crust-like, adhering tightly to a surface (substrate) like a thick coat of paint
4. **Squamulose** formed of small leaf-like scales crustose below but free at the tips
5. **Leprose** powdery
6. **Gelatinous** jelly-like
7. **Filamentous** stringy or like matted hair
8. **Byssoid** wispy, like teased wool
9. structureless

### Map Lichen, *Rhizocarpon geographicum*, crustose

Common Name, Scientific Name, thallus form



#### Map Lichen, *Rhizocarpon geographicum* crustose

Grows on rocks. Growth is predictable and scientists use this lichen to estimate when a rock was deposited.



#### Maritime Sunburst Lichen, *Xanthoria parietina* foliose

Common on rock outcrops and coastal roofs where it thrives on nitrogen enriched substrates.



#### Beard Lichens, *Usnea* spp. fruticose

Grey to light green in hair-like tufts. Can be difficult to distinguish from *Alectoria* spp. Pull a strand in half and if there is a white string inside it could belong to this genus.





**Witches' hair lichen, *Alectoria* spp.**

fruticose

**Horsehair lichen, *Bryoria* spp.**

*Alectoria* spp. are greenish-white and *Bryoria* spp. are brownish to blackish.



**Lungwort, *Lobaria pulmonaria***

foliose

Large leafy lichen; with wrinkled upper surface resembling lung tissue. This lichen is made of three organisms instead of two (fungus, alga, and a cyanobacterium). When dry upper surface appears olive-brown and when wet green.



**Rag bag lichen, *Platismata glauca***

foliose

White to pale greenish grey smooth crispy body. Soredia are found on its brownish margins.



**Salted shell lichen, *Coccocarpia palmicola***

crustose

Dark lead gray lichen when dry, bluish green to brownish black when wet. Lobes often overlap somewhat.



**Shield lichens, *Parmelia* spp.**

foliose

Common lichen found on trees and rocks. Undersides have rhizines (rootlets).



**Bone lichens, *Hypogymina* spp.**

foliose

Common lichen with hollow lobes.



**Reindeer lichen, *Cladonia rangiferina***

fruticose

Light coloured lichen that grows in open areas in the Boreal forest. Caribou will dig in the snow to graze on it.



**British solider, *Cladonia cristatella***

fruticose

This lichen red apothecia resembles the hats worn by English solider in the 18<sup>th</sup> century. Often found on decaying wood.

