

Ecosystems of BC

Northern Forest



What is the northern forest?

In British Columbia, the northern forest is the northern part of the province from Prince George to the Yukon Border. In this large area there are several different habitats ranging from peat bogs, deciduous forests, valley bottoms, and alpine tundra. Each of these habitats supports a variety of different plants and animals. Some areas of the northern forest have frequent wildfires which help keep the ecosystem healthy, under the right conditions. Climate change has increased the size and frequency of wildfires, disturbing the balance of this natural cycle. Fires in this area are usually started by lightning and can burn very hot, often killing all the trees and understory. When a wildfire occurs, it fills the soil with nutrients and burns some of the trees and shrubs which allows new trees, shrubs, and other plants to grow.

What is the climate?

The climate of the northern forests is the coldest in the province. The winters are very long, windy, and cold. There is snow in some areas for over half the year. The summers are generally short and cool. This climate means there is a short growing season for plants. Plants also need to be able to survive the harsh climate changes in these areas.

What are some of the plants found in northern forests?

The northern forest has a large variety of trees, wildflowers, and shrubs supporting a diversity of wildlife. The trees of the northern forest provide shelter to many different birds. For example, large black cottonwood trees provide nesting sites for eagles, northern goshawk, and magpies. Lodgepole pine provides food sites for woodpeckers, porcupines, and black bears. There are many different tree species in the northern forest including trembling aspen, white spruce, black spruce, tamarack, Douglas-fir, and balsam poplar.

Common shrubs of the northern forests include saskatoon berry, common juniper, red raspberry, high-bush cranberry, blueberry, huckleberry, prickly rose, and red-osier dogwood. Saskatoon berries are eaten by songbirds and grizzly bears while elk eat the fresh branches and leaves. The branches and leaves of red-osier dogwood are also eaten by ungulates such as moose, deer, and elk. Moose and caribou also eat the leaves and twigs of Labrador tea.

Common wildflowers and forbs of the northern forest include cow parsnip, yarrow, mint, fireweed, bunchberry, and wild sarsaparilla. Grizzly bears and black bears like to eat cow parsnip. Fireweed is a great nectar source for butterflies and bees and it is also browsed by moose, deer, and elk.

Other important species in the northern forests are lichens and mosses. Examples of lichens are powdered beard, common witch's hair, freckled pelt, and lungwort. Common mosses are knight's plume, red-stemmed feathermoss, and step moss. Lichens are the favourite food of woodland caribou.

Bluejoint, common sweetgrass, timothy, and many other grasses call the northern forest home. These grasses are browsed by ungulates, bears, rodents, and many other wildlife species.



Black cottonwood, D. Meyer, iNaturalist.ca



Labrador tea, A Karasoulos, iNaturalist.ca

How do invasive species affect the montane forest?

The northern forest is a busy place in the province with many natural resource activities, such as logging, mining, oil and gas, and agriculture. All these activities create disturbances in the soil and create prime habitat for invasive plants to thrive. The nutrient rich soils left by fires can

also become growing areas for invasive plants. Invasive plants can establish quickly, preventing native plants from growing well in the burned areas.

When fighting wildfires, equipment, trucks, and people come from other parts of the province or the country and can accidentally bring hitchhiking invasive plants from these other areas. Invasive plants can be caught in mud on equipment, trucks, and fire-fighting gear. To help prevent this from occurring, it is important to make sure that everything is cleaned and invasive plant-free before going into remote areas.

Some of the invasive plants to watch out for in the northern forest are bull thistle, Canada thistle, common burdock, common comfrey, common tansy, curled dock, cypress spurge, Dalmatian toadflax, diffuse and spotted knapweeds, Japanese and giant knotweeds, leafy spurge, marsh plume thistle, mountain bluet, mullein, orange and yellow hawkweeds, oxeye daisy, perennial sow thistle, scentless chamomile, Scotch broom, Scotch thistle, and yellow toadflax.

Marsh plume thistle is an example of an invasive plant negatively affecting the northern forest. It grows in cut blocks (areas that have been logged) and along roadsides, out-competing newly planted tree seedlings. When newly planted trees don't grow well, there are costs to replant seedlings and to treat these invaders.

Canada thistle is a large threat to agriculture and to restoring old mine sites. It can move in and take over a pasture, reducing food for wildlife and livestock. Canada thistle invasions cost farmers money since it is costly to remove Canada thistle from their properties and they can't grow as much hay and seed crops.

Scentless chamomile can change the amount of water and nutrients in the soil, making it difficult for native plants to grow. Livestock and wildlife do not usually eat scentless chamomile so they have to move to new locations to find food. One of the ways they are battling invasive plants is with biocontrol. Little insects are released that eat the plants and reduce their health or seed production. Several types of insects have been released in northern BC to attack scentless chamomile.



Canada thistle, J. Barkla, iNaturalist.ca



Scentless chamomile, A. Tinker-Tsavalas, iNaturalist.ca

For more information on invasive plants of the northern forest, visit www.nwipc.org. For more information on the species mentioned here, visit [ISCBC's website](#).