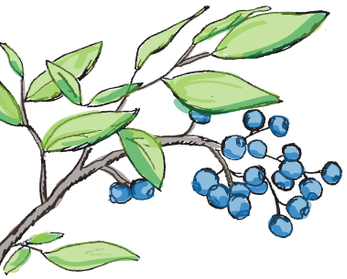
Why Burn?

Wildland fires in the NWT are controlled due to concern for human safety, private property and natural resource values. Other fires are monitored and allowed to burn naturally. We know disturbance to the boreal forest is necessary for wildlife habitat and diversity. Excluding fire from the landscape causes an unnatural aging of the forest and loss of the habitat mosaic.



Some members of the heath family, such as blueberries, Labrador tea and cranberries, contain a flammable resin that causes ground fires to spread quickly in the forest and on the tundra.

Tightly sealed Jack pine cones depend on extreme heat to open, release and distribute their seeds. Without wildland fires to help the cones to open, Jack pine would be replaced by another species.

Tuktu Says:

Help prevent careless, human-caused fires. Preventing these fires is important and we all need to be responsible when in the forest.

Humans usually cause fires near communities or popular areas. This can threaten life, property, and important cultural areas.

People cannot prevent fires caused by nature but they **can** prevent human-caused fires.

Wildland Fire as a Management Tool

The Department of Environment and Natural Resources (ENR) may manage or use fires as a tool to reach specific goals. These fires can be small or large depending on the goal. They may be used to:

- Manage the extent of wildland fires;
- Improve or maintain wildlife habitat;
- Reduce the risk and intensity of future wildland fires by removing some of the potential fuel; or
- Conduct research to help understand wildland fire behaviour and improve firefighter safety and wildland fire management operations.

ENR also works to manage or control wildland fires that threaten communities, infrastructure and values at risk. We recognize fire is a natural event in the health, productivity, and diversity of boreal forest ecosystems of the NWT. Many ecological systems, like the boreal forest, have evolved and adapted to fire.

Did you know?

- **Major fires have created unparalleled habitat for wildlife.**
- **Historically, wildland fire consumes 500,000 hectares (Ha) each year. Less than 1% of the land in the NWT!**
- **Wildland fire maintains a mosaic of forest ages and types, providing habitat for a variety of wildlife.**

To report smoke or a wildland fire:
1-877-698-3487 (NWT-FIRE)

To report a poacher:
1-866-762-2437 (POACHER)

Wildland Fire & Wildlife

In the NWT's Forests

Northwest Territories Environment and Natural Resources

Fire in the Boreal Forest

The boreal forest is characterized by pine, spruce, aspen and birch trees. For thousands of years animals and plants have adapted to the effects of frequent forest fires. Each year in the NWT, lightning starts over 200 wildland fires and humans cause about 20 more. As a result, hundreds of thousands of hectares burn each year.

People tend to have a negative view of fire. It can be dangerous when life and property are threatened. The smoke can block out the sun and make breathing difficult. But fire is a natural, necessary part of the forest landscape. Without fire, the wildlife and landscapes we have come to know and expect might not be here at all.

Three-toed woodpeckers, and other species, thrive in recent burn areas where they eat bark beetles that invade the dead and dying trees.

Forest Succession

The gradual change in plant and animal communities after a disturbance is called succession. Succession usually begins with small herbaceous plants and finishes with mature spruce forest.

Wildlife need food, water, shelter and space in the proper arrangement (habitat) in order to survive and reproduce. As succession occurs, these conditions change. An area becomes less suited for some wildlife and more suited for others. More species need various states of succession to meet their needs. The boundary where two plant communities meet is called an 'edge'. This area frequently supports an abundance of wildlife.

Wildland fire does not destroy the forest. It is a natural disturbance that ensures habitat rejuvenation, returns valuable nutrients to the ground, warms the soil and creates openings in the canopy so new plants can grow.

Wildlife

Most animals can escape wildland fire by fleeing or hiding underground. Many animals may be affected, but when thinking about wildlife and wildland fire it is important to look at the big picture. Some animals may have their habitat interrupted but the animals that remain in the area usually thrive and multiply in the years and decades after the fire.

Wildland fires leave standing dead trees (snags) that many species use for nesting sites. Fallen trees are important to some wildlife as they provide a runway under the snow and cover for small animals and insects.

How Wildland Fire Affects Wildlife:

- Wildland fires can open up a thickly-treed forest, letting in the sunlight to encourage the growth of shrubs and grasses. This is great food for moose and bison.
- Burning brings nutrients back into the soil. Wildland fires burn plant matter and leave the topsoil with a covering of fresh organic debris that creates excellent fertilizer for new plants like the aspen, berries, lichen and roses.
- Predatory birds and mammals may seek recent burns because the reduced cover makes it easier to search for prey.
- Wildland fires also help keep insects and disease in check by killing the pathogens infecting a stand.

Snowshoe hares require early successional stages where they can reach willow, birch and aspen branches. They in turn are eaten by predators such as lynx, goshawks and owls.

Habitat Mosaic

Weather, topography and forest fuels determine how a wildland fire burns. Wildland fires usually burn erratically, leaving a patchwork of vegetation across the landscape. This mosaic pattern is the key to habitat diversity because it maintains many stages of forest succession and habitat for different species among the patches.

Succession: Green plants grow → Shrubs/small trees dominate → Birch/aspen dominate → Spruce/pine grow up beneath leaved trees → Spruce/pine dominate → Old spruce/pine

0.5 years | 5 - 25 years | 25 - 50 years | 50 - 100 years | 100 - 300 years