

Prescribed Burns



Prescribed burns are fires intentionally started under specific conditions to simulate wildland fires. Some

are used as a management tool to enhance wildlife habitat. Others are started to manage forest fuels to help prevent intense and potentially dangerous fires in the future.

Why burn?

Many fires in the state are extinguished due to concern for human safety, private property, and commercial timber. Yet we know that disturbance to the boreal forest is necessary for habitat and wildlife diversity. Not allowing fires to burn causes an unnatural aging of the forest and the loss of the habitat mosaic.



Prescribed burns and logging practices are used to mimic the necessary changes wrought by wildland fires. Prescribed burning is preferable because it more closely resembles natural processes by releasing valuable nutrients, warming the soil, and leaving standing and fallen dead trees that are valuable to many species of wildlife.

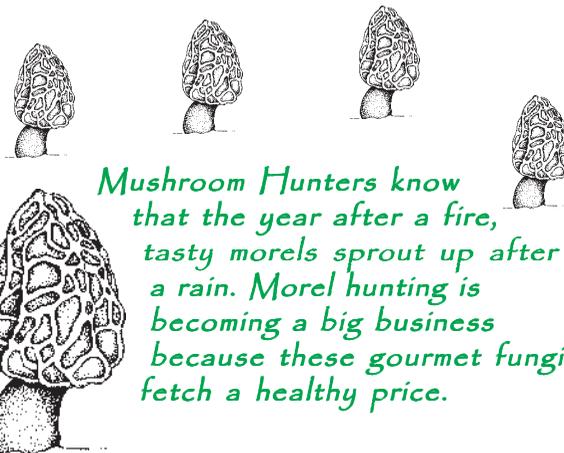
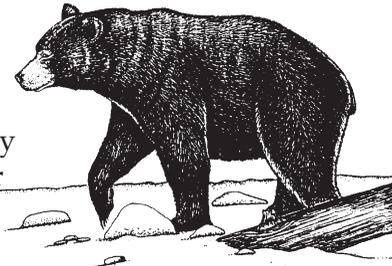


Some members of the heath family, like blueberry, Labrador tea, and cranberries, contain a flammable resin that causes ground-fires to spread and burn quickly in the boreal forest and tundra.

But Smokey Bear said...

Smokey's message is aimed at accidental, human-caused fires and is accurate in that sense.

Humans usually cause fires near where people live and work and these fires can threaten life and property. People should prevent accidental human-caused fires. **People can not, however, prevent fires caused by nature.** In Alaska, lightning starts about 200 fires per year: That's no accident!



Mushroom Hunters know that the year after a fire, tasty morels sprout up after a rain. Morel hunting is becoming a big business because these gourmet fungi fetch a healthy price.

Did You Know?

Major historic fires have created unparalleled habitat for moose and bison.

Periodic fires clear fuel and create natural fire breaks; both reduce the risk of more intense, damaging fires.

Historically, the natural fire cycle of Interior Alaska burned 1.5-2.5 million acres each year! This is about 1% of the land.

Fire maintains a mosaic of forest ages and types, providing habitat for a variety of wildlife.

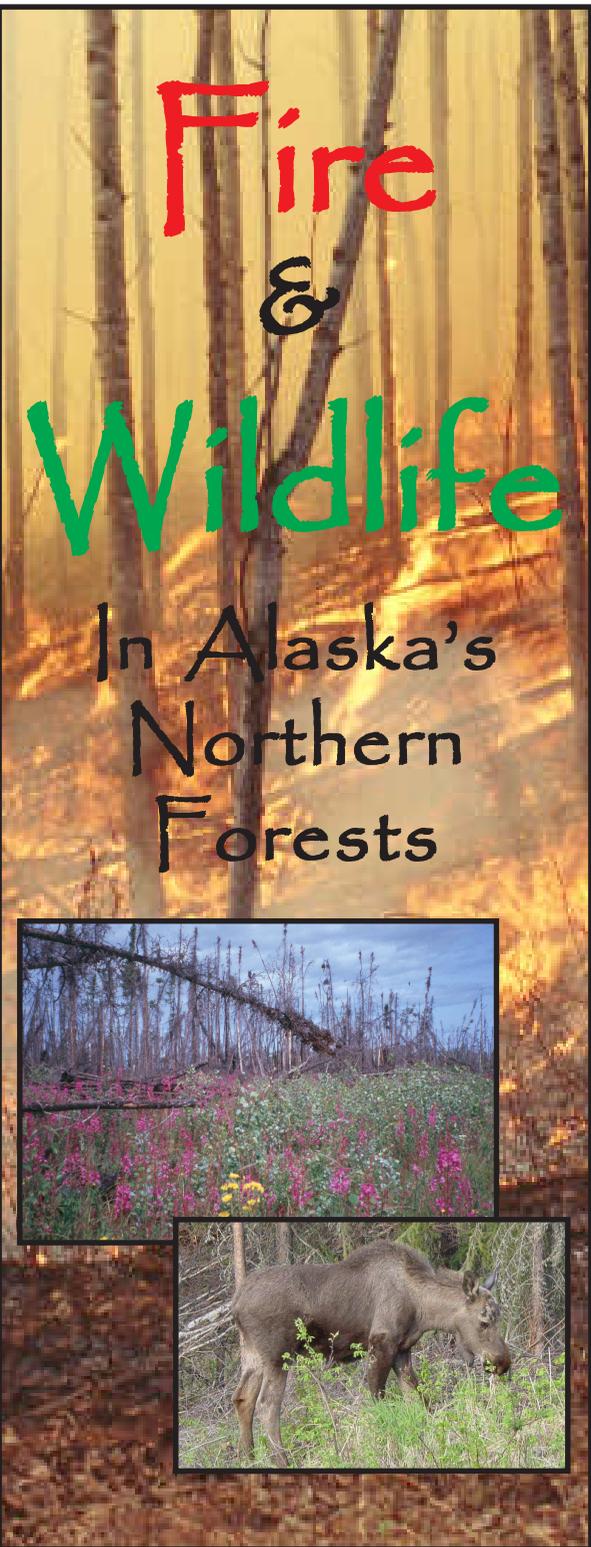
Prescribed burns are only ignited when very specific environmental conditions are met that allow beneficial changes to habitat but are not likely to threaten life and property.

Prescribed burns are usually not conducted in the early summer when lightning-caused fires are at their peak.

For more information about this brochure contact:
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Fire in the Boreal Forest

Boreal forest is characterized by spruce, aspen and birch trees. For thousands of years animals and plants have been adapting to the effects of frequent fires. In Alaska, lightning starts approximately 200 fires per year; humans cause about 400 more. As a result, hundreds of thousands of acres burn each year!

Some people tend to view fire as negative. Fire *can* be dangerous when life and property are threatened. It can also block out the sun and make breathing difficult. But fire is a natural, necessary part of life in the spruce-dominated North. Without fire, the wildlife we have come to know and expect may not be here at all.



The black-backed woodpecker thrives in recent burn areas where it eats bark beetles that invade the dead and dying trees

Habitat Mosaic



Wind, weather, vegetation and season determine how a fire burns. Fires typically burn erratically, leaving a patchwork of vegetation across the landscape. This mosaic pattern is the key to habitat diversity because it maintains multiple stages of **forest succession** and **edge effect**.

Forest Succession

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

Wildlife needs 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. Many species need various stages 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.

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

While most animals can escape fire by fleeing or hiding underground, some animals die when the forest burns. The extent varies with individual fires. When thinking about wildlife and fire it is important to look at the big picture. Yes, some animals might die, but those that remain usually thrive and multiply in the years and decades after the fire.



Fires leave standing dead trees (snags) that many species use for nesting sites.

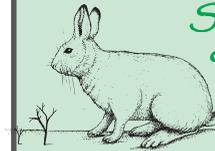
Fallen trees are also important to some wildlife as they provide a runway under the snow and cover for small animals and insects.

How fire affects wildlife depends on:

The speed of the fire

Time of year: Fires in early spring (before most young are born) or late in the summer (when most young become mobile and independent of parents) are much less likely to cause mortality than burns in late spring or early summer.

Animal species: Large mammals (bears, moose) can easily outrun most fires and birds can fly away. Smaller mammals can move to wet areas or go underground while the fire passes.



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.

Boreal Forest Succession

First green plants grow

Northern hawk owl

Shrubs, then small trees dominate



Woodpeckers

Northern shrike

Snowshoe hare

Moose

Red fox

Lynx

0-5 years

5-25 years

Birch or aspen dominate

Sharp shinned hawk

Ruffed grouse

25-50 years

Spruce grow up beneath leafed trees

Northern goshawk

Great horned owl

Marten

50-150 years

Spruce dominate

Flying squirrel

Spruce grouse

150-300 years

Old Spruce

Crossbill

