

MINNESOTA'S CONIFEROUS FOREST BIOME

Wind whispers in the fragrant needles, the heavy branches create a cathedral effect— this is the coniferous forest; the north country loved by many Minnesotans. It is a place where the vast deciduous forest of the North American continent gives way to needled trees. The coniferous forest in Minnesota is found in the northern half of the state, but grades into the deciduous forest then tallgrass aspen parkland in the northwestern part of the state. Logging, fire, and development have altered the coniferous forest biome in the past 200 years, yet there are still some untouched conifers existing today.

WHAT IS A CONIFEROUS FOREST?

A coniferous forest contains evergreen trees that bear cones. Elegant pines grow in this biome, along with spruce, fir, and tamarack. In much of the northern forest, the conifers mingle with deciduous trees, particularly aspen, birch, sugar maple, and basswood.

STORMS AND FIRE

Two major forces of natural change in the coniferous biome are catastrophic storms and fire. Typically they happen in sequence. A tornado or fierce windstorm can knock down trees over a large area. The logs, snags, and branches dry out over time as sunlight now penetrates to the forest floor. In the right conditions a fire can ignite and consume the downed forest. From these ashes a new forest will eventually emerge.



FOUNDATIONS OF TODAY'S CONIFEROUS FOREST

Glaciers sculpted the coniferous biome, leaving only thin glacial deposits blanketing the bedrock in the northeast. Deeper deposits formed in the southern and western parts of this biome. Peatlands occur in huge areas as a result of large glacial lakes that developed at the end of the glacial period.

CLIMATE IS KEY

The coniferous forest biome is often considered to be cool and moist. Cold winters and cool summers caused by arctic air masses are typical of the coniferous forest. Moisture levels are maintained by summer rains and heavy winter snows.

FUN FACT

Conifers are well adapted to living in the cold. Because needles are retained two to 15 years, they can begin photosynthesis as soon as temperatures are warm enough.

