

# 30 Fascinating Facts About the Boreal Forest

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NOTE: This article has been updated since its original posting to include more facts (from 12 to 30)



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**Welcome to almost 30 percent of the world's forest cover.**

The boreal forest is the world's largest land-based biome. Spreading over continents and covering many countries, the boreal plays a significant role in the planet's biodiversity and even its climate. Here are 30 facts you want to know about this incredible space.

## Origin of the Name

1. The boreal forest is **named after Boreas**, the Greek god of the Northwind.

## Taiga

2. The biome is known as boreal in Canada, but is **also known as taiga**, a Russian word. Taiga is most commonly used to refer to the biome's more barren northern locations while boreal is used for the more temperate, southern area (we're just using boreal for ease).

## World Distribution

The **boreal covers** most of inland Canada and Alaska, most of Sweden, Finland, and inland Norway, much of Russia, and the northern parts of Kazakhstan, Mongolia, and Japan.<sup>4</sup> The boreal represents **29% of the world's forest cover**.

5. Canada still has **91% of the forest cover** that existed at the beginning of European settlement. Conversely, only 5% of the boreal in Scandinavia remains.

6. The **largest area of wetlands** in any ecosystem of the world is found in the Canadian boreal region, containing more lakes and rivers than any similarly sized landmass on earth!

7. There are **two major types of boreal forest** -- the closed canopy forest in the South which has the longest, warmest growing season of the biome, and the high boreal forest with farther-spaced trees and lichen groundcover.

8. There is **little rainfall** in the boreal biome. Precipitation comes in the form of fog and snow, with a little rain during the summer months.

## Animals

9. While typically low on biodiversity, the boreal around the globe supports a range of animals. Canada's boreal forest is home to **85** species of mammals, **130** species of fish, some **32,000** species of insects, and **300** species of birds.

10. Of the 300 bird species that call Canada's boreal forest home during the summer, **only 30 stay through the winter**.

11. **Threatened and endangered wildlife** within the Canadian boreal forest includes such iconic species as the woodland caribou, grizzly bear, and wolverine. Habitat loss from logging is a primary reason for the decline of these species.

12. Many animal and plant **species inhabit both Asia's and North America's boreal forest**, thanks to the Bering land bridge that once connected the two continents.

13. While some of the iconic animals living in boreal forests are very familiar, including wolves, bears, Arctic fox, and muskox, it might be surprising to remember that the **Siberian Tiger** also calls the Taiga home.

14. The **great gray owl**, North America's largest owl, is a year-round resident of Canada's boreal. What would a cold, coniferous forest be without a big, grey owl?

## Weather and Climate Change

15. The boreal is COLD. The lowest recorded temperatures in the Northern Hemisphere were recorded in the boreal (or taiga) of northeastern Russia. It can easily get **as cold as -65°F** in the northern areas during winter.

Fires in Eastern Siberia (NASA Goddard Space Flight Center/Flickr)/Public Domain 16. There is **little rainfall** in the boreal biome. Precipitation comes in the form of fog and snow, with a little rain during the summer months.

17. The zone of latitude occupied by the boreal forest has seen some of the **most dramatic temperature increases**, especially in winter and especially during the last quarter of the 20th century.

18. The warming trend **threatens to transform the boreal forest** area into grassland, parkland, or temperate forest, introducing a significant shift in species of both plants and animals.

19. Outbreaks of **forest-destroying plagues** have come in the form of spruce-bark beetles, aspen-leaf miners, larch sawflies, spruce budworms, and spruce cone worms -- all of which have been worsening in recent years due in large part to the warming of the average temperature.

20. The boreal forest **stores enormous quantities of carbon**, possibly more than the temperate and tropical forests combined, much of it in peatland.

## Trees

21. The Canadian boreal **emerged with the end of the last Ice Age** about 10,000 years ago, with coniferous tree species migrating north. The forest as we know it today in terms of biodiversity took shape about 5,000 years ago -- a very short time ago in geological time scale.

22. **Wildfires** are an important part of the reproductive cycle for some species. Depending on the area, large fires occur in a cycle repeating anywhere from 70 to 200 years.

23. The trees of the boreal forest tend to have **shallow roots**, due to the thin soils.

24. The **soils** of the boreal forest are often acidic, due to falling pine needles, and low on nutrients since the cold temperatures do not allow much foliage to rot and turn into dirt.

## Logging

25. To date, only **12% of the boreal forest is protected** around the globe -- and over 30% has already been designated for logging, energy and other development.

26. **Logging** has played its role on the boreal forest, with large swaths of Siberia's taiga harvested for lumber after the fall of the Soviet Union. Meanwhile, in Canada, logging companies are under constraints, yet many still practice clearcutting, a strategy that in some cases is harsh on the forest ecosystem.

27. Most companies harvesting timber in Canada are **certified by third parties**, such as the Forest Stewardship Council or Sustainable Forestry Initiative. You will often see "FSC" or "SFI" certified on products made from sustainably harvested wood.

28. In 2010, an historic agreement among 20 major timber companies and 9 environmental groups brought about a plan to **protect 170 million acres of boreal forest** in Canada. It was named the Canadian Boreal Forest Agreement.

### **Aurora Borealis**

29. The word "boreal" might be most familiar because of the phenomenon **aurora borealis**, or Northern Lights, which is a natural light display seen in high latitudes.

The aurora borealis was **named after the Roman goddess** of dawn, Aurora, and the Greek name for the north wind, Boreas, by Pierre Gassendi in 1621. However, the Cree call this phenomenon the "Dance of the Spirits".

30. While the aurora borealis can cause changes in temperature and wind inside and near the aurora, none of these disturbances reach down to where the weather takes place and so it **does not impact any of the boreal**, or taiga, over which it occurs.

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