



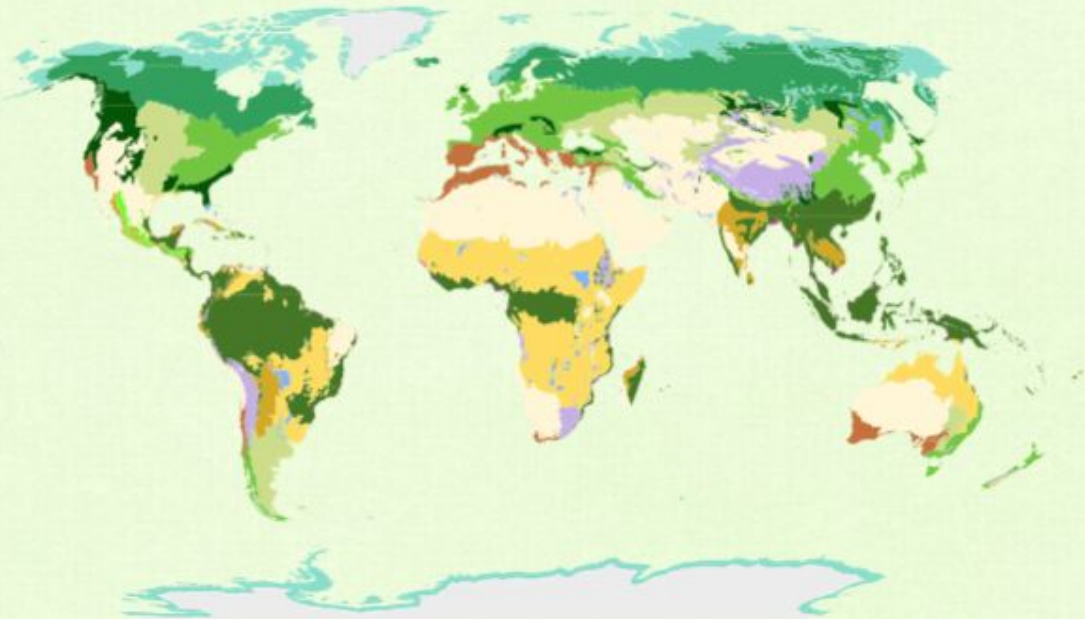
Biomes



What is a Biome?

Our world is divided into large areas of similar ecosystems that we call biomes. Biomes have similar weather, rainfall, animals, and plants. There are biomes in dry land and in water. Every part of earth's surface is included in one or more biomes.

- Desert
- Temperate Forest
- Savannah
- Rainforest
- Tundra
- Taiga
- Grassland
- Mediterranean



Forest Biome

Approximately 30% of earth is considered a part of the forest biome. It has a wide variety of trees, plants, animals, insects, and microscopic organisms. Its major characteristics are the trees.

Subdivided by climate and types of trees:

- Rainforest Biome
- Deciduous Forest Biome
- Taiga Biome



Rainforests: Location

There are two types of rainforest biomes: temperate and tropical rainforests.

Tropical Rainforest
(can be found around the world)



Temperate Rainforest
(covers 6-7% of earth's land surface)



Rainforests: Weather

Rainforests help maintain global weather patterns and rain. There are many trees in rainforests, so when water evaporates from trees, they fall in other areas as rain.

Tropical Rainforest

- Warm and lush the entire year
- Very wet and high humidity
- Yearly rainfall: 80 to 400 inches



Temperate Rainforest

- Temperatures a lot cooler than tropical rainforest but still mild
- Wet but not as rainy as tropical
- Yearly rainfall: 60 to 200 inches



Rainforests: Plants

A very common plant found in the rainforest is called an epiphyte. Epiphytes are plants that live on surfaces of other plants. They mostly grow on trees.

Tropical Rainforest

Most common epiphytes:
Orchids and bromeliads



Orchids



Bromeliads

Temperate Rainforest

Most common epiphytes:
Mosses and ferns



Mosses



Ferns

Rainforests: Trees

Tropical Rainforest

- 100s of species of trees
- Mostly broadleaf trees with thin smooth bark.
- Trees in this rainforest live for 50 to 100 years.



Temperate Rainforest

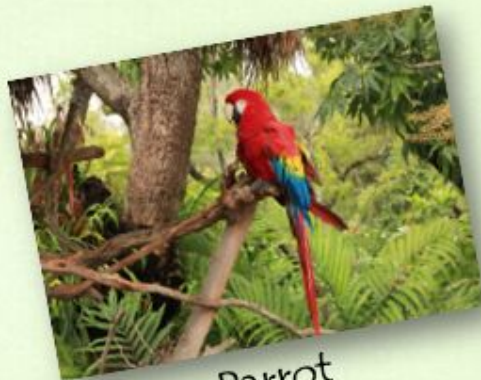
- 10-20 species of trees
- Mostly coniferous trees (triangular shape and the leaves can be long pointy needles)
- Trees in this rainforest can live up to 1000 years!



Rainforests: Animals

Tropical Rainforest

- Half of the animal species on earth live in tropical rainforests!
- Most of the animals live high up on the trees.
- Animals: Monkeys, Birds (parrots), Insects (Butterflies, mosquitos, ants)



Parrot



Monkey



Cougars

Temperate Rainforest

- Most of the animals live on or near the floor to protect themselves from wind and rain.
- Animals: birds, chipmunks, deer, cougar, and bobcats
- Cougars and bobcats are the top predators in this biome.



Chipmunks

Deciduous Forest: Location

Deciduous forests are located in the eastern United States, Canada, China, Europe, Japan, and parts of Russia.



Deciduous Forest: Weather

Winter, spring, summer, and fall happen in this biome. Deciduous forests have a wet environment making it the second rainiest biome. In winter precipitation falls as snow because of below freezing temperatures.

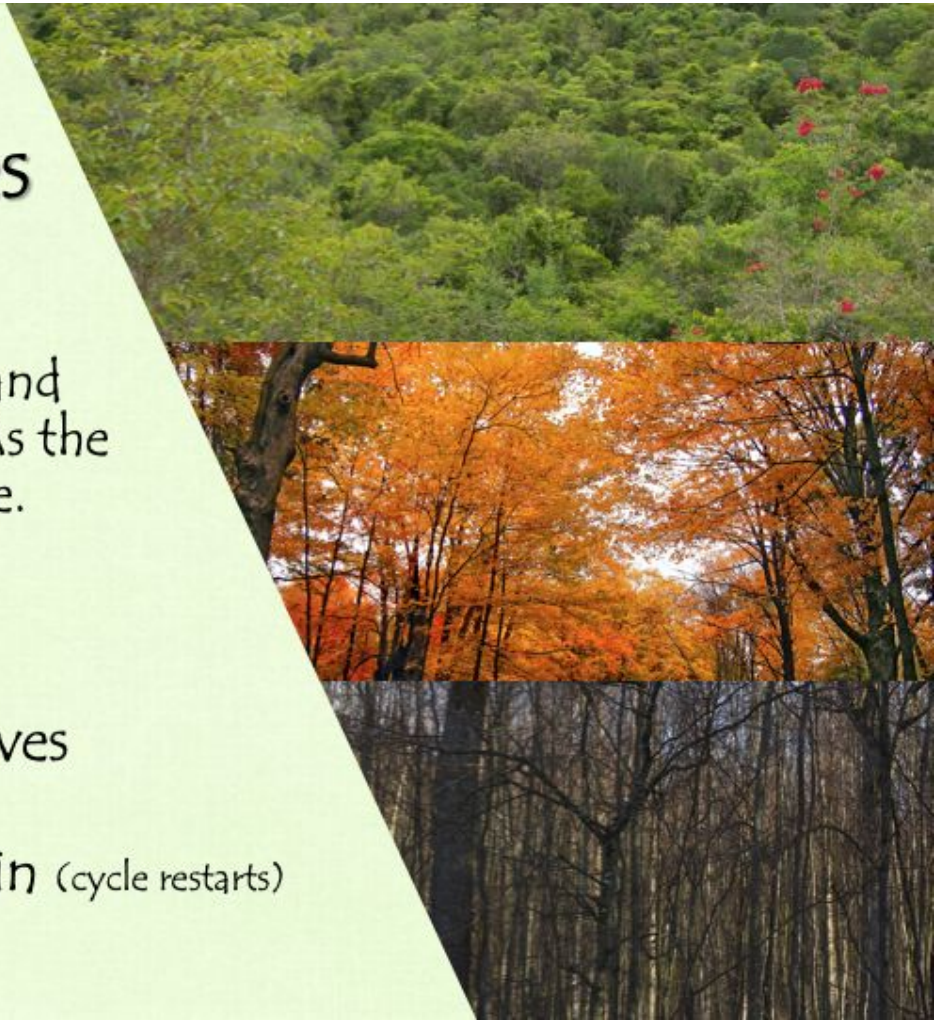
During the summer, the temperatures are about 70°F.



Deciduous Forest: Trees

Deciduous trees are trees with leaves and they adapt in this biome to survive. As the seasons change, the leaves also change.

- **Summer:** Green Leaves
- **Fall:** Red / Yellow / Orange Leaves
- **Winter:** No Leaves
- **Spring:** Leaves start to grow again (cycle restarts)



Tree Stratum Zone
(Tallest Zone)

Deciduous Forest: 5 Zones

Deciduous (leaf-shedding) forests are broken up into 5 zones:



Sapling Zone



Shrub Zone



Herb Zone



Ground Zone



Deciduous Forest: Animals

The animals in this biome have to adapt to the changing seasons and some animals hibernate or migrate during the winter to escape the cold weather.



Black Bear



Mountain Lion



Rabbit



Hawk

Taiga: Location

The Taiga is one of the three main forest biomes and it is located in the far north between the temperate forest and the tundra.



Taiga: Weather

Long, bitterly cold winters and short, mild, wet summers is the typical weather in this region. It rains a lot in the Taiga regions and they fall as snow in the winter and rain in the summer. Precipitation: 10-30 in. yearly



Taiga: Plants

The main plant you can find in this biome is the coniferous evergreen trees which include spruce, pine, cedar, and fir trees. They grow very close together forming a canopy like an umbrella over the land and they produce their seeds in cones. Under the canopy of trees, other plants grow such as ferns, sedges, mosses, and berries.



Coniferous trees grow in a cone shape which help the snow slide off their branches.



Taiga: Animals

Animal populations are mainly squirrels, jays, deer, moose, elk, grizzly bears, wolves, lynxes, and wolverines, bats, and woodpeckers.

Characteristics of the animals to help them survive in this biome:

- Thick fur or feathers (to keep them warm)
- Sharp claws (good at climbing trees)
- Large feet (to walk on snow without sinking)

