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# Biomes and Biodiversity: Where Does Biodiversity Exist?

Biodiversity refers to the variety of life that may be found in a given place. It includes animals, plants, fungi, and even microbes such as bacteria. Read more: [What Is Biodiversity?](#)

One type of place biodiversity is often measured are biomes, large geographical areas distinguished by their vegetation, soil, climate, and wildlife.

## Table of Contents

[What Are the Different Types of Biomes?](#)

[Which Biome has the Most Biodiversity?](#)

[Which Biome has the Least Biodiversity?](#)

[Discovering North American Biomes](#)

## What Are the Different Types of Biomes?

Biodiversity thrives when biomes are protected, for they are vital to all other kinds of species that occupy the planet. There are several types of biomes that are typically defined as aquatic, tundra, deserts, grasslands, and forests.

- ❏ [Aquatic biomes](#) are made up of both saltwater and freshwater biomes.
- ❏ [Tundra biomes](#) are located in the northernmost part of the planet where the climate is cold and windy. Tundras don't have trees and have low amounts of rainfall.
- ❏ [Desert biomes](#) include hot and dry deserts, semi-arid deserts, coastal deserts, and cold deserts.
- ❏ [Grassland biomes](#) are characterized by vast areas of flat land covered in grass.
- ❏ [Forest biomes](#) include deciduous forests, coniferous forests, and tropical rainforests.

# Which Biome has the Most Biodiversity?

The aquatic biome has the highest biodiversity due to its size. Aquatic biomes cover approximately [75%](#) of the Earth's surface, resulting in a high number of known and unknown species. However, when looking specifically at terrestrial biomes, tropical rainforests are the most biodiverse. Despite their small coverage of only [6%](#) of the Earth's surface, tropical biomes contain [half](#) of all plant and animal biodiversity on land.

## Tropical Rainforest Biomes: Most Biologically Diverse

Rainforests are the most biologically diverse terrestrial biome because of their geographic location and the amount of rainfall they receive. Tropical rainforests are located along the equator, which gets a large amount of rain year-round and receives the most amount of sunlight that supplies sufficient energy to all its vegetation. These factors help support a wide variety of life.

Tropical rainforest biomes are one of the [oldest ecosystems](#) on the planet, which explains why it includes [50%](#) of all the terrestrial animals and plants despite relatively low land cover as a percentage of all land on Earth. Here are a few examples of tropical rainforest species:

### Tropical Wildlife

A wide variety of animal species can be found across the tropical rainforest, such as:

#### Mammals

- 📖 Big cats, including jaguars and panthers.
- 📖 Different types of primates, including orangutans, gorillas, and lemurs.
- 📖 Rodents, such as capybaras, squirrels, and different kinds of mice.
- 📖 River dolphins can also be found in some rainforests.

#### Reptiles and Amphibians

- 📖 Different types of frogs, such as poison dart frogs and tree frogs.
- 📖 Snakes, including anacondas, pythons, vipers, and cobras.
- 📖 Lizards, such as iguanas, geckos, and chameleons.
- 📖 Different types of crocodiles

#### Birds

- 📖 Small birds, including hummingbirds, kingfishers, and different [birds of paradise](#).
- 📖 Large birds, such as toucans, owls, storks, parrots, and herons.
- 📖 [Birds of prey](#), including eagles, falcons, and even some vultures.

## Insects

- ☒ Various types of insects, such as ants, beetles, bees, crickets, bugs, spiders, and more.
- ☒ [150 species](#) of butterflies

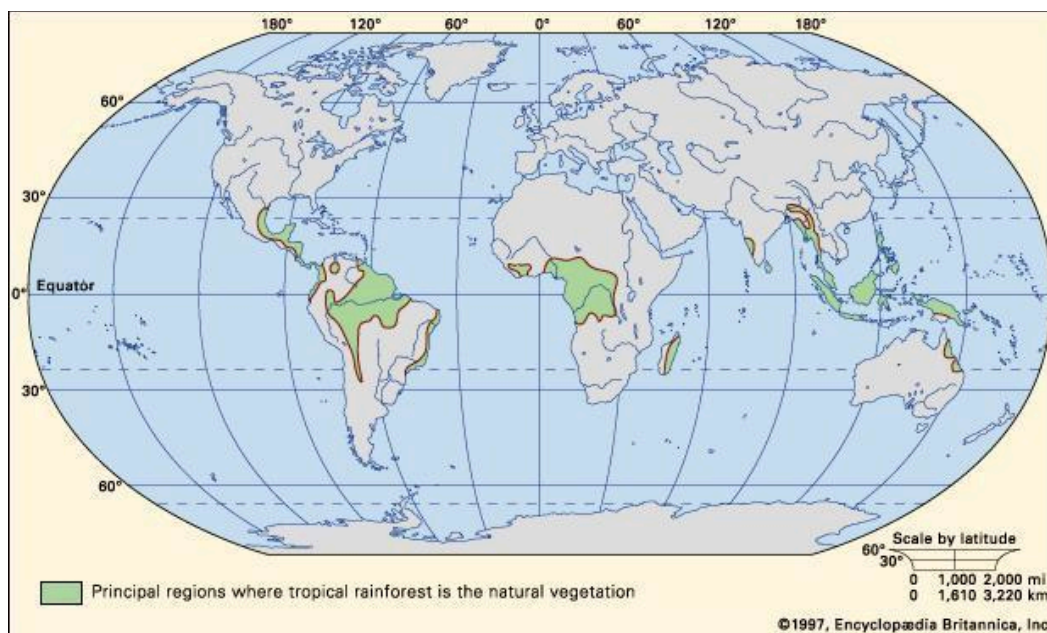
## Plants and Trees

Tropical rainforests are home to approximately [200,000](#) plant and tree species including:

- ☒ Hanging plants, such as orchids and pothos.
- ☒ Other types of plants, including arabica coffee plant, venus fly traps, and different kinds of lilies.
- ☒ [750 species](#) of trees, including cacao trees, rubber trees, and mahogany trees.
- ☒ [1,500 species](#) of flowering plants

## Tropical Rainforest Locations Around the World

Rainforests can be found in different regions around the globe. The map below shows the locations of tropical rainforests.



Source: [Britannica Encyclopedia](#)

## Countries with Tropical Rainforest Biomes

Many different countries around the globe have tropical rainforests. Here are the countries that have the [largest tropical rainforests](#):

- ☒ Brazil
- ☒ Congo (Democratic Republic)
- ☒ Indonesia
- ☒ Peru

🇨🇴 Colombia

Here are the [other countries](#) that also have large areas consisting of tropical rainforests:

🇧🇴 Bolivia

🇨🇲 Cameroon

🇨🇩 Central African Republic

🇪🇨 Ecuador

🇬🇦 Gabon

🇬🇾 Guyana

🇮🇳 India

🇱🇦 Laos

🇲🇾 Malaysia

🇲🇽 Mexico

🇲🇲 Myanmar

🇵🇬 Papua New Guinea

🇨🇩 Republic of Congo

🇻🇪 Venezuela

🇸🇷 Suriname

## Biodiversity in North America: Discovering North American Biomes

North American biomes include land areas within Canada, the United States, Mexico, and Central American countries. North America is classified into [six major biomes](#): tundra, coniferous forest, grassland, deciduous forest, desert, and tropical rainforest.

### Which Biome in North America Has the Highest Biodiversity?

The tropical rainforest biome in the North American region has the [highest biodiversity](#). Rainforests in North America are located in Central American countries near the equator, including Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama.

Read more: [Biodiversity in Central America](#)

## Which Biome Has the Least Biodiversity?

Tundra biomes have the least biodiversity due to extremely cold conditions and very limited summer. The average temperature in these regions are around [-34 to 12 degrees Celsius](#), which is not survivable for most species.

## Tundra Biomes: Least Biologically Diverse

Tundra biomes are divided into [two types](#). The Arctic tundra is located above the Arctic Circle on high-latitude areas all the way to the polar ice cap. Alpine tundra is found at extremely high elevations among mountain tops, where temperatures drop below freezing, especially at night. Both of these areas are marked by a lack of trees.

The tundra biome's climate is mostly freezing all year round. It gets less rainfall than other areas, which essentially makes the tundra a cold desert, with few plants and animals. However, despite its long, cold

winters, the tundra still has a short growing season of approximately [six to ten weeks](#) of warmer temperature, when some of the plant and animal species take the opportunity to thrive.

## Wildlife

Some animals have adapted to the extreme conditions of the tundra, including:

### Mammals

- ❑ Small mammals, such as arctic foxes, arctic hares, and lemmings.
- ❑ Large mammals, including musk oxen, reindeers, yaks, and caribous.
- ❑ Predators, such as polar bears, arctic wolves, and lynx.

### Birds

- ❑ Small birds, including little bunting, plovers, and arctic redpoll
- ❑ Large birds, such as swans, and different kinds of arctic geoses.
- ❑ Birds of prey, including gyrfalcons and different types of owls.

### Insects

- ❑ Mosquitoes, moths, grasshoppers, and arctic bumblebees can also be found in the tundra.

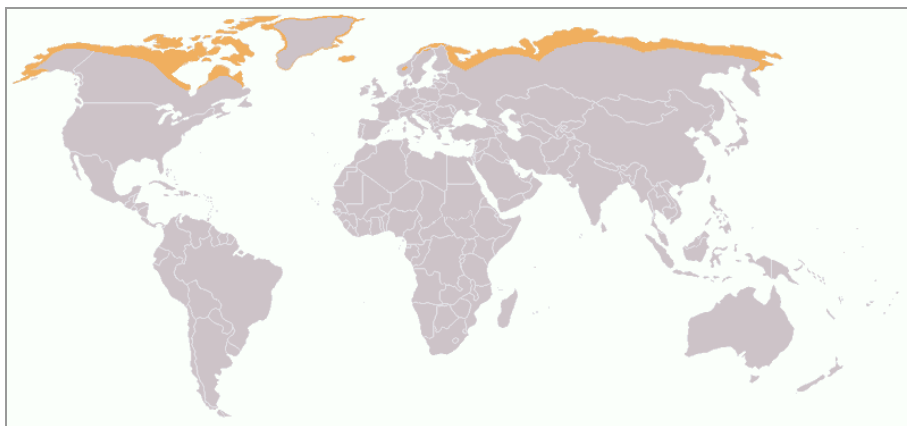
## Plants and Trees

Although the term ‘tundra’ came from the Finnish word ‘tunturia’ meaning treeless land, there are still some species of plants and trees that adapt to its extreme conditions. These include:

- ❑ Plants, including short shrubs, sedges, flowers, and grasses.
- ❑ Several tree species, such as willow trees and birch trees.

## Tundra Locations Around the World

Tundra covers approximately [20%](#) of the Earth’s surface reaching the North Pole. The map below shows the regions where Arctic tundra biomes are located. Other tundras are found at high elevations.



Source: [Wikipedia](#)

## Countries with Tundra Biomes

Different countries from the northern part of the globe have tundra biomes including the countries of:

- 📍 Alaska
- 📍 Canada
- 📍 Russia
- 📍 Greenland
- 📍 Iceland
- 📍 Scandinavia

Read more about biodiversity in different locations, such as Mexico, Pakistan, Bangladesh, and Central America.