



What is a biome?

A biome is a group of ecosystems that have a similar climate and are therefore inhabited by particular plant and animal species.

Terrestrial Biomes

Tropical Rainforests

Climate and soils: Tropical Rainforests are forests where more than 100 inches of rain fall each year, so they are always green and full of life. The average temperature is 28°C. Soils are thin and poor in nutrients.

Dominant vegetation: Tropical Rainforests have a high diversity of plants, with broad-leafed trees and abundant epiphytes and vines.

Dominant animal life: More than half of the world's plant and animal species live in rainforests. This rich biodiversity includes insects, amphibians, birds, snakes, monkeys, small mammals and larger ones such as jaguars.

Geographic distribution: Tropical rainforests are located close to the Equator between the Tropic of Cancer and the Tropic of Capricorn. They are found in northern South America, Central America, and western central Africa, islands in the Indian and Pacific Oceans and South East Asia.

Temperate Forests

Climate and soils: Temperate forests are seasonal; experiencing temperatures below freezing in the winter and having warm, humid summers. These forests have a yearly rainfall between 30-80 inches. Soils are well developed.

Dominant vegetation: Most vegetation consists of deciduous trees, which shed their leaves in the winter, as well as conifers, shrubby undergrowth and ferns.

Dominant animal life: Squirrels, raccoons, opossums, skunks, deer, foxes, black bears, snakes, amphibians, and birds are found here.

Geographic distribution: Temperate forests are found in western and central Europe, eastern Asia and eastern North America.

Coniferous Forests

Climate and soils: Coniferous forests are seasonal, with long and frigid winters. Precipitation is heavy in the summer months. Soils are acidic with large amounts of humus and leaf litter.

Dominant vegetation: Spruce, fir, pine and hemlock are among the coniferous trees that are found in this area.

Dominant animal life: Coniferous forests are inhabited by large plant eaters such as deer, moose, and elk, along with mice, hares, squirrels, lynx, bears and foxes.

Geographic distribution: Coniferous forests are located in northern parts of North America, Europe, Asia and in high elevations in southern regions.



Tundra

Climate and soils: Tundras have little precipitation and are bitter cold throughout the year, with the exception of an 8-10 week growing season with moderate temperatures. Permafrost, the ground of arctic regions that remains permanently frozen, is found beneath the thin layer of soil.

Dominant vegetation: Dwarf shrubs, lichens, moss and grasses grow in these areas.

Dominant animal life: Throughout the year lemmings, arctic hares, arctic foxes, lynx, caribou, polar bears, grey wolves, penguins, and musk ox inhabit these areas. During the warmer weeks, many insects, geese and ducks are found in tundras.

Geographic distribution: Tundras are located, in the Northern hemisphere, circling the North Pole down above the coniferous forests.

Grasslands

Climate and soils: Grasslands have seasonal rainfall averaging 10-60 inches a year, frequent fires and rich, deep soils.

Dominant vegetation: As their name would suggest, grasslands are dominated by grass species. Tall grasses grow in areas with higher rainfall and shorter grasses grow in drier areas.

Dominant animal life: Large grazing animals such as bison and goats, as well as wild horses, kangaroos, antelopes, rhinos, wart hogs, prairie dogs, coyotes, jackals, lions, hyenas and termites all inhabit grasslands.

Geographic distribution: Grasslands can be found in central North America, central Asia, subequatorial Africa and South America, southern India and Northern Australia.

Deserts

Climate and soils: Deserts are very dry, with hot days and cold nights. Average rainfall is less than 10 inches a year. Soils are thin and porous.

Dominant vegetation: Plant life in deserts is widely scattered and consists of thorny bushes, shrubs and cacti.

Dominant animal life: Rodents, lizards, snakes, insects, owls, hawks and small birds can be found in deserts.

Geographic distribution: Deserts are located in north and southwest Africa, parts of the Middle East and Asia, the southwestern United States and northern Mexico.

Sources:

- Wright, Richard T. and Bernard J. Nebel. *Environmental Science: Toward a Sustainable Future, Eighth Edition*. New Jersey: Pearson Education, 2002.
- World Biomes: <http://www.worldbiomes.com>