

Land Biomes



Land Biomes

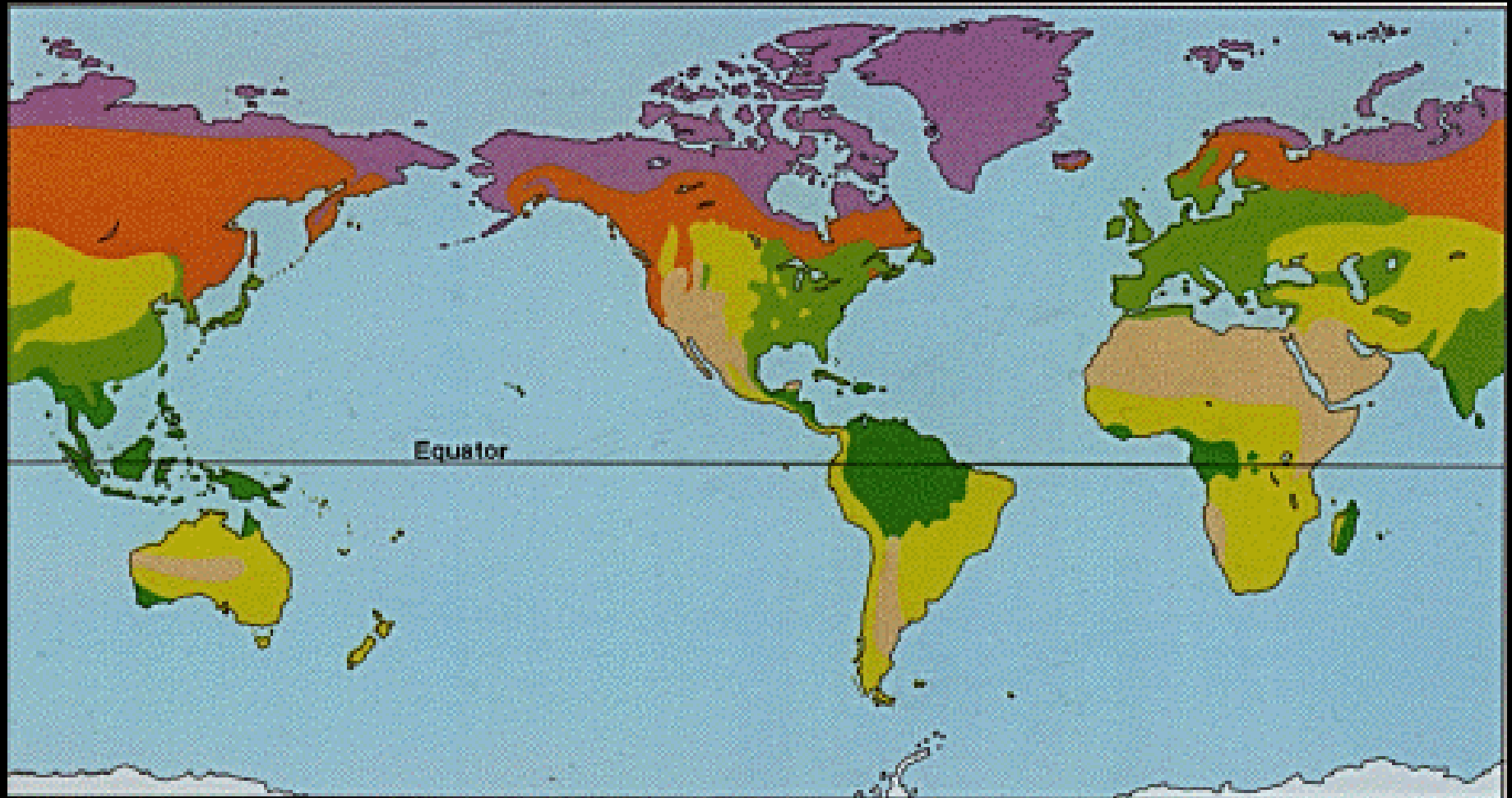
Biome- geographic areas that have similar climates and ecosystems


Land Biomes

The 6 most common biomes are:

- Tundra
- Taiga
- Temperate Deciduous Forest
- Tropical Rain Forest
- Grassland
- Desert

Land Biomes



 Tundra

 Temperate forest

 Grassland

 Taiga

 Tropical rain forest

 Desert

Tundra

Found in parts of Canada, Alaska, and Siberia



Tundra - "The Cold Desert"

- Found at latitudes around the North Pole
- Less than 25 cm precipitation yearly
- Very cold year round (-40°C in winter)
- Cold, dry, treeless region



Tundra -

"The Land of the Midnight Sun"

- Winter lasts 6 to 9 months with no daylight
- Summer is short and cold with 24 hours of sunlight a day



Tundra-

- Soil is poor
- Permafrost
 - Layer of permanently frozen soil



Plants of the Tundra

Tundra plants are resistant to drought and cold

Examples:

- Reindeer moss (a lichen!)
- Lichens
- True mosses
- Grasses
- Small shrubs and flowers

Plants of the Tundra

- Reindeer moss - It's a lichen!



Plants of the Tundra

- Lichens



Plants of the Tundra

- True Mosses



Plants of the Tundra

- Small shrubs and flowers



Plants of the Tundra

- Small shrubs and flowers



Plants of the Tundra

- Grasses



Animals of the Tundra

Many animals of the tundra migrate there during the short summer

Examples:

- Biting insects
- Snowy owls
- Arctic hares
- Caribou
- Musk oxen
- Lemmings

Animals of the Tundra

- Biting insects

Mosquito



Blackfly



Animals of the Tundra

- Snowy owl



Animals of the Tundra

- Arctic hare



Animals of the Tundra

- Caribou - "Reindeer"



Animals of the Tundra

- Musk oxen



Animals of the Tundra

- Lemmings



Taiga or Coniferous Forest

Found in parts of Canada, Alaska, and Russia



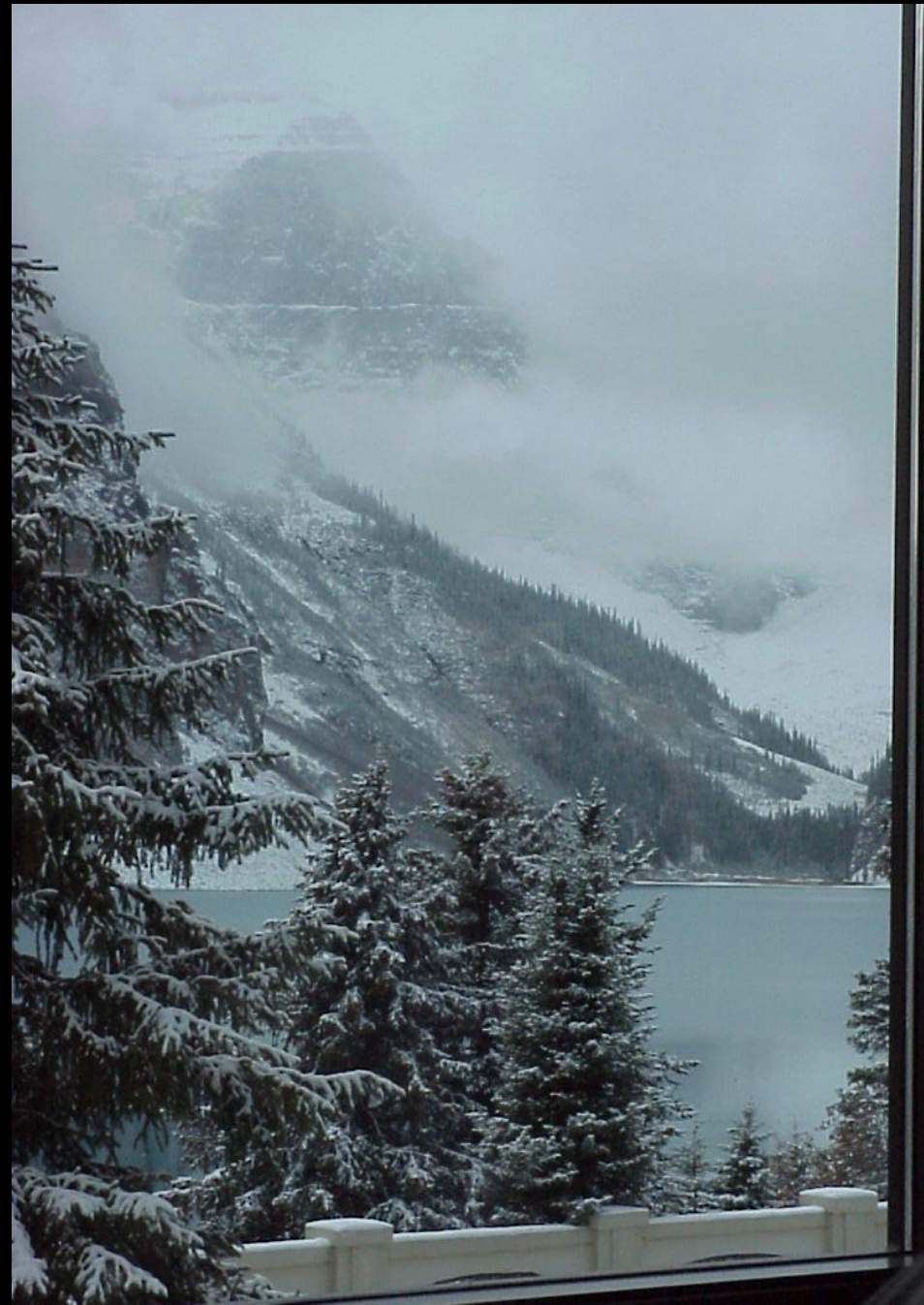
Taiga or Coniferous Forest

- World's largest land biome
- Latitudes between 50°N and 60°N



Taiga-

- Warmer and wetter than the Tundra
- Winters are long and cold
- 35 to 40 cm of precipitation yearly (mostly snow)



Plants of the Taiga

There is no permafrost, so trees can grow. Mosses and lichens grow on the forest floor.

Examples:

- Cone-bearing Evergreen trees

- Firs

- Hemlocks

- Spruces

- Cedars

- Pines

Plants of the Taiga

- Fir tree



Plants of the Taiga

- Spruce tree



Plants of the Taiga

- Hemlock tree



Plants of the Taiga

- Liverwort (a moss)



Plants of the Taiga

- Mosses



Animals of the Taiga

Many animals live in the Taiga.

Examples:

- Moose
- Black Bear
- Lynx
- Wolves
- Badgers
- Wolverines
- Ermines
- Deer

Animals of the Taiga

- Moose



Animals of the Taiga

- Black bear



Animals of the Taiga

- Lynx



Animals of the Taiga

- Wolf



Animals of the Taiga

- Badger



Animals of the Taiga

- Wolverine



Temperate Deciduous Forest

Found in Europe, the eastern part of the U.S.A., and China



Temperate Deciduous Forest

- Found below 50°N latitude
- 75 to 150 cm precipitation yearly



Temperate Deciduous Forest

- Wide range of temperatures with 4 seasons
- Below freezing in winter to 30°C in summer
- Georgia



Temperate Deciduous Forest

- Soil is rich in nutrients from layers of decomposing leaves



Temperate Deciduous Forest

- Layers of vegetation
 - Canopy
 - Understory
 - Forest floor



Layers of Vegetation

Canopy- tree tops that shade the ground below

Understory- shrub layer

Forest floor- dark and moist layer of dead leaves, twigs, and seeds

Layers of Vegetation

Canopy



Layers of Vegetation

Understory



Layers of Vegetation

Forest floor



Life in the Temperate Deciduous Forest

The mild climate and rich soil of the temperate deciduous forest supports a wide variety of plant and animal life.

Plants of the Temperate Deciduous Forest

Plant life is abundant.

Examples:

- Oak trees
- Hickory trees
- Maple trees
- Shrubs
- Wildflowers
- Ferns

Plants of the Temperate Deciduous Forest

- Oak tree



Plants of the Temperate Deciduous Forest

- Hickory tree



Plants of the Temperate Deciduous Forest

- Maple tree



Plants of the Temperate Deciduous Forest

- Shrubs (Azalea)



Plants of the Temperate Deciduous Forest

- Shrubs (Holly)



Plants of the Temperate Deciduous Forest

- Wildflowers



Plants of the Temperate Deciduous Forest

- Ferns



Animals of the Temperate Deciduous Forest

Animal life is diverse.

Examples:

- Deer
- Foxes
- Snakes
- Bears
- Birds
- Raccoons
- Amphibians
- Small mammals

Animals of the Temperate Deciduous Forest

- Deer



Animals of the Temperate Deciduous Forest

- Fox



Animals of the Temperate Deciduous Forest

- Snakes (Eastern Garter Snake)



Animals of the Temperate Deciduous Forest

- Snakes (Copperhead)



Animals of the Temperate Deciduous Forest

- Black bear



Animals of the Temperate Deciduous Forest

- Birds (Bald Eagle)



Animals of the Temperate Deciduous Forest

- Birds

- (Barn Owl)



Animals of the Temperate Deciduous Forest

•Birds

Woodpecker



Cardinal



Animals of the Temperate Deciduous Forest

• Raccoon



Animals of the Temperate Deciduous Forest

- Amphibians

Wood frog



Leopard Frog



Animals of the Temperate Deciduous Forest

• Amphibians

Spotted Salamander



Jefferson Salamander



Animals of the Temperate Deciduous Forest

- Small Mammals

Field Mouse



Squirrel



Tropical Rain Forest

Found near the equator in Africa, South America, Australia, and the Pacific Islands



Tropical Rain Forest

- Found near the equator
- 200 to 225 cm precipitation yearly



Tropical Rain Forest

- Hot and humid all year
- Temperatures are fairly constant around 25°C



Tropical Rain Forest

- Soil is nutrient poor and acidic
- Most plants have shallow roots



Tropical Rain Forest Layers of Vegetation

Tropical Rainforest Strata



Emergents

Canopy

Understory

**Forest
Floor**

Life in the Tropical Rain Forest

The tropical rain forest is a lush, productive ecosystem containing more than half of all the species that live on Earth.

Plants of the Tropical Rain Forest

A rain forest may contain more than 700 species of trees and over 1000 species of flowering plants.

Examples:

- Mahogany trees
- Bromeliads and orchids
- Giant ferns
- Many flowering plants

Plants of the Tropical Rain Forest

- Mahogany tree

Notice how the roots rise above the ground to help support this giant tree!



Plants of the Tropical Rain Forest

- Bromeliads



Plants of the Tropical Rain Forest

•Orchids



Plants of the Tropical Rain Forest

- Giant ferns



Plants of the Tropical Rain Forest

- Flowering plants



Animals of the Tropical Rain Forest

The rain forest is home to a huge number of animals.

Examples:

• Monkeys

• Bats

• Exotic birds

• Insects

• Snakes

• Large cats

• Sloths

• Exotic mammals

Animals of the Tropical Rain Forest

• Monkeys



Animals of the Tropical Rain Forest

- Exotic birds

Toucan



Parrots



Animals of the Tropical Rain Forest

• Exotic birds

Cockatoo



Hummingbird



Animals of the Tropical Rain Forest

•Snakes (Anaconda)



Animals of the Tropical Rain Forest

• Snakes

Albino Ball Python



Green Mamba



Animals of the Tropical Rain Forest

• Sloths



Animals of the Tropical Rain Forest

- Bat (Fruit bat)



Animals of the Tropical Rain Forest

•Insects

Butterfly



Beetle



Animals of the Tropical Rain Forest

• Large Cats (Jaguar)



Animals of the Tropical Rain Forest

• Large Cats (Sumatran Tiger)



Animals of the Tropical Rain Forest

- Large Cat (Ocelot)



Animals of the Tropical Rain Forest

• Exotic mammals

Paca



Peccary



Animals of the Tropical Rain Forest

• Exotic mammals

Agouti



Nutria



Grassland

"The Bread Basket of the World"

Found on every continent.



Grassland

Grasslands are known by many names.

U.S.A. - Prairie or Plains

- Asia - Steppe
- South America - Pampas
- Africa - Veldt or Savanna
- Australia - Savanna

Grassland

- Wet seasons followed by a season of drought
- 25 to 75 cm precipitation yearly



Grassland

- The soil is rich and fertile.
- The grass has extensive root systems, called sod.



Plants of the Grassland

Grassland regions of the world are important farming areas. Cereal and grains grow here.

Examples:

- Wheat

- Rye

- Barley

- Corn

Plants of the Grassland

- Wheat



Plants of the Grassland

•Rye



Plants of the Grassland

- Barley



Plants of the Grassland

- Corn



Animals of the Grassland

The most noticeable animals in grassland ecosystems are usually grazing mammals.

Animals of the American Grassland

- Bison



Animals of the American Grassland

•Prairie Dog



Animals of the American Grassland

- Pronghorn



Animals of the American Grassland

- Coyote



Animals of the African Grassland

•Gazelle



Animals of the African Grassland

- Wildebeest



Animals of the African Grassland

•Lion



<http://www.africaguide.com>

Kenya

(Mark Lankford)

Animals of the African Grassland

- Elephant



Animals of the African Grassland

- Giraffe



Animals of the Australian Grassland

Australian grassland animals are marsupials

- Kangaroo



Animals of the Australian Grassland

- Long Nosed Bandicoot



Animals of the Australian Grassland

- Wallaby



Animals of the Australian Grassland

- Wombat



Desert

Found on every continent.

The driest biome on Earth



Desert

- Extreme temperatures-
Very hot during the day and cool at night



Desert

- Very little rainfall
- Less than 25 cm precipitation yearly



Desert

- The soil ranges from gravel to sand.
- Soil is nutrient poor.



Plants of the Desert

Desert plants have evolved adaptations to help them survive in the extreme temperatures and dryness of this biome.

Examples:

- Cactus

- Wildflowers

- Mesquite

- Creosote

- Joshua trees

Plants of the Desert

•Cactus

Saguaro



Prickly Pear



Plants of the Desert

- Joshua tree



Plants of the Desert

• Wildflowers



Plants of the Desert

- Creosote



Animals of the Desert

The animals of the desert are adapted to the hot temperatures.

Examples:

- Lizards
- Kangaroo rat
- Camels
- Gila Monster
- Snakes
- Predatory birds
- Scorpions
- Tarantula

Animals of the Desert

- Lizards

Desert Iguana



Frilled Lizard



Animals of the Desert

- Camel



Animals of the Desert

• Snakes

Diamondback Rattlesnake



Sidewinder



Animals of the Desert

- Scorpion



Animals of the Desert

- Kangaroo rat



Animals of the Desert

- Gila Monster



Animals of the Desert

- Predatory birds

Great Horned Owl



Kestrel

