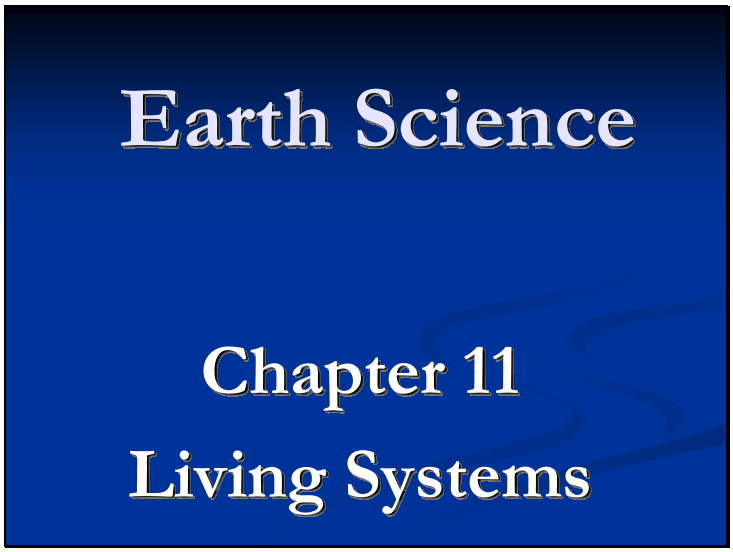
Slide 1



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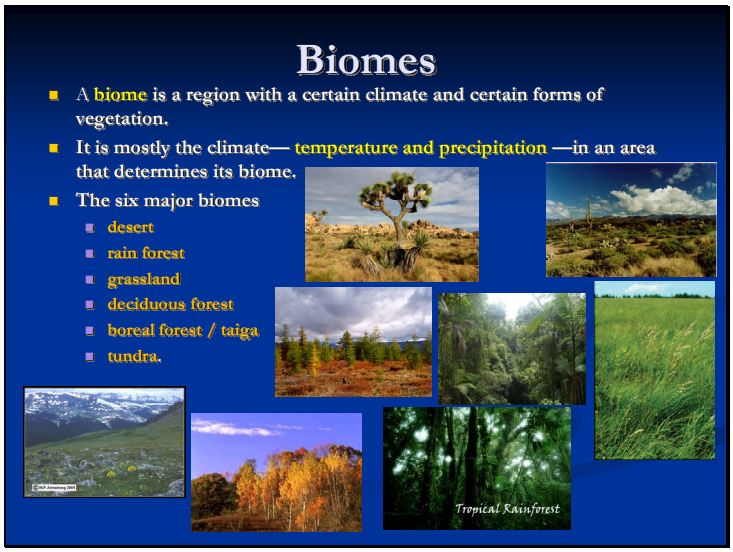
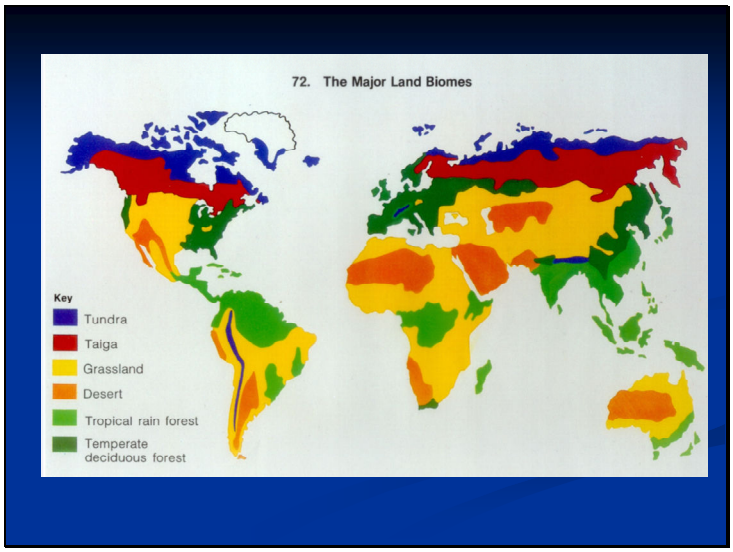

Biomes
A biome is a region with a certain climate and certain forms of vegetation.
It is mostly the climate— temperature and precipitation —in an area that determines its biome.
The six major biomes
desert
rain forest
grassland
deciduous forest
boreal forest / taiga
tundra.
Tropical Rainforest

Slide 3


72. The Major Land Biomes
Key
Tundra
Taiga
Grassland
Desert
Tropical rain forest
Temperate deciduous forest

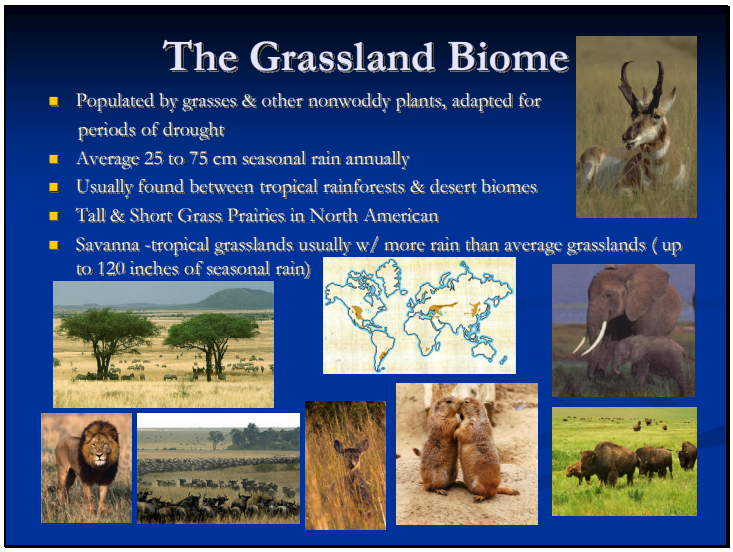
Slide 4


The Desert Biome
Less than 25 centimeters of rain each year.
Deserts have large shifts in temperature during the course of a day
Desert organisms are adapted to the lack of rain and to the extreme temperatures.

Slide 5


Rain Forest Biome
Tropical Rain Forest &
warm and humid and
found near the equator.
Temperate Rain Forest
Farther North, cooler temperatures still high levels of rainfall
Canopy - tree crowns (tops) that overlap with each other.
Understory - shrubs, seedlings, saplings, ferns growing in the shade of the forest canopy

Slide 6


The Grassland Biome
Populated by grasses & other nonwoddy plants, adapted for periods of drought
Average 25 to 75 cm seasonal rain annually
Usually found between tropical rainforests & desert biomes
Tall & Short Grass Prairies in North American
Savanna -tropical grasslands usually w/ more rain than average grasslands (up to 120 inches of seasonal rain)

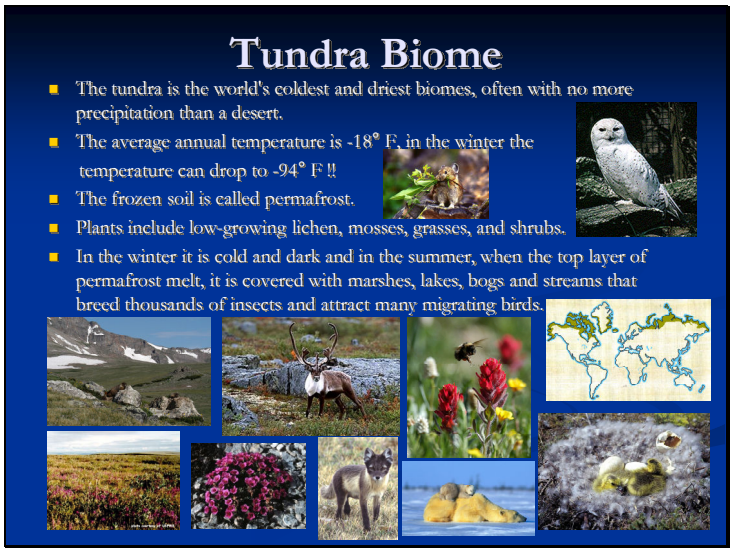
Slide 7


Deciduous Forest Biome
Shed their leaves and grow new ones each year.
They receive at least 50 centimeters of rain each year.
Temperatures vary during the year but average about 50°
4 distinct seasons: spring, summer, autumn, and winter
The animals adapt to the climate by hibernating in the winter and living off the land in the other three seasons.

Slide 8


Boreal Forest Taiga Biome
Boreal forests contain coniferous trees, which produce their seeds in cones and have leaves shaped like needles.
Winters are long, very cold, and snowy. Summers are rainy and warm enough to melt all the snow.

Slide 9


Tundra Biome
The tundra is the world's coldest and driest biomes, often with no more precipitation than a desert.
The average annual temperature is -18° F, in the winter the temperature can drop to -94° F !!
The frozen soil is called permafrost.
Plants include low-growing lichen, mosses, grasses, and shrubs.
In the winter it is cold and dark and in the summer, when the top layer of permafrost melt, it is covered with marshes, lakes, bogs and streams that breed thousands of insects and attract many migrating birds.

Slide 10


Aquatic Ecosystems
Almost three quarters of Earth's surface is covered with water.
All aquatic ecosystems are affected by the same abiotic factors:
sunlight, temperature, oxygen, and salt content.
Freshwater ecosystems include streams, rivers, ponds, and lakes.
Standing water (ponds & Lakes)
Moving water (creeks, streams, rivers)
Marine ecosystems include estuaries, intertidal zones, neritic zones,and the open ocean.
Determined mainly by water depth
The marine food web producers are algae rather than plants.

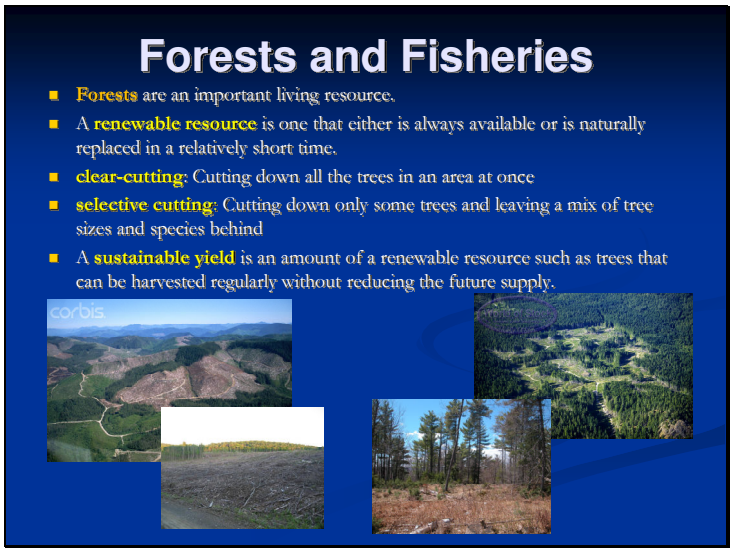
Slide 11


Freshwater Aquatic
Classified into Moving & Standing water systems
Moving water ecosystems include creeks, streams, tributaries and rivers
Few plants or algae grow in the fast moving water of streams
In slower-moving rivers. Plants are able to root on river bottoms
Standing water ecosystems include Ponds & Lakes
Ponds usually smaller in area & are shallower than lakes
algae floating at the surface are the major producers
Many animals, including turtles, snails, dragonflies, frogs, and fish, are adapted to life in the still water of lakes and ponds.

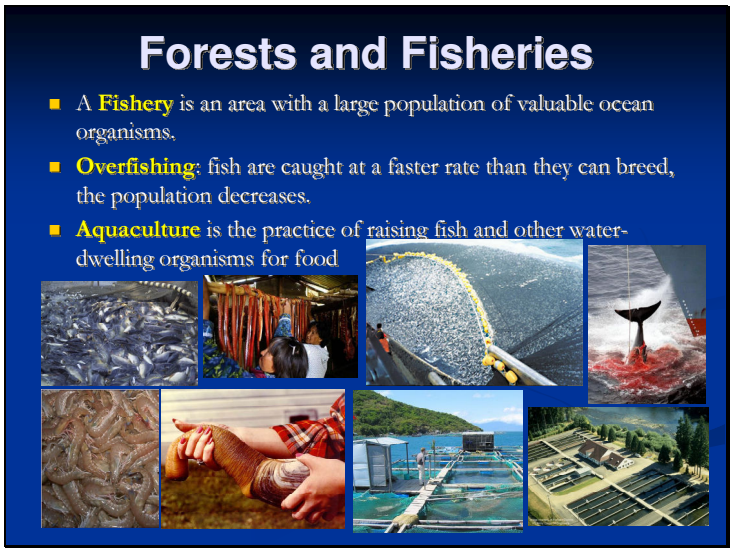
Slide 12


Marine Aquatic
Marine Ecosystems include estuaries, intertidal zones, neritic zones, and the open ocean.
Estuary where the fresh water of a river meets the salt water of an ocean.
Intertidal zone: Between the highest high-tide line and the lowest low-tide line
Neritic zone: region of shallow water between the low-tide line extending out over the continental shelf.
In cold waters, Kelp forests over 100 feet tall, house a great diversity of animal species
In warm waters, Coral reefs house Incredible numbers of animals live in and around coral reefs, making them one of Earth's most diverse ecosystems.

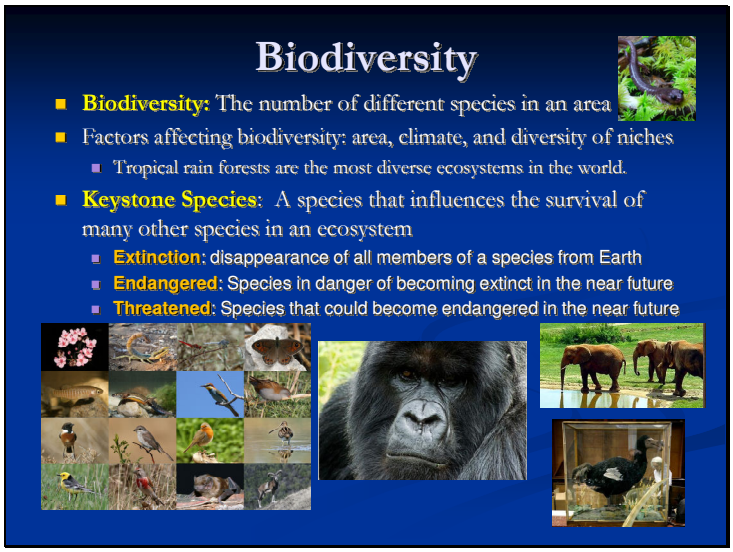
Slide 13


Forests and Fisheries
Forests are an important living resource.
A renewable resource is one that either is always available or is naturally replaced in a relatively short time.
clear-cutting: Cutting down all the trees in an area at once
selective cutting: Cutting down only some trees and leaving a mix of tree sizes and species behind
A sustainable yield is an amount of a renewable resource such as trees that can be harvested regularly without reducing the future supply.
corbis

Slide 14


Forests and Fisheries
A Fishery is an area with a large population of valuable ocean organisms.
Overfishing: fish are caught at a faster rate than they can breed, the population decreases.
Aquaculture is the practice of raising fish and other water-dwelling organisms for food

Slide 15


Biodiversity
Biodiversity: The number of different species in an area
Factors affecting biodiversity: area, climate, and diversity of niches
Tropical rain forests are the most diverse ecosystems in the world.
Keystone Species: A species that influences the survival of many other species in an ecosystem
Extinction: disappearance of all members of a species from Earth
Endangered: Species in danger of becoming extinct in the near future
Threatened: Species that could become endangered in the near future

Slide 16


Threatened Biodiversity.
Human activities can also threaten biodiversity
These activities include habitat destruction, poaching, pollution, and the introduction of nonnative species.
The major cause of extinction is habitat destruction, the loss of a natural habitat.
Poaching: illegal killing or removal of wildlife from their habitats
Pollutants build up in organisms through the food chain. Introducing exotic species into an ecosystem can also threaten biodiversity

Slide 17


Protecting Biodiversity
Three successful approaches
Captive Breeding: the mating of animals in zoos or wildlife preserves.
California condor
laws and treaties
habitat preservation.