# Biome and Aquatic Communities

Pages 98-112 in the Biology Textbook (NOTE: Avg. Rainfall should be in CM; add the monthly avg's to get a YEAR avg. for rain; your temperatures will be a range-example 25-35 degrees Celsius depending on the season )

| | ABIOTIC FACTORS | 3 DOMINANT PLANTS | 3 DOMINANT ANIMALS | BIOME LOCATIONS | Avg. Temp. and Rain |
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| Tropical Rainforest | Hot and wet year round, thin, nutrient-poor soil | Broad leaved evergreens, ferns, orchids, etc. | Sloths, tapirs, jaguars, anteaters, snakes | South and Central America, Southeast Asia, Africa, India, Australia | 25 degrees Celsius, 246 cm rain per year |
| Tropical Dry Forest | Generally warm year round, alternate wet and dry seasons, rich soil subject to erosion | Tall deciduous trees, aloes and succulents | Tigers, monkeys, deer, rhinos | Africa, South and Central America, Mexico, India, Australia, Tropical Islands | 25-33 degrees Celsius, 124 cm rain per year |
| Tropical Savanna | Warm temperatures, seasonal rainfall, compact soil | Perennial grasses, drought and fire resistant trees, shrubs | Lions, leopards, hyenas, elephants, giraffes, storks, termites | Eastern Africa, southern Brazil, northern Australia | 25-30 degrees Celsius, 120 cm rain per year |
| Desert | Low precipitation, variable temperature, soil rich in mineral, poor in organic material | Cacti, bushes and plants with short growth cycles | Mountain lion, gray fox, antelope, rats, bats, roadrunners, snakes, lizards | Africa, Asia, Middle East, US, Mexico, South America, Australia | 15-33 degrees Celsius, about 14.5 cm rain per year |
| Temperate Grassland | Warm to hot summers, cold winter, moderate, seasonal precipitation, fertile soil, occasional fires | Lush grasses, herbs, drought and fire resistant plants | Coyotes, badgers, wolves, deer, antelope, prairie dogs, chickens, reptiles, ants, grasshoppers | Central Asia, North America, Australia, Central Europe, plateaus of South America | 5-30 degrees Celsius, about 89 cm per year |
| Temperate Woodland and Shrubland | Hot dry summers, cool, moist winters, thin soil, periodic fires | Woody evergreen shrubs, fragrant herbs | Coyote, fox, bobcat, deer rabbits, California quails, butterflies, reptiles | Western Coasts of North and South America, areas around the Mediterranean Sea, South Africa, Australia | 10-20 degrees Celsius, about 46 cm rain per year |

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| Temperate Forest | Cold to moderate winters, warm summers, year round precipitation, fertile soils | Deciduous trees, conifers, flowering shrubs, herbs, ground mosses | Deer, black bear, bobcats, raccoons, skunks, turkeys, songbirds | Eastern US, Southeastern Canada, most of Europe, parts of Japan, China, and Australia | 0-25 degrees Celsius, about 139 cm rain per year |
| NW Coniferous Forest | Mild temperatures, precipitation during the fall, winter, and spring, cool dry summers, rocky acidic soils. | Douglas fir, sitka spruce, hemlock, redwood | Bears, elk, deer, beavers, owls, weasels | Pacific coast of NW US, and Canada, northern California to Alaska | 5-20 degrees Celsius, about 94 cm of rain per year |
| Boreal Forest (Taiga) | Long, cold winters, short mild summers, moderate precipitation, high humidity, acidic | Needle-leaf coniferous trees, small berry-bearing shrubs | Lynxes, timber wolves, weasels, moose, beavers, song and migratory birds | North America, Asia, Northern Europe | -25-15 degrees Celsius, about 35 cm of rain per year |
| Tundra | Strong winds, low precipitation, short and soggy summers, long cold, dark winters, permafrost | Mosses, lichens, sedges, short grasses | Migratory waterfowl, shore birds, musk ox, arctic foxes and caribou, lemmings, rodents | Northern North America, Asia, Europe | -28-5 degrees Celsius, about 13 cm of rain per year |

| Aquatic Communities | Dominant Producers | Dominant Consumers | Other Information |
|---|---|---|---|
| Oceans | Seaweed, black algae, brown algae (kelp forests), green algae. All depends on the zone of the ocean | Fishes, whales, sea otters, mussels, seals, sharks, snails, sea urchins, snails, etc. | Photic and Aphotic zones (sunlight and no sunlight); Divided into intertidal, coastal, and open ocean zones; |
| Coral Reef | Algae, other photosynthetic plants/organisms. | Corals, anemones, tropical fish, jellyfish, sharks, rays, sea turtles. | Warm, shallow, tropical oceans. Among the most productive and diverse environments. Reefs made of the skeletons of dead corals. |

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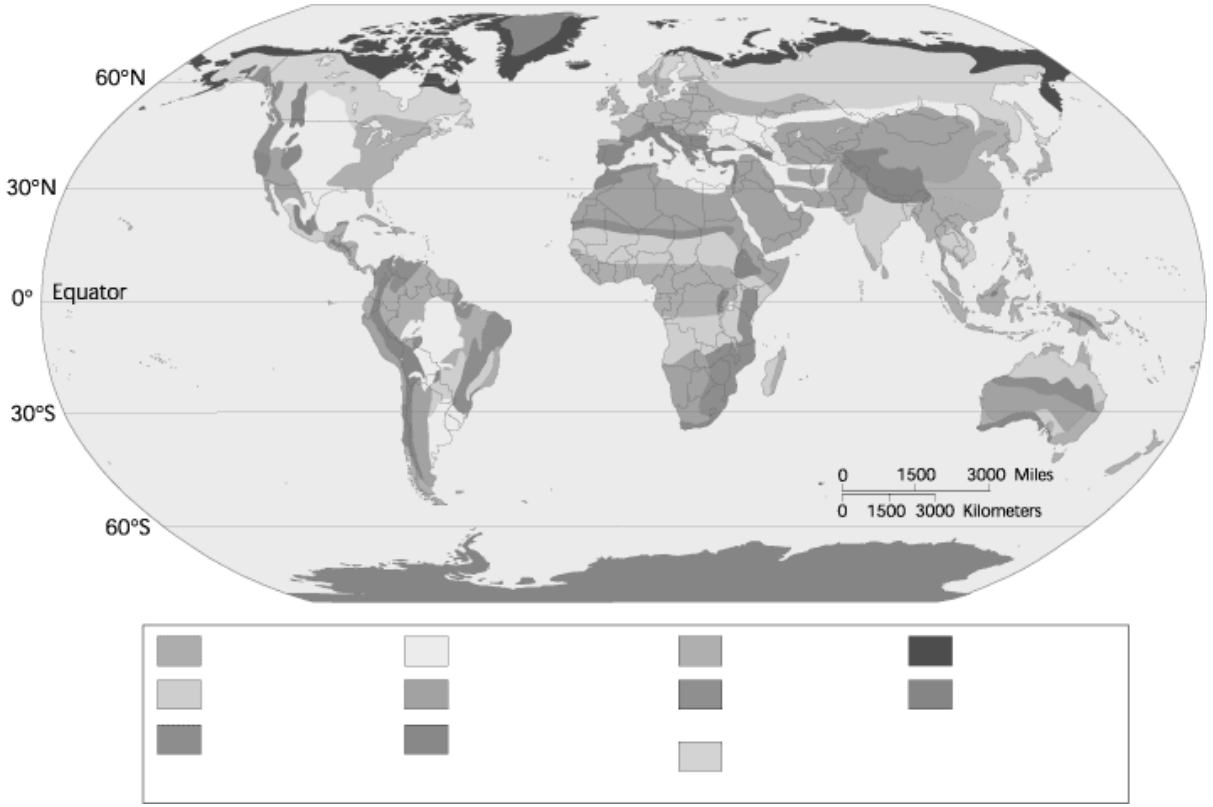
| Estuary | Plants, algae, and photosynthetic and chemosynthetic bacteria, marsh grasses, Mangrove Trees | Crabs, shrimp, other shellfish. Fishes, clams, sponges. | Wetlands where the rivers meet the seas. Lots of biodiversity. Found on the coasts o Maine south to Georgia, the coasts of Florida, Alabama, and Louisiana |
| Lakes and Ponds | Plankton, Phytoplankton, zooplankton | Fish, turtles, snakes, alligators, birds etc. | Called "standing water" ecosystems. |
| Rivers and Streams | Plants that feed off the flowing sediments. | Catfish, trout, beavers, turtles, river otters. | Flowing water ecosystems. Animals have adapted to the flowing waters of the rivers and streams. (lots of oxygen, but few plants in high flow areas.) |

*Use page 99 in your textbook to label the geographical locations of the biomes listed above. USE COLORED PENCILS!*



*Use page 99 of your textbook to complete the following questions.*

1. Hoover, Alabama is located in the _temperate deciduous forest____ biome which covers most of the Eastern United States.
2. Climate is a very important factor in determining the characteristics of a given biome. What two factors determine a region's climate? ___altitude _____ and _____latitude_____
3. Pretend that you are standing at the equator and you walk to the North Pole. Place the following biomes in order as you would walk through them: Taiga, Temperate Grasslands, Tropical Rainforest, Tundra, Desert
    a. Rainforest, Temperate Grassland, Desert, Taiga, Tundra