Levels of Ecological Organizaon

The levels of organization studied by ecologists are organisms, species, populations, communities, ecosystems, biomes and finally the biosphere.

- Organism an individual living thing.
- **Species** group of individuals that are closely related and can mate to produce fertile offspring.

(don't have to be in the same place)

- **Population** all the members of the same species that live in the same place at the same time.
- **Community** a group of various species that live in the same place and interact with each other.
- **Ecosystem** a collection of all the organisms that live in a particular place together with their nonliving, or physical environment

• <u>biome</u> - a group of terrestrial communities that covers a large area and is characterized by certian soil and climate conditions and particular assemblages of plants and animals











Five Major Types of Biomes

Aquatic Deserts Forests Grasslands Tundra



- <u>biosphere</u> contains the combined portions of the planet in which all life exists, including land, water, and air, or atmosphere.
 - extends from about 8 km above Earth's surface to as far as 11 km below the surface of the ocean

If the Earth Were Only a Few Feet in Diameter

Joe Miller, "If the Earth Were Only a Few Feet in Diameter..."



"If the Earth were only a few feet in diameter, floating a few feet above a field somewhere, people would come from everywhere to marvel at it. People would walk around it marveling at its big pools of water, its little pools, and the water flowing between the pools. People would marvel at the bumps on it, and the holes in it, and they would marvel at the very thin layer of gas surrounding it and the water suspended in the gas. The people would marvel at all the creatures walking around the surface of the ball and at the creatures in the water. The people would declare it sacred because it was the only one, and they would protect it so that it would not be hurt. The ball would be the greatest wonder known, and people would come to pray to it, to be healed, to gain knowledge, to know beauty, and to wonder how it could be. People would love it and defend it with their lives because they would somehow know that their lives, their own roundness, could be nothing without it. If the Earth were only a few feet in diameter..."

- Joe Miller