

## **Concept 34.1**

### **The biosphere is the global ecosystem.**

#### **The study of ecology:**

**Ecology** - The scientific study of the interactions among organisms and between organisms and their environments.

**Biotic Factors** - The prokaryotes, protists, animals, fungi, and plants in the environment.

**Abiotic** - The nonliving physical and chemical conditions.

Ecologists study the relationships among biotic and abiotic factors at five increasingly broad levels:

**Organisms** - The smallest unit of ecological study.

**Populations** - A group of individual organisms.

**Communities** - All of the organisms inhabiting a particular area.

**Ecosystem** - The biotic and abiotic factors in an area.

**Biosphere** - The sum of all the earths ecosystems.

#### **Patchiness of the Biosphere:**

**Habitats** - Specific environments in which organisms live.

- Each habitat has characteristic abiotic and biotic factors.

## **Key Abiotic Factors:**

Sunlight

Water

Temperature

Soil

Wind

Severe Disturbances