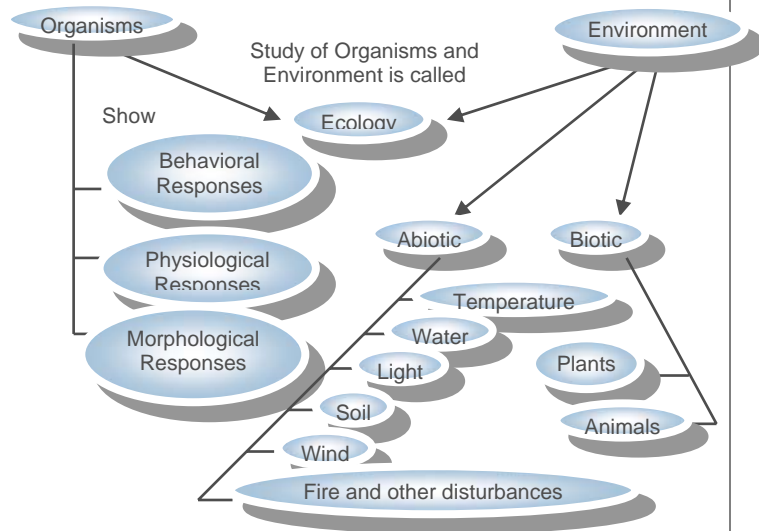


**20: Introduction to Ecology and the Biosphere**

**Key Terms**

- **Community:** All the organisms that inhabit a particular area. An assemblage of populations of different species living close enough together for potential interaction.
- **Ecosystem:** A level of ecological study that includes all the organisms in a given area along with the abiotic factors with which they interact. A community and its physical environment.
- **Producers:** They are primarily green plants that bring energy into the system by capturing sunlight.
- **Producers:** They are primarily green plants that bring energy into the system by capturing sunlight.
- **Consumer:** An organism in an ecosystem that lives by eating other organisms.
- **Consumers:** An organism in an eco system that lives by eating other organisms.
- **Decomposers:** Saprophytic fungi and bacteria that absorb nutrients from non-living organic material such as corpses, fallen plant material and the waste of living organism and convert them into inorganic forms.
- **Biosphere:** The entire portion of the earth that is inhabited by life. The sum of all the planet's ecosystems.
- **Biomes:** The world's major communities classified according to the predominant vegetation and characterized by adaptations of organisms to that particular environment.
- **Population:** A group of individuals in a particular geographic area that belong to the same species.
- **Endotherms:** Animals that use metabolic energy to maintain a constant body temperature.
- **Regulators:** They are able to maintain constant internal conditions when the external environment changes.
- **Conformers:** They cannot regulate their internal environment which varies to match the external environment.
- **Acclimation:** Physiological adjustment to a change in an environmental factor.
- **Chaparral:** Dense spring shrubs with tough ever green leaves.
- **Niche:** The sum total of an organism's utilization of the biotic and abiotic resources of its environment.
- **Habitat:** The immediate environment of a living organism.
- **Biotic:** Pertaining to the living organisms in the environment.
- **Abiotic:** Pertaining to the non-living factors which are physical and chemical components.
- **Temperature:** A measure of the intensity of heat in degrees reflecting the average kinetic energy of the molecules.
- **Savanna:** It is the tropical or semitropical grassland with scattered individual trees.
- **Taiga:** It is the coniferous or boreal forest found at higher elevations in more temperate latitudes.
- **Tundra:** A biome at the northernmost limits of plant growth and at high altitudes, where plant forms are limited to low shrubby or matlike vegetation.
- **Permafrost:** Continuously frozen ground that prevents roots of plants from penetrating very far into the soils. Found in arctic tundra region.
- **Estuaries:** The area at which a fresh water river or stream meets the ocean is called an estuary.
- **Lianas:** Vines growing rapidly when an opening does occur in the tropical rain forest.
- **Photic zone:** The narrow top slice of the ocean where light penetrates sufficiently for photosynthesis to occur.
- **Intertidal zone:** The shallow zone of the ocean where land meets water. Also called the littoral zone.
- **Neritic zone:** The shallow regions of the ocean overlying the continental shelves.
- **Pelagic zone:** The area of the ocean past the continental shelf, with areas of open water often reaching to very great depths.
- **Benthic zone:** The bottom surfaces of the ocean.
- **Abyssal zone:** The portion of the ocean floor where light does not penetrate and where temperatures are cold and pressures are intense.

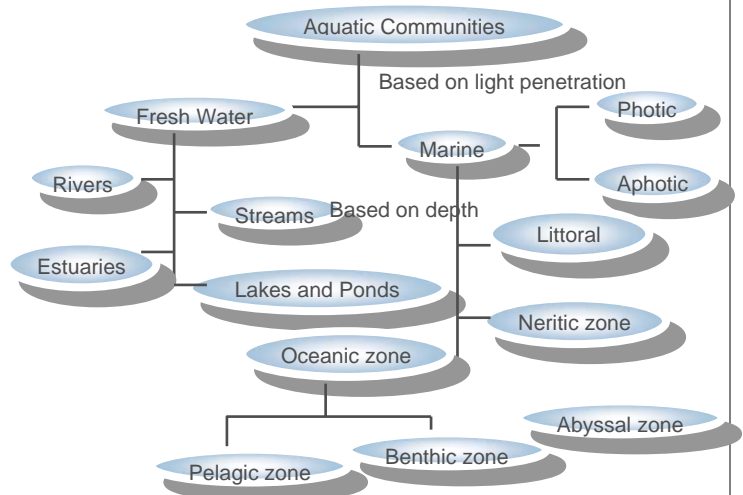
**An overview of the concept map of ecology**



**Three distinct mechanisms responding to changing environments**

1. Behavioral
2. Physiological
3. Morphological

**Classification of aquatic communities**



**Effect of Light on organisms:**

