

CHAPTER – 9

THE LIVING ORGANISMS AND THEIR SURROUNDINGS

- The surroundings where plants and animals live, is called their habitat.
- Several kinds of plants and animals may share the same habitat.
- The presence of specific features and habits, which enable a plant or an animal to live in a particular habitat, is called adaptation.
- There are many types of habitats, however, these may be broadly grouped as terrestrial (on the land) and aquatic (in water).
- There is a wide variety of organisms present in different habitats.
- Plants, animals and microorganisms together constitute biotic components.
- Rocks, soil, air, water, light and temperature are some of the abiotic components of our surroundings.
- Characteristics of living things:
 - (i) They need food to grow and for the processes.
 - (ii) The young ones grow into adults.
 - (iii) They respire. Animals breathe in oxygen and breathe out carbon dioxide. Plants take in carbon dioxide and give out oxygen.
 - (iv) They respond to changes in the surrounding (stimuli).
 - (v) They all get rid of wastes produced in the body (excretion).
 - (vi) They reproduce their own kind.
 - (vii) They show movement.
- **Habitat:** The surroundings where organisms live. It has two components biotic (living things like plants and animals) and abiotic (non-living things like rocks, soil, air and water).

Type of Habitat:

- (a) **Terrestrial Habitat:** Plants and animals live on land. Example: forest, grasslands, deserts, coastal and mountain ranges.
- (b) **Aquatic Habitat:** Plants and animals live in water. Example: ponds, swamps, lakes, rivers and oceans.

Adaptations: Presence of specific features or certain habits which enable an organism to live in its surrounding.

Terrestrial:

(a) **Deserts:** Small animals stay in borrows deep in sand during day, and come out at night. In plants, leaves are either absent or very small as spines; stem has a thick waxy coating; roots go deep into the soil.

(b) **Mountains:** Animals have thick skin or fur; mountain goat has strong hooves. Trees are cone shaped having sloping branches; leaves are needle like.

(c) **Grasslands:** Animals are light brown in colour; **Lion:** Long claws in front legs that can be withdrawn inside the toes; eyes in front of face. **Deer:** Strong teeth, long ears, eyes on the sides of head.

Aquatic:

(a) **Ponds:**

- **Plants with roots fixed in soil:** Stems are long, hollow and light; leaves float on water.
- **Plants with roots submerge:** Leaves are narrow and thin ribbon-like.

(b) **Oceans:**

- Animals have streamlined body; gills to respire (dolphins and whales have blowholes).
- Animals like squids and octopus do not have streamlined body and stay deep in water.