

Chapter Seventeen

Basic Ecology

Introduction:

- In ecology, we study the relationship that living things have with their environment.
- Living things refer to plants and animals.

Characteristics of living things:

- Living things have certain characteristics, and these characteristics are:

(1) Movement:

- Living things move from place to place.

(2) Respiration:

- All living things breathe.

(3) Nutrition (Feeding):

- They take in food.

(4) Growth:

- They grow or increase in size.

(5) Excretion:

- They excrete or remove waste from their bodies.

(6) Reproduction:

- They are able to reproduce their young ones.

Differences between plants and animals:

- These differences are:
 - (1) Plants can prepare their own food, but animals cannot prepare their own food.
 - (2) Chlorophyll can be found in plants but cannot be found in animals.
 - (3) Animals stop growing at certain age, but plants do not stop growing.
 - (4) Animals have excretory organs but plants do not.

Basic classification of animals:

- Animals can be divided into two main groups, and these are vertebrates and invertebrates.
- While vertebrates are animals with backbones, those without backbones are called invertebrates.
- Vertebrates and invertebrates can again be divided into other groups, and some of these groups are:

(1) Reptiles:- Examples are lizard, snake and turtle.

- They live on land and have scales on their bodies.
- They lay eggs.

(2) Amphibians:

- Examples are frog and crocodile.
- They live in both water and on land.
- They lay eggs and have scales on their bodies.

(3) Mammals:-

- Examples are horse, man, bat, dog, monkey and sheep.
- They breathe using lungs and their bodies are covered with fur or hair.
- They give birth to their young ones.

Ecological terms:

(1) Environment:-

- This refers to the surroundings of living organisms.

(2) Population:

- This refers to a group of a particular kind of plants or animals, living in a particular area.
- For example, all the dogs living in Accra form the dog population of Accra.
- Also, all the monkeys living in Lagos form the monkey population of Lagos.

(3) Community:

- This refers to all the different kinds of plants and animals, living within an area.

(4) Habitat:

- This refers to a place where living organisms can live and reproduce. There are two main types of habitats and these are:

- (i) Terrestrial habitat.
- (ii) Aquatic habitat.

- Terrestrial habitat refers to land and aquatic habitat refers to water bodies such as lakes and rivers.-

- There are two main types of aquatic habitats and these are:

- (a) Fresh water habitat such as lakes, ponds and rivers.
- (b) Marine habitat, which refers to the sea.

(5) Salinity:

-This refers to the amount of salt within a water body.

Adaptation:

- This refers to the special features which living organisms have, which enables them to live in their habitat.