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A Report of Study Visit to Grassland Ecosystem

28/3/19

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of class B.Sc. Part I Roll No. 55 Examination Seat No. \_\_\_\_\_

has attended the Study Tour / Local Visit arranged to

Grassland Ecosystem on Thursday - 5/2/2019

  
Teacher In-Charge

  
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**STUDY VISIT TO  
GRASSLAND ECOSYSTEM  
2018-19**

# STUDY VISIT TO GRASSLAND ECOSYSTEM 2018-19

As a part of curriculum we visited the Grassland ecosystem at the foot of Sonjai Hill in the vicinity of Kisan Veer Mahavidyalaya Campus.

The purpose of visit was to study and observe the organisms of different trophic levels and to understand the structure and function of ecosystem.

Day: Tuesday, 05/02/2019 Season: Winter

Time: 11.00 am onwards

Definition: Ecosystem is the basic functional unit of organisms and their environment, interacting with each other within their own component.

The ecosystem is comprise to the two major components;

A. Abiotic Component

B. Biotic Component

A. Abiotic component: The non-living environment of an ecosystem is known as its abiotic components. It includes inorganic materials, organic compounds and climatic factors.

Inorganic materials: These include water, carbondioxide, nitrogen, minerals, salts.

Organic materials: It occurring is carbohydrates, lipids and proteins.

Climatic factors: It includes light, temperature, humidity, pressure, wind etc.

B. Biotic component: The living organisms in an ecosystem forms the biotic components.

These includes plants, animals and many microorganisms. The organisms are of three types according to their role in keeping the ecosystem rating as a stable interacting unit.

a. Producers or Autotrophs

b. Consumers or Heterotrophs

c. Decomposer or Reducers

a. Producers or Autotrophs: These are green plant which synthesizes food from solar energy and inorganic tank.

b. Consumers or Heterotrophs: These are the animals which use other organism as food. Animal which place take plants are called primary consumers or heterotrophs. The animals which feeds on other animals are called secondary consumers or carnivorous.

c. Decomposer or Reducers: It also known as saprotrophs. These are bacteria and fungi. Which decompose dead organisms and their waste products to simple materials.

**Components of Grassland ecosystem observed, their ecological status and functional/Role**

Sr. No.	Tropical Level	Flora/Fauna	Characteristics
01	Producers	Grass Shrubs  Trees	Sporobolous - Panical type of inflorescences Lantana camera - Labiate type of corolla oxalis orniculata sources if vit. C Tridex cucumber - capitulum type of inflorescence Zizupus - leaves modified into spines Mangifera indica - simple type of leaves Acacia nilotica - Head type of inflorescences
02	Primary consumers	Buffalo  Butterfly  Buffalo Leaf Hoppers  Grasshopper  Rat  Rabbit  Goat	It's herbivorous animals feeds on grass & dried grass matts  Coings are well developed & bright colour at rest wing are held vertically over the body It's looks like a leaf It is green in colour & feeds on young or soft leaves Antennule long & backwoardly directed hind legs are large female with long ovipositor Rat is omnivorous animals. IT digest everything it has gnawng habit It is nocturnal terrestrial animal & herbivorous in diet. Head bears long & movable pinnae uibrissae present It is terrestrial animal & herbivorous in diet. It has economical food value.
03	Secondary consumer	Frog  Toad  Chameleon  Snake  Woodpeaker  Sun bird	Skin is smooth, moist with black strips, hidn limb is longer than fore limbs. Forgs are non-poisonous, harmless & normally silent animals Toad is also known as buio toad. IT is terrestrial & nocturnal, livers under stone & skin bears a more poison gland. Chameleon is best example of camouflag. It protect by developing a cryptic colouration tail is prehensile. Body is elongated & covered with sclaes. Head is distinct & show large shieldion head. Beak is wood chisseling type. It is insectivorous birds. Feet is climbing type with strong claws. Beak is sickel shape perching type feet



04	Tertiary consumers	Kite	It is large bird about 60 cm length. Feed on Rodents, Reptiles & Garbed. Beak is modified for pearcing & tearing flesh.
		Owl	Beak is pointed, short & sharp edges with hooked. The claws are enormous & strong sharp & curved.
		Vulture	Beak is pointed & hooked It is carnivorous. Beak is modified for tearing the flesh.
		Eagle	It is top carnivorous feeds on Redents, Reptiles & Mammals. Beak is sharp, pointed for tearing the flesh. Claws are strong, sharp & curved.

- During this study visit, we got a practical experience of an ecosystem, its structure and function.
- We have observed the organisms of different trophic levels in field and their food linkages.
- The Autotrophs observed were both wild and cultivated varieties, the herbivores related to the ecosystems and insectivores including reptiles and birds and top carnivorous have the birds of prey or predaceous birds like kite, eagle, hawk, harners etc.
- The most interesting observations were termite mound and spider nest along with nector sucking sun birds.
- This study visit proved significant to understand the structure and functions of grassland ecosystem.