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# STUDY OF A SURVEY REPORT OF DIFFERENT FORMS OF PLANTS ON THE BASIS OF HABIT AND HABITAT

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## ABSTRACT

There are numerous plants present on the earth. The plant kingdom is composed of a numerous plants of different kind and forms which are growing in greater or less abundance over most of the surface of earth. The study of angiospermic plants is based on deep knowledge of external characteristics of plants. To know the natural resources of the earth one requires vast understanding of plants. Different plants of different shape observed from the region and noted all the details of habit. The observed list of different forms plants separated according to its habit which is listed below. About 17 types of plant habit discussed and described in this paper.

## KEYWORDS :

Different habit, plant forms.

RESEARCH PAPER

## INTRODUCTION :

There are many varieties of plants inhabited in all types of environment. All types of soil in India in highly favorable for plants growth. Plants modified them self to survive in water, land or as epiphytes. The study of forms of vegetation helps to understand groups of plants belonging to various geographical orders. On the basis of ecological characteristics the plant may be divided into certain groups. On the basis of habit, the plants are divided as herbs, shrubs and trees etc. as discussed below. Different forms of plant made on the basis of size which are as follows.

The paper is designed as a guide to the systematic study of different forms of plants on the basis of habit. The present work also ends in an equal degree as a guide to the scientific study of forms of plants. The study of habit of plant is also a very important feature useful in identification of plant.

In this paper it is intended to provide sufficient information to understand the habit of flowering plant of the world. A different form of plants on the basis of habit is explained in detail.

## MATERIAL AND METHOD

Different plants of different shape observed from the region and noted all the details of habit and habitat. The observed list of different forms plants separated according to its habit which is listed below.

## RESULT

About 17 types of plant habit discussed in this paper such as seedling , herb , shrub, tree , climber , lianas , insectivores , parasites , symbiont, epiphytes , bush , accumulator plant, woody perennial, monocarpic, polycarpic, precocious and parasitic habit.

The forms of plants made on the basis of habit are-

**Seedling :** It is the small and young plant which is formed after germination of seed. The seedling consists of three main parts i.e. radical, hypocotyls and cotyledon. Later on the radical develops into a root system. The radical is the root system of seedling. The shoot of seedling is known as hypocotyls. The cotyledons are thick, massive structures those are the leaf system of seedling. The seedling of dicot plants may have two cotyledons and monocot plants seedling possesses only one thin radical leafy structure which is circularly twisted.

**Herbs** : These are small sized plants like spinach, coriander etc. The plants do not possesses any woody stem above ground but are made up of softer tissue. The herb

plants usually die after flowering Stems are branched, green and soft. The epidermal layer of stem consists of chlorophyll. There are some herb plants which have a large size. The example is banana (*Musa paradissica*). The herb may be annual, biannual or perennial plants.

**Shrub** : A medium sized tree is termed as shrub. The shrubs are small, woody perennial plants. The main stem possesses branched near the ground. Each branch resembles a mother axis. Hence it becomes difficult to identify the main axis of plant. It is highly branched. Shrubs are the plants with woody stem, much branched, evergreen or deciduous, perennials, smaller than trees. The example is custard apple plant, cotton, China rose, heena plant etc.

**Trees :** A large sized plant is termed as tree. The main stem in known as trunk, the branches are woody. The main axes of tree remain unbranched for some distance. Each branch do not resembles a mother axis. Hence it is easy to identify the main axis of plant. It is highly branched. A tree of Sal forest at Amarkantak (India) consists of trees of 40-45 meters in height. The root system is highly branched which extend several meters of area under soil. Trees are perennials, evergreen or deciduous, large, highly branched with large wood trunk of several feet in diameter; many trees flower at fired intervals. Tree trunk grow in thickness by activity of cambium of the vascular bundles that adds new wood to the outer side of that already existing and new phloem tissue towards inner side of the old phloem. To the transverse section of tree trunk shows clear rings of growth in the wood. The banyan (*Ficus bengalensis*) encircles about 40 meters of area in diameter & is up to 35-40 meter in height.

**Climber :** The plants with weak stem adopted to climb over other plants are called as climbers. Climbers require support. The climbers occur abundantly in tropical forests of the world. The climbers twist with another woody plant & climb over it, or climbers produce tendrils or hooks for support during climbing. The climbers add their weight on the external support. The climbing plants produce different types of devices for climbing purpose which are modifications of any other part of the plant.

**Lianas :** These are woody climbers require support of other large trees and gets mechanical support. The woody climbers are termed as lianas. In forest areas we can see many types of lianas or wood climbers. The purpose of climbing is to get enough sunlight. These are very common in tropical forests of the world.

**Insectivores :** The plants which capture insects and flies and digest them by secreting digestive enzymes. Such plants

are termed as insectivores. The insect eating plants may have deficiency of protein. In certain genera of insectivores the leaf margin possesses glandular hairs which secret enzymes.

**Parasite :** Certain angiospermic plants such as Loranthus etc. are parasitic on root of other plants. The parasitic plants absorb water or minerals from the host plant. Such plants are termed as are termed as parasitic. In other wards the plants are dependent on other host plants for their food requirements are termed as parasitic plants.

**Symbiont:** The lichens are the combination of two plants such as algae and fungus. The relation between these two is beneficial to each other (symbiosis). Here the algae and fungus living together without trouble to each other is termed as symbiosis and the plants which take part in formation of lichen are termed as Symbiont.

**Epiphytes :** The plants which grow on branches of large trees for support are termed as epiphytes. These are not parasitic plants and are not usually attached to soil surface. The epiphytes occur in rain forests. Exm: Mosses and Liverworts. Mostly these are small sized plants. It absorbs moisture from air. Usually the epiphytes are herbaceous plants.

**Bush :** The bushy plant does not raise much. Bushes are highly branched plants. The branches are originated from the base. In most of the bushes there is no differentiation between main stem and secondary branches. The leaves are modified to scales or spines or needle like structures. The leaves are tough in touch. The bush forms of plants tolerate high temperatures. Presence of numerous bush plants is the characteristic feature of desert lands of the world. Presence of numerous bushy plants is the characteristic feature of desert lands of the world. The bushy plant consists of scaly, spiny or the leaves which are tough, tolerate to adverse environement.These plants grow and appear bushy.

**Accumulator plant :** The plants which grow in metal containing soil. The plants accumulates the abnormal contents of the metal are termed as accumulator plant.

**Woody perennial :** The plants which remain for two or more than two year on the soil surface having woody stem are termed as woody perennials. The perennials may be tree, shrub or a climber.

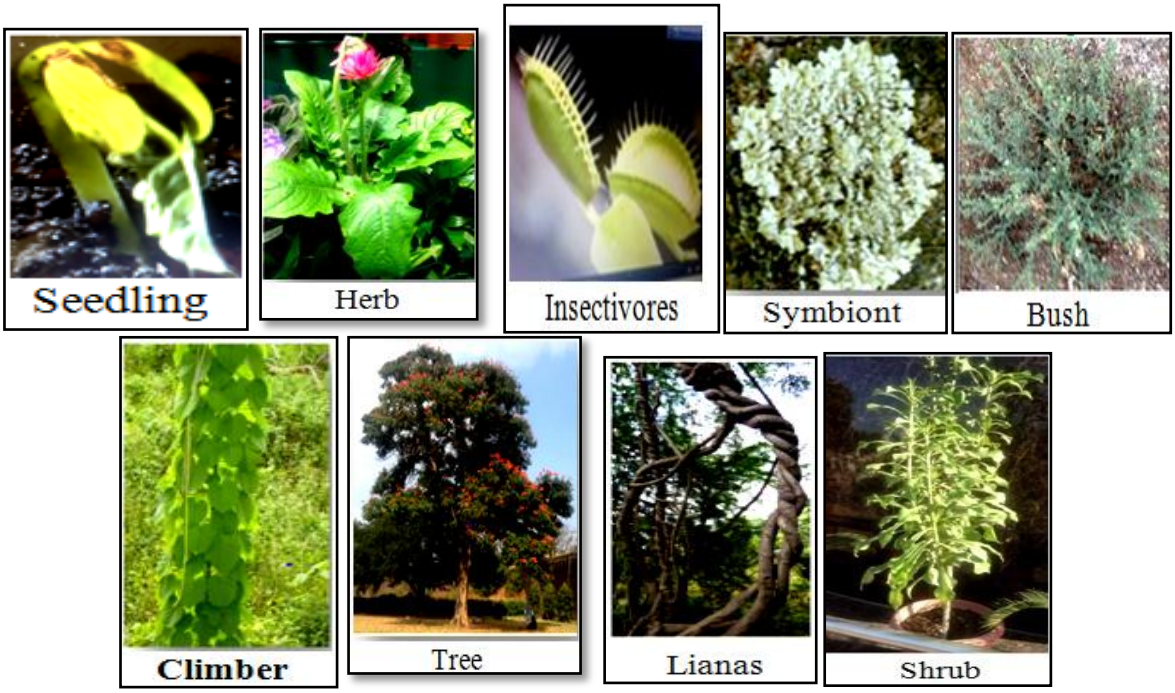
**Monocarpic :** The plants that survive for a number of years. After that it produces flowering and seed set. After flowering and seed set they die. Such types of plants are monocotyledonous perennial plants. Such plants are described as monocarpic.

**Polycarpic** : The trees and shrubs are polycarpic plants. The duration of life span of trees and shrubs perennials is greatly variable. Some perennials survive for 2-5 or more than five years and certain large tree perennials live for 50 or more than 50 years. The common thing in all the perennials is that all the plants fruit and flower again and again. Such plants are also termed as polycarpic.

**Precocious :** The flowering of plant emerges before the leaves appear. Such habit of plant is termed as precocious habit.

**Parasitic** : There are certain plants like Cuscuta, Loranthus etc. that are parasitic on higher plants. These plants absorb water and minerals from their host plants.

## FORMS OF PLANTS ON THE BASIS OF HABIT




## CONCLUSION

All types of soil in India in highly favorable for plants growth. Plants modified them self to survive in water, land or as epiphytes. The study of forms of vegetation helps to understand groups of plants belonging to various geographical orders. On the basis of ecological characteristics the plant may be divided into certain groups. On the basis of habit of plant, the plants are divided as herbs, shrubs and trees. The characteristics which can be noted by number are termed as quantitative features of morphology.

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