

## AUTECOLOGY 1994

The ecological studies deal with the study of individual organism or factor, it known as autecology.

Due to the great relation ship of individuals with the environment, it is also known as ecology of individuals or population ecology.

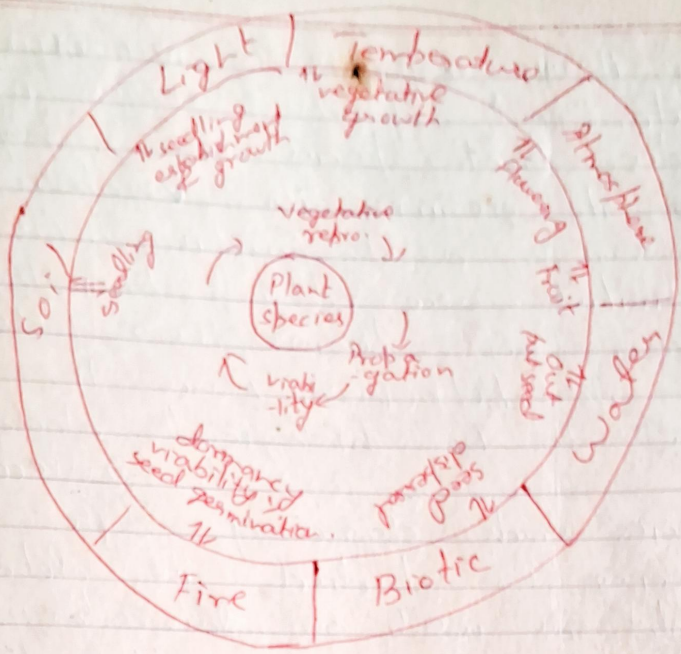
**AIMS OF AUTECOLOGY** → The main aim of autecology is to get an idea of its natural distribution, adaptation, speciation and differentiation of population. It also deals with morphological, auto anatomical, cytological structures and taxonomic position of an individual species.

From the agricultural and horticultural point of view, the autecology is also very important, because it is essential to know the requirements for best producing or cultivating. Thus the study

Thus the study of autecology is much more important to know the needs of an individuals.

**ECOLOGICAL CLOCK** → It is also known as ecological life cycle of the plants which consists of three important phases.

- (A) Dormant phase.
- (B) Vegetative phase.
- (C) Reproductive phase.



### Environmental Complex.

Each phase in the life cycle of a plant is greatly influenced by a number of environmental factors. The plant also then modifies the environment. The various stages in the life cycle of a plant are completely embedded in the environmental complex. The requirements of germination, growth, flowering and fruiting are met at the same place but at different time of the year. Each phenological behaviour of a species and the influence of environmental factors are shown in a cyclic order, known as ecological clock. This clock explains clearly the different stages of ecological life cycle of a species, together with the different factors of the environment that influence each of the stages in the life cycle.

Different species differ

in their responses to interesting climatic factor at different stages in their life cycles. Each species has a definite period for its germination, vegetative growth, flowering and fruiting. All these activities are called phenological behaviour. Each species, thus tells the time of its behaviour, hence the species are said to be biological clock.

In antecology of a species each stage of life cycle of a species is studied in detail under field as well as laboratory conditions.

The life cycle will be studied under following heading:-

1. Introduction.
2. Distribution.
3. Soil of location.
4. Climatic condition.
5. Community study.
6. Morphological characters.
  - i) vegetative characters
  - ii) Reproductive characters
  - iii) seed
7. Germinating of seed.
8. Growth & dry matter.
9. Economic medicinal & other types.
10. Summary & distribution.