

## Ecological Succession

Ecological succession is defined as an orderly process of changes in the community structure and function with time mediated through modifications in the physical environment and ultimately culminating in a stabilized ecosystem known as climax.

- \* The whole sequence of communities which are transitory are known as **seral stages or seres**
- \* The community which is established first in the area is called a **pioneer community**

## Process of Succession

- (1) **Nudation** : Development of bare area without any life. Bare area caused due to landslides, volcanic eruption, drought, glaciers, overgrazing, disease outbreak, agricultural/industrial activities.
- (2) **Invasion** : Establishment of one or more species on a bare area through dispersal or migration. Dispersal of seeds, spores is done by wind, water etc. As growth and reproduction start, these pioneer species increases and form groups.
- (3) **Competition and coaction** : Competition between inter-specific (different) and intra-specific (same) species for water, space and nutrition. They influence each other in a number of ways, known as coaction.
- (4) **Reaction** : Modification of the living organisms to a larger extent is known as reaction. These may become unsuitable for the existing species and favour some new species, which replace them. Thus, reaction leads to several **seral communities**.

Ecological succession starting on different types of areas

- (1) Hydrarch or Hydrosere : starting in watery area like pond, swamp, bog.
- (2) Mesarch : starting in an area of adequate moisture.
- (3) Xerarch or Xerosere : Starting in a dry area with little moisture

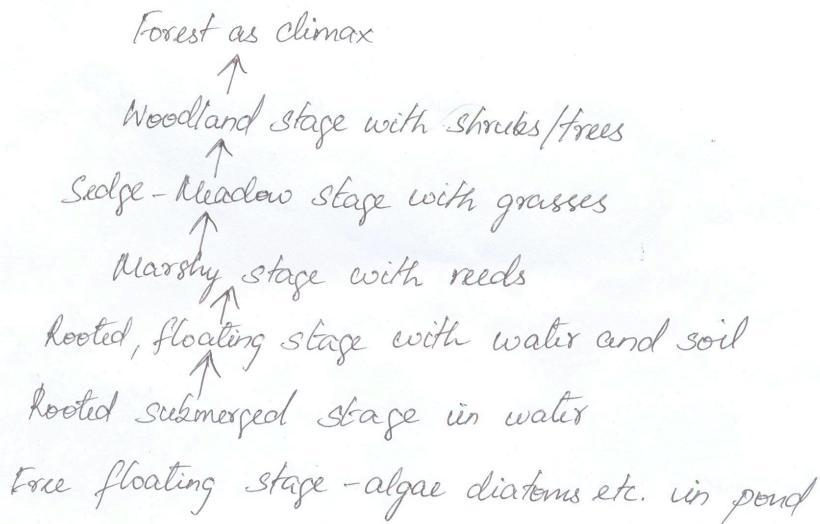
Types:

Lithosere : starting on a bare rock

Psammosere : starting on sand

Halosere : starting on saline soil.

Hydrosere



Xerarch

