Ecological Succession :

Succession :

- It is a spatial pattern which occurs over the time.

  Time is a crucial factor.
- The ecosystem is occupied by the pioneer species.
- As time passes, species diversity increase giving way to more complex organisms.

- Eventually, it leads to climax community. Climax community does not evolve further.
- The gradual and predictable change in the species composition of a given area is called ecological succession.
- The change is sequential and environmentally regulated.

- Process of succession involves sequential steps like
  - ✓ Nudation, Invasion, Ecesis, Aggregation,
  - ✓ Competition and co-action,
  - ✓ Reaction and stabilization.
- During succession, some species colonize an area and their populations become more numerous, whereas populations of other species decline and even disappear.

primary succession.

- The present day communities in the world have come to be, because of succession that has occurred over millions of years since life started on earth.
- Succession is hence a process that starts where no living organisms were present before - like on a newly formed volcanic island.
- This is called primary succession.

Secondarysuccession

- begins in areas where natural biotic communities have been destroyed such as in abandoned farm lands, burned or cut forests, lands that have been flooded, etc.
- Since some soil or sediment is present, succession is faster than in primary succession.

- Description of ecological succession usually focuses on changes in vegetation.
- However, these vegetational changes in turn affect food and shelter for various types of animals.
- Thus, as succession proceeds, the numbers and types of animals and decomposers also change.

- At any time during primary or secondary succession, natural or human induced disturbances (fire, deforestation, etc.), can convert a particular seral stage of succession to an earlier previous / preceding stage.

Succession of Plants :

- Based on the nature of the habitat – whether it is water (or very wetland areas) or it is on very dry areas – succession of plants, is called hydrarch (hydrosere) or xerarch (xerosere), respectively.

- Hydrarch succession takes place in wetter areas and the successional series progress from hydric to the mesic conditions.
- As against this, xerarch succession takes place in dry areas and the series progress from xeric to mesic conditions.
- Hence, both hydrarch and xerarch successions lead to medium water conditions (mesic) – neither too dry (xeric) nor too wet (hydric).

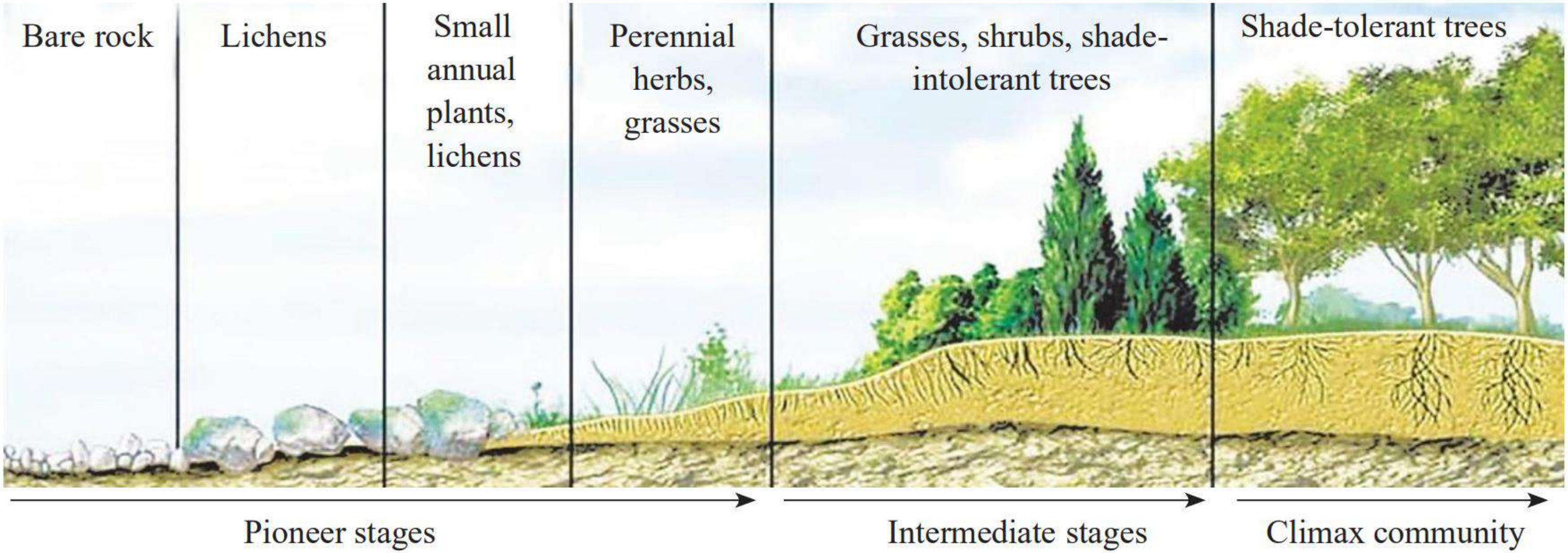

Fig. 14.12 : Xerarch Succession of Plants