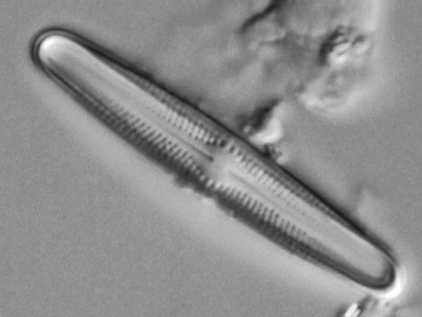
**Hydrosere- a plant sucession which occurs in a freshwater body.**

**Phytoplankton stage**

Deep freshwater body cannot support any growth of plants due to lack of sunlight penetration. The microorganic matters called the phytoplankton such as spores carried by air or animal to the water body are regulated by the micro organisms known as zooplankton. Their decomposed organic matter mixes with silt and form mud at the bottom of the pond. Examples of plants are diatomes and Cynaobacteria.

Diatomes- Phytoplankton stage

**Submerged stage**

Due to the death and decay of plants and deposition of sand and silt, the water body becomes shallower; more submerged rooted species are able to grow due to the increasing light penetration in the shallower water. Some plants that existed at the submerged stage are Hydrilla and Vallisneria.

Hydrilla-Submerged stage

**Rooted floating stage**

Some plants that can be found at this stage are Nymphaea Trapa and Azolla. These plants help the water become rich in mineral and organic matter. Rapid growth of these plants built up the pond bed and water becomes shallower.

Nymphaea Trapa- Rooted Floating stage

**Reed Swamp Stage**

Area is now invaded by emergent plants such as reed-grasses, to form a reed-swamp or marsh. These plants have creeping roots which knit the mud together to produce large quantities of leaf litter. This litter is resistant to decay and so the reed peat builds up, accelerating the autogenic change. The surface of the pond is converted into water-saturated marsh land.

**Reed grass- Reed swamp stage**

**Sedge meadow stage**

At this stage the area is now made up of plants called Juncus, Cyperus, etc. Their roots knit the soil further and leaves above the water lower the water level further through transpiration and add additional leaf litter to the soil. Eventually the sedge peat accumulates above the water level and soil is no longer totally waterlogged. The habitat becomes suitable for invasion of herbs which bring further changes to the environment. There is a moderate supply of moisture, and marshy vegetation begin to disappear

**Juncus-Sedge-meadow stage**

**Woodland stage**

The soil is now drier for most of the year and becomes suitable for development of wet woodland, and so is invaded by shrubs and trees, which can tolerate bright sunlight and water logged conditions. Some plants that grow at this stage are Salix and Poplus. Further fall in watertable, along with mineralisation and soil buildup favours the arrival of plants for next seral community.

**Forest stage**

**Salix- Woodland stage**

Finally, the climax community develops, which depends upon the climatic conditions. It may be a forest if the climate is humid, grassland if it is sub-humid, or a desert if it is in arid and semi-arid conditions.Decomposers are frequent in climax vegetation.The overall changes during the succession of communities are a build up of underlying layers, reduction in water depth, addition of humus and minerals, soil building and aeration of soil.