

Jai Samand Lake Live Example of the Terrestrial Autotrophic -Allogenic Succession

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Abstract—Succession is the Natural ecological phenomena in which there is a orderly change in the structure and function of the community according to the time. All today major ecosystem are the result of the succession of the past. Natural succession occurs in millions of years but whenever it produces any system it is of greater significance from the previous ones(Natural succession). but overall the integrity of both kind the ecosystem remain same. but artificial succession i.e the factor responsible for the succession are (anthropogenic) can be seen in today world in any kind of the ecosystem(aquatic as well as the anthropogenic). In that case we have observed the succession of the JAI-SAND LAKE OF THE ALWAR DISTRICT OF THE RAJASTHAN. About 20years ago the jai -samand lake was counted as famous tourist spot. it was very beautiful lake having all beauty with unique kinds of the flora and the fauna's. As the urbanization & industrilization increases than the lake convert in to a many successive steps of the terrestrial ecosystem. Due to the many anthropogenic factors the clean water of the lake converts in to the very dirty mud ,some of the palces of the lake has completely change and now it is the best example of the Terristal(amphibian) ecosystem having land flora and fauna. Different successive stages of the ecosystem can be seen through the differ kinds of the pictures. However the conservation of the water(lake) is very essential for the preservation of the natural flora and the fauna of the lake. since lake are natural gift to us from the nature but due to rapid urbanization and the **human activity** the lake (aquatic ecosystem) has converted in to the terrestrial ecosystem having terrestrial kind of the vegetation. these kinds of the transitions are the major factors for the loss of the biodiversity. So human awareness as well as the strict legislation is need of the conservation of the biota of that places...

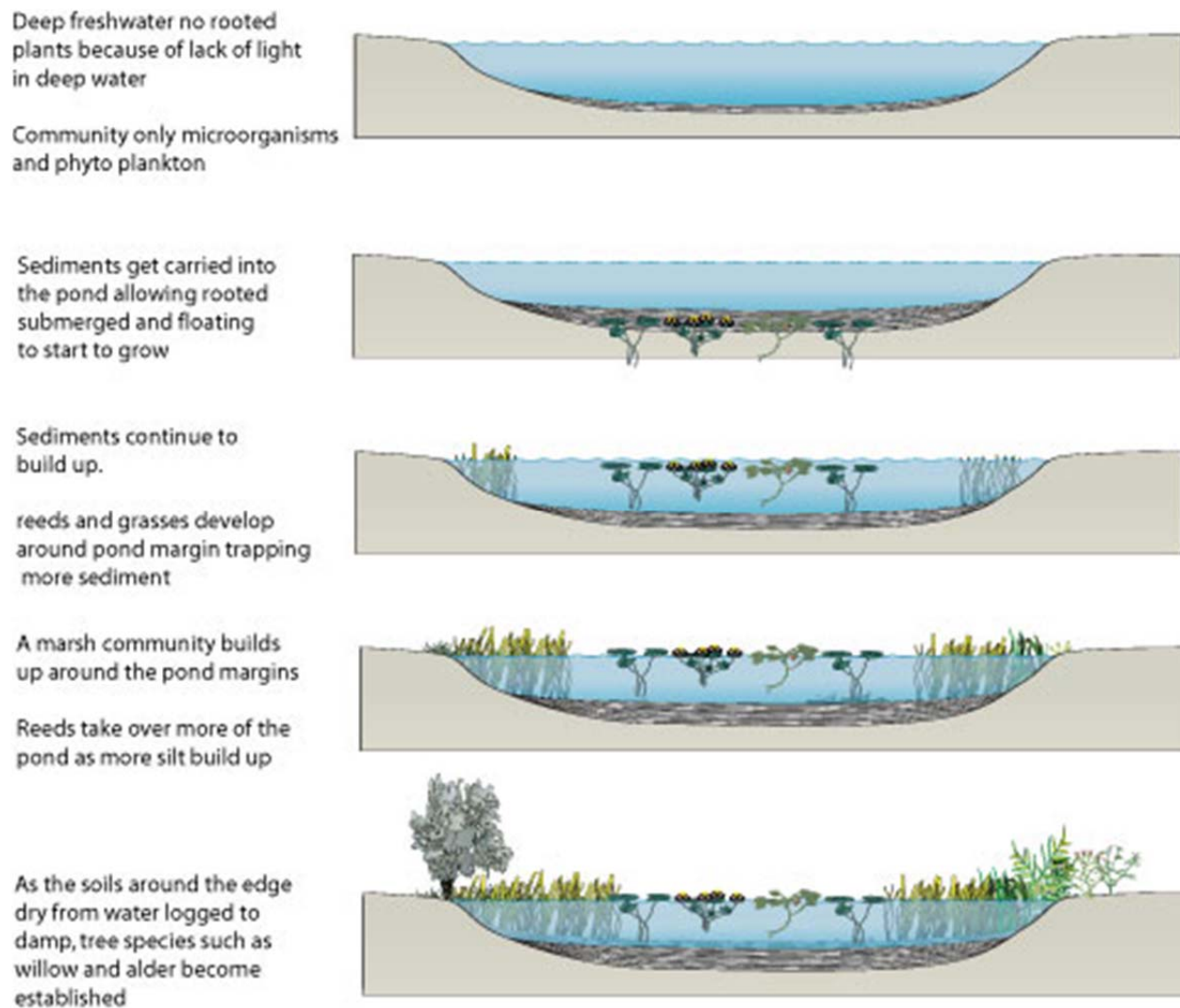
Keywords: Succession, allogenic, autogenic, flora and fauna , Anthropogenic, Terrestrial ecosystem.

1. INTRODUCTION

In nature various kind of the phenomenon occurs. In that series the ecology consist of a number of the principles. like autecology ,genecology ,succession ,ecosystem biology ,community ecology , biodiversity conservation. among all of them the succession is the step of the evolution. succession has been defined by the different scientist in a number of the ways. it is the orderly change in the structure & function of the community in a particular places(habitat). All today major ecosystem are resultant of the past giant succession process. In any kind of the ecosystem the pioneers vegetation start with the respective types of the flora and the fauna. later on the succession is transferred by the respective vegetation & animals of that habitat. There are many ways by which the succession has been classified. some of the ways for the classification of the succession are as follows.

1. Autotrophic succession
2. Heterotrophic succession.
3. Autogenic succession
4. Allogenic succession.
5. Primary succession
6. Secondary succession.

Well the succession is divided according to the places like whether the succession is occurring in the hydro sere or it is in the xerosere. lithosere kind of the succession has also been divided. in litho sere the succession occurs on the bare rocks. In hydrosere the succession occurs in the water,it leads to the later on the forest kinds of the community.



Source (from the internet).

Succession always has the greater significance. Since it produces a new kind of the community as well as many kinds of the reservoirs of the plants and animals.. Without succession the evolution will stop.

In that case we have try to analyse one of the anthropogenic succession of one of the lake of the alwar district of Rajasthan. This is the best example of the succession which I have seen naturally. Well the jai samnd lake is a very beautiful lake at once (in past). It has a number of the reservoirs of the flora and the fauna of the unique kinds of the vegetation of rare taxonomic significances. The water of the lake was also at once time was very clean and have all kind of the aquatic feature having good BOD ,COD ,Do and other parameter of the special interest

The lake have a very Important history of formation. the lake is constructed by the time of the swai jai singhji. From then establishment f the lake the beauty o f the lake has changed.

A number o f the factors are responsible for the change of the lakes form the 50 years.

Since along 50yrs ago the lake was very deep and have a unique kinds of the flora and the reservoirs of the fauna. a number of the giant crocodiles can be seen here In addition many tortoise and the other aquatic animals enhances the beauty of the lakes. Similarly aquatic plants were also seen in the lake. cumulatively a typical foods chain and the food web can be observed over there. But we have seen that all these events in the lake are now the day dreams. since during the 20 years ago , many kinds o f the changes can be seen in the lake. One of the was the Washer man activity. a typical population of the washer man can be seen over there. They are the main reasons for the deter ioration of the aquatic ecosystem. In addition to this the city discharges are also another point which can be includes as the main factor for the deletion of the lake. Some of the i ndustry discharges are also responsible for the demolition of the lakes. These entire factor in addition to

the another factor has leads to the disappearances of the flora and the fauna of the places. Gradually the lake converts into the amphibious kinds' of the ecosystem having the mud and the amphibious flora and fauna.. (fig)



Fig. 1: Natural JAI-SAMND LAKE



Fig. 2: Modified lake. (succession stages)

In addition to that many other factors are also incorporated in changing of the lake or the development of the terrestrial kinds of the ecosystem. Government efforts are very less in saving of the lakes. This is the reason that why some of the places of the lake has convert in to the damping zone. 80% places of the places has convert into the terrestrial kinds of the habitat. If timely action were not taken than the remaining part of the system will be convert into the whole DEGRADED ecosystem.

2. CONCLUSION

Succession is a natural phenomenon which leads to the number of the community. in today world many anthropogenic factors are responsible for the succession. these kinds of the analysis are very important for the study of the ecosystem. since saving of the biodiversity is the today important aspects of the study. aquatic flora and the fauna are the major kind the biodiversity which have unique much significance. ,but due to rapid industrization and the urbanization leads to the loss of the biodiversity of the habitat & are the major causes of the succession.. so these analysis of ecosystem should be enhances..

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