

THE STUDY OF TROPICAL PADDY FIELDS OF SARAN ON PLANKTON DIVERSITY

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ABSTRACT

Bihar is blessed with aquaculture resources in the form of freshwater tanks ponds and paddy fields which cover water area of over 65,000 hectares. Freshwater aquaculture in the state is being promoted through district level fish farmers development agencies which provides technical, financial and extension support to the fish farmers. The district level fish farmers technical financial and extension support have so far brought under scientific fish farming over 26,000 ha in various districts with an average fish productivity of around 22 tones/ha.

INTRODUCTION

Freshwaters still save purposes other than water supply such as recreation transportation systems, aesthetics, and others, However the demands of exponential demotechnic growth clearly receive total precedence over uses of fresh waters for other purposed. The most fundamental laws of resource utilization may be recognised by most agencies and industries but they are not being Implemental significantly. The remarks above although pessimistic accurately assess existing pattern of utilization of our water resources. It is clear that demotechnic growth will continue to impose increasing demands upon freshwater supplies either until inefficient utilization creates a disastrous situation threatening the survival of a major segment of human race or until the expenditures of energy needed to obtain water exceed tolerable operational levels. Looking back at the repetitions history of responses to impending environmental disasters, we can be optimistic about the future only until such time as our understanding of the operation of the biosphere and our knowledge of freshwater ecosystems in particular is adequate to allow us to recognize the joint of irreversibility. As one reflects on the progress that has been made in freshwater biology since its inception a century ago. It becomes apparent that the time available for understanding freshwaters is disconcertingly limited. We need to intensify study of and time to understand freshwater in systems sufficiently to judge their resiliency and capacity for change

in response to exponential demotechnic utilization and loading of contaminants Existing understanding of freshwater ecosystems must be extended to a greater percentage of the population being educated so that this information can be effectively fused into the population at all levels.

It is of the utmost importance therefore that we understand the structure and function of freshwater ecosystems Humans are a component of these ecosystems, and these effects on them will increase markedly until demotechnic growth is stabilized. Emotionalism and alarmist reactions to the momentum of exploitation of the finite biosphere by the technological system accomplish little and as has been demonstrated repeatedly are often antagonistic to improvement strict. Conservation and isolation of resource Parcels in the belief that such areas are exempted from technological alterations of the atmosphere and water supply are native and little to solution of the overall problem understanding the metabolic responses of aquatic ecosystem is essential in order to confront and offset the effects of these alterations and in order to achieve maximum, effective management of freshwater resources All waters of course cannot be managed directly Rather an integration of human growth and utilization with the melaboliam of fresh water is required to minimize detrimental changes. A well documented effect of human impact upon aquatic ecoystem is cutrophication a multifaceted term associated with increased productivity simplification of biotic communities, and a reduction in the ability of the metabolism of the organisms to adapt to the imposed loading of nutrients. These conditions lead to reduced stability of the ecosystem In this condition of cutrophication excessive inputs often exceed the capacity of the ecosystem to be balanced. In reality however the ecosystem are out of equilibrium only with respect to the freshwater chemical and biotic characteristics that are desired by humans for specific purposes. In order to have any hope of effectively integrating humans as a component of aquatic ecosystema and of monitoring their utilization of these resources, it is mandatory that we comprehend in some detail the functional properties of freshwaters.

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RESULTS

Among phytoplankton the group Bacillariophyceae dominated other groups. The second group chlorophyceae was the second dominating group throughout the study of phytoplankton from different paddy fields (Chenwar) of Rural Chapra. While the cyanophyceae was the third group in the population and percentage of the plankton in the lentic water bodies of rural Chapra the fourth group constituted mostly vaucheria (xanthophyceae) and ceratium (Dinophyceae) in low percentage in the study.

The pH value is one of the important parameters regarding the quality of water Meetu Rastogi CL. Jain Ashok Kumar (2006) reported high P^H (9.2) in the lentic water body at Gaziabad. Bilgrami and Duttamunshi (1979) reported pH value from 7.2 to 8.2 In the present study the pH value of paddy fields water of Rural Chapra have been absorbed to vary from 6.0 to 9.9 which more or less resembled with the above findings. Bilgrami et. al (1985) recorded lower pH during the rainy season and higher in winter Sinha (1985- 88) recorded higher pH in summer and winter seasons and lower in rainy season.

Different groups of sooplankton also showed marked variation in their in the different months maximum number of pretozoa were collected in the month of May and October while minimum number were collected during February and September in 2009 and 2010. Fotifera cladocera copepod ostracoda showed their maximum number during April, May October and November while they showed their minimum numbers during February and September.

Similarly the lowest collection of zooplankton was recorded during September 2009 and 2010. However the highest collection recorded during May of each year.

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In present study the higher pH value was recorded in winter and summer season and lower in rainy season and thus are in resemblance with the finding of Bilgrami and Sinha.

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