

THE FLORA AND FAUNA OF SAJHI LAKE THE BEAUTY OF DHEKAHA VILLAGE SITUATED AT MOTIHARI BLOCK OF EAST CHAMPARAN

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Abstract : Sajhi lake is a perennial lake and very rich in flora and fauna. The flora is represented by Phytoplanktons. The flora is represented by plants. Zooplanktons, invertebrates and fishes in special are included under the fauna or consumers, the fish fauna of this lake is very rich. This lake is attractive in the sense that it is at the heart of Dhekaha village. Due to bad habits of human population its flora and fauna are in danger.

IndexTerms - Flora and fauna, Sajhi lake, Phytoplanktons, Population.

I. INTRODUCTION

The East Champaran district (head quaters Motihari) is very rich in natural water resource naving several rivers, ox-bow lake (Mauns), ponds, tanks, chauras and canals.

The main attraction to select Sajhi lake for investigation was that it is surrounded on one side by athick mini forest which has increased its natural beauty and it is yet untouched by any other investigation to best of my knowledge.

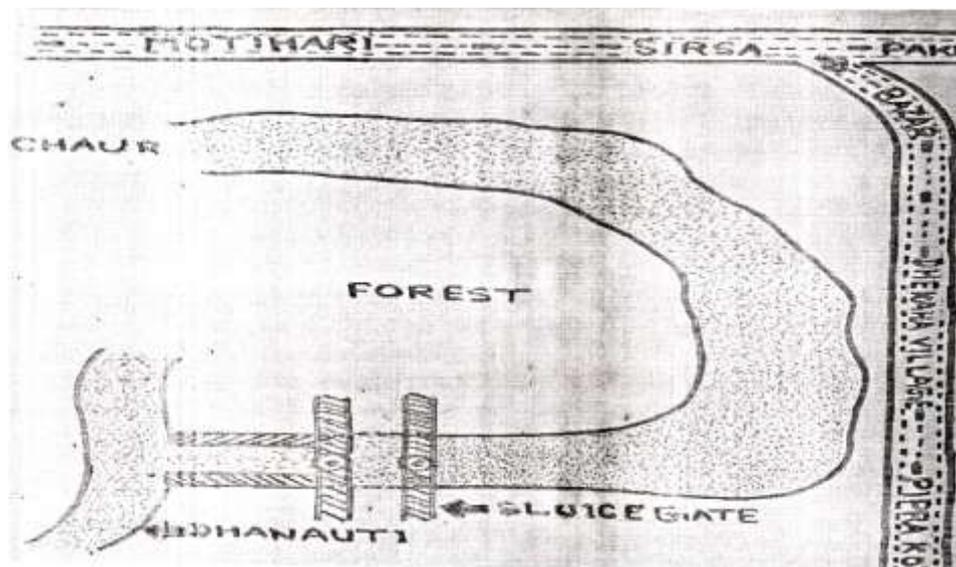
Sajhi Lake is rich in biodiversity and substance high productivity. It is also the abode of migratory and resident birds about 300 fishermen from surrainding villages depends on this lake for their livelihood.

There is no addition of industrial wasts in this lake put the domestic sewage through nalas from surrounding villages and considerably high nonpoint organic metter from the surrounding agricultural fields were reasonably high duality of fertilizers and pesticides are used. In addition other unnatural man med activities making this lake day by day contaminated. It requires some scientific attention to improve the aquaculture and to increase the fish productivity of this lake.

II. TOPOGRAPHY OF THE SAJHI LAKE

The lake Sajhi is originated from wide chaur, a reservoir near Sirsa bajar, Motihari Block and terminates after running about 4kms in Dhanauti River connected by a sluice gate at Khanwa pul. It is an ox-bow lake almost U/L shaped and is perennial. It covers about 80 Hectares. its width is 150 to 200 meters. Water depth: 2 to 6 meters. Latitude & Longitude of the lake is 26°15' to 27°01' N to 84°28' to 85°18'E. the lake is flowing is North West South West. On East side, Dekaha village and sirsa-Pipra Kothi Road while on West side, a mini forest, full of green trees and herbs situated.

Map of the lake is given below...



III. MATERIALS AND METHODS

Plankton collection were made and preserved in 5% formaline. During each collection about 20 liters of water sample of this lake were collected and sieved through a plankton net. The quantitative estimation of plankton was carried out by "direct census" method with the help of sedgwick rafter counting cell under a binocular microscope. planktons were counted category wise.

The collection of aquatic plants was made physically. Aquatic plants were collected from the lake by sitting on boat. Aquatic plants were kept in a plastic bucket and then were carried to the laboratory for study. The collection of Macrophytes were made physically.

For the founal studies various invertebrates were collected in addition to zooplanktons. The special attention was made on fish collection and their indentification. With the assistance of local skilled fisherman. The fishes were collected and preserved. Identification of fishes were made with the help of Day's fish fauna of British India.

IV. OBSERVATION

1. **FLORA:** The quantitative and qualitative data of planktons were prepared for one year based upon the analytical works.

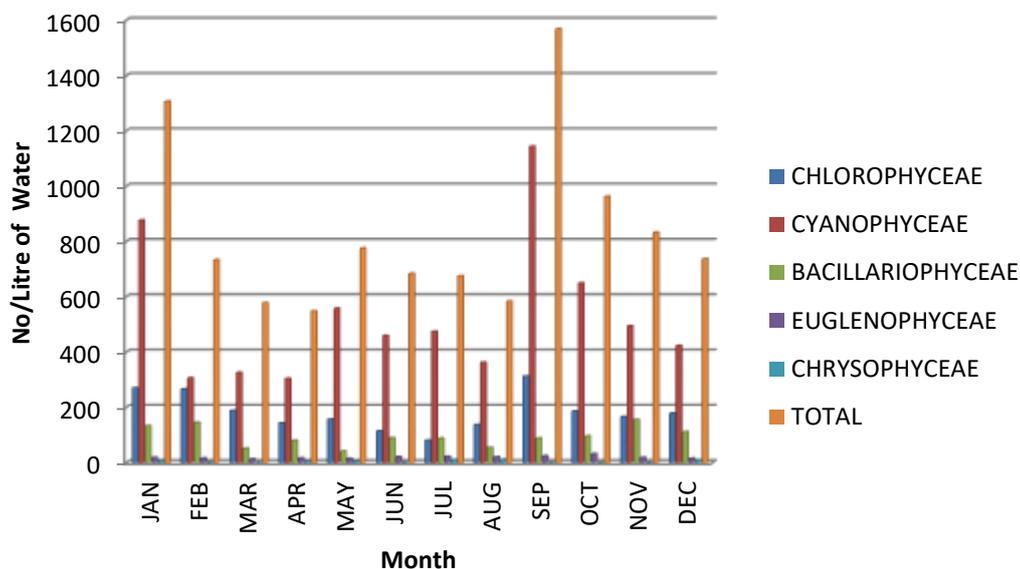
The phytoplanktons were highest in number in Jaunary and September and lowest in the March and April.

On further analysis. It was observed that Phytoplanktons were represented by 5 major divisions named below with their number presented in table.

**TABLE : Variation in the population of phytoplankton of Sajhi Lake
(Month wise) (Number per liter of water)
YEAR-2011**

MONTH	CHLOROPHYCEAE	CYANOPHYCEAE	BACILLARIOPHYCEAE	EUGLENOPHYCEAE	CHRYSOPHYCEAE	TOTAL
JAN	270	877	133	18	09	1307
FEB	266	306	145	16	01	734
MAR	188	326	51	13	00	578
APR	143	304	80	16	05	548
MAY	156	558	41	15	06	776
JUN	114	459	89	21	01	684
JUL	81	474	88	22	10	675
AUG	137	362	54	20	11	584
SEP	312	1144	88	24	01	1569
OCT	186	649	96	32	00	963
NOV	166	494	155	18	00	833
DEC	179	423	111	15	09	737
TOTAL	2198	6376	1131	230	53	9988

**CHART : VARIATION IN THE POPULATION OF
PHYTOPLANKTON OF SAJHI LAKE
YEAR-2011**



The macrophytes were found with less variations in number and forms throughout the year. In summer season when certain portion becomes dry these aquatic plants grow more.

2. FAUNA: Although this lake has the honor to have varried fauna but some major invertebrates, zooplanktons were given much attention in addition to this survey of fishes.

Zooplankton: It was observe that the zooplankton group was represented by 5 major divisions. Copepoda, Cladocera, Rotifera, protozoa, and ostacoda. The major species of these group are shown in the table with their variation in quantity throughout the year 2011.

Macro invertebrates: Macro invertebrates belonging to phyla Annelida, Arthropoda and Mollusca were recorded from this lake comperatevely Mollusca formed the major bulk. Populations of insects and their behavior in water is directly related to the productivity of the Sajhi Lake.

Macro-vertebrates: Many macro vertebrates were observed and it was found that most of them were amphibians although some reptiles were also found.

Macro-vertebrates of Sajhi Lake

Sl. No.	Name of Group	Species Observed
1	Amphibia	Rana tigrina Rana limnocharis Rana cyanophylectis
2	Reptilia	Natrix Piscicator Tropiodontos stolatus

Survey of Fishes: Although the fish fauna of the lake is much varried but due to lack of well organized pisciculture the important edible fishes were not abundant during observation this lake is also facing the problem of illegal of land & water pollution which has damaged the fish-fauna very heavily. During observation the main edible fishes were found. For this fishes were collected with the help of local skilled fisherman using different types fo nets & boats.

List of Fishes of Sajhi Lake

S. No.	Zoological Name	Local Name	Abundant
1	Aspidoparia morar	Chilwa	LN
2	Catla Catla	Bhakur	A
3	Cirrhina migrala	Naini	A
4	Cirrhina reba	Rewa	LN
5	Labeo-gonius	kursa	LN
6	Labeo-rohita	Rohu	A
7	Oxygaster bacila	Challawa	LN
8	Puntius Sophore	Pothia	A
9	Puntius ticto	Sidhri / Pothia	A
10	Labeo calbasu	Basrahi	LN
11	Mystus-vittatus	Tengro	LN
12	Wallago atu	Boyari	LN
13	Hetero pheustes Fossilis	Singhi	A
14	Clarias batrachus	Mangur	A
15	Channa punctatus	Garai	A
16	Macrognathus aria	Patya	A

A: Abundant, LN: Less Abundant

V. SUMMARY AND SUGGESTIONS

Sajhi Lake is no doubt a nice lentic water body and so the Dhekahan people, administration, Pisciculturists should come ahead to save its exitence.

For pisciculture of fish farming:

Under 11th plan the Bihar government has proposed many schemes. The fisherman cooperative societies. Should come ahead for availing these facilities.

The composite fish culture system is technology developed in Indian council of agricultural research in the 1970^s. In this system both local and imported fish species, a combination of 5 or 6 fish species is used in single fish farm. These species are selected so that they do not compete for food among them having different types of food habit. As a result the food available in all the parts of the fish farm is used. For e.g. silver carp is surface feeder, rohu a column feeder and mrigal and common carp are bottom feeder. In this system the yield of fish may be increased up to 3000 to 6000 kg per hectares per year.

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