

Study on the Collection and Types of New Fishes in Bhusara Maun of Muzaffarpur Bihar

Nishi Kumari

Dept of Zoology, J P Univ Chapra

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ABSTRACT

Altogether 39 species of fish belonging to different families and orders were recorded along with two species of amphibian, three species of reptilia & occasional visit of aquatic birds & common & regular visit of human beings & their cattles for their daily needs. As far fish growth pattern is concerned, the Mahila Matsya Jeevisociety of that particular maun released fingerlings/ jeera of Mrigal, Rohua, Catla, Grass Carp & common carps during August to September, but the number was far less than required for such a big maun due to paucity of fund. However, the fingerlings of Mrigal, Rohu, Catla, Common Carp & Grass Carp were released in the ratio of 19 : 25 : 19 % 20 & 17% respectively in natural habituate without providing any manure or feed.

Introduction

The freshwater of the earth comprises less than 40% of the total earth surface & most of the surface of earth water is about 25.5 x 106 km², exists as ice & snow in glaciers and polar ice caps, whereas, freshwater lakes & streams cover about 0.2% (approx 2x106 km²) and almost same area are covered by Swamps & marshes.

A number of literature on the Limnology/hydrology/ecology of fresh waters have appeared, but most of these contributions are mainly based on the year-round study of freshwater bodies of diverse dimension, but very little is known about the behaviour of basic elements in Indian waters especially of Bihar.

In modern days "Ecology" is described in the name of environmental biology, as it deals with organisms in relation to their environment. The organism with its adaptive interaction with environment ensures its own development & existence. It consists of living organisms (biotic factors) and non-living substances (abiotic factors). It is an interacting system where the biotic & abiotic factors interact to produce an exchange of materials in between living and non-living factors. An ecosystem mainly consists of three nutritional groups: Producer organism consisting green plants responsible for synthesizing organic feed; consumers which are mainly animals and decomposed organisms, like bacteria & fungi. The biotic factors depend on the abiotic factors for their survival. The fresh water habitats though occupy a relatively small portion of the earth surface in comparison to marine or estuarine habitats, their importance to mankind is far greater as the fresh water is the most convenient & cheapest source of water for domestic & industrial needs and also provides cheapest waste disposal systems.

Materials and methods

Fish Fauna:-

Regular recording of fish fauna were done from the catch of the fish by fishermen during fishing around the selected stations & also from the whole water body and finally a composite spectrum with their availability was documented.

Fish Growth Pattern:-

To study the growth pattern, the size of the fingerlings with weight of atleast twenty number of each fish species were recorded at the time of their release to the maun by the fishermen of the society and overall average of the weight & size of each species were noted. The fingerlings were released in August (Mrigala, Rohu & Catla) and in September (Common Carp & silver carp). To study the growth pattern, at least 15-20 fish of each species were randomly selected to obtain their size & weight from January' 11 to May' 11 (every month and overall average of each species were recorded for each month.

Results

Altogether 39 species of fish belonging to different families and orders were recorded along with two species of amphibian, three species of reptilia & occasional visit of aquatic birds & common & regular visit of human beings & their cattles for their daily needs. As far fish growth pattern is concerned, the Mahila Matsya Jeevisociety of that particular maun released fingerlings/ jeera of Mrigal, Rohua, Catla, Grass Carp & common carps during August to September, but the number was far less than required for such a big maun due to paucity of fund. However, the fingerlings of Mrigal, Rohu, Catla, Common Carp & Grass Carp were released in the ratio of 19 : 25 : 19 % 20 & 17% respectively in natural habituate without providing any manure or feed. They were sampled from January' 11 and after-10 months i.e. May' 11 the average weight of Marginal, Rohu, Cattle, Common Carp & Grass carp were recorded to be 386.2, 558.5, 696.7, 775.0 & 799.5 gm respectively. A faster growth was observed from February onwards indicating that the growths were slow during winter months.

The socio-economic condition of the fishermen were found very measurable as no financial or technical helps were provided to them either from Bank or Government. Most of the female member of the society were illiterate, but their wards & almost all boys/girls are enrolled in different classes of school. Only one person was graduate, few are matriculate & under metric. The main profession of them is fishing except

a few having medicine shop & auto-driver. Only about 20% have brick house. They have sixty boats & good number of different types of nets made of mostly Nylon. Twelve persons got training on block level, but thereafter they could not avail

the benefits of such training due to non-availability of financial help. In a nut-shell, the govt. will have to do a sincere effort for enlistment of them.

Table – 1: LIST OF MACRO –VERTEBRATES PRESENT IN BHUSARA MAUN DURING THIS YEAR

A		FISH	COMMON NAME	POPULATION
	a	Order: Cypriniformes		
	(i)	Family : Cyprinidae		
		Genera / Specied		
		Catla Catla (Ham)	Bhakur	Common
		Cirrhina mrigala (Ham)	Naini	Common
		C.Rewa (Ham)	Rewa	Common
		Labeo rohita (Ham)	Rohu	Common
		L. Calbasum (Ham)	Basari	Few
		L.Gonius (Ham)	Kursa	Common
		Puntius Sarana (Ham)	Darahi	Common
		P.Sophore (Ham)	Pothia	Common
		P.Ticto (Ham)	Sidhari	Plenty
		P.Cosuatis (Ham)	Pothia	Few
		Amblypharyngodon mola (Ham)	Dhawai	Plenty
		Aspidoperia morar (Ham)	Chelwa	Plenty
	(ii)	Family : Clupidae		
		Lepidocephalichthys quantia (Ham)	Lotani	Few
		Botia Dario (Ham)	Baghi	Plenty
	(b)	Order : Siluriformis		
	(i)	Family : Siluridae		
		Wallago attu (Bloch Sch.)	Boari	Common
	(ii)	Family : Bagaridae		
		Mystus Vittatus (Bloch)	Tengra	Common
		M.aor (Ham)	Tengra	Few
	(iii)	Family : Heteropneutidae		
		Heteropneustes fossilis (Bloch)	Singhi	Plenty
	(iv)	Family : Claridae		
		Clurias batrachus (Limn)	Mangur	Common
C		Order : Ophiocephaliformes		
	(v)	Family : Channidae		
		Channa punctatus (Bloch)	Garai	Plenty
		C.Striatus (Bloch)	Saura	Plenty
		C. Gachua	Genga	Common
		C.Marulius	Saura	Common
d		Order : Clupeiformes		
		Family : Clupidae		
		Gadusia Chapra (Ham)	Suhia	Few

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