

ICTHYOFAUNA OF FOUR DISTRICT OF NORTHERN HARYANA

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ABSTRACT

Haryana doesn't have web of rivers but even they have rich fish fauna migrated from neighbouring State. A very few work is done so far by some workers and this is an attempt to study the fish fauna in the state.

To study the Ichthyofauna of Four District of Northern Haryana.

The material for the present study was collected from the various fishing spots of the four districts by the help of fisherman from various water bodies located in these four districts under study and preserved in 8% formalin and brought to the laboratory for further detailed study.

Sixty four species belonging to thirty five genera and sixteen families have been recorded from the area under report. Family Cyprinidae alone contributed 51.56 % fish fauna followed by Bagridae (10.93 %). A brief account of the topography of the area surveyed is given.

Keywords: Ichthyofauna, Haryana, Fish Fauna

INTRODUCTION:

Haryana doesn't have web of rivers like its neighbouring states. The rivers which mainly flow through the state are Ghaggar, Saraswati, Markanda, Tangri and Yamuna. All these rivers which flow through the state are not perennial except Yamuna. Besides these rivers, there are other water bodies in the form of small lakes, canals and ponds. Fish diversity of undivided India and various Indian states has been described by Jerdon (1849), Ahmad Khan (1942), Hamid Khan (1945), Dutta & Majumdar (1970), Tilak & Hussain (1977), Srivastava (1980), Venkateswarlu & Rao (1980), Sharma and Kulshreshtha (1981), Johal & Tandon (1981), Kaul *et al.* (1982), Lipton (1983-84), Dutta & Malhotra (1984), Tilak & Baloni (1984), Sen (1985).

Tandon and his co-workers (1963, 1965, 1967, 1972, 1975, 1976, 1980 and 1981) have published a number of papers on the fish fauna for the development of fisheries in the state of Punjab and Himachal Pradesh. However, no separate work about the fish fauna of Haryana has so far been studied except the work published on the fishes of Kurukshetra district by Rishi and Dutta Gupta (1979) and a preliminary study of fishes of Haryana by Kaul *et al.* (1982).

MATERIALS AND METHODS :

The material for the present study was collected from the various fishing spots of the four districts of the northern Haryana viz. Ambala, Yamunanagar, Karnal & Kurukshetra and various villages of these above mentioned districts where fishing is generally carried out by fishermen. The visits to the fishing centers were so planned as to cover the maximum spots. Drag-nets, cast-nets, gill-nets, hand-nets, rod and line, bundh type and pot methods were used for the catching fishes at different places with the help of local fisherman. As soon as the catch was brought to the banks, fishes were picked up and then examined properly for the following taxonomic characters:

1. Lateral line scales
2. Fin rays and
3. Colour

The fishes were then preserved in 8% formalin and brought to the laboratory for further detailed study. All the measurements have been based on the total length and are in the metric system. The last fin ray of the dorsal and the anal fins has been counted as one each, which in most fishes is divided up to the root. The fishes were studied by the method/Keys provided by Day (1878), Johal and Tandon (1979, 81), Srivastava (1980) and Talwar & Jhingran (1991). Alizarine preparations were made of small fishes to confirm the number of rays in fins.

TOPOGRAPHY :

The district Ambala lies on the north-eastern edge of Haryana between 30° 02' 35" north latitude and 76° 32' 45" east longitude. It is bounded by the river Yamuna and across it by Saharanpur district of Uttar Pradesh to the south east. To its south lies Kurukshetra district while, to its west is situated Patiala & Ropar district of Punjab and Union territory of Chandigarh. The Shiwalik range of Solan and Sirmaur district of Himachal Pradesh bound the Ambala district in the north and north-east. Yamunanagar, literally city of Yamuna lies in latitude 30° 5' North and longitude 77° 15' East. The district is bounded by the Yamuna river and across it by the Saharanpur district of Uttar Pradesh in the south east, Karnal district in south, Punjab in the north-west and Shiwalik hills in the north-east.

Karnal lies between 29° 10' to 29° 55' north latitude and 76° 38' and 15' east longitude. It is bounded by the river Yamuna on the east which separates it from Saharanpur, Muzaffarnagar and Meerut districts of Uttar Pradesh on the north and north west by the Kurukshetra and on the south and south west by Sonapat and Rohtak districts of the Haryana state.

In Kurukshetra district, Saraswati River which is actually a branch of Markanda River is filled up during the rainy season only. In the south west region of the district, the river water is collected in a small dam to form a large lake, known as Bibipur Lake. There are two big canals the west Yamuna canal and the Bhakra canal. The large water tank, Brahm Sarovar in Thaneshwar is also rich in fish fauna.

RIVER SYSTEM & WATER RESOURCES:

All the above mentioned districts of the state are mainly drained by non-perennial streams. The Yamuna is the only perennial river. The Saraswati, the Markanda and the Tangri streams ultimately drain into the Ghaggar river beyond the territory of the districts. The Ghaggar passes through the northern part of the state. This river identified by some historians as the river Drishnavadi of vedic fame is not perennial. The Ghaggar along with

its tributaries, however, constitute an inland drainage system.

The Yamuna rising from the snow-clad peaks of the middle Himalayas at Yamnotri, enters the district from its north eastern corner through a narrow corridor in the Shivalik hill range and enters in the plains and after that the main stream of the river runs along the borders of the Ambala, Yamunanagar and Karnal districts. The river Saraswati is considered to be very sacred throughout the country next to the Ganga. It rises in the lower hills just beyond the border of the district in Sirmaur and emerges in the plains at Ad badri. This river now has completely disappeared.

The Markanda which drains the southern slopes of Dharti Dhar range, cuts through the Shivalik range and enters the plains and the district near Kala Amb. The stream is joined by Run nadi, the Begna nadi and nakti nadi. It flows towards south and turns south west and enters in the Kurukshetra district. During the rainy season the river carries enormous water which causes flooding in its lower course.

OBSERVATIONS:

As many as 64 species belonging to 35 genera and 16 families have been recorded from the area under report. This list includes five exotic fishes which have are being bred at Jyotisar (Kurukshetra) very frequently. The following list can be considered a fairly comprehensive one of the fish fauna of the area. The system of classification adopted here largely follows Greenwood *et al.* (1966).

LIST OF FISH SPECIES RECORDED DURING STUDY

Class : OSTEICHTHYES		Local Name	
Sub-Class : ACTINOPTERYGII			
Order	Clupeiformes		
Sub-Order	Clupeoidei		
Family	Clupeidae		
	<i>Clupea</i> (Syn. <i>Gadusia</i>) <i>Chappera</i> (Ham.)		
Order	Clupeiformes		
Sub-Order	Notopteroidei		
Family	Notopteridae		
	<i>Notopterus notopterus</i> (Pallas)	Pari	
	<i>N.Chitala</i>	Batoo	
Order	Cypriniformes		
Sub-Order	Cyprinoidei		
Family	Cyprinidae		
Sub-family	Cyprininae		
	<i>Amblypharyngodon mola</i> (Ham.)	Makhani	
	<i>Catla catla</i> (Ham.)	Katla	
	<i>Cirrhina latia</i> (Ham.)	Tellare	
	<i>C. reba</i> (Ham.)	Mori	
	<i>C. mrigala</i> (Ham.)	Mrigal	
	¹ <i>Ctenophrengodon idella</i> (Val.)	Grass carp	
	† <i>Cyprinus carpio var Communis</i> (Linn.)	Scale carp	
	† <i>Cyprinus carpio var nudus</i> (Bloch)	Leather carp	
	† <i>C. carpio var specularis</i> (Linn.)	Mirror carp	
	† <i>Hypophthalmichthys moltrix</i> (Cuv. & Val.)	Silver carp	
	<i>Gara lamta</i> (Ham.)	Pather chatt	
	<i>Labeo bata</i> (Ham.)	Bhangan	

¹ Exotic species commonly bread at Jyotisar (Kurukshetra)

	<i>L. calbasu</i> (Ham.) <i>L. caerulius</i> (Day) <i>L. dero</i> (Ham.) <i>L. dyochelus</i> (Mc Cle) <i>L. rohita</i> (Ham.) <i>L. gonius</i> (Ham.) <i>Osteobrama (Rohtee) cotio</i> (Ham.) <i>Puntius sarana</i> (Ham.) <i>P. sophore</i> (Ham.) <i>P. stigma</i> (Ham.) <i>P. ticto</i> (Ham.) <i>P. parrah</i> (Day) <i>Tor tor</i> (Ham.) <i>T. putitora</i> (Ham.) <i>Schizothorax progastus</i> (Heck)	Kalbans Gid Kunni Rohu Sirheen Seesa Machhi Puthia Chidhu Khangan Ticher Ticker Mahasser Choti Mahasser Asala
Sub-family	Abraninae	
	<i>Chela bacaila</i> (Ham.) <i>C. gora</i> (Ham.)	Chilwa Chaal
Sub-family	Rasborinae	
	<i>Barilius bola</i> (Ham.) <i>B. bendelisis</i> (Ham.) <i>Danio devario</i> (Ham.) <i>Esomus danricus</i> (Ham.)	Chilwa Chilwa Makhani Dhoban
Family	Cobitiidae	
	<i>N. botia</i> <i>Nemacheilus rupicola</i> (McClelland) <i>Botia birdi</i> (Ham.)	Sundli Sundli Kander
Order	Siluriformes	
Sub-order	Siluroidei	
Family	Bagridae	
	<i>M. bleekari</i> (Day) <i>M. cavacius</i> (Ham.) <i>M. seengala</i> (Sykes) <i>M. tengara</i> (Ham.) <i>M. vittatus</i> (Bloch) <i>Mystus aor</i> (Ham.) <i>Rita rita</i> (Ham.)	Kander Kinger Sanghara Tinger Kala Kander Sengharee Khagga
Family	Siluridae	
	<i>Callichrous (Ompak) pabda</i> (Ham.) <i>C. bimaculatus</i> (Bloch) <i>Wallago attu</i> (Bl. Schn.)	Pafta Pallus Mulee
Family	Schilbeidae	
	<i>Pseudotropius atherinoides</i> (Bloch)	Cheli, Challi
Family	Sisoridae	

	<i>Bagarius bagarius</i> (Ham.)	Goonch
Family	Clariidae	
	<i>Clarius batrachus</i> (Linn.)	Magur
Family	Heteropneustidae	
	<i>Heteropneustes fossilis</i> (Bloch)	Singhi
Order	Perciformes	
Sub-order	Percoidei	
Family	Ambassidae	
	<i>Ambassis (Chanda) nama</i> (Ham.)	Shesa machi
	<i>A. ranga</i> (Ham.)	Chitti Kangi
Order	Beloniformes	
Sub-order	Scomberescocoidei	
Family	Belonidae	
	<i>Trichogaster (Colisa) fasciatus</i> (Bl. Schn.)	Kangi
	<i>T. lalius</i> (Ham.)	Kangi
Order	Atheriniformes	
Sub-order	Gobiodei	
Sub-family	Gobiinae	
Family	Gobiidae	
	<i>Gobius guiris</i> (Ham.)	Gobi
Sub- order	Exocoetoidei	
Sub-order	Belonidae	
Family	Exocoetidae	
	<i>Xenentodon (Belone) cancila</i>	Takia machi
Order	Mastacembeliformes	
Family	Mastacembelidae	
	<i>Macrogathus aculeatus</i> (Bloch)	Bam
	<i>Mastacembelus pancalus</i> (Ham.)	Bam
	<i>M. armatus</i> (Lacepede)	Bam
Order	Ophiocephaliformes	
Family	Ophiocephalidae	
	<i>Ophiocephalus (Channa) puntatus</i>	Dolla
	<i>O. marulius</i> (Ham.)	Sol

Fish Fauna Contribution In Northern Haryana

S.No.	Family	No. of Genus	No. of Species	% Contribution
1	Clupeidae	1	1	1.56 %
2	Notopteridae	1	2	3.12 %
3	Cyprinidae	16	33	51.56 %
4	Cobitidae	2	3	4.68 %
5	Bagriidae	2	7	10.93 %
6	Siluridae	2	3	4.68 %
7	Schilbeidae	1	1	1.56 %
8	Sisoridae	1	1	1.56 %
9	Clariidae	1	1	1.56 %
10	Heteropneustidae	1	1	1.56 %
11	Ambassidae	1	2	3.12 %
12	Belonidae	1	2	3.12 %
13	Gobiidae	1	1	1.56 %
14	Exocoetidae	1	1	1.56 %
15	Mastacembelidae	2	3	4.68 %
16	Ophiocephalidae	1	2	3.12 %
	Total	35	64	100 %

GENERAL REMARKS:

During the course of this survey it has been found that religious inhibitions stand in the way of utilizing some of the tanks for fry stocked in ponds appear to be neglected. The indiscriminate use of pesticides has raised many eyebrows. The pesticides get washed into the streams/rivers. The residual effects of some of them are well known and thus can prove harmful to the fish fauna and flora. On the other hand the enormous growth in the industries which discharged effluents without any proper treatment into the rivers streams resulting in destruction of fish fauna. The recent survey of Yamuna and its tributaries has shown that its pollution has led to the disappearance of some fishes. It is, therefore, essential that periodic surveys should be undertaken so that the species are not lost to the scientific world. Public prejudice against fishing as a profession and against fish as an item in the menu stands in the way of proper exploitation of fisheries.

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