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CHECKLIST OF FRESH WATER FISHES IN THE CHANDLOI RIVER, KOTA, RAJASTHAN

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ABSTRACT: The study presented a checklist of fresh water fishes recorded from River Chandloi District Kota Rajasthan, India. It listed six orders, six families, eleven genera, thirteen species of fresh water fishes found in the river in different seasons. This study was conducted for two years that is July 2017 to June 2019. This checklist from the River Chandloi is prepared for the first time. The study also discussed dominance and abundance of the listed species.

KEYWORDS:- *Diversity, Abundance, Dominance, Chandloi River, Cypriniformes, Siluriformes, Perciformes, Osteoglossiformes, Beloniformes, Synbranchiformes, Clupeiformes.*

INTRODUCTION:-

Fish diversity, which provides food security to the poorest of communities of India, is not only important to fisherman community but also for the better health of water resources. Fish forms highest species diversity among all vertebrates and their loss is one of the world's most pressing crises as human life and livelihood largely depend on the status of biological resources. The freshwater fish is one of the most threatened taxonomic groups due to their high sensitivity to the quantitative and qualitative alteration in aquatic habitats. (Sarkar *et al*., 2008). India is endowed with vast and varied resources possessing river ecological heritage and rich biodiversity. Freshwater fishery sites are varied like 45,000 Km of rivers, 1,26,334 Km of canals, ponds and tanks 2.36 million hectares and 2.05 million hectors of reservoirs (Ayappan *et al.,* 2004). In India 5.5 million people are employed in inland fisheries (Dugan *et al.,* 2010). Recent study aimed at contributing a better knowledge of the fish fauna of Chandloi River (a tributary of Chambal, District Kota).

MATERIAL AND METHODS:-

Chandloi River is a left bank tributary of Chambal River. It originates near Aalania village and meets the River Chambal near village Mawasa. The river flows nearly 90 Km before entering River Chambal. Specimens of fishes were procured from different selected localities during the study period of July 2017 to June 2019, once in a month of the entire fishing season, The help of local marketers and fishermen who were using different types of nets namely gillnets, cast nets and dragnets was taken.

Immediately after procurement of the specimens, photographs were taken prior to preservation since formalin decolorizes the fish. Formalin solution was prepared by diluting one part of concentrated formalin (commercial formaldehyde) with nine parts of water i. e., 10% formalin. Fishes brought to the lab were fixed in this solution in separate jars according to the size of species. Smaller fishes were directly placed in the formalin solution while larger fishes were given an incision on the abdomen before they were labelled giving serial number tag bearing certain information such as collection site, date, time, weight and length etc.

Identification of collected specimens was done using keys (Day, 1889; Jayaram, 1999; Srivastava, 1995) for fishes of the Indian subcontinent. . The identification of the species was done mainly on the basis of the colour pattern, specific spots or marks on the surface of the body, shape of the body, structure of various fins etc. and also with the help of taxonomic expertise.

RESULT AND DISCUSSION:-

During the study period (July 2017 to June 2019) 13 species were taxonomically identified and listed in table number 1.

Table - 1: Checklist of fishes of Chandloi River, district Kota, Rajasthan.

S. No.	Order	Family	Genus	Species	Common Name	Abundance (C/R/T/E)
1.	Cypriniformes	Cyprinidae	*Puntius*	*sophore*	Pool barb	R
			Rasbora	*daniconius*	Darka	R
			Cirrhinus	*mrigala*	Naren	T
			Osteobramma	*cotio cotio*	_	R
			Labeo	*bata*	Bata	C
			Labeo	*rohita*	Rohu	C
			Labeo	*calbasu*	Kalbasu	R
			Gadusia	*chapra*		T
2.	Siluriformes	Heteropneustidae	*Heteropneustes*	*fossillis*	Magur	C
3.	Perciformes	Channidae	*Channa*	*punctata*	Sanwal	C
4.	Beloniformes	Belonidae	*Xenentodon*	*cancila*	Niddle fish	T
5.	Clupeiformes	Clupeidae	*Gonialosa*	*manmina*	_	E
6.	Synbranchiformes	Mastacembelidae	*Mastacembelus*	*armatus*	Baam	T

It is clearly visible in table that River Chandloi has a good diversity composed of six orders of fishes, namely Cypriniformes, Siluriformes, Perciformes, Beloniformes, Clupeiformes and Synbranchiformes. Order Cypriniformes is represented by single family Cyprinidae which is found to be most diverse and dominant family. This family have 06 genera with eight species. Genus *Labeo* is the most diverse and dominant genus in this habitat with three species. All other orders are represented by single family. Each family has 1 genus representing single species. The study is in continuation and there are few more specimens yet to be identified. This reporting is first of its kind from the River Chandloi. Results presented here are comparable to earlier similar studies done in running waters of Rajasthan state (Banyal and Kumar, 2015; Nair and Chaitanya Krisnna, 2013; Dutta, 2018; Sood, *et al.*, 2019).

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