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## Indigenous and Exotic Fish's population density in river Yamuna from Mathura to Agra, Uttar Pradesh

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### ABSTRACT :

Yamuna is a holy and religious river. Anthropogenic factors originated population crisis which affects, fish diversity. The present study focus on the water quality parameters on the fish diversity of the river Yamuna. Certain water quality parameters were considerably increased from Mathura to Agra. Fish diversity of river Yamuna investigated & identified. Indigenous species have considerably declined while exotic species increasing highly. The density of exotic common carps is more than indigenous *Catla* and *Labeo* observe. The population of exotic comprised 92.4% of the total fish caught at Agra.

### INTRODUCTION :

Yamuna river is the largest tributary of Ganga river in India. Due to certain stretches like pollution, climate change and some other factors like floods erect weather events. The water quality for indigenous fishes habitat is going to become unfavourable than exotic fishes. In the present study, pH of water as well as temperature, BOD and DO have measured to find out the corelation of status of population density of indigenous as well as exotic fishes population in Yamuna river in different study points from Mathura to Agra in Uttar Pradesh.

The population density of indigenous *Labeo rohita* and *Catla catla* is going to decrease by 84% and 95% respectively in this region while population density of exotic fishes like *Wallage attu*, *Cyprinus carpio* are maximum as they are in increasing order with 81% as well as 91% respectively in their population, so it is clear that due to unsuitable conditions of river Yamuna for indigenous fishes their population is going to decline, while exotic fishes (*Wallago attu*, *Cyprinus carpio*) are very tolerant fishes which can tolerate a wide range of environmental factors, making them to survive in river Yamuna, so at present Yamuna is more suitable habitat for exotic fishes.

### MATERIAL METHOD:

For population density measurement of fishes with the help of water net in different sites fishes caught, identify and their number noted.

- For temperature measurement centigrade thermometer used.
- For BOD measurement dilution method used.
- For DO measurement prob method used.
- For pH measurement pH meter used.

**OBSERVATION :**

**Table – 1 : Population Density of fishes**

Sr. No.	Major Species	Population density
1.	Labeo rohita (Indigenous)	16%
2.	Catla catla (Indigenous)	5%
3.	Wallago attu (Exogenous)	81%
4.	Cyprinus carpio (Exogenous)	92.4%

**Table-2 : Physio chemical parameter of river Yamuna 2025**

Months	pH of water	BOD	DO	Temperature
January	7.8	1.2	8.6	14°C
April	7.78	1	8.7	19°C
July	7.63	1.1	8.7	21°C
October	7.72	1.1	8.9	17°C

**CONCLUSION :**

From the present study, it is clear that exotic fishes in polluted water of river Yamuna survive and more suitable than compare to indigenous fishes. So, these exotic fishes play a very important role in the trading for fisher man in Yamuna river than indigenous fishes because these non-native exotic fishes breed rapidly to increase their population than *Catla catla* and *Labeo fishes*.

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