



Study of ichthyofauna diversity of Dejala Dewada reservoir from Bhagwanpura Tehsil, M.P.

S.K.Pathak¹ and Sandhya Kshetre ²

Received: 27.04.2012

Revised: 05.06.2012

Accepted: 03.08.2012

Abstract

The present study deal with identify the ichthyofauna presented in Dejala Dewada reservoir. West Nimar (Khargone). is one of the district of M.P.. The dejala dewada reservoir is situated on the river kunda, near village Bhagwanpura about 35 Kms. away from the district head quarter of West Nimar (Khargone). The geographical position of this reservoir latitude 21- 36'-45" and longitude is 75- 37'-30". It is man made reservoir made in 1986-87 with the help of world bank. It is situated 369.56 M above the mean sea level. In all 28 species belonging to 5 order and 9 families have been found in this reservoir. The study gives initial information about fish production of reservoir.

Keywords : *ichthyofauna, diversity, reservoir*

Introduction

The most important gift for mankind is water which plays a significant role in different vital and structural activities. The water of this reservoir is mainly used for irrigation, agriculture, drinking, fish management and various human activities. The ichthyofauna of British India including Ceylon and Burma published by Day1889. After that the ichthyofauna of various parts of India have been published. Some of the important contributions in this regard are Menon, 1949, Misra, 1952, Hora, 59, Srivastava, 1968, Jhingran, 1982, Pandey, 1999, Nanda & Tiwari, 2001. The ichthyo population of any aquatic ecosystem play a significant role in Indian economy. Approximately 21,723 ichthyofauna are known out of these about 40% fishes found in fresh water aquatic system. India ranked third in inland fish production in the world. The M.P. occupy 2.75 hectares area with 60 reservoir and got second position in India. The complete data of the ichthyofauna of M.P. is not found. Several studies have been done in past The ichthyofauna of Sagar lake studied by Swarup,

1953 and Qureshi & Qureshi, 1970 .Soni, 1959 described the ichthyofauna of lower lake of Bhopal. Misra, 1962 gave an account of ichthyofauna available in the M.P., Pathak & Pathak, 2000 studied the ichthyofauna of tribal district West Nimar of M.P. The present communication deals with the details of diversity of ichthyofauna of this reservoir which will helpful in the management and development of fishery. The documentation of fish fauna was done during December 2009 to November 2011. The proper identification of fishes is great importance and many workers have done this type job on different aquatic bodies in India.

Material and Methods

The sampling of ichthyofauna has been made for every month through out study period of twenty four months from December 2009 to November 2011. Four collection centers was selected in the studied water body viz. one at up stream site, two at reservoir site and one at downstream site. The collection of fishes were made with the help of meshed gill net, cast net and traps and directly from fishermen during the fishing time The fishes were brought to the laboratory and preserved in 5% formaline solution after noting the coloures and pigmentation of fishes. The fishes were identified

Author's Address

¹ P.G. Department of Zoology, B.L.P. Govt P.G. College, Mhow .

E-mail: skpathak57@gmail.com

² P.G. Department of Zoology, Govt P.G. College, Khargone



upto genus \ species with the help of keys provided by Day (1958), Srivastava (1980), Jhingran (1982), Jayaram (1994).

Description of study site

The Dejala Dewada reservoir is situated on the river kunda near village Bhagwanpura about 35 Kms. away from the district head quarter of West Nimar (Khargone). The geographical position of this reservoir latitude 21°- 36'- 45" and longitude is

75° -37' -30". It is situated 369.56 meters above the mean sea level. It is a man made reservoir made up in 1986-1987 with the help of world bank finance, which receives rain water from the neighboring area.

Results and Discussion

The total 28 species of fish fauna were identified, they represented 5 orders and 10 families from Dejala Dewada reservoir these are shown in table - 1

Table 1 List of Fishes Recorded in Dejala-Dewada Reservoir during December 2009 to November 2011

Order	Family	Genera	Local Name
Cypriniformes	Cyprinidae	1. <i>Catla – Catla</i> (Ham.)	Catla
		2. <i>Cirrhinus mrigala</i> (Ham.)	Mirgal
		3. <i>Cirrhinus reba</i> (Ham.)	Rewah
		4. <i>Labeo rohita</i> (Ham.)	Rohu
		5. <i>Labeo Calbasu</i> (Ham.)	Kala-beinse
		6. <i>Labeo boga</i> (Bloch)	Burmes
		7. <i>Labeo bata</i> (Ham.)	e Fish
		8. <i>Tor-tor</i> (Ham.)	Gootellah
		9. <i>Punctius ticto</i> (Ham.)	Mahasher
		10. <i>Punctius sophore</i> (Ham.)	Fire fin
		11. <i>Rosbora-daniconius</i> (Ham.)	Katcha karawa
		12. <i>Danio devario</i> (Ham)	Rasobora
		13. <i>Nemachelius botia</i> (Ham)	Zebra fish Striped Loach
	<i>Siluridae</i>	1. <i>Ompok bimaculatus</i> (Bloch) 2. <i>Wallage attu</i> (Schn)	Jalkapoor Barari
	<i>Bagridae</i>	1. <i>Mystus Seenghala</i> (Sykes) 2. <i>Mystus bleekeri</i> (Day) 3. <i>Mystus aor</i> (Ham.) 4. <i>Rita rita</i> (Ham.)	Dariai Tenggara Tenggara Dariai Teugara Rita
	<i>Claridae</i>	1. <i>Clarius batrachus</i> (Linn.)	Magur
	<i>Heteropneustidae</i>	1. <i>Heteropneustus fossilis</i> (Bloch)	Singi
Clupeiformes	<i>Notopteroidae</i>	1. <i>Notopterus notopterus</i> (Pallas)	Patra
Beloniformes	<i>Belonidae</i>	1. <i>Xenentodon Cancila</i> (Ham.)	Kawa
Ophiocephaliformes	<i>Ophiocephalidae</i>	1. <i>Channa marulius</i> (Ham.)	Saur
		2. <i>Channa gachua</i> (Ham.)	Dheridhok
		3. <i>Channa. Punctatus</i> (Bloch)	Girai
Mastacembeleformes	<i>Mastacembelidae</i>	1. <i>Mastacembelus armatus</i> (Lac.)	Baam
		2. <i>Mastacembelus Pancalus</i> (Ham.)	Malga



Dubey and Mehra (1959) observed 71 species of fishes from Chambal river. Dubey & Verma (1965) in the survey of M.P. recorded 104 species of fishes. Khanna & Badola (1990) gave an account of ichthyofauna of the river Ganga from the foot-hills of Garhwal Himalaya. Pathak & Pathak (2000) recorded 40 species of fishes from tribal district West Nimar (Khargone). Pathak & Mudgal (2005) were noted 29 species of fishes from Virla reservoir of district West Nimar (Khargone). Sharma et al. (2007) published ichthyofauna of Kishanpura lake Indore. Keshre & Mudgal (2010) recorded 18 species of fishes from Mohgat reservoir district of East Nimar (Khandwa). The water quality influenced the fish diversity of aquatic systems. There is no previous information available on ichthyofauna diversity of Dejala Dewada reservoir. So, it is not possible to say anything about the reason of decline or increasing the quantity of ichthyofauna diversity to this reservoir. In the present study duration 28 species belonging to the 9 families. Out of these families Cyprinidae was dominant with 13 species followed by family Bagridae with 4 species, family Ophiocephalidae with 3 species, family Siluridae and Metacembelidae 2 species and families Claridae, Heteropnustidae, Notopteroidae and Belonidae represented by 1 species. The order of family dominance are shown below:

Cyprinidae > Bagridae > Ophiocephalidae > Siluridae = Metacembelidae > Claridae = Heteropnustidae = Notopteroidae = Belonidae

Acknowledgement

The authors are thankful to the principal, B.L.P. Government P.G. College, Mhow for providing laboratory facilities. The authors are thankful to the fisherman for helping in catch of fishes.

References

Day, E., 1889. *Fauna of British India*. Vol. I & II.

Dubey, G.P. and Mehra, R.K., 1959. *Fish and Fisheries of Chambal river*, All India Congress of Zoology. (Pub.1962), 647-665.

Dubey, G. P. and Verma, M. N., 1965. *A Preliminary study of the Fish Fauna of M.P.* The Vikram, 8 (U) Reprinted, Govt. Central Press.

Jayaram, K.C., 1994. *The fresh water fishes of India, Pakistan, Bangladesh, Burma and Srilanka*, Zoological Survey of India, Calcutta. P. 475.

Jhingran, V.G., 1982. *Fish and Fisheries of India* Hindustan Pub. Corporation India.

Khanna, D.R. and Badola, S.P., 1990. ichthyofauna of the river Ganga at the foot-hills of Garhwal Himalaya. *J. of Nat. & Physical Science* 4(1-2), 153-162.

Keshre, Vivek and Mudgal, L.K., 2010. Study of fish diversity and fish production of Mohgat Reservoir Khandwa M.P., *Env. Conservation J.* 11(3) 117-120.

Menon, A.G.K., 1949. Fishes of Kumaon Himalayas. *J. Bombay Nat. Hist. Soc.* 43: 40-454.

Misra, K.S., 1962. *An Aid to the Identification of the Common Commercial Fishes of India and Pakistan*.

Nanda, S.N. and Tiwari, J.N., 2001. *A survey of fish fauna in the Sambalpur-Hirakund-Burta region*, Orissa. Environmental and pollution, 8 (I) p. 43-44.

Pathak, S.K. and Pathak, S.K., 2000. Fish fauna and fish production of Tribal district west nimar (Khargone) of M.P., India. *Env. Conservation J.* 1(2&3) 95-98.

Pathak, S.K. and Mudgal, L.K., 2005. Limnology and Biodiversity of fish fauna in Virla Reservoir M.P. (India), *Env. Conservation J.* 6(1) 41-45.

Pandey, A.C., 1999. An annotated list of fish genetic resources of Faizabad district, U.P. *Indian J. Fish* 46(1): 95-100.

Qureshi, T.A. and Qureshi, N.A., 1970. *Systematic position and description of Teleostean fishes of M.P.* Section of Ichthyology and Fisheries, Department of Zoology, Safia College Bhopal. 1-38.

Sharma, Shailendra, Mudgal, L.K., Sharma Praveen and Belsare, 2007. Biodiversity of fish fauna of Kishanpura lake, Indore M.P., *Env. Conservation J.* 4(1&2) 109-113.

Soni, D.D., 1959. *Fish Fauna of Bhopal lower lake*. In: Proceeding of First All India Congress of Zoology, pp. 639-641.

Srivastava, G.J., 1980. *Fishes of Eastern Uttar Pradesh*. Vishwavidyalaya Prakashan, Varanasi 207.

Swarup, H., 1953. *Fish fauna of Sagar Lake*, Sagar University Journal. 1:2.

