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## The Ichthyofauna of Ghol dam Bahadar Khel at District Karak, Khyber Pakhtunkhwa, Pakistan

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### Abstract

The present preliminary study was undertaken from January through March 2016, to find out the Ichthyofauna of Ghol dam Bahadar Khel at District Karak. Different types of nets and hooks were used for collecting fishes. During the study period, six edible fish species were identified including *Catla catla*, *Cirrhinus mrigala*, *Labeo rohita*, *Oreochromis niloticus*, *Tor tor*, *Hypophthalmichthys molitrix*. The result of the present study revealed that Ghol dam is having rich edible fish fauna and if proper stocking is carried out, it can harbor more fish quantity and species.

**Keywords:** Diversity of fish, Bahadar khel, District karak.

### Introduction

Fish is one of the major groups of vertebrates. It influences human life in a number of ways. It is a rich source of food and playing a predominant role in overcoming the nutritional difficulties including Proteins, fat and vitamins. It also provides several by products like fish meal, fish glue and fish oil etc. [1]. Fish not only provide food but boost up the economy of many countries of the world as well [2]. Fish fauna play a prime role in the aquatic system nourishment. It affects the aquatic system status and composition. Fish fauna provides momentum for sustainable management of any aquatic systems [3]. According to Jayaram [4], of the total 40,000 species of vertebrates, 21, 723 are fishes. According to Mirza and Sandhu [5] there are more than 186 fish species in Pakistan. Fisheries sector is providing employment opportunities to a number of people [6]. Moreover it plays a major role in second trophic level of aquatic systems [7]. Bahadur Khel is a village and Union Council of Karak District in Khyber Pakhtunkhwa province of Pakistan. It is located at 33°10'57N 70°57'15E with an altitude of 548 meters (1801 feet), the village is the site of an extensive rock salt quarry. Bahader Khel is union council which is 7 big villages: Bahader Khel, Darish Khel, Ghol Banda, Anar Banda, Shaheedan Banda, Charparabanda, Shaheedan. Village Bahadurkhel is the origin for these little villages. These villages are known on the name of bahadur khel. For evaluating the fish fauna, a lot of work has been carried out in various aquatic systems throughout Pakistan. Although updated information is available regarding Ichthyofauna of most of the water bodies in Pakistan yet literature did not witness any data regarding fish fauna of Ghol dam district Karak. Therefore the present study was conducted to know about the fish diversity of the Ghol dam. Karak, a drinking water scarcity zone, is located some 140 km from Peshawar on the main Indus Highway between Peshawar and Karachi. It is located at 33°7'12 North latitude 71°5'41 East latitude. Karak is the most literate district in Pakistan Besides its education it is also enriched city of plenty deposits of oil, gas, uranium and salt in country and play important role in the country economy. Between 1940 and 1982 it was part of District Kohat, but on July 1, 1982, it has been upgraded is an independent district. The topography of Karak consists of ranges of broken hills, and this district lies some 600-1400 meter above sea level.

### Material and Methods

Fishes were collected from different standing water bodies of ghol dam with the help of local fisherman using different types of catch nets and hooks with the regular intervals from October 2015 to April 2016. The collection was made from different sites of the water to avoid missing of species. Immediately after capturing the fishes were directly preserved in 70% alcohol or

10% formalin solution, larger fishes were given injection of formalin in their abdomen and other parts of the body to avoid bacterial contamination. After collection the fishes were brought to the lab for identification. The maristic and morphometric characters were studied and the fishes were identified up to species level with the help of using different

types of following books and fish keys. Fishes of the Punjab, Pakistan Mirza and Sandhu [8]. Fishes of the world Nelson [9], he freshwater fishes of the Indian region Jayaram [10], Inland Fishes of India and Adjacent Countries Talwar and Jhingran [11] Pakistan ke Taza Panike Machlianin (Urdu) M. R. Mirza [12].



**Fig 1:** Ghol Dam Overview Bahadar Khel District Karak, Study Area.

## Results and Discussion

Present survey was conducted from October 2015 to April 2016, in the present study 6 species of 6 different genera 2 family and 2 Orders were recorded from the study area (Ghol dam). The study showed that cyprinid fishes were the most common and abundant group of fishes found in this area. Following six species were identified from Ghol dam via, *Catla catla*, *Cirrhinus mrigala*, *Labeo rohita*, *Oreochromis niloticus*, *Tor tor* and *Hypophthalmichthys molitrix*. The diversity and relative abundance of the fishes is shown in Table 1. Previously Khan and Hasan worked on the fishes of Changhoz dam Karak and recorded 7 species viz, *Cyprinus carpio*, *Labeo rohita*, *Barilius vagra*, *Barilius pakistanicus*, *Hypophthalmichthys molitrix*, *Crossocheilus latius* and *Mastacembelus armatus* [2]. Some of the recorded species from Changhoz dam were present in the present survey. Another notable previous work on the same district was done by Ilyas on Zebi dam, District Karak who reported 12 species of fishes namely *Cyprinus carpio*, *Barilius vagra*, *Labeo rohita*, *Carassius auratus*, *Catla catla*, *Cirrhinus mrigala*, *Ctenopharyngodon idella*, *Puntius ticto*, *P. sophore*, *Hypophthalmichthys molitrix*, *Channa punctatus*, and *Channa straitus* [14]. Similarly some of the fishes reported by Ilyas were also present in our survey. However much work is being done on the other district of Province, Hasan *et al.* worked on the fishes collected from the different streams of Bajaur Agency and reported sixteen (16) fish species in which Eight (8) species viz, *Carassius auratus*, *Puntius ticto*, *Barilius vagra*,

*Barilius pakistanicus*, *Crossocheilus diplocheilus*, *Channa punctatus*, *Channa gachua*, and *Mastacembelus armatus* [14], were not found in the present study. Butt reported 94 species of fishes from the whole province of K.P.K [15]. Similarly Mirza *et al.*, reported 13 species of fishes from river Kurram [16]. Nisar worked on the fishes of Tanda Dam Kohat and reported 23 species among which 7 species of *Cyprinus carpio*, *Barilius vagra*, *Labeo rohita*, *Barilius pakistanicus*, *Hypophthalmichthys molitrix*, *Crossocheilus latius* and *Mastacembelus armatus* [17] some of the species were identified during present survey.

**Table 1:** Taxonomic position of Ghol dam fishes.

S.N	Order	Family	Genus	Species
1	Cypriniformes	Cyprinidae	<i>Labeo</i>	<i>rohita</i>
2	Cypriniformes	Cyprinidae	<i>Cirrhinus</i>	<i>mrigala</i>
3	Cypriniformes	Cyprinidae	<i>Catla</i>	<i>catla</i>
4	Cypriniformes	Cyprinidae	<i>Hypophthalmichthys</i>	<i>molitrix</i>
5	Cypriniformes	Cyprinidae	<i>Tor</i>	<i>tor</i>
6	Perciformes	Cichlidae	<i>Oreochromis</i>	<i>niloticus</i>

## Conclusion

To conclude, it can be said that the Ichthyofauna of this region is not so rich due to the introduced species and rain filled lentic habitats. The water bodies of district Karak is located in the hilly area and far away from the access of people, so the water body is still safe from heavy pollution and other human activities. This water bodies can supports a greater number of

fish species if proper stocking and care is done. It is also observed that during rainy season a large number of fries, fingerling and adult fishes are swept away with overflowing water. Government should pay due attention for the fisheries development in the reservoir. The fingerlings of new fish species should be introduced in the reservoir to enhance the fish production in the region to provide cheap and best quality proteins to the people of the area.

## References

1. Shaikh HM, Kamble SM, Renge AB. The study of Ichthyofauna diversity in Upper Dudha Project water reservoir near Somthana in Jalna District (MS) India. *J Fish Aqua*. 2011; 2(1):8-10.
2. Khan MA, Hasan Z. A preliminary survey of Fish fauna of Changhoz Dam, Karak, K.P.K, Pakistan. *Wor. J Fish Mar Sc*. 2011; 3(5):376-378.
3. Prusty BAK, Chandra R, Azeez PA, Sharma LL. New Additions to the Ichthyofauna of Keolodeo National Park, A World Heritage Site In India. *Zoos' Print J*. 2007; 22(10):2848-2852.
4. Jayaram KC. *Freshwater Fishes of the Indian Region*. Narendra Publishing House, Delhi, India. 1999.
5. Mirza MR, Sandhu IA. *Fishes of the Punjab*. Polymer Publications Lahore. Ullah *et al*. *Pakhtunkhwa J Life Sci*. 2014; 2(03/04):87-95.
6. Nagabhushan CM, Hosetti BB. Diversity of Ichthyofauna in Relation to Physico Chemical characters of Tungabhadra Reservoir, Hospet. *Wetlands, biodiversity and climate change*. 2010, 1-9.
7. Ullah S, Hasan Z, Rashid B. Ichthyofaunal Diversity of River Panjkora, District Dir Lower, Khyber Pakhtunkhwa. *Sindh Uni. Res. J* Reviewed submitted back. 2014.
8. Mirza MR, Sandhu AA. *Fishes of the Punjab Pakistan*, Polymer publications: Lahore. 2007.
9. Nelson JS. *Fishes of the world*, 4th edn. Hoboken, NJ: Wiley and Sons. 2006.
10. Jayaram KC. *The Fresh water Fishes of Indian region*. Narendra Publications House, Delhi, India. 1999.
11. Talwar PK, Jhingran AGK. *Inland fishes of India and adjacent countries*. Oxford and IBH publishing Co. Pvt. Ltd., New Delhi. 1991.
12. Mirza MR. *Pakistan ketaza Pani Kemachlian*, Urdu Science Board, Pakistan. 1990.
13. Ilyas M. *Fish and Macroinvertebrate fauna of Zebi Dam, Karak M.sc Thesis report library Dept, of Zoology Uni, of Peshawar Pakistan*. 2004.
14. Hasan Khan Z, Khan W, Rehman MA, Khan LJ, Sanaullah. Comparative Abundance of fish fauna of different stream of Bajaur, Agency Khyber Pakhtunkhwa Pakistan *Biologia Pak*. 2014; 60(1):159-163.
15. Butt JA. *Fish and Fisheries of (NWFP) Pakistan*, *Biologia Pak- Special Supplement*. 1986, 21-34.
16. Mirza MR, Ali I, Javid MN. A Contribution to the fishes of Kurram Agency Pakistan, Punjab Uni. *J Zool*. 1993; 8:37-40.
17. Nisar M *Fish fauna of Tanda dam Kohat, M.sc thesis report, Library Dept of Zoology, Uni. of Peshawar Pakistan*. 1998.