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

Tahir Azeem, Hameed Ur Rehman, Kinza Zarin, Nisar Ahmad, Sumbal Haleem, Sonia Aslam, Iqbal Nisa, Muhammad Kabir and Muhammad Sufyan

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 also 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 Bahadirkhel is the origin for these little villages. These villages are known on the name of bahadur khel.

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 indentified 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 Talwarand Jhingran [11] Pakistan ke Taza Panike Machlianin (Urdu) M. R. Mirza [12].

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, Cirrhinusmrigala, Labeorohita, Oreochromis niloticus, Tortor 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, Cyprinuscarpio, Labeorohita, 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, Cirrhus 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 Cyprinuscarpio, Barilius vagra, Labeorohita, Barilius Pakistanicus Hypophthalmichthys molitrix, Crossocheilus latius and Mastacembelus armatus [17] some of the species were identified during present survey.

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
15. Butt JA. Fish and Fisheries of (NWFP) Pakistan, Biologia Pak- Special Supplement. 1986, 21-34.