Identification of Fish fauna in River Dor at Dobandi Khyber Pakhtunkhwa, Pakistan

Khalid Usman, Hameed Ur Rehman, Khalid Pervaiz, Hakim Khan and Sonia Aslam

Abstract
The current research was undertaken to investigate fish fauna in River Dor at Dobandi site Khyber Pakhtunkhwa, Pakistan from March, 2013 to February, 2016. Fishes were collected with the help of various fish gars like cast net, gill net and drag net, etc. The identified fish species belong to one class Actinopterygii, three 3 Orders Cypriniformes, Synbranchiformes and Suliriformes, 4 Families Cyprinidae, Siluridae, Bagridae and Mastacembelidae, 5 Genera’s and 5 Species respectively. In the present study Cyprinidae was the richest Family which was represented by 2 Species while Siluridae, Bagridae and Mastacembelidae comprising only one species each. From the current survey, it can be concluded that River Dor at Dobandi site are very good habitat for fish fauna.

Keywords: Dor, Dobandi, Rivers, Fish, Family, identification, anthropogenic

1. Introduction
According to Nelson, fish diversity is more apparent than in their morphology. Fishes range in size from the very small to the very large, adult gobies may be just 8 mm, whereas the whale shark, *Rhincodon typus*, may reach 12 m. Some species lack eyes, scales or fins whereas others are heavily armoured or have adaptations for producing sound, venom, electricity or light [1]. According to Galactos *et al*, studies of spatial and temporal patterns of diversity, distribution and species composition of freshwater fishes are useful to examine factors influencing the structure of the fish community [2]. Fishes constitute economically very important group of animals. The nutritional and medicinal value of fishes has already been recognized [3-4]. 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 [5]. Fish not only provide food but boost up the economy of many countries of the world as well [6].

2. Materials and Methods

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2.1 Fish Collection
Fishes were collected from the river Dor at Dobandi site with the help of a local fisherman with the help of cats net, drag net and gill net from March 2013-February, 2016. All the fishes were cleaned and kept in glass jars for further classification and identification.

2.2 Fish Preservation and Identification
Collected fishes were preserved with 10% formalin and 70% Ethanol solution. After preservation all fishes were brought to the Research laboratory for proper identification. Fishes were properly identified in the laboratory by using keys of fish’s identification Jayaram [7], Mirza and Sadhu [8] and Mirza [9]. All the fishes were preserved for longer time off period in a kettle jar by using 10% of formalin solution.

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Table 1: Ichthyofauna in River Dor at point 2 Hazara region Khyber Pakhtunkhwa, Pakistan.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Class</th>
<th>Order</th>
<th>Family</th>
<th>Genus</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Actinopterygii</td>
<td>Cypriniformes</td>
<td>Cyprinidae</td>
<td>Hypophthalmichthys</td>
<td>molitrix</td>
</tr>
<tr>
<td>2</td>
<td>Actinopterygii</td>
<td>Cypriniformes</td>
<td>Cyprinidae</td>
<td>Schizotharax</td>
<td>plagiostomus</td>
</tr>
<tr>
<td>3</td>
<td>Actinopterygii</td>
<td>Siluriformes</td>
<td>Siluridae</td>
<td>Wallago</td>
<td>attu</td>
</tr>
<tr>
<td>4</td>
<td>Actinopterygii</td>
<td>Siluriformes</td>
<td>Bagridae</td>
<td>Rita</td>
<td>rita</td>
</tr>
<tr>
<td>5</td>
<td>Actinopterygii</td>
<td>Synbranchiformes</td>
<td>Mastacembelida</td>
<td>Mastacembelus</td>
<td>Armatus</td>
</tr>
</tbody>
</table>

Class 01 Orders 03 Families 04 Genera 05 Species 05

Fig 2: Family wise distribution of fish fauna in Dobandi site (River Dor).

3. Results
A total of five fish species were recorded namely Hypophthalmichthysmolitrix, Schizothoraxplagiostomus, Wallago attu, Rita rita and Mastacembelus armatus as shown in the Table 1. All the collected fishes were identified belongs to 3 Orders, 4 Families, 5 Genera’s and 5 Species. In the present study Cyprinidae was the richest Family which was represented by 2 Species i.e. Hypophthalmichthysmolitrix and Schizothoraxplagiostomus. The remaining 3 families Siluridae, Bagridae and Mastacembelidae consisting only one species each like Wallago attu, Rita rita and Mastacembelus armatus respectively (Fig. 1). From the current it can be concluded that River Dor at dobandi site provided a good habitat for the fishes existing in this area.

4. Discussion
During the present investigation in River Dor at Dobandi site 5 fish species were recorded and these identified fish species were properly arranged systematically as given in the Table 1 respectively. The identified 5 species Hypophthalmichthysmolitrix, Schizothoraxplagiostomus, Wallago attu, Rita rita and Mastacembelus armatus as shown in the Table 1. In a study by Khalid et al in 2016, Fish diversity was conducted on the River Dor Hazara region KP, Pakistan. Duration of the current study was 3 years, i.e. from March, 2013 to February, 2016. Among the major water bodies of Hazara Division, five Rivers were selected for fish collection, i.e., Indus, Siran, Kunhar, Dor and Harro. A total of 3311 fishes were collected from these water bodies and identified by using various keys and literature. Fishes collected and identified belong to 6 Orders, 10 Families, 22 Genera and 30 Species. In the present survey Cyprinidae was the richest Family which was represented by 16 Species; Bagridae was represented by 3 species; Nemacheilidae, Siluridae and Salmonidae by only two species, each while Schilbeidae, Channidae, Mastacembelidae and Cichlidae was consisting only one species of each [11]. Khalid et al in 2016, conducted survey on Fishes collected and identified belong to 3 Orders, 4 Families, 7 Genera’s and 9 Species. In the present research Cyprinidae was the richest Family which was represented by 4 Species; Nemacheilidae and Salmonidae were represented by only two species each while Sisoridae was consisting only one species respectively. From the present research, it is concluded that River Kunhar are rich in ichthyofauna. Furthermore, the river water was badly affected by the tourism industry, anthropogenic pollution and illegal fishing.

5. Conclusion
From the above study it may concluded that River Dor at Dobandi Khyber Pakhtunkhwa, Pakistan is suitable for hatchery and will be helpful for fisheries, taxonomist and aquaculturist in future.

6. Acknowledgement
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7. References