

## Water Pollution and Fish Diversity in between Marathoa To Chalang, Dehradun

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### Abstract

The water may contain desirable substances has received less attention in guidelines and regulations, but on increased awareness of the biological value of water has occurred in the past several decades. The anthropogenic process has physically, chemically and biologically modified our great river ecosystem. Thus it will create the problem of degradation of water river ecosystem.

**Keywords:** Water pollution | Fish Diversity | Ecosystem | River | Degradations

### Introduction

Water is an essential need for all increase in human beings. The determinate of an aquatic system is as old as civilization industrialization, utilization, and characterization of activities. The result of an unprecedented increase in human population and industrialization has caused pollution of water and air through excessive, discharge of waste material into the environment. The Doon valley is surrounded by the outer Himalayas (Mussoorie hills) in the North Shivalik ridge in the south, River Ganga in the east and river Yamuna in the west. The minimum and maximum annual temperatures vary from 4-7<sup>0</sup>C in November to February. A qualitative assessment of the various components of the fish fauna of the area together with the study of the related aspects such as habitat structures, food and feeding habits. The streams fishes communities reproductive seasonally, migration, spawning and attitudinal distribution.

The study area is situated in the Doon Valley of the Shastradhara streams covering Marotha, nagsal and chalang on the upwards and downwards on hills.

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Maps: Site area covering stretch up to the range of 1 Kms, 2 Kms, 3 Kms of the villages Marotha, Nagal and Challang.

### **Materials and Method**

The study is carried during July to June 2015

Place of work: Dehradun

Different types of net used for capturing of fishes, handmade net, hooks and wildlife surveyors.

After capturing fishes, preservation techniques are applied by using formaldehyde and deposits in specimen's jars or bottles.

Preservation solution, distilled water, formalin solutions.

Now goes to the laboratory and identification of fishes is done on the basis of their morphology body scales, fin rays, counting barbles, lateral lines sex separation, fins verifications etc. also freshwater biology or by experts.

### **Results and discussion**

Some of the doon valley fishes, exhibits in an interesting range of variation in the body scales, fin rays, color differentiation etc. There is a lot of fish diversity in Dehradun during our study period. They belong to the families Blonidae, Cyprinidae, Channidae, Clarideea, Xenthodon Cancila, Puntius ticto, P.sophore P.Chola Barillus bola Garagotyla.

In addition to physical and geographical Characteristics of rivers planktons encountered in the water body reflects the average ecological condition.

Bagridae, Nemachillidae, Cobitidae, Tor Tor, Torp itura, Labeo Calbasu, L.Devo, L.Bata, Channa gachua, Channa punctata and Mystus teengara were identified with the use of food

webs a person can see how even the smallest microorganism play a significant role in the cycle of life (Mondal *et al.*, 2010) showed the results on water quality parameters and fish diversity indices as measures of ecological degradation a case study in two food plans lakes of India .It is essential to study the groups of animals in an aquatic ecosystem to understand the quality of habitat. Fishes are the keystone species which determine the distribution and abundance of another organism in the ecosystem.

### **Conclusion**

Fish diversity enrolls the description of fish belong to their morphological characters surrounding atmosphere and their habitat structure. Change in the biodiversity causes disturbance in the life of aquatic as well as on land animals. The Doon valley is surrounding by the outer Himalayas is North, Shivalik ridge in south River Ganga in the east and River Yamuna in the west. The total length of doon valley covers in length up to 6.7kms.

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