



**STUDY ON ICHTHYOFAUNAL DIVERSITY BALSAMUDRA,  
KURHADA AND WAHI LAKES , PAUNI,  
DIST-BHANDARA(M.S), INDIA.**

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### 1. ABSRACT

*The present study to find out ichthyofaunal diversity of Balsamudra, Kurhada and Wahi Lake carried out from Feb 2013 to Jan 2014. Lake conserves a rich variety of fish species which supports the commercial fisheries in Pauni Taluka, District Bhandara. The collection of fishes from different lakes was made with the help of local fishermen. In the present investigation in these three lakes the 19 species of fishes were recorded of 4 different orders viz, Cypriniformes, Osteoglassiformes, Ophiocephaliformes and Siluriformes. By analyzing the data it is confirmed that these lakes are rich in ichthyofauna and needs to be more explored for commercial fishery and for conservation of native ichthyofauna is essential.*

**2. KEY WORDS:** Balsamudra, Kurhada and Wahi lakes, Ichthyofaunal diversity.

### 3. INTRODUCTION

Fish are the top predators of most aquatic ecosystem, depending on lower feeding groups for food, and as such play important roles in top-down control of growth and production of lower feeding groups. Fish are important not only for ecosystem function, but may also provide socioeconomic value in the form of fishery resources for people. Loss of fish species due to changes in water quality or over-fishing may result in dramatic shifts in ecosystem dynamics, as grazing pressure on invertebrates and algae can be released, enabling rapid growth and potential blooms of algae populations. Fish communities can be used indicate longer term or wider ranging effects of changes in the aquatic environment because many fish species are relatively long-lived and mobile.

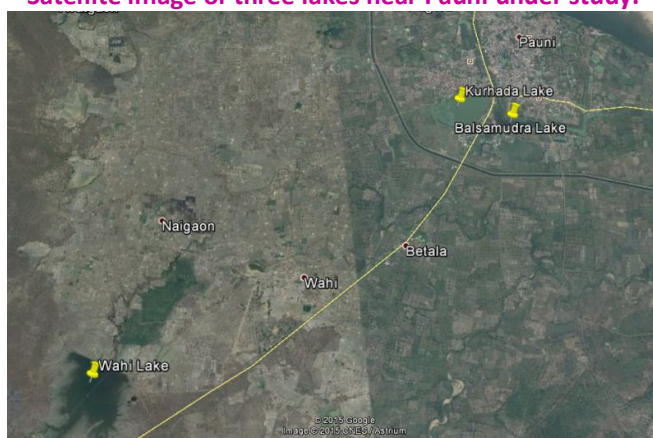
They tend to integrate effects of lower tropic levels, thereby providing a measure of integrated environmental health. Fish are important for assessing contaminants in ecosystems since they generally represent the top of the food chain and are susceptible to bioaccumulation and bio-magnification of heavy metals and synthetic organic contaminants.

### 4. MATERIALS AND METHODS

#### 4.1-Study Area

The study to find out ichthyofaunal diversity of Balsamudra, Kurhada and Wahi Lakes carried out from Feb 2013 to Jan 2014. The Balsamudra, Kurhada and Wahi lakes are principal freshwater bodies are located within 0 to 6 km from Pauni town in Bhandara district of Maharashtra State. Pauni is a tahsil place nearly 87 Km South-East from Nagpur and 41 km South from Bhandara. Urbanization and related anthropogenic activities have resulted in waste discharge in the nearby water bodies particularly the lakes under study.

### Satellite image of three lakes near Pauni under study.



#### 4.2-Methods

The collection of fishes from different ponds was made with the help of local fishermen by different types of nets namely gill nets, cast nets, dragnets and Bhorjal. The systemic identification of fishes was done by using the standard keys of Day (1958) and Talwar and Jhingran (1991). Fishes were brought to laboratory and preserved in 10% formalin solution in separate specimen jars. Small fishes were directly placed in 10% formalin solution.

#### 5. RESULT AND DISCUSSION:-

The fish fauna is an important aspect of fishery potential of a water body. It is observed that the distribution of fish species is quite variable because of geographical and geological conditions. In the present investigation in these three lakes the 19 species of fishes were recorded of 4 different order viz, Cypriniformes, Osteoglossiformes and Ophiocephaliformes, Siluriformes and the data is tabulated in Table 1.1 Figs in Plate.

As the Wahi Lake situated in forest area there were variety of fish fauna. But as the Kurhada and Balasamudra lakes are used for fish farming most of them were *Catla catla*, *Labeo rohita*, *Cirrhinus mrigala*, *Cyprinus carpio* and *Clarius batrachus*. Lack of awareness about cleanliness, water quality improvement and importance of fishery in the local people and fisherman may be the cause of loss and decline of ichthyofauna.

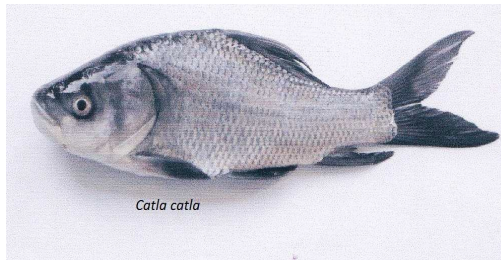
Jayabhaye and Khedkar (2008), recorded 25 fish species belonging to six orders from Sawana dam in Hingoli district, Maharashtra. Ashashree et al., (2008) recorded 18 fish species belonging to seven orders in Savalanga pond, Davangere district, Karnataka. Tijare et al., (2008), recorded 32 fish species from the lake of Gadchiroli district, Maharashtra. Ramamurthy et al., (2009), recorded 30 fish species in Muthupet reservoir, Nagappattinam district, Tamil Nadu.

**Table 1.1 : Fish species of Balsamudra, Kurhada and Wahi lakes.**

Sr. No.	Order	Scientific Name
1	Cypriniformes	<i>Catla catla</i>
2	Cypriniformes	<i>Punctius ticto</i>
3	Cypriniformes	<i>Punctius sarana</i>
4	Cypriniformes	<i>Punctius sophore</i>
5	Cypriniformes	<i>Punctius condrenius</i>
6	Cypriniformes	<i>Ctenopharyngodon idella</i>

7	Cypriniformes	<i>Labeo rohita</i>
8	Cypriniformes	<i>Cyprinus carpio</i>
9	Cypriniformes	<i>Rasbora danconius</i>
10	Cypriniformes	<i>Cirrhinus mrigala</i>
11	Cypriniformes	<i>Oxygaster bacaila</i>
12	Cypriniformes	<i>Nemacheilus botic</i>
13	Cypriniformes	<i>Osteobrama cotio</i>
14	Siluriformes	<i>Clarius batrachus</i>
15	Siluriformes	<i>Mystus seenghala</i>
16	Ophiocephaliformes	<i>Channa striatus</i>
17	Ophiocephaliformes	<i>Channa punctatus</i>
18	Osteoglassiformes	<i>Notopterus nutopterus</i>
19	Osteoglassiformes	<i>Notopterus chitala</i>

Plate : 01



*Catla catla*

***Catla catla***



***Punctius ticto***



***Punctius sarana***



***Punctius sophore***



***Ctenopharingodon idella***



***Labeo rohita***



*Cyprinus carpio*



*Rasbora danconius*

Plate : 02



*Cirrhinus mrigala*



*Oxygaster bacaila*



*Osteobrama cotio*



*Clarius batrachus*



*Channa striatus*



*Notopterus notopterus*

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