

FISH FAUNA OF PAVANA RIVER OF PUNE, MAHARASTRA

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The Western Ghats is an important biogeographic zone of India and one of the 34 global hotspots. The northern Western Ghats (north of Palghat gap) gives rise to three major east flowing rivers like Godavari, Krishna and Cauvery, as well as west flowing rivers and their tributaries, which are major sources of fish fauna. Higher degree of precipitation, moderate climate and huge forest cover in the Western Ghats supports abundance of aquatic life including fish fauna. Pavana river is a major tributary of Mula-Mutha River flowing through Pimpri Chinchwad Municipal Corporation of Pune district (Maharashtra state). Pimpri Chinchwad is an industrial area having a number of manufacturing industries automobiles, antibiotics, paper, medicine, electrical and nylon, and many small-scale industries as well as very high human population discharging industrial and domestic wastes into the Pavana river. Fifty-nine species of different fishes were collected from the Pavana river from January to December 2004.

Skyles (1839-41) collected and scientifically studied the freshwater fishes from different localities in Pune for the first time. Fraser (1942) did a comparatively exhaustive survey of fishes from various places of Mula and Mutha rivers in and around Pune between 1936 and 1937. Fraser's paper also gave considerable details regarding Mula and Mutha rivers and their surrounding environment. A complete checklist of fishes of Pune, based on the collected by Fraser, was subsequently published by Hora and Misra (1942), which contained 54 species with their local names. An additional survey of the region was reported by Suter (1944), who found 17 more specimens of fishes that were not reported by Hora and Misra (1942), making a tally of 71 species. Tonapi and Mulherkar (1963) reported 60 species of various fishes, many for the first time. Tilak and Tiwari (1976) reported that the total number of fish species in the waters of Pune district on the basis of collection carried out between 1966-68 was 112. Wagh and Ghate (2002) reported 62 species of fish from Mula and Mutha rivers. Recently, Kharat *et al.* (2003) listed 102 specimens from the waters of Mula and Mutha. The present study is the first work on ichthyofauna of Pavana river and should provide a basis for further studies and effects of human and industrial impacts on the fish fauna of the rivers in Pune.

The fishes were collected, with the help of local fisherman between Pavana dam and Chinchwad (Fig. 1), a stretch of about 40km of gravelly runs. The banks of the river are muddy, both banks are covered with bush and tree vegetation intermittently and open at some places.

Fish markets were regularly visited and the species noted.

The Pavana was surveyed at many places from Pavana dam until its confluence with the river Mula. Fishes were collected from polluted as well as non-polluted areas of Pavana river. All fishes were properly preserved in 10% formalin for further study. Identification was based on Day (1978), Jayaram (1981) and Talwar & Jhingran (1991).

Fifty-nine species of fishes were recorded in Pavana river (Table 1), a majority of which were mentioned in lists of Wagh & Ghate (2003), Hora & Misra (1942) and Suter (1944) from Mula-Mutha. Fishes such as *Neolissochilus hexagonolepis*, *Puntius vittatus*, *Mystus montanus* and *Channa striatus* were not reported from Mula and Mutha rivers. In the polluted stretch of this river, tolerant and introduced (alien invasive) species such as *Aorichthys seengala*, *Oreochromis mossambicus* and *Gambusia affinis* as well as air breathing fish *Heteropneustes fossilis* were found everywhere. Besides these, *Labeo*, *Catla* and *Channa* species were reported occasionally in polluted area of Mula-Mutha rivers near the boat club.

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Table 1. Fish species recorded from Pavana river, Pune district, Maharashtra from January-December 2004.**Notopteridae**

Notopterus chitala (Hamilton-Buchanan)
Notopterus notopterus (Pallas)

Cyprinidae

Catla catla (Hamilton-Buchanan)
Cirrhinus fulungee (Sykes)
Cirrhinus mrigala (Hamilton-Buchanan)
Cirrhinus reba (Hamilton-Buchanan)
Labeo ariza (Hamilton-Buchanan)
Labeo boggut (Sykes)
Labeo calbasu (Hamilton-Buchanan)
Labeo rohita (Hamilton-Buchanan)
Neolissochilus hexagonolepis (McClelland)
Osteobrama cotio peninsularis (Silas)
Osteobrama neilli (Day)
Puntius amphibius (Valenciennes)
Puntius chola (Hamilton-Buchanan)
Puntius jerdoni (Day)
Puntius sarana subnasutus (Valenciennes)
Puntius sophore (Hamilton-Buchanan)
Puntius ticto (Hamilton-Buchanan)
Puntius vittatus (Day)
Rohtee ogilbil (Sykes)
Chela laubuca (Hamilton-Buchanan)
Salmostoma acinaces (Valenciennes)
Salmostoma boopis (Day)
Barilius bendelisis (Hamilton-Buchanan)
Danio aequipinnatus (McClelland)
Danio devario (Hamilton-Buchanan)
Rasbora daniconius (Hamilton-Buchanan)
Crossocheilus latius latius (Hamilton-Buchanan)
Garra gotyla (Gray)
Garra mullya (Sykes)

Balitoridae

Acanthocbitis botia (Hamilton- Buchanan)
Acanthocbitis sinatus (Day)
Nemacheilus anguilla (Annandale)
Schistura denisoni denisoni (McClelland)
Oreonectes (Indoreonectes) evezardi (Day)

Cobitidae

Lepidocephalus guntea (Hamilton- Buchanan)

Bagridae

Aorichthys seengala (Sykes)
Mystus bleekeri (Day)
Mystus cavasius (Hamilton- Buchanan)
Mystus malabaricus (Jerdon)
Mystus montanus (Jerdon)

Siluridae

Ompok bimaculatus (Bloch)
Wallago attu (Schneider)

Sisoridae

Nangra itchkeea (Sykes)

Heteropneustidae

Heteropneustes fossilis (Bloch)

Belonidae

Xenentodon cancila (Hamilton-Buchanan)

Aplocheilidae

Aplocheilus lineatus (Valenciennes)
Aplocheilus panchax (Hamilton-Buchanan)

Poeciliidae

Gambusia affinis (Baird & Girard)

Ambassidae

Chanda nama (Hamilton-Buchanan)
Pseudambassis ranga (Hamilton-Buchanan)

Cichlidae

Oreochromis mossambica (Peters)

Mugilidae

Rhinomugil corsula (Hamilton- Buchanan)

Gobiidae

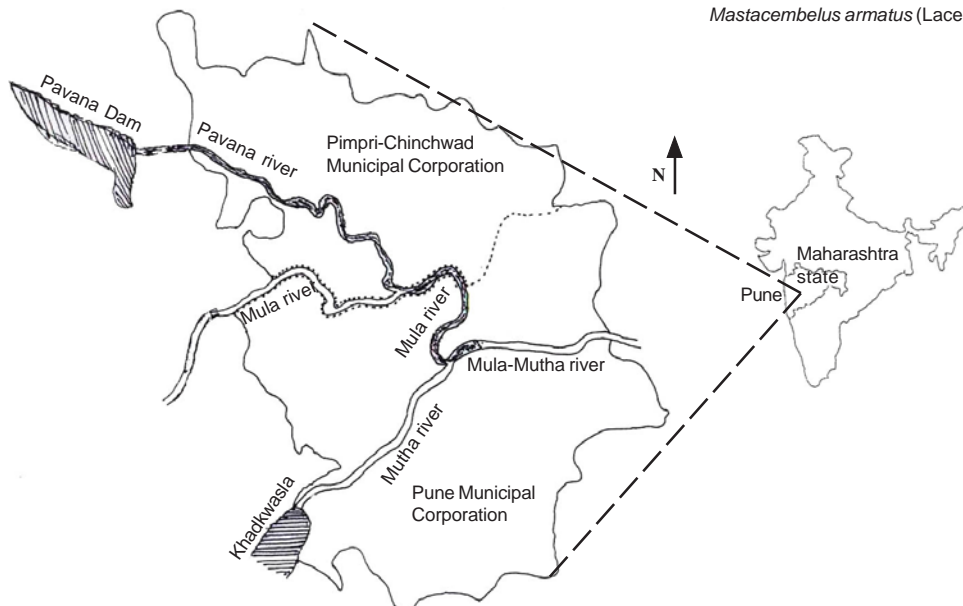
Glossogobius giuris (Valenciennes)

Channidae

Channa marulius (Hamilton-Buchanan)
Channa orientalis (Bloch & Schneider)
Channa punctatus (Bloch)
Channa striatus (Bloch)

Mastacembelidae

Mastacembelus armatus (Lacepede)

**Figure 1. Map of Pune city showing rivers Mula, Mutha and Pavana**