Freshwater fish fauna of Pune District (MH): A review article

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Abstract:

The ecological diversity of aquatic ecosystem is affected by different environmental conditions and manmade activities. Study of bio diversity is essential to keep records and conserve them. Fishes are important animal in the freshwater ecosystems due to their ecological significance. Freshwater fishes also have economical viability. Conservation of freshwater fish is equally important as source of food, important position in food chain and conservation practice is only possible when diversity of freshwater fishes is known. In present investigation was undertaken to study the biodiversity of fish fauna from Pune district. In this study there was 80 species of fishes belonging to 10 orders, 16 families. In which Cypriniforme is most diverse order of freshwater fish and it is 66 %

Keywords: freshwater, ichthyofauna, Pune.

Introduction:

Biodiversity is essential to stabilise the ecosystem and environmental quality for understanding species the earth (Ehrlich and Wilson, 1991). Diversity of fish in river essentially represents their abundance. The total length of rivers in India is about 29,000 km. All these rivers, their tributaries, canals and irrigation channels have an area of roughly 13,000 km. They are Ganga, Brahmaputra, Indus, East coast and West coast of river system these five major river system an India (Pandey and Shukla, 2007). Fish are rich source of carbohydrate, protein, fat, vitamins and many of these by-products (Shinde et.al 2009).

Freshwater fish comprise almost 13,000 species belongs to 2,513 genera or about a 15,000 if all species occurring from fresh to brackish water (Leveque et.al. 2008). In Mula and Mutha 62 fish species observed (Ghate and Wagh 2003). In western ghat there are endemic and 51 are unique (Dahanurkar et al., 2004) and in Pune district there are many researchers takes effort to access diversity. The investigation in 1942 by Hora & Misra found 61 fish species in Pune appeared in the *Journal of the Bombay Natural History Society.* Then Yezdani and Sing (1990) he reported 42 species belonging to 14 families in Bhima river, second effort was Jadhav and Bhosale (1996) reported 2 order and 13 species, third effort was Yazdani and Sing, (2002) reported 54 species belonging to 15 families Bhima river, fourth effort taken from Shendge (2007), 24 fish species belonging to 11 families from Nira river. Fish diversity of two perennial lakes in Indapur was studied by Sarwade et. al. (2009) found 27 species belongs to 9 families and 4 order. In Ujani wetland there are presence of 60 Species belongs to 6 orders and 15 families (Sarwade and Khilare 2010). 12 species belongs in 03 Orders, 07 Families of 11 Genera in Indira lake Rajgurunagar (Theurkar et. al., 2013).10 species belongs to 03 Orders, 04 Families and 10 Genera in Dimbhe

dam, Ghodegaon (Theurkar et.al., 2015), 32 species belongs to 22 Genera in Pauna river (Mule and Patil 2006).

In present review we reviewed 80 species belongs to16 families and 10 order in Pune district.

Result:

A total of 80 fish species have been recorded and confirmed by various authors in Pune belonging to 10 orders, 16 families. They are as follows;

Order	Family	Species
Osteoglossiformes	Notopteridae	*Notopterus notopterus(Pallas, 1769)*
		Notopterus chitala (Pallas)
Cypriniforme	Cyprinidae	*Cirrhinu sfulungee (Sykes 1839)*
		Cirrhinus mrigala
		Cirrhinus reba (Hamilton-Buchanan)
		Cyprinus carpio (Linnaeus)
		Gonoproktopteru kolus
		Gonoproktopterus thomassi (Day)
		Labeo ariza (Hamilton-Buchanan 1807)
		Labeo boggut (Sykes 1839)
		Labeo calbasu (Hamilton-Buchanan 1822)
		Labeo porcellus (Heckel 1844)
		Labeo rohita (Hamilton-Buchanan 1822)
		Osteobrama cotio peninsularis (Silas 1952)
		Osteobrama neilli (Day 1873)
		Osteobrama vigorsii (Sykes 1839)
		Osteochilus nashii (Day 1869)
		Puntius amphibius (Valenciennes, 1842)
		Puntius chola (Hamilton-Buchanan, 1822)
		Puntius jerdoni (Day, 1870)
		Puntius saranasubnasutus (Valenciennes, 1842)
		Puntius sophore (Hamilton-Buchanan, 1822)
		Puntius ticto (Hamilton-Buchanan, 1822)
		Rohteeo gilbii (Sykes 1839)
		Salmostoma boopis (Day, 1874)
		Salmostoma novacula (Valenciennes, 1840)
		Catlacatla (Hamilton-Buchanan, 1822)
		Labeo fimriaus (Bloch)
		Labeo kawrus (Sykes, 1839)
		Labeo potail (Sykes, 1839)
		Osteobrama bakeri (Day, 1873)
		Osteobrama bhimensis (singh and Yazdani, 1992)
		Puntius conchonius (Hamilton – Buchanan, 1822)
		Salmostoma bacaila (Hamilton – Buchanan, 1822)

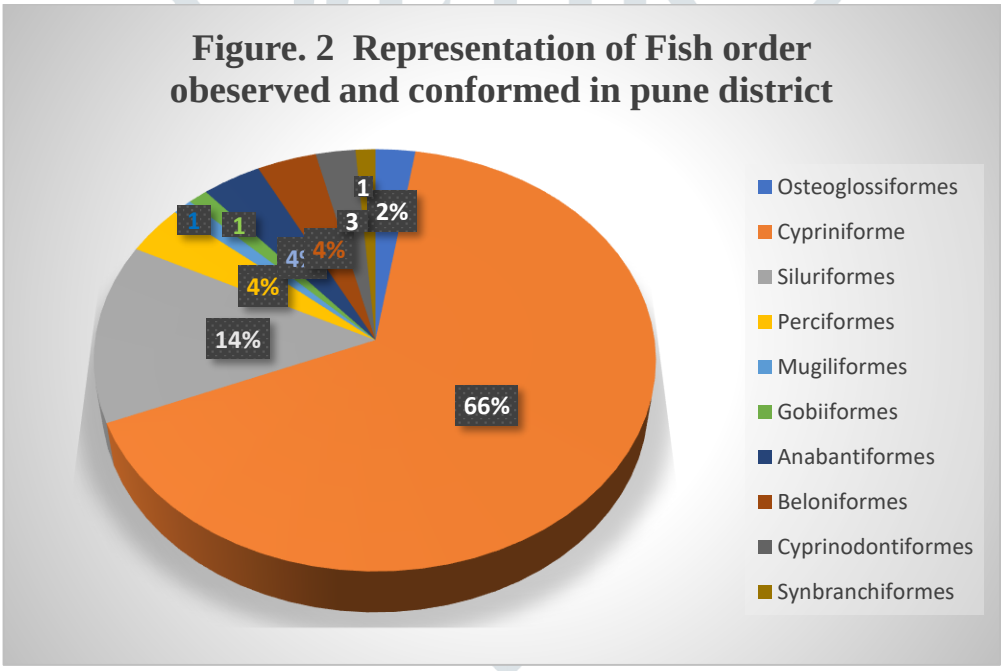
		Salmostoma untrahi (Day, 1869)
		Salmopharia novacula (Valenciennes, 1840)
		Schismatorhynchus nukta (Sykes, 1839)
		Tor khudree (Sykes, 1839)
		Barilius bakeri (Day, 1865)
		Barilius bendelisis (Hamilton – Buchanan, 1807)
		Barilius evezardi (Day, 1872)
		Parluciosoma daniconius (Hamilton -Buchanan, 1822)
		Garra mullya (Sykes, 1839)
		Amblypharyngodon mola (Hamilton-Buchanan, 1822)
		Danio aequipinnatus (McClelland, 1839)
		Danio devario (Hamilton-Buchanan, 1822)
		Rasbora daniconius (Hamilton-Buchanan, 1822)
		Crossocheilus latius (Hamilton-Buchanan 1822)
		Parapsilorhynchus tentaculatus (Annandale, 1919)
	Nemacheilidae	*Nemacheilus anguilla (Annandale, 1919)*
		Schistura denisoni (Day, 1867)
		Acanthocobitis mooreh (Sykes 1839)
		Nemachilichthys ruppelli (Sykes, 1878)
		Nemacheilus botia (Hamilton – Buchanan, 1822)
	Cobitidae	*Lepidocephalus guntea (Hamilton-Buchanan, 1822)*
Siluriformes	Bagridae	Aorichthys seenghala (Sykes, 1841)
		Mystus bleekeri (Day, 1877)
		Mystus cavasius (Hamilton-Buchanan, 1822)
		Aorichthys aor (Hamilton – Buchanan 1822)
		Mystus malabaricus (Jerdon)
	Siluridae	Ompok bimaculatus (Bloch, 1794)
		Wallago attu (Schneider, 1801)
	Schilbeidae	Proeutropiichthys taakree (Sykes, 1839)
	Sisoridae	Glyptothorax madraspatanum (Day, 1873)
		Nangra itchkeea (Sykes, 1839)
	Heteropneustidae	Heteropneustes fossilis (Bloch, 1794)
Perciformes	Ambassidae	Chanda nama (Hamilton-Buchanan, 1822)
		Parambassis ranga (Hamilton-Buchanan, 1822)
	Cichlidae	Oreochromis mossambica (Peters, 1852)
Mugiliformes	Mugilidae	Rhinomugil corsula (Hamilton-Buchanan, 1822)
Gobiiformes	Gobiidae	Glossogobius giuris (Hamilton-Buchanan, 1822)
Anabantiformes	Osphronemidae	Pseudosphromenus cupanus
	Channidae	Channa marulius (Hamilton-Buchanan, 1822)
		Channa orientalis (Bloch & Schneider, 1801)

Beloniformes	Belonidae	Xenenodon cancila (Hamilton – Buchanan, 1822)
	Hemiramphidae	Hemirampus georgii
		Hyporhamphus limbatus (Valenciennes, 1846)
Cyprinodontiformes	Poeciliidae	Gambusia affinis (Baird and Girard, 1853)
	Aplocheilidae	Aplocheilus lineatus(Valenciennes, 1846)
Synbranchiformes	Mastacembelidae	Mastacembelus armatus (Lacepede, 1800)

Discussion:

There is a rich diversity of fish in Pune district which indicate major part of this is threatened by human activities. Diversity of fish is useful for implantation conservation strategies and make fisherman scientific train also aware for fishing to avoid immature fishing.

In present investigation of Pune district fish fauna there are largest number of fish order is Cypriniforme and it is about 66 % (i.e. 53 fish species)in total population of fish, then after Siluriformes population is observed 14 % (i.e.11 fish species). The order Perciformes, Anabantiformes, Beloniformes, are 4% observed and order Mugiliformes, Gobiiformes, Synbranchiformes are 1 % in total population. Osteoglossiformes and Cyprinodontiformes are 2 % and 3 % respectively.



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